New Jersey Pinelands Commission
Long-Term Economic Monitoring Program

2007 Annual Report

Betty Wilson, Chairperson

John C. Stokes, Executive Director

December 2007

NEW JERSEY PINELANDS LONG-TERM ECONOMIC MONITORING PROGRAM
2007 ANNUAL REPORT

December 2007

Acknowledgments

The report will be available for review on the Pinelands Commission's web site at http://www.nj.gov/pinelands. The raw data used to create the report will also be available for download.

The report is also available from the Pinelands Commission free of charge on CD-ROM. Requests can be mailed to:

> The Pinelands Commission
> P.O. Box 7
> New Lisbon, NJ 08064

Requests can also be made via phone at (609) 894-7300 or email at economist@njpines.state.nj.us

In addition, the 2007 Annual Report is available for review at the following libraries:

> Alexander Library, Rutgers University, New Brunswick
> The New Jersey State Library, Trenton
> The Stockton State College Library, Pomona
> The Burlington County College Library, Pemberton

For more information, please contact the Pinelands Commission at (609) 894-7300.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

Executive Summary

This report provides results of an ongoing economic monitoring program that tracks economic conditions in the Pinelands region. The Pinelands is the nation's first federal reserve. Established in 1978, it covers an area of over one million acres in the heart of Southern New Jersey. The Pinelands Comprehensive Management Plan (CMP) was adopted in 1981. The plan establishes minimum standards for land use throughout the region, which are implemented at the local level through municipal ordinances.

This report presents demographic data and describes key trends in the areas of population, real estate, economic growth, and municipal finance. Several core variables are continually monitored in each of these areas every year. A smaller number of supplemental variables are also examined but change from year to year. The basic unit of analysis is determined by the data. Municipal-level data is available in most cases, and county-level data is utilized when municipal data is not available. The general analytical approach involves comparing economic trends (from 1980 onward) of the Pinelands municipalities to other regions outside of the Pinelands (i.e., Non-Pinelands, Southern New Jersey, and the State). In this report, "The Pinelands" refers to an aggregate of 47 municipalities that have at least 10% of their land area within the state-designated Pinelands boundary. The "Non-Pinelands" refers to an aggregate of the remaining 155 municipalities in the eight counties of Southern New Jersey. In some instances certain variables from the US Census are available below the municipal level at the census block or census block group level. Trends inside and outside the Pinelands boundary can be distinguished at those geographic levels.

Supplemental population estimate data for 2001 through 2005 reveal that the Pinelands municipalities continue to grow at a faster rate than the Non-Pinelands municipalities. According to the estimates, the Pinelands municipal population grew by 60,000 between 2000 and 2005, an increase of 9.7% (compared to an increase of 3.9% in the Non-Pinelands). Previous population analysis at the census block level revealed that 277,000 people lived within the actual Pinelands boundary in 2000, a 5.5% increase over the 1990 population of 262,510. By contrast, the population in the portion of the Pinelands municipalities that lie outside of the Pinelands boundary grew by 14.3%, from 361,009 in 1990 to 412,557 in 2000. Additional analysis of population demographics demonstrated that a number of Pinelands municipalities have a high concentration of senior residents. A census block group level analysis determined that a somewhat higher percentage of senior citizens live in the portion of Pinelands municipalities that lies outside the boundary compared to the portion inside the boundary.

New data for local property values and residential development reflect a cooling off of the national real estate market in 2006. On average, more building permits continue to be issued in Pinelands municipalities than all other regions of the state. However, building permit activity decreased for the third consecutive year in the Pinelands in 2006 while also declining to a lesser extent in the Non-Pinelands. Unlike in 2004, when the drop was concentrated in a few large municipalities, closer examination of the data reveals that this year's decline in activity was more uniform across the region. Most building permits were issued along the northern, eastern, and western edges of the Pinelands region where development pressures and permitted residential densities are greatest. Real estate transactions slowed significantly in 2006 following 2005s modest decline in activity. The previous eight consecutive years (1997-2004) were a period of rapid growth in the real estate market. Real estate transactions dropped by more than 20% across all regions in 2006. Similar to building permits, the bulk of home sales took place along the northern,

eastern, and western edges of the Pinelands region. The inflation-adjusted median selling prices of homes stabilized in 2006, following a 5 year period from 2001-2005 that saw Pinelands home prices increase by 87%. For the second year in a row, the median sales price in the Pinelands was higher than in the Non-Pinelands (by 3.0%). As recently as 2001, Pinelands median sales prices were 7% lower than in the Non-Pinelands. Supplemental census block group data from the 2000 Census of Housing indicates that historically the area within the Pinelands boundary experienced a significant drop in housing construction from the 1970s to the 1980s, while the portion of the Pinelands municipalities that lies outside the boundary had the same level of home construction in the 1980s as in the 1970s. Both regions had an equal percentage of homes built during the 1990s.

Findings in the area of economic growth revealed a number of trends. Unemployment showed a small uniform increase across all regions in 2006, but unemployment rates are still at historically low levels across New Jersey. The unemployment rate rose 0.4% in the Pinelands and 0.3% in the Non-Pinelands in 2006, finishing the year at 4.8% and 5.2% respectively. Both the Pinelands as well as the state as a whole (4.6% for 2006) are in line with the national unemployment rate of 4.6%, while the Non-Pinelands region is slightly above the national rate. No new municipal data for employment, establishments, and wages was available this year, but previous analyses show that the Pinelands region has made significant gains in both employment and new establishments during the period from 1998 to 2003. The largest private employment sectors in Southern New Jersey in 2003 were retail, healthcare, and accommodation and food service. The US Census Bureau released its quintennial Census of Retail Trade for 2002 last year, and it showed per capita retail sales increasing by 20% in the Pinelands from 1997 to 2002. In contrast, statewide per capita sales increased only 6.8% over the same period, and the Non-Pinelands essentially remained the same (+0.2%).

After stabilizing somewhat in 2003, assessed farmland acreage resumed its slow decline in 2004 across all regions. Assessed acres in the Pinelands decreased by 2.4% in 2004, while farm acreage decreased in the Non-Pinelands in 2004 by 2.6%. This marked the ninth consecutive year of decline in acreage for the Non-Pinelands. Since one-year changes in acreage can be affected by seasonal factors such as weather and economic conditions, it is often more helpful to look at five year averages to confirm trends in agriculture. In this respect, somewhat more encouraging news comes from the Census of Agriculture. According to the 2002 census, the seven Pinelands counties for the first time now account for more than half of the agricultural sales statewide. They continue to be relatively more efficient than the rest of the state, achieving this level of sales while comprising only 36% of acres farmed statewide. In addition, over the five-year period from 1997 to 2002, Pinelands counties increased their acres in farming by 2.3% while the remainder of the state experienced a 10.2% decline in farm acreage. Favorable growing conditions led to large increases in production in 2005 for both cranberries and blueberries. Due to favorable market conditions in 2005, the value in utilized production of cranberries increased for the fifth time in six years, rising 45% to $18.5 million. This increase was due primarily to an increase in production of 35%. Cranberry prices also increased by 7% for the year to finish at $35.98 per 100 lbs. The blueberry industry also experienced healthy growth in 2005, with the value of utilized production increasing by 17.6% for the year. This increase was due primarily to a 15.4% increase in production to 45 million pounds for the season. Blueberry prices remained relatively flat for the fourth consecutive year, posting a price of $1.27 for an increase of 1.7%.

Monitoring in the municipal finance category indicates that the Pinelands financial picture remains relatively strong compared to the rest of South Jersey. Historically, average residential tax bills and effective property tax rates have been lower in the Pinelands than the remainder of the State, and new data reinforces the positive gap between property taxes in the Pinelands region versus other regions. The average residential property tax bill grew more quickly in the Non-Pinelands again in 2006 (Pines +6.8% vs. 8.0% for the Non-Pines). The average total residential tax bills were almost $700 lower in the Pinelands than in the Non-Pinelands in 2006. Despite the slowdown in real estate transactions, equalized property values rose in all regions of the state for the ninth consecutive year in 2006, with the Pinelands region registering an increase of 13% compared to an increase statewide of 10.8% for the year. Fueled by still increasing home values, effective tax rates fell for the sixth consecutive year across all regions in 2006. The Pinelands has experienced the steepest decline of any region over the last six years, with effective tax rates dropping 30% for the period. Data on local municipal-purpose revenues indicated that the local municipal budgets of the Pinelands municipalities increased by 4% in 2006, while the Non-Pinelands region budgets remained essentially unchanged. State aid to all regions was essentially frozen in 2006 at 2005 levels, and when factoring in the cost of living the real decrease in aid was around 3% across all regions. Updated statistics collected for 2006 continue to show that the Pinelands have a greater percentage of valuation in the vacant and residential categories than the Non-Pinelands region. The percentage of valuation in the vacant category continued to decrease, while the percentage in valuation in the residential category continued to increase. Finally, two new supplemental variables that detail the long-term debt and infrastructure picture in the region are introduced in this year's report. Gross debt per capita figures show that as of 2005, Pinelands municipalities gross debt per capita is significantly lower than in the Non-Pinelands. Gross debt per capita is a useful proxy for the level of infrastructure spending in communities, and the data reflects the level of development that has occurred outside of the Pinelands as opposed to inside the boundary. The gross debt ratio variable that is also included in this year's report shows that as a whole the Pinelands municipalities are in a much better borrowing position than the Non-Pinelands region. As of 2005, the gross debt in the Pinelands represents 2.1% of the equalized property value in the region, while in the Non-Pinelands the gross debt represents 2.7% of the equalized property values. Statewide, gross debt is 1.9% of equalized property value.

In addition to ongoing data collection and analysis, special studies represent the second major component of the economic monitoring program. Because the overall trends tracked by the Long-Term Economic Monitoring Program can mask the conditions of individual municipalities, a current special study focuses on characterizing and identifying municipalities that are experiencing poor fiscal health. Although difficult to define, poor fiscal health can be described as being below a given standard with respect to municipalities' social, economic, physical, and fiscal conditions. The project is being administered by Pinelands Commission staff and conducted in consultation with the Pinelands Municipal Council. The final report for the project may provide a basis for legislation to allocate special aid to the most strained towns. Another special study is focusing on changes in the sale price and value of vacant developable land within the Pinelands. A large database of transactions covering the years 1989-2002 has been assembled and will be updated this year with more recent property tax data.   Analysis of this data is scheduled to begin in 2008.

1.   Introduction

1.1   The Long Term Economic Monitoring Program

The Pinelands National Reserve was established in 1978 and is the nation's first federal reserve. It covers an area of over one million acres in the heart of southern New Jersey. The Pinelands Comprehensive Management Plan (CMP) was adopted in 1980 and manages land use activities at regional and local levels. A blend of federal, state, and local programs is responsible for safeguarding the environmental and cultural resources of the region. Of particular importance to the regional economy are land use policies and controls included in the CMP and implemented by municipalities. Some of these policies and controls significantly limit development in designated Preservation, Forest, and Agricultural management areas and encourage development in other districts, particularly Regional Growth and Town Areas. These growth areas tend to be located in and around already developed areas, many of which have access to central sewer systems and other infrastructure. Recent studies have suggested that the CMP has been successful in steering growth away from conservation areas toward growth areas.[1]

Of major interest to landowners, residents, and businesses in the region is the economic impact of the regulations on land values, real estate markets, local government finances, and the economic performance of farms and businesses. A number of studies have been conducted since the inception of the CMP in 1980 that have addressed these issues (see Appendix A). These efforts, while directed at measuring the short-term impacts of the CMP, have recognized the importance of monitoring economic and fiscal impacts over the long term.

As part of its second full review of the CMP, the Commission convened a panel of economic experts in 1992 to review the prior studies and develop recommendations for future Commission efforts. Later that year, the Commission formally endorsed the panel's recommendation to monitor the region's economy on a continuing basis. Consequently, the Pinelands Commission prepared a proposal (July 1994) to the National Park Service (NPS) to institute a long-term economic monitoring program, which was incorporated into a September 1994 Cooperative Agreement between the two agencies.

The *New Jersey Pinelands Commission Long-Term Economic Monitoring Program First Annual Report* was released after three years of planning in 1997. The document, the first in a series of annual reports, presented data and described trends for key indicators in the areas of property values, economic growth, and municipal finance. The *First Annual Report* and its accompanying Executive Summary also identified potential topics for future study. Subsequent annual reports updated most of the data in the *First Annual Report.* This *2007 Annual Report* is the eleventh in the series and augments most of the data used to develop the previous reports but also includes a variety of information not found in previous reports. A copy of the *2007 Annual Report* is available on CD-ROM by writing to the Pinelands Commission at P.O. Box 7, New Lisbon, NJ, 08064. The report will be available on the Pinelands Commission World Wide Web site at http://www.nj.gov/pinelands.

1.2   Program Goal and Objectives

The fundamental goal of the Long-Term Economic Monitoring Program for the Pinelands is **to continually evaluate the health of the economy of the Pinelands region in an objective and reliable way.** The economic monitoring program, in conjunction with an ongoing

---

[1] See "Managing Land Use and Land-Cover Change: The New Jersey Pinelands Biosphere Reserve" by Walker and Solecki, *Annals of the Association of American Geographers*, 89(2), 1999, p. 220-237.

environmental monitoring program, provides essential information for consideration by the Pinelands Commission as it seeks to meet the mandates set forth in the federal and state Pinelands legislation.

The program was designed to accomplish several principal objectives:

1.   Address key segments of the region's economy while being flexible enough to allow for the analysis of special topics that are identified periodically;

2.   Establish a means for comparing Pinelands economic segments with similar areas in the state not located within Pinelands designated boundaries;

3.   Establish a means for evaluating economic segments over time so that Pinelands-related trends can be distinguished from general trends;

4.   Provide for analyses to be conducted in an impartial and objective manner; and

5.   Be designed and implemented in a cost-effective manner so that the program's financial requirements can be sustained over time.

These objectives are accomplished by two means: through the publication of an annual report of indicators, and through the commissioning of periodic special studies. The annual report takes the "temperature" of the regional economy, while special studies take a more in-depth look at specific topics. The following two chapters outline the structure and design of both components.

1.3   Program Administration

The development and implementation of the Long-Term Economic Monitoring Program is a collaborative effort. Under the terms of the cooperative agreement with the National Park Service (NPS) the Commission receives funding for personnel and other resources, including a full-time economist, managerial, and technical support staff (GIS staff and others on an as-needed basis), expert consultants, data acquisition, equipment, and informational materials. The NPS also can provide oversight and substantive input on an ongoing basis through its own Technical Advisory Committee.

The Commission staff members have primary responsibility for the day-to-day implementation of the program, including acquisition and analysis of data; coordination with the NPS, expert advisory committee, and public; and development of all reports and other products. Perhaps most importantly, the Commission will consider the results of these monitoring efforts as it identifies the need for in-depth economic studies and continues to refine and improve Pinelands protection policies. The data will also be used for other Commission analyses and independent efforts.

2. Annual Reports

2.1 Data Categories

Ongoing data collection and analysis involves continual monitoring of key economic indicators to establish a historical basis for trend comparison and enables analysis of Pinelands activity in relation to regional and statewide patterns. The ongoing reporting of data will allow the Commission to target topics for in-depth research to determine the basis of economic well being of Pinelands communities and potential cause-and-effect relationships. Data for key variables are collected annually when possible and provide information essential to an understanding of the character of the Pinelands economy. In general, these data are collected from secondary sources. The annually updated data are considered to be the core variables of the report.

The first annual report included a provision for adding supplemental data, and this provision was used for the first time in the 2003 annual report. The 2007 annual report continues this trend with the introduction of some new supplements. Supplemental variables provide valuable information and insight into the Pinelands and regional economy, but are not considered core variables because they cannot be updated regularly. For instance, the US Census data is extremely valuable, but since it is only updated every 10 years, most of it cannot be considered core. If reliable data can be obtained for a sufficient period of time, supplemental variables can become core in the future.

2.2 Core Variables Selected for Long-Term Monitoring

Four primary areas of inquiry are monitored: population and demographics, land and housing values and residential development, the business climate and commerce of the region, and the fiscal health of municipalities. Within each of these areas, several core variables are monitored. Collectively, these variables provide insight into the overall health of the Pinelands' economy; individually, they offer detailed information on specific features of interest. Table 2.2 identifies the monitoring period, frequency of collection, and method of analysis for the core variables tracked for this report. Each of the variable groups is described below.

Population and Demographics

This section examines basic information regarding the population of Southern New Jersey and the Pinelands that is necessary for any economic or geographic analysis. The core variables in this section are: population at the municipal and census block level, population change, age demographics, and annual population estimates. Population growth drives both consumer demand and reflects labor supply, and therefore is an extremely important indicator of economic growth. Age demographics affect the level and type of municipal services provided and influence housing markets.

Property Values and Residential Development

At the heart of many of the controversies generated by the implementation of the Pinelands land use regulations is the issue of land values. To the extent that development controls affect the value of land, current and prospective landowners will be affected, as will tax ratables associated with vacant land. This group of variables identifies trends in development pressures and measures the differences in values of housing and land in different areas of the region. The value of property depends in part on the permitted use that yields the highest rate of return to the owner, often called "the highest and best use." Permitted uses on vacant land

and farmlands in many parts of the Pinelands have been limited significantly and therefore land prices may be adversely affected.

In addition, land use regulation may also affect the value, type and supply of housing and other development activities. For example, the implementation of the CMP has the potential to increase housing prices, both through a reduction in supply in certain areas and by providing a permanent amenity to residents of the region. Conversely, other factors, such as declining or shifting job markets, if they exist, may cause housing price decreases. Building permits, median selling price of homes, and volume of residential real estate transactions are the three variables tracked annually for this variable group. A special study of vacant land values is also being conducted. Further explanation can be found in the special studies section of this report.

Economic Growth

The observation of trends in indicators that are directly tied to the prosperity of a region's residents is central to the measurement of the economic well being of the region. As such, monitoring of employment, income, and the business climate is essential to this program. This group of variables measures the prosperity and viability of business in the region. Tracking economic growth variables over time and comparing them across regions may show differences and indicate areas for special study. To the extent that the CMP has had an effect on the regional economy, there will be both direct and indirect (multiplier) impacts on employment and wages. Impacts (positive or negative) may be substantially different across business sectors.

Seven economic growth variables are tracked annually for this report: retail sales per capita; per capita income; unemployment; employment, establishments, and wages; and agriculture (including farmland assessed acreage, census of agriculture data, and blueberry and cranberry production).

Municipal Finance

The long-term monitoring of municipal fiscal trends is interesting for several reasons. As discussed in previous studies, Pinelands regulations have affected vacant land assessments in some municipalities (see, for example, *Economic & Fiscal Impacts of the Pinelands Comprehensive Management Plan*, New Jersey Pinelands Commission, 1983 and 1985). In all but one case, however, the short-term impact on tax rates was relatively minor. Public acquisitions of land in a few municipalities have also resulted in a loss of tax ratables. While these problems were mitigated in the short-term by state reimbursement programs, their long-range impacts should be evaluated.

The level of development in a municipality also affects both municipal ratable bases and expenditures for public services and facilities. Development is associated with growth in ratables, although capital and operating costs for schools, roads, and other public facilities will also increase. Whether development results in a net fiscal benefit or cost to the community depends in large part on the type of development (e.g., commercial, industrial, apartments, single-family houses, or retirement communities). Density may also have an effect.

Data is obtained from the New Jersey Department of Community Affairs (DCA), Division of Local Government Services, which publishes property tax information on an annual basis. Four variables are tracked annually for this variable group: average residential property tax bill, state equalized valuation (total value of taxable property), effective tax rate, and assessment class proportions in municipal tax revenues.

Table 2.2   Summary of Core Variables in Annual Report

Name	Years Collected[2]	Years Added[3]	Frequency of Collection	Method of Analysis
Municipal Population	1980, 1990, 2000	None	Decennial	Inside/Outside Pinelands
Census Block Population	1990, 2000	None	Decennial	Census Block, Inside/Outside Pinelands Boundary
Age Demographics	1980, 1990, 2000	None	Decennial	Inside/Outside Pinelands, Census Block Group (2000)
Population Estimates	2001-2005	2005	Annual	Inside/Outside Pinelands
Building Permits	1980-2006	2006	Annual	Inside/Outside Pinelands
Median Selling Prices of Homes	1988-2006	2006	Annual	Inside/Outside Pinelands
Volume of Real Estate Transactions	1988-2006	2006	Annual	Inside/Outside Pinelands
Retail Sales & Establishments	1992, 1997, 2002	None	Quintennial	County, Place
Income	1979, 1989, 1999	None	Decennial	Inside/Outside Pinelands
Unemployment	1980-2006	2006	Annual	Inside/Outside Pinelands
Employment	1993-1999, 2003 (municipal level)	None (county level)	Annual	Inside/Outside Pinelands (93-99), County (91-02)
Number of Establishments	1993-1999, 2003 (municipal level)	None (county level)	Annual	Inside/Outside Pinelands (93-99), County (91-02)
Payroll by Major Industry Sector	1993-1999, 2003 (municipal level)	None (county level)	Annual	Inside/Outside Pinelands (93-99), County (91-02)
Farmland Assessed Acreage	1980-1984, 1986-2004	2004	Annual	Inside/Outside Pinelands
Agricultural Census Data	1982, 1987, 1992, 1997, 2002	None	Quintennial	County
Blueberry and Cranberry Production	1972-2005	2005	Annual	State
Average Residential Property Tax Bill	1983-2006	2006	Annual	Inside/Outside Pinelands
Equalized Property Value	1980-2006	2006	Annual	Inside/Outside Pinelands

---

[2]   Data acquisition is based on the availability of data. An effort is made to acquire data for every year available from 1980 to the present.

[3]   Refers to addition from previous report and specifies which years of data are new in this update.

Name	Years Collected[2]	Years Added[3]	Frequency of Collection	Method of Analysis
Effective Tax Rate	1980-2006	2006	Annual	Inside/Outside Pinelands
Assessment Class Proportions in Municipal Valuation	1980-1994, 2002-2006	2006	Annual	Inside/Outside Pinelands
Local Municipal Purpose Revenues	1995-2006	2006	Annual	Inside/Outside Pinelands

2.3   Supplemental Variables

In addition to continuing and updating the supplemental variables added in last year's report, two new supplemental variables have been added to the annual report this year in the Municipal Finance section and the Development section of the report. Supplemental variables provide valuable information and insight into the Pinelands and regional economy, but are not tracked annually as core variables because they are not updated regularly. If the data is viable and a sufficient time series can be obtained, supplements could become core.

The first of the new supplements listed below measures the gross debt per capita for each municipality in the region. This is done in an attempt to capture a proxy for the amount of infrastructure and service levels provided by communities. A large percentage of municipal property taxes in recent years has been devoted to the costs associated with new schools, and this has been of particular interest to those Pinelands municipalities that are experiencing rapid growth in their school-aged population. The second new supplement below measures the fiscal health of each municipality by computing the gross debt ratio. The gross debt ratio gives an indication of borrowing capacity by expressing current long-term debt as a proportion of total property values in a municipality.

Table 2.3a   Summary of Supplemental Variables in the 2007 Annual Report

Name	Source	Years Collected	Method of Analysis
Gross Debt Per Capita	NJ DCA Division of Local Govt Services	2005	Inside / Outside Pinelands
Gross Debt Ratio	NJ DCA Division of Local Govt Services	2005	Inside / Outside Pinelands
School Student Population	NJ Dept of Education	2002, 2005, 2007	Inside / Outside Pinelands
Certificates of Occupancy for Non-Residential Uses	NJ DCA Division of Codes and Standards	2005, 2006	Inside / Outside Pinelands

Table 2.3b   Summary of Supplemental Variables in the Previous (2006) Annual Report

Name	Source	Years Collected	Method of Analysis
School Student Population	NJ Dept of Education	2002, 2005	Inside / Outside Pinelands
Certificates of Occupancy for Non-Residential Uses	NJ DCA Division of Codes and Standards	2005	Inside / Outside Pinelands

2.4   Geographic Scale: Defining the Pinelands

Concise definitions of the various levels of geography used in this report can be found on page 14, which is the first page of the indicators section. This section provides a detailed geographical description and the definition of the "Pinelands" that is used in this report.

The state designated Pinelands Area encompasses portions of seven counties in Southern New Jersey: Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Ocean. There are 53 municipalities that have part or all of their land in the Pinelands. Most of the variables monitored in the report are obtained at the municipal level, since this is typically the most precise level of geography available. Municipal values are aggregated into Pinelands and Non-Pinelands regions, based on a "10% rule." Any municipality with at least 10% of its land in the Pinelands area is considered to be in the Pinelands region, and all remaining municipalities in southern New Jersey (those located in the seven counties mentioned above, plus Salem County) are considered to be Non-Pinelands municipalities. Of the 53 municipalities

completely or partially located in the Pinelands Area, 47 were classified as inside, while six[4] were classified as outside, joining the remaining 149 municipalities located entirely outside the Pinelands. In summary, the term "Pinelands," as used in this report, refers to 47 municipalities that have at least 10% of their land in the state-designated Pinelands Area, while the term "Non-Pinelands" refers to the remaining 155 municipalities of Southern New Jersey.

While the aggregate method used in this report is the best currently available, it is not ideal. Many municipalities are split by the Pinelands boundary, so activities and phenomena present outside the Pinelands boundary are counted as occurring inside the Pinelands. In some cases areas inside a Pinelands municipality, but outside the Pinelands boundary, are growing rapidly. This growth can distort the Pinelands aggregate, indicating that the Pinelands is growing rapidly, while in reality much of the growth is occurring just outside of the Pinelands boundary.

Obtaining data at a sub-municipal level circumvents this problem. For instance, the population for each Pinelands municipality was calculated at the block level to obtain population counts for areas of Pinelands municipalities inside and outside the Pinelands boundary. The results of the count showed that approximately 277,000 people lived inside the Pinelands boundary, while approximately 413,000 people lived outside the boundary, but within Pinelands municipalities. Population growth between 1990 and 2000 was 5.5% inside the boundary, and 14.3% outside the boundary within Pinelands municipalities. Clearly, the Pinelands aggregates are including a fair amount of Non-Pinelands activity. Additional data at the census block and census block group level is being sought. Other methods of obtaining sub-municipal data are also being explored, such as using GIS to pinpoint variables with address information to streets, so an inside / outside boundary count can be made. For variables where sub-municipal census data is available, the terms "Pinelands Municipal Area Inside the Boundary," and "Pinelands Municipal Area Outside the Boundary," are used to refer to the areas of Pineland's municipalities that are split by the state-designated Pinelands boundary.

Despite these limitations, the Inside / Outside Pinelands municipal aggregate system is currently the most viable method for comparing the Pinelands to the Non-Pinelands regions based on data currently available. The census block analysis revealed that certain municipalities with as much as 30% of their land in the Pinelands had practically no residents in the Pinelands. Analysis has shown that altering the 10% percent rule in favor of a 20, 25 or 30% rule yields no significant difference in the value of the aggregates. Strictly identifying whether an activity is occurring inside or outside of the boundary may be unnecessary to some extent, as economic activity occurs regardless of where boundaries exists. Areas inside and outside of the boundary interact economically with each other, and both interact with other regions. Consequently, this report retains the 10% rule to define inside and outside municipalities.

Municipal-level data is unavailable in certain cases. The Agricultural Census and Retail Census are restricted to county-level data. For the Agricultural Census data, Pinelands counties (Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Ocean) are compared to Non-Pinelands counties (Salem plus the 13 counties of North Jersey). For the Retail Census and Covered Employment data (employment, establishment, and wages), information is presented for the eight Southern New Jersey counties along with totals for the entire state. Because county-level data are necessarily limited in the amount of geographic information they can convey, a chart showing the contribution of each county to Pineland's acreage is provided in Appendix B to aid in interpretation whenever county data are presented. Blueberry and cranberry production data are available only at the state level, but since these

---

4 The six are: Corbin City, North Hanover Township, Springfield Township, Berlin Borough, Vineland City, and Dover Township.

crops are found almost exclusively within the Pinelands, statewide figures provide ample information for the purposes of this analysis.

2.5   Presentation of Data

Data in the annual report is arranged by variable and is grouped into four main sections. Each core variable is designated by section (population, real estate, economy, and municipal finance) and by number. When a new section begins, numeration restarts at 1. For instance, there are population variables 1 through 4, Real Estate variables 1 through 4, etc. Numbers followed by an "S" indicate supplemental variables. Supplemental variables always appear at the end of a section. A checkbox in the upper right hand corner of the page indicates whether a variable was updated since the last report. A variable is considered updated if additional years of recent data were added or further analysis of previous data was conducted.

Pinelands and Non-Pinelands aggregates are charted, along with Southern New Jersey and state averages. Data is obtained as far back as 1980, when possible. In most cases, averages for each region are calculated by averaging the values for all municipalities in the region. In a few instances, values are not averages but are sums for the region.[5] For example, retail establishments per capita for each region is calculated by dividing the total population of the region by the total number of establishments in each region. It is not calculated by averaging the ratio of each municipality to get a regional average.

Data is presented by Pinelands municipality for some variables in the form of tables, and certain variables are mapped for all of Southern New Jersey. While the aggregates provide a regional picture, the tables and maps illustrate the degree of variation that exists among the municipalities. Tables display and sort data for the 47 "inside" municipalities, and record data for five[6] of the "outside" municipalities separately at the bottom of the table. The sorting column(s) for each table vary and are indicated by a shaded column heading. Tables and graphs embedded in the text are not enumerated.

Variables in the Annual Report that describe monetary amounts are adjusted for inflation using the Consumer Price Index (CPI-U) from the U.S. Bureau of Labor Statistics, shown in 2006 dollars. This is an update from the 2006 annual report, where variables were keyed to the 2005 CPI. Only sections that received a substantial update this year (as indicated by a check mark in the upper right hand corner "Update" box) have been adjusted to the 2006 CPI. Variables in the Fact Book are not inflation adjusted, as the purpose is to display the most recent information available and not to monitor change over time.

Indexes were derived for many variables in this report. Indexing is a common technique for characterizing economic time series data, and it measures how variables change over time. Change is measured relative to a pre-selected base period. In this report, the base period selected is usually the first year that data for the variable are available. As an example, if 1988 were selected as the base period for housing transactions, the 1988 index number for housing transactions would be 1.00. The remaining index numbers are calculated by dividing each year's total housing transactions by total 1988 housing transactions. A 1999 index number of 1.10 indicates that 1999 housing transactions are 10% greater than 1988 levels. Portraying

---

5 See "Unit of Analysis" for each variable to ascertain whether municipal averages or regional sums are used.
6 The five municipalities counted as "outside" the Pinelands in this report have between one and ten percent of their land in the Pinelands. Toms River Township is excluded, as less than ½ of one percent of its land is in the Pinelands.

multiple indexes for different regions on one graph enables easy comparison of relative changes among those groups.

The Municipal Fact Book was a new addition to the 2002 Annual Report, and was significantly updated and enhanced for the 2003 and 2004 reports. The 2007 Report uses the same format with a few minor changes. Economic data are arranged by Pinelands municipality rather than by variable, in order to provide a better understanding of the unique economic characteristics of each municipality. The fact sheets are arranged alphabetically by county, then by municipality. Variables for each municipality are listed beside the average value for all municipalities in Southern New Jersey and the municipality's rank for that variable among the 202 municipalities in Southern New Jersey. Additional information, such as census block data, population graphs, and map of development zones, is also provided. Fact sheets for each of the Southern New Jersey counties are also included in this year's report. The county sheets use the same format as the municipal sheets, with county values displayed beside the average Southern New Jersey County value and the county's rank among the eight counties.

The fact book is located in Appendix G. Additional resources in the appendix include: a list of reference materials, a table of Pinelands and southern New Jersey acreage by county, a map showing place names for all 202 towns in southern New Jersey, a description of Pinelands Management Areas, a map of Pinelands Management Areas, and a map of housing unit construction trends at the block group level from the 1940s to the 1990s.

3. Special Studies

Special studies represent the second major component of the monitoring program. Studies may be initiated in any year of the program. The ongoing data program will be highly instructive in selecting topics for special study to provide an in-depth examination on apparent differences between Pinelands and Non-Pinelands economic trends. Special studies may also provide an opportunity to augment ongoing data collection should a need be identified for primary (rather than secondary) data or for more geographically specific data.

First Study: Value-Added Blueberry Products (Complete)

The blueberry study was a partnership between Cook College at Rutgers University, the Pinelands Commission (supported through the National Park Service), and New Jersey's blueberry growers for the purpose of boosting the blueberry industry by creating a value added product. The study was successfully completed in November 2001, and a detailed explanation of the project can be found in the 2001 Annual Report. Development and marketing of value-added blueberry products will continue indefinitely through Blueberry Health, Inc. Blueberry Health buys blueberry pulp for products from New Jersey farmers, and reinvests its profits in blueberry research and product development.

Second Study: Indicators of Municipal Health (Underway)

At its September 1999 meeting, the Pinelands Municipal Council unanimously recommended that the Long-Term Economic Monitoring Program conduct a special project to identify and characterize municipalities experiencing poor health. Although difficult to define, poor municipal health can generally be described as being below a given standard with respect to municipalities' social, economic, physical, and fiscal conditions. The project is being administered by Pinelands Commission staff and conducted in consultation with the Pinelands Municipal Council.

In November 1999, the Pinelands Commission authorized the project as the second special study. The goals of the project are to: 1) produce a database of indicators that are reflective of municipalities' social, economic, physical, and fiscal conditions; 2) produce an objective, systematic and repeatable model which identifies municipalities that are experiencing poor health using the database of indicators; 3) select economically challenged communities using the results from the model; and 4) develop methods to calculate financial aid and/or other resources that may alleviate the degree of strain in the identified municipalities.

In January 2001, a short questionnaire was administered to municipal officials (i.e., mayors, CFO's, administrators, council members, etc.) of 36 municipalities.[7] The questionnaire was designed to reveal municipal officials' opinions on indicators of fiscal health and on ways to measure and compare fiscal health among municipalities. In general, the results of the questionnaire suggest that the most pressing municipal health concerns of the Pinelands municipalities relate to a healthy tax base (i.e., a mix of commercial, industrial, and residential land), tax rates, and school costs. These themes are being examined more closely during the course of this project.

The preliminary design of the study consists of two parts. The first part focuses on a Pinelands and Non-Pinelands analysis of fiscal indicators. Based on responses from the

---

7 All municipalities with at least 50% of their land within the Pinelands were included (33 municipalities) plus three additional municipalities which requested to be included.

questionnaires and the availability of data, a number of variables were examined including unemployment rates, tax rates, income levels, and the level of commercial and industrial ratables. The second part of the study identifies Pinelands towns that are most in need of fiscal assistance, and will design a corresponding funding model.

A preliminary final draft for this study was presented to the Public and Governmental Programs Committee of the Pinelands Commission in June 2006. The final model to measure fiscal stress will probably use principal components analysis to arrive at a single fiscal stress number for all 566 municipalities in New Jersey. Principal components analysis is an objective statistical approach that combines several different variables into a single measurement (in this case, overall fiscal health). This method has been challenged and upheld in New Jersey courtrooms and is the basis upon which the NJ Department of Education assigns district factor groups that are used in state testing analysis. Preliminary findings show that the most severely stressed municipalities in the Pinelands region do rank among the top 10% of municipalities statewide in regards to fiscal stress.

Special Project: Vacant Land Value Study (Underway)

The vacant land value project is an extension of the property value and real estate monitoring aspect of the annual report. In September 1999, Pinelands Commission staff obtained data from the New Jersey Department of Treasury on all New Jersey land and housing transactions dating back to 1989. Vacant land transactions were supplemented with additional information in order to enhance the usefulness of the data in determining the value of vacant land. Pinelands Commission staff gathered supplemental data for each vacant land transaction (i.e., acreage, zoning, management area, and more). The supplemental data was gathered from tax maps as well as other available data sources. Data collection culminated in 2003. A formal database was created and cleaned in order to reconcile errors and fill in missing data. The database contains approximately 5,700 records of transactions inside the Pinelands boundary and 16,000 records outside the Pinelands boundary from the years 1989 through 2002, and will be updated with more recent property tax data on transactions through 2006 in the coming year. Once the database is updated, statistical analysis for this study will be conducted. Data collection of vacant land transactions will also continue in the future.

Special Project: Housing Task Force

In October 2003, the Pinelands Commission formed a Housing Task Force in order to update housing demand estimates in the Comprehensive Management Plan. The Economic Monitoring Program has been an integral part of the process, through analysis of population data, the collection and evaluation of population projections, estimating future housing units, defining and calculating vacant developable land using land use and land cover data, and allocating future population and housing to Pinelands development areas based on vacant land. The Task Force issued its final report in January 2007.

As part of this process, a *Pinelands Population Reference Guide* was created in order to gather population and housing data for the Pinelands for a range of geographic scales from 1970 through 2000 into one document. The reference guide is available on the Long-Term Economic Monitoring Program's 2004 Annual Report CD-ROM.

Special Project: Pinelands Development Credit Supply & Demand Study (Underway)

In the Fall of 2005, the Pinelands Commission staff began a reexamination of the effectiveness of the Pinelands Development Credit (PDC) program. The PDC program is an integral tool in the implementation of the Comprehensive Management Plan. In order to

facilitate the process of directing growth to appropriate areas in the Pinelands region, the PDC program was established to create a market for development rights in the Pinelands. Owners of properties in designated sending areas are afforded the opportunity to "sever" their development interests in their properties and sell those rights to land developers in receiving areas. The developers then use these rights to expand their allowable development densities in regional growth areas, thus directing growth from preservation areas to more suitable growth areas. The owners of land in preservation areas are thus compensated monetarily in exchange for deed-restricting their land from future development.

Since the PDC program is market-driven, its ultimate success depends upon a healthy balance between supply and demand pressures in the land development market in the Pinelands. Initially, the PDC program was slow to be utilized by both developers and land owners in the region. However, in recent years there has been quite a bit of activity in the PDC market, with the price of a development right rising from an initial value of $2,500 in 1981 to about $30,000 as recently as 2005. Prices have fallen since 2005, and as of the fall of 2007 the going PDC market price for one right was around $22,000.

This study is a comprehensive review of what has worked well to this point, in addition to examining new ideas on how to further stimulate use of PDC's in the coming years. A preliminary package of recommendations was submitted to the Policy and Implementation Committee in the summer of 2007, and after further review a final set of policies and rules will be adopted by the Commission over the course of the next year.

Geographic Definitions

State-Designated Pinelands Area: area designated by The Pinelands Protection Act. This is the state-designated area under the jurisdiction of the Pinelands Commission.

Pinelands National Reserve: area designated by The National Parks and Recreation Act of 1978. This is the federally designated area that includes the state-designated area plus areas under CAFRA and DEP jurisdiction. This report focuses on the state-designated area only.

Pinelands: 47 municipalities in southern New Jersey that have at least 10% of their land within the state-designated Pinelands area.

Non-Pinelands: the remaining 155 municipalities in southern New Jersey that have less than 10% of their land in the state-designated Pinelands area (6 municipalities have between 0.1% and 9% in the Pinelands, the remaining 149 have no land in the Pinelands).

Southern New Jersey: the Pinelands municipalities plus the Non-Pinelands municipalities (47 + 155 = 202 municipalities total). Defined as the counties of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean, and Salem.

State of New Jersey: data for the state as a whole that includes southern (202 municipalities) and northern (364 municipalities) New Jersey (566 municipalities total).

Pinelands Municipal Area Inside the Pinelands Boundary: all census blocks or census block groups that have their geographic center within the state-designated Pinelands boundary. Provides the most accurate measure of Pinelands activity. Available in limited instances.

Pinelands Municipal Area Outside the Pinelands Boundary: all census blocks or census block groups that have their geographic center outside the state-designated Pinelands boundary, but within a municipality that has at least 1% of its land within the state-designated Pinelands boundary. Available in limited instances.
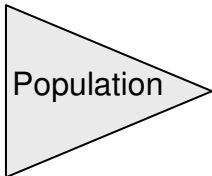
Population

US Census Bureau 1980, 1990, 2000

- • Population Growth in Pinelands municipalities outpaced Non-Pinelands municipalities between 1980 and 2000.

Population 1980 - 2000

	1980	1990	2000	Change 1980-1990	Change 1990-2000	Change 1980-2000
New Jersey	7,365,011	7,730,188	8,414,350	5.0%	8.9%	14.2%
South Jersey	1,854,074	2,083,938	2,263,516	12.4%	8.6%	22.1%
Non-Pinelands	1,430,609	1,534,417	1,647,532	7.3%	7.4%	15.2%
Pinelands	423,465	549,521	615,984	29.8%	12.1%	45.5%

Description: Population data is useful both as an indicator of demand for housing and for private and public goods and services, as well as for various per capita and per household calculations.

Unit of Analysis: Population data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings

The percentage increase in population was much higher in the Pinelands (30%) than outside (7%) from 1980 to 1990. Both areas surpassed the statewide increase in population of approximately 5% over the decade. A separate analysis of trends by county found that Atlantic County had the greatest differential between inside and outside growth rates from 1980-1990, which was most likely due to the start of casino gambling in Atlantic City and associated growth in nearby communities. The percentage increase in population was higher in the Pinelands than outside from 1990 to 2000 (although in absolute terms, population increased more outside the Pinelands over the same period); however, the disparity between inside and outside Pinelands annual growth rates decreased.

Population growth was higher in the Pinelands (12.1%) than all other regions of the state from 1990 to 2000. As figure P1 illustrates, population growth was highest in municipalities located along the edge of the Pinelands, especially those located in the northern and eastern regions. Stafford, Jackson, and Galloway grew the most in terms of percentages (see Table P1). However, a large portion of population growth in these towns occurred outside the Pinelands boundary (see next section on population by census block group).

An examination of group quarters population adds additional insight into population change within certain Pinelands municipalities. Persons living in group quarters (i.e. housing where unrelated persons live together) are classified as institutional (prisons and mental hospitals) and non-institutional (military bases, colleges and universities, nursing homes, and shelters). Several municipalities have been impacted by changes in group quarters population, which distorts the actual change in the number of residents. Practically all of Woodland's population decrease (826 persons out of 893) was due to a decrease in the institutional population. The population of Washington decreased while the number of persons in group quarters increased, masking the "actual" decrease in residents. Maurice River's increase can almost entirely be attributed to an increase in the institutional population, while Woodbine experienced a decrease in institutional population that masks a larger non-group quarters increase.

In New Hanover, the number of persons in non-institutions (military base) decreased by 5,035 people, while the number of people in institutions (prison) increased by 4,225 people. The number of persons not in group quarters increased by 1,008, but since the military population declined so steeply, the official population change was only 198. Wrightstown and Pemberton Township had large population decreases and have a significant military presence but experienced little change in group quarters population in spite of base reductions. Military personnel in these towns may have lived off the military base and were thus not considered to be in group quarters.

Figure P1   Municipal Population Change (1990-2000)

Legend:

Pinelands Boundary

Population Change

- -80.5% - 0%
- 0.1% - 10%
- 10.1% - 40%
- 40.1% - 107.8%

Source: US Census Bureau

Author: NJ Pinelands Commission

Date: 2003
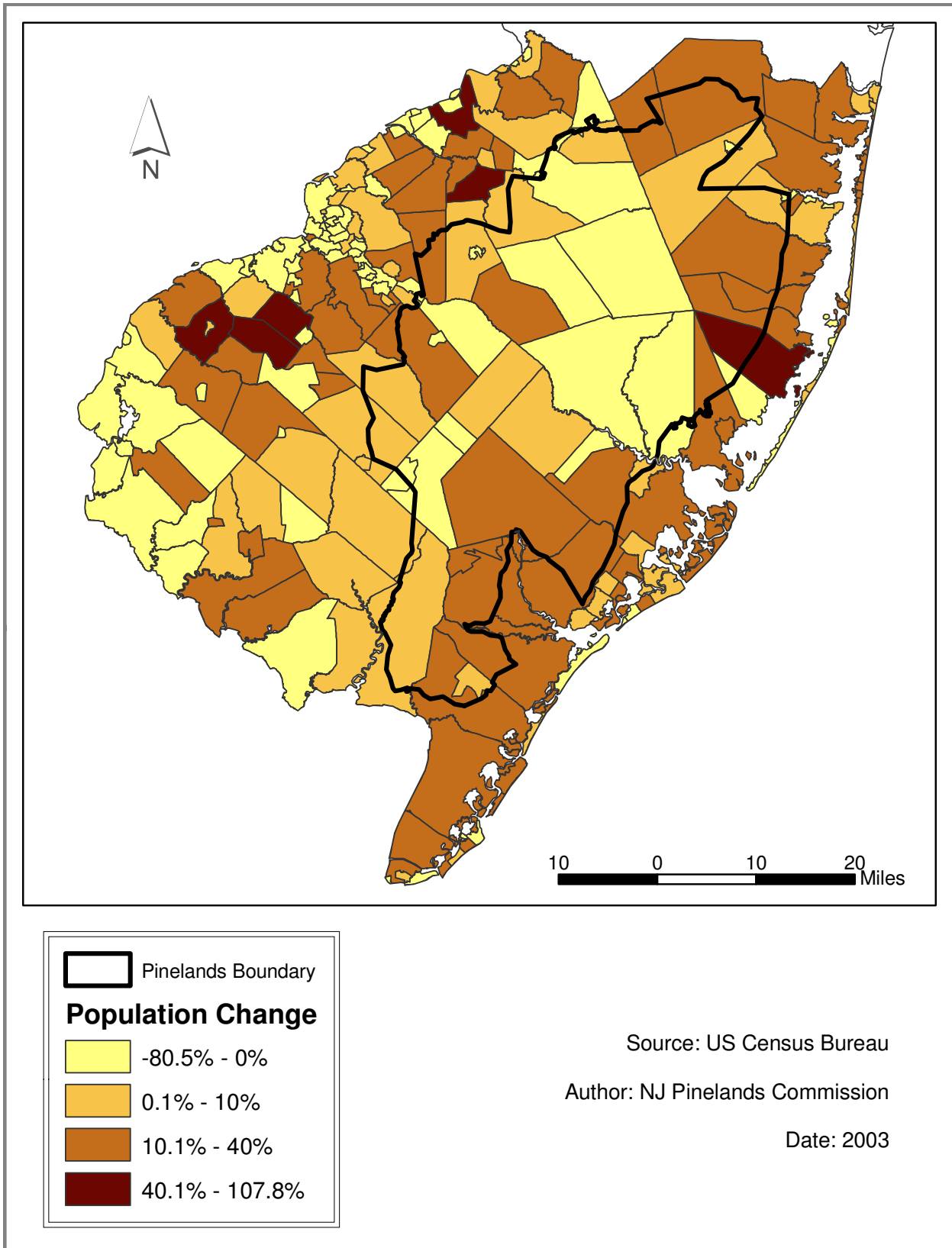
Table P1a   Population by Pinelands Municipality

Municipality	County	2000	1990	1980	Change 1990-00	Change 1980-90
Stafford Twp.	Ocean	22,532	13,325	10,385	69%	28%
Galloway Twp.	Atlantic	31,209	23,330	12,176	34%	92%
Jackson Twp.	Ocean	42,816	33,233	25,644	29%	30%
Hamilton Twp.	Atlantic	20,499	16,012	9,499	28%	69%
Egg Harbor Twp.	Atlantic	30,726	24,544	19,381	25%	27%
Barnegat Twp.	Ocean	15,270	12,235	8,702	25%	41%
Plumsted Twp.	Ocean	7,275	6,005	4,674	21%	28%
Evesham Twp.	Burlington	42,275	35,309	21,508	20%	64%
Little Egg Harbor Twp.	Ocean	15,945	13,333	8,483	20%	57%
Ocean Twp.	Ocean	6,450	5,416	3,731	19%	45%
Dennis Twp.	Cape May	6,492	5,574	3,989	16%	40%
Weymouth Twp.	Atlantic	2,257	1,957	1,260	15%	55%
Winslow Twp.	Camden	34,611	30,087	20,034	15%	50%
Lacey Twp.	Ocean	25,346	22,141	14,161	14%	56%
Estell Manor City	Atlantic	1,585	1,404	848	13%	66%
Upper Twp.	Cape May	12,115	10,681	6,713	13%	59%
Shamong Twp.	Burlington	6,462	5,765	4,537	12%	27%
Beachwood Boro	Ocean	10,375	9,324	7,687	11%	21%
Medford Twp.	Burlington	22,253	20,526	17,622	8%	16%
Monroe Twp.	Gloucester	28,967	26,703	21,639	8%	23%
Manchester Twp.	Ocean	38,928	35,976	27,987	8%	29%
Franklin Twp.	Gloucester	15,466	14,482	12,396	7%	17%
Berkeley Twp.	Ocean	39,991	37,319	23,151	7%	61%
Port Republic City	Atlantic	1,037	992	837	5%	19%
Maurice River Twp.	Cumberland	6,928	6,648	4,577	4%	45%
Hammonton town	Atlantic	12,604	12,208	12,298	3%	-1%
New Hanover Twp.	Burlington	9,744	9,546	14,258	2%	-33%
Southampton Twp.	Burlington	10,388	10,202	8,808	2%	16%
Woodbine Boro	Cape May	2,716	2,678	2,809	1%	-5%
Mullica Twp.	Atlantic	5,912	5,896	5,243	0%	12%
Chesilhurst Boro	Camden	1,520	1,526	1,590	0%	-4%
Egg Harbor City	Atlantic	4,545	4,583	4,618	-1%	-1%
Eagleswood Twp.	Ocean	1,441	1,476	1,009	-2%	46%
Buena Vista Twp.	Atlantic	7,436	7,655	6,959	-3%	10%
Tabernacle Twp.	Burlington	7,170	7,360	6,236	-3%	18%
Berlin Twp.	Camden	5,290	5,466	5,348	-3%	2%
Bass River Twp.	Burlington	1,510	1,580	1,344	-4%	18%
Waterford Twp.	Camden	10,494	10,940	8,126	-4%	35%
Medford Lakes Boro	Burlington	4,173	4,462	4,958	-6%	-10%
South Toms River Boro	Ocean	3,634	3,869	3,954	-6%	-2%
Pemberton Twp.	Burlington	28,691	31,342	29,720	-8%	5%
Folsom Boro	Atlantic	1,972	2,181	1,892	-10%	15%
Buena Boro	Atlantic	3,873	4,441	3,642	-13%	22%
Lakehurst Boro	Ocean	2,522	3,078	2,908	-18%	6%
Washington Twp.	Burlington	621	805	808	-23%	0%
Woodland Twp.	Burlington	1,170	2,063	2,285	-43%	-10%
Wrightstown Boro	Burlington	748	3,843	3,031	-81%	27%
*"Outside" Municipalities**						
Corbin City	Atlantic	468	412	254	14%	62%
Berlin Boro	Camden	6,149	5,672	5,786	8%	-2%
Springfield Twp.	Burlington	3,227	3,028	2,691	7%	13%
Vineland City	Cumberland	56,271	54,780	53,753	3%	2%
North Hanover Twp.	Burlington	7,347	9,994	9,050	-26%	10%

*These five municipalities have land in the Pinelands but are counted as Non-Pinelands municipalities because less than ten percent of their land area is in the Pinelands. They are displayed for informational purposes in this and subsequent tables.

Table P1b   2000 Census Group Quarters Population

Municipality	County	Population	Group Quarters	GQ %	Institution	Inst %	Non Institution	Non Inst %
New Hanover	Burlington	9,834	6,124	62.3%	4,846	49.3%	1,278	13.0%
Maurice River	Cumberland	6,928	3,360	48.5%	3,360	48.5%	0	0.0%
Washington	Burlington	579	179	30.9%	109	18.8%	70	12.1%
Woodbine	Cape May	2,716	568	20.9%	568	20.9%	0	0.0%
Chesilhurst	Camden	1,520	138	9.1%	88	5.8%	50	3.3%
Galloway	Atlantic	31,159	2,080	6.7%	0	0.0%	2,080	6.7%
Hamilton	Atlantic	20,499	1,041	5.1%	1,028	5.0%	13	0.1%
Winslow	Camden	34,659	1,112	3.2%	1,061	3.1%	51	0.1%
Dennis	Cape May	6,503	208	3.2%	155	2.4%	53	0.8%
Hammonton	Atlantic	12,604	348	2.8%	205	1.6%	143	1.1%
Estell Manor	Atlantic	1,592	33	2.1%	33	2.1%	0	0.0%
Waterford	Camden	10,485	207	2.0%	0	0.0%	207	2.0%
Manchester	Ocean	38,960	728	1.9%	546	1.4%	182	0.5%
Pemberton	Burlington	28,650	516	1.8%	378	1.3%	138	0.5%
Berkeley	Ocean	39,988	591	1.5%	223	0.6%	368	0.9%
Egg Harbor City	Atlantic	4,545	70	1.5%	35	0.8%	35	0.8%
Stafford	Ocean	22,517	293	1.3%	223	1.0%	70	0.3%
Buena Vista	Atlantic	7,436	94	1.3%	0	0.0%	94	1.3%
Medford	Burlington	22,253	255	1.1%	201	0.9%	54	0.2%
Wrightstown	Burlington	747	8	1.1%	0	0.0%	8	1.1%
Little Egg Harbor	Ocean	16,019	166	1.0%	166	1.0%	0	0.0%
Tabernacle	Burlington	7,170	72	1.0%	67	0.9%	5	0.1%
Jackson	Ocean	42,810	374	0.9%	360	0.8%	14	0.0%
Buena	Atlantic	3,873	33	0.9%	0	0.0%	33	0.9%
Barnegat	Ocean	15,285	127	0.8%	125	0.8%	2	0.0%
Ocean	Ocean	6,450	54	0.8%	0	0.0%	54	0.8%
Mullica	Atlantic	5,912	47	0.8%	0	0.0%	47	0.8%
Monroe	Gloucester	28,967	212	0.7%	155	0.5%	57	0.2%
Franklin	Gloucester	15,466	90	0.6%	0	0.0%	90	0.6%
Southampton	Burlington	10,333	61	0.6%	61	0.6%	0	0.0%
Port Republic	Atlantic	1,032	6	0.6%	0	0.0%	6	0.6%
Evesham	Burlington	42,428	185	0.4%	100	0.2%	85	0.2%
Berlin Township	Camden	5,290	19	0.4%	0	0.0%	19	0.4%
Folsom	Atlantic	1,972	7	0.4%	0	0.0%	7	0.4%
Egg Harbor Twp	Atlantic	30,619	49	0.2%	0	0.0%	49	0.2%
Lacey	Ocean	25,346	39	0.2%	26	0.1%	13	0.1%
Upper	Cape May	12,115	8	0.1%	0	0.0%	8	0.1%
Plumsted	Ocean	7,275	8	0.1%	0	0.0%	8	0.1%
Beachwood	Ocean	10,316	6	0.1%	0	0.0%	6	0.1%
Shamong	Burlington	6,462	2	0.0%	0	0.0%	2	0.0%
Medford Lakes	Burlington	4,173	0	0.0%	0	0.0%	0	0.0%
So. Toms River	Ocean	3,608	0	0.0%	0	0.0%	0	0.0%
Lakehurst	Ocean	2,522	0	0.0%	0	0.0%	0	0.0%
Weymouth	Atlantic	2,250	0	0.0%	0	0.0%	0	0.0%
Bass River	Burlington	1,552	0	0.0%	0	0.0%	0	0.0%
Eagleswood	Ocean	1,441	0	0.0%	0	0.0%	0	0.0%
Woodland	Burlington	1,160	0	0.0%	0	0.0%	0	0.0%
"Outside" Munis								
Vineland	Cumberland	56,271	2,393	4.3%	1,031	1.8%	1,362	2.4%
Berlin Borough	Camden	6,149	72	1.2%	18	0.3%	54	0.9%
Springfield	Burlington	3,227	7	0.2%	0	0.0%	7	0.2%
North Hanover	Burlington	7,325	0	0.0%	0	0.0%	0	0.0%
Corbin City	Atlantic	468	0	0.0%	0	0.0%	0	0.0%

Table P1c   Group Quarters Components of Population Change 1990-2000

Municipality	County	2000 Population	Pop Change 1990 – 2000	Institutional Change	Non-Institutional Change	Non-Group Quarters Change	Difference
New Hanover	Burlington	9,834	198	4,225	-5,035	1,008	810
Washington	Burlington	579	-184	86	70	-340	156
Woodbine	Cape May	2,716	38	-134	0	172	134
Pemberton Twp	Burlington	28,650	-2,651	6	103	-2,760	109
Lacey	Ocean	25,346	3,205	-121	13	3,313	108
Buena Vista	Atlantic	7,436	-219	0	85	-304	85
Winslow	Camden	34,659	4,524	-66	-14	4,604	80
Tabernacle	Burlington	7,170	-190	67	5	-262	72
Manchester	Ocean	38,960	2,952	180	-249	3,021	69
Shamong	Burlington	6,462	697	-70	2	765	68
Chesilhurst	Camden	1,520	-6	88	-22	-72	66
Medford	Burlington	22,253	1,727	-93	54	1,766	39
Waterford	Camden	10,485	-446	-152	186	-480	34
Franklin	Gloucester	15,466	984	0	-34	1,018	34
Buena	Atlantic	3,873	-568	0	16	-584	16
Mullica	Atlantic	5,912	16	-60	47	29	13
Monroe	Gloucester	28,967	2,264	-21	10	2,275	11
Estell Manor	Atlantic	1,592	181	-10	0	191	10
Folsom	Atlantic	1,972	-209	0	7	-216	7
Berlin	Camden	5,290	-176	0	6	-182	6
Weymouth	Atlantic	2,250	300	0	0	300	0
Bass River	Burlington	1,552	-70	0	0	-70	0
Medford Lakes	Burlington	4,173	-289	0	0	-289	0
Eagleswood	Ocean	1,441	-35	0	0	-35	0
Lakehurst	Ocean	2,522	-556	0	0	-556	0
South Toms River	Ocean	3,608	-235	0	0	-235	0
Ocean	Ocean	6,450	1,034	0	3	1,031	-3
Barnegat	Ocean	15,285	3,035	2	2	3,031	-4
Egg Harbor City	Atlantic	4,545	-38	-20	15	-33	-5
Port Republic	Atlantic	1,032	45	0	6	39	-6
Beachwood	Ocean	10,316	1,051	0	6	1,045	-6
Dennis	Cape May	6,503	918	-45	53	910	-8
Upper	Cape May	12,115	1,434	0	8	1,426	-8
Plumsted	Ocean	7,275	1,270	0	8	1,262	-8
Hammonton	Atlantic	12,604	396	-103	113	386	-10
Egg Harbor Twp	Atlantic	30,619	6,182	0	27	6,155	-27
Little Egg Harbor	Ocean	16,019	2,612	45	0	2,567	-45
Jackson	Ocean	42,810	9,583	63	-15	9,535	-48
Evesham	Burlington	42,428	6,966	-23	78	6,911	-55
Southampton	Burlington	10,333	186	61	-5	130	-56
Berkeley	Ocean	39,988	2,672	-296	361	2,607	-65
Wrightstown	Burlington	747	-3,095	0	-91	-3,004	-91
Galloway	Atlantic	31,159	7,879	-40	193	7,726	-153
Stafford	Ocean	22,517	9,207	118	70	9,019	-188
Maurice River	Cumberland	6,928	280	358	0	-78	-358
Hamilton	Atlantic	20,499	4,487	406	-37	4,118	-369
Woodland	Burlington	1,160	-893	-826	0	-67	-826
"Outside" Munis							
Springfield	Burlington	3,227	199	-40	-17	256	57
Corbin City	Atlantic	468	56	0	0	56	0
North Hanover	Burlington	7,325	-2,647	0	-25	-2,622	-25
Berlin Boro	Camden	6,149	477	18	54	405	-72
Vineland	Cumberland	56,271	1,491	-939	1,050	1,380	-111
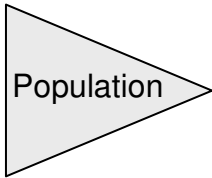
Population – Census Block

US Census Bureau 1990, 2000

- • Most of the population growth in Pinelands municipalities between 1990 and 2000 occurred outside of the Pinelands boundary.

Census Block Population

	1990	2000	Change
In Boundary	262,507	276,889	5.5%
Out Boundary	361,009	412,557	14.3%

Municipal Population Change Categories

	# Munis	% Total
Gained Inside and Gained Outside	16	30.8%
Gained Inside and Lost Outside	7	13.4%
Gained Inside, No Area Outside	4	7.7%
Lost Inside, Gained Outside	9	17.3%
Lost Inside, Lost Outside	8	15.4%
Lost Inside, No Area Outside	8	15.4%

Description: Population data at the census block level is useful in overcoming the limitations of municipal level population data by identifying the actual number of residents who live within the state-designated Pinelands area.

Unit of Analysis: Sub-Municipal data is aggregated by counting the population of census blocks inside and outside the Pinelands boundary using GIS. The actual population of the state-designated Pinelands area is calculated, along with areas of Pinelands municipalities that are outside the boundary. Census blocks from 1990 were normalized to make them comparable to 2000 census blocks.

Summary of Previous Findings

While population in the Pinelands region has grown to 615,984, the population actually inside the Pinelands boundary was less than half that number in 2000. Pinelands population data analyzed at the census block level revealed that 276,889 people lived in the Pinelands in 2000, a 5.5% increase over the 1990 population of 262,507. The number of persons living in Pinelands municipalities outside of the Pinelands boundary increased from 361,009 in 1990 to 412,557 in 2000, an increase of 14.3%.

The top three municipalities with the largest populations inside the Pinelands boundary are Pemberton Township, Hamilton Township, and Medford Township (Table P2a). Of the fifty-two municipalities with land in the Pinelands, the top 10 municipalities in population account for 58% of the Pinelands total population, while the top 20 municipalities account for 85% of the population. The municipalities in the top bracket contain at least one of the Pinelands development areas: Regional Growth Areas, Pinelands Towns, and Pinelands Villages. Conversely, the 10 municipalities with the least population in the Pinelands do not even comprise ½% of the total Pinelands population. Five of these 10 are defined as "Non-Pinelands" municipalities for the purposes of this study, as less than 10% of their land is within the Pinelands. Some municipalities have more than 10% of their land in the Pinelands, but have extremely few people. For example, Eagleswood has 20% of its land in the Pinelands, but has no residents in the Pinelands, while Beachwood has 28% of its land in the Pinelands and has only four residents. In most instances, these areas fall within Preservation or Forest management areas.

The largest absolute changes in population inside the Pinelands boundary between 1990 and 2000 occurred in municipalities that have Regional Growth Areas (Table P2b). Stafford, Egg Harbor Township, and Hamilton were the top three municipalities in terms of absolute growth, while Berkeley was the fastest growing in terms of percent change. Wrightstown, Pemberton Township, and North Hanover had the largest absolute decreases in population, due to military base reductions.

The 52 municipalities with some or all of their land inside the Pinelands were classified according to where their population gain occurred. Municipalities that gained population both inside and outside the boundary accounted for 30.8% of the total municipalities, the largest category by far. Municipalities completely located inside the Pinelands that experienced population gain made up the smallest percentage of the total, with 7.7%. Percentages in the other categories were relatively equal, with between seven and nine towns in each category.

**Table P2a   2000 Population Inside and Outside the Pinelands Boundary
by Pinelands Municipality**

Municipality	% Land in Pinelands	Total Population Inside 2000	% Population Inside	% Population Outside	Total Population Outside 2000
Pemberton Twp	90%	28,127	98%	2%	564
Hamilton	97%	19,136	93%	7%	1,363
Medford Twp	75%	18,239	82%	18%	4,014
Egg Harbor Twp	38%	16,209	53%	47%	14,517
Winslow	81%	15,599	45%	55%	19,012
Monroe	69%	14,406	50%	50%	14,561
Stafford	39%	13,390	59%	41%	9,142
Hammonton	100%	12,604	100%	0%	
Manchester	72%	12,185	31%	69%	26,743
Evesham	55%	11,553	27%	73%	30,722
Galloway	38%	10,658	34%	66%	20,551
Waterford	100%	10,494	100%	0%	
New Hanover	91%	9,109	93%	7%	635
Southampton	73%	7,193	69%	31%	3,195
Tabernacle	100%	7,170	100%	0%	
Shamong	100%	6,462	100%	0%	
Buena Vista	90%	6,248	84%	16%	1,188
Mullica	100%	5,912	100%	0%	
Maurice River	69%	4,819	70%	30%	2,109
Egg Harbor City	100%	4,545	100%	0%	
Medford Lakes	100%	4,173	100%	0%	
Jackson	47%	4,106	10%	90%	38,710
Barnegat	56%	3,226	21%	79%	12,044
North Hanover	4%	3,090	42%	58%	4,257
Woodbine	95%	2,716	100%	0%	
Franklin	36%	2,664	17%	83%	12,802
South Toms River	48%	2,495	69%	31%	1,139
Berkeley	30%	2,467	6%	94%	37,524
Lakehurst	87%	2,393	95%	5%	129
Folsom	100%	1,972	100%	0%	
Weymouth	82%	1,668	74%	26%	600
Dennis	38%	1,623	25%	75%	4,869
Chesilhurst	100%	1,520	100%	0%	
Estell Manor	72%	1,502	95%	5%	72
Bass River	87%	1,234	82%	18%	276
Upper	33%	1,175	10%	90%	10,940
Woodland	100%	1,170	100%	0%	
Buena	47%	865	22%	78%	3,008
Washington	100%	621	100%	0%	
Lacey	67%	521	2%	98%	24,825
Plumsted	53%	412	6%	94%	6,863
Berlin Twp	16%	403	8%	92%	4,887
Vineland	7%	186	0%	100%	56,085
Ocean	41%	145	2%	98%	6,305
Berlin Boro	10%	141	2%	98%	6,008
Wrightstown	73%	123	16%	84%	625
Little Egg Harbor	23%	107	1%	99%	15,838
Port Republic	35%	102	10%	90%	935
Corbin City	1%	7	1%	99%	461
Beachwood	28%	4	0%	100%	10,371
Eagleswood	20%	0	0%	100%	1,441
Springfield	2%	0	0%	100%	3,227

Table P2b   Population Change Inside and Outside the Pinelands Boundary by Pinelands Municipality (1990 – 2000)

Municipality	% Land in Pinelands	Total Population Inside 1990	Change in Pop In Pines 1990-2000	Percent Change 1990-2000	Total Population Outside 1990	Change in Pop Out Pines 1990-2000	Percent Change 1990-2000
Stafford	39%	5739	7651	133%	7568	1574	21%
Egg Harbor Twp	38%	11687	4522	39%	12905	1612	12%
Hamilton	97%	14988	4148	28%	1024	339	33%
Galloway	38%	8497	2161	25%	14824	5727	39%
Berkeley	30%	865	1602	185%	36424	1100	3%
Manchester	72%	10589	1596	15%	25387	1356	5%
Evesham	55%	10121	1432	14%	25188	5534	22%
Shamong	100%	5765	697	12%			
Barnegat	56%	2701	525	19%	9552	2492	26%
Maurice River	69%	4392	427	10%	2256	-147	-7%
Southampton	73%	6792	401	6%	3410	-215	-6%
Hammonton	100%	12208	396	3%			
Weymouth	82%	1340	328	24%	630	-30	-5%
Estell Manor	72%	1268	234	18%	123	-51	-41%
Winslow	81%	15426	173	1%	14661	4351	30%
New Hanover	91%	8962	147	2%	584	51	9%
Franklin	36%	2531	133	5%	11951	851	7%
Dennis	38%	1536	87	6%	4038	831	21%
Berlin Twp	16%	344	59	17%	5122	-235	-5%
Ocean	41%	91	54	59%	5325	980	18%
Upper	33%	1133	42	4%	9548	1392	15%
Woodbine	95%	2678	38	1%			
Medford Twp	75%	18206	33	0%	2320	1694	73%
Vineland	7%	166	20	12%	54614	1471	3%
Mullica	100%	5896	16	0%			
Berlin Boro	10%	133	8	6%	5539	469	8%
Corbin City	1%	3	4	133%	409	52	13%
Eagleswood	20%	0	0	0%	1476	-35	-2%
Chesilhurst	100%	1526	-6	0%			
Jackson	47%	4124	-18	0%	29108	9602	33%
Port Republic	35%	124	-22	-18%	877	58	7%
Plumsted	53%	436	-24	-6%	5569	1294	23%
Bass River	87%	1269	-35	-3%	311	-35	-11%
Egg Harbor City	100%	4583	-38	-1%			
Lacey	67%	563	-42	-7%	21578	3247	15%
Beachwood	28%	65	-61	-94%	9259	1112	12%
Little Egg Harbor	23%	172	-65	-38%	13158	2680	20%
Springfield	2%	123	-123	-100%	2911	316	11%
Washington	100%	805	-184	-23%			
Tabernacle	100%	7360	-190	-3%			
South Toms River	48%	2689	-194	-7%	1210	-71	-6%
Folsom	100%	2181	-209	-10%			
Buena	47%	1077	-212	-20%	3364	-356	-11%
Buena Vista	90%	6512	-264	-4%	1143	45	4%
Medford Lakes	100%	4462	-289	-6%			
Waterford	100%	10940	-446	-4%			
Lakehurst	87%	2939	-546	-19%	139	-10	-7%
Monroe	69%	15122	-716	-5%	11581	2980	26%
Woodland	100%	2063	-893	-43%			
North Hanover	4%	5493	-2403	-44%	4560	-303	-7%
Pemberton Twp	90%	30740	-2613	-9%	602	-38	-6%
Wrightstown	73%	3082	-2959	-96%	761	-136	-18%

• The average age of the population in Southern New Jersey is increasing.

Population Under 18 (Municipal Level)

	< 18 Years		
	1980	**1990**	**2000**
Pinelands	29.1%	24.7%	24.4%
Non-Pinelands	28.1%	24.8%	25.4%
New Jersey	27.0%	23.3%	24.8%

Population 65 and over (Municipal Level)

	> 65 Years		
	1980	**1990**	**2000**
Pinelands	13.5%	16.4%	16.8%
Non-Pinelands	12.5%	14.2%	14.6%
New Jersey	11.7%	13.4%	13.2%

Description: The age distribution of the population within each municipality provides some determination of the demand for services and the ability of the population to withstand changes in tax rates.

Unit of Analysis: Demographic data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings

Examination of demographic data indicated that the population throughout Southern New Jersey is aging. The proportion of the population under 18 declined 3.3 percentage points outside of the Pinelands between 1980 and 1990, and declined 4.4 percentage points inside of the Pinelands over the same period. During the same decade, the proportion of the population over 65 increased 1.7 percentage points outside of the Pinelands and rose 2.9 percentage points inside of the Pinelands. Statewide trends were similar to those found in Southern New Jersey. Table P3 shows the prevalence of different age classes in Pinelands and Non-Pinelands municipalities. An examination of the geographic distribution of the 20 municipalities in the eight southern counties with the lowest and highest median ages in 1980 and 1990 found that both age extremes (youngest and oldest) are found at the edges of the region, predominantly outside of the Pinelands. The concentration of older populations along the southern and eastern borders reflects the popularity of resort and beach communities among retirees, while the concentration of younger populations in the north and west most likely reflects the presence of large military installations, a college campus, and more urban areas in Camden County.

Average age in the Pinelands continued to increase gradually during the 1990s, while the proportion of the population under 18 and over 65 changed very little from 1990-2000. However, Table P3a provides evidence of an aging working population (18-65 years old) both inside and outside of the Pinelands. The majority of Pinelands municipalities fell within median age 30-34 in 1990; however, by 2000, that majority moved to median age 35-39. Similarly the largest number of Non-Pinelands municipalities moved up to the 35-39 median age group over the same period.

Update

Census Block Groups are small enough to distinguish population inside and outside the Pinelands boundary, thus overcoming the limitations of municipal level data. Data at the Census Block Group level was used to calculate age groups inside and outside the Pinelands boundary for the year 2000. Based on the block group data, the actual population inside the boundary was approximately 283,600.[8] Of these residents, 24.7% are under 18 years of age and 13.6% are over 64 years of age. Compared to the municipal Pinelands aggregate, the number of younger residents is approximately the same but the number of senior residents inside the Pinelands boundary is 3% lower. The population of the portion of Pinelands municipalities that lie outside the boundary was 405,000 residents. Of this number, 24.6% are under 18 and 18.4% are over 64. So, the number of juveniles in Pinelands municipalities is evenly spread inside and outside the boundary, but there are a greater number of seniors in Pinelands municipalities who live outside the boundary compared to inside the boundary. The Pinelands portion of Berkeley, Manchester, Southampton, and Barnegat stand out as areas that have a large percentage of senior residents (over 40%). These areas are home to several retirement communities (Table P3c).

---

8 This figure differs from the block level count, which was approximately 277,000. Block level data is more precise than Block Group level data, but less information is available at the block level.

Table P3a   Median Age, 1980, 1990 and 2000 (Municipal Level)

1980									
Age Class	**18 - 22**	**23 - 29**	**30 - 34**	**35 - 39**	**40 - 49**	**50 - 59**	**60 - 64**	**65 - 69**	**Total[9]**
# of Non-Pinelands Municipalities	0	32	78	20	17	7	0	0	154
% Non-Pinelands	0.0%	20.8%	50.6%	13.0%	11.0%	4.5%	0.0%	0.0%	100.0%
# of Pinelands Municipalities	1	26	13	3	2	1	0	1	47
% Pinelands	2.1%	55.3%	27.7%	6.4%	4.3%	2.1%	0.0%	2.1%	100.0%

1990									
Age Class	**18 - 22**	**23 - 29**	**30 - 34**	**35 - 39**	**40 - 49**	**50 - 59**	**60 - 64**	**65 - 69**	**Total**
# of Non-Pinelands Municipalities	0	10	69	51	15	7	3	0	155
% Non-Pinelands	0.0%	6.5%	44.5%	32.9%	9.7%	4.5%	1.9%	0.0%	100.0%
# of Pinelands Municipalities	0	6	27	11	1	0	0	2	47
% Pinelands	0.0%	12.8%	57.4%	23.4%	2.1%	0.0%	0.0%	4.3%	100.0%

2000									
Age Class	**18 - 22**	**23 - 29**	**30 - 34**	**35 - 39**	**40 - 49**	**50 - 59**	**60 - 64**	**65 - 69**	**Total**
# of Non-Pinelands Municipalities	0	4	19	78	40	13	1	0	155
% Non-Pinelands	0.0%	2.6%	12.3%	50.3%	25.8%	8.4%	0.6%	0.0%	100.0%
# of Pinelands Municipalities	0	0	9	29	7	0	0	2	47
% Pinelands	0.0%	0.0%	19.1%	61.7%	14.9%	0.0%	0.0%	4.3%	100.0%

---

[9]   Municipalities in 1980 totaled 201 due to lack of data for Tavistock Boro (population=9).

Table P3b   Population Under 18 Years of Age Inside and Outside the Pinelands Boundary (Census Block Group Level)

County	Municipality	Population Inside 2000	Population Under 18 Inside	% Under 18 Inside	% Under 18 Outside	Population Under 18 Outside	Population Outside 2000
Ocean	South Toms River	2,877	909	31.6%	34.1%	258	757
Cape May	Upper	2,816	864	30.7%	28.0%	2,603	9,299
Ocean	Lakehurst	2,522	771	30.6%	0.0%	0	0
Burlington	Shamong	6,462	1,898	29.4%	0.0%	0	0
Burlington	Washington	621	182	29.3%	0.0%	0	0
Atlantic	Egg Harbor Twp	16,209	4,663	28.8%	27.5%	3,800	13,841
Atlantic	Egg Harbor City	4,545	1,284	28.3%	0.0%	0	0
Ocean	Little Egg Harbor	989	280	28.3%	23.9%	3,574	14,956
Ocean	Beachwood	1,331	375	28.2%	28.6%	2,585	9,044
Burlington	Pemberton Twp	27,243	7,658	28.1%	18.2%	263	1,448
Burlington	Tabernacle	7,170	2,004	27.9%	0.0%	0	0
Burlington	Medford Twp	18,919	5,245	27.7%	21.9%	729	3,334
Gloucester	Franklin	2,664	735	27.6%	27.7%	3,546	12,802
Atlantic	Buena	865	237	27.4%	25.3%	760	3,008
Ocean	Jackson*	5,627	1,523	27.1%	30.1%	11,178	37,183
Atlantic	Hamilton	19,287	5,199	27.0%	29.2%	354	1,212
Ocean	Stafford	13,390	3,612	27.0%	19.0%	1,740	9,142
Atlantic	Mullica	5,912	1,594	27.0%	0.0%	0	0
Burlington	Bass River	1,510	405	26.8%	0.0%	0	0
Atlantic	Buena Vista	6,248	1,659	26.6%	15.1%	179	1,188
Atlantic	Estell Manor / Weymouth/ Corbin City*	3,177	841	26.5%	30.0%	340	1,133
Gloucester	Monroe	14,813	3,905	26.4%	24.9%	3,522	14,154
Cape May	Dennis	2,135	562	26.3%	29.2%	1,274	4,357
Ocean	Ocean	825	216	26.2%	25.4%	1,427	5,625
Burlington	Evesham	12,827	3,338	26.0%	27.7%	8,147	29,448
Burlington	Woodland	1,170	302	25.8%	0.0%	0	0
Camden	Waterford	10,494	2,701	25.7%	0.0%	0	0
Burlington	Medford Lakes	4,173	1,067	25.6%	0.0%	0	0
Burlington	Wrightstown	39	10	25.6%	29.9%	212	709
Ocean	Lacey	521	130	25.0%	25.6%	6,353	24,825
Atlantic	Folsom	1,972	491	24.9%	0.0%	0	0
Ocean	Jackson / Manchester / Plumsted*	446	108	24.2%	0.0%	0	0
Cape May	Woodbine	2,716	723	23.6%	0.0%	0	0
Camden	Winslow	15,710	3,687	23.5%	33.2%	6,278	18,901
Camden	Chesilhurst	1,520	348	22.9%	0.0%	0	0
Atlantic	Hammonton	12,604	2,874	22.8%	0.0%	0	0
Atlantic	Galloway*	10,658	2,418	22.7%	28.9%	4,470	15,465
Ocean	Barnegat	3,226	467	14.5%	30.4%	3,666	12,044
Burlington	Southampton	6,445	907	14.1%	24.0%	947	3,943
Burlington	New Hanover +	9,109	1,224	13.4%	29.8%	189	635
Cumberland	Maurice River +	5,152	424	8.2%	26.4%	468	1,776
Ocean	Manchester*	10,995	871	7.9%	11.7%	3,206	27,493
Ocean	Berkeley	2,391	7	0.3%	12.1%	4,521	37,434
Atlantic	Galloway / Port Republic*	0	0	0.0%	23.2%	1,423	6,123
Camden	Berlin Twp	0	0	0.0%	25.8%	1,364	5,290
Ocean	Eagleswood	0	0	0.0%	24.7%	356	1,441
Ocean	Plumsted*	0	0	0.0%	28.5%	2,071	7,275
"Outside" Municipalities							
Burlington	North Hanover +	3,090	1,383	44.8%	25.5%	1,085	4,257
Cumberland	Vineland	186	58	31.2%	25.7%	14,405	56,085
Burlington	Springfield	0	0	0.0%	25.8%	833	3,227
Camden	Berlin Boro	0	0	0.0%	24.6%	1,513	6,149

* Some municipalities cannot be isolated because census block groups cut across municipal boundaries. Block groups that are shared by more than one municipality are listed separately.
+ Influenced by group quarters population.

Table P3c **Population Over 64 Years of Age Inside and Outside the Pinelands Boundary (Census Block Group Level)**

County	Municipality	Population Inside 2000	Population Over 64 Inside	% Over 64 Inside	% Over 64 Outside	Population Over 64 Outside	Population Outside 2000
Ocean	Berkeley	2,391	2,076	86.8%	50.0%	18,701	37,434
Ocean	Manchester*	10,995	6,816	62.0%	52.4%	14,394	27,493
Burlington	Southampton	6,445	2,830	43.9%	11.8%	465	3,943
Ocean	Barnegat	3,226	1,315	40.8%	11.8%	1,424	12,044
Burlington	Washington	621	151	24.3%	0.0%	0	0
Atlantic	Hammonton	12,604	2,265	18.0%	0.0%	0	0
Ocean	Stafford	13,390	2,281	17.0%	21.5%	1,963	9,142
Burlington	Wrightstown	39	6	15.4%	8.2%	58	709
Atlantic	Estell Manor / Weymouth/ Corbin City*	3,177	479	15.1%	9.7%	110	1,133
Camden	Chesilhurst	1,520	229	15.1%	0.0%	0	0
Ocean	Jackson*	5,627	811	14.4%	8.6%	3,198	37,183
Atlantic	Egg Harbor City	4,545	633	13.9%	0.0%	0	0
Atlantic	Buena	865	111	12.8%	16.7%	502	3,008
Burlington	Medford Lakes	4,173	516	12.4%	0.0%	0	0
Ocean	Ocean	825	98	11.9%	14.0%	790	5,625
Camden	Winslow	15,710	1,853	11.8%	5.7%	1,086	18,901
Atlantic	Buena Vista	6,248	692	11.1%	37.5%	446	1,188
Gloucester	Monroe	14,813	1,595	10.8%	15.1%	2,142	14,154
Atlantic	Mullica	5,912	630	10.7%	0.0%	0	0
Burlington	Bass River	1,510	161	10.7%	0.0%	0	0
Cape May	Woodbine	2,716	283	10.4%	0.0%	0	0
Atlantic	Galloway*	10,658	1,078	10.1%	6.9%	1,073	15,465
Ocean	Little Egg Harbor	989	98	9.9%	18.2%	2,723	14,956
Atlantic	Folsom	1,972	193	9.8%	0.0%	0	0
Cape May	Dennis	2,135	203	9.5%	13.7%	595	4,357
Ocean	Beachwood	1,331	125	9.4%	8.5%	771	9,044
Burlington	Pemberton Twp	27,243	2,501	9.2%	20.2%	292	1,448
Atlantic	Egg Harbor Twp	16,209	1,477	9.1%	8.7%	1,198	13,841
Gloucester	Franklin	2,664	238	8.9%	9.7%	1,242	12,802
Burlington	Medford Twp	18,919	1,658	8.8%	21.9%	729	3,334
Ocean	South Toms River	2,877	250	8.7%	10.3%	78	757
Ocean	Lacey	521	45	8.6%	15.3%	3,809	24,825
Atlantic	Hamilton	19,287	1,599	8.3%	6.9%	84	1,212
Camden	Waterford	10,494	854	8.1%	0.0%	0	0
Ocean	Lakehurst	2,522	201	8.0%	0.0%	0	0
Burlington	Woodland	1,170	90	7.7%	0.0%	0	0
Cape May	Upper	2,816	203	7.2%	13.6%	1,269	9,299
Burlington	Tabernacle	7,170	502	7.0%	0.0%	0	0
Burlington	Shamong	6,462	386	6.0%	0.0%	0	0
Burlington	Evesham	12,827	732	5.7%	10.2%	3,018	29,448
Cumberland	Maurice River +	5,152	214	4.2%	12.9%	229	1,776
Burlington	New Hanover +	9,109	75	0.8%	7.9%	50	635
Ocean	Jackson / Manchester / Plumsted*	446	0	0.0%	0.0%	0	0
Atlantic	Galloway / Port Republic*	0	0	0.0%	13.1%	803	6,123
Camden	Berlin Twp	0	0	0.0%	12.5%	663	5,290
Ocean	Eagleswood	0	0	0.0%	14.4%	207	1,441
Ocean	Plumsted*	0	0	0.0%	8.5%	621	7,275
"Outside" Municipalities							
Cumberland	Vineland	186	19	10.2%	14.2%	7,957	56,085
Burlington	North Hanover +	3,090	4	0.1%	10.5%	448	4,257
Burlington	Springfield	0	0	0.0%	10.7%	346	3,227
Camden	Berlin Boro	0	0	0.0%	13.6%	837	6,149

* Some municipalities cannot be isolated because census block groups cut across municipal boundaries. Block groups that are shared by more than one municipality are listed separately.
+ Influenced by group quarters population.

Population Estimates

4

US Census Bureau / NJ Dept of Labor 2001 – 2005

- Though population growth slowed in all regions in 2005, the Pinelands communities still grew at more than twice the rate of the Non-Pinelands and the state as a whole.

Population Estimates

	2004 Estimate	2005 Estimate	Change	% Change
New Jersey	8,675,879	8,703,150	27,271	0.3%
South Jersey	2,377,004	2,387,818	10,814	0.5%
Pinelands	670,666	675,977	5,311	0.8%
Non-Pinelands	1,706,338	1,711,841	5,503	0.3%
100% Land in Pines (11 municipalities)	58,701	58,978	277	0.5%
55-99% Land in Pines (19 municipalities)	325,146	327,208	2,062	0.6%
10-54% Land in Pines (17 municipalities)	286,819	289,791	2,972	1.0%

Description: Population estimates are useful for measuring population during, and calculating per capita values for, intercensal years. Population estimates are particularly important in the later half of the decade as the census year becomes more distant and ceases to be a good measure of current population. Unfortunately, estimates further from the census year have a greater margin of error. Estimates are calculated using birth and death rates and a factor for migration. Estimates for 2005 and 2006 will be updated when 2007 estimates are released, and once the next census is taken (2010), estimates for this decade will be re-adjusted for the final time to reflect the new census.

Unit of Analysis: Population data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings:

The population of New Jersey grew by 3.1% between 2000 and 2004, adding just over 261,000 residents. New Jersey's growth was driven by natural increase and international migration. Although internal migration to the state was negative (more US residents moved out than in), the Southern New Jersey region had a positive internal migration (more US residents moved in than out).

The Pinelands municipalities grew more quickly than the Non-Pinelands municipalities and the state from 2000 to 2004, increasing by 8.9% (compared to 3.1% statewide growth and 5.0% growth in South Jersey). Components of population growth (natural increase and migration) cannot be calculated for the Pinelands and Non-Pinelands as this information is not available below the county level.

Update:

Population growth slowed considerably throughout all regions of the state between 2004 and 2005. Despite this slowdown, the same patterns of growth continued in 2005. The Pinelands communities grew at almost three times the rate of both the state as a whole and the rest of South Jersey (Pines +0.8%, Non-Pines South Jersey +0.3%, and Statewide +0.3%). However, upon closer examination it appears that past inside/outside growth trends uncovered by the census block analysis appear to be continuing. The 11 communities with their land area entirely within the Pinelands boundary showed a 0.5% increase in population in 2005. Those communities that straddle the Pinelands boundary showed considerably higher growth as the percentage of land in the Pinelands decreases (see table above). This suggests that much of the growth may in fact be occurring just outside of the Pinelands boundary.

The following Pinelands communities ranked in the top 10% of South Jersey municipalities in both absolute population growth and percentage population growth: Winslow, Barnegat, Egg Harbor Township, Little Egg Harbor,

and Ocean Township (see Table P4). In comparison, six South Jersey communities outside the Pines achieved such growth: Lakewood (+2,192, +3.3%), Woolwich (+1,402, +22.9%), Bridgeton (+1,195, +5.3%), Mantua (+630, +4.4%), Harrison (+358, +3.3%), and Bordentown Township (+307, +3.1%).

Table P4   Population Estimates

Municipality	County	2004	2005	Change	South Jersey Rank : Change	% Change	South Jersey Rank : % Change
Winslow	Camden	36,061	37,371	1,310	3	3.6%	11
Barnegat	Ocean	19,177	20,314	1,137	5	5.9%	4
Egg Harbor Township	Atlantic	36,877	37,994	1,117	6	3.0%	15
Galloway	Atlantic	35,058	35,744	686	9	2.0%	27
Little Egg Harbor	Ocean	19,334	19,840	506	11	2.6%	18
Monroe	Gloucester	30,960	31,349	389	12	1.3%	37
Ocean	Ocean	7,492	7,822	330	16	4.4%	9
Stafford	Ocean	24,944	25,249	305	18	1.2%	38
Jackson	Ocean	51,607	51,886	279	19	0.5%	61
Hammonton	Atlantic	13,280	13,551	271	20	2.0%	24
Franklin	Gloucester	16,378	16,601	223	24	1.4%	33
Hamilton	Atlantic	23,699	23,839	140	30	0.6%	59
Maurice River	Cumberland	7,542	7,662	120	32	1.6%	31
Port Republic	Atlantic	1,140	1,191	51	48	4.5%	7
Chesilhurst	Camden	1,811	1,858	47	49	2.6%	19
Eagleswood	Ocean	1,534	1,565	31	56	2.0%	25
Mullica	Atlantic	6,070	6,093	23	60	0.4%	71
Shamong	Burlington	6,827	6,844	17	64	0.2%	76
Lacey	Ocean	26,221	26,236	15	66	0.1%	93
Estell Manor	Atlantic	1,707	1,718	11	73	0.6%	58
Berlin Township	Camden	5,372	5,379	7	75	0.1%	84
Plumsted	Ocean	8,045	8,050	5	78	0.1%	92
Washington	Burlington	640	643	3	85	0.5%	64
Woodland	Burlington	1,364	1,363	-1	96	-0.1%	105
South Toms River	Ocean	3,699	3,697	-2	101	-0.1%	102
Waterford	Camden	10,679	10,674	-5	105	0.0%	101
Beachwood	Ocean	10,740	10,735	-5	105	0.0%	100
Weymouth	Atlantic	2,325	2,319	-6	110	-0.3%	115
Wrightstown	Burlington	749	743	-6	110	-0.8%	178
Bass River	Burlington	1,564	1,557	-7	113	-0.4%	133
Lakehurst	Ocean	2,690	2,682	-8	116	-0.3%	122
Folsom	Atlantic	1,979	1,967	-12	125	-0.6%	157
Egg Harbor City	Atlantic	4,500	4,486	-14	128	-0.3%	123
Berkeley	Ocean	42,527	42,513	-14	128	0.0%	97
Tabernacle	Burlington	7,349	7,328	-21	137	-0.3%	120
Buena	Atlantic	3,862	3,837	-25	143	-0.6%	162
Medford Lakes	Burlington	4,202	4,171	-31	149	-0.7%	168
Buena Vista	Atlantic	7,563	7,519	-44	160	-0.6%	153
Evesham	Burlington	46,858	46,804	-54	167	-0.1%	107
Woodbine	Cape May	2,616	2,559	-57	168	-2.2%	194
Southampton	Burlington	10,952	10,894	-58	171	-0.5%	143
Medford	Burlington	23,568	23,437	-131	186	-0.6%	149
Pemberton Township	Burlington	28,967	28,802	-165	188	-0.6%	152
Dennis	Cape May	6,225	6,050	-175	189	-2.8%	195
Manchester	Ocean	42,112	41,903	-209	192	-0.5%	138
New Hanover	Burlington	9,815	9,500	-315	197	-3.2%	201
Upper	Cape May	11,985	11,638	-347	199	-2.9%	197
"Outside" Munis							
Berlin Borough	Camden	7,595	7,815	220	26	2.9%	16
Corbin City	Atlantic	525	530	5	78	1.0%	45
Springfield	Burlington	3,543	3,546	3	85	0.1%	90
North Hanover	Burlington	7,582	7,577	-5	105	-0.1%	103
Vineland	Cumberland	58,009	57,986	-23	141	0.0%	98

Figure P4   Population Change 2000 – 2005
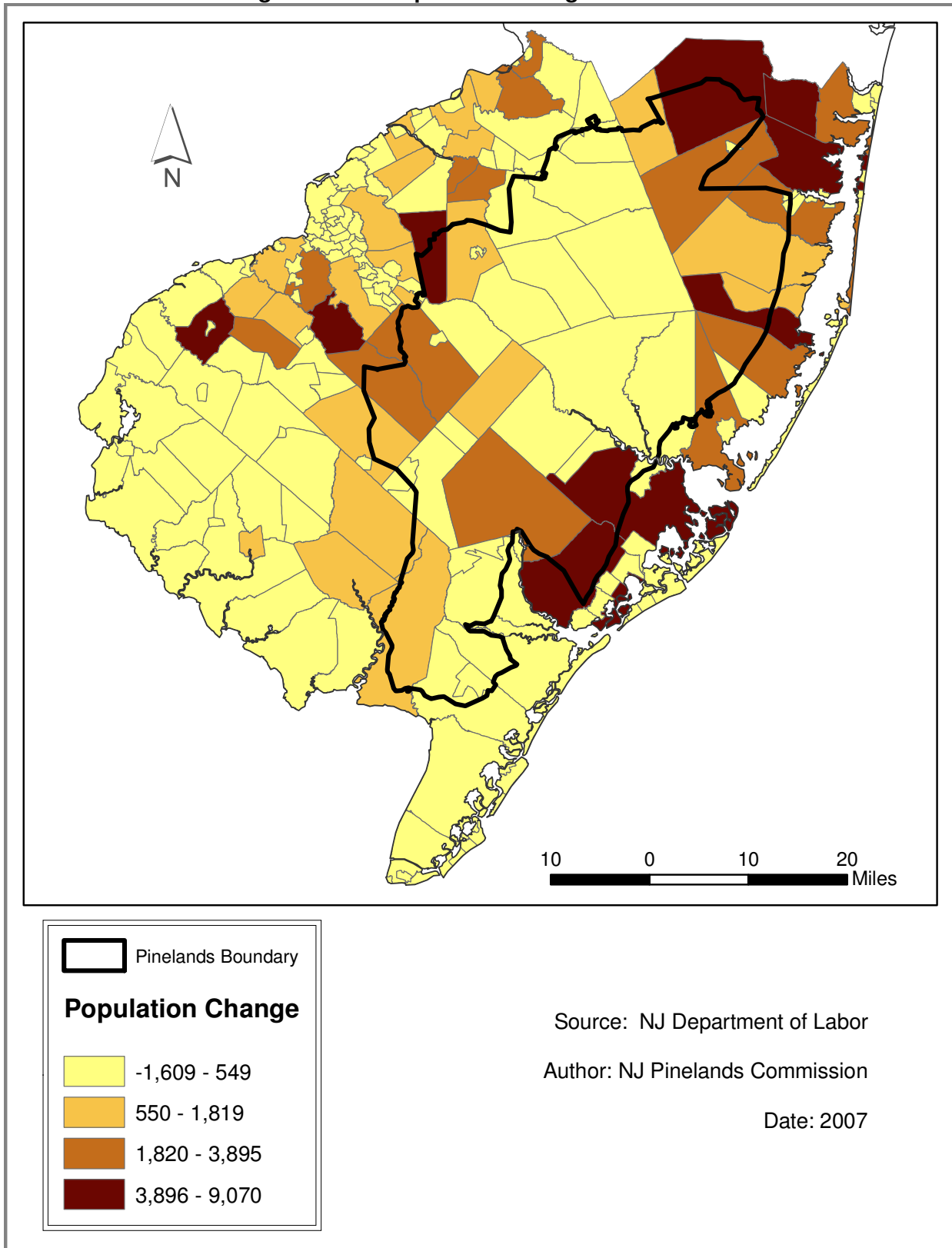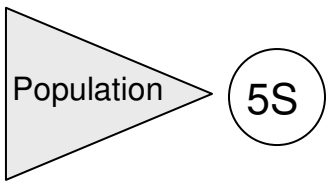
Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007

Pinelands Boundary

Population Change

- -1,609 - 549
- 550 - 1,819
- 1,820 - 3,895
- 3,896 - 9,070

- From 2005-2007, school districts in the Pinelands added 1,900 students. Over the same period, enrollment in Non-Pinelands districts declined by more than 4,300 students.

Total Student Population 2005 – 2007

	Total Students 2005	Total Students 2007	Change	% Change
Pinelands (45 districts)	99,498	101,399	+ 1,902	+ 1.9%
Non-Pinelands (150 districts)	279,744	275,364	- 4,380	- 1.6%

Description: The New Jersey Department of Education keeps historical records on the total enrollment in each district across the state. These annual enrollment tallies are taken at uniform dates each year (October 15) in order to facilitate comparison across districts and across years. While the student populations are characterized into sub-groups by the state for analysis reasons, the number reported here includes both the general student population as well as the special education student population. It should be noted that the data included here may underestimate the actual student population in the Pinelands since it does not include students in private schools. However, since this analysis is concerned with the property tax implications of student population growth it is probably proper to exclude private school students from the count. However, one caveat can be made here: there is always the chance that school aged students in private schools will at some point avail themselves of their public education alternatives.

Unit of Analysis: Population data are compiled at the school district level and aggregated to allow for inside/outside Pinelands analyses. For those districts that are regional in nature, each was classified as either "In" the Pinelands or "Out" of the Pinelands based on the percentage of students that reside in Pinelands communities that attend those schools.

Summary of Previous Findings:

The data collected last year strongly confirmed the hypothesis that the Pinelands region contains most of the fastest growing school districts in South Jersey. As a group, the school districts in the Pinelands (45 districts) experienced a 5.0% increase in their student populations over the three year period from 2002 – 2005. Over the same time period the Non-Pinelands districts (150 districts) increased their student base by only 2.0%. Upon closer examination, the data reveals some interesting findings. The Pinelands communities are disproportionately represented at the high end of the spectrum of increases over the same time period. While Pinelands communities represent about 25% of all the districts in South Jersey, they accounted for 70% of the top 10 fastest growing districts from 2002-2005. All of the following Pinelands districts rank in the top 10 among South Jersey for the absolute number of new students added over the three year period: Egg Harbor Township (1st), Jackson (2nd), Hammonton (3rd), Lenape Regional (5th), Monroe (6th), Greater Egg Harbor Regional (7th), and Barnegat (9th). Among the Pinelands communities with decreasing enrollment over the same period, only two exhibited significant drops in student population: Pemberton Township (-272 students or -4.7% of total student base) and Winslow Township (-287 and -4.4%).

Update:

New data obtained for the years 2006 and 2007 show that school student population migration has intensified in South Jersey in the past two years. Over the two-year period 2005-2007, Pinelands' school districts added just over 1,900 students for a two year increase of 1.9%. In contrast, school districts in the Non-Pinelands region experienced a decline in enrollment of 1.6% for the same time period (a drop of more than 4,300 students). While comprising just 25% of the total number of districts in South Jersey, the Pinelands region had 50% of the top 10 fastest growing districts from 2005-2007. In fact, only four districts in South Jersey added in excess of 400 students in the past two years, and all four are located in the Pinelands: Barnegat (+ 537 students), Egg Harbor Township (+531), Monroe Township (+501), and Hamilton (+415).

While it is important to look at those districts experiencing rapid growth for clues to areas that may need capital infrastructure additions or improvements in the near future, it is also instructive to examine those districts experiencing large decreases in student population in the short term. Rapidly declining enrollment can increase the tax burden on the remaining residents, and sometimes is an indication of a decline in educational quality in a district. Large declines in enrollment sometimes also can lead to opportunities for regionalization in efforts to capitalize on underutilized space.

Only one Pinelands district experienced a significant decline in enrollment from 2005-2007. Pemberton Township saw enrollment decline by 336 students in the past two years (a decline of 6%). Since 2002, Pemberton Township school district enrollment has declined by over 600 students, or 10.4%. In the Non-Pinelands region, five districts had rapid decreases in enrollment in the past two years: Camden (-1,171 students, or -7.0%), Willingboro Township (-684, or -12.1%), Southern Regional (-465, or -12.4%), Brigantine (-255, or -22.4%), and Pleasantville (-302, or 8.1%).

From 2005-2007, 24 of the 45 Pinelands districts (53%) showed an increase in enrollment. In the Non-Pinelands, only 38% of districts (57 of 150) increased enrollment for the two year period.

Table P5 School Student Population in Pinelands Municipalities 2005-2007

COUNTY	DISTRICT NAME	2005	2007	Change	% Change
Ocean	Barnegat Twp	2,513	3,050	537	21.3%
Atlantic	Egg Harbor Twp	6,953	7,484	531	7.6%
Gloucester	Monroe Twp	5,485	5,986	501	9.1%
Atlantic	Hamilton Twp	2,810	3,225	415	14.8%
Burlington	Lenape Regional	7,197	7,447	250	3.5%
Ocean	Jackson Twp	9,528	9,681	153	1.6%
Ocean	Manchester Twp	3,225	3,363	138	4.3%
Atlantic	Greater Egg Harbor Reg	3,782	3,914	132	3.5%
Atlantic	Galloway Twp	3,667	3,791	124	3.4%
Gloucester	Franklin Twp	1,431	1,525	94	6.6%
Ocean	Little Egg Harbor Twp	1,630	1,712	82	5.0%
Ocean	Plumsted Twp	1,775	1,823	49	2.7%
Burlington	Medford Twp	3,029	3,071	42	1.4%
Ocean	Pinelands Regional	1,857	1,895	38	2.0%
Camden	Winslow Twp	6,243	6,278	35	0.6%
Ocean	Stafford Twp	2,476	2,494	18	0.7%
Atlantic	Weymouth Twp	245	258	13	5.3%
Burlington	New Hanover Twp	150	162	12	8.0%
Atlantic	Hammonton Town	3,314	3,326	12	0.3%
Atlantic	Folsom Boro	381	392	11	2.9%
Burlington	Woodland Twp	151	155	4	2.6%
Atlantic	Port Republic City	131	134	3	2.3%
Atlantic	Egg Harbor City	518	520	2	0.4%
Ocean	Berkeley Twp	1,907	1,908	1	0.1%
Cape May	Woodbine Boro	237	236	-1	-0.4%
Atlantic	Estell Manor City	220	218	-2	-0.9%
Burlington	Bass River Twp	129	127	-2	-1.6%
Ocean	Lacey Twp	5,011	5,005	-7	-0.1%
Cape May	Dennis Twp	723	716	-7	-1.0%
Burlington	Medford Lakes Boro	535	525	-10	-1.9%
Atlantic	Buena Regional	2,607	2,594	-13	-0.5%
Burlington	Shamong Twp	958	943	-15	-1.6%
Ocean	Lakehurst Boro	485	469	-16	-3.2%
Cumberland	Maurice River Twp	408	390	-18	-4.4%
Burlington	Southampton Twp	829	799	-30	-3.6%
Burlington	Washington Twp	102	71	-31	-30.4%
Camden	Chesilhurst	150	118	-32	-21.3%
Camden	Waterford Twp	959	921	-38	-4.0%
Camden	Berlin Twp	671	615	-56	-8.3%
Ocean	Ocean Twp	614	556	-58	-9.4%
Atlantic	Mullica Twp	859	744	-115	-13.4%
Cape May	Upper Twp	1,699	1,580	-120	-7.0%
Burlington	Tabernacle Twp	1,066	895	-171	-16.0%
Burlington	Evesham Twp	5,277	5,060	-217	-4.1%
Burlington	Pemberton Twp	5,562	5,226	-336	-6.0%

Building Permits for Dwelling Units

New Jersey Department of Labor 1980 – 2006 ▢ X *Updated*

> • Building permits in the Pinelands had their biggest one year decline in over a decade in 2006. Activity in the region has fallen sharply in the past three years (-42%), while at the same time increasing statewide (+4.7%) and falling only slightly in the Non-Pines (-1.6%)

Avg # Dwelling Units Authorized by Building Permits
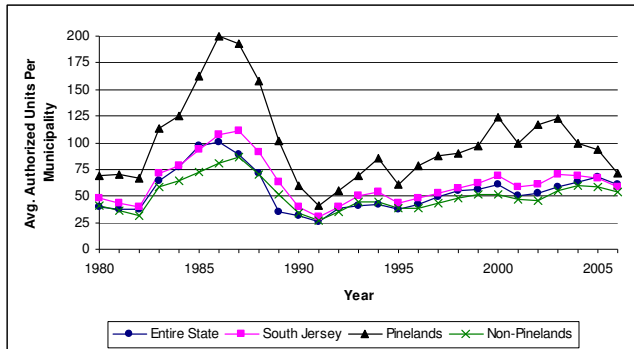
Index of Dwelling Units Authorized by Building Permits
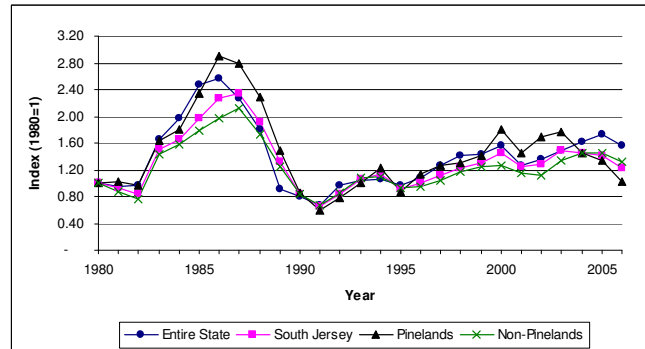
Description: Building permit activity measures the number of dwelling units authorized for construction as reported by municipal building inspectors in New Jersey.

Unit of Analysis: Municipal level data are aggregated to allow for inside/outside Pinelands, regional, and statewide analyses. The aggregation method calculates the average units authorized per municipality.

Summary of Previous Findings

The overall trend in permits for dwelling units followed the broad cycle of economic activity, from a building boom in the mid-1980s to recession at the turn of the decade and subsequent recovery. The average number of permits issued by Pinelands municipalities was consistently higher and experienced somewhat higher volatility than other areas throughout the monitoring period. This finding is not surprising because the Pinelands region is less developed than the other regions. Another factor involved is the residential build-up that followed the beginning of casino gambling in Atlantic City in the early 1980s.

Building permit activity has gradually increased in all regions of the state from 1995 to 2003, except for a dip in activity during 2001 due to the onset of economic recession. Pinelands municipalities that ranked highest in building permits during the 1990s tended to be suburban municipalities in the northern and/or eastern Pinelands region. However, much of this building activity actually occurred outside Pinelands boundaries with few exceptions. An analysis conducted in 2001 suggested that as little as 18% of all Pinelands municipalities' building permits were actually directed within the Pinelands boundary. The Pinelands average is traditionally high because it is influenced by a few towns which are experiencing rapid growth – some in regional growth areas inside the Pinelands boundary, others in areas outside the Pinelands boundary. The Non-Pinelands average is affected by a larger number of municipalities that are smaller in land area and / or have little or no remaining developable land. These municipalities drive the Non-Pinelands average downward.

There was a dramatic shift in building permit activity in the Pinelands in 2004 and 2005. During those two years, the average number of permits issued in the Pinelands decreased from 122 to 93, a decline of 23.8%. In contrast, the state as a whole increased permit activity by 17.2% (from 58 to 68), and the Non-Pinelands South Jersey municipalities increased permits by 7.3% (from 55 to 59). In fact, the 2004/2005 period marked the first time since 1987/1988 that building permit activity decreased in the Pinelands in consecutive years.

Update:

The shift in building permit activity in the Pinelands that started in 2004 accelerated significantly in 2006. The average number of permits (by municipality) issued in the Pinelands decreased from 93 to 71, a decline of 23.7%. Unlike in 2005, all of the other regions of the state also experienced a decline in permit activity in 2006, although

none dropped as quickly as the Pinelands. The state as a whole saw a decrease in permit activity of 10.5% (from 68 to 61) while the Non-Pinelands South Jersey municipalities permits dropped by 8.5% (from 59 to 54).

As was the case in 2005, the drop in permits in the Pinelands was fairly uniform in 2006. Table R1 illustrates the reason for the rather precipitous drop overall in the region – the seven biggest decreases in activity among the municipalities in the Pinelands accounted for almost 900 fewer permits being issued (Jackson, Barnegat, Little Egg Harbor, Galloway, Hamilton, Winslow, and Stafford together experienced a 37.2% decline in permits). Only Egg Harbor Township showed an appreciable increase in activity in 2006, adding almost 100 permits issued for a 19% increase for the year.

This year's significant drop in permit activity on top of 2004s substantial decrease may indicate the beginning of a change in building permit trends for the Pinelands relative to the rest of the State. Another plausible explanation for this changing trend may be that a slowdown in the housing market is likely to have a greater effect on those municipalities that are experiencing more building activity. Since the Pinelands region has consistently shown more building permit activity over recent years than the Non-Pinelands, the decrease in activity in the Pinelands may be a signal that the housing development market is entering a "cooling off" period.

Table R1   Residential Building Permits[10]

Municipality	County	Permits Issued		Absolute Change	% Change	5 Year Avg	Permits 2002-2006
		2006	2005				
Egg Harbor Township	Atlantic	616	519	97	19%	642	3,211
New Hanover	Burlington	21	0	21	N/A	7	36
Lakehurst	Ocean	16	1	15	1500%	5	24
Medford Lakes	Burlington	16	5	11	220%	6	30
Woodbine	Cape May	18	7	11	157%	11	55
Beachwood	Ocean	23	15	8	53%	19	94
Mullica	Atlantic	29	24	5	21%	26	132
Wrightstown	Burlington	5	1	4	400%	1	7
Egg Harbor City	Atlantic	14	11	3	27%	10	52
Maurice River	Cumberland	14	11	3	27%	9	43
Hammonton	Atlantic	81	79	2	3%	107	535
Estell Manor	Atlantic	10	8	2	25%	11	56
Buena	Atlantic	8	6	2	33%	8	38
Folsom	Atlantic	3	2	1	50%	3	13
Weymouth	Atlantic	3	2	1	50%	6	29
Bass River	Burlington	8	9	-1	-11%	6	31
Washington	Burlington	2	4	-2	-50%	2	12
Woodland	Burlington	5	7	-2	-29%	5	27
Tabernacle	Burlington	11	15	-4	-27%	12	61
South Toms River	Ocean	5	9	-4	-44%	6	29
Chesilhurst	Camden	7	12	-5	-42%	21	104
Dennis	Cape May	13	18	-5	-28%	18	91
Shamong	Burlington	15	21	-6	-29%	24	121
Berlin Township	Camden	15	21	-6	-29%	16	82
Plumsted	Ocean	30	38	-8	-21%	29	144
Berkeley	Ocean	102	111	-9	-8%	130	652
Eagleswood	Ocean	18	27	-9	-33%	17	85
Franklin	Gloucester	91	101	-10	-10%	105	526
Monroe	Gloucester	237	248	-11	-4%	260	1,301
Ocean	Ocean	201	212	-11	-5%	191	956
Waterford	Camden	18	31	-13	-42%	22	111
Buena Vista	Atlantic	9	24	-15	-63%	17	87
Evesham	Burlington	30	46	-16	-35%	201	1,004
Medford	Burlington	10	27	-17	-63%	44	222
Port Republic	Atlantic	4	23	-19	-83%	17	85
Southampton	Burlington	68	88	-20	-23%	53	263
Manchester	Ocean	1	24	-23	-96%	106	531
Upper	Cape May	22	48	-26	-54%	71	357
Lacey	Ocean	35	63	-28	-44%	38	188
Pemberton Township	Burlington	26	68	-42	-62%	37	183
Jackson	Ocean	146	209	-63	-30%	396	1,982
Barnegat	Ocean	300	386	-86	-22%	465	2,325
Little Egg Harbor	Ocean	143	259	-116	-45%	309	1,547
Galloway	Atlantic	226	348	-122	-35%	320	1,599
Hamilton	Atlantic	192	331	-139	-42%	268	1,338
Winslow	Camden	377	538	-161	-30%	393	1,967
Stafford	Ocean	115	315	-200	-63%	263	1,314
"Outside" Munis							
Vineland	Cumberland	213	139	74	53%	159	796
North Hanover	Burlington	15	15	0	0%	18	90
Corbin City	Atlantic	2	3	-1	-33%	4	20
Springfield	Burlington	5	15	-10	-67%	15	73
Berlin Borough	Camden	20	52	-32	-62%	102	512

---

10 Municipalities with small populations tend to experience greater volatility from one year to the next. This applies to all variables in this report, not just with building permits.

Figure R1   Residential Building Permits Issued 2006

Pinelands Boundary

Building Permits

- 0 - 75
- 76 - 150
- 151 - 300
- 301 - 1,657

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007
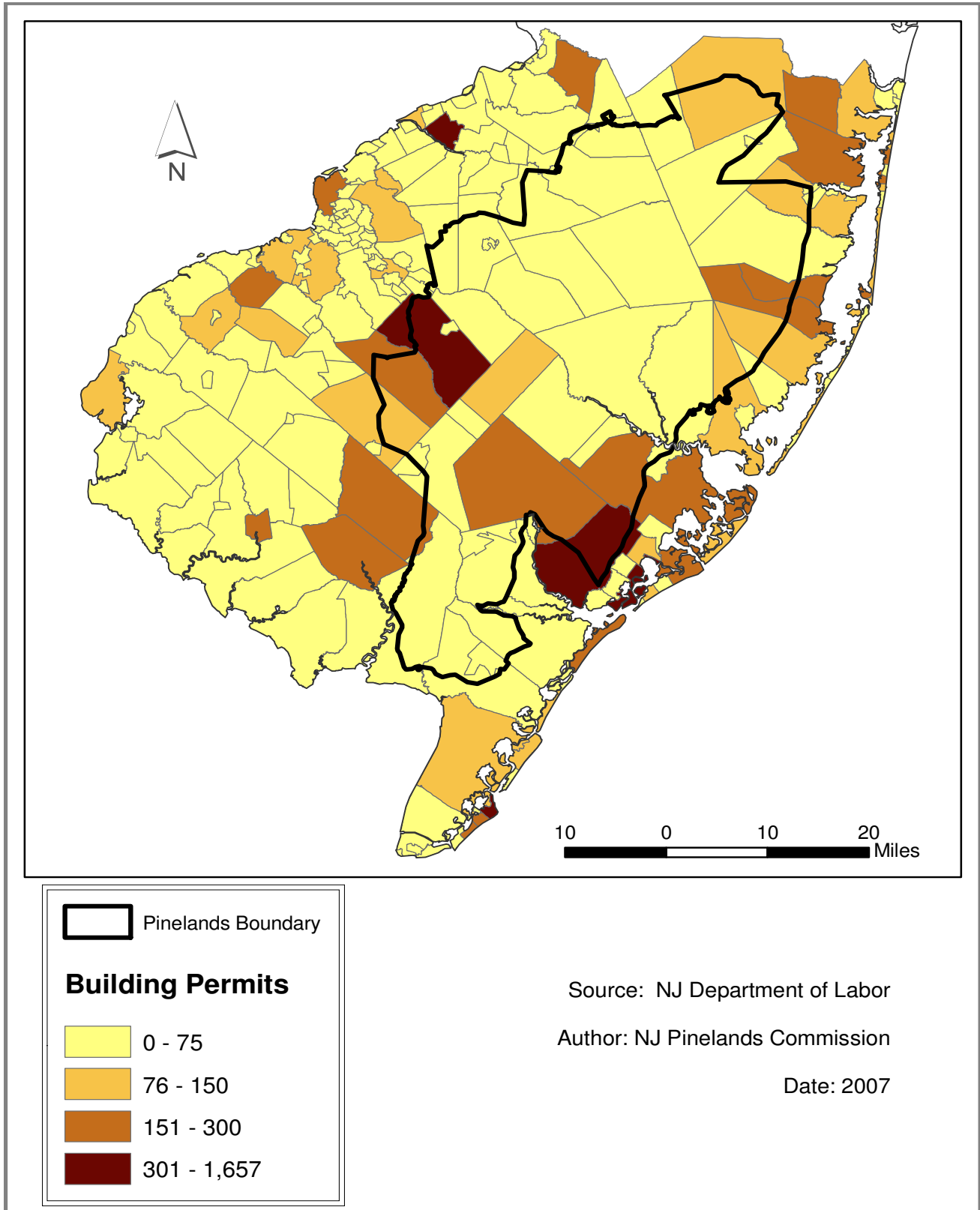
Residential Real Estate Transactions

NJ Dept of Treasury, Div of Taxation 1988 – 2006 ⬜ X *Updated*

- The real estate boom that began in 1997 and continued through 2004 appears to be over. Transactions fell by more than 20% across all regions in 2006. Activity in the Pinelands fell by 23%, marking the largest one-year decline in the monitoring period.

Index of Residential Property Transactions
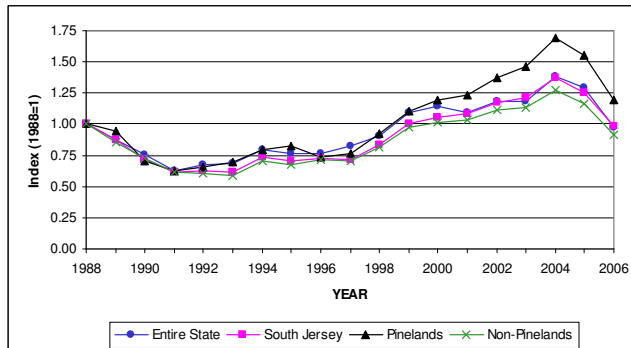
Percentage of Total Housing Transactions by Region

Non-Pinelands 28%

Pinelands 8%

North Jersey 63%

Entire State — South Jersey — Pinelands — Non-Pinelands
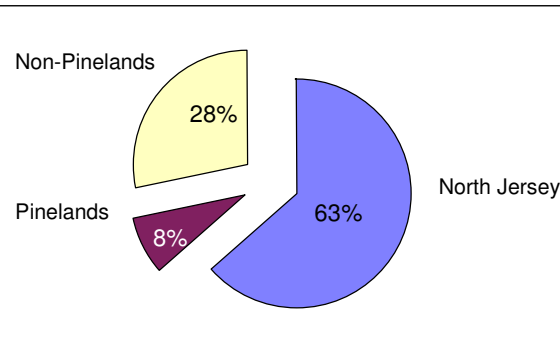
Description: The number of homes sold in each municipality is derived from useable sales data compiled by the New Jersey Department of Treasury.

Unit of Analysis: Real estate transaction data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands analysis.

Summary of Previous Findings

The proportion of residential real estate transactions in the Pinelands (relative to the number of state transactions) remained relatively steady over the course of the monitoring period from 1988 to 1999. The Pinelands share of total transactions has been increasing since 1999. The actual number of transactions in all regions of the state declined substantially from the beginning of monitoring in 1988 through 1991. Residential real estate transactions increased statewide between 1991and 1996 followed by more substantial increases through 2004. In 2005, activity showed a uniform decline of 7%, marking the first time since 1991 that transactions in all regions of the State decreased simultaneously.

Update:

The pace of residential transactions that began to slow somewhat in 2005 dropped precipitously in 2006. For the first time in the monitoring period, all regions of the state experienced a decline in the total number of transactions of greater than 20%. Transactions decreased statewide by 24.7% in 2006. In South Jersey, the Pinelands (-23.4%) decreased at a slightly higher rate than the Non-Pinelands (-21.1%).   This marked the first time in seven years that the Pinelands percentage change in transactions was smaller than the Non-Pinelands region.

The geographic pattern of transaction activity in the Pinelands remained relatively the same, with Berkeley, Evesham, Jackson, and Galloway again holding the top four spots for number of transactions. As is the case with building permits, much of the activity in real estate transactions is occurring on the fringes of the Pinelands (Figure R2). The phenomenal growth in Ocean County again slowed considerably in 2006. Five of the top ten largest absolute decreases for Pinelands municipalities in 2006 were in Ocean County – Berkeley, Barnegat, Stafford, Manchester, and Lacey together decreased their real estate transaction volume by over 1,200 (Table R2). This marks quite a reversal, as Berkeley and Jackson ranked 1st and 2nd as recently as 2004 for the total increase in all Pinelands municipalities.

Table R2   Residential Housing Transactions

Municipality	County	2006	2005	Change	% Change	5 Year Avg
Little Egg Harbor	Ocean	370	195	175	90%	458
Upper	Cape May	113	72	41	57%	150
Egg Harbor City	Atlantic	49	15	34	227%	47
Tabernacle	Burlington	54	34	20	59%	74
Lakehurst	Ocean	35	17	18	106%	32
South Toms River	Ocean	41	24	17	71%	45
Buena Vista	Atlantic	19	4	15	375%	23
Dennis	Cape May	41	26	15	58%	57
Eagleswood	Ocean	8	4	4	100%	17
Weymouth	Atlantic	3	0	3	N/A	8
Port Republic	Atlantic	9	7	2	29%	11
Maurice River	Cumberland	28	27	1	4%	26
New Hanover	Burlington	4	6	-2	-33%	6
Shamong	Burlington	72	76	-4	-5%	79
Wrightstown	Burlington	0	5	-5	-100%	2
Chesilhurst	Camden	16	22	-6	-27%	14
Bass River	Burlington	12	18	-6	-33%	12
Mullica	Atlantic	62	69	-7	-10%	61
Washington	Burlington	2	9	-7	-78%	5
Berlin Township	Camden	53	61	-8	-13%	57
Folsom	Atlantic	19	28	-9	-32%	21
Medford Lakes	Burlington	64	75	-11	-15%	73
Woodland	Burlington	11	23	-12	-52%	14
Woodbine	Cape May	2	14	-12	-86%	7
Estell Manor	Atlantic	6	22	-16	-73%	15
Ocean	Ocean	134	160	-26	-16%	155
Buena	Atlantic	20	49	-29	-59%	36
Franklin	Gloucester	153	186	-33	-18%	153
Hammonton	Atlantic	117	152	-35	-23%	134
Waterford	Camden	127	169	-42	-25%	154
Southampton	Burlington	189	232	-43	-19%	184
Plumsted	Ocean	25	79	-54	-68%	69
Pemberton Township	Burlington	392	451	-59	-13%	371
Medford	Burlington	272	335	-63	-19%	370
Beachwood	Ocean	55	172	-117	-68%	161
Monroe	Gloucester	423	545	-122	-22%	412
Jackson	Ocean	636	760	-124	-16%	754
Hamilton	Atlantic	514	664	-150	-23%	522
Lacey	Ocean	422	607	-185	-30%	565
Manchester	Ocean	454	643	-189	-29%	564
Evesham	Burlington	795	994	-199	-20%	945
Egg Harbor Township	Atlantic	548	747	-199	-27%	615
Stafford	Ocean	357	565	-208	-37%	506
Winslow	Camden	704	913	-209	-23%	745
Galloway	Atlantic	657	877	-220	-25%	803
Barnegat	Ocean	83	390	-307	-79%	303
Berkeley	Ocean	721	1,057	-336	-32%	1,013
"Outside" Municipalities						
North Hanover	Burlington	18	13	5	38%	14
Corbin City	Atlantic	1	7	-6	-86%	3
Springfield	Burlington	16	27	-11	-41%	25
Berlin Borough	Camden	83	102	-19	-19%	93
Vineland	Cumberland	527	678	-151	-22%	554

Figure R2   Residential Housing Transactions 2006
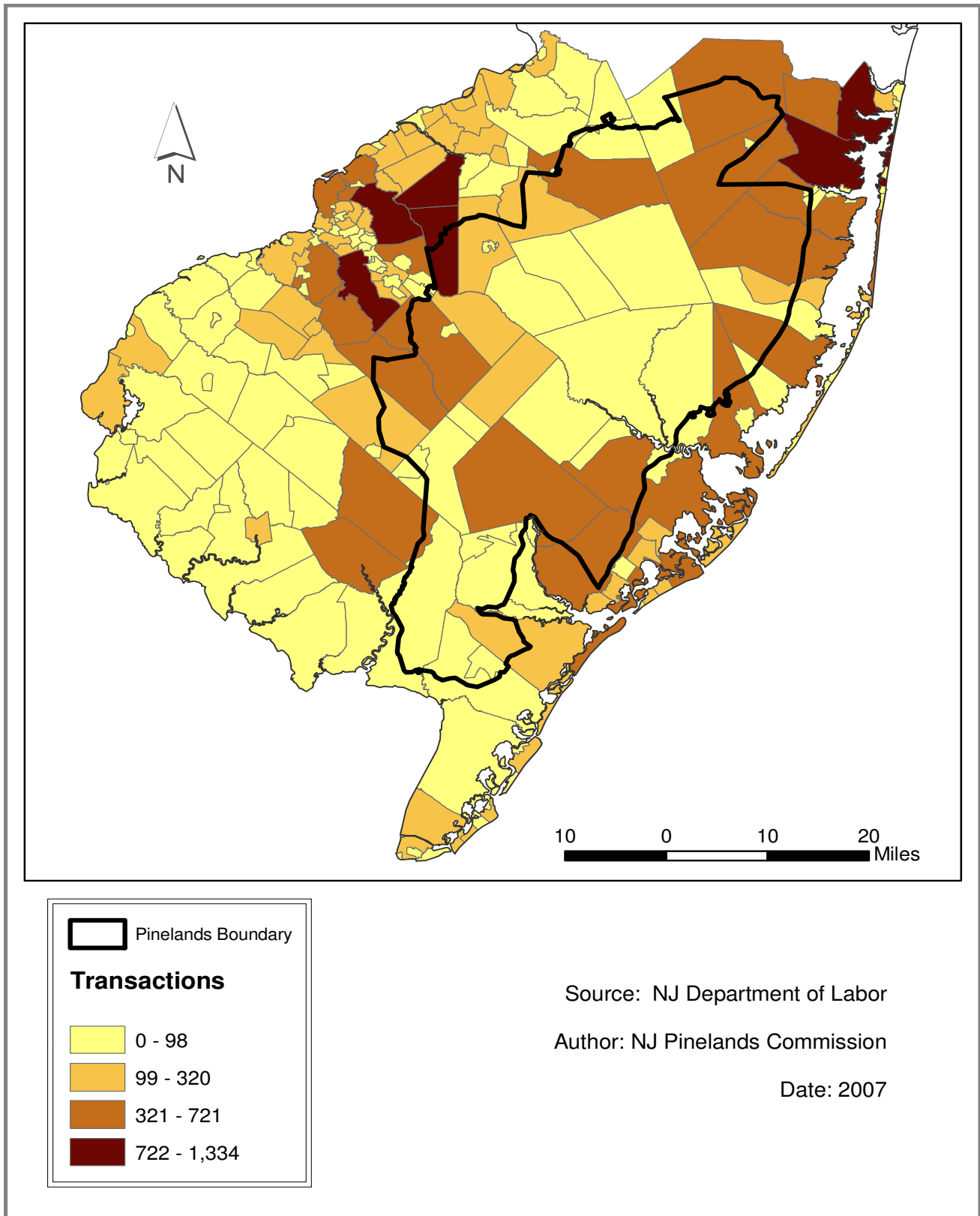
Pinelands Boundary

Transactions

- 0 - 98
- 99 - 320
- 321 - 721
- 722 - 1,334

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007

- • The median selling price of homes in the Pinelands increased 87% during the tremendous boom in housing prices from 2001 to 2005. In 2006, home prices dropped slightly across all regions as real estate activity cooled considerably.

Median Sale Price of Homes
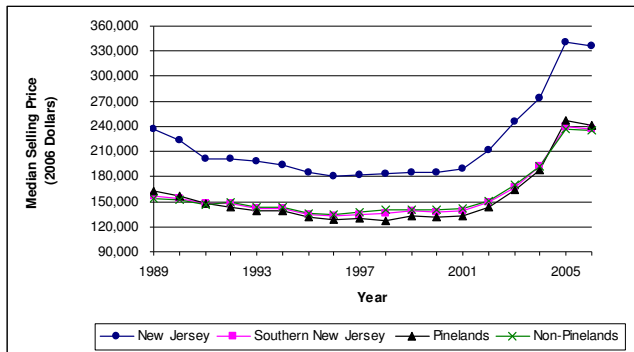
Index of Median Sale Price of Homes
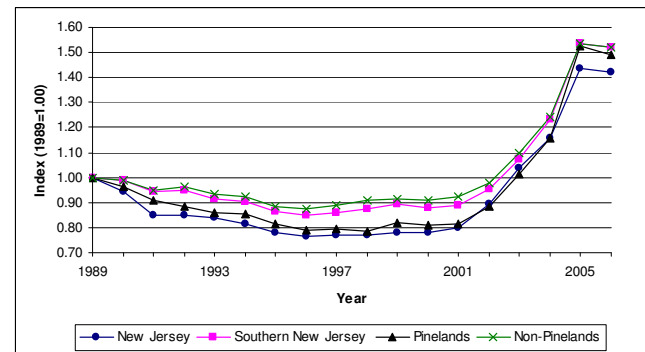
Description: The median selling price for homes sold in each municipality in a given year is derived from sales data compiled by the New Jersey Department of Treasury. Selling prices are shown in 2005 dollars.

Unit of Analysis: Data on median selling prices are compiled at the municipal level and are derived from the middle value from the total number of sales for each region for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings

Median selling prices of homes inside and outside of the Pinelands declined from the beginning of the monitoring period (1989) into the early 1990s, and increased slightly in subsequent years through 2001. This period encompassed the end of a real estate boom, recession, and subsequent recovery. Prices began to escalate for all regions in 2002, in spite of a recession in 2001 and weak job market thereafter. Prices have continued their steady climb ever since across all regions. Overall, median selling prices were slightly higher in the Non-Pinelands than in the Pinelands, which is consistent with data from the years prior to implementation of the CMP and shortly thereafter (see, for example, *Economic & Fiscal Impacts of the Comprehensive Management Plan*, New Jersey Pinelands Commission, 1983). Historically, median selling prices at the state level have been substantially higher than those for Southern New Jersey.

Update:

The median sales price of homes finally began to level off somewhat in 2006 as activity in the real estate market slowed considerably. The median inflation-adjusted sales price of a home fell by 2.3% in the Pinelands. Home prices fell statewide by 1.1%, while the Non-Pinelands region saw a decrease of just 1.0% for the year. The median sales price for a home in the Pinelands was $242,000 in 2006, compared to $235,000 for the Non-Pinelands.

This marks the second consecutive year that the median sales price for homes in the Pinelands is higher than for homes in the Non-Pinelands. As recently as 1998, the median sales price in the Pinelands was 6.8% lower than the Non-Pinelands. The median sales price for a Pinelands home in 2006 was 3.0% higher than the Non-Pinelands.

Among Pinelands municipalities, four of the top five municipalities were located in Burlington County (Shamong, Medford, New Hanover, and Tabernacle) and had median sales prices in excess of $350,000. Plumsted in Ocean County was the lone Pinelands municipality with a median home sale price in excess of $400,000.

Table R3   Median Home Values - 2006

Municipality	County	Median Sales Price	South Jersey Rank
Plumsted	Ocean	$410,000	24
Shamong	Burlington	$381,750	29
Medford	Burlington	$381,225	30
New Hanover	Burlington	$361,250	32
Tabernacle	Burlington	$360,200	33
Port Republic	Atlantic	$353,000	36
Estell Manor	Atlantic	$347,500	38
Jackson	Ocean	$342,488	39
Stafford	Ocean	$341,000	40
Upper	Cape May	$300,000	50
Medford Lakes	Burlington	$293,500	56
Washington	Burlington	$293,250	57
Weymouth	Atlantic	$293,000	58
Barnegat	Ocean	$290,000	59
Dennis	Cape May	$280,000	63
Lacey	Ocean	$279,050	66
Beachwood	Ocean	$272,500	72
Woodbine	Cape May	$269,000	73
Eagleswood	Ocean	$267,500	74
Evesham	Burlington	$267,000	75
Egg Harbor Township	Atlantic	$257,750	81
Little Egg Harbor	Ocean	$255,000	82
Ocean	Ocean	$240,000	90
South Toms River	Ocean	$235,000	94
Bass River	Burlington	$232,000	96
Woodland	Burlington	$230,000	98
Manchester	Ocean	$230,000	98
Hammonton	Atlantic	$225,000	101
Franklin	Gloucester	$225,000	101
Monroe	Gloucester	$224,890	103
Berkeley	Ocean	$219,000	108
Galloway	Atlantic	$215,000	111
Southampton	Burlington	$215,000	111
Lakehurst	Ocean	$215,000	111
Egg Harbor City	Atlantic	$212,000	117
Mullica	Atlantic	$203,500	125
Waterford	Camden	$199,900	128
Berlin Township	Camden	$198,500	130
Pemberton Township	Burlington	$195,500	133
Folsom	Atlantic	$195,000	134
Hamilton	Atlantic	$195,000	134
Winslow	Camden	$191,500	140
Buena Vista	Atlantic	$187,900	144
Buena	Atlantic	$180,000	153
Maurice River	Cumberland	$165,000	168
Chesilhurst	Camden	$157,000	173
Wrightstown	Burlington		#N/A
"Outside" Municipalities			
North Hanover	Burlington	$398,750	27
Springfield	Burlington	$349,250	37
Berlin Borough	Camden	$274,900	71
Vineland	Cumberland	$175,000	160
Corbin City	Atlantic	$115,000	191

Figure R3   Median Home Sales Prices 2006
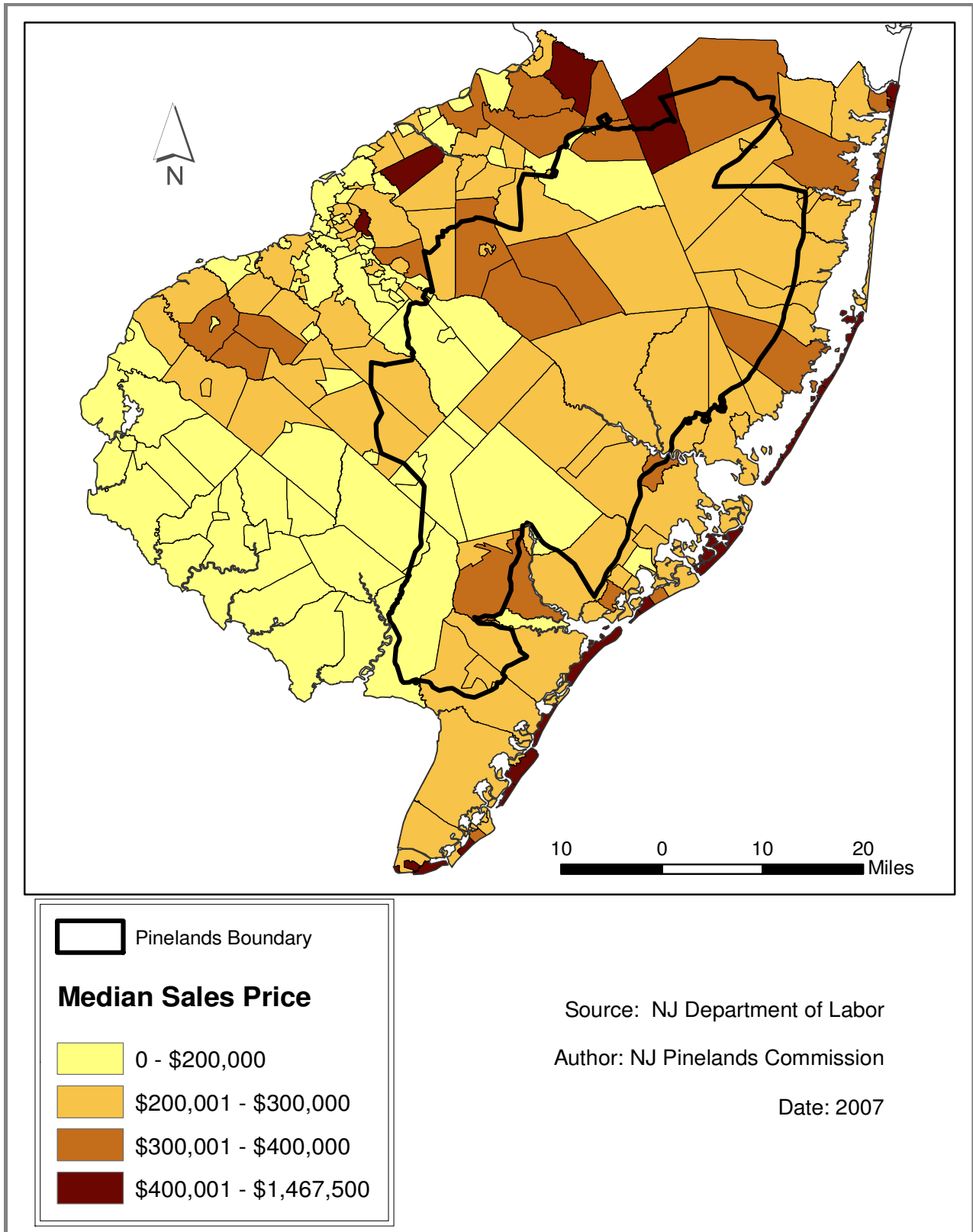
Pinelands Boundary

Median Sales Price

0 - $200,000

$200,001 - $300,000

$300,001 - $400,000

$400,001 - $1,467,500

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007

Long Term Economic Monitoring Program

- Pinelands municipalities on average added 29% less new non-residential space than their Non-Pinelands counterparts in 2006.

New Non-Residential Space in Square Feet by Municipality – 2006
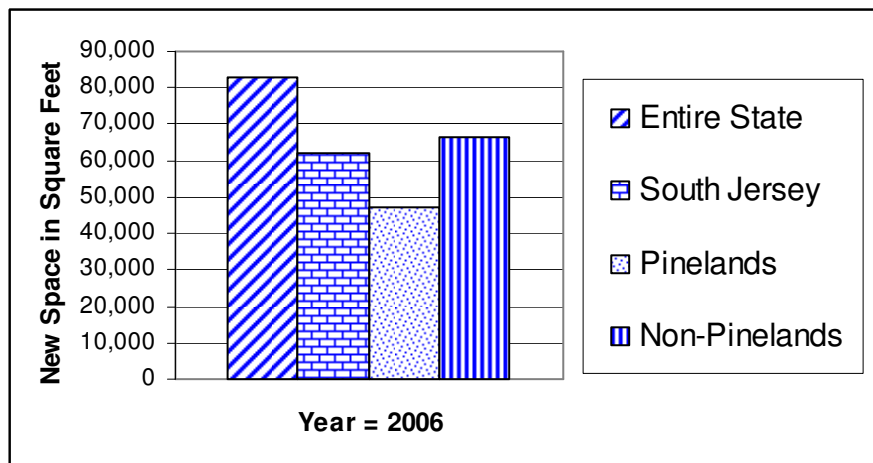
Description: Construction officials issue certificates of occupancy at the end of the construction process, when buildings are complete and ready for occupancy.   In contrast to building permits, which establish planned growth, certificates of occupancy document actual new growth on the ground. Certificate of Occupancy activity for non-residential uses is reported in square feet instead of the absolute number of units as in residential certificates of occupancy.

Unit of Analysis: Municipal level data are aggregated to allow for inside/outside Pinelands analyses. The aggregation method calculates the sum of all new non-residential uses in square feet for 2005 and 2006.

Summary of Previous Findings:

The most consistent pattern that is apparent in the entire collection of data that is tracked by the Pinelands Long-Term Economic Monitoring Program is the similarity between the inner-most sections of the Pinelands and Salem and Cumberland Counties. A prime example is the data on farmland assessment – clearly, the economic agricultural engines of South Jersey reside primarily in these areas. Similarly, these areas tend to be very low in relation to the remainder of South Jersey when it comes to non-residential uses of land other than agriculture (e.g. commercial and industrial space). The data collected here reflects that phenomena, but as an overall region the Pinelands still is faring well in regards to the change in non-residential uses. This is due to the relatively strong non-residential markets that exist on the western, southern, and northeastern boundaries of the Pinelands (see Figure RE3).

In 2005, the average Pinelands municipality had 4.2% more new non-residential square footage of space than their Non-Pinelands counterpart. This may be a reflection of the service industries that have arisen in response to the concurrent increase in population inside the Pinelands boundary relative to the Non-Pinelands. Whatever the reason, it is clear that the Pinelands municipalities on average are now on at least an equal footing when it comes to attracting new non-residential space. Though data is sparse for the period prior to 1996, the trend since 1996 shows that the Pinelands region has become more and more competitive over time in regards to non-residential uses.

For 2005, 28% of all Pinelands municipalities issued certificates of occupancy for non-residential uses in excess of 100,000 square feet of new space. In comparison, only 14% of municipalities in the Non-Pinelands issued certificates of occupancy in excess of 100,000 square feet. This finding helps explain the narrowing in equalized property value between the Pinelands and Non-Pinelands. It appears that in addition to outperforming the Non-

Pinelands in relation to home values that the Pinelands region is also beginning to compete more favorably with the Non-Pinelands for non-residential uses. However, the distribution across the Pinelands region seems to be more variable than in the Non-Pinelands – over the same time period, 40% of Pinelands municipalities added less than 10,000 square feet of new space.

Update:

The data for 2006 underlines the highly variable nature of non-residential uses in the Pinelands. On average, Pinelands municipalities added 47,390 square feet of new non-residential space in 2006. This marks a decline of 28% from the previous year.   In contrast, the average Non-Pinelands municipality increased new space in non-residential uses by 6% in 2006.   Most of the decrease in the Pinelands is due to a decrease in the number of municipalities issuing certificates for large projects. In 2005, the following seven Pinelands municipalities together issued certificates of occupancy for 1.3 million square feet of new non-residential space: Stafford, Monroe, Beachwood, Galloway, Egg Harbor Township, Folsom, and Medford Lakes. In 2006, those seven municipalities combined to issue certificates of occupancy totaling just over 200,000 square feet of new space for a one year decrease of 84%. As opposed to 2005 when 13 Pinelands municipalities issued certificates for new space in excess of 100,000 square feet, only seven municipalities in the Pinelands showed experienced such growth in non-residential uses in 2006.

This data will continue to be monitored, and future analysis may concentrate on larger time periods to make comparisons between the two regions. Given the variable nature of the non-residential market, it may be more enlightening to look at three, four, or even five year periods for comparison to capture ongoing trends.

Figure R4S   New Non-Residential Space in Square Feet – 2006

Legend:

Pinelands Boundary

New Non-Residential Space - Sq. Ft.

- 0 - 50,000
- 50,001- 100,000
- 100,001 - 200,000
- 200,001- 859,718

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007
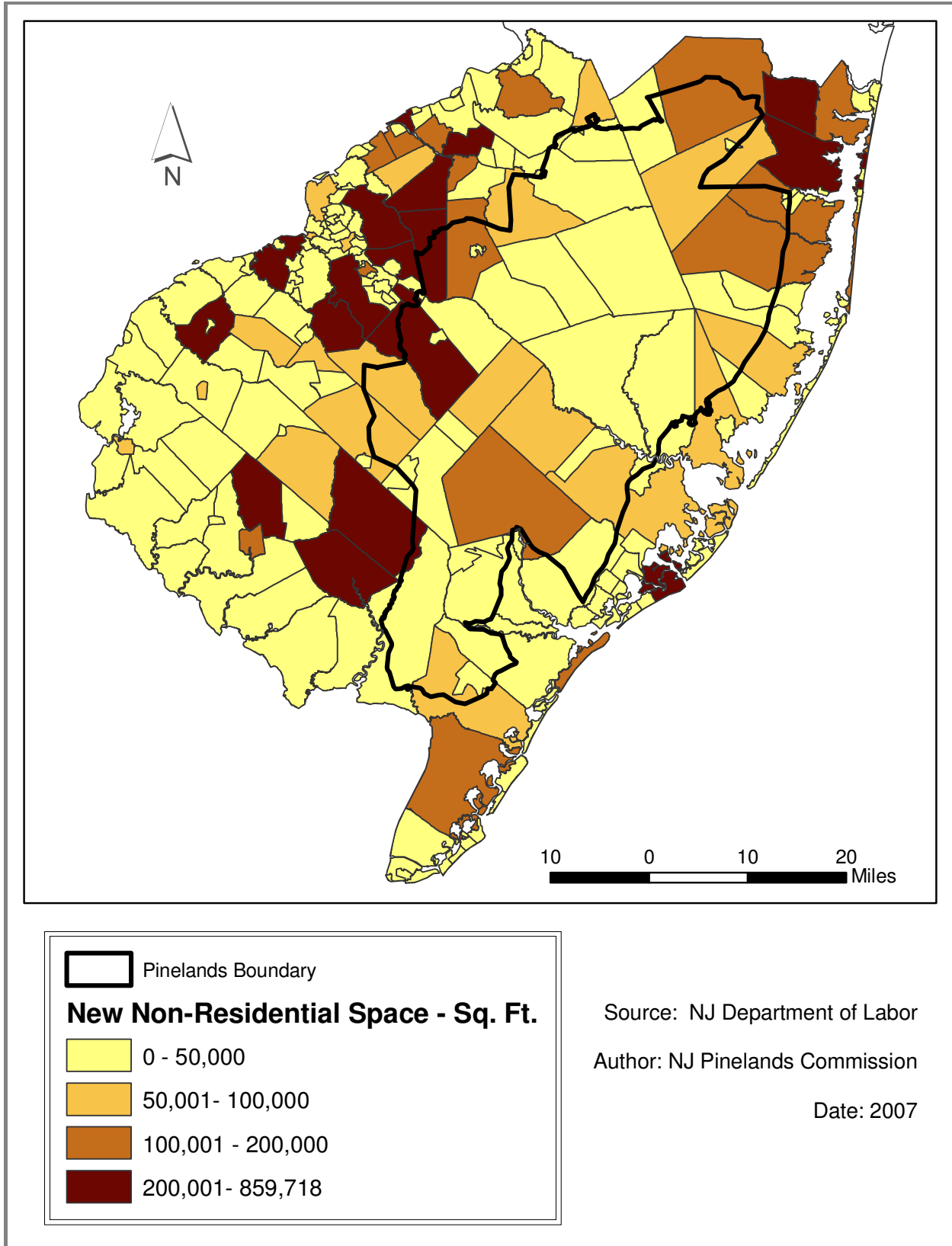
Table R4S   New Non-Residential Space in Square Feet - 2006

Municipality	County	Non-Residential Space – Sq. Ft.	South Jersey Rank
Evesham	Burlington	264,476	14
Winslow	Camden	218,330	18
Jackson	Ocean	182,903	21
Berkeley	Ocean	163,219	25
Lacey	Ocean	152,138	26
Medford	Burlington	126,603	28
Hamilton	Atlantic	122,581	29
Hammonton	Atlantic	85,085	36
Manchester	Ocean	77,613	39
Stafford	Ocean	74,798	40
Southampton	Burlington	72,517	42
Little Egg Harbor	Ocean	71,548	43
Galloway	Atlantic	63,582	46
Franklin	Gloucester	63,088	48
Monroe	Gloucester	56,903	50
Mullica	Atlantic	54,652	52
Dennis	Cape May	51,627	53
Waterford	Camden	42,111	57
Ocean	Ocean	41,260	59
Upper	Cape May	31,387	68
Maurice River	Cumberland	25,177	76
Berlin Township	Camden	24,763	77
Barnegat	Ocean	21,723	79
Tabernacle	Burlington	21,623	80
Egg Harbor Township	Atlantic	21,548	81
Plumsted	Ocean	19,160	87
Buena	Atlantic	16,400	93
Shamong	Burlington	15,387	96
Egg Harbor City	Atlantic	14,948	98
Pemberton Township	Burlington	11,858	106
Buena Vista	Atlantic	7,870	116
Eagleswood	Ocean	4,441	126
Estell Manor	Atlantic	2,761	139
Woodland	Burlington	1,200	143
Medford Lakes	Burlington	1,096	144
Weymouth	Atlantic	960	146
Folsom	Atlantic	0	159
Port Republic	Atlantic	0	159
Bass River	Burlington	0	159
New Hanover	Burlington	0	159
Washington	Burlington	0	159
Wrightstown	Burlington	0	159
Chesilhurst	Camden	0	159
Woodbine	Cape May	0	159
Beachwood	Ocean	0	159
Lakehurst	Ocean	0	159
South Toms River	Ocean	0	159
"Outside" Municipalities			
Vineland	Cumberland	481,725	6
Berlin Borough	Camden	255,532	17
North Hanover	Burlington	82,125	38
Springfield	Burlington	19,643	85
Corbin City	Atlantic	0	159
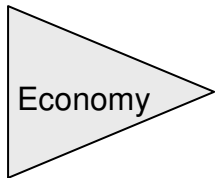
Per Capita Income
US Census Bureau 1979, 1989, 1999

☐ Updated

- Per Capita Income is lower in the Pinelands than in the Non-Pinelands, but is growing at a faster rate.

Per Capita Income

Location	1979 PCI (2004 $)	1989 PCI (2004 $)	1999 PCI (2004 $)	Change 1979-89	Change 1989-99	Change 1979-99
Pinelands	$16,641	$22,065	$23,806	33%	11%	47%
Non-Pinelands	$19,494	$27,104	$27,896	39%	3%	43%
Statewide	$21,214	$28,600	$30,719	35%	7%	45%

Description: Per capita income is an important indicator of regional economic health because it provides information regarding the ability of a region's residents to make purchases and pay taxes, and provides a measure of the economic well being of individuals. Values are adjusted for inflation and shown in 2004 dollars (not 2003 dollars).

Unit of Analysis: Per capita income data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands and statewide analyses.

Summary of Previous Findings

Real per capita income increased significantly inside and outside of the Pinelands during the 1980s, unlike many areas of the country. Per capita income growth in the Pinelands more than kept pace and finished slightly behind the surrounding region in terms of percentage change between 1980 and 1990. The level of per capita income remained higher in absolute terms in the Non-Pinelands region compared to the Pinelands region.

Per capita income continued to increase during the 1990s, but the rate of growth was much lower than in the 1980s. The Pinelands region experienced an 11% increase in income levels between 1989 and 1999, compared to an increase of 7% for the state and 3% for the Non-Pinelands region. While the Pinelands region is catching up to the rest of the state, its income levels are still significantly lower than the rest of the state. Medford Township, Medford Lakes, and Shamong had the highest incomes in the Pinelands, while New Hanover, Washington, and Woodbine had the lowest income levels. Woodland experienced the largest increase in income between 1990 and 2000 (74%), while Washington had the largest decrease (40%). The changes in both towns are anomalies related to shifts in institutional group quarters population and volatility due to small population size. A positive sign is that many towns with the lowest per capita incomes experienced the largest increases in income (i.e. Woodbine, Wrightstown, South Toms River, Maurice River, and Lakehurst).

Geographically, income levels appear as a series of bands that run across Southern New Jersey. A band of higher income surrounds the Philadelphia metropolitan area and stretches into the upper-middle portion of the Pinelands. This band represents suburbanizing communities outside of the city. The band is actually split in two by older, working class suburbs and rural communities that have only begun to suburbanize. Another thin band of high income stretches along the shore. A band of more moderate income stretches across the south-central half of the state, and a smaller, moderate income area is located in the northeastern part of Southern New Jersey. These communities tend to be rural communities, with some experiencing recent suburbanization. A region of poverty exists in the extreme southern portion of the state, along with a small pocket of lower income in the heart of the Pinelands. These areas are predominantly rural, and are the least impacted by development. Smaller pockets of poverty persist in the military towns of Burlington County, and in the older urban areas such as Camden and Atlantic City, which have suffered economic hardship. It is interesting to note that while the Pinelands does have a lower Per Capita income than the Non-Pinelands region, these bands of different income stretch across Southern New Jersey regardless of the Pinelands boundary.

Figure E1   1999 Per Capita Income (2004 Dollars)

N

10   0   10   20
Miles

Pinelands Boundary

Per Capita Income (2004 Dollars)

$11,164 - $23,305

$23,451 - $30,686

$31,167 - $43,953

$47,949 - $59,932

Source: US Census Bureau

Author: NJ Pinelands Commission

Date: 2005
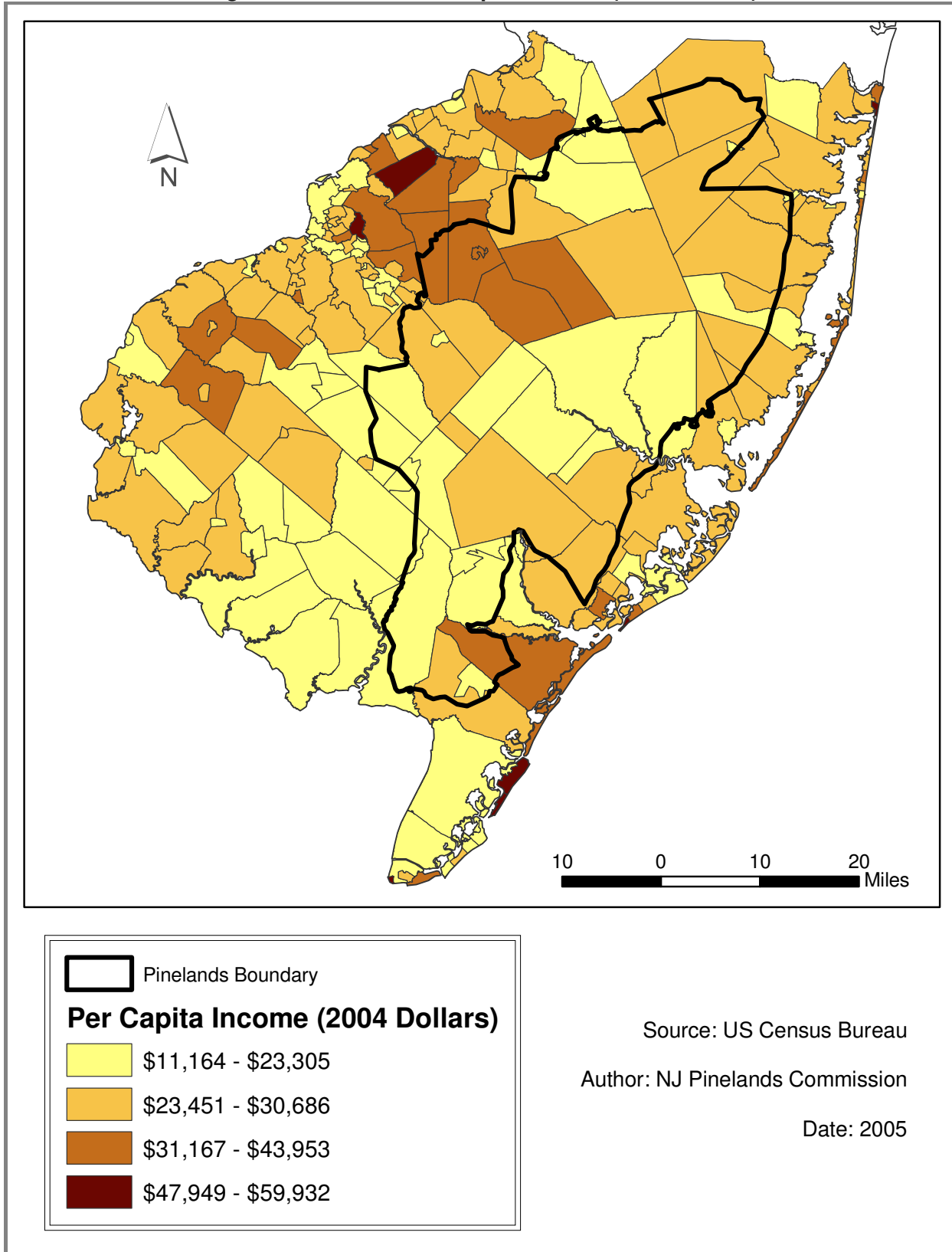
* This range excludes Mantoloking Borough, Ocean County, because it is an extreme outlier.

Table E1   Per Capita Income by Pinelands Municipality (2004 Dollars)

Municipality	County	1999	1989	1979	Change 1989-1999	Change 1979-1989
Medford Twp.	Burlington	$43,953	$37,570	$24,947	17%	51%
Medford Lakes Boro	Burlington	$35,696	$33,879	$24,824	5%	36%
Shamong Twp.	Burlington	$35,187	$28,747	$19,110	22%	50%
Evesham Twp.	Burlington	$33,549	$30,545	$22,522	10%	36%
Tabernacle Twp.	Burlington	$31,706	$31,054	$18,181	2%	71%
Upper Twp.	Cape May	$31,278	$26,923	$18,802	16%	43%
Southampton Twp.	Burlington	$30,686	$25,501	$20,050	20%	27%
Woodland Twp. *	Burlington	$29,718	$17,065	$10,658	74%	60%
Stafford Twp.	Ocean	$28,888	$22,356	$17,447	29%	28%
Port Republic City	Atlantic	$27,719	$26,901	$21,058	3%	28%
Jackson Twp.	Ocean	$27,278	$24,615	$17,427	11%	41%
Lacey Twp.	Ocean	$26,317	$22,738	$17,262	16%	32%
Ocean Twp.	Ocean	$25,969	$20,577	$18,332	26%	12%
Plumsted Twp.	Ocean	$25,517	$22,972	$16,623	11%	38%
Manchester Twp.	Ocean	$25,490	$22,781	$18,943	12%	20%
Egg Harbor Twp.	Atlantic	$25,397	$24,243	$17,915	5%	35%
Berkeley Twp.	Ocean	$25,250	$21,173	$16,589	19%	28%
Berlin Twp.	Camden	$25,226	$20,638	$16,281	22%	27%
Waterford Twp.	Camden	$24,656	$22,321	$16,325	10%	37%
Dennis Twp.	Cape May	$24,404	$23,385	$16,286	4%	44%
Hamilton Twp.	Atlantic	$24,238	$24,373	$17,672	-1%	38%
Winslow Twp.	Camden	$24,176	$21,421	$16,570	13%	29%
Beachwood Boro	Ocean	$24,168	$22,176	$16,116	9%	38%
Galloway Twp.	Atlantic	$23,942	$24,914	$17,257	-4%	44%
Little Egg Harbor Twp.	Ocean	$23,454	$21,766	$16,717	8%	30%
Eagleswood Twp.	Ocean	$23,451	$20,067	$13,991	17%	43%
Folsom Boro	Atlantic	$23,451	$20,259	$16,688	16%	21%
Monroe Twp.	Gloucester	$23,305	$21,003	$16,531	11%	27%
Bass River Twp.	Burlington	$23,184	$19,865	$16,842	17%	18%
Franklin Twp.	Gloucester	$23,065	$20,647	$16,043	12%	29%
Hammonton town	Atlantic	$22,623	$23,903	$18,557	-5%	29%
Mullica Twp.	Atlantic	$22,481	$21,181	$16,798	6%	26%
Estell Manor City	Atlantic	$22,145	$23,933	$16,865	-7%	42%
Barnegat Twp.	Ocean	$21,961	$20,044	$14,996	10%	34%
Pemberton Twp.	Burlington	$21,883	$19,272	$14,764	14%	31%
Weymouth Twp.	Atlantic	$21,597	$20,707	$15,753	4%	31%
Lakehurst Boro	Ocean	$20,918	$16,040	$13,676	30%	17%
Buena Vista Twp.	Atlantic	$20,909	$19,278	$14,751	8%	31%
Maurice River Twp.	Cumberland	$19,497	$15,572	$12,658	25%	23%
Buena Boro	Atlantic	$19,015	$18,222	$16,905	4%	8%
South Toms River Boro	Ocean	$18,532	$15,329	$12,791	21%	20%
Chesilhurst Boro	Camden	$17,349	$17,111	$13,655	1%	25%
Egg Harbor City	Atlantic	$17,234	$19,090	$18,097	-10%	5%
Wrightstown Boro	Burlington	$16,481	$13,099	$10,086	26%	30%
Washington Twp. +	Burlington	$15,898	$26,357	$14,516	-40%	82%
Woodbine Boro	Cape May	$15,168	$11,505	$9,637	32%	19%
New Hanover Twp.	Burlington	$13,809	$13,866	$13,592	0%	2%
"Outside" Municipalities						
Springfield Twp.	Burlington	$33,353	$28,361	$19,330	18%	47%
Dover Twp.	Ocean	$28,448	$26,447	$19,048	8%	39%
Berlin Boro	Camden	$28,067	$24,112	$20,551	16%	17%
Corbin City	Atlantic	$24,252	$23,097	$18,142	5%	27%
Vineland City	Cumberland	$21,381	$19,811	$16,061	8%	23%

* Large change is partially the result of a large decrease in institutional population
+ Erratic change caused by small population size and presence of large institutional population

- Unemployment showed a small uniform increase in 2006 across all regions. Rates are still at historically low levels, with the Pinelands outperforming the Non-Pinelands again.

Unemployment Rate
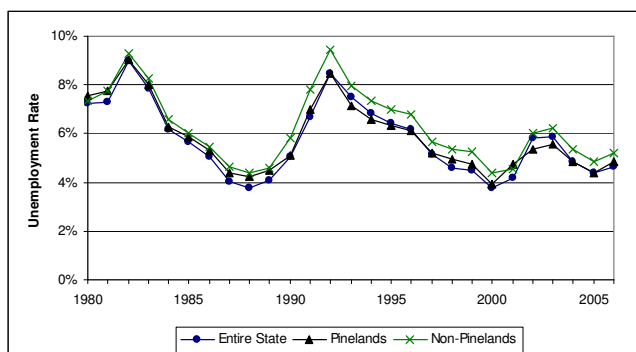
Index of Unemployment Rate
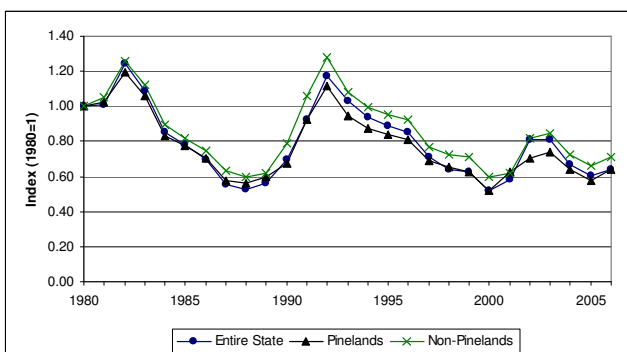
Description: The unemployment rate is the proportion of the labor force (defined as the number of people available to be, and desiring to be, working for pay) residing in an area which is unemployed (not working for pay) at a given point in time.

Unit of Analysis: Municipal level data are aggregated to allow for inside/outside Pinelands and statewide analyses. Values are based on sums for each region and not averages.

Summary of Previous Findings

Trends in unemployment in the Pinelands and Non-Pinelands regions have tracked closely together, with levels in the Pinelands consistently lower than the levels in the Non-Pinelands from 1990-2000. Unemployment in New Jersey appeared to follow general economic conditions, declining in the mid-1980s before increasing at the turn of the decade during the recession. Following a peak in 1992, unemployment levels declined steadily by roughly four percentage points by 2000, coinciding with a period of economic growth. Unemployment rose in 2001 with the onset of recession, and job recovery following the end of the recession in 2002 was sluggish, with modest increases in unemployment in 2002 and 2003. In 2004, unemployment decreased in all regions of the state for the first time in four years, and was followed in 2005 by another half a percentage point decrease.

Update
The national job market continued to improve in 2006. According to the US Bureau of Labor statistics, approximately 7.0 million Americans were unemployed in 2006, compared to 7.6 million in 2005. The national unemployment rate dropped by 0.5 of a percentage point from 5.1% in 2005 to 4.6% in 2006.

Job growth in New Jersey did not fare as well as the national average, with the unemployment rate increasing 0.2% from 4.4% in 2005 to 4.6% in 2006. In the Pinelands, the unemployment rate also increased 0.4% to settle at 4.8%. The Non-Pinelands experienced a slightly smaller increase in unemployment during the year (+0.3%), finishing with an average rate of 5.2% for the year. In the 26 years of data that is covered in the monitoring period (1980 - 2006), the Pinelands has recorded a lower unemployment rate than the Non-Pinelands in every year with the exception of two: 1980 and 2001.

Unemployment rates in Southern New Jersey are generally the lowest in the easternmost suburbs of Trenton and Philadelphia. The highest rates in South Jersey are found in Cumberland and Cape May counties, although those areas have shown the most improvement in regards to employment gains relative to the rest of the region from 2003-2006 (Figure E2). Among Pinelands communities, four municipalities showed tremendous improvement in 2006, cutting their unemployment rates substantially for the three-year period of 2003 - 2006: Buena (12.5% in 2003 to 6.2% in 2006), Wrightstown (11.0% to 6.0% in three years), Upper Township (6.4% to 2.0% in three years), and Buena Vista (8.4% to 4.6% in three years).

Table E2   Unemployment 2003 – 2006

Municipality	County	2006	2005	2004	2003	Three Year Change 2003 - 2006
Estell Manor	Atlantic	6.3%	4.6%	3.0%	3.4%	2.9%
Lakehurst	Ocean	7.2%	5.7%	3.9%	4.5%	2.7%
Waterford	Camden	5.1%	4.7%	3.1%	3.5%	1.6%
Hammonton	Atlantic	7.2%	6.5%	5.1%	5.9%	1.3%
South Toms River	Ocean	8.4%	7.5%	6.6%	7.6%	0.8%
Franklin	Gloucester	7.0%	6.5%	5.5%	6.2%	0.8%
Winslow	Camden	6.3%	5.9%	5.0%	5.6%	0.7%
Monroe	Gloucester	5.4%	5.0%	4.2%	4.7%	0.7%
Ocean	Ocean	6.4%	5.5%	5.0%	5.7%	0.7%
New Hanover	Burlington	3.6%	3.2%	2.6%	3.0%	0.6%
Evesham	Burlington	3.0%	2.7%	2.4%	2.6%	0.4%
Southampton	Burlington	5.3%	5.0%	4.5%	5.0%	0.3%
Washington	Burlington	6.4%	5.9%	5.8%	6.3%	0.1%
Chesilhurst	Camden	8.2%	6.2%	7.3%	8.2%	0.0%
Galloway	Atlantic	5.2%	4.5%	4.5%	5.2%	0.0%
Hamilton	Atlantic	4.8%	4.3%	4.3%	5.0%	-0.2%
Port Republic	Atlantic	3.3%	2.9%	3.3%	3.7%	-0.4%
Shamong	Burlington	3.0%	2.8%	3.1%	3.4%	-0.4%
Manchester	Ocean	6.5%	5.5%	6.0%	6.9%	-0.4%
Woodland	Burlington	4.9%	3.0%	5.0%	5.5%	-0.6%
Pemberton Township	Burlington	5.8%	5.5%	5.9%	6.4%	-0.6%
Barnegat	Ocean	4.5%	4.2%	4.6%	5.3%	-0.8%
Plumsted	Ocean	3.3%	2.9%	3.5%	4.1%	-0.8%
Tabernacle	Burlington	2.2%	2.0%	2.8%	3.1%	-0.9%
Egg Harbor Township	Atlantic	4.8%	4.2%	5.0%	5.7%	-0.9%
Egg Harbor City	Atlantic	8.7%	8.2%	8.4%	9.6%	-0.9%
Lacey	Ocean	4.9%	4.6%	5.1%	5.9%	-1.0%
Eagleswood	Ocean	4.4%	4.0%	4.7%	5.4%	-1.0%
Bass River	Burlington	4.1%	3.7%	4.8%	5.2%	-1.1%
Berkeley	Ocean	6.0%	5.5%	6.2%	7.1%	-1.1%
Jackson	Ocean	4.4%	3.9%	4.8%	5.5%	-1.1%
Beachwood	Ocean	5.2%	4.5%	5.6%	6.4%	-1.2%
Berlin Township	Camden	3.1%	2.9%	4.0%	4.5%	-1.4%
Maurice River	Cumberland	4.2%	3.7%	4.4%	5.8%	-1.6%
Stafford	Ocean	4.3%	3.8%	5.2%	6.0%	-1.7%
Little Egg Harbor	Ocean	5.7%	5.0%	6.6%	7.6%	-1.9%
Medford Lakes	Burlington	1.9%	1.7%	3.5%	3.8%	-1.9%
Medford	Burlington	2.4%	2.2%	4.3%	4.7%	-2.3%
Folsom	Atlantic	2.6%	3.1%	4.3%	5.0%	-2.4%
Weymouth	Atlantic	3.4%	3.0%	5.3%	6.1%	-2.7%
Mullica	Atlantic	5.7%	5.4%	7.3%	8.4%	-2.7%
Dennis	Cape May	4.0%	3.8%	4.7%	6.9%	-2.9%
Woodbine	Cape May	7.1%	7.5%	7.4%	10.7%	-3.6%
Buena Vista	Atlantic	4.6%	4.2%	7.4%	8.4%	-3.8%
Upper	Cape May	2.0%	1.9%	4.3%	6.4%	-4.4%
Wrightstown	Burlington	6.0%	5.5%	10.1%	11.0%	-5.0%
Buena	Atlantic	6.4%	6.2%	11.5%	13.1%	-6.7%
"Outside Municipalities"						
Springfield	Burlington	3.9%	4.1%	3.6%	3.9%	0.0%
Berlin Borough	Camden	4.3%	4.3%	4.4%	5.0%	-0.7%
Corbin City	Atlantic	4.0%	3.6%	4.4%	4.9%	-0.9%
North Hanover	Burlington	5.1%	4.7%	6.0%	6.5%	-1.4%
Vineland	Cumberland	6.5%	5.8%	6.5%	8.4%	-1.9%

Unemployment Rate

	0 to 3.8%
	3.9% to 6.1%
	6.2% to 9.7%
	9.8% to 17.2%

Pinelands Boundary

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007

Unemployment Change *

	-8.4% to -4.2%
	-4.1% to -1.6%
	-1.6% to +0.4%
	+0.5% to 4.5%

Pinelands Boundary
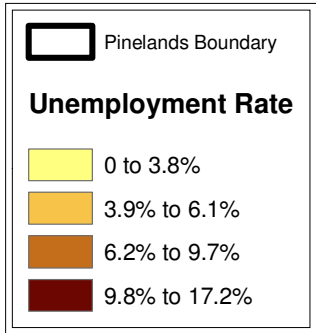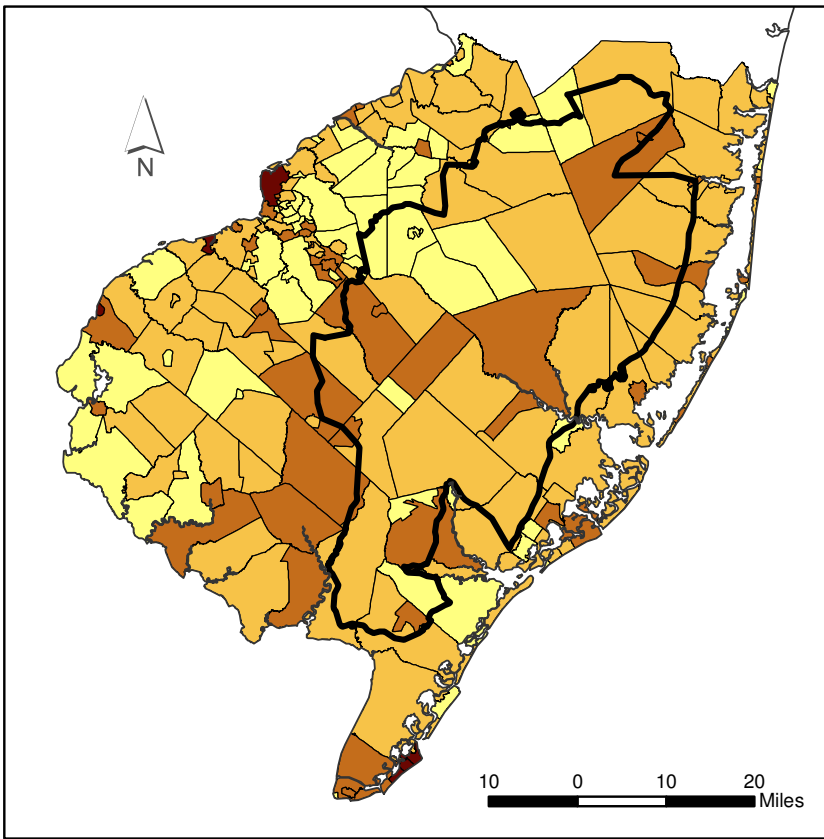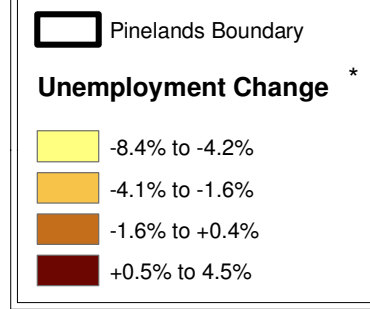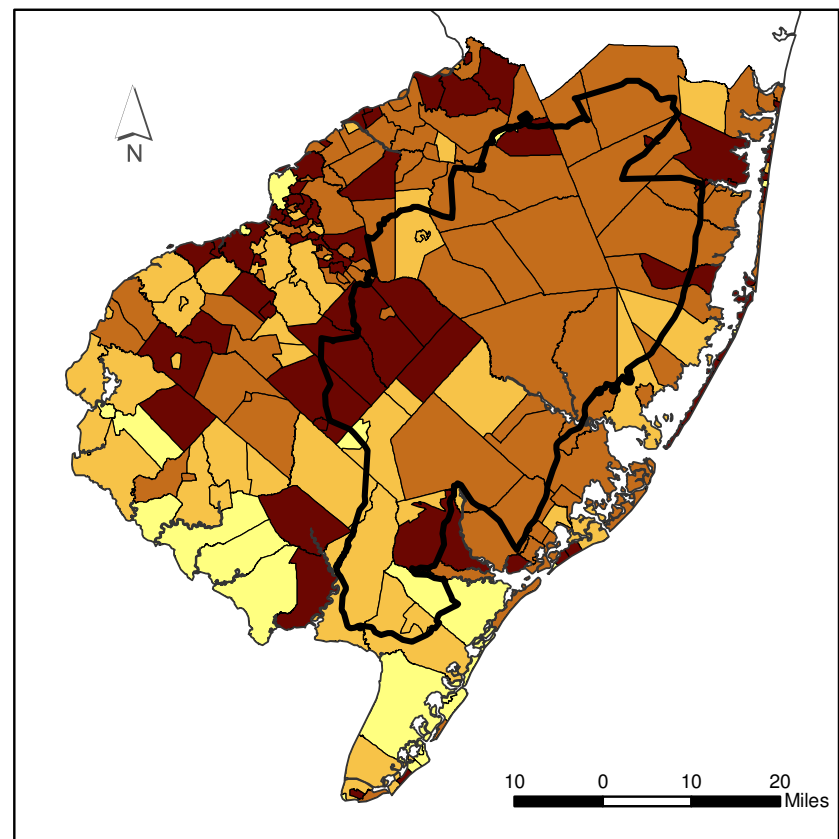
Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007

* Represents the change in percentage points, not the percent change.

Employment, Establishments, Wages

New Jersey Department of Labor 1991 – 2003 ☐ Updated

- In the past 10 years, growth in employment and the number of establishments has increased at three times the rate in the Pinelands than in the Non-Pinelands and the state as a whole.

2003 NAICS	Largest Employment Sector	2nd Largest Sector	3rd Largest Sector
Atlantic	Accommodation & Food (42%)	Retail (12%)	Health Care (12%)
Burlington	Retail (17%)	Health Care (12%)	Manufacturing (11%)
Camden	Health Care (18%)	Retail (14%)	Manufacturing (10%)
Cape May	Accommodation & Food (26%)	Retail (21%)	Health Care (12%)
Cumberland	Manufacturing (22%)	Health Care (16%)	Retail (16%)
Gloucester	Retail (21%)	Health Care (13%)	Manufacturing (11%)
Ocean	Retail (23%)	Health Care (22%)	Accommodation & Food (10%)
Salem	Health Care (15%)	Retail (13%)	Manufacturing (13%)
Pinelands	Retail (21%)	Health Care (13%)	Construction (10%)
Non-Pinelands	Retail (16%)	Health Care (15%)	Accommodation & Food (15%)
New Jersey	Retail (14%)	Health Care (13%)	Manufacturing (11%)

Description: These three variables collectively describe the composition, size, strength, and location of the job market. The first variable, *employment*, is a basic measure of economic health. Employment data count the number of jobs tracked by unemployment insurance coverage.[11] The data are broken down to the first Standard Industrial Classification (SIC) code level (major industry division) to track the shifting of activity between major economic components. The second variable, *number of establishments*, refers to the number of businesses that have employees and is presented at the single-digit SIC code level. The third variable, *wages*, is a measure of economic activity that complements employment and number of establishments. In 2001 the state began using the new North American Industrial Classification System (NAICS) and discontinued the use of SIC codes. NAICS data is broken down to the two-digit level for post 2000 data.

Unit of Analysis: Municipal level data is available for all three variables from the period 1993 to 1999. No municipal data is available for the years 2000-2002, but the NJ Department of Labor once again began collecting that data for 2003. The municipal level data previously collected is presented here along with the new data for 2003. It must be emphasized that there are limitations to municipal data due to disclosure regulations.[12] Therefore, Pinelands and Non-Pinelands aggregates are approximations, not exact counts. The NJ Department of Labor is under contract to produce county level data each year, so county level data is included as well. County level data is subjected to the same limitations, but to a lesser degree. Municipal data is not comparable to the county data due to the effects of data suppression (i.e. the sum of the municipal parts does not equal the county whole).

Summary of Previous Findings

Employment

The Pinelands region outpaced the Non-Pinelands region and the state for growth in employment from 1993 to 1998. Employment in the Pinelands grew by 16.2% during that period, compared to 10% for the state and 9.2% for the Non-Pinelands region. The largest sectors of employment in the Pinelands are retail, health care, and construction,

---

[11] Because government employment is not included in all data sets, any such data have been omitted to facilitate comparisons over the entire monitoring period. Federal, state, local, and postal service jobs are therefore not represented in the data shown. This exclusion is in addition to the types of employment not tracked by the New Jersey Department of Labor, which includes "self-employed and unpaid family workers or certain agricultural and in-home domestic workers." As used in this report, the term "employment" refers to the modified private employment figures.

[12] The information derived in this analysis was obtained from the records of the Covered Employment system, which does not release data in cases where it has the possibility of providing information about a single employer or employment location. Data are "suppressed" when the system contains information on three or fewer employers, or when one employer represents 80% or more of the market. While it is unlikely that data suppression has had a large effect at the county level, it is likely to affect data at the municipal level, especially when the data are further broken down by industrial sector.

whereas the largest sectors for the state and Non-Pinelands region are services, retail, and manufacturing. While service employment is greater than retail employment in the Pinelands, employment in the Pinelands is weighted more toward the retail sector and less toward the service sector compared to the state and Non-Pinelands region. Employment shifts between different sectors was minimal in the Pinelands over the course of the monitoring period.

Establishments

The Pinelands region outpaced both the state and Non-Pinelands region for growth in new establishments from 1993 to 1998 by about a two to one margin. The Pinelands economy created 21.1% more establishments during the period, while the state grew 10.5% and the Non-Pinelands added 12.6% new businesses over the same time frame.

The sectors with the largest number of establishments are synonymous with the sectors of largest employment. Construction establishments comprise a larger percentage of total establishments in the Pinelands compared to the other regions. The percentage of total establishments in the agricultural sector is also larger in the Pinelands, while the percentage of service and retail sectors are fairly close between all three regions.

Wages

Average annual wages declined statewide by 2.7% from 1993 to 1998. Southern New Jersey fared better in respect to wages over this time period, with wages in the Pinelands rising 2.9% and wages in the Non-Pinelands increasing 3.3%. Average annual wages in the Pinelands still lagged $2,000 behind the Non-Pinelands by 1998, and trailed the state as a whole by almost $13,000 annually. The highest paying sectors in the Pinelands in 1998 were wholesale, finance-insurance-real estate, and construction. The highest paying sectors in the state were finance-insurance-real estate, transportation-communications-utilities, and wholesale, and the highest paying sectors in the Non-Pinelands were manufacturing, wholesale, and construction. Agricultural wages are much higher in the Pinelands compared to the Non-Pinelands region, while manufacturing wages are much lower in the Pinelands compared to the Non-Pinelands.

Employment	1993	1998	2003	% Change 93-98	% Change 98-03	Ten Year Change
State	2,872,496	3,160,385	3,264,274	10.0%	3.3%	13.6%
Pinelands	102,031	118,607	136,741	16.2%	15.3%	34.0%
Non Pinelands	550,063	600,769	610,972	9.2%	1.7%	11.1%
Establishments						
State	218,159	241,165	256,253	10.5%	6.3%	17.5%
Pinelands	9,346	11,320	12,363	21.1%	9.2%	32.3%
Non Pinelands	38,149	42,952	42,632	12.6%	-0.7%	11.8%
Wages						
State	$46,610	$45,355	$47,202	-2.7%	4.1%	1.3%
Pinelands	$31,535	$32,437	$33,860	2.9%	4.4%	7.4%
Non Pinelands	$33,438	$34,538	$36,634	3.3%	6.1%	9.6%

Update

In the 2004 Annual Report, updates were provided only at the county level since new municipal data had not been available since 1999. Though data has not been provided for the missing years of 2000 to 2002, the new municipal data released for 2003 allows an analysis once again at the regional Pinelands versus Non-Pinelands level. The charts provided for the counties presented last year have been retained and updated because they capture more data at the individual industrial classification level and they are less subject to data suppression issues.

Employment

While employment was generally flat in the state as a whole and in the Non-Pinelands region from 1998-2003, the Pinelands region continued to post impressive job numbers. For the five-year period, employment increased 15.3% in the Pinelands; in contrast, the Non-Pinelands job market increased only 1.7% and the state increased only 3.3% over the same time frame. Since 1993, job growth in the Pinelands has grown at three times the rate of the Non-Pinelands and the rest of the state, adding almost 35,000 new jobs over that time (+34%).

Establishments

Growth in establishments slowed in all regions from 1998-2003 in comparison to 1993-1998. The Pinelands again fared better in this respect, however. From 1998-2003, the Pinelands added 1,000 new establishments, a gain of 9.2% since 1998. The Non-Pinelands region actually posted a slight decrease (-0.7%) in establishments, dropping from 42,952 in 1998 to 42,632 in 2003. As a whole, the state posted a 6.3% increase in new businesses from 1998-2003. Over the past ten years, the Pinelands have added more than 3,000 new establishments, which represents a gain of 32.3% over the 1993 level. That is twice the rate of growth of the state as a whole (+17.5%) and almost three times the rate of growth of the Non-Pinelands region (+11.8%).

Wages

Annual average wages climbed considerably in all three regions in the period between 1998 and 2003. After posting a real decrease in wages from 1993-1998 of 2.7%, the state as a whole increased average annual wages 4.1% from 1998-2003. Southern New Jersey fared even better over the past five years, with the Pinelands region wages rising 4.4% and the Non-Pinelands posting a strong 6.1% increase in average annual wages. During the ten-year period of 1993-2003, Southern New Jersey has fared very well in comparison to North Jersey in respect to wage growth. During that time, wages in the state as a whole grew very slightly by 1.3%. In contrast, Non-Pinelands wages increased by 9.6%, and the Pinelands region increased by 7.4% over the same time frame.

With the exception of Linwood, Folsom, Medford Lakes, and Evesham, all of the municipal economies at the highest end of the average annual wages scale are located to the west of the Pinelands (Figure E3). A number of these municipalities actually straddle the western border of South Jersey and are logical extensions of the Philadelphia metropolitan economy. Within the Pinelands, four municipalities are of particular note. Jackson, Plumsted, Manchester, and Hamilton, while all posting large increases in population over the past ten years, have relatively low annual wages for their local economies. Of those four, the Ocean County communities have served largely as residential communities. Hamilton, however, has had the largest increase in retail space in all of South Jersey in the past 10 years, but its average annual wages nonetheless have lagged behind the rest of the region.

Figure E3
2003 Average Annual Private Sector Wages for Municipal Economies (in 2004 dollars)

N

10   0   10   20
Miles

Pinelands Boundary

Average Annual Wages

$12,812 - $26,141

$26,142 - $33,563

$33,564 - $43,154

$43,155 - $75,462
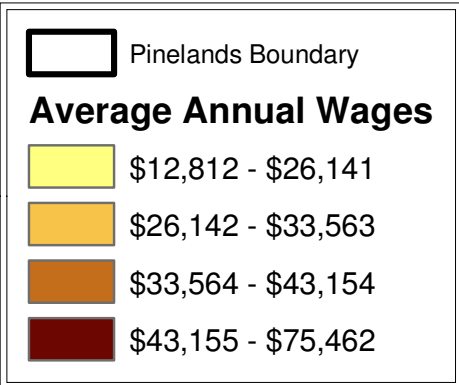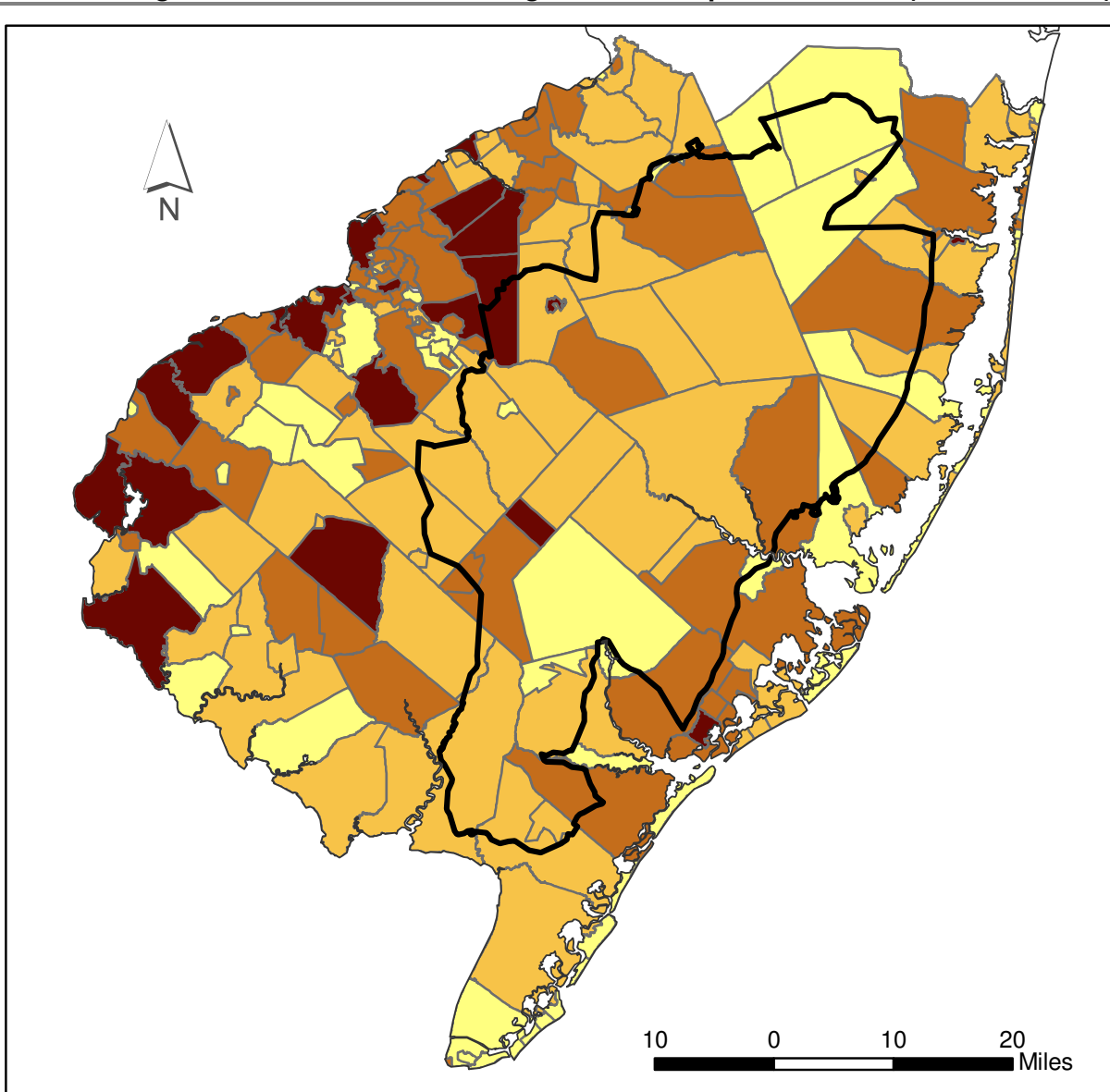
Source: NJ Dept of Community Affairs

Author: NJ Pinelands Commission

Date: 2005

Table E3a   County Private Sector Employment

County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Ten Year Change
Atlantic	113,476	116,307	116,500	117,772	119,816	121,158	121,707	121,119	121,152	120,733	122,184	7.7%
Burlington	121,807	125,979	131,266	135,619	141,175	147,181	151,691	152,700	159,309	162,231	164,589	35.1%
Camden	151,416	156,719	162,748	162,964	165,755	169,553	169,511	166,157	166,567	167,576	169,238	11.8%
Cape May	26,990	27,463	27,226	27,697	28,635	29,149	29,579	29,270	30,985	31,667	32,163	19.2%
Cumberland	42,501	43,525	44,180	44,051	44,842	44,548	44,360	43,819	44,335	44,700	45,348	6.7%
Gloucester	58,462	60,910	65,966	66,581	67,923	69,730	71,711	72,329	74,182	75,464	79,463	35.9%
Ocean	91,843	96,057	98,607	100,073	101,951	102,875	103,708	106,008	110,190	114,037	116,338	26.7%
Salem	23,239	22,454	18,666	18,677	17,727	17,192	17,759	14,918	17,434	17,774	18,390	-20.9%
SJ Total	629,734	649,414	665,159	673,434	687,824	701,386	710,026	706,320	724,154	734,182	747,713	18.7%

Table E3b   County Private Sector Establishments

County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Ten Year Change
Atlantic	5,721	5,753	5,878	5,988	6,146	6,322	6,551	5,757	6,031	6,118	6,208	8.5%
Burlington	8,407	8,578	9,326	9,532	9,849	10,216	10,548	9,366	10,126	10,403	10,574	25.8%
Camden	10,908	11,034	12,089	12,282	12,666	12,957	13,235	11,601	12,303	12,452	12,720	16.6%
Cape May	3,765	3,812	3,784	3,851	3,982	4,073	4,232	3,668	3,965	3,982	4,098	8.8%
Cumberland	2,921	2,925	2,973	3,011	3,092	3,166	3,238	2,879	2,948	3,098	3,288	12.6%
Gloucester	4,661	4,730	5,076	5,184	5,339	5,523	5,707	5,052	5,243	5,463	5,717	22.7%
Ocean	8,807	9,011	9,467	9,787	10,164	10,537	10,996	9,627	10,372	10,701	11,008	25.0%
Salem	1,241	1,254	1,223	1,226	1,274	1,284	1,318	1,121	1,224	1,282	1,382	11.4%
SJ Total	46,431	47,097	49,816	50,861	52,512	54,078	55,825	49,071	52,212	53,499	54,995	18.4%

Table E3c   County Private Sector Average Annual Wages

County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Ten Year Change
Atlantic	$33,418	$33,114	$32,641	$32,889	$32,494	$32,596	$32,184	$32,123	$32,750	$33,028	$33,092	-1.0%
Burlington	$36,984	$36,837	$37,057	$37,650	$38,207	$39,808	$40,496	$41,090	$41,167	$41,572	$41,173	11.3%
Camden	$36,084	$35,841	$35,628	$35,896	$36,327	$36,718	$37,278	$37,277	$37,594	$38,288	$39,285	8.9%
Cape May	$25,047	$25,334	$24,887	$24,893	$24,918	$25,299	$25,648	$25,754	$25,734	$26,438	$26,736	6.7%
Cumberland	$31,852	$31,651	$31,363	$31,466	$31,724	$32,645	$32,302	$32,382	$32,188	$32,902	$32,687	2.6%
Gloucester	$33,091	$32,915	$32,507	$32,851	$33,521	$34,101	$34,301	$34,033	$34,292	$34,517	$34,216	3.4%
Ocean	$29,335	$28,924	$28,621	$28,784	$29,009	$30,330	$30,515	$31,119	$30,876	$31,331	$31,566	7.6%
Salem	$45,272	$45,548	$45,993	$47,091	$45,932	$44,585	$43,653	$44,252	$43,447	$44,655	$44,075	-2.6%
SJ Average	$33,885	$33,771	$33,587	$33,940	$34,016	$34,510	$34,547	$34,753	$34,756	$35,342	$35,354	4.3%

Table E3d   2003 County Private Sector Employment by NAICS Sector

Sector	NAICS	Atlantic	Burlington	Camden	Cape May	Cumberland	Gloucester	Ocean	Salem	South Jersey
11	Agriculture/Forestry/Fishing/Hunting	1,349	532	127	172	1,347	737	58	473	4,795
21	Mining	.	.	.	.	.	.	.	.	0
22	Utilities	192	.	81	.	.	.	260	.	533
23	Construction	6,272	7,185	9,482	2,434	2,475	5,796	8,318	929	42,891
31-33	Manufacturing	3,689	17,967	16,187	873	9,761	8,935	5,864	2,343	65,619
42	Wholesale Trade	2,123	10,048	10,993	458	2,011	7,711	3,290	198	36,832
44-45	Retail Trade	15,208	28,227	24,013	6,617	7,209	16,465	26,630	2,356	126,725
48-49	Transportation and Warehousing	2,075	3,709	4,260	282	1,620	1,519	1,912	637	16,014
51	Information	621	2,777	3,304	167	863	575	1,252	21	9,580
52	Finance and Insurance	2,322	16,322	7,246	1,038	1,151	1,783	4,281	493	34,636
53	Real Estate and Rental and Leasing	1,497	3,271	2,710	895	581	927	2,154	118	12,153
54	Professional and Technical Services	4,412	9,671	14,001	1,098	1,107	2,894	5,576	313	39,072
55	Management of Co. and Enterprises	.	329	42	.	.	.	112	.	483
56	Administrative and Waste Services	4,047	10,957	11,552	931	1,192	4,987	4,071	664	38,401
61	Educational Services	622	704	1,214	180	313	266	2,139	.	5,438
62	Health Care and Social Assistance	14,362	19,354	29,823	3,836	7,326	9,962	25,156	2,666	112,485
71	Arts, Entertainment, and Recreation	1,527	1,506	1,793	1,059	447	900	3,434	.	10,666
72	Accommodation and Food Services	51,346	11,664	12,087	8,376	2,808	7,056	11,213	1,412	105,962
81	Other Services, Except Public Admin	3,109	6,007	6,953	1,316	1,313	2,898	4,756	362	26,714
99	Unclassified Entities	17	111	1,018	101	110	71	466	63	1,957
	PRIVATE SECTOR TOTAL	122,184	164,589	169,238	32,163	45,348	79,463	116,338	18,390	747,713

Table E3e   2003 County Private Sector Employment by NAICS Sector as a % of Total Employment

Sector	NAICS DESCRIPTION	Atlantic	Burlington	Camden	Cape May	Cumberland	Gloucester	Ocean	Salem	South Jersey
11	Agriculture/Forestry/Fishing/Hunting	1.1%	0.3%	0.1%	0.5%	3.0%	0.9%	0.0%	2.6%	0.6%
21	Mining	.	.	.	.	.	.	.	.	0.0%
22	Utilities	0.2%	.	0.0%	.	.	.	0.2%	.	0.1%
23	Construction	5.1%	4.4%	5.6%	7.6%	5.5%	7.3%	7.1%	5.1%	5.7%
31-33	Manufacturing	3.0%	10.9%	9.6%	2.7%	21.5%	11.2%	5.0%	12.7%	8.8%
42	Wholesale Trade	1.7%	6.1%	6.5%	1.4%	4.4%	9.7%	2.8%	1.1%	4.9%
44-45	Retail Trade	12.4%	17.1%	14.2%	20.6%	15.9%	20.7%	22.9%	12.8%	16.9%
48-49	Transportation and Warehousing	1.7%	2.3%	2.5%	0.9%	3.6%	1.9%	1.6%	3.5%	2.1%
51	Information	0.5%	1.7%	2.0%	0.5%	1.9%	0.7%	1.1%	0.1%	1.3%
52	Finance and Insurance	1.9%	9.9%	4.3%	3.2%	2.5%	2.2%	3.7%	2.7%	4.6%
53	Real Estate and Rental and Leasing	1.2%	2.0%	1.6%	2.8%	1.3%	1.2%	1.9%	0.6%	1.6%
54	Professional and Technical Services	3.6%	5.9%	8.3%	3.4%	2.4%	3.6%	4.8%	1.7%	5.2%
55	Management of Co. and Enterprises	.	0.2%	0.0%	.	.	.	0.1%	.	0.1%
56	Administrative and Waste Services	3.3%	6.7%	6.8%	2.9%	2.6%	6.3%	3.5%	3.6%	5.1%
61	Educational Services	0.5%	0.4%	0.7%	0.6%	0.7%	0.3%	1.8%	.	0.7%
62	Health Care and Social Assistance	11.8%	11.8%	17.6%	11.9%	16.2%	12.5%	21.6%	14.5%	15.0%
71	Arts, Entertainment, and Recreation	1.2%	0.9%	1.1%	3.3%	1.0%	1.1%	3.0%	.	1.4%
72	Accommodation and Food Services	42.0%	7.1%	7.1%	26.0%	6.2%	8.9%	9.6%	7.7%	14.2%
81	Other Services, Except Public Admin	2.5%	3.6%	4.1%	4.1%	2.9%	3.6%	4.1%	2.0%	3.6%
99	Unclassified Entities	0.0%	0.1%	0.6%	0.3%	0.2%	0.1%	0.4%	0.3%	0.3%

- Per capita retail sales growth was much stronger in the Pinelands than in all other regions of the state from 1997 – 2002.

Per Capita Retail Sales

COUNTY	1992 Per Capita Sales	1997 Per Capita Sales	2002 Per Capita Sales	5 Year Change 1997 - 2002	10 Year Change 1992 - 2002
Atlantic	$10,537	$12,556	$13,422	6.9%	27.4%
Burlington	$10,312	$12,446	$18,160	45.9%	76.1%
Camden	$8,525	$10,788	$9,845	-8.7%	15.5%
Cape May	$11,262	$11,584	$14,272	23.2%	26.7%
Cumberland	$8,495	$10,272	$10,785	5.0%	27.0%
Gloucester	$10,388	$11,722	$13,256	13.1%	27.6%
Ocean	$9,415	$11,573	$11,297	-2.4%	20.0%
Salem	$6,565	$7,262	$8,809	21.3%	34.2%
South Jersey	$9,538	$11,474	$12,758	11.2%	33.8%
State	$9,997	$11,706	$12,508	6.8%	25.1%
Pinelands[13]	$7,795	$9,588	$11,577	20.7%	48.5%
Non-Pinelands	$12,607	$14,385	$14,407	0.2%	14.3%

Description: The Census of Retail Trade is conducted every 5 years as part of the Economic Census. The Census Bureau began using a different industrial classification system in 1997, with the largest change being the removal of the eating and drinking establishments classification from the 1997 data. To adjust for this, sales for eating and drinking establishments were removed from the 1992 data. The resulting numbers are suitable for a rough comparison.[14] Values are adjusted for inflation and shown in 2004 dollars, and sales are presented per capita, based on 1992, 1997, and 2002 population estimates.

Unit of Analysis: Retail sales data are obtained at the county level and aggregated to yield totals for the southern eight-county region and the entire State (see Appendix for Pinelands acreage by county). Partial data for the Pinelands and Non-Pinelands region are available as the Census also collects data at the "place" level, which includes the most populous municipalities (109 out of 202 municipalities are available, 28 in the Pinelands and 81 outside the Pinelands).

Summary of Previous Findings

Per capita retail sales rose in Southern New Jersey between 1992 and 1997, with an increase of 20.3%. The change in sales was generally more significant in the more densely populated counties, while the southern counties experienced smaller increases. Per capita sales are higher for the state as a whole compared to Southern New Jersey, but South Jersey sales have increased at a faster rate. Per capita retail sales for the 28 Pinelands municipalities increased by 23%, while sales for the 81 Non-Pinelands municipalities rose by 14.1%.

Another useful indicator of retail health is the number of retail establishments per resident. This indicates the presence of commercial ratables as well as relative shopping convenience. According to the New Jersey Department of Labor Employer Listing Database, the concentration of retail establishments per resident in the Non-Pinelands was 50% higher than in the Pinelands for 2001.

---

[13] The categories for Pinelands and Non-Pinelands represent the number of municipalities for which the data is available. Data is available for 28 of the 47 Pinelands municipalities, and 81 of the 155 Non-Pinelands municipalities.
[14] Other noteworthy changes include the reclassification of pawn shops to the Finance and Insurance sector, and of bakeries to the Manufacturing sector, and the addition of Wholesale Trade establishments that have facilities which cater to the general public. The numbers in this report have not been adjusted to reflect these changes.

Released in May 2006, the 2002 Census of Retail Trade shows the Pinelands continuing to gain ground on all other regions of the state in regards to per capita retail sales.   Statewide growth in per capita retail sales increased 6.8% from 1997-2002, which marked a slowdown from the 17.1% growth statewide for the period 1992-1997. Per capita retail sales in the Non-Pinelands portion of South Jersey were essentially unchanged from 1997-2002, rising only 0.2%. In contrast, the Pinelands communities followed their 23% gain in per capita retail sales from 1992-1997, with a 20.7% increase in the period from 1997-2002. A large portion of this sustained growth in per capita sales for the Pinelands occurred in Ocean County. Of the seven Pinelands municipalities that experienced growth in sales greater than 40 percent from 1997 - 2002, six were in Ocean County: Ocean Township (+119%), Berkeley (+77%), Jackson (+55%), Lakehurst (+53%), Little Egg Harbor (+49%), and Barnegat (+41%). In Atlantic County, Egg Harbor Township increased per capita sales by 42% over the same period.

The concentration of retail establishments per resident continued to be about 50% higher in the Non-Pinelands than in the Pinelands in 2002. According to the New Jersey Department of Labor, there were 1,598 retail establishments in the Pinelands in 2002 (1 store for every 403 residents). In the Non-Pinelands there were 6,273 retail establishments (1 store for every 268 residents). The pattern again appears to show higher concentrations of establishments in municipalities in the Pinelands that contain regional growth areas.
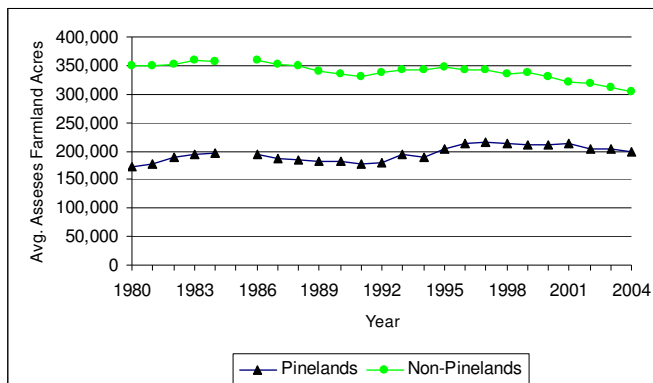
Assessed Farmland Acreage   X Updated

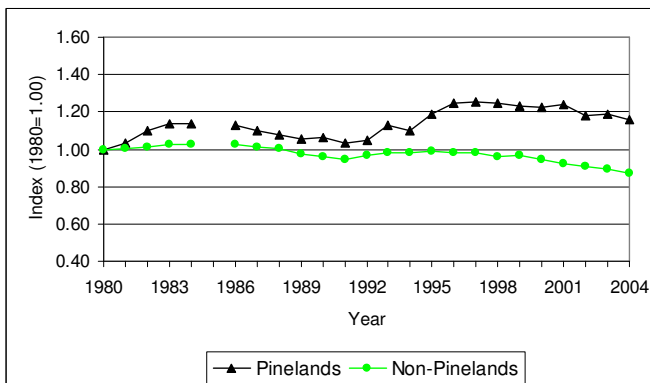## New Jersey Agricultural Statistics Service 1980 – 2004*

- Assessed acres in farmland dropped 2.4% in the Pinelands in 2004, compared to a decrease of 2.6% for the year in the Non-Pinelands.

Average Assessed Acres of Farmland

Index of Average Assessed Acres of Farmland

Description: Agriculture is recognized in federal and state Pinelands legislation as an industry of special significance, and therefore receives a more detailed examination using three variables. The first variable, farmland assessed acreage, is compiled from FA-1 forms, which are completed by landowners and indicate acreage devoted to various crops and pasture as well as livestock. To qualify for farmland assessment, a landowner must have a minimum of five contiguous acres devoted to agricultural or horticultural use, and generate a minimum of $500 in sales (plus an additional $5 per acre for every acre of agricultural land beyond the first five acres or $0.50 per acre for every acre of woodland land beyond the first five acres).

Unit of Analysis: Farmland assessment data is compiled at the municipal level and aggregated to examine Pinelands and county totals.

Summary of Previous Findings

Assessed farmland acres were fairly stable in the Non-Pinelands portion of South Jersey from 1980-1995. Since 1995, development pressures have slowly eroded the farm base outside the Pinelands and assessed acres in that region have decreased in five of the six years from 1995-2001. In contrast, the Pinelands has shown a substantial increase in acreage devoted to agriculture since 1980. This growth was fueled by two periods that contributed significantly to farmland acres in the Pinelands: from 1980-1983, farm acreage increased 13.8% in the Pinelands, and from 1992-1996 acreage increased by 19.2%. Over the entire period monitored, the Pinelands percentage of South Jersey farm acres has increased from 33% in 1980 to 40% in 2001.

Burlington County has the largest amount of farm acreage in the Pinelands, while the overwhelming majority of Atlantic, Camden, and Ocean Counties' assessed farmland falls inside the Pinelands. Much of the decrease in farm acres in the Non-Pinelands has been concentrated in Burlington, Camden, Cape May, and Gloucester counties.

Update

Following a modest increase in farmland acreage in 2003 (+0.5%), the Pinelands region experienced a 2.4% decrease in acres farmed in 2004. For the year, there were 198,879 acres in farmland in the Pinelands. The Non-Pinelands farmland acreage decreased for the ninth consecutive year in 2004, falling 2.6% to a total of 303,916 acres. Since one-year changes in acreage can be affected by seasonal factors such as weather and economic conditions, averages over five-year periods are also tracked to reveal longer-term trends (Table E5).

Figure E5 depicts the current assessed acreage in farmland for South Jersey (as of 2004). It is clear that New Jersey's "farm belt" covers most of Salem and Cumberland counties and then extends northeasterly through the heart of the Pinelands. A good portion of Camden County and the shore communities of Ocean, Atlantic, and Cape May counties have very little, if any, active acreage in farming.

Table E5   Farmland Assessed Acreage

Average Farmland Assessed Acreage in the Pinelands Municipalities					
County	1985-1989 Average	1990-1994 Average	1995-1999 Average	2000-2004 Average	Change between 85-89 and 00-04
Atlantic	40,595	38,730	44,483	41,268	2%
Burlington	87,917	87,280	92,892	88,310	0%
Camden	10,356	10,024	10,794	10,871	5%
Cape May	7,274	7,496	7,071	6,539	-10%
Cumberland	8,749	5,194	9,491	10,866	24%
Gloucester	19,834	20,343	22,792	20,900	5%
Ocean	12,017	15,203	24,026	26,909	124%

Average Farmland Assessed Acreage in the Non-Pinelands Municipalities					
County	1985-1989 Average	1990-1994 Average	1995-1999 Average	2000-2004 Average	Change between 85-89 and 00-04
Atlantic	202	278	277	347	71%
Burlington	70,705	64,080	63,298	56,337	-20%
Camden	3,801	2,860	2,502	1,933	-49%
Cape May	6,966	5,772	5,474	4,998	-28%
Cumberland	77,237	80,401	86,073	80,108	4%
Gloucester	64,534	60,771	58,507	50,938	-21%
Ocean	852	750	703	594	-30%
Salem	126,104	122,422	123,781	121,741	-3%

Percentage of Total Average Farmland Assessed Acreage that is within Pinelands Municipalities					
County	1985-1989 Average	1990-1994 Average	1995-1999 Average	2000-2004 Average	Change between 85-89 and 00-04
Atlantic	100%	99%	99%	99%	-1%
Burlington	55%	58%	59%	61%	6%
Camden	73%	78%	81%	85%	12%
Cape May	51%	56%	56%	57%	6%
Cumberland	10%	6%	10%	12%	2%
Gloucester	24%	25%	28%	29%	5%
Ocean	93%	95%	97%	98%	5%

Figure E5   Farmland Assessed Acreage 2004
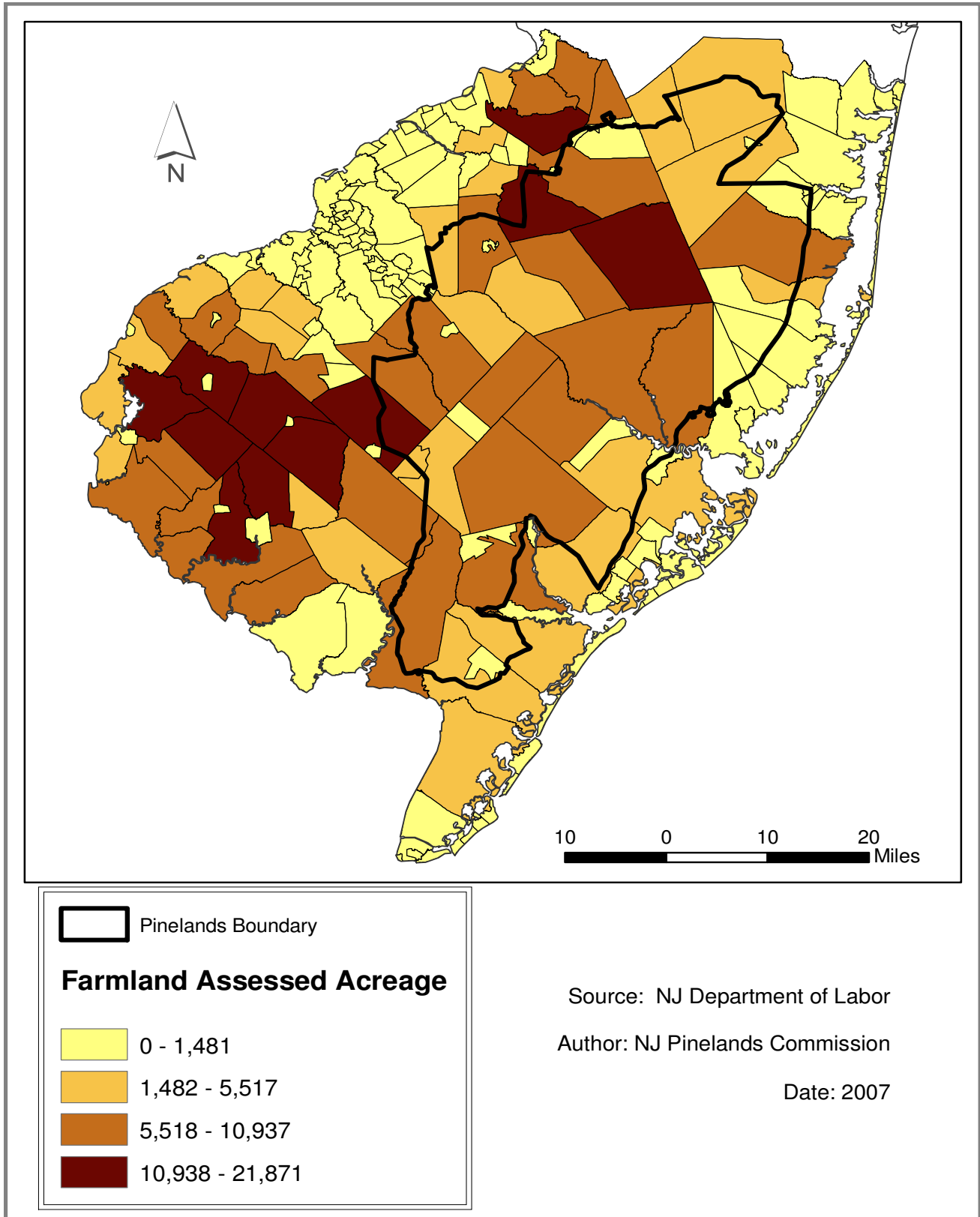
Pinelands Boundary

Farmland Assessed Acreage

0 - 1,481

1,482 - 5,517

5,518 - 10,937

10,938 - 21,871

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007

- Favorable growing conditions led to large increases in production in 2005 for both cranberries and blueberries. The value of utilized production increased by 45% for cranberries and by 17% for blueberries for the year.

NJ Cranberry Production, Value and Volume
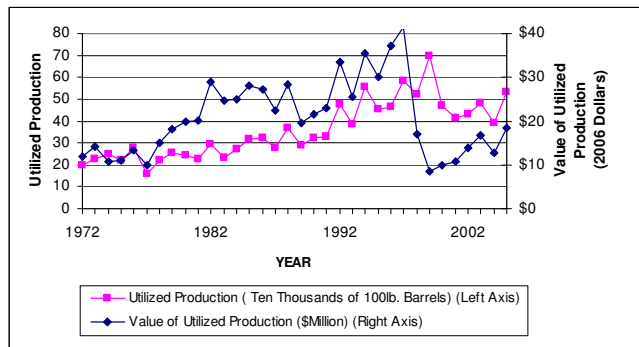
NJ Blueberry Production, Value and Volume
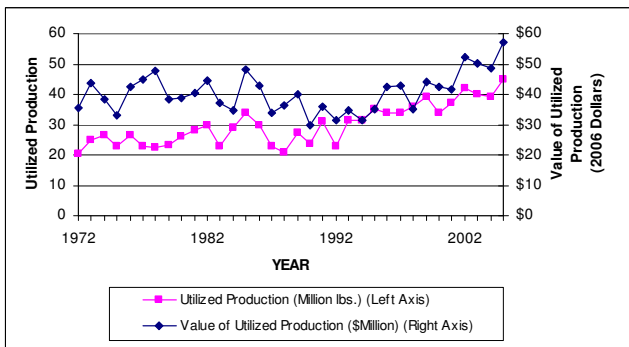
Description: Agriculture is recognized in federal and state Pinelands legislation as an industry of special significance and, therefore, receives a more detailed examination using three variables. The second indicator, *cranberry and blueberry production*, measures a critical component of Pinelands agriculture. Cash values are expressed in 2006 dollars.

Unit of Analysis: Cranberry and blueberry data are only available at the State level, but because these crops are found almost exclusively within the Pinelands, statewide figures provide sufficient information for the purposes of this analysis.

Summary of Previous Findings

Examination of two key Pinelands crops, cranberries and blueberries, revealed that cranberry production grew significantly from 1972 to 1996 but plummeted precipitously from 1997 to 1999 due to increased production - growers developed more efficient bogs to take advantage of good cranberry prices - without increased demand. Nationally, increased production combined with steady demand created a surplus of frozen cranberries. Increased foreign production of cranberries also may have been a contributing factor. A small recovery in cranberry farming began in 2000, which may have been aided by actions such as nationwide production cutbacks and USDA surplus. Production has decreased by 39% between 1999 and 2002. The value of production increased dramatically, growing 63% between 1999 and 2002, with the price of cranberries climbing from $11.84 per 100 lbs in 1999 to $31.42 per 100 lbs in 2003, an increase of 166%. Despite this increase, prices remain well below their peak of $76.93 per 100 lbs in 1996.

The value of utilized production for blueberries remained fairly steady, with yearly fluctuations from 1972-1997. Overall production increased by 61% between 1998 and 2003. The value of production increased consistently over this five-year period, rising by 11%, while the sale price improved by 28%. (Figure E6). Like cranberries, the blueberry market has suffered from a combination of increasing production and steady demand. To respond to poor market conditions, the blueberry industry created a blueberry council to increase promotional activities and strengthen demand for blueberries.

Update

Both the cranberry and blueberry industries enjoyed productive years and favorable market conditions in 2005. The value in utilized production of cranberries increased for the fifth time in six years in 2005, rising 45% to $18.5 million. This increase was due primarily to a 35% increase in production. Cranberry prices also increased by 7% for the year to finish at $35.98 per 100 lbs. The blueberry industry also experienced healthy growth in 2005, with the value of

utilized production increasing by 17.6% for the year. This increase was due primarily to a 15.4% increase in production to 45 million pounds for the season. Blueberry prices remained relatively flat for the fourth consecutive year, posting a price of $1.27 for an increase of 1.7%.

Table E6   Sales of New Jersey Farm Products

Year	Sales				Annual % Change		
	Cranberry	Blueberry	New Jersey		Cranberry	Blueberry	New Jersey
1992	33,518	31,354	927,666				
1993	25,418	34,886	978,996		-24.2%	11.3%	5.5%
1994	27,211	31,566	1,036,500		7.1%	-9.5%	5.9%
1995	30,028	35,055	1,008,960		10.4%	11.1%	-2.7%
1996	37,083	42,414	1,028,273		23.5%	21.0%	1.9%
1997	41,376	42,681	1,003,084		11.6%	0.6%	-2.4%
1998	16,947	35,076	1,000,465		-59.0%	-17.8%	-0.3%
1999	8,555	44,277	895,993		-49.5%	26.2%	-10.4%
2000	9,828	42,263	988,549		14.9%	-4.5%	10.3%
2001	10,834	41,811	950,820		10.2%	-1.1%	-3.8%
2002	15,372	52,434	976,656		41.9%	25.4%	2.7%
2003	16,777	50,060	936,458		9.1%	-4.5%	-4.1%
2004	13,119	48,698	923,319		-21.8%	-2.7%	-1.4%
2005	18,707	57,259	885,266		42.6%	17.6%	-4.1%

Figure E6 Cranberry and Blueberry Prices
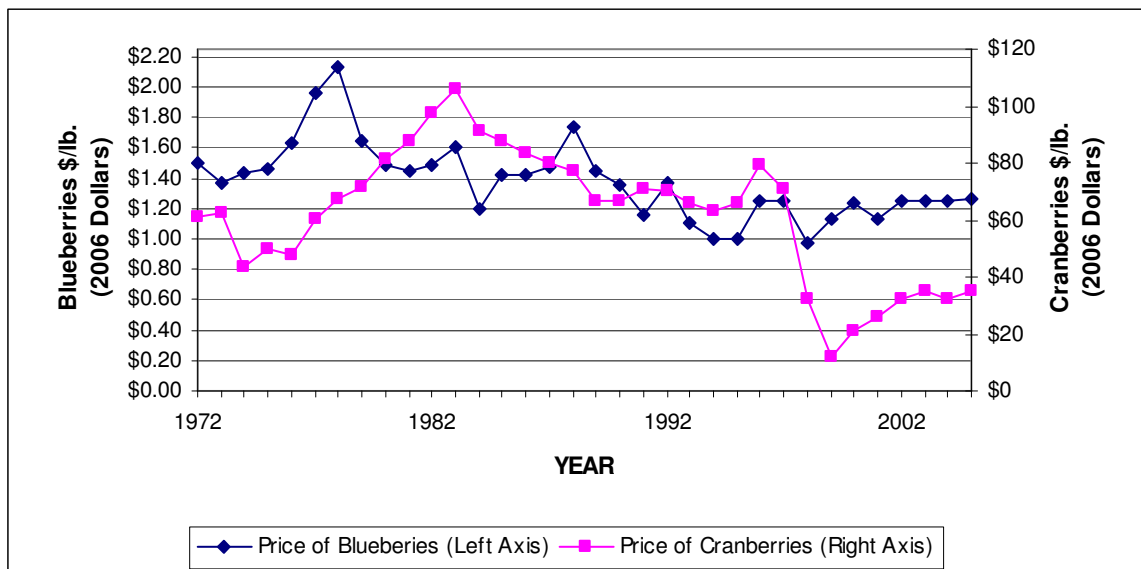
- According to the 2002 Census of Agriculture, the seven Pinelands counties are responsible for more than half of the agricultural sales statewide.

Description: Agriculture is recognized in federal and state Pinelands legislation as an industry of special significance, and therefore receives a more detailed examination that uses three variables. The third indicator is actually a collection of indicators from the Agricultural Census, which is taken every five years.

Unit of Analysis: Agricultural Census data is limited to the county level and consequently inside/outside Pinelands trends cannot be distinguished.

Summary of Previous Findings

The seven Pinelands counties contained nearly 34% (287,000 acres) of the roughly 847,000 farm acres reported for New Jersey in the 1992 Census of Agriculture. From 1982-1992, the State lost 7.5% of its farm base, with Pinelands counties experiencing a 9.5% decline and Non-Pinelands counties experiencing a 6.4% loss. From 1982-1997, the State lost 9.1% of its farm base, with Pinelands counties experiencing an 8.7% decline and Non-Pinelands counties experiencing a 9.5% loss. However, from 1992-1997, farm acres in Pinelands counties increased by roughly 1% to 289,435 acres, which represents almost 35% of the State's 832,600 farm acres. Cape May County continued to have high rates of decline in its farm base from 1992 to 1997. In contrast, Atlantic, Burlington, Camden and Ocean Counties experienced gains in farmland acreage over the same period.

The number of farms from 1992-1997 remained relatively constant for Pinelands counties, Non-Pinelands counties and the State. The average farm size increased slightly for Pinelands counties from 1992-1997. However, the average farm size for Non-Pinelands counties and the State continued to decrease over the same period.

With respect to agricultural sales, Pinelands counties contributed nearly 48% of total sales statewide in 1992. Similarly, Pinelands counties contributed 45% of total agricultural sales statewide in 1982 while accounting for only 35% of farm acreage. From 1992-1997, agricultural sales in Pinelands counties increased 18.4% while agricultural sales in Non-Pinelands counties increased by 10.7%. Pinelands counties contributed 49.4% of total sales statewide in 1997; a high value relative to its 34.8% share of total State agricultural acreage.

In terms of net cash returns, farms in the Pinelands counties accounted for 57.4% of statewide net returns in 1997, up 3% from 1992. Burlington County's share of statewide returns increased from 11% in 1992 to 13.5% in 1997. Comparison of total net cash returns over the monitoring period (1987-1997) clearly demonstrates the influence of economic conditions on the State's farm sector. The effect of the recession can be seen as statewide returns dropped 24.2% from 1987-1992, with Non-Pinelands counties experiencing a steeper decline of 32.4% and Pinelands counties a more moderate decline of 15.6%. Aggregate trends, however, were shown to be misleading with the Pinelands county returns dropping 29% when Cumberland County's contribution was removed. The economic upswing can be seen as statewide returns increased 60.5% from 1992-1997, with Pinelands counties experiencing a greater increase of 69.6% and Non-Pinelands counties a more moderate increase of 49.8%.

Net cash return per farm in Pinelands counties also increased at a faster rate than the remainder of the State and remained at overall higher levels. Net cash return per farm in Pinelands counties increased 70.1% from 1992-1997, while Non-Pinelands counties increased by 49.3% over the same period.

More than half of New Jersey's farms lost money in 1987, 1992, and 1997 while the proportion of farms losing money grew each year. Almost 55% of farmers statewide lost money in 1997, up 1.5% from 1992. However, farmers in Pinelands counties continued to fare better than farmers in Non-Pinelands counties. The percentage of farmers in Pinelands counties that lost money in 1997 was 45.6%, down almost 2% from 1992.

Update

By nearly any measure used in the recently released 2002 Census of Agriculture, the Pinelands counties made considerable gains in relation to the rest of the state in regards to agriculture between 1997 and 2002. Over the five-year period, Pinelands counties increased their acres in farming by 2.3% to 295,959 acres. The remainder of counties in the state had a net decrease of 10.2% in acres farmed. The increase in the Pinelands is due primarily to

increases in Burlington and Cumberland counties that totaled more than 11,500 acres (Burlington +7,610, +7.3% and Cumberland +3,903, +5.8%).

The same story holds true for the number of farms during the 1997-2002 period. Pinelands counties had an increase of 6.4% in the number of farms during the period, in contrast to a 4.6% decline in the rest of the state. While average farm size did decrease in the Pinelands counties (-3.9%), the drop in the rest of the state was larger (-5.8%). Again, the two largest agricultural bases in the Pinelands (Burlington and Cumberland counties) recorded increases in farm size between 1997 and 2002 (+10.8% and +6.8% respectively).

Agricultural sales in the Pinelands counties relative to the rest of the state continued their increase from previous agricultural censuses. With $406 million in sales in 2002, the Pinelands counties for the first time make up more than half of the state's agricultural sales (52.8%) while comprising only 36.7% of the total acres farmed in the state. In terms of net cash returns, farms in the Pinelands counties posted profits of $107.7 million in 2002, a total that represents 68.4% of statewide agricultural profits. Net cash return per farm in the Pinelands counties did decline 15.2% from 1997 to 2002; however, in the rest of the state net cash return per farm dropped 49% over the same period.

Farm viability continues to be an issue in New Jersey. In 2002, more than half (56.1%) of the farms in the Pinelands counties posted net losses. In the rest of the state, 64.4% of farms had net losses for the year. Gloucester and Ocean counties had the highest percentage of farms with losses in the Pinelands in 2002 (74.1% and 60.4% respectively). In contrast, Atlantic County was the only Pinelands county to decrease its percentage of farms, with net losses from 1997 to 2002 (1997: 53.5% and 2002: 43.2%) .

Table E7a   Land in Farming

County	Land in Farming (acres)					Percentage Change			
	1987	1992	1997	2002		'87-'92	'92-'97	'97-'02	'87-'02
Atlantic	29,423	29,606	31,620	30,337		0.6%	6.8%	-4.1%	3.1%
Burlington	103,224	97,186	103,627	111,237		-5.8%	6.6%	7.3%	7.8%
Camden	10,033	7,799	9,446	10,259		-22.3%	21.1%	8.6%	2.3%
Cape May	13,553	11,644	9,840	10,037		-14.1%	-15.5%	2.0%	-25.9%
Cumberland	72,406	68,627	67,194	71,097		-5.2%	-2.1%	5.8%	-1.8%
Gloucester	62,128	61,748	58,888	50,753		-0.6%	-4.6%	-13.8%	-18.3%
Ocean	8,820	10,365	12,061	12,239		17.5%	16.4%	1.5%	38.8%
Pinelands Counties	**299,587**	**286,975**	**289,435**	**295,959**		**-4.2%**	**0.9%**	**2.3%**	**-1.2%**
Non-Pinelands Counties	594,839	560,620	567,474	509,723		-5.8%	1.2%	-10.2%	-14.3%
State Total	894,426	847,595	856,909	805,682		-5.2%	1.1%	-6.0%	-9.9%

County	Number of Farms					Percentage Change			
	1987	1992	1997	2002		'87-'92	'92-'97	'97-'02	'87-'02
Atlantic	384	391	465	456		1.8%	18.9%	-1.9%	18.8%
Burlington	834	816	935	906		-2.2%	14.6%	-3.1%	8.6%
Camden	177	188	236	216		6.2%	25.5%	-8.5%	22.0%
Cape May	124	163	165	197		31.5%	1.2%	19.4%	58.9%
Cumberland	612	609	622	616		-0.5%	2.1%	-1.0%	0.7%
Gloucester	681	704	718	692		3.4%	2.0%	-3.6%	1.6%
Ocean	206	233	268	217		13.1%	15.0%	-19.0%	5.3%
Pinelands Counties	**3,018**	**3,104**	**3,101**	**3,300**		**2.8%**	**-0.1%**	**6.4%**	**9.3%**
Non-Pinelands Counties	6,014	5,975	6,944	6,624		-0.6%	16.2%	-4.6%	10.1%
State Total	9,032	9,079	10,045	9,924		0.5%	10.6%	-1.2%	9.9%

County	Average Farm Size (acres)					Percentage Change			
	1987	1992	1997	2002		'87-'92	'92-'97	'97-'02	'87-'02
Atlantic	77	76	68	67		-1.3%	-10.5%	-2.2%	-13.6%
Burlington	124	119	111	123		-4.0%	-6.9%	10.8%	-1.0%
Camden	57	41	40	47		-28.1%	-2.4%	18.7%	-16.7%
Cape May	109	71	60	51		-34.9%	-16.0%	-14.6%	-53.3%
Cumberland	118	113	108	115		-4.2%	-4.4%	6.8%	-2.2%
Gloucester	91	88	82	73		-3.3%	-6.8%	-10.6%	-19.4%
Ocean	43	44	45	56		2.3%	2.3%	25.3%	31.2%
Pinelands Counties	**99**	**92**	**93**	**90**		**-7.1%**	**1.5%**	**-3.9%**	**-9.4%**
Non-Pinelands Counties	99	94	82	77		-5.1%	-13.1%	-5.8%	-22.3%
State Total	99	93	85	81		-6.1%	-8.3%	-4.8%	-18.0%

Table E7b Agricultural Sales
(2004 Dollars)

County	Agricultural Sales ($1,000s)				Percentage Change				Agricultural Sales as % of New Jersey			
	1987	1992	1997	2002	'87-'92	'92-'97	'97-'02	'87-'02	1987	1992	1997	2002
Atlantic	62,162	58,685	74,944	82,700	-5.6%	27.7%	10.3%	33.0%	7.5%	8.2%	9.1%	10.7%
Burlington	92,618	87,212	103,361	87,698	-5.8%	18.5%	-15.2%	-5.3%	11.2%	12.1%	12.6%	11.4%
Camden	13,217	11,049	20,632	14,366	-16.4%	86.7%	-30.4%	8.7%	1.6%	1.5%	2.5%	1.9%
Cape May	7,677	7,583	8,037	11,852	-1.2%	6.0%	47.5%	54.4%	0.9%	1.1%	1.0%	1.5%
Cumberland	97,149	98,599	111,175	129,222	1.5%	12.8%	16.2%	33.0%	11.7%	13.7%	13.5%	16.8%
Gloucester	77,390	73,720	79,080	69,534	-4.7%	7.3%	-12.1%	-10.2%	9.4%	10.2%	9.6%	9.0%
Ocean	8,202	6,817	9,647	11,300	-16.9%	41.5%	17.1%	37.8%	1.0%	0.9%	1.2%	1.5%
Pinelands Counties	**358,415**	**343,664**	**406,876**	**406,671**	**-4.1%**	**18.4%**	**-0.1%**	**13.5%**	**43.3%**	**47.7%**	**49.4%**	**52.8%**
Non-Pinelands Counties	462,459	376,298	416,587	363,147	-18.6%	10.7%	-12.8%	-21.5%	55.9%	52.3%	50.6%	47.2%
State Total	827,445	719,961	823,463	769,819	-13.0%	14.4%	-6.5%	-7.0%	100.0%	100.0%	100.0%	100.0%

Table E7c Net Cash Return for New Jersey Farms
(2004 Dollars)

County	Total Net Cash Return (1,000's)			Percentage Change			Total Net Cash Return as Pct. of NJ		
	1992	1997	2002	'92-'97	'97-'02	'92-'02	1992	1997	2002
Atlantic	$13,924	$17,542	$28,037	26.0%	59.8%	101.4%	10.8%	8.4%	17.8%
Burlington	$14,226	$27,948	$23,347	96.5%	-16.5%	64.1%	11.0%	13.5%	14.8%
Camden	$2,580	$9,263	$3,977	259.1%	-57.1%	54.1%	2.0%	4.5%	2.5%
Cape May	$1,318	$2,287	$5,637	73.5%	146.4%	327.6%	1.0%	1.1%	3.6%
Cumberland	$23,017	$34,678	$34,152	50.7%	-1.5%	48.4%	17.8%	16.7%	21.7%
Gloucester	$14,175	$24,340	$10,901	71.7%	-55.2%	-23.1%	11.0%	11.7%	6.9%
Ocean	$1,021	$3,115	$1,631	204.9%	-47.6%	59.6%	0.8%	1.5%	1.0%
Pinelands Counties	**$70,262**	**$119,173**	**$107,681**	**69.6%**	**-9.6%**	**53.3%**	**54.3%**	**57.4%**	**68.4%**
Non-Pinelands Counties	$59,103	$88,527	$49,838	49.8%	-43.7%	-15.7%	45.7%	42.6%	31.6%
New Jersey	$129,367	$207,700	$157,519	60.6%	-24.2%	21.8%	100.0%	100.0%	100.0%

Table E7d   Net Cash Return per Farm
(2004 Dollars)

County	Net Cash Return per Farm				Percentage Change		
	1992	1997	2002		'92-'97	'97-'02	'92-'02
Atlantic	$35,610	$41,568	$61,485		16.7%	47.9%	72.7%
Burlington	$17,412	$32,650	$25,685		87.5%	-21.3%	47.5%
Camden	$13,650	$44,321	$18,495		224.7%	-58.3%	35.5%
Cape May	$8,136	$15,347	$28,325		88.6%	84.6%	248.1%
Cumberland	$37,734	$60,414	$55,441		60.1%	-8.2%	46.9%
Gloucester	$20,108	$37,388	$15,775		85.9%	-57.8%	-21.6%
Ocean	$4,400	$13,197	$7,584		199.9%	-42.5%	72.4%
Pinelands Counties	**$22,621**	**$38,480**	**$32,620**		**70.1%**	**-15.2%**	**44.2%**
Non-Pinelands Counties	$9,888	$14,761	$7,530		49.3%	-49.0%	-23.9%
New Jersey	$14,243	$22,839	$15,879		60.4%	-30.5%	11.5%

Table E7e   Farms with Net Losses

| County	Farms with Net Losses			Percentage of All Farms with Net Losses		
	1992	1997	2002	1992	1997	2002
Atlantic	162	227	197	41.4%	53.5%	43.2%
Burlington	431	369	478	52.8%	43.1%	52.8%
Camden	91	94	108	48.4%	44.5%	50.0%
Cape May	75	75	111	46.0%	50.3%	56.3%
Cumberland	219	248	314	36.0%	43.3%	51.0%
Gloucester	337	286	513	47.9%	43.9%	74.1%
Ocean	159	114	131	68.2%	48.5%	60.4%
Pinelands Counties	**1,474**	**1,413**	**1,852**	**47.5%**	**45.6%**	**56.1%**
Non-Pinelands Counties	3,375	3,582	4,265	56.5%	59.7%	64.4%
New Jersey	4,849	4,995	6,117	53.4%	54.9%	61.6%

Avg Residential Property Tax Bill X Updated

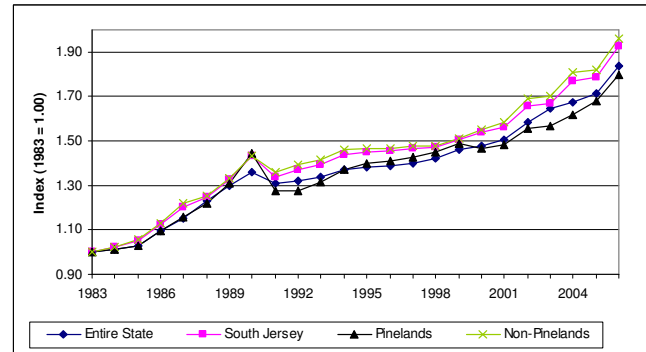## NJ Dept of Treasury, Division of Taxation 1983 - 1999
NJ Dept of Community Affairs, Div LGS 2000 - 2006

- In 2006, the gap in the average residential property tax bill paid between the Pinelands and Non-Pinelands increased for the sixth time in the last seven years.

Average Residential Property Tax Bill
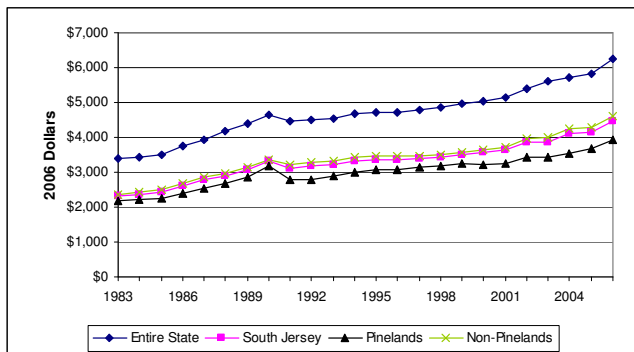
Index of Average Residential Property Tax Bill

Description: The average residential property tax bill measures the impact of property taxes on municipal residents. It is calculated by dividing the average residential property value by 100 and multiplying the result by the general tax rate. Values are adjusted for inflation and shown in 2006 dollars.

Unit of Analysis: Average residential property tax data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings

Average residential property tax bills in New Jersey demonstrated a gradual but steady pattern of increase throughout the 1980s. Following a large one year decline in 1991, residential property taxes subsequently began a slow, continued increase from 1992-2005. The annual rate of change over the monitoring period was virtually the same for all geographic areas. By 1998, average residential tax bills in all areas surpassed their previous 1990 peaks. From 1998 to 2005, real tax rates increased by 22.9% for the Non-Pinelands versus just 16.1% for the Pinelands.

Update

The average residential property tax bill increased in the 7% to 8% range for all regions in 2006.   Statewide, average residential property taxes rose 7.2%, while in South Jersey the increase was 7.8% for the year. However, within South Jersey, the Pinelands did fare slightly better than the Non-Pinelands, registering an increase in average residential property taxes of 6.8% versus an 8.0% increase in the Non-Pinelands. Once again, the gap between the taxes paid in the Pinelands and other regions continued to widen in 2006.   Average residential property taxes in the Pinelands are now $688 lower than in the Non-Pinelands and $2,307 lower than the state as a whole.

The average residential property tax bill in New Jersey, adjusted for inflation, has increased by 67% between 1986 and 2006, from $3,735 to $6,244. Within Southern New Jersey, the average Pinelands bill increased by 64% (from $2,405 to $3,937) while the average Non-Pinelands bill increased by 74% (from $2,666 to $4,625).

The rapidly growing second ring of suburbs surrounding the Philadelphia metropolitan area experienced the highest increases in average residential property taxes over the past 20 years. Smaller concentrations of increasing tax bills exist in Ocean County and along the shore. The southern, rural municipalities had the smallest increases in property taxes from 1986-2006.

From 2005 to 2006, 7 of the 47 Pinelands municipalities (14.9%) experienced real tax decreases (Table F1). In the remaining 155 municipalities that comprise the Non-Pinelands, 21 had real tax decreases from 2005 to 2006 (13.5%).

Table F1   Average Residential Property Tax Bill in the Pinelands

Municipality	County	Avg. Property Tax Bill 2006	Actual Change from 2005	% Change from 2005	South Jersey Rank 2006
Egg Harbor City	Atlantic	$4,362	$513	10.5%	89
Jackson	Ocean	$5,642	$419	6.9%	37
Eagleswood	Ocean	$4,029	$416	9.4%	109
Buena Vista	Atlantic	$3,268	$324	9.0%	153
Stafford	Ocean	$4,810	$308	6.0%	73
Monroe	Gloucester	$5,147	$306	5.6%	58
Lakehurst	Ocean	$3,453	$252	6.8%	143
Medford	Burlington	$8,161	$251	3.0%	6
Tabernacle	Burlington	$5,781	$240	4.0%	29
Hamilton	Atlantic	$3,471	$234	6.3%	142
Weymouth	Atlantic	$3,133	$233	6.9%	161
Evesham	Burlington	$6,065	$232	3.7%	22
Chesilhurst	Camden	$3,326	$229	6.5%	149
Winslow	Camden	$4,334	$223	4.9%	93
Franklin	Gloucester	$3,682	$222	5.7%	131
Mullica	Atlantic	$3,668	$209	5.4%	132
Buena	Atlantic	$3,217	$202	5.9%	157
Maurice River	Cumberland	$2,781	$196	6.6%	181
Waterford	Camden	$4,817	$193	3.9%	72
Medford Lakes	Burlington	$7,300	$162	2.2%	11
Port Republic	Atlantic	$4,280	$158	3.6%	96
Egg Harbor Township	Atlantic	$4,429	$147	3.2%	85
Berlin Township	Camden	$4,425	$144	3.2%	86
Galloway	Atlantic	$3,958	$142	3.5%	116
South Toms River	Ocean	$2,996	$139	4.4%	172
Hammonton	Atlantic	$3,980	$134	3.3%	115
New Hanover	Burlington	$3,032	$126	4.0%	168
Southampton	Burlington	$4,142	$124	2.9%	103
Lacey	Ocean	$4,130	$123	2.9%	104
Ocean	Ocean	$3,841	$114	2.9%	125
Shamong	Burlington	$6,233	$112	1.8%	20
Beachwood	Ocean	$3,489	$104	2.9%	141
Woodland	Burlington	$3,418	$81	2.3%	144
Little Egg Harbor	Ocean	$3,712	$67	1.8%	129
Estell Manor	Atlantic	$3,098	$64	2.0%	165
Berkeley	Ocean	$3,171	$60	1.9%	159
Barnegat	Ocean	$4,463	$48	1.1%	84
Manchester	Ocean	$2,937	$44	1.5%	176
Woodbine	Cape May	$1,561	$39	2.4%	199
Pemberton Township	Burlington	$3,024	$11	0.4%	169
Washington	Burlington	$2,882	-$3	-0.1%	179
Plumsted	Ocean	$4,361	-$23	-0.5%	90
Folsom	Atlantic	$2,569	-$40	-1.6%	187
Bass River	Burlington	$3,125	-$84	-2.8%	163
Wrightstown	Burlington	$1,575	-$116	-8.0%	198
Dennis	Cape May	$2,203	-$316	-16.8%	193
Upper	Cape May	$3,564	-$494	-16.1%	136
"Outside Municipalities"					
Springfield	Burlington	$5,272	$277	5.0%	51
Berlin Borough	Camden	$5,439	$249	4.4%	44
North Hanover	Burlington	$4,047	$192	4.5%	108
Vineland	Cumberland	$3,370	$165	4.7%	148
Corbin City	Atlantic	$3,556	-$331	-10.2%	137

Figure F1   Average Residential Property Tax Bill in 2006*

Pinelands Boundary

Residential Property Tax Bill

0 - $2,641

$2,642 - $4,390

$4,391 - $6,358

$6,359 - $10,652

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007
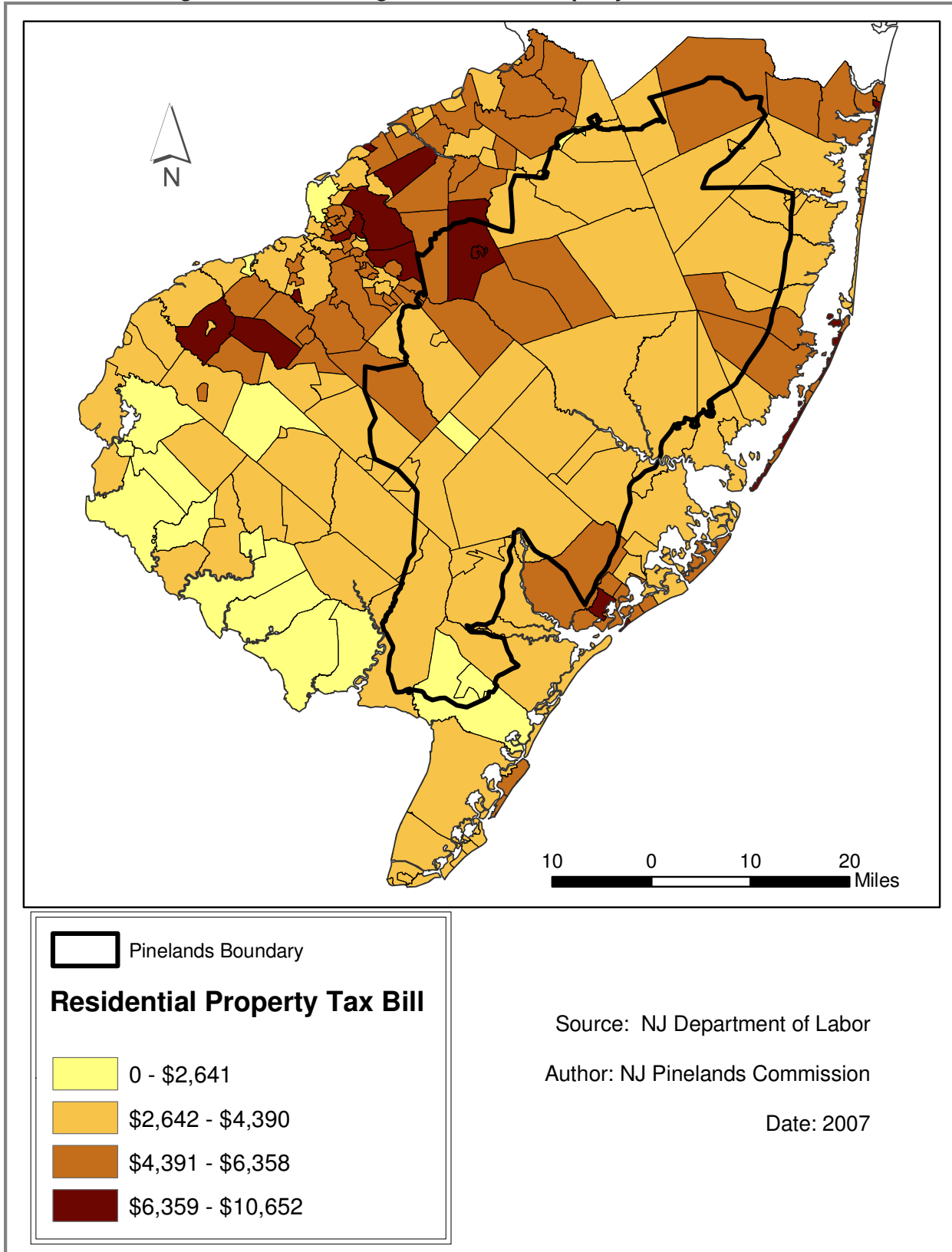
* Range excludes outliers Tavistock Borough and Mantoloking Borough.

- Despite a slowdown in real estate activity in 2006, the average equalized property value increased by more than 10% in all regions (Pinelands +13%, Statewide +10.8%).

Average State Equalized Valuation (2006 Dollars)
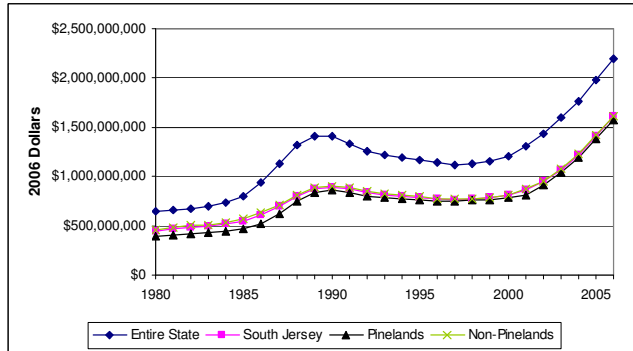
Index of State Equalized Valuation
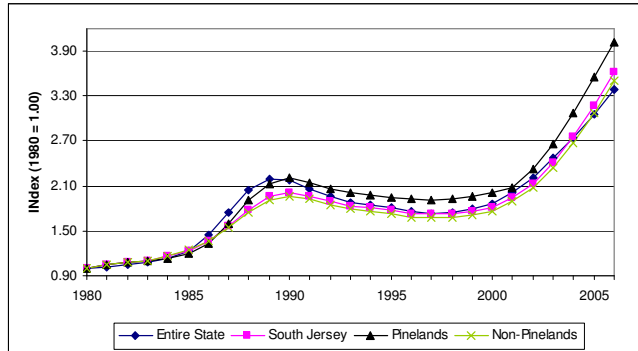
Description: Equalized property value is the total assessed value of all property in a municipality adjusted for different municipal assessment biases in order to make values across New Jersey municipalities comparable to one another. It is useful as a measurement of the wealth of one municipality relative to other municipalities. Values are adjusted for inflation and shown in 2006 dollars.

Unit of Analysis: State equalized valuation data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings

Equalized property valuation in New Jersey rose throughout the 1980s, with most of the growth concentrated in the latter part of the decade. Average municipal valuation in the Pinelands tracked closely with average valuation outside the Pinelands. While average valuation in the Pinelands was lower than average valuation outside of the Pinelands over the monitoring period, the gap progressively narrowed. Conversely, while average valuation in Southern New Jersey remained lower than average valuation in the entire State, the differential did not diminish over the monitoring period. Following a peak in 1989, statewide average valuation experienced a steeper decline than average valuation throughout Southern New Jersey. From 1990 to 1997, average equalized valuation declined across all areas of the State. This trend reversed after 1997 as average equalized property valuations rose between 1998 and 2005 in all regions.

Update

Equalized property values rose in all regions of the state for the ninth consecutive year in 2006. This year, the increase in valuation for the Pinelands was slightly surpassed by the increase in the Non-Pinelands (+13.0% versus +14.2%). The valuation for the average Pinelands municipality was $1.57 billion in 2006, compared to an average of $1.62 billion for the average Non-Pinelands municipality. The gap in valuation between the Pinelands and Non-Pinelands continues to narrow. In 1985, the average Non-Pinelands municipality valuation was 22.8% higher than the average Pinelands municipality. By 2006, that difference has almost evaporated; the average Non-Pinelands municipality valuation is now only 3.0% higher than in the Pinelands.

More populated municipalities tend to have higher equalized values, as more structures and higher densities push up property values. Per capita equalized values can be used to make more equal comparisons by accounting for the relative wealth of inhabitants for particular jurisdictions. Total 2006 equalized values were divided by 2005 population estimates for each region. The results show that the state has a higher equalized value per capita than Southern New Jersey ($142,451 versus $135,900), while the Pinelands region has a much lower per capita value compared to the Non-Pinelands region ($109,191 versus $146,448). The Pinelands municipalities exhibit a great deal of variation, with per capita values ranging from a high of $195,000 in Eagleswood to a low of $8,000 in New Hanover (Table F2).

Table F2   Equalized Value and Equalized Value Per Capita 2006

County	Municipality	Population Est 2005	Equalized Value 2006*	Eq Value Per Capita*
Ocean	Eagleswood	1,565	$305,200,000	$195,000
Ocean	Stafford	25,249	$4,827,200,000	$191,200
Cape May	Upper	11,638	$2,060,900,000	$177,100
Burlington	Washington	643	$110,200,000	$171,400
Ocean	Ocean	7,822	$1,243,700,000	$159,000
Ocean	Lacey	26,236	$4,127,600,000	$157,300
Cape May	Dennis	6,050	$922,800,000	$152,500
Ocean	Little Egg Harbor	19,840	$2,794,300,000	$140,800
Ocean	Berkeley	42,513	$5,902,300,000	$138,800
Burlington	Medford	23,437	$3,199,200,000	$136,500
Ocean	Jackson	51,886	$6,740,000,000	$129,900
Burlington	Woodland	1,363	$164,500,000	$120,700
Atlantic	Egg Harbor Township	37,994	$4,490,200,000	$118,200
Atlantic	Estell Manor	1,718	$200,000,000	$116,400
Ocean	Barnegat	20,314	$2,351,500,000	$115,800
Atlantic	Port Republic	1,191	$137,000,000	$115,000
Burlington	Evesham	46,804	$5,313,800,000	$113,500
Burlington	Southampton	10,894	$1,211,300,000	$111,200
Ocean	Plumsted	8,050	$892,500,000	$110,900
Burlington	Bass River	1,557	$172,100,000	$110,500
Burlington	Shamong	6,844	$745,300,000	$108,900
Burlington	Medford Lakes	4,171	$449,600,000	$107,800
Atlantic	Hamilton	23,839	$2,547,900,000	$106,900
Burlington	Tabernacle	7,328	$774,400,000	$105,700
Ocean	Manchester	41,903	$4,213,500,000	$100,600
Camden	Berlin Township	5,379	$529,200,000	$98,400
Atlantic	Galloway	35,744	$3,488,600,000	$97,600
Atlantic	Hammonton	13,551	$1,306,700,000	$96,400
Atlantic	Mullica	6,093	$558,500,000	$91,700
Ocean	Beachwood	10,735	$967,200,000	$90,100
Atlantic	Folsom	1,967	$169,600,000	$86,200
Gloucester	Monroe	31,349	$2,533,700,000	$80,800
Gloucester	Franklin	16,601	$1,300,900,000	$78,400
Camden	Waterford	10,674	$791,700,000	$74,200
Atlantic	Buena	3,837	$275,800,000	$71,900
Ocean	South Toms River	3,697	$263,200,000	$71,200
Atlantic	Buena Vista	7,519	$515,300,000	$68,500
Camden	Winslow	37,371	$2,546,700,000	$68,100
Atlantic	Egg Harbor City	4,486	$295,200,000	$65,800
Ocean	Lakehurst	2,682	$176,400,000	$65,800
Cape May	Woodbine	2,559	$138,900,000	$54,300
Burlington	Pemberton Township	28,802	$1,498,100,000	$52,000
Burlington	Wrightstown	743	$38,300,000	$51,500
Atlantic	Weymouth	2,319	$116,100,000	$50,100
Camden	Chesilhurst	1,858	$69,400,000	$37,400
Cumberland	Maurice River	7,662	$258,100,000	$33,700
Burlington	New Hanover	9,500	$75,700,000	$8,000
"Outside" Municipalities				
Burlington	Springfield	3,546	$475,500,000	$134,100
Camden	Berlin Borough	7,815	$709,800,000	$90,800
Atlantic	Corbin City	530	$47,800,000	$90,200
Cumberland	Vineland	57,986	$3,427,700,000	$59,100
Burlington	North Hanover	7,577	$426,400,000	$56,300

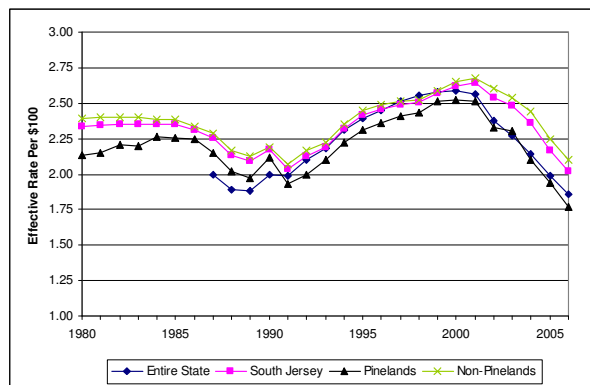* Values have been rounded. Shown in current 2005 dollars.

- Effective Tax Rates have declined by 30% in the Pinelands over the last six years. During the same time period, effective tax rates have fallen in the Non-Pinelands by 21%.

Effective Tax Rate (Per $100 State Equalized Valuation)

Index of Effective Tax Rate
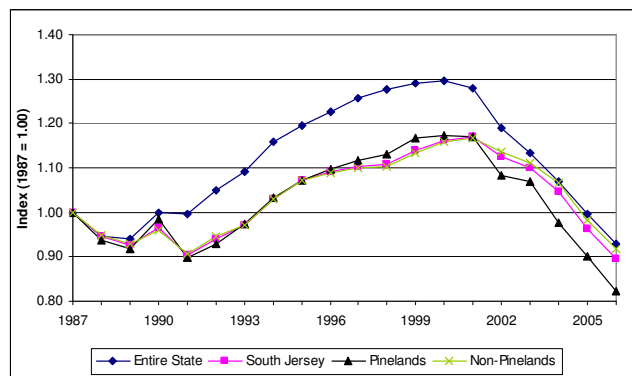
Description: The effective tax rate measures the ratio of taxes to property value. The effective tax rate is the rate at which the municipality taxes the (equalized) assessed value of property, and is equal to the general property tax adjusted by the municipality's equalization ratio as calculated by the NJ Dept of the Treasury, Division of Taxation.

Unit of Analysis: Average effective tax rate data are compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings

Effective tax rates in all regions remained steady or increased slightly in the early 1980s before beginning a period of decline in 1986. Although statewide data were not available until 1987, statewide effective tax rates were below rates outside of the Pinelands, but surpassed rates inside of the Pinelands in 1991. Effective tax rates have gradually increased in all regions since the early 1990s and surpassed earlier highs set in the 1980s. Pinelands effective tax rates continue to remain lower than all other regions of New Jersey. Rates began falling in 2001 and continued to fall through 2005.

Update

Effective tax rates declined across all regions of the state for the sixth consecutive year in 2006. Statewide, New Jersey posted a decrease of 6.5% in effective tax rates in 2006, dropping from 1.99 in 2005 to 1.86 in 2006. In Southern New Jersey, effective tax rates fell 6.4% in the Non-Pinelands (from 2.24 to 2.10) and dropped 8.6% in the Pinelands (from 1.94 to 1.77). The decrease in effective tax rates is linked to an increase in home sale price and a corresponding increase in equalized property valuation. A detailed explanation of how effective tax rates are computed and the synergy between home sales price, equalized value, and effective tax rates can be found in the 2003 Annual Report.

Studies have suggested that effective tax rates above 3.00 indicate municipal fiscal stress.[15] Currently, there are not any Pinelands municipalities with a rate higher than 3.00. By contrast, in the Non-Pinelands, 18 municipalities have effective tax rates above 3.00, which represents 11.6% of the Non-Pinelands municipalities. The majority of municipalities with rates above 3.00 are clustered in Camden County (Figure F3).

15 See "The Property Tax Trouble Zone Moves Beyond Big Cities" by Coleman, *New Jersey Municipalities*, Dec 2002, p. 66-69

Figure F3   Effective Tax Rates 2006

Pinelands Boundary

Effective Tax Rate

0.33 - 1.22
1.23 - 2.01
2.02 - 2.79
2.80 - 6.56

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007
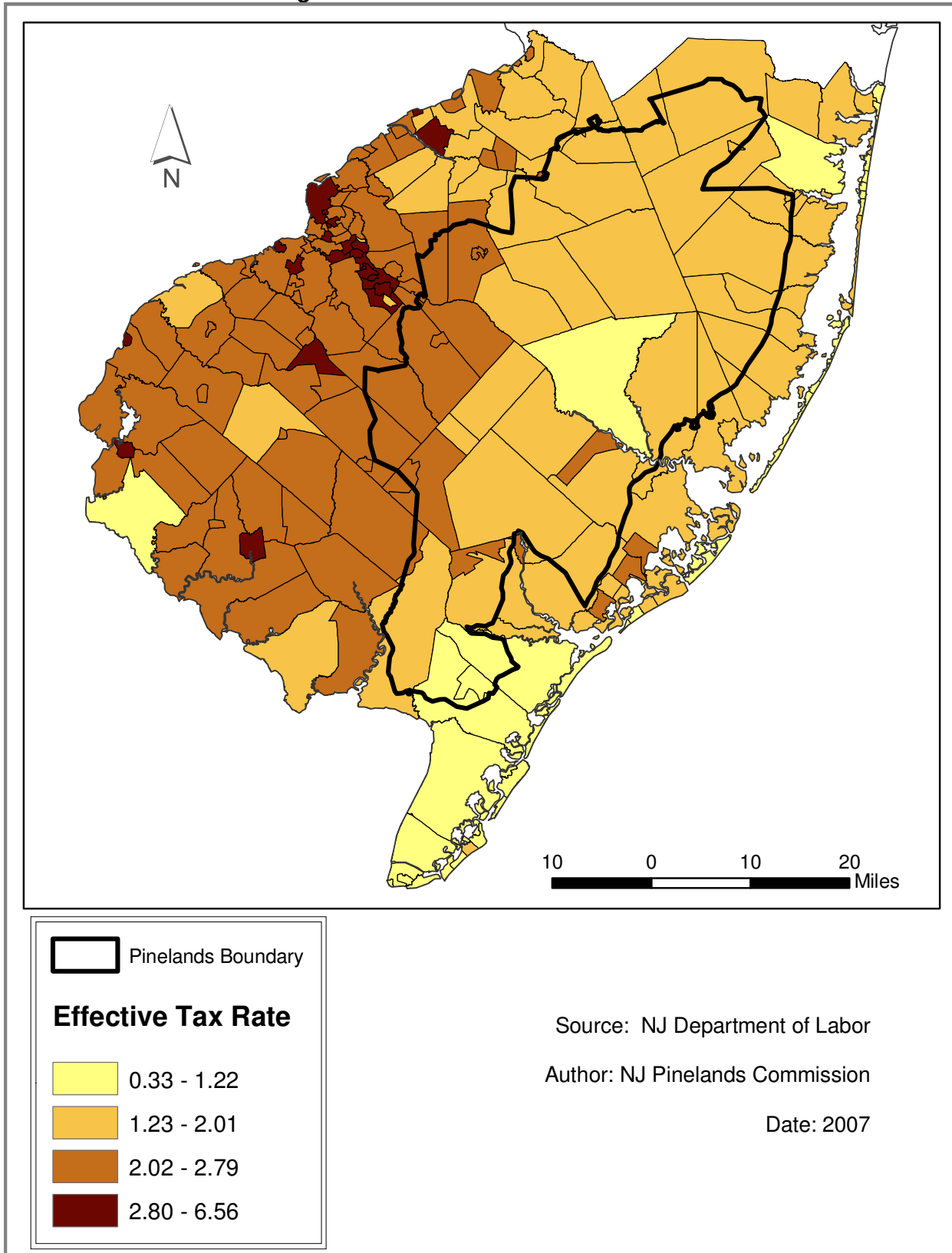
Table F3   Effective Tax Rates 2006

Municipality	County	Effective Tax Rate	South Jersey Rank
Berlin Township	Camden	2.761	30
Waterford	Camden	2.605	43
Medford Lakes	Burlington	2.552	51
Chesilhurst	Camden	2.512	57
Monroe	Gloucester	2.501	59
Winslow	Camden	2.497	60
Egg Harbor City	Atlantic	2.328	74
Medford	Burlington	2.295	79
Buena	Atlantic	2.229	83
Evesham	Burlington	2.192	85
Weymouth	Atlantic	2.144	92
Buena Vista	Atlantic	2.113	97
Franklin	Gloucester	2.045	105
Hammonton	Atlantic	2.006	111
Maurice River	Cumberland	1.987	115
Tabernacle	Burlington	1.969	117
Shamong	Burlington	1.924	121
Southampton	Burlington	1.909	122
Pemberton Township	Burlington	1.894	125
Mullica	Atlantic	1.786	130
Galloway	Atlantic	1.769	133
Hamilton	Atlantic	1.766	134
Woodland	Burlington	1.749	135
Egg Harbor Township	Atlantic	1.711	138
New Hanover	Burlington	1.661	139
Lakehurst	Ocean	1.661	139
Jackson	Ocean	1.583	143
Barnegat	Ocean	1.541	145
Port Republic	Atlantic	1.533	146
South Toms River	Ocean	1.488	149
Folsom	Atlantic	1.462	151
Estell Manor	Atlantic	1.449	153
Little Egg Harbor	Ocean	1.435	154
Plumsted	Ocean	1.425	155
Stafford	Ocean	1.414	156
Beachwood	Ocean	1.397	157
Manchester	Ocean	1.381	158
Bass River	Burlington	1.370	159
Wrightstown	Burlington	1.363	160
Berkeley	Ocean	1.318	163
Ocean	Ocean	1.310	165
Lacey	Ocean	1.302	166
Eagleswood	Ocean	1.278	168
Washington	Burlington	1.216	170
Upper	Cape May	1.157	173
Dennis	Cape May	1.128	174
Woodbine	Cape May	1.078	176
"Outside" Municipalities			
Berlin Borough	Camden	2.342	72
Vineland	Cumberland	2.153	90
Corbin City	Atlantic	1.989	114
Springfield	Burlington	1.957	118
North Hanover	Burlington	1.473	150

Assessment Class Proportions in Municipal Tax Revenues

X Updated

NJ Dept of Community Affairs, Div LGS 1980 – 1994, 2002 - 2006

- The vacant land category in the Pinelands has declined from 11.2% of total assessment in 1986 to 4.6% in 2006. Over the same period, the residential category has increased 8.7%.

Assessment Class Proportions in Municipal Tax Revenue 2006

Description: The relative contribution of the different assessment classes (e.g., commercial, residential, and vacant land) to the tax revenue of each municipality measures the reliance of the municipality on different types of land uses for tax revenues.

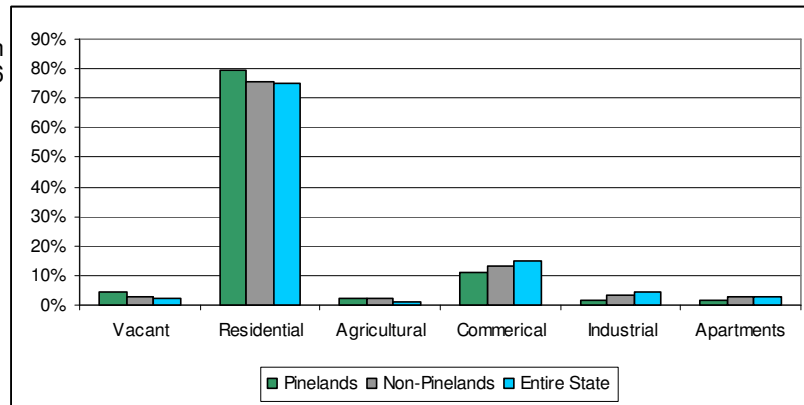**Unit of Analysis**: Data for assessment class proportions are compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Summary of Previous Findings

The Department of Community Affairs once again began compiling this data in 2004. Because a complete time series is still unavailable, this section examines changes in assessment class proportions using ten-year intervals of 1985, 1995, and 2005. Since land use changes of any magnitude evolve rather slowly, it is appropriate to look at changes over such larger periods as opposed to annual reviews.

Update

The Pinelands has a higher percentage of assessed property in the vacant and residential categories than the Non-Pinelands, and has generally had lower percentages in the remaining categories compared to the Non-Pinelands, particularly in the industrial and apartment categories. The predominant trend in the Pinelands is the decrease in the vacant assessment category as a percentage of total assessment and an increase in the residential category. Vacant land comprised 11.2% of total Pinelands assessed value in 1986, but dropped to 8.0% in 1996 and declined even further to 4.6% in 2006. Possible explanations include the development of vacant land, an increase in the value of developed land at a higher rate than that of vacant land, and/or a decrease in the value of vacant land. Meanwhile, the percent total of residential land increased from 70.7% in 1986, to 74.1% in 1996, to 79.4% in 2006. The percentage of assessment in agricultural and commercial land has remained relatively steady between 1996 and 2006, while the percentage of industrial assessed value has decreased.

The Pinelands municipalities of Medford Lakes, Beachwood, Tabernacle, Berkeley, Shamong, and Port Republic have the highest percentage of assessed value in the residential category (above 90%) in the Pinelands. Wrightstown, Berlin Township, and Woodbine have the lowest percentage of assessed value in the residential category (below 60%).

Table F4a   Assessment Class Proportions in Municipal Valuations

	1986	1996	2006	Change from 1986 - 2006
Pinelands				
Vacant	11.2%	8.0%	4.6%	-6.6%
Residential	70.7%	74.1%	79.4%	8.7%
Agricultural	3.3%	2.2%	2.0%	-1.3%
Commercial	10.6%	11.7%	11.0%	0.4%
Industrial	2.1%	2.4%	1.6%	-0.6%
Apartments	2.0%	1.6%	1.4%	-0.5%
Non-Pinelands				
Vacant	4.1%	3.4%	2.7%	-1.4%
Residential	69.0%	72.1%	75.5%	6.5%
Agricultural	4.3%	3.1%	2.1%	-2.2%
Commercial	14.0%	13.5%	13.2%	-0.8%
Industrial	4.6%	4.4%	3.5%	-1.2%
Apartments	3.2%	2.8%	2.9%	-0.3%
State				
Vacant	4.0%	3.3%	2.2%	-1.8%
Residential	66.8%	70.0%	74.8%	8.1%
Agricultural	1.1%	0.9%	0.8%	-0.3%
Commercial	15.7%	15.9%	14.8%	-1.0%
Industrial	8.4%	7.1%	4.6%	-3.8%
Apartments	4.0%	2.9%	2.8%	-1.2%

Table F4b Assessment Class Proportions for Pinelands Municipalities - 2006

Municipality	County	Vacant	Residential	Agricultural	Commercial	Industrial	Apartments
Medford Lakes	Burlington	0.3%	97.8%	0.0%	1.9%	0.0%	0.0%
Beachwood	Ocean	1.3%	94.7%	0.0%	3.8%	0.0%	0.2%
Tabernacle	Burlington	1.7%	93.0%	0.4%	2.7%	0.1%	0.0%
Shamong	Burlington	1.3%	92.7%	0.4%	1.9%	0.3%	0.0%
Berkeley	Ocean	1.9%	92.2%	0.0%	4.5%	0.4%	0.9%
Port Republic	Atlantic	3.4%	91.8%	0.1%	3.3%	0.0%	0.0%
Little Egg Harbor	Ocean	5.9%	89.1%	0.0%	4.8%	0.0%	0.1%
Barnegat	Ocean	4.4%	87.7%	0.0%	5.1%	0.2%	2.6%
Pemberton Township	Burlington	2.3%	87.5%	0.4%	5.8%	0.5%	2.2%
Medford	Burlington	1.1%	87.2%	0.2%	8.3%	0.5%	1.7%
Waterford	Camden	2.3%	87.0%	0.3%	7.8%	0.3%	0.5%
Ocean	Ocean	8.1%	86.9%	0.0%	4.8%	0.1%	0.0%
Plumsted	Ocean	2.3%	86.6%	0.5%	5.1%	1.0%	0.4%
Stafford	Ocean	4.1%	86.4%	0.0%	9.3%	0.1%	0.1%
Lacey	Ocean	2.6%	86.2%	0.0%	7.3%	3.8%	0.1%
Mullica	Atlantic	5.6%	85.5%	0.8%	5.5%	0.9%	0.2%
Jackson	Ocean	3.8%	85.2%	0.0%	8.8%	0.6%	1.1%
Winslow	Camden	3.6%	85.0%	0.3%	6.3%	1.4%	2.2%
Chesilhurst	Camden	8.4%	84.6%	0.0%	5.2%	1.3%	0.5%
Upper	Cape May	5.6%	84.4%	0.0%	8.3%	1.1%	0.1%
Monroe	Gloucester	2.7%	84.2%	0.1%	10.3%	0.5%	1.2%
Southampton	Burlington	2.9%	84.0%	0.8%	6.6%	1.0%	0.0%
South Toms River	Ocean	2.5%	83.5%	0.0%	13.9%	0.1%	0.0%
Franklin	Gloucester	4.1%	83.2%	0.7%	8.0%	0.0%	0.3%
Galloway	Atlantic	3.7%	83.0%	0.1%	9.8%	0.6%	2.2%
Weymouth	Atlantic	6.1%	82.2%	0.0%	9.6%	0.2%	1.6%
Lakehurst	Ocean	2.0%	81.8%	0.0%	15.8%	0.0%	0.3%
Estell Manor	Atlantic	11.0%	81.8%	1.4%	2.9%	1.4%	0.6%
Maurice River	Cumberland	7.2%	79.9%	1.2%	4.9%	5.4%	0.1%
Evesham	Burlington	0.7%	79.3%	0.0%	15.2%	0.7%	3.8%
Washington	Burlington	4.2%	79.3%	2.4%	9.1%	2.0%	0.2%
Buena Vista	Atlantic	6.4%	79.1%	0.8%	8.0%	2.3%	0.0%
Egg Harbor City	Atlantic	3.2%	78.2%	0.0%	13.3%	2.9%	2.4%
Dennis	Cape May	6.3%	78.1%	0.1%	14.0%	0.0%	0.0%
Manchester	Ocean	3.2%	76.6%	0.0%	6.5%	0.5%	13.1%
Bass River	Burlington	6.9%	76.3%	0.7%	14.1%	0.0%	0.0%
Folsom	Atlantic	4.4%	74.0%	0.2%	9.8%	10.1%	0.0%
Egg Harbor Township	Atlantic	7.1%	73.5%	0.0%	18.9%	0.0%	0.4%
Hammonton	Atlantic	2.7%	73.3%	0.8%	17.4%	2.7%	1.0%
Buena	Atlantic	2.3%	72.8%	1.0%	12.1%	3.4%	2.9%
Eagleswood	Ocean	17.0%	69.1%	0.0%	12.2%	1.5%	0.2%
Woodland	Burlington	6.7%	68.9%	1.4%	4.4%	6.4%	0.0%
New Hanover	Burlington	4.7%	66.1%	1.2%	22.6%	0.2%	0.0%
Hamilton	Atlantic	5.6%	62.3%	0.2%	27.0%	1.3%	3.2%
Woodbine	Cape May	10.0%	57.4%	0.2%	20.6%	3.1%	3.3%
Berlin Township	Camden	2.7%	51.4%	0.0%	35.7%	9.0%	1.2%
Wrightstown	Burlington	4.3%	41.6%	0.1%	39.1%	1.0%	13.9%
"Outside" Munis							
Corbin City	Atlantic	6.2%	83.8%	0.3%	9.2%	0.0%	0.0%
Berlin Borough	Camden	2.7%	80.8%	0.0%	13.8%	1.8%	0.8%
Springfield	Burlington	2.0%	75.7%	1.6%	10.7%	0.0%	0.0%
North Hanover	Burlington	1.9%	74.4%	1.3%	12.3%	0.0%	3.3%
Vineland	Cumberland	1.8%	70.4%	0.2%	17.4%	5.9%	2.8%

Local Municipal Purpose Revenues

NJ Dept of Community Affairs, Div LGS 1998 - 2006
Individual SJ County Tax Divisions 1995 - 1997

X Updated

> • In 2006, municipal budgets increased at a 4% rate in the Pinelands while remaining unchanged in the Non-Pinelands region. State aid decreased uniformly across all regions by 3%.

	Local Municipal Budget*	Budget Per Capita	Population Estimate	State Aid	State Aid Per Capita
Pinelands 1996	$415,865,574	$703	591,420	NA	NA
Pinelands 2006	$487,744,174	$722	675,977	$105,508,069	$156
Change	17.3%	2.6%	14.3%	NA	NA
Non-Pinelands 1996	$1,648,489,331	$1,022	1,612,610	NA	NA
Non-Pinelands 2006	$1,963,623,721	$1,147	1,711,841	$302,910,847	$177
Change	19.1%	12.2%	6.2%	NA	NA

* = Local Municipal Purposes + Total of Miscellaneous Revenues. Does not include school budget.

Description: Per capita revenues provide insight into the level or amount of service a municipality can provide. Money budgeted for local municipal purposes is used for maintaining all services within a municipality other than schools or infrastructure maintained by the county or state (such as roads). Local municipal purpose monies are raised largely through property taxes. Miscellaneous revenues have been added to local purpose monies and include: surplus revenues apportioned, receipts from delinquent taxes and liens, and other miscellaneous revenues anticipated such as user or license fees. Per capita rates were calculated by using: intercensal estimates from 1995 to 1999, the 2000 Census, and municipal estimates for 2001 to 2005. The population estimate for 2005 was used to calculate per capita figures for 2006, as 2006 municipal estimates were not available when this report was prepared. Per capita figures for 2006 may be slightly inflated as a result of using the 2005 population estimate.

Unit of Analysis: Municipal level data are aggregated to allow for inside/outside Pinelands analysis. Aggregates are sums, not averages.

Summary of Previous Findings

As a whole, the local municipal budget of Pinelands municipalities increased faster than the Non-Pinelands from 1995 to 2005. The Pinelands municipal budget increased by 16% during this period, compared to 12% for the Non-Pinelands. Within the local budget, monies raised through local municipal purposes increased substantially (by 49% in the Pinelands and 19% in the Non-Pinelands). Monies raised through miscellaneous revenues decreased slightly in the Pinelands (-2%) while the Non-Pinelands enjoyed an increase of 7% during the same time frame.

While municipal revenues increased both inside and outside the Pinelands from 1995 to 2005, the amount of revenue collected per person has remained relatively the same. As a whole, the Pinelands municipalities collected $688 in municipal revenues per capita in 1995 and $727 per capita in 2004, an increase of just 0.5%. The Non-Pinelands municipalities collected $1,006 per capita in 1995 versus $1,113 in 2004, an increase of 5.3%. The increase in revenues corresponds with population increases. As the population increases, the ability and need to raise additional revenues increases. Per capita revenues have remained rather constant, as additional citizens require additional services, which require additional expenditures. It is interesting to note that the increase in per capita revenues has not been consistent over time. Per capita revenues declined in both the Pinelands and Non-Pinelands since 1995. Per Capita revenues did not surpass 1995 levels until 2002 in the Non-Pinelands and 2003 in the Pinelands (Table F5a).

From 1995-2004, the Pinelands municipalities collected approximately $360 less per person annually compared to the Non-Pinelands. This difference is due to the fact that the Pinelands has lower tax rates than the Non-Pinelands (see sections F1 through F3) and because Pinelands municipalities tend to offer less in terms of municipal services. For example, the percentage of Pinelands municipalities that have no local police force is about twice that of Non-Pinelands municipalities (30% in the Pines vs. 15% in the Non-Pines).

Municipalities also rely on the state for aid to supplement local revenues. The earliest year available for state aid figures (in digital format) was 1999. From 1999-2004, state aid decreased by 7% to Pinelands municipalities and by 5% to Non-Pinelands municipalities. Per capita rates decreased by 15% in the Pines and 9% in the Non-Pines. While there is quite a gulf between Pinelands and Non-Pinelands municipalities in terms of municipal revenues per capita, the difference between the regions is much smaller in relation to the amount of state aid per capita. The Non-Pinelands region received 14% more in aid per capita than did the Pinelands area in 2004.

There is a large degree of variation among the Pinelands municipalities in terms of local municipal revenues and state aid. Municipal revenues have ranged from a high of approximately $2,800 to a low of $220 in the Pinelands. Similarly, state aid figures in the Pinelands have ranged from a high of approximately $700 to a low of $80 annually during the period from 1995 to 2004.

When per capita revenues and per capita state aid are viewed as averages (average per capita figures for all municipalities within a region, as opposed to a per capita figure for the entire region), different patterns emerge. When compared as regions (using aggregates illustrated in Table F5a), the Pinelands have had lower per capita revenue and received slightly less state aid per capita than the Non-Pinelands. When municipal averages for each of the aggregates are compared, the Pinelands has had substantially lower per capita revenue and received more state aid per capita compared to the Non-Pinelands over the period 1995-2004.

Update

The total municipal budget for the Pinelands municipalities increased by 4.1% in 2006, while the total municipal budget for the Non-Pinelands municipalities was relatively unchanged (+0.2%) for the year. However, when examined on a per capita basis, the Non-Pinelands municipal budgets are almost 50% higher than those in the Pinelands ($1,147 in the Non-Pines versus $775 in the Pinelands).

Total municipal state decreased 3.1% in the Pinelands while falling by 2.4% in the Non-Pinelands in 2006. For the period 1999-2006, the Pinelands municipalities have had both a smaller percentage increase in their per capita municipal budget and a larger percentage decrease in per capita state aid than the Non-Pinelands municipalities (Table F5a).

Among Pinelands municipalities, there were only four who increased their municipal budget by more than 15% in 2006: Bass River (+22.4%), Wrightstown(+17.9%), Buena Vista(+16.1%), and Hamilton(+16.0%). In contrast, only two Pinelands municipalities decreased their total municipal budget by more than 10%: Port Republic (-12.8%) and Ocean Township (-12.1%). In contrast to 2005, when 28 of the 47 Pinelands municipalities saw increases in state aid, most Pinelands municipalities saw their state aid numbers frozen. In real terms, after factoring in inflation, there was a uniform decrease in state aid of about 3% across the Pinelands (and across most of the state for that matter). The three big gainers were Woodland Township (+202%), Bass River (+41%), and Washington Township (+13%).

Table F5a Local Municipal Purpose Revenues and State Aid for Pinelands and Non-Pinelands Regions (In 2006 $s)

Region	Year	Local Municipal Purposes	Misc Revenues	Total Municipal Budget	Budget Per Capita	Population Estimate	State Aid	Aid Per Capita
Pines	1995	$140,783,072	$274,305,642	$415,088,715	$710	584,232		
Pines	1996	$145,200,070	$272,016,259	$417,216,330	$705	591,420		
Pines	1997	$149,793,611	$271,823,682	$421,617,293	$706	597,454		
Pines	1998	$155,007,099	$271,082,799	$426,089,899	$704	604,928		
Pines	1999	$162,125,859	$265,128,279	$427,254,138	$700	610,785	$115,955,977	$190
Pines	2000	$165,256,963	$263,345,118	$428,602,079	$696	615,984	$112,912,996	$183
Pines	2001	$177,651,350	$269,125,924	$446,777,273	$709	630,550	$115,952,055	$184
Pines	2002	$185,257,903	$272,603,168	$457,861,071	$711	643,787	$109,247,335	$170
Pines	2003	$197,311,691	$268,489,198	$465,800,888	$708	657,971	$112,982,596	$172
Pines	2004	$210,372,204	$269,162,211	$479,534,415	$715	670,666	$107,709,577	$161
Pines	2005	$222,612,749	$280,885,564	$503,498,311	$745	675,977	$108,912,889	$161
Pines	2006	$240,159,662	$284,012,768	$524,172,430	$775	675,977	$105,508,069	$156
NonPines	1995	$758,075,250	$905,830,591	$1,663,905,840	$1,039	1,601,776		
NonPines	1996	$758,533,026	$895,310,679	$1,653,843,705	$1,026	1,612,610		
NonPines	1997	$760,296,555	$898,575,078	$1,658,871,633	$1,022	1,622,388		
NonPines	1998	$772,349,079	$919,752,015	$1,692,101,094	$1,038	1,630,733		
NonPines	1999	$788,388,932	$900,071,485	$1,688,460,416	$1,030	1,639,053	$330,778,180	$202
NonPines	2000	$787,622,292	$907,830,352	$1,695,452,644	$1,029	1,647,532	$323,831,931	$197
NonPines	2001	$783,692,480	$906,879,856	$1,690,572,336	$1,018	1,660,123	$326,842,538	$197
NonPines	2002	$827,687,633	$924,937,360	$1,752,624,994	$1,044	1,678,078	$327,490,040	$195
NonPines	2003	$861,868,432	$919,033,489	$1,780,901,921	$1,052	1,692,777	$316,720,607	$187
NonPines	2004	$899,239,128	$966,566,354	$1,865,805,481	$1,093	1,706,338	$313,239,959	$184
NonPines	2005	$953,891,314	$1,005,974,038	$1,959,865,353	$1,145	1,711,841	$310,339,507	$181
NonPines	2006	$1,003,758,551	$959,864,820	$1,963,623,371	$1,147	1,711,841	$302,910,847	$177

Table F5b   Local Municipal Purpose Revenues and State Aid for Pinelands Municipalities in 2006

County	Municipality	Population Est 2005	Municipal Budget*	State Aid	Budget Per Capita	Aid Per Capita
Burlington	Washington	643	$1,626,682	$154,228	$2,530	$240
Burlington	Wrightstown	743	$1,245,581	$533,085	$1,676	$717
Burlington	Woodland	1,363	$1,941,179	$694,819	$1,424	$510
Cape May	Woodbine	2,559	$3,467,763	$466,174	$1,355	$182
Ocean	Stafford	25,249	$34,198,284	$3,527,177	$1,354	$140
Camden	Berlin Township	5,379	$6,702,203	$1,628,358	$1,246	$303
Ocean	Lakehurst	2,682	$3,337,942	$446,571	$1,245	$167
Atlantic	Egg Harbor City	4,486	$5,485,098	$666,971	$1,223	$149
Camden	Chesilhurst	1,858	$2,252,968	$889,403	$1,213	$479
Ocean	Eagleswood	1,565	$1,783,650	$270,194	$1,140	$173
Atlantic	Port Republic	1,191	$1,286,227	$222,552	$1,080	$187
Ocean	Ocean	7,822	$8,415,959	$872,109	$1,076	$111
Burlington	Medford Lakes	4,171	$4,330,900	$454,594	$1,038	$109
Burlington	Bass River	1,557	$1,580,000	$317,021	$1,015	$204
Gloucester	Monroe	31,349	$29,203,392	$5,660,938	$932	$181
Atlantic	Hamilton	23,839	$21,749,000	$3,820,390	$912	$160
Ocean	Lacey	26,236	$23,724,722	$12,239,405	$904	$467
Ocean	Little Egg Harbor	19,840	$17,489,053	$1,818,289	$882	$92
Cape May	Upper	11,638	$10,256,521	$6,723,735	$881	$578
Camden	Waterford	10,674	$8,924,130	$1,576,790	$836	$148
Burlington	Medford	23,437	$19,360,707	$2,819,465	$826	$120
Ocean	Barnegat	20,314	$16,585,825	$1,469,632	$816	$72
Ocean	Berkeley	42,513	$34,095,495	$5,809,207	$802	$137
Cape May	Dennis	6,050	$4,796,519	$1,769,296	$793	$292
Atlantic	Hammonton	13,551	$10,670,371	$1,740,092	$787	$128
Atlantic	Mullica	6,093	$4,760,923	$723,528	$781	$119
Ocean	South Toms River	3,697	$2,885,381	$485,885	$780	$131
Atlantic	Buena	3,837	$2,962,304	$648,738	$772	$169
Burlington	Pemberton Township	28,802	$21,938,953	$3,850,959	$762	$134
Atlantic	Egg Harbor Township	37,994	$28,881,626	$7,210,298	$760	$190
Atlantic	Estell Manor	1,718	$1,305,461	$259,363	$760	$151
Ocean	Jackson	51,886	$37,900,403	$4,667,905	$730	$90
Ocean	Beachwood	10,735	$7,599,765	$976,091	$708	$91
Atlantic	Folsom	1,967	$1,373,797	$272,228	$698	$138
Camden	Winslow	37,371	$26,067,826	$8,061,832	$698	$216
Atlantic	Buena Vista	7,519	$4,902,546	$976,133	$652	$130
Ocean	Manchester	41,903	$26,693,462	$4,274,921	$637	$102
Burlington	Evesham	46,804	$29,585,000	$4,476,333	$632	$96
Gloucester	Franklin	16,601	$10,001,689	$2,007,769	$602	$121
Atlantic	Galloway	35,744	$20,849,687	$3,728,235	$583	$104
Cumberland	Maurice River	7,662	$3,853,900	$945,170	$503	$123
Burlington	Southampton	10,894	$5,340,809	$1,658,330	$490	$152
Burlington	Tabernacle	7,328	$3,396,116	$802,457	$463	$110
Atlantic	Weymouth	2,319	$1,053,682	$375,588	$454	$162
Ocean	Plumsted	8,050	$3,536,063	$716,879	$439	$89
Burlington	Shamong	6,844	$2,707,775	$710,297	$396	$104
Burlington	New Hanover	9,500	$2,065,088	$1,088,635	$217	$115
"Outside" Municipalities						
Atlantic	Corbin City	530	$644,018	$78,013	$1,215	$147
Cumberland	Vineland	57,986	$60,426,146	$8,251,391	$1,042	$142
Burlington	Springfield	3,546	$3,327,210	$609,210	$938	$172
Camden	Berlin Borough	7,815	$6,205,645	$1,052,568	$794	$135
Burlington	North Hanover	7,577	$2,879,210	$1,155,915	$380	$153

* Municipal budget = Local Municipal Purpose Revenues + Miscellaneous Revenue

---

- Gross debt per capita is significantly lower in the Pinelands than in the Non-Pinelands.

Gross Debt Per Capita 2005

	Average Gross Debt Per Capita	Median Gross Debt Per Capita
Pinelands	$1,767	$1,473
Non-Pinelands	$3,117	$2,118
North Jersey	$2,560	$2,209

Description: Gross debt per capita measures the total amount of outstanding debt of a community divided by the number of residents who live in that community. The NJ Department of Community Affairs Division of Local Government Services defines gross debt to "include all bonds and notes authorized or guaranteed by a local unit or a school district, whether issued or not." Since municipal debt comes with a government backed guarantee, and bonding approved by school districts and other local units must be passed by referendum at the ballot box, gross debt is the best measure available of the long-term indebtedness of a community. Since this type of debt is used almost exclusively for long-term capital projects (e.g. new schools and municipal infrastructure projects such as sewers), gross debt is an excellent proxy to use as a measure of capital infrastructure investment in a community. By dividing the total gross debt by the population, comparisons can be made across different municipalities about both the level of capital infrastructure provided per resident as well as the long-term indebtedness of the citizenry who are ultimately responsible to pay for these facilities over the long run.

Unit of Analysis: Gross Debt Per Capita is compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Supplemental Data:

One of the main focuses of choosing this new supplemental variable is to seek an answer to the question of service and infrastructure levels provided by various municipalities. The Long-Term Economic Monitoring Program has documented uniformly lower taxes in the Pinelands compared to the rest of South Jersey across many years. However, it is sometimes difficult to make definitive conclusions about the disparity in the taxes paid in different regions. Are taxes lower in the Pinelands because services are delivered in a more efficient manner, or are they perhaps lower because rural communities like those in the Pinelands tend to offer less services than their more urban counterparts?

To answer questions such as these, it is probably more enlightening to examine a time series of data to look for trends over time as related to population growth. Unfortunately, the data available here is only a snapshot taken in 2005. Still, it seems apparent from reviewing the data that the Non-Pinelands communities spend significantly more money per capita on long-term capital infrastructure than do the Pinelands municipalities. In 2005, the Non-Pinelands average gross debt per capita was 76% higher than in the Pinelands ($3,117 versus $1,767). It should be noted that the distribution of data across this range is very variable in both regions, so median calculations were also computed to see if outliers in the data were causing a significant problem with interpreting the data. While this approach tempered the difference somewhat between the two regions, the Non-Pinelands still has a gross debt per capita measure that is 44% higher than the Pinelands.

One obvious explanation for part of this disparity is that there is a much more extensive network of sewer service areas outside of the Pinelands. There are undoubtedly other reasons as well, and most of them are in some way related to the much higher residential population density in the Non-Pinelands region. Using the most recent population estimates from 2005, there are 1,087 people per square mile living in the Non-Pinelands compared to 334 people per square mile living in the Pinelands. More intense population density equates to a higher demand for large scale infrastructure such as sewers and water utilities to name just a few. While these types of services tend to exist only in areas that benefit from the economies of scale that higher population densities bring, the initial capital

outlays for such infrastructure are nonetheless very high. In even the most affluent communities, the only reasonable approach to financing such facilities is through the issuance of capital bonds.

Further exploration of this data is necessary to draw any definitive conclusions. However, if a time series can be obtained, it seems likely that the recent increase in population in the Pinelands versus the Non-Pinelands will show in the data as a faster rise in the gross debt per capita in the Pinelands than in the Non-Pinelands over recent years. In last year's annual report, it was shown that school districts in the Pinelands are growing at a rate two and a half times faster than in the Non-Pinelands. In the 2005 report, a supplemental variable was examined on the amount of new school space and showed that the Pinelands region had added 60% more than the Non-Pinelands over the past few years. Both of these prior findings make it seem likely that the gross debt per capita (while still lower in the Pinelands) is probably increasing more quickly in the Pinelands than in the Non-Pinelands as a result of growing infrastructure needs that often accompany fast-paced growth.

Table F6S Gross Debt Per Capita in Pinelands Municipalities 2005

Municipality	County	Gross Debt Per Capita	South Jersey Rank
Stafford	Ocean	$5,365	21
Medford	Burlington	$5,105	24
Hammonton	Atlantic	$4,233	31
Berlin Township	Camden	$3,972	36
Plumsted	Ocean	$3,723	42
Egg Harbor Township	Atlantic	$3,479	50
Hamilton	Atlantic	$3,436	51
Medford Lakes	Burlington	$3,145	57
Egg Harbor City	Atlantic	$3,048	59
Jackson	Ocean	$2,786	65
Evesham	Burlington	$2,571	72
Tabernacle	Burlington	$2,443	75
Buena	Atlantic	$2,441	76
Galloway	Atlantic	$2,143	89
Winslow	Camden	$2,084	95
Folsom	Atlantic	$2,063	96
Barnegat	Ocean	$1,783	108
Lacey	Ocean	$1,783	109
Shamong	Burlington	$1,658	117
Dennis	Cape May	$1,653	118
Monroe	Gloucester	$1,594	121
Mullica	Atlantic	$1,518	127
Little Egg Harbor	Ocean	$1,499	128
Eagleswood	Ocean	$1,473	130
Manchester	Ocean	$1,470	131
Ocean	Ocean	$1,347	141
Pemberton Township	Burlington	$1,291	144
Beachwood	Ocean	$1,287	145
Southampton	Burlington	$1,248	146
Berkeley	Ocean	$1,237	147
Waterford	Camden	$1,196	148
Franklin	Gloucester	$1,153	149
Estell Manor	Atlantic	$1,049	154
Lakehurst	Ocean	$1,030	156
Chesilhurst	Camden	$996	158
Weymouth	Atlantic	$877	161
Woodland	Burlington	$661	169
Bass River	Burlington	$634	172
South Toms River	Ocean	$568	180
Woodbine	Cape May	$559	182
Buena Vista	Atlantic	$449	183
Maurice River	Cumberland	$363	186
Upper	Cape May	$296	187
Port Republic	Atlantic	$219	191
Wrightstown	Burlington	$124	193
New Hanover	Burlington	$6	197
Washington	Burlington	$0	198
"Outside" Municipalities			
Springfield	Burlington	$3,517	48
Berlin Borough	Camden	$2,726	68
Vineland	Cumberland	$1,574	124
North Hanover	Burlington	$965	160
Corbin City	Atlantic	$609	176

Figure F6S   Gross Debt Per Capita 2005

Pinelands Boundary

Gross Debt Per Capita

- $0 - $1,500
- $1,501 - $3,000
- $3,001 - $4,500
- $4,500 - $21,735

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007

7S
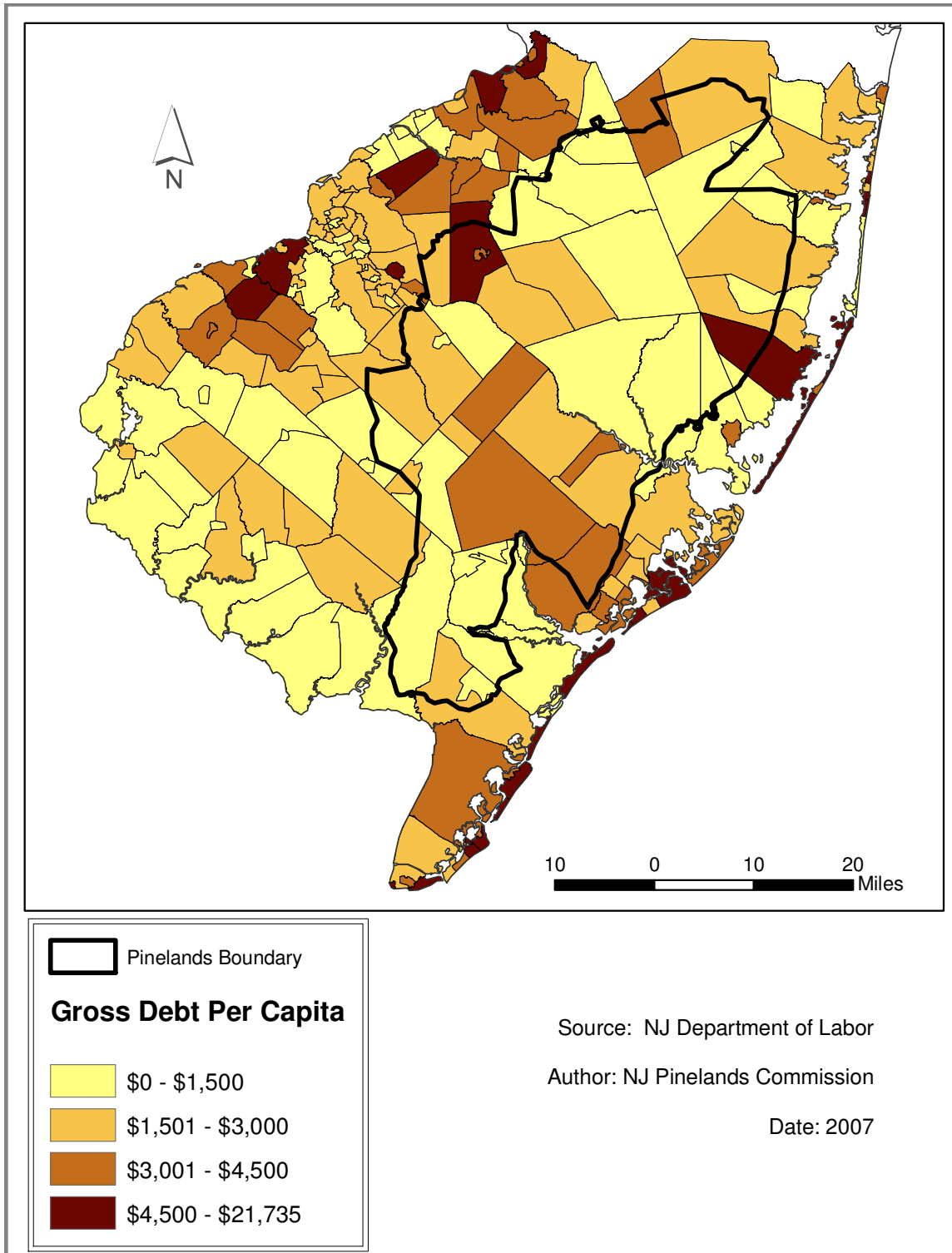
Gross Debt Ratio

NJ Dept of Community Affairs, Div LGS 2005

| X | New |

- The gross debt ratios for 2005 suggest that the Pinelands communities as a whole are in a better fiscal borrowing situation than their Non-Pinelands counterparts.

Gross Debt Ratio 2005

	Average Gross Debt Ratio	Median Gross Debt Ratio
Pinelands	2.13%	1.78%
Non-Pinelands	2.65%	2.33%
North Jersey	1.81%	1.48%

Description: Gross debt ratio measures the total amount of outstanding debt of a community divided by the total equalized value of property in the community.   As such, it is a very good indicator of the fiscal health of a community. In fact, a closely related measure (net debt, which is gross debt minus certain exempt categories) is one of the legal criteria used by the NJ State Local Finance Board in deciding whether or not to approve projects for voter referendums. Gross debt ratio is very comparable to the consideration taken by a bank in approving consumer home loans – simply put, does this borrower (in this case, a municipality) have enough assets (in this case, equalized property value) to justify this level of lending (in this case, the issuing of bonds).

Unit of Analysis: Gross debt ratio is compiled at the municipal level and aggregated to allow for inside/outside Pinelands, regional, and statewide analyses.

Supplemental Data:

Whereas gross debt per capita can serve as a proxy for infrastructure and service levels, gross debt ratio is a more direct measure. Gross debt ratio is inversely proportional to the fiscal health of a community. That is, the higher the gross debt ratio the more fiscal stress there is on a community, since it limits its future ability to issue bonds for needed capital improvements. In fact, gross debt ratio is a standard measure accepted widely in the financial community as a measure of fiscal health, and as such is one of the components that is being included in the current study being done on municipal fiscal health for the Long Term Economic Monitoring program.

The Pinelands region fares quite favorably with the Non-Pinelands in regards to gross debt ratio. In 2005, the average gross debt ratio was 25% lower in the Pinelands than in the Non-Pinelands (2.13% vs. 2.65%). In fact, only one Pinelands municipality had a gross debt ratio of greater than 6.0% (Egg Harbor City) in 2005, while there were nine such municipalities in the Non-Pinelands (Camden, Bordentown, Florence, Salem, West Deptford, Gloucester City, Swedesboro, Eastampton, and Glassboro).

In addition, only 3 of the 47 Pinelands municipalities (6%) were in the top 10% of South Jersey municipalities when gross debt ratio is sorted from highest to lowest (see Table P5). By contrast, 18 of the 155 Non-Pinelands municipalities (12%) were in the top 10% of that list.

Gross debt ratio is a measure, like the effective tax rate, that is influenced by two separate factors. Gross debt ratio increases when a municipality (or any authorized lending unit such as a school district or municipal utility authority) issues bonds. Gross debt ratio obviously decreases as the principal on these bonds is paid back. Gross debt ratio also is influenced by the equalized property values of a community. As equalized property values increase, so does the borrowing capacity of a community and therefore gross debt ratio falls as property values rise. Likewise, if equalized property values fall, the gross debt ratio measure for a municipality increases. Since equalized property values in the Pinelands have increased dramatically since 2001, the borrowing capacity for the region has also risen substantially as well. This bodes well for the ability of Pinelands communities to handle the fiscal choices that often accompany fast-paced growth.

Table F7S Gross Debt Ratio in Pinelands Municipalities - 2005

Municipality	County	Gross Debt Ratio	South Jersey Rank
Egg Harbor City	Atlantic	6.18%	8
Hammonton	Atlantic	5.26%	13
Berlin Township	Camden	4.79%	17
Buena	Atlantic	4.26%	28
Medford	Burlington	4.22%	29
Hamilton	Atlantic	4.02%	31
Winslow	Camden	3.83%	34
Plumsted	Ocean	3.82%	35
Egg Harbor Township	Atlantic	3.51%	45
Stafford	Ocean	3.29%	51
Chesilhurst	Camden	3.22%	56
Medford Lakes	Burlington	3.19%	58
Pemberton Township	Burlington	2.91%	67
Folsom	Atlantic	2.79%	73
Tabernacle	Burlington	2.67%	77
Galloway	Atlantic	2.67%	78
Evesham	Burlington	2.59%	81
Jackson	Ocean	2.55%	83
Monroe	Gloucester	2.40%	90
Mullica	Atlantic	2.06%	106
Waterford	Camden	1.88%	110
Lakehurst	Ocean	1.86%	111
Franklin	Gloucester	1.80%	112
Weymouth	Atlantic	1.78%	114
Shamong	Burlington	1.73%	117
Manchester	Ocean	1.69%	120
Beachwood	Ocean	1.65%	124
Barnegat	Ocean	1.38%	136
Little Egg Harbor	Ocean	1.35%	138
Dennis	Cape May	1.34%	139
Lacey	Ocean	1.32%	140
Maurice River	Cumberland	1.29%	141
Southampton	Burlington	1.26%	142
Woodbine	Cape May	1.26%	143
Estell Manor	Atlantic	1.10%	149
Eagleswood	Ocean	1.05%	153
Berkeley	Ocean	1.03%	155
Ocean	Ocean	1.02%	156
South Toms River	Ocean	0.99%	158
Bass River	Burlington	0.77%	171
Buena Vista	Atlantic	0.75%	172
Woodland	Burlington	0.60%	180
Wrightstown	Burlington	0.38%	188
Port Republic	Atlantic	0.22%	190
Upper	Cape May	0.21%	191
New Hanover	Burlington	0.09%	194
Washington	Burlington	0.00%	198
"Outside" Municipalities			
Berlin Borough	Camden	3.56%	43
Vineland	Cumberland	3.15%	60
Springfield	Burlington	2.99%	65
North Hanover	Burlington	2.04%	107
Corbin City	Atlantic	1.15%	147

Figure F7S   Gross Debt Ratio 2005

N

Pinelands Boundary

Gross Debt Ratio

0 to 1.9%

2.0% to 3.9%

4.0% to 5.9%

6.0% to 20.3%

10   0   10   20
Miles

Source: NJ Department of Labor

Author: NJ Pinelands Commission

Date: 2007
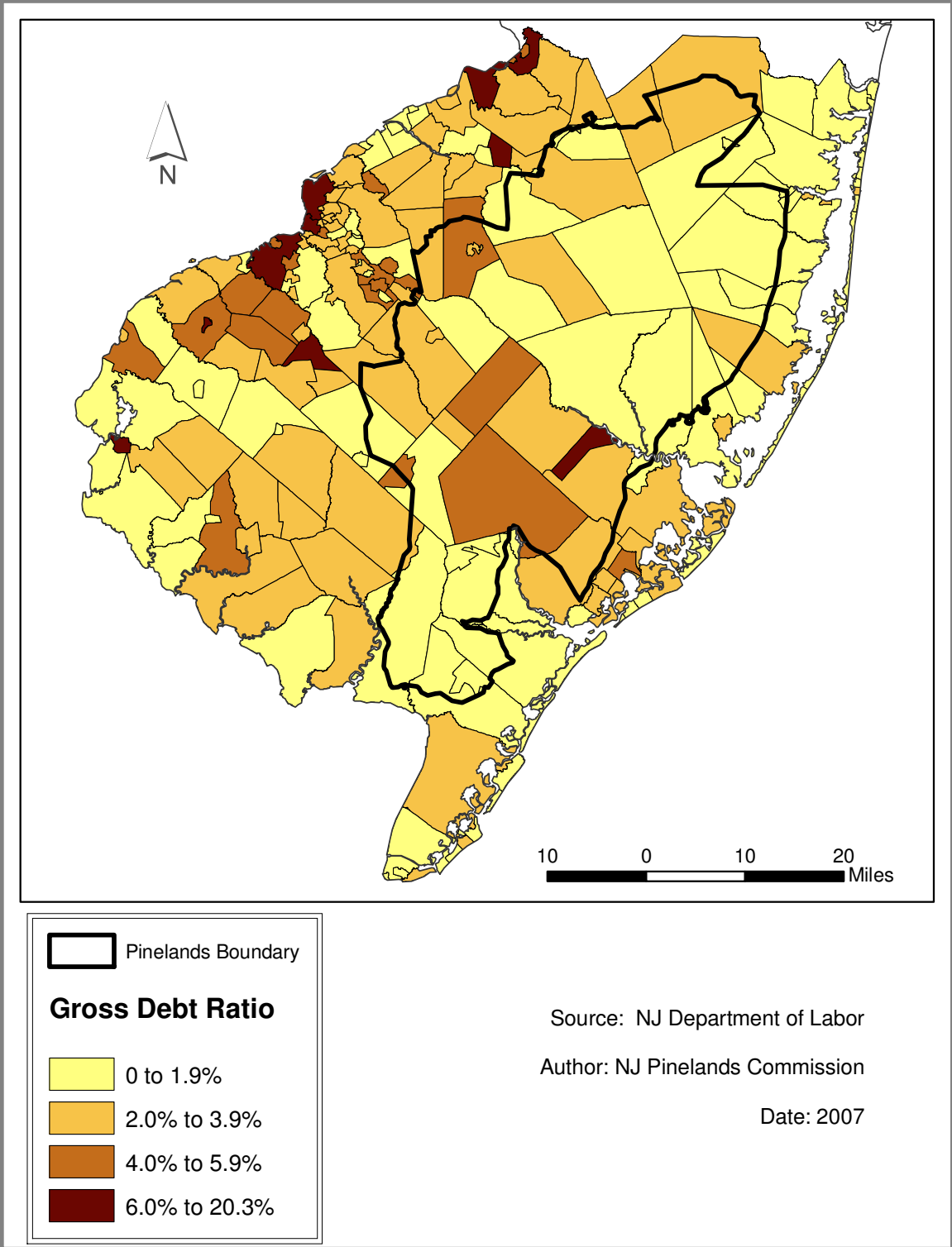
Appendix A.   Selected References

Anderson, Robert C. and Roger C. Dower. 1980. Land Price Impacts of the Adirondack Park Land Use and Development Plan. *American Journal of Agricultural Economics*, 62(3).

Beaton, W. Patrick. 1991. The Impact of Regional Land Use Controls on Property Values: The Case of the New Jersey Pinelands. *Land Economics*, 67(2):172-194.

Beaton, W. Patrick. 1988. The Cost of Government Regulations: Vol. I. Impact of Open Space Zoning on Property Values in N.J. Pinelands.

Case, Bradford, Henry O. Pollakowski, and Susan M. Wacter. 1991. On Choosing Among House Price Methodologies. *Journal of the American Real Estate & Urban Economics Association*, 19(3): 286-307.

Center for Urban Policy Research, Rutgers University. 1992. *The Impact Assessment of the New Jersey Interim State Redevelopment Plan*. Prepared for the New Jersey Office of State Planning.

Coleman, Henry A. 2002. The Property Tax Trouble Zone Moves Beyond the Big Cities. *New Jersey Municipalities*. December, p. 66-69.

Christian, Gloria L., James C. Nicholas, and Joan E. Towles. 1980. *Economic Analysis of Pinelands Comprehensive Management Plan*. Prepared for the New Jersey Pinelands Commission.

Coughlin, Robert E. 1984*. The Effects of Agricultural Zoning on the Ability of Farmers to Borrow Money*. Philadelphia: University of Pennsylvania.

Derr, Donn A., William R. Preston, Margaret Brennan, Fang Du. 1996. *An Assessment of the Economic Effect of the Pinelands Comprehensive Management Plan.* New Brunswick: Department of Agricultural Economics and Marketing, New Jersey Agricultural Experiment Station, Cook College, Rutgers, the State University of New Jersey.

Frech, H. E., III and Ronald N. Lafferty. 1976. The Economic Impact of the California Costal Commission: Land Use and Land Values. *The California Coastal Plan: A Critique*. San Francisco: Institute for Contemporary Studies.

Government Finance Associates. 1982. *An Analysis of the Fiscal Impact of the Pinelands Comprehensive Management Plan on Selected Municipalities*. Report to the New Jersey Pinelands Commission.

Groves, Sanford M. and Maureen Godsey Valente. 1986. *Evaluating Financial Condition: A Handbook for Local Government*. Washington, D.C.: International City Management Association.

Haurin, Donald R., and Patric H. Hendershott. 1991. House Price Indexes: Issues and Results. *Journal of the American Real Estate & Urban Economics Association*, 19(3): 259-269.

Knaap, Gerrit J.   1985. The Price Effects of Urban Growth Boundaries in Metropolitan Portland Oregon. *Land Economics*. 61(1):26-35.

Manning, Edward W. And Sandra S. Eddy. 1978. *The Agricultural Land Reserves of British Columbia: An Impact Analysis*. Ottawa Lands Directorate of Environment Canada.

Muth, Richard C., and Allen C. Goodman. 1989. *The Economics of Housing Markets*. Chur, Switzerland: Harwood Academic Publishers, GmbH.

Nelson, Arthur C. 1988. An Empirical Note on How Regional Urban Containment Policy Influences as Interaction Between Greenbelt and Exurban Land Markets. *Journal of the American Planning Association*. 54(2):178-84.

Neuman, James E. 1987. *The Land Market in New Jersey's Pinelands: Past and Present Trends in Land Use and Transfer*. Association of New Jersey Environmental Commissions.

New Jersey Pinelands Commission. 1980. Comprehensive Management Plan for the Pinelands National Reserve and Pinelands Area.

New Jersey Pinelands Commission. 1983. Economic & Fiscal Impacts of the Pinelands Comprehensive Management Plan.

New Jersey Pinelands Commission. 1983. *New Jersey Pinelands Comprehensive Management Plan: A Progress Report*.

New Jersey Pinelands Commission. 1985. Economic & Fiscal Impacts of the Pinelands Comprehensive Management Plan.

New Jersey Pinelands Commission. 1991. New Jersey Pinelands Comprehensive Management Plan: The Second Progress Report on Plan Implementation.

New Jersey Pinelands Commission. 1992. "Agriculture in the Pinelands: Report on Technical Panel Meeting," Plan Review Workshop Reports (on ten major topics).

New Jersey Pinelands Commission. 1992. "Economic Impacts of the Pinelands Plan: Report on Technical Panel Meeting," Plan Review Workshop Reports (on ten major topics).

New Jersey Pinelands Commission. 1996. "Detail Design of the Long-Term Economic Monitoring Program."

New Jersey Pinelands Commission. 1997. "Long-Term Economic Monitoring Program First Annual Report."

New Jersey Pinelands Commission. 1998. "Long-Term Economic Monitoring Program 1998 Annual Report."

New Jersey Pinelands Commission. 1999. "Long-Term Economic Monitoring Program 1999 Annual Report."

New Jersey Pinelands Commission. 2000. "Long-Term Economic Monitoring Program 2000 Annual Report."

New Jersey Pinelands Commission. 2001. "Long-Term Economic Monitoring Program 2001 Annual Report."

New Jersey Pinelands Commission. 2002. "Long-Term Economic Monitoring Program 2002 Annual Report."

New Jersey Pinelands Commission. 2003. "Long-Term Economic Monitoring Program 2003 Annual Report."

New Jersey Pinelands Commission. 2004. "Long-Term Economic Monitoring Program 2004 Annual Report."

New Jersey Pinelands Commission. 2005. "Long-Term Economic Monitoring Program 2005 Annual Report."

New Jersey Pinelands Commission. 2006. "Long-Term Economic Monitoring Program 2006 Annual Report."

Pollakowski, Henry O., and Susan M. Wachter. 1990. The Effects of Land-Use Constraints on Housing Prices. *Land Economics*, 66(3):315-324.

Reock, Ernest C. 1994. Long Range Property Tax Rate Trends in New Jersey: 1954-1993. *Occasional Paper Series #2*. Center for Government Services at Rutgers, The State University.

Resource Management Consultants, Inc. 1991. The Effects of Agricultural Zoning on the Value of Farmland. Report to The State of Maryland, Office of Planning.

Rose, Karen B. and Donn Derr. 1986. A Comparative Analysis of the Economic Characteristics of Grain, Tree Fruit and Vegetable Farms Located Inside and Outside the New Jersey Pinelands Comprehensive Management Plan Areas. Department of Agricultural Economics and Marketing, New Jersey Agricultural Experiment Station, Cook College, Rutgers, the State University of New Jersey.

Vaillancourt, Francois and Luc Monty. 1985. The Effect of Agricultural Zoning on Land Prices. *Land Economics*. 61(1).

Walker, Robert T. and William D. Solecki. 1999. Managing Land Use and Land-Cover Change: The New Jersey Pinelands Biosphere Reserve. *Annals of the Association of American Geographers*, 89(2): 220-237.

Appendix B. Pinelands and Non-Pinelands Acreage by County

County	Total Acreage	Acreage Inside the Pinelands	Acreage Outside the Pinelands	Proportion in the Pinelands	County Pinelands Acreage as a % of Total Pinelands Acreage	County Acreage as a Share of Total South Jersey Acreage
Atlantic	391,134	247,877	143,257	63.4%	26.4%	17.3%
Burlington	524,166	334,187	189,979	63.8%	35.6%	23.1%
Camden	145,593	54,915	90,678	37.7%	5.9%	6.4%
Cape May	182,633	34,807	147,826	19.1%	3.7%	8.1%
Cumberland	321,645	45,356	276,289	14.1%	4.8%	14.2%
Gloucester	215,616	33,580	182,036	15.6%	3.6%	9.5%
Ocean	485,569	187,490	298,079	38.6%	20.0%	21.4%
Total	2,266,357	938,212	1,328,145	41.4%	100.0%	100.0%

Source: NJ DEP Land Use / Land Cover data 1995/97

Long Term Economic Monitoring Program

Municipalities of South Jersey

1. Pt. Pleasant Beach
2. Pt. Pleasant
3. Bay Head
4. Mantoloking
5. Lavallette
6. Seaside Hts.
7. Seaside Park
8. Island Hts.
9. Ocean Gate
10. Pine Beach
11. South Toms River
12. Beachwood
13. Lakehurst
14. Harvey Cedars
15. Surf City
16. Long Beach
17. Ventnor
18. Margate
19. Longport
20. Absecon
21. Pleasantville
22. Northfield
23. Linwood
24. Somers Pt.
25. N. Wildwood
26. Wildwood Crest
27. W. Cape May
28. Corbin
29. Weymouth
30. Shiloh
31. Elmer
32. Salem
33. Newfield
34. Bridgeton
35. Woodstown
36. Swedesboro
37. Pitman
38. Paulsboro
39. Wenonah
40. Woodbury Hts.
41. Woodbury City

42. Westville
43. Brooklawn
44. Gloucester City
45. Bellmawr
46. Runnemede
47. Woodlynne
48. Mt. Ephraim
49. Haddon Twp.
50. Audubon Park
51. Oaklyn
52. Collingswood
53. Audubon Boro
54. Haddon Hts.
55. Barrington
56. Magnolia
57. Lawnside
58. Tavistock
59. Haddonfield
60. Merchantville
61. Somerdale
62. Hi-Nella
63. Stratford
64. Laurel Springs
65. Lindenwold
66. Pine Hill
67. Clementon
68. Pine Valley
69. Gibbsboro
70. Berlin Boro
71. Berlin Twp.

72. Chesilhurst
73. Medford Lakes
74. Mt. Holly
75. Eastampton
76. Pemberton Boro
77. Wrightstown
78. Riverside
79. Beverly
80. Edgewater Park
81. Bordentown Twp.
82. Fieldsboro
83. Bordentown City

Municipal Boundaries
County Boundaries
Pinelands Area

Map generated by NJ Pinelands Commission
GIS Laboratory
December 19, 2002

Appendix D   Pinelands Management Areas

Management Areas	Description	Permitted Uses	
		Residential	**Non-residential**
Preservation Area District	Core of the Pinelands environment and the most critical ecological region; a large, contiguous wilderness area of forest which supports diverse plant and animal communities, many of which are threatened and endangered species.	None except 1 acre lots in designated infill areas	Limited commercial uses in designated infill areas
Special Agricultural Production Area	Discrete areas within the Preservation Area primarily used for berry agriculture and horticulture of native Pinelands plants.	Farm-related housing on 40 acres	Expansion of existing uses only
Forest Area	Similar to the Preservation Area District in terms of ecological value; a largely undeveloped area which is an essential element of the Pinelands environment, contains high quality water resources and wetlands and provides suitable habitat for many threatened and endangered species.	5 acre minimum. Historical development average has been 1 unit per 28 acres	Roadside retail within 300 feet of pre-existing use
Agricultural Production Area	Areas of active agricultural use, generally upland field agriculture and row crops, together with adjacent areas with soils suitable for expansion of agricultural operations.	Farm-related housing on 10 acres, non-farm housing on 40 acres	Agricultural commercial; roadside retail within 300 feet of pre-existing use
Rural Development Area	Areas which are slightly modified and suitable for limited future development; represents a balance of environmental and development values that is intermediate between Forest Areas and existing growth areas.	Historical development average has been 1 unit per 5 acres	Small scale community commercial and light industrial uses on septic systems
Pinelands Village	Small, existing, spatially discrete settlements which are appropriate for infill residential, commercial, and industrial development compatible with their existing character.	1 to 5 acre lots if not sewered	Commercial and industrial uses compatible with existing character
Pinelands Town	Large, existing spatially discrete settlements.	2 to 4 homes per acre with sewers	Commercial and industrial uses
Regional Growth Area	Areas of existing growth and adjacent lands capable of accommodating regional growth influences while protecting the essential character and environment of the Pinelands	2 to 4 homes per acre with sewers	Commercial and industrial uses
Military and Federal Installation Area	Federal enclaves within the Pinelands.	Not Applicable	Uses associated with function of the installation or other public purpose uses

**New Jersey Pinelands
Land Capability Map**
(Management Areas)

Preservation Area District	
Forest Area	
Agricultural Production Area	
Rural Development Area	
Regional Growth Area	
Pinelands Town	
Military & Federal Installation Area	
Pinelands Village	
Special Agricultural Production Area	

Within Pinelands
National Reserve
but outside State
designated
Pinelands Area

Current Through: July, 2005
Map prepared by the
New Jersey Pinelands Commission

Source Information:
Roads - NJ Dept. of Transportation
County Boundaries - NJ Dept. of Environmental Protection

Plate 28

Appendix F

Southern New Jersey Housing Unit Construction
Percentage of Total Housing in 2000 Built in Each Decade

Built Before 1940

Built in 1940s

Built in 1950s

Built in 1960s

Built in 1970s

Built in 1980s

Built in 1990s

Southern NJ Counties

Camden
Burlington
Ocean
Gloucester
Salem
Atlantic
Cumberland
Cape May

Pinelands Boundary
County Boundary

Percentage of Total Units

0% - 10%
10.1% - 25%
25.1% - 50%
50.1% - 100%

N

20   0   20   40
Miles
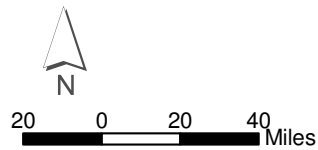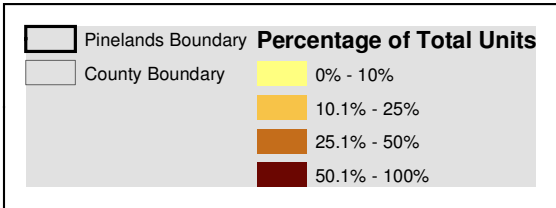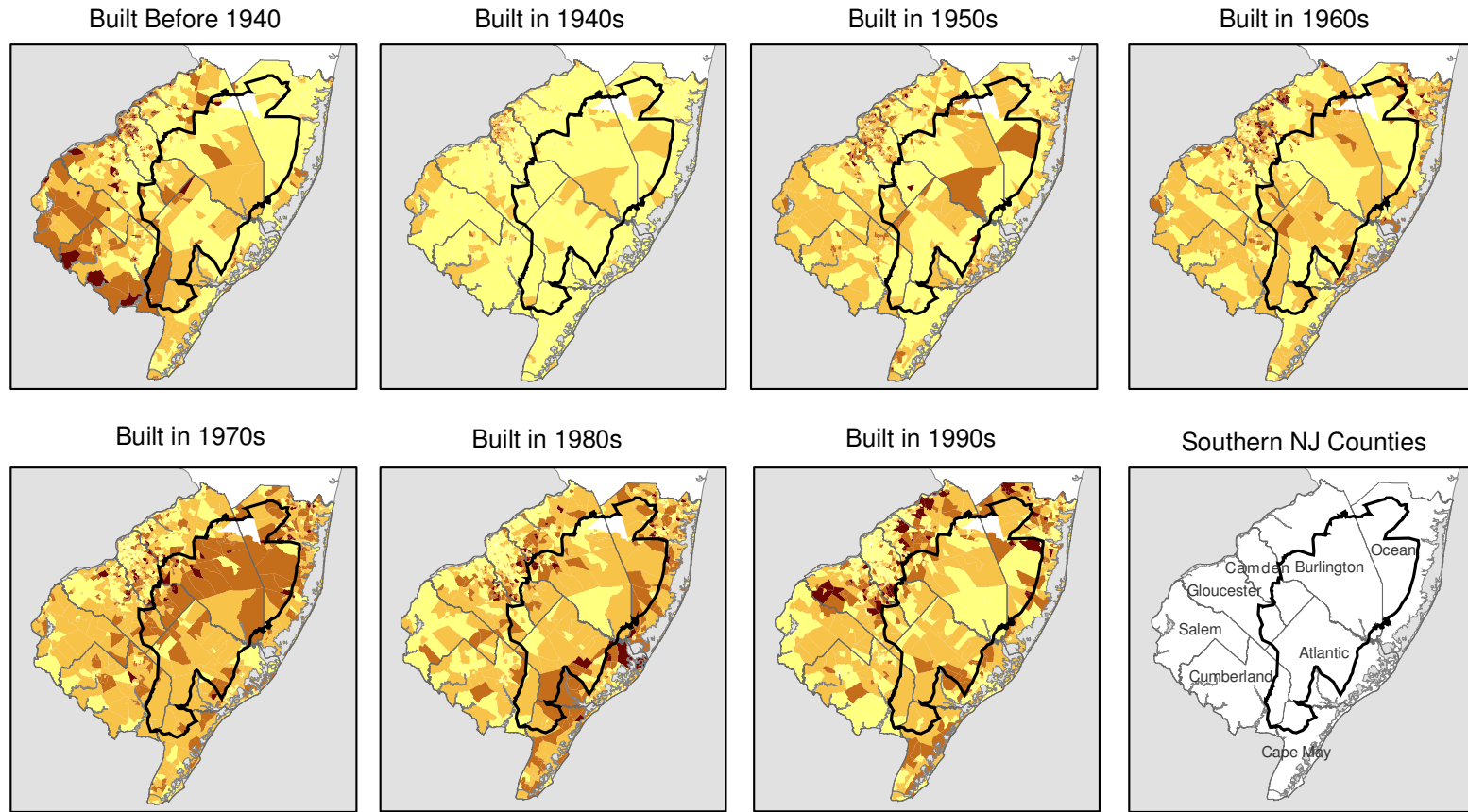
Source: US Census Bureau Summary File 3
(Data based on 1 in 6 sample)
Geographic Unit: Census Block Group
Author: NJ Pinelands Commission
Date: 2004

Long Term Economic Monitoring Program