

**New Jersey Demographic Multipliers:
The Profile of the Occupants of Residential and
Nonresidential Development**

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FUNDING SUPPORT FROM

**NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS (NJDC), OFFICE OF SMART GROWTH
NEW JERSEY CHAPTER OF THE NATIONAL ASSOCIATION OF INDUSTRIAL AND OFFICE PROPERTIES (NJ-NAIOP)
NORTHERN NEW JERSEY DISTRICT COUNCIL OF THE URBAN LAND INSTITUTE (ULINN)**

August, 2006

DRAFT- NOT FOR QUOTATION

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DEFINITIONS

(Definitions are from the US Census Bureau, *File: Census 2000, Public Use Microdata Sample, 2003.*)

<i>Terms</i>	<i>Definition/Comment</i>
<i>Bedrooms (BR)</i>	The number of rooms that would be listed as bedrooms if the house [or] apartment...were listed on the market for sale or rent even if these rooms are currently used for other purposes.
<i>Central New Jersey</i>	Includes Hunterdon, Mercer, Middlesex, Monmouth, Ocean and Somerset counties.
<i>Demographic Multipliers</i>	Include both residential and nonresidential multipliers.
Housing Categories (Structure Type)	<p><i>Single-family, detached.</i> This is a 1-unit structure detached from any other house; that is, with open space on all four sides. Such structures are considered detached if they have an adjoining shed or garage.</p> <p><i>Single-family attached.</i> This is a 1-unit structure that has one or more walls extending from ground to roof separating it from adjoining structures. In row houses (sometimes called townhouses), double houses, or houses attached to nonresidential structures, each house is a separate, attached structure if the dividing or common wall goes from ground to roof.</p> <p><i>2-4 units.</i> These are units in structures containing 2, 3, or 4 housing units.</p> <p><i>5+ units.</i> These are units in structures containing 5 or more housing units.</p>
<i>Housing Location</i>	In this study, the residential multipliers are shown for three regions in New Jersey: Northern New Jersey, Central New Jersey, and Southern New Jersey.
<i>Housing Rent (Contract Rent)</i>	Contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included.
<i>Housing Rent (Gross Rent)</i>	Gross rent is the <i>contract rent</i> plus the estimated average monthly cost of utilities (electric, gas, water and sewer) and fuels (oil, coal, kerosene, wood, and the like) if these are paid by the renter (or paid for the renter by someone else). In the current study, the monthly gross rents (converted to housing unit value; see <i>Housing Value</i>) are indicated in the demographic table.
<i>Household Size</i>	The total number of persons in a <i>housing unit</i> .
<i>Housing Tenure (Ownership or Rental)</i>	A <i>housing unit</i> is occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. All occupied housing units that are not owner-occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter-occupied.
<i>Housing Unit</i>	A <i>housing unit</i> may be a house, an apartment . . . a group of rooms, or a single room that is occupied (or if vacant, is intended for occupancy as separate living quarters).
<i>Housing Value (Rent)</i>	Housing value is the census respondent's estimate of how much the property would sell for if it were for sale. In the current study, the value of a rented unit in a 1- to 4-unit structure is estimated to be 100 times the monthly <i>gross rent</i> . The housing value and rents indicated by the 2000 census were updated to 2005 using a residential price inflation index available from the Federal Housing Finance Board for New Jersey. Housing value is categorized into tri-partite classification: <i>housing priced below the median, housing priced above the median, and all value housing</i> . The above housing price terms are just as they are stated. Housing priced below the median should <i>not</i> be confused with affordable or <i>Mount Laurel</i> housing as it is sometimes referred to in New Jersey. Housing priced above the median is <i>not</i> synonymous with what is sometimes referred to as market-rate housing (to contrast the market-rate from the affordable or " <i>Mount Laurel</i> " categories).
<i>Median Housing Value</i>	The median divides the value distribution into two equal parts: one-half of the cases falling below the median value of the property...and one-half above the median.
<i>Nonresidential Multipliers</i>	These multipliers indicate the number of workers in different types of nonresidential development.
<i>Northern New Jersey</i>	Includes Bergen, Essex, Hudson, Morris, Passaic, Sussex, and Union Counties.
<i>Public School Children (PSC)</i>	The <i>school-age children</i> attending public school.
<i>Residential Multipliers</i>	These multipliers show the population associated with different <i>housing categories</i> as well as housing differentiated by <i>housing value, housing size (bedrooms), and housing tenure</i> .
<i>School-Age Children (SAC)</i>	The household members of elementary and secondary school age, defined here as those 5 through 17 years of age.
<i>Southern New Jersey</i>	Includes Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem counties.

PREFACE

In the 1970s and 1980s, researchers at Rutgers University published a series of national studies (hereinafter, the “Rutgers studies”)¹ that contained information on demographic multipliers—the average number of people and the average number of school-age and public school children found in newly built housing units of different types and sizes. The Rutgers studies provided demographic information for the nation, and for each of the census regions (e.g., Northeast United States) and census subregions (e.g., Middle Atlantic States, which includes New Jersey).

The Rutgers studies were widely applied throughout the United States as well as in New Jersey. Inevitably, however, the Rutgers studies have become dated over time and do not reflect the demographic reality of a noticeable decline in the average household size and the average number of pupils per housing unit. For instance, the number of public school children in the average newly built New Jersey 2-bedroom townhouse dropped from 0.20 in 1980 to 0.13 in 2000, a decline of more than one-third. In other words, the introduction of 100 2-bedroom townhouses in New Jersey as of 2000 would generate only about 13 public school children as compared to 20 pupils two decades earlier. Additionally, there is evidence of a particularly low demographic generation for such recent development configurations as transit oriented development (TOD).

In short, the practice of using the existing published Rutgers studies produces an erroneous overstatement of the population generated by new development in New Jersey, especially in housing with a strong transit orientation and infrastructure in place.

To improve the state of our knowledge, the following publication by Rutgers University produces demographic information on household size and pupil generation that is: 1. *current*—(incorporates the latest demographic data from the 2000 census), 2. *New Jersey-specific*—(contains demographic data unique to this state alone and is field tested in New Jersey), and 3. *incorporates the experience of emerging development categories*, most notably TODs.

The document’s data is invaluable for accurate demographic projections and development impact assessment. It is important, however, that the data not be abused to exclude certain categories of housing, such as homes with more bedrooms, or for that matter housing in general because of the apprehension that development will generate “too many” new residents and public school children. That exclusionary perspective does not acknowledge current data (the demographic multipliers have declined in size over time), subverts good planning (smart growth calls for a range of housing and a mix of land-uses), and violates the *Mount Laurel* principle of all communities in New Jersey having the obligation of meeting the spectrum of the state’s housing needs.

¹ Robert W. Burchell and David Listokin. *The Fiscal Impact Handbook* (New Brunswick, NJ: Center for Urban Policy Research. 1978); Robert W. Burchell, David Listokin, and William Dolphin, *The New Practitioner’s Guide to Fiscal Impact Analysis* (New Brunswick, NJ: Center for Urban Policy Research. 1985); Robert W. Burchell and David Listokin. *Fiscal Impact Analysis* (Washington, DC : National Association of Home Builders, 1991); and Robert W. Burchell and David Listokin, *Development Impact Assessment Handbook and Model* (Washington, DC: Urban Land Institute, 1994).

HOW TO USE THIS GUIDE

As noted, New Jersey officials, developers, and planners are currently referring to demographic data that are at least 25 years hold out of date and that do not reflect current trends such as lower average household size, higher density land uses, and a return to transit oriented development. To address this situation, the current study provides contemporary demographic data for New Jersey that reflects modern population and development trends so that the public and private sectors can make a more accurate assessment of the demographic impacts of new residential development.

This study is *not* meant to provide the *exact* number of people or children that will move into a new residential development. Instead, it presents averages, based on an analysis of 2000 census numbers, of the numbers of people, school-age children, and public school children that tend to locate in different types of development, such as single-family, multi-family, above and below median value homes, and so on.

The steps to follow when analyzing a specific residential project include:

1. Determine the project's housing characteristics. Are single family detached homes, townhouses, or multi-family units being proposed? How many bedrooms does each residential unit have? Are units projected to be priced above or below median home value?
2. Go to the table in this study that reflects the above characteristics and look at the average numbers provided. Understand that these are *average* numbers, and that the actual number to be generated by the proposed project is more likely to fall within the statistical range around that average number.
3. To determine where in the range the proposed project is likely to fall, consider community characteristics, such as transit-oriented development, the quality of the school system, and the demographics of similar existing developments that may influence the demographic characteristics of the people who are likely to move into the development under study.
4. Exploratory data is provided in the current monograph on transit-oriented developments. (Exploratory demographic information is also presented for other specialized housing such as *Mount Laurel* homes) and age-restricted units. It is not provided for the other types of influences (e.g., quality of the local school system) mentioned above. Using transit-oriented (and other specialized housing) data, if relevant, and best available information on any other applicable features, estimate the number of people, school-age children, and public school children likely to move into the development.

In summary, the most valuable use of this study is to develop a *likely range* of the number of people, school age children, and public school children generated by specific types of new residential development in New Jersey. The study is meant to *start* the informed dialogue about planning impacts of new development, not end it.

To expand our knowledge of the impacts of growth, this study also provides exploratory information on the number of workers contained in different types of nonresidential development. The use of this information is similarly straightforward. Determine the type of nonresidential project that is proposed (e.g., office or retail) and then go to the appropriate table in the study that reports on the average number of workers found in different types of nonresidential space. As with the residential data, the nonresidential worker multipliers are *averages* that can help develop the *likely range* of employees generated by specific categories of nonresidential development—information that can inform the dialogue on the impacts of nonresidential growth.

EXECUTIVE SUMMARY

- How many people and school children are generated by new housing in New Jersey? How many workers are contained within different types of nonresidential development in the state? Government and citizens at large understandably are interested in these population figures because it affects the demand for public services and expenditures (e.g. for education and transportation), the market demand for nonresidential space, and other important subjects.
- To provide empirical information concerning who lives in New Jersey housing and how many workers are contained in different categories of nonresidential uses within the state, the current publication by Rutgers University contains data on *demographic multipliers*. There are *residential multipliers* that show the populations associated with different categories of housing and *nonresidential multipliers* that indicate the number of workers in different types of nonresidential development.
- From 2000 U.S. Census 5-percent Public Use Microdata Sample (PUMS) information on the profile of households in recently built (1990 to 2000) New Jersey housing, Rutgers calculates the New Jersey residential multipliers for:

Household Size (HS) -- the total number of persons in a housing unit

School-Age Children (SAC) – the household members of elementary and secondary school (kindergarten through 12th grade) age.

Public School Children (PSC) – the SAC attending public school.

- The residential demographic multipliers for New Jersey vary by 1. *housing type* (e.g., single-family detached, single family attached [townhouse], or multifamily) 2. *housing size* (measured in bedrooms) 3. *housing value* (housing units priced above and below the median value as of 2006 for New Jersey)², 4. *housing tenure* (ownership versus rental), and 5. *region* (northern, central, or southern New Jersey). These five variables have been found by Rutgers to be associated with statistically significant differences in the size of the demographic multipliers, albeit sometimes these differences are measurably modest.
- To illustrate the current residential demographic information, the statewide residential demographic multipliers of popular configurations of typical housing (in terms of dwelling type, size, tenure, and value) built in New Jersey from 1990 to 2000 are:

Table E-1
Illustrative New Jersey Statewide Residential Demographic Multipliers (2000)

Housing Type	Housing Size (bedrooms)	Household size (HS)	School-Age Children (SAC)	Public School Children (PSC)
Single-family detached ^a	3 bedroom	2.98	0.58	0.48
	4 bedroom	3.77	1.08	0.87
Single-family attached ^a (Townhouse)	2 bedroom	2.00	0.16	0.13
	3 bedroom	2.66	0.44	0.38
Multifamily ^b (5+ unit structures)	0-1 bedroom	1.69	0.13	0.12
	2 bedroom	1.80	0.12	0.10

^a Owned and rented units of average value.

^b Owned units only of average value.

Source: Tables II-A-1 through II-A-3.

² The above-median and below-median price distinction is as indicated and should not be confused with the distinction between market-priced housing and below-market (or *Mount Laurel*)-priced homes. The indicated dollar figures for New Jersey housing values in this study are as of 2006.

- In other words, for every one-hundred 3-bedroom single-family detached homes, about 298 persons would be generated, including 58 school-age children, of whom 48 would likely attend public school. One hundred 2-bedroom townhouses would generate approximately 200 persons, including about 16 school-age children, 13 in public school. One hundred 2-bedroom multifamily condominiums would contain about 180 persons, of whom 12 would be of school-age, 10 attending public school.
- As is evident below, the residential demographic multipliers have generally declined between 1980 and 2000, with the rate of decline generally moderating or even reversing direction over the last decade (1990-2000). It is best to apply only the most current data in conducting demographic studies.

Table E-2
Illustrative New Jersey Statewide Demographic Multipliers for Newly Built Housing Over Time ^a
(1980-2000)

Housing Type/Size	Household Size			School-Age Children			Public School Children		
	1980	1990	2000	1980	1990	2000	1980	1990	2000
Single-Family Detached ^b									
2 bedroom	2.24	2.08	2.03	0.19	0.13	0.12	0.16	0.10	0.10
3 bedroom	3.28	3.16	2.98	0.77	0.61	0.58	0.66	0.48	0.48
4-5 bedroom	4.12	3.84	3.77	1.43	1.08	1.08	1.21	0.84	0.87
Single-Family Attached ^b (Townhouse)									
2 bedroom	2.09	2.06	2.00	0.22	0.14	0.16	0.20	0.11	0.13
3 bedroom	3.06	2.76	2.66	0.76	0.44	0.44	0.70	0.37	0.38
Multifamily ^b									
0-1 bedroom	1.52	1.48	1.53	0.03	0.06	0.08	0.02	0.05	0.07
2 bedroom	2.45	2.13	2.11	0.36	0.24	0.25	0.32	0.20	0.21
3 bedroom	3.50	3.11	3.11	1.08	0.74	0.77	0.96	0.61	0.67

^a Data for 1980 is for housing built 1970 through 1980; data for 1990, is for housing built 1980 through 1990; and data for 2000 is for housing built 1990 through 2000.

^b Owned and rented units of average value.

Source: U.S. Census of Population and Housing. Public Use Microdata Sample for New Jersey for the indicated years. Note: Multifamily in 1990 and 2000 includes all units in buildings of 5 or more units, multifamily in 1980 includes new garden apartments only. (The 1980 census allowed specification of garden apartments.)

- To further refine our demographic knowledge, this study presents exploratory data on three “specialized housing” types that have recently become more prevalent in New Jersey:

- *Age-restricted housing*³ has a lower average household size and no school-age children nor public school children. The average household size for age-restricted units is 1.57 for single-family detached homes, 1.39 for single-family attached units, and 1.20 for multifamily homes.
 - *Transit oriented development* (TOD) generates few public school children. Exploratory New Jersey data suggests that each TOD unit generates only about 0.02 public school children. In other words, 100 units in a TOD contain, on average, only 2 public school children.
 - *Mount Laurel* housing in New Jersey, important for addressing the state's affordable housing need, generates (based on exploratory data) about 0.4 to 0.5 public school children per unit.⁴
- In summary, the current study shows the following with respect to the New Jersey demographic profile:
 - An overall decline in the current (2000) number of residents and pupils generated by new development in New Jersey compared to the figures found in earlier (1980 and 1990) investigations—with that decline, however, moderating or even modestly reversing direction in recent years.
 - In general, detached housing currently produces the highest number of residents and pupils compared to attached homes. Detached homes with more (4-5) bedrooms have the relatively largest household size and pupil generation.
 - Common types and configurations of attached housing, such as 2-3 bedroom townhouses and 1-2 bedroom multifamily units, have a relatively low demographic impact.
 - A modest demographic impact especially characterizes homes in a transit oriented development. *Mount Laurel* housing also has a lesser demographic impact than what is commonly believed.
 - It is hoped that this study's residential demographic multipliers will serve as an important reference for New Jersey. It replaces demographic information for the state that is quite dated (e.g. based on the 1980 census) yet is still inappropriately referenced. Hopefully, the guide will correct misinformation concerning the demographic impact from New Jersey development. It is commonly assumed at the present time that each new housing unit contains about one public school child. The latest census data (2000) indicates that is the case statewide in New Jersey for only large (four or more bedroom) single-family, detached homes; attached homes generate about 0.1 to 0.7 public school children⁵ per unit (e.g. 100 attached units contain about 10 to 70 publicly educated pupils). Further, residential construction of growing popularity in New Jersey, such as transit oriented development (TOD), generates yet fewer public school children. As noted, exploratory data suggests that 100 units in a TOD contain on average only 2 public school children.

³ In such units, the householder must be at least 55 years or older and all members of the household must be at least 19 years old.

⁴ As noted earlier, *Mount Laurel* housing is not synonymous with “housing priced below the median value.”

⁵The range varies by specific housing type, size, value, and tenure.

- Similarly, this study informs the demographic impact of affordable housing, a subject of much misinformation, by providing exploratory data on the household size and number of school-age children and public school children in housing occupied by low-and moderate income households. To illustrate, about 19 public school children are generated by a 100 unit inclusionary condominium housing development in New Jersey (88 market-priced homes and 12 affordable homes).⁶ Approximately 3 of the 19 public school children come from the affordable homes.
- This study also presents exploratory data on *nonresidential multipliers*, or the number of employees per 1,000 square feet of nonresidential space (typically 1,000 square feet of gross floor area). There is no standard source for nonresidential multipliers and we assemble multiplier data from many national sources (e.g. *Census of Retail Trade* and the *Commercial Buildings Energy Consumption Survey* administered by the U.S. Department of Energy). The *estimates* of the nonresidential multipliers by business category are:

Table E-3
Nonresidential Multipliers Suggested by National Studies

<i>Nonresidential Use:</i>	<i>Nonresidential Multipliers (employees per 1,000 ft of gross floor area)</i>
<hr/>	
I. Commercial	
A. Office	3.0 to 4.0
B. Retail	1.0 to 2.0
C. Eating & Drinking	3.0 to 4.0
II. Industrial	
A. Warehouse	0.2 to 0.8
B. Manufacturing & Industry	1.0 to 2.0
III. Hospitality and Other	
A. Lodging	0.5 to 1.0
B. Health	2.0 to 3.0
C. Schools	0.8 to 1.2

Source: Part Two of the current study.

- As noted, the nonresidential multipliers indicated in table E-3 are based on national studies and therefore care must be exercised in applying these figures to New Jersey. For instance, a disproportionate amount of office space in New Jersey compared to the nation is used for research and development (e.g. in the state’s significant pharmaceutical industry) and R&D office space tends to have relatively few employees (about 2) per 1,000 square foot. Further, macro economic and social trends, such as downsizing, mechanization, telecommuting, and work sharing are influencing and changing worker density, both in New Jersey and the nation at larger. Therefore, the table E-3 figures should be viewed as a start rather than a last word on nonresidential multipliers.
- *Indeed, all multipliers, both residential and nonresidential, need to be continuously updated, refined and tested.* Rutgers University, in collaboration with New Jersey planners, developers, and

⁶ This calculation makes the following assumptions. All the 100 for-sale homes are in structures of 5 or more units. Of the 88 market-priced homes, half are two-bedroom and the remaining half are three-bedroom in size, and all the 88 units are assumed to exceed the median in price. Of the 12 affordable for-sale homes, 25 percent are one-bedroom, 50 percent are two-bedroom, and 25 percent are three-bedroom.

government officials, is engaged in that process. Rutgers has tested the census-based pupil multipliers against the real world demographic experience (as ascertained from school records and other sources) of 61 attached housing developments scattered throughout New Jersey. The 14,191 attached housing units in these developments contain 1,975 public school children (an overall public school children multiplier of 0.14 or 1,975/14,191) --a close fit to the 1,941 public school children that would have been predicted from the census-based multipliers. The 90 percent confidence interval of the census-based demographics range from 923 public school children (low) to 3,006 public school children (high). Rutgers has further tested the population generation of 19 age-restricted communities in New Jersey. The 5,060 detached (about two-thirds) and attached (about one-third) housing units in these developments contained 7,664 residents (an overall household size of 1.51 or 7,664/5,060) -- a very close fit to the 7,643 residents that would have been predicted from the age-restricted household size multipliers contained in this monograph.

- The residential demographic multipliers contained in this document provide important statewide average benchmark data that can only go so far in accurately predicting the actual demographic impact of housing development in a specific community. For instance, a given community may attract “more” or “fewer” public school children per housing unit because of such differences as geography (e.g. housing in New Jersey’s “gold coast” along the Hudson River may attract “Manhattan-oriented” households with few children) and the “quality of the local school district” (e.g. households with more children may disproportionately self-select to live in high-quality school systems).
- *For best results, the state-level data presented here should be supplemented by local analysis, such as conducting case studies of the actual population, and especially public school children generation of occupied housing developments comparable in character (i.e. type, size, price, and tenure) and location to the subject development(s) being considered by the analyst. For example, in analyzing the likely public school children generation from 4-bedroom single-family detached homes priced at \$600,000 apiece proposed for Princeton Township, an analyst should first consider this study’s Central New Jersey data for the average number of public school children (0.93) in housing of this type (single-family detached), size (4 to 5 bedrooms), and price level (above median value). The analyst should then identify comparable detached homes (e.g. 4-bedroom detached units priced \$550,000 to \$650,000) that are occupied in Princeton and nearby communities and should then ascertain these developments’ actual public school children generation from public school data (e.g. busing and other information).*
- Case studies of the actual demographic impact are especially appropriate when examining the effects of high-rise buildings (structures with 6 to 7 or more stories) because the multifamily data contained in this study, based on census information, cannot differentiate low-rise buildings from high-rise apartments and anecdotal evidence and historical data⁷ indicate that high-rise development has a lower household size and school children generation⁸ relative to low-rise development. Case studies are also suggested for TODs and other types of infill projects and for *Mount Laurel* housing because the demographic data on these emerging categories of development

⁷ The 1980 census was the last time high-rise structures could be differentiated from multifamily buildings in general. The 1980 census indicated that high-rise buildings had a lower average household size, and a lower average number of school-age children and public school children relative to the overall category of multifamily structures.

⁸ That is true to some extent for housing units in mid-rise buildings (structures with 4 to 6 stories). Contemporary anecdotal evidence and the 1980 census (the last time the census differentiated buildings by number of stories) indicate that mid-rise development has a lower household size and pupil generation relative to low-rise development.

are exploratory. In a similar vein, further case study work will help refine the quantification of the density of employment in nonresidential land uses. The combination of this document's multipliers and local analysis provides a comprehensive framework for beginning to answer who lives in New Jersey housing and how many workers are found in different categories of nonresidential development in this state.

- As with all analyses, there are limitations as well as advantage to the current study.
 - The residential demographic profile is a moving target and while the current investigation uses the latest available (2000) census information, that itself is becoming dated.
 - While the census is the best source available to demographers it has acknowledged shortcomings, such as under-representation of certain ethnic and racial populations.
 - The demographic profiles derived in this document represent an average based on a sample and there is a variation around the indicated average. Accordingly, this study presents the confidence interval around each of the residential demographic multipliers as well as other statistics, such as the standard error.
 - The residential multipliers are a “snapshot” glance in time (observing in 2000 the demographic profile of housing built 1990 through 2000) and that “snapshot” may change over time. The nonresidential multipliers are also a “snapshot.”
 - In short, there are limitations to the current study and humility is in order whenever dealing with demographic multipliers. At the same time, this publication presents the most comprehensive and current compilation of arms-length data concerning demographic multipliers. The study also benefited from extensive peer review from knowledgeable professionals from the public and private sectors in New Jersey.
- For easy use, the monograph is organized into two parts. The first describes the residential and nonresidential demographic multipliers and presents illustrative examples and analytic applications. The second part contains the general application (all housing) New Jersey multipliers for household size, school-age children, and public school children); specialized housing residential multipliers (for age-restricted, TOD, and *Mount Laurel* homes), and finally the nonresidential multipliers. Table E.4 presents an overview guide to all of the tables containing the multiplier data assembled in this monograph.

Table E-4
Tabular Guide (and Page Numbers) to the Residential and Nonresidential Demographic Data

Information	Area and Date				
	A. Statewide NJ (2000)	B. Statewide NJ (1990)	C. Northern NJ ^a (2000)	D. Central NJ ^b (2000)	E. Southern NJ ^c (2000)
I. GENERAL APPLICATION RESIDENTIAL DEMOGRAPHIC DATA					
1. Total persons and persons by age	II-A-1 ^d (56) ^e	II-B-1 (75)	II-C-1 (94)	II-D-1 (107)	II-E-1 (120)
2. School-age children and grade level	II-A-2 (59)	II-B-2 (78)	II-C-2 (96)	II-D-2 (109)	II-E-2 (122)
3. Public school children and grade level	II-A-3 (62)	II-B-3 (81)	II-C-3 (98)	II-D-3 (111)	II-E-3 (124)
4. Total persons (statistics)	II-A-4 (65)	II-B-4 (84)	II-C-4 (108)	II-D-4 (113)	II-E-4 (126)
5. School-age children (statistics)	II-A-5 (68)	II-B-5 (89)	II-C-5 (102)	II-D-5 (115)	II-E-5 (128)
6. Public school children (statistics)	II-A-6 (71)	II-B-6 (90)	II-C-6 (104)	II-D-6 (117)	II-E-6 (130)
II. SPECIALIZED HOUSING RESIDENTIAL DEMOGRAPHIC MULTIPLIERS	Northeast United States and Statewide NJ (2000)				
1. Age-Restricted Housing	II-F-1 (132)				
2. Transit Oriented Development	II-G-1 (134)				
3. <i>Mount Laurel</i> Housing	II-H-1 (137)				
III. NONRESIDENTIAL MULTIPLIERS	Northeast United States and National (1990-2000)				
1. Overall	II-I-1 & -2 (140-141)				
2. Commercial--Office	II-I-3 (142)				
3. Commercial—Retail	II-I-4 (145)				
4. Commercial—Eating and Drinking	II-I-5 (147)				
5. Industrial—Warehouses	II-I-6 (148)				
6. Industrial—Manufacturing	II-I-7 (149)				
7. Hospitality and other—Lodging	II-I-8 (151)				
8. Hospitality and other—Health	II-I-9 (152)				
9. Hospitality and other—Schools	II-I-10 (153)				

^a Northern New Jersey includes Bergen, Essex, Hudson, Morris, Passaic, Sussex, and Union counties.

^b Central New Jersey includes Hunterdon, Mercer, Middlesex, Monmouth, Ocean, and Somerset counties.

^c Southern New Jersey includes Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem counties.

^d Refers to table number.

^e Figure in parentheses refers to page number.

PART ONE
AN INTRODUCTION TO DEMOGRAPHIC MULTIPLIERS AND ILLUSTRATIVE APPLICATIONS

DEMOGRAPHIC MULTIPLIERS: DEFINITION AND OVERVIEW

Projecting the fiscal and other impacts from development, establishing infrastructure standards to accommodate growth, calibrating off tract development charges, and numerous other analyses are dependent upon knowing the number of persons and school children found in residential structures and the number of employees within nonresidential buildings. The numbers and profile of these people and workers in different housing types and varying land uses are referred to in this study as *demographic multipliers*. There are *residential multipliers* that show the populations associated with different categories of housing and *nonresidential multipliers* that indicate the number of workers in different types of nonresidential development.

Residential multipliers include data on the two principal users of local services: people, for municipal services; and school children, for educational needs. The multipliers for household size represent the average number of persons living in a housing unit; the figures for school children quantify the number of persons of elementary and secondary school-age (school-age children multiplier) and the subset of school-age children attending public schools (public school children multiplier). For instance, if a housing unit's demographic multiplier is 2.50 for household size and 0.50 for public school children, then 100 such homes can be expected to contain 250 persons, including 50 publicly educated pupils.

Nonresidential multipliers indicate the number of employees associated with different types of nonresidential land uses, such as office, retail, and industrial. The multipliers are typically expressed as the worker count per 1,000-square-foot module. For instance, per 1,000 square feet of office space, typically there will be 3 to 4 workers; for every 1,000 square feet of retail space, 1 to 2 workers; and per 1,000 square feet of industrial activity, 0.5 to 2 workers. Within each class of space there are further variations in employee density depending on the specific usage. Thus, prestigious corporate offices or offices used mainly for research purposes will have fewer workers per 1,000 square feet compared to back office space.

Thus far, multipliers have been discussed in terms of their count of people and workers associated with different types of residential and nonresidential space, respectively. Multipliers also encompass selected information on the profile of the population and work force. These include, for instance, the percentage of school children who attend public schools in a two-bedroom townhouse versus a one-bedroom garden apartment, and the age distribution of the household members in these respective units.

DEMOGRAPHIC MULTIPLIERS: CHANGES OVER TIME

Multipliers are forever in flux as the character of America's households and workforce evolves over time.

In general, the residential multipliers have declined over time, with that decline moderating in recent years (or even reversing direction) as America went from a “baby boom” to a “baby bust” and then to a “baby boom echo” phase. This evolution is illustrated by the demographic trendline for housing in New Jersey over recent decades (table E-2). For example, as monitored by the 1980 census, the average 4-5 bedroom single-family detached home in New Jersey built over the 1970s contained 4.12 persons, including 1.21 public school children; by the 2000 census, these figures for housing built over the 1990s had dropped to 3.77 persons and 0.87 public school children. Townhouses and multifamily units in New Jersey also typically contained a smaller household size and number of public school children in 2000 relative to 1980 (table E-2). Yet, the generally downward demographic trendline of the modern era has moderated or even reversed direction over the last decade (1990-2000) (see table E-2 for details).

What has happened to the nonresidential multipliers over time? From albeit limited historical data (Nelson 2004), it appears that the number of workers per 1,000 square feet of gross floor area (GFA) has declined significantly over time (table I-1).

Table I-1
National Nonresidential Multipliers Over time (1942-2000)

<i>Year</i>	Employees per 1,000 Square Feet of Gross Floor Area	
	<i>Office</i> ^a	<i>Manufacturing</i> ^b
1942	9.09	
1958	8.26	
1961		2.57
1979	5.03	
1980	4.78	
1990	3.97	
1991		2.02
2000	3.57 ^b	1.83

^a Adapted from: Armstrong (1972); Building Owners and Managers Association International (1980); Price Waterhouse Real Estate Group (1991); NAIOP (1990).
^b Extrapolation of trends
Source: Nelson, Arthur. 2004. *Planner's Estimating Guide: Projecting Land-Use and Facility Needs*, Chicago: Planner Press, American Planning Association

Yet this downward trend in nonresidential multipliers may itself be altered by the many forces affecting the American economy, such as downsizing, outsourcing, telecommuting, work sharing, and growing mechanization.

In sum, demographic multipliers are constantly changing over time and this monograph presents the most current demographic data for application in New Jersey.

NEW JERSEY DEMOGRAPHIC MULTIPLIERS

Part Two of this study presents residential and nonresidential multipliers for New Jersey organized as follows:

Residential Multipliers

- General application (all housing) residential multipliers.
 - Statewide - all New Jersey
 - By region – Northern New Jersey
 - By region – Central New Jersey
 - By region – Southern New Jersey
- Specialized housing residential multipliers
 - Age-restricted housing
 - Transit oriented development housing
 - Mount Laurel* below-market rate (affordable) housing

Nonresidential Multipliers

The greatest detail and statistical reliability is available for the general application residential multipliers that is for housing not specialized in type. In specialized housing, legal restrictions (in the case of age-restricted or *Mount Laurel* units), household self-selection (e.g. empty nester and younger households cluster in TODs), and other factors skew the population profile from the generally applicable demographic patterns. It is important to acknowledge, however, that relative to housing in general, our knowledge of the demographics of specialized housing is a work in progress for the former can be studied from large sample census surveys while the specialized housing generally can not.

The work in progress nature of our knowledge also characterizes information on nonresidential multipliers. The latter are also usually not available from the census and the sources that do inform the numbers of workers in nonresidential space are disparate in type and often provide inconsistent results. Despite these shortcomings, it is instructive to assemble the best available data on nonresidential worker density. The nature, organization, and sources for all of the residential and nonresidential multiplier data are detailed below.

GENERAL APPLICATION RESIDENTIAL MULTIPLIERS FOR NEW JERSEY

Data Fields

The data fields and organization of the New Jersey general application (i.e., not specialized housing) residential demographic multipliers include:

1. *Household Size (HS)*: Total persons per housing unit.

2. *Age distribution of the household members* organized into the following age categories: 0-4, 5-17, 18-34, 35-44, 45-54, 55-64, 65-74, 75+.
3. *Total school age children (SAC)* or number of persons in the household of school age, defined as those 5 to 17 years old. (The SAC is the same as the number of household members in the 5-17 category.)
4. *Total public school children (PSC)*, or the SAC who attend public schools.
5. *The SAC and PSC by school level and grade group* organized as follows: *elementary* (kindergarten-grade 6), *junior high school* (grades 7-9), and *high school* (grades 10-12).

The demographic fields shown above are differentiated by *housing type, housing size, housing price, housing tenure, and housing location.*

The housing or structure types include the following: *single-family detached; single-family attached*, sometimes referred to as townhouses or townhomes; *larger (5-or-more-unit), multifamily buildings*, such as garden apartments or stacked flats; and *smaller multifamily structures (2 to 4 units)*. (See definition table (p.3) for a formal census definition of each housing type.) As the 2000 census, the source for the general application residential multipliers, does not have information on the stories in a housing structure, (this was last available from the 1980 census), the multiplier presentations cannot disaggregate multifamily housing into garden, mid-rise, and high-rise categories.

Housing-unit size is measured by the number of bedrooms, and data are presented for housing units ranging from 0 (*studio*) to 5 bedrooms. According to the census, this housing feature is defined as “the number of rooms that would be listed as bedrooms if the house [or] apartment...were listed on the market for sale or rent even if these rooms are currently used for other purposes.” There is an association between housing type and bedroom number, and the demographic multiplier tables in Part Two present the common configurations for each housing type. For instance, demographic data are shown for 0-and-1-bedroom multifamily units and not 4-5 bedroom such homes because the multifamily housing tends to be built with fewer rather than more bedrooms. The opposite is the case for single-family detached homes; in this instance, data are presented for 2-to 5-bedroom units as opposed to 0-1 bedroom units because detached housing is typically built with greater rather than fewer bedrooms.

Housing is additionally classified by tenure: *owned* or *rental*. According to the census, a “housing unit is owner occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. All occupied housing units that are not owner occupied, whether they are rented for cash rent or occupied without payment of cash rent, are classified as renter occupied.”

There is a further differentiation in the demographic profiles by housing value or rent. The census definitions for “value” and “rent” are shown on page 3; with regard to the latter, the current study utilizes the “gross rent” (rent with utilities) rather than the “contract rent.” (See

page 3 for rent definitions). If a housing unit is rented, the unit’s housing value is estimated at 100 times the gross monthly gross rent.

The 2000 census-indicated values and gross rents are updated to 2006 using a residential price inflation index (“median price of single-family homes by state”) available from the Federal Housing Finance Board (FHFB). The FHFB’s data are for 2000 through 2004. Housing values for 2006 were determined by extending the FHFB’s indicated housing price change for 2003-2004 to both 2004-2005 and 2005-2006.

The demographic profiles by 2006 housing values and gross rents are organized following a tri-partite classification: *housing priced below the median, housing priced above the median, and all value housing*. (See page 3 for census definition of “housing value.”) The above housing value terms are just as they are stated. “Housing priced below the median” should *not* be confused with “affordable” or *Mount Laurel* housing as it is sometimes referred to in New Jersey. “Housing priced above the median” is *not* synonymous with what is sometimes referred to as “market-rate housing” (to contrast the “market-rate” from the “affordable” or “*Mount Laurel*” categories).

To illustrate, the statewide median priced 3-bedroom New Jersey townhouse as of 2006 was valued at \$267,744. Three-bedroom townhouses priced below \$267,744 would be in the “below median” category, while those priced above \$267,744 would be in the “above median” category. To reiterate, these price break points have no relationship to “affordable” or “*Mount Laurel*” versus market-priced housing. Figures for *Mount Laurel* housing (more specifically for low- and moderate-income households in New Jersey) are separately contained in the specialized housing section of the current study.

Data Geography and Grouping

The demographic data are presented for different New Jersey geographic locations: *statewide*, and for *three-regions of the state—northern, central, and southern*—comprised as follows:

**Table I-2
Northern, Central, and Southern New Jersey Regions:
Inclusive Counties and Relationship to Council on Affordable Housing (COAH) Regions**

<i>Three Regions</i>	<i>New Jersey Counties</i>	<i>Council on Affordable Housing (COAH) Regions</i>
1. Northern	Bergen	Northeast and Northwest
	Essex	Northeast and Northwest
	Hudson	Northeast and Northwest
	Morris	Northeast and Northwest
	Passaic	Northeast and Northwest
	Sussex	Northeast and Northwest
	Union	Northeast and Northwest
2. Central	Hunterdon	West Central and East Central
	Mercer	West Central and East Central
	Middlesex	West Central and East Central

	Monmouth	West Central and East Central
	Ocean	West Central and East Central
	Somerset	West Central and East Central
3. Southern	Atlantic	Southeast and South Southwest
	Burlington	Southeast and South Southwest
	Camden	Southeast and South Southwest
	Cumberland	Southeast and South Southwest
	Gloucester	Southeast and South Southwest
	Salem	Southeast and South Southwest

Source: See text

The regional demographic data are organized in the same fashion as the statewide multipliers. Thus, the regional multipliers are differentiated by housing type, size price, and tenure.

A final comment concerns the grouping of some of the data categories, both at the state and regional levels. In order to maintain sufficient sample size and reliability in the estimates, Part Two sometimes groups selected housing size categories. This is typically done for the less common housing configurations for as these are less prevalent, there are fewer of them to sample. A small sample size, in turn, would result in an average with an unacceptably low level of statistical reliability. For instance, since there are few studio (0 bedroom) multifamily units, this housing category is grouped with the 1-bedroom multifamily units in order to form an aggregate 0-1 bedroom group for which we have more robust sample size and statistical reliability. As the regional data reduces the sample size within each region relative to the statewide sample, more housing categories must be grouped in the regional tabulations in order to enhance the statistical robustness of the regional estimates.⁹

In sum, the general application residential demographic data are organized as follows:

⁹ Statistical considerations guided other aspects of the current study, such as using a three tier taxonomy of housing value (above the median, below the median, and all values) instead of a five category grouping of housing value.

**Table I-3
Organization of the New Jersey Residential Demographic Multipliers**

Housing Structure-Type/ Bedrooms/ Value/ Tenure-Own & Rent *	Statewide	Three Regions
<i>Single Family Detached- Own & Rent^a</i>		
2 Bedroom	X	
3 Bedroom	X	
2-3 Bedroom		X
4-5 Bedroom	X	X
<i>Single-Family Attached- Own & Rent^a</i>		
2 Bedroom	X	
3 Bedroom	X	
2-3 Bedroom		X
4-5 Bedroom	X	X
<i>Larger (5+ units) Multifamily- Own & Rent^a</i>		
0-1 Bedroom	X	X
2 Bedroom	X	
3 Bedroom	X	
2-3 Bedroom		X
<i>Larger (5+ units) Multifamily- Own^a</i>		
0-1 Bedroom	X	
2 Bedroom	X	
3 Bedroom	X	
<i>Larger (5+ units) Multifamily – Rent^a</i>		
0-1 Bedroom	X	
2 Bedroom	X	
3 Bedroom	X	
<i>Smaller (1-4 unit) Multifamily- Own & Rent^a</i>		
0-1 Bedroom	X	X
2 Bedroom	X	
3 Bedroom	X	
2-3 Bedroom		X
<i>All Housing Types-Own^a</i>		
0-1 Bedroom	X	X
2 Bedroom	X	
3 Bedroom	X	
2-3 Bedroom		X
4-5 Bedroom	X	X

^a Differentiated by 3 housing value categories (as of 2006): All values, below median value, and above median value.

Housing priced at below the median value is not synonymous with “below market” or “Mount Laurel” units. Housing priced at above the median value is not synonymous with “market- priced” units. See table II-H-1 for exploratory data on the demographic profile of low- and moderate income households in New Jersey. The indicated dollar figure for New Jersey housing values in this study are as of 2006.

Source: See text.

Data Period and Source

The general application residential data are usually presented as of 2000 and encompass the demographic experience of New Jersey dwellings built 1990 to 2000 as monitored in 2000. The 2000 data are presented because this is the most current information available from the federal decennial census. The 2000 analysis taps the 2000 *Census of Population and Housing* for New Jersey, focusing on newer built units in this state (New Jersey housing constructed 1990 to 2000 monitored by the 2000 census).

To lend historical perspective on the 2000 figures, some 1990 general application multipliers are presented as well. This is done for New Jersey as a whole and not separately for the northern, central, and southern regions of the state. In parallel to what was done in 2000, the 1990 statewide multipliers are derived from the 1990 *Census of Population and Housing* for New Jersey, focusing on housing units constructed in this state from 1980 to 1990 as monitored in 1990.

For both 2000 and 1990, the specific census information that is tapped is the *Public Use Microdata Sample* (PUMS) because only PUMS allows the detailed crosstabulation of demographic information detailed later. By way of background, the decennial *Census of Population and Housing* contains both published summary data and public use microdata on computer tape. In the summary data (i.e., the published census volumes), the basic unit is an identified geographic area, and information on people and housing is presented by geographic area (e.g., Newark, New Jersey or the entire state). The published data are readily usable, but their use is limited to the information as presented; it is not possible to specify cross-tabulations of housing by demographic variables (e.g., to examine the association between housing and population characteristics). For instance, while average household size for a given community or the state as a whole is available from the published summary data, census publications do not indicate household size for two-bedroom townhouses versus three-bedroom townhouses, the detailed information sought by most analysts.

By contrast, the *Public Use Microdata Sample* does permit cross-tabulation of one variable by any other desired variables. The basic unit in the PUMS is a housing unit and its occupants. These disaggregated data can be summarized and, most importantly, allow detailed study of the relationships between housing and population characteristics such as those described in the previous section. With the Public Use Microdata Sample, the analyst can undertake cross-tabulation of size of household (including the number of school-age and public school household members) by the type, size, value, tenure, and location of the housing unit—the data presented in Part Two of this study.

The *Public Use Microdata Sample* is available for different levels of geographic detail such as the nation, state, and counties/county groups. (The United States Census Bureau is enjoined from releasing *Public Use Microdata* samples for geographic areas containing fewer than 100,000 persons.) The PUMS is available in a 1 percent or 5 percent sample. The current study uses the 5 percent PUMS sample for New Jersey from both the 1990 and 2000 census.

Data Statistics and Statistical Analysis

As the PUMS is a sample of the larger universe of all households and we use the New Jersey portion of the PUMS, it is incumbent to present relevant statistics that indicate the sample size, the dispersion of the data, and the confidence intervals of the indicated demographic information. For three key multipliers—household size (HS), school-age children (SAC), and public school children (PSC)—Part Two presents the following:

1. *Sample size* or N, expressed in terms of the number of sampled households from which the HS, SAC, or PSC were derived.
2. *Standard error* (SE)¹⁰—a measure of an estimate’s variability. The greater the estimated standard error in relation to the size of the estimate (HS, SAC, or PSC), the less reliable the estimate. Approximately 68 percent of the time, the sample estimate will be within one SE of the true population value; about 95 percent of the time, the sample estimate will be within 2 SEs of the population value; and about 99 percent of the time, the sample estimate will be within 3 SEs of the population value.
3. *Confidence Interval* (CI) quantifies the uncertainty in measurement by providing a range of values from low to high that has a specified probability (e.g. 99, 95, or 90 percent) of containing the true population value. Part Two presents the 90 percent CI.
4. *Error Margin as Percent* (EMP) is computed for the 90 percent confidence interval as percentage of the estimated average.¹¹ Statisticians “prefer” an EMP of 50 percent or less.

The statewide New Jersey general application demographic multipliers have the largest N for any given housing type relative to the regional-specified general application multipliers and the former have relatively lower SEs, tighter CIs, and lower EMPs. The regional-specified multipliers provide the added benefit of place sensitivity—but at the price of being based on a lower N and having relatively higher SEs, broader CIs, and higher EMPs compared to that of the statewide values.

This comparison is illustrated by the SAC value and associated statistics for a 0-1 bedroom housing unit in a larger multifamily (5 or more unit) structure of above median value for the entire state of New Jersey and for northern New Jersey respectively.

¹⁰ The term standard error may be applied to the sampling distribution of any statistic; that is, the standard deviation of the sampling distribution of any statistic is called the standard error of the statistic. For example, the standard error of the mean, σ , is the standard deviation of the sampling distribution that would result if many samples of size n were drawn and the sample means, X, computed.

¹¹ This is calculated as follows: Error margin=SE*1.645*100/estimated average

Table I-4
Illustrative Statistics for New Jersey Demographic
Multipliers (2000)

<i>Housing Category</i>		
Location	Entire State	Northern New Jersey
Type	Multifamily	Multifamily
Size (bedrooms)	0-1	0-1
Tenure	Own & Rent	Own & Rent
Price	Above median	Above median
Period	2000	2000
<i>Demographics/Statistics</i>		
SAC	0.061	0.048
N	14,323	7,058
SE	0.012	0.015
90% CI		
low	0.041	0.023
high	0.081	0.073
EMP	33%	52%

Source: Table II-A-5

In using the statewide SAC value for the above housing unit, the analyst gains the benefit of a twice as large an N relative to the North Jersey value (14,323 versus 7,058) and a relatively “tighter” estimate with respect to SE, CI and EMP. Further, the state values, as noted earlier, are also more fine grained. For instance, statewide statistics differentiate the SAC in a multifamily structure for 2-bedroom versus 3-bedroom units while northern (as well as the central and southern) New Jersey SAC data combine the 2-and 3-bedroom values because there was insufficient sample at this regional level to differentiate the 2-versus the 3-bedroom units. Yet, using the regional values offers the benefit of place sensitivity. For instance, the above example suggests that the SAC for a 0-1 bedroom multifamily higher-valued (above median) unit is lower in North Jersey than the state as a whole.

The above tradeoffs will need to be considered by the analyst in deciding which general application demographic data presented in Part Two to use. The statistics provided will help inform that decision.

What variables are associated with differences in the demographic profile? Statistical analysis by this study’s authors of the general application residential multiplier data finds the following. In general, larger units (in terms of bedrooms) have statistically significant more household members and school children (both SAC and PSC) and housing types that typically are larger (in terms of bedrooms), such as single-family detached homes, are statistically more population-intensive than their counterparts typically constructed with a smaller number of bedrooms, such as multifamily units.

While housing size and relatedly housing type are the primary characteristics associated with the statistically significant variation in the number of people and school children generated by a given housing unit, there are other influences. There is a statistically significant relationship between housing price and population intensity (HS, SAC, and PSC) with the population yield somewhat higher in less expensive units of a given size and type and somewhat lower in their more expensive counterparts. Housing tenure, whether a unit is owned or rented, also is statistically associated with the demographic profile. In general, larger (2 or more bedroom) rental housing of all housing types are relatively more population intensive (HS, SAC, and PSC) than the owned housing counterparts. In contrast, smaller (0-1 bedroom) rental housing of all housing types tends to contain statistically fewer household members and school children (SAC and PSC) than comparable owned housing. Finally, there are some statistically significant differences in HS, SAC, and PSC by region of New Jersey.

The detailed statistical analysis related to the above findings is available from the authors. In brief, a commonly applied statistical application, OLS (ordinary least squares) regression, was applied to examine what variables are associated with statistically significant differences in the demographic profile (HS, SAC, and PSC) controlling for the other variables (e.g. examining the association of housing type, controlling for housing size and tenure). That study revealed that housing type, housing size, housing value, housing tenure, and New Jersey region are all associated with statistically significant variation in demographic profile (HS, SAC, and PSC). In terms of explanatory power of variation in demographic profile, the number of bedrooms is the most powerful, then building type, building value, and then housing tenure and New Jersey region, but there is not much difference in explanatory power among the latter four variables.¹²

It is important to differentiate, however, between a statistically significant variation and a difference of practical import. The former refers to a difference that statistically would not likely be due to chance; the latter is framed contextually and may vary by differing users, applications, and components of the demographic data.

For instance, the number of public school children in an average statewide 0-1 bedroom home of below-median value in a 5+ unit building is 0.07 for rental tenure versus 0.17 for ownership tenure—a statistically significant variation by tenure that for most observers would be of practical import as well. However, the finding that a 3-bedroom single-family detached home of above median value has a statewide average household size of 2.91 versus a household size of 3.04 for its below median counterpart, while significant statistically, may for many users not be of practical import.

Data Organization

The general application demographic data for both New Jersey as a whole and for the state's three regions is presented in a series of six tables as follows:

¹² To compare the relative explanatory power of different variables, we used a variant of the stepwise regression. Specifically, we excluded each variable (or set of variables) from the regression, one at a time, and checked by how much the adjusted R^2 declined, as a result. The variable whose exclusion results in the largest drop in the adjust R^2 has the biggest explanatory variable.

1. Total persons and persons by age
2. School-age children and grade distribution
3. Public school children and grade distribution
4. Total persons (statistics)
5. School-age children (statistics)
6. Public school children (statistics)

There are thus a total of 30 tables derived from the PUMS—12 for the state (6 each for 1990 and 2000) and an additional 6 each for the 2000 data presented for northern, central, and southern New Jersey respectively. For handy reference, table I-5 presents a guide to the 30 general application demographic tables found in Part Two.

Table I-5
Tabular Guide to the General Application Residential Demographic Data for New Jersey

Information	Area and date				
	A. Statewide (2000)	B. Statewide (1990)	C. Northern NJ ^a (2000)	D. Central NJ ^b (2000)	E. Southern NJ ^c (2000)
1. Total persons and persons by age	II-A-1	II-B-1	II-C-1	II-D-1	II-E-1
2. School-age children and grade level	II-A-2	II-B-2	II-C-2	II-D-2	II-E-2
3. Public school children and grade level	II-A-3	II-B-3	II-C-3	II-D-3	II-E-3
4. Total persons (statistics)	II-A-4	II-B-4	II-C-4	II-D-4	II-E-4
5. School-age children (statistics)	II-A-5	II-B-5	II-C-5	II-D-5	II-E-5
6. Public school children (statistics)	II-A-6	II-B-6	II-C-6	II-D-6	II-E-6

^a Northern New Jersey includes Bergen, Essex, Hudson, Morris, Passaic, Sussex, and Union counties.

^b Central New Jersey includes Hunterdon, Mercer, Middlesex, Monmouth, Ocean, and Somerset counties.

^c Southern New Jersey includes Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem counties.

SPECIALIZED HOUSING RESIDENTIAL MULTIPLIERS FOR NEW JERSEY

The PUMS applies to all housing and does not separately break out specialized housing, such as age-restricted units, units in transit oriented developments, and specially designated affordable dwellings, such as *Mount Laurel* homes in New Jersey. That inability to distinguish the specialized units is unfortunate because the specialized developments are growing in popularity. More significantly, the demographic profile of the specialized housing differs from that indicated in the generally applicable multipliers for numerous reasons. Legal restrictions can influence the demographics as, for instance, children not being allowed in an age-restricted development with the further requirement that one member of the household be a minimum of 55 years old. *Mount Laurel* units are legally restricted to low- and moderate-

income households and that income designation may affect the demographic profile of the occupants of such units.

Household self-selection may also play a role. Because of lifestyle and other reasons, certain types of senior households (e.g. older or younger or employed or retired) may disproportionately seek out age-restricted developments and this will affect the demographics of such projects. Similarly, a disproportionate share of certain types of households, such as empty nesters and younger, single, and childless households, may be most attracted to the in-town, close-to-transit, and high-amenity and service features of TODs and this self-selection will affect the TOD's demographic profile. These considerations argue against using the general application residential multipliers derived from the PUMS for the specialized housing.

Unfortunately, *only limited data are available on the specialized housing types*, however, to at least begin to advance our knowledge in this arena, Part Two presents some information.

Data Fields and Geography

For the age-restricted housing, statewide-relevant information is presented on:

7. *Household size (HS)*: the total persons per housing unit.
8. *Age distribution of the household members* organized into the following age categories (35-44, 45-54, 55-64, 65-74) Legally, the age-restricted units may not permanently house those under 19 years of age and that explains the categories starting at the 19-34 years-of-age group. The age-restricted housing contains neither school age children nor public school children.

For the TODs, only the following statewide data, and that of an exploratory nature, are presented:

1. *Number of public school children.*

For the *Mount Laurel* housing, again only exploratory statewide data are available on:

1. *Household size (HS)*: the total persons per housing unit.
2. *Number of school-age children.*
3. *Number of public school children.*

The reason why many more fields of information are available for the age-restricted versus the TOD and *Mount Laurel* units is that the former can be studied via a large scale database while the latter two categories generally cannot. (The respective data sources are detailed shortly.) For the same reason, the multipliers for the specialized housing are presented for statewide application as opposed to differentiating the multipliers by region of the state.

Data Sources

While the decennial census does not flag age-restricted housing, the *American Housing Survey* (AHS), does contain information for “senior citizen communities” defined as “persons 55+ years in age.” This may not exactly parallel the typical active adult community age requirement (i.e. one person is at least 55 and all household members are at least 19 years of age), however, it comes close. Since the AHS is tapped for the age-restricted data, some background on this source is in order.

The AHS is conducted by the Bureau of the Census for the U.S. Department of Housing and Urban Development. Until 1981, the bureau collected information annually on the characteristics of each housing unit and the people in it. Subsequently, the survey has been conducted in every odd-numbered year. Further, its name changed from the *Annual Housing Survey* to the *American Housing Survey*.

The AHS consists of two separate parts: a national survey of housing units throughout the country and surveys of selected metropolitan areas. The two parts use completely different samples. The national survey covers between 50,000 and 80,000 homes while the metropolitan survey reports the results of between 3,000 and 15,000 interviews. The AHS surveys about one in 3,000 housing units in contrast to the PUMS’s one-in-20 survey (for the 5 percent PUMS sample). As noted, however, the AHS is a much more frequent survey compared to the decennial sample (PUMS) and only the AHS contains data for age-restricted housing. Because of sample size considerations, data on the AHS’s “senior citizen communities” is derived from the national AHS database. The current study uses the data from the 2003 AHS and examines the demographic profile of the age-restricted homes built 1990 to 2003. To enhance the New Jersey applicability of the AHS data, separate results from the AHS information is shown for the northeast United States.

No such macro database is available for the TODs. In the latter case, exploratory data are presented for ten New Jersey TODs. For the *Mount Laurel* housing, exploratory data are presented for approximately 40 developments in New Jersey that either exclusively contain *Mount Laurel* units or encompass both affordable and market-rate homes. The New Jersey 2000 PUMS is also examined to ascertain the demographic profile of low-and moderate-income households in this state.

NONRESIDENTIAL MULTIPLIERS

Data Fields and Sources

The nonresidential multiplier consists of the *number of employees per 1000 square feet of nonresidential space*. To be consistent, the nonresidential space is typically “gross floor area” (GFA), however, depending on source, other metrics may be shown such as “enclosed space,” “business space,” “total space,” “selling space,” and “per room” (for the hotel industry).

The nonresidential multipliers are presented according to the following categories.

Commercial

Office
Retail
Eating & Drinking

Industrial
Warehouse
Manufacturing & Industry

Hospitality, Health, & Education
Lodging
Health
Schools

There is no standard source for nonresidential multipliers and no distinct New Jersey base of information. Part Two assembles nonresidential multiplier data from many national sources, including as examples (see Part Two for a full listing):

1. *U.S. Census Bureau- Census of Retail Trade (CRT)*. This source has national information for selected retail categories on the number of employees per retail total space and selling space. The current study taps the 1997 CRT, the last time the above information was presented.

2. *Commercial Buildings Energy Consumption Survey (CBECS)*. CBECS is a national sample survey administered by the U.S. Department of Energy that collects energy-related building characteristics data and energy consumption and expenditure data for commercial buildings in the United States. Included in the CBECS is information on building area and number of employees. The current study utilizes the 2001 CBECS.

3. *Institute of Transportation Engineers (ITE). 1991. TRIP Generation. 5th Ed.* Besides trip generation figures, this publication contains selected national data on employees, by nonresidential space. The employee-space data was last contained in the 1991 (5th) *Trip Generation* edition.

4. *Nelson, Arthur. 2004. Planner's Estimating Guide. Projecting Land-Use and Facility Needs. American Planning Association.* Among other useful information, this publication has data on national nonresidential multipliers.

Evident from the above is the diversity of sources and that all of the data are national as opposed to being specific to New Jersey. Further, the indicated national sources have considerably varying employment densities by type of use. Despite these shortcomings, the national nonresidential employee multipliers are informative for New Jersey application.

ILLUSTRATIVE NEW JERSEY RESIDENTIAL AND NONRESIDENTIAL DEMOGRAPHIC MULTIPLIERS

Following the background presented above, it is opportune to examine in an illustrative fashion some of the data contained in Part Two.

How many persons and school children are found in a 2-bedroom townhouse (single-family attached unit) versus a 4-5 bedroom single-family detached (SFD) home in New Jersey that were newly built (1990 through 2000) as of 2000? Since no price is specified for these respective units nor specific geographic location, the analyst would use the statewide “all value” 2000 data for persons, school-age children, and public school children contained in tables II.A.1 through II.A.3 (see table I-5 guide) in Part Two and would ascertain the following:

Table I-6
Illustrative Overall Statewide Demographic Data for Townhouse and Detached Housing
(2000)

<i>Housing Category</i>		
Location	State	State
Type	Townhouse	Single-Family detached (SFD)
Size (bedrooms)	2	4-5
Tenure	Own and rent	Own and rent
Price	All value	All value
Period	2000	2000
<i>Overall Demographics</i>		
Household size	1.997	3.774
School-age children	0.156	1.077
Public school children	0.126	0.872

Source: Tables II-A-1 through II-A-3

In other words, 100 of the 2-bedroom townhouses would generate on average about 200 persons of whom approximately 16 would be of school age, with 13 pupils attending the public schools. For the 4-5 bedroom single-family detached home, the 100 units would generate about 377 persons, of whom 108 would be of school age, 87 attending public schools.

Of the public school children counts from the 2000 census indicated above (table I-6), how many are likely to attend elementary (kindergarten-6th grade), junior high (7th-9th grades), and high school (10th-12th grades)? From table II-A-3 in Part Two (see table I-5 guide), the following statewide school and grade level multiplier data for public school children is available:

**Table I-7
Illustrative Detailed (Public School Children) Statewide Demographic Data for
Townhouse and Detached Housing (2000)**

<i>Housing Category</i>				
Location	State		State	
Type	Townhouse		Single-family detached	
Size (bedrooms)	2		4-5	
Tenure	Own and rent		Own and rent	
Price	All value		All value	
Year	2000		2000	
<i>Detailed Demographics</i>				
Public School Children	<i>Multiplier</i>	<i>%</i>	<i>Multiplier</i>	<i>%</i>
Elementary (K-6)	0.081	(64.3)	0.549	(62.3)
Junior High (7-9)	0.021	(16.7)	0.183	(21.0)
High School (10-12)	0.024	(19.0)	0.140	(16.7)
All	0.126	(100.0)	0.872	(100.0)

Source: Table II-A-3

Put another way, of the 13 public school children from the 100 2-bedroom townhouses, 8, 2, and 3 pupils would likely be found in elementary, junior high, and high school, respectively. For the 100 4-5 bedroom detached homes, generating 87 public school children, the pupil distribution for the three school categories can be expected to be 55, 18, and 14 students respectively.

What about the age distribution of all the persons generated by the townhouses versus the detached homes? From table II.A.1 in Part Two (see table I-5 guide), the following age-cohort information can be assembled:

**Table I-8
Illustrative Detailed (Age Distribution) Statewide Demographic Data for Town House
and Detached Housing (2000)**

<i>Housing Category</i>				
Location	State		State	
Type	Townhouse		Single-family detached	
Size (bedrooms)	2		4-5	
Tenure	Own and rent		Own and rent	
Price	All value		All value	
Year	2000		2000	
<i>Detailed Demographics</i>				
Age Distribution	<i>Multiplier</i>	<i>%</i>	<i>Multiplier</i>	<i>%</i>
0-4	0.150	(7.5)	0.442	(11.7)
5-17	0.156	(7.8)	1.077	(28.5)
18-34	0.557	(28.0)	0.539	(14.3)
35-44	0.366	(18.3)	0.998	(26.4)

45-54	0.265	(13.3)	0.492	(13.0)
55-64	0.220	(11.0)	0.146	(3.9)
65-74	0.186	(9.3)	0.063	(1.7)
75+	0.097	(4.9)	0.038	(1.0)
All	1.997	(100.0)	3.774	(100.0)

Source: Table II-A-1

From the above data, the analyst could estimate that of the 200 persons from the 100 2-bedroom townhouses, about 15 (200×0.075) would be four years of age or under, while of the 377 population from the 100 detached 4-5 bedroom homes, 44 persons (377×0.117) would fall into the youngest age cohort. The townhouses would contain relatively more persons of retirement age—65 years or older—than their detached counterparts. Of the 200 persons from 100 townhomes, 14.2 percent[†] or 28 persons would be expected to be at least 65 years old as against only 2.7 percent[‡] or 10 persons for the single-family detached homes values.

Knowledge of the housing units' price (all home values shown are as of 2006) can refine the selection of the appropriate statewide residential demographic multipliers from Part Two. If the 2-bedroom townhouses were priced above \$226,552, then as is evident from table II.A.1, the "above median" values for the state would be selected; below \$226,552, the "below median" 2-bedroom townhouse values would be most appropriate. For the 4-5 bedroom single-family detached home, units priced below \$576,679 would fall into the "below median" group while their counterparts priced above \$576,679 would fall into the "above median" category. Price may affect the demographic profile as the following illustration for the 2-bedroom townhouse example indicates. In this instance, the higher priced townhomes have fewer persons, school age, and public school children than their lower priced counterparts.

Table I-9
Illustrative Overall Statewide Demographic Data for Townhouses
Differentiated by Housing Value (2000)

<i>Housing Category</i>	Statewide	Statewide	Statewide
Location	Townhouse	Townhouse	Townhouse
Type	2	2	2
Size (bedrooms)	Own & Rent	Own & Rent	Own & Rent
Tenure	All Values	Below Median Value	Above Median Value
Price	2000	2000	2000
Year	<i>Overall Demographics</i>		
Household size	1.997	2.068	1.914
School-age children	0.156	0.206	0.096
Public school children	0.126	0.164	0.081

Source: Tables II-A-1 through II-A-3

[†] Combines 9.3 percent and 4.9 percent for the 65-74 and 75+ age cohorts respectively for the 2-bedroom townhomes (see table II-A-1).

[‡] Combines 1.7 and 1.0 percent for 65-74 and 75+ age cohorts respectively for the 4-bedroom single family detached homes (see table II-A-1).

For the multifamily homes (i.e. 5+ unit structures), information on price as well as tenure would guide the analyst as to which statewide multipliers to use in Part Two. Evident from the illustrative overall demographic figures shown in table I-10 is that the population yield is lower for owned more expensive 2-bedroom multifamily homes than for their rented less expensive counterparts

Table I-10
Illustrative Overall Statewide Demographic Data for Multifamily Units (2-bedroom)
Differentiated by Housing Tenure and Value (2000)

<i>Housing Category</i>				
Location	Statewide	Statewide	Statewide	Statewide
Type	Multifamily	Multifamily	Multifamily	Multifamily
Size	2 bedroom	2 bedroom	2 bedroom	2 bedroom
Tenure	Rent	Own	Rent	Own
Price	Above median	Above median	Below median	Below median
Year	2000	2000	2000	2000
<i>Overall Demographics</i>				
Housing size	2.107	1.844	2.493	1.771
School-age children	0.165	0.105	0.478	0.131
Public school children	0.115	0.092	0.432	0.101

Source: Tables II-A-1 through II-A-3

For the 0-1 bedroom multifamily homes, higher price remains associated with a lower population impact, however, in this instance, tenure has an opposite impact as it is the rental 0-1 bedroom homes which tend to contain relatively fewer persons, school-aged, and public school children (table I-11).

Table I-11
Illustrative Overall Statewide Demographic Data for Multifamily Units (0-1 Bedroom)
Differentiated by Housing Tenure and Value (2000)

<i>Housing Category</i>				
Location	Statewide	Statewide	Statewide	Statewide
Type	Multifamily	Multifamily	Multifamily	Multifamily
Size	0-1 bedroom	0-1 bedroom	0-1 bedroom	0-1 bedroom
Tenure	Rent	Own	Rent	Own
Price	Above median	Above median	Below median	Below median
Year	2000	2000	2000	2000
<i>Overall Demographics</i>				
Housing size	1.644	1.682	1.370	1.702
School-age children	0.057	0.069	0.083	0.167
Public school children	0.051	0.051	0.069	0.167

Source: Tables II-A-1 through II-A-3

All of the above illustrations are as of 2000. (Housing units built 1990 through 2000 and monitored in 2000.) An analyst interested in the change in the New Jersey demographic multipliers between 1990 (housing units built 1980 through 1990 and monitored in 1990) and 2000 can readily obtain this information from the parallel contained in Part Two, tables II-A (2000) and II-B (1990), as is illustrated below for townhouse and single-family detached home examples.

Table I-12
Illustrative Overall Statewide Demographic Data for Townhouse and Detached Housing (1990 and 2000)

<i>Housing Category</i>				
Location	Statewide		Statewide	
Type	Townhouse		Single-family detached	
Size (bedrooms)	2		3	
Tenure	Own & Rent		Own & Rent	
Price	Above median		Above median	
Year	1990	2000	1990	2000
<i>Overall Demographics</i>				
Household size	2.029	1.91	3.043	2.913
School-age children	0.069	0.096	0.547	0.510
Public school children	0.047	0.081	0.424	0.423

Source: Tables II-A-1 through II-A-3 and tables II-B-1 through II-B-3.

All of the above illustrations were for the state as a whole. Parallel information is available by region of New Jersey. How many persons and school children are found in a 2-3 bedroom townhouse of above median value in Bergen County versus Burlington County as of 2000? Since Bergen County is in northern New Jersey while Burlington is in southern New Jersey, the analyst would reference the multiplier data for these two regions (tables II.C and II.E respectively) and would determine the following.

Table I-13
Illustrative Overall Regional Demographic Data for 2-3 Bedroom Townhouse (2000)

<i>Housing Category</i>		
Location	Northern NJ	Southern NJ
Type	Townhouse	Townhouse
Size (bedrooms)	2-3	2-3
Tenure	Own and rent	Own and rent
Price	All value	All value
Year	2000	2000
<i>Overall Demographics</i>		
Household size	2.477	2.232
School-age children	0.296	0.317
Public school children	0.242	0.282

Source: Tables II-C-1 through II-C-3 and tables II-E-1 through II-E-3.

In other words, 100 of the above described townhouses in Bergen County would generate, on average, 248 persons, including 30 school-age children, 24 in public school. The same number of townhouses in Burlington County would contain a small number of people (223) but somewhat additional school-age children (32), and public school children (28).

For statistics on the household size, school-age children and public school children, multipliers, the analyst would reference the appropriate tables in Part Two as guided by table I-5. For instance, if the analyst wanted to quantify the 90 percent confidence interval for the public school children from the example just cited—a 2-3 bedroom townhouse located in either Bergen (northern New Jersey) or Burlington county (southern New Jersey)—then from table II-C-6 (Bergen County) and table II-E-6 (Burlington County), the following data would be ascertained.

Table I-14
Illustrative Statistics for Public School Children Multiplier for Different Regions in New Jersey (2000)

<i>Housing Category</i>		
Location	Northern New Jersey	Southern New Jersey
Type	Townhouse	Townhouse
Size (bedrooms)	2-3	2-3
Tenure	Own and rent	Own and rent
Price	All value	All value
Year	2000	2000
<i>Demographics/Statistics</i>		
Public School Children		
Average	0.242	0.282
90% confidence interval		
low	0.196	0.228
high	0.288	0.337

Source: Table II-C-6 and II-E-6.

In other words, in 9 times out of 10, the 100 2-3 bedroom townhouses in Bergen County would generate from 20 to 29 public school children while in Burlington County the same 100 townhouses would, at the same confidence band, contain from 23 to 34 public school children.

Much less detail is available in Part Two on the specialized housing types. In an exploratory fashion, though, we can distinguish the demographic impact of these specialized units from the average or “generally applicable” housing.

Take, for instance, the demographic impact of 100 average value 2-bedroom townhouses. As noted earlier (table I-6), on average for New Jersey these 2-bedroom townhouses will contain 1.997 persons of whom 0.126 will be public school children (PSC). These 100 townhouses would therefore be estimated to contain a population of about 200, approximately 13 of whom will be PSC.

What if these 100 townhomes were found in an age-restricted community? In this instance, the analyst would tap the specialized housing information found in Part Two, table II-F-1 and can ascertain the following household size data for “communities that are restricted to those 55+” in the Northeast United States: 1.57 for single-family detached units, 1.39 for single-family attached units, and 1.20 for multifamily homes. Given the above, the 100 age-restricted townhomes would be estimated to contain about 139 persons and no public school children. These figures are less than the 200 person SAC figure with 13 PSC estimated for the non-age restricted 100 unit townhouse example described above because the age-restricted homes are “specialized” and will contain smaller size households and by definition no school children.

What if the 100 townhouses were contained in a transit oriented development (TOD), another specialized housing type? In this instance, the analyst would turn to Part Two, table II-G-1 and could reference the exploratory data shown there. That section indicates an average of 0.02 public school children for TOD units, suggesting that the 100 townhomes in the TOD would yield only 2 public school children—considerably lower than the 13 estimated PSC for the “general application” townhouses. That lower figure reflects the household self-selection described earlier, namely that TODs disproportionately attract both empty nester and younger households who are typically childless.

What if the 100 two-bedroom townhomes were affordable *Mount Laurel* dwellings? Only limited data is available for this specialized housing type, however, from Part Two, table II-H-1, the analyst could ascertain that the 100 affordable 2-bedroom *Mount Laurel* townhouses would generate about 209 persons, including 32 public school children. These figures, albeit exploratory, are higher than the demographic yield from the examples cited above for both the general application and other specialized housing types (e.g. TODs) and reflect a somewhat different demographic profile for income-constrained households.

Mount Laurel housing is often built with market-rate housing in an inclusionary arrangement. The demographic data in this study can be used to estimate the demographic impact from such inclusionary developments. To illustrate, how many public school children can be anticipated from a 100 unit inclusionary housing development in New Jersey (88 market-priced homes and 12 affordable homes) of for-sale condominiums in 5+ unit structures? The answer as indicated below (table I-15) is 19 public school children, approximately 3 coming from the affordable homes.

Table I-15
Illustrative Detailed (Public School Children) Demographic Impact From a 100 Unit
Inclusionary Housing Development (For-sale homes in 5+ unit structures)

Housing Type/Size	Number of Housing Units	Public School Children per Unit	Expected Public School Children
5+ Units Own			
<i>Market Housing</i> ^a			
2-bedroom	44	.09	3.96
3-bedroom	44	.28	12.32
Subtotal	88		16.28
<i>Affordable Housing</i>			
1-bedroom	3	.06	0.18
2-bedroom	6	.18	1.08
3-bedroom	3	.54	1.62
Subtotal	12		2.88
Project total	100		19.16, say 19

^a Above median value.

Source: Tables II-A-3 and II-H-1.

What if the 100 unit inclusionary housing development consisted of rental homes in 5+ unit structures? In that instance, the development would be expected to generate 38 public school children, 8 from the affordable homes, as is shown in table I-16.

Table I-16
Illustrative Detailed (Public School Children) Demographic Impact From a 100 Unit
Inclusionary Housing Development (Rental homes in 5+ unit structures)

Housing Type/Size	Number of Housing Units	Public School Children per Unit	Expected Public School Children
5+ Units Rent			
<i>Market Housing</i> ^a			
2-bedroom	44	.12	5.28
3-bedroom	44	.56	24.64
Subtotal	88		29.92
<i>Affordable Housing</i>			
1-bedroom	3	.14	0.42
2-bedroom	6	.62	3.72
3-bedroom	3	1.27	3.81
Subtotal	12		7.95
Project total	100		37.87, say 38

^a Above median value.

Source: Tables II-A-3 and II-H-1.

It is important to reiterate that *the specialized housing information is exploratory and that much more case study work must be done to improve our understanding of the demographic impact of the age-restricted, TOD, and Mount Laurel units, as well as other specialized homes (e.g. vacation) for which no demographic information is available.*

We conclude this illustrative section with the nonresidential multipliers. These are the average number of employees per 1,000 square feet of nonresidential space and table II-I-2 in Part Two assembles the available data on this subject. How many workers can be anticipated from a 100,000 square foot retail facility? As table II-I-2 indicates that the nonresidential multiplier for this business use is roughly between 1 and 2, the 100,000 square foot retail establishment could be expected to contain 100 to 200 workers. Yet, as is readily evident from table II-H-2 there is far from unanimity concerning the worker density for retail (and other uses) so nonresidential multipliers, as the specialized housing data, must be viewed as exploratory.

All of the residential and nonresidential information illustrated in this section clearly is of interest to planners, educators and other public officials, as well as the New Jersey public at large. The Part Two tables thus provide a handy and pertinent reference as to who lives in New Jersey housing and how many workers are found in different types of nonresidential land uses in this state. That resource is the basis for numerous interrelated analytic applications.

DEMOGRAPHIC MULTIPLIERS: APPLICATION

In some instances, information on a development's population is required by local statute. For example, applicants for residential subdivisions of above a given size may be required by local New Jersey statute to project both the number of people and school children that will be added locally. In parallel, when a larger nonresidential development is proposed, a workforce count is sometimes required. These projections are readily accomplished by referring to the appropriate residential and nonresidential multipliers.

Underlying the analyses noted above, is a desire to identify development consequences. The process for accomplishing this, termed development impact analysis, is one of the major users of demographic multiplier data as is described shortly. A second, related application, is to anticipate the public employment needed to service future growth. A third, related usage is the identification of development standards, whereby infrastructure requirements of new growth are linked to the development-introduced population—the latter identified by the demographic multipliers. A fourth, again related, application is the formulation of development charges, such as impact fees, where infrastructure costs are charged to new development proportional to the development's need for additional capital facilities. Capital needs are related to the residential and nonresidential population generated by growth—a figure determined through the use of multipliers. Finally, there are a number of emerging applications of multipliers ranging from school districts conducting enrollment projections to planners examining the “costs of sprawl.” Each of these numerous broad areas where multipliers are commonly applied is discussed below.

Development Impact Analysis and Demographic Multipliers

Development impact analysis is the process of estimating and reporting the effects of residential and nonresidential construction on a host political subdivision, usually a local community, school district, special district, and/or county (Burchell, Listokin, and Dolphin 1994). The analysis may be requested by a state, county, or locality as part of the land-use review process; or it may be volunteered by a developer applicant in conjunction with the process. Increasingly, however, development impact assessment is changing from an optional to a required element.

The effects considered by development impact assessment take several forms: physical, market, environmental, fiscal, economic, traffic, and social. Many of these development impact components either begin with, or in other ways significantly involve, the use of demographic multipliers.

Fiscal impact analysis¹³ is illustrative. This assessment compares the public costs and public revenues associated with residential and/or nonresidential growth (Burchell and Listokin 1978). If costs exceed revenues, a deficit is incurred; if revenues exceed expenditures, a surplus is generated.¹⁴ There are different techniques for conducting a fiscal-impact assessment such as the per capita, case study, comparable community, and econometric methods. All, however, begin with the determination of the population generated by growth—people, pupils, and employees—an analysis that depends on the demographic multipliers.

For instance, assume a mixed-use development of expensive 400 residential units (evenly divided between 200 3-bedroom, \$600,000 single-family detached homes and 200 3-bedroom, \$400,000 townhouses) and 100,000 square feet of office space is proposed. At a 2000 New Jersey average household size multiplier of 2.913 for the above median price 3-bedroom

¹³ A fiscal impact analysis may be required of New Jersey developers. The fiscal consequences of growth may more generally be considered by New Jersey communities planning their future. Ideally, fiscal effects would be only one of many evaluative criteria; others include environmental sustainability, quality design, satisfying affordable housing needs, and considering traffic, and numerous other development impacts.

¹⁴ The fiscal impact of growth in a given community is best viewed on a comprehensive scale that includes all or much of future anticipated development as opposed to only considering one component of the larger picture. It is in this macro view that land uses should be considered. Communities in New Jersey as well as the nation have sometimes “overzoned” for nonresidential development while they have “underzoned” for housing, especially attached units in general and affordable housing in particular.

Hopefully the multipliers considered in the current study will address some of the erroneous assumptions and misconceptions that underlie the above described “ratables chase.” First, housing, especially attached units, provides far fewer residents and especially public school children than is commonly assumed. Second, even if certain housing produces a high demographic yield and results in a fiscal deficit, that shortfall may not be very significant in a community-wide perspective and/or the shortfall can be offset by other fiscally positive development in the community, both residential as well as nonresidential. *More fundamentally, zoning should not be driven by demographics and fiscal impact.* The *Mount Laurel* mandate in New Jersey requires communities to shoulder a measure of the region’s housing need and even in the absence of *Mount Laurel*, smart growth exemplifies the imperative of communities providing for a range of housing and a variety of land uses.

single-family detached units¹⁵ (each with 0.423 public school children) (Part Two, table II-A-1 and table II-A-3 above median multipliers) and 2.444 for the townhouses¹⁶ (each with 0.244 public school children) while the nonresidential multiplier suggested in Part Two, table II-I-2 is 3 employees per 1,000 square feet of office space, then the analyst would project a development-induced population of 1,072 people, 134 public school children, and 300 office workers (table I-15).

Of the 1,072 people, 583 would come from the 200 single-family detached homes (200 x 2.913 persons each) and 489 from the townhouses (200 x 2.444 persons each). Of the 134 public school children, the larger share, 85 students would be found in the detached homes (200 x 0.423 apiece) with the remaining 49 pupils in the townhouses (200 x .244 apiece).

The respective fiscal impact techniques would then assign public service costs to this incoming population. The per capita method is illustrative. If annual average local service costs are \$1,000 per resident, \$10,000 per pupil, and \$300 per worker, then in the mixed-use development example cited above, the 1,072 new residents would be projected by the per capita method to induce municipal outlays of \$1,072,000 (1,072 persons x \$1,000); the 300 workers would generate municipal costs of \$90,000 (300 workers x \$300); and the 134 pupils would demand educational expenses of \$1,340,000 (134 pupils x \$10,000). The total annual public service costs, would, therefore, amount to \$2,502,000 (\$1,072,000 + \$90,000 + \$1,340,000; see table I-15).

¹⁵ Selling above the median \$267,444 as of 2006.

¹⁶ Selling above \$267,444 per unit as of 2006.

TABLE I-15
Applying Demographic Multipliers to
Project the Population and Public Costs from a Mixed-Use Project Example

Development Composition	Number of Units / square feet	Population (per unit or 1,000 square feet)			Project-Generated Population ²			Public Service Costs Per Unit of Population			Project-Generated Cost ³			Total
		People ¹	Public School Pupils ¹	Employees	People	Public Pupils	Employees	People	Public School Pupils	Employees	People	Public School Pupils	Employees	
Residential														
Single-Family Detached	200 units	2.913	0.423	NA	583	85	NA	\$1,000	\$10,000	NA	\$583,000	\$850,000	NA	\$1,433,000
Three-Bedroom Single Family Attached	200 units	2.444	0.244	NA	489	49	NA	\$1,000	\$10,000	NA	\$489,000	\$490,000	NA	\$979,000
Nonresidential														
Office	100,000 ft ²	NA	NA	3.0	NA	NA	300	NA	NA	\$300	NA	NA	\$90,000	\$90,000
Total	—	—	—	—	1,072	134	300				\$1,072,000	\$1,340,000	\$90,000	\$2,502,000

Notes:

NA = Not applicable.

¹Derived from the demographic multipliers for household size and public school children in tables II-A-1 and I-A-3 in Part Two.

²Equals number of units/square feet multiplied by the respective population/employee profiles.

³Equals the number of project-generated population multiplied by the public service costs per population unit.

These costs would then be compared to revenues, some of which are population based. For instance, if there is an annual “head” tax of \$200 per resident and \$100 per worker, then in the example noted above, the revenue from the head tax would amount to \$214,400 from the development’s incoming 1,072 population ($1,072 \times \$200$) and \$30,000 from its added 300 workforce ($300 \times \$100$) for a total head tax income of \$244,400. If state aid amounted to \$5,000 per pupil, then the 134 public school children introduced by the mixed use project would garner \$670,000 in state school support ($\$5,000 \times 134$). In specifying public costs and revenues, fiscal impact analysis thus incorporates many population-related calculations, and these, in turn are based on applying the residential and nonresidential multipliers.

The same is true with respect to many of the other substantive elements of development impact analysis. For example, market analysis often utilizes demographic multipliers. A market study of the office component of the mixed-use project example presented earlier could proceed as follows. The market area for the office space would first be identified, for instance, a two-county region surrounding the project. Next, employment growth would be projected for this region over the near future, say 1,000 office-related jobs. The latter is then translated into demand for physical office space of a given magnitude—a conversion enabled by the nonresidential demographic multipliers. If the multiplier is 3 workers per 1,000 square feet of office space (or 333 square feet of office space per office employee), then the 1,000 additional employees in the two-county market area would therefore necessitate demand for 333,000 square feet of office space. If 200,000 square feet of office development is forthcoming in the market area from projects already approved or started, that would leave a net need for 133,000 square feet of office space. This net need suggests adequate support for the 100,000 square feet of office space in the contemplated mixed-use project.

In short, knowing how much space each worker needs is key to identifying total space demand in a market analysis. Determination of the space need per worker, in turn, is available from the nonresidential demographic multipliers contained in Part Two, table II-H-2 of this study.

Development impact also considers demands placed on water, sewer, solid waste, and other utility systems. Again, this is calculated by projecting the population and work force from growth via the residential and nonresidential multipliers, and then relating these population and employee tallies to standards of gallons per day of water needed per resident and per employee, tons of solid waste generated by people and workers, and so on. Thus, many areas of development impact assessment build on a projection of population and work force and these projections are based on the residential and nonresidential multipliers.

Projecting Demand for Public Employees and Demographic Multipliers

Many public jurisdictions in New Jersey relate their public staffing requirements at least in part, to the size of the population being served. Examples include teacher-student ratios and the number of police needed per 1,000 population. As the demographic multipliers provide a basis for calculating the population introduced by development, they are invaluable for anticipating the public employee demands from growth. That information can guide future public hiring needs as well as inform fiscal impact, development impact, and other calculations.

To facilitate that application in New Jersey, table I-16, based on the 2002 *Census of Government* for this state, presents the average number of public service (municipal and school) workers in New Jersey per 1,000 local service population (persons for municipalities and pupils for school districts). Since local public service employment may vary by the population scale of the local jurisdiction, table I-16 differentiates its figures accordingly.

For example, the number of fire protection employees is 0.09 per 1,000 population for communities 1,000 to 2,499 in size and rises fairly steadily to over 1.20 per 1,000 population for the largest municipal size categories (100,000 or more persons). In other instances (e.g. financial administration) there is an opposite pattern as the number of workers per 1,000 population falls steadily with community size, perhaps due to economies of scale. There is a “U” shaped curve for yet other public services in that the employment level per 1,000 population starts high for the smallest size communities (since basic services have to be provided regardless of the population base), then drops for mid-size communities (as efficiencies of scale are reached), and finally upturns for the largest communities (because of need or possibly reduced economy from large scale). For example, the number of police per 1,000 population is 2.83 for the 1,000 to 2,499 community size group, then drops to a low of 1.32 per 1,000 population for the 50,000 to 99,999 size category, yet increases to about 2.00 per 1,000 population for communities of 100,000 or more. Besides these staffing ratios by individual municipal service functions, table I-16 aggregates the total municipal workers per 1,000 service population. For instance, it is 20.35 municipal employees for communities 1,000 to 2,499 in size.

Table I-16 also presents the average number of public education workers per 1,000 students for different size school districts. For instance, that education staffing figure is 158 for school districts less than 1,200 pupils (122 workers for instruction and 36 employees for other education services).

Table I-16 can be used to estimate the number of public employees that will be needed to service the population introduced by development—the latter itself determined from the residential demographic multipliers. To illustrate, for the mixed-use case study detailed earlier, a development-induced population of 1,072, including 134 public school children was projected. If the case study development were located in a community 1,000 to 2,499 in total population with a school district of under 1,200 pupils, then the analyst would project development-induced municipal hiring of 21.8 workers ($1.072 [1,072 \text{ in } 000\text{'s of population}] \times 20.35$ [the total municipal workers per 1,000 population for 1,000 to 2,499 size municipalities]) and the addition of 21.2 school workers ($0.134 [134 \text{ pupils expressed in } 000\text{s}] \times 158$ [the total educational staffing per 1,000 pupils for districts of less than 1,200 pupils]).

Exhibit I-16
Full Time New Jersey Public Employees Per 1,000 Population And Pupils For Municipal and School District Services
By Municipality/School District Size

Municipal Population Size (Number of Residents)	Less than 2,500	2,500 to 4,999	5,000 to 9,999	10,000 to 24,999	25,000 to 49,999	50,000 to 99,999	100,000 to 199,999	200,000 to 299,999	Total
MUNICIPAL FUNCTIONS									
GENERAL GOVERNMENT									
Financial Administration	2.94	0.71	0.51	0.39	0.34	0.23	0.27	0.26	0.88
General Control	6.33	1.09	0.85	0.73	0.84	0.68	0.97	2.99	1.78
PUBLIC SAFETY									
Police Protection	2.83	2.46	2.28	1.85	1.88	1.32	1.92	1.75	2.18
Fire Protection	0.09	0.12	0.13	0.28	0.50	0.48	1.27	1.23	0.24
PUBLIC WORKS									
Highways/Transit	3.12	0.96	1.00	0.78	0.49	0.46	0.37	0.29	1.19
Sanitation	1.58	0.60	0.25	0.35	0.35	0.12	0.26	0.28	0.56
Water Supply/Sewerage	2.44	0.43	0.29	0.39	0.34	0.30	0.08	0.19	0.70
Utilities	0.19	0.01	0.00	0.01	0.00	0.09	-	-	0.04
HEALTH, RECREATION AND CULTURE									
Parks & Recreation	0.59	0.26	0.20	0.27	0.39	0.33	0.40	0.18	0.32
Libraries	0.05	0.09	0.28	0.31	0.28	0.21	0.52	0.65	0.22
Health and Welfare	0.19	0.10	0.08	0.16	0.20	0.20	0.50	0.22	0.15
TOTAL	20.35	6.84	5.87	5.52	5.60	4.42	6.56	8.04	8.26

School District Enrollment (Number of Students)	Less than 1,200	1,200 to 2,999	3,000 or more	Total
SCHOOL DISTRICT FUNCTIONS				
Instruction	122	108	113	117
All Other School Functions	36	38	40	37
Total	158	146	153	154

Source U.S. Census of Governments, 2002

Formulating Development Standards and Demographic Multipliers

It stands to reason that development standards such as street width, sidewalk dimensions, parking spaces, and drainage and water-system improvements should be related to the specific needs posed by growth. In reality, this has not been the case. Many subdivision and site plan requirements have been criticized as being excessive; street widths were too wide, utility specifications were overly generous, and so on. In response, the National Association of Home Builders (NAHB), Urban Land Institute (ULI), Institute for Transportation Engineers (ITE) American Planning Association (APA), American Society of Civil Engineers (ASCE) and Rutgers University, among others, developed “model development requirements” (Brough 1985; Bucks County 1973; Freilich and Levi 1975; ULI, NAHB, and ASCE 1976).

Underlying these “model” standards is an attempt to derive “rationally based” requirements—regulations that would be based on need. The determination of need is linked to the demands posed by the size of the population and work force that will be introduced by residential and nonresidential development, respectively; in turn, this count is based on the residential and nonresidential multipliers. Thus, the reform of subdivision and site plan standards has built on the knowledge of demographic multipliers.

For example, the Rutgers model subdivision ordinance (Listokin and Walker 1989) establishes from engineering studies that water consumption is: a) 100 gallons per day (gpd) for each person in a single-family detached home; b) 75 gpd per capita in an attached unit; and c. 25 gpd for each office worker. Based on these standards, the mixed-use development example would generate a water need of 102,475 gpd. That figure encompasses 58,300 gpd from the 583 people in the detached homes, each person consuming 100 gpd; 36,675 gpd from the 489 people in the attached units, each person utilizing 75 gpd; and 7,500 gpd from the 300 office workers, each needing 25 gpd. Much of the data developed in the Rutgers model subdivision ordinance has been incorporated in the New Jersey Residential Site Plan Standards (RSIS). The above figures might be less in an infill context. As household size is probably lower in infill, so too in tandem will the demand for water capacity.

Demographic multipliers are similarly applied by Rutgers in developing other subdivision and site plan specifications for sewage treatment infrastructure, parking requirements, and the like. The utilization of demographic information similarly characterizes the work by NAHB, ULI, APA, and others in their respective formulations of model subdivision and site plan standards. Thus, an important application of demographic multipliers is the on-going work of determining development infrastructure requirements based on need.

Calculating Impact Fees and Demographic Multipliers

Capital improvements, such as street, utility, and drainage systems, were historically provided by government and paid for by all taxpayers. In recent years, however, there has been some shift so that more of the infrastructure is provided by and paid for privately by developers and the consumers of housing and commercial space. One means of accomplishing this is through the imposition of exactions. Whether termed “impact fees,” “proffers,” “off-site contributions,” “developer agreements,” or other nomenclature, these generic charges all refer to exactions

placed on new growth to fund a proportionate share of attendant infrastructure costs. These charges are prevalent in such sunbelt states as California, Florida, Virginia and Colorado, and are circumscribed in New Jersey (by the Municipal Land Use Law) and other jurisdictions.

There are many legal, economic, equity, and other issues involved with respect to development exactions. One of the most challenging and basic is the determination of the “rational nexus” between growth and attendant capital improvements. Rational nexus refers to the linkage between development and infrastructure—that a given measure of growth requires a specific increment of capital improvements and spending. An exaction on growth should be proportional to its effect on infrastructure.

In the formulation of impact fees and similar charges, rational nexus and the underlying concept of proportional charges, is often operationally estimated through reference to the residential and nonresidential multipliers. Since capital improvements are related to the demands posed by population and employees, development that introduces more persons and a larger workforce necessitates greater amounts of infrastructure and is charged more while development that is not as population and worker-intensive is charged less. In turn, the specification of persons and workers by development type is identified by the residential and nonresidential multipliers respectively.

This relationship is illustrated in the mixed-use example. It was previously calculated that the 400 residential units (200 single-family detached homes and 200 townhouses) in this project would generate 1,072 people and 134 public school children (583 people and 85 pupils in the detached homes and 489 people and 49 public school children in the townhouses—see table I-15). The 100,000 square feet of office space houses 300 workers.

We will further assume that local analysis shows that the infrastructure costs (not the average per capita costs) in the host community are \$1,500 per capita and \$750 per worker for municipal purposes, and \$12,000 per pupil for schools. The 200 single-family detached homes would therefore generate a need for \$874,500 in municipal infrastructure (583 persons x \$1,500) and \$1,608,000 for schools (134 students x \$12,000) for a total of \$2,482,500. The rational nexus impact fee for each of the 200 single-family units—absent any credits for the taxes and other local fiscal benefits from these units, *credits that must be added*-- would therefore be \$12,413 ($\$2,482,500 \div 200$). The 100,000 square feet of office space, housing 300 workers, would indicate a need of \$225,000 in infrastructure (300 workers x \$750)—suggesting an impact fee of \$2,250 per 1,000 square feet of such space (again, absent any offsetting credits). While the above example is oversimplified, and New Jersey communities can not currently impose impact fees for schools, at the heart of the determination of rational nexus impact fees is the application of demographic multipliers as described above.

School Enrollment Projections and Demographic Multipliers

One emerging application of demographic multiplier involves school enrollment analyses. Such studies are routinely conducted by school districts across the United States and typically project school enrollment by grade (kindergarten through 12th grade or K–12) into the near future—

usually for five years from the most current school year. The enrollment studies are implemented to estimate both future staffing and infrastructure needs.

School enrollment projections are usually done following two methodologies termed “cohort survival” or a “demographic approach.” The former has traditionally been almost universally applied while the latter is an emerging application with numerous advantages that shall be detailed shortly. In cohort survival, the historical relationship between the number of students by grade (K–12) from year to the next over the recent past, typically for the last five school years, is determined from enrollment records. This relationship is expressed as a “cohort survival ratio,” and the historical ratio is then applied into the future to project the next five years’ enrollment. A ratio between births in a given community (lagged 5 years) and the students entering kindergarten in that community is established as well and also applied in the analysis to predict the size of the entering kindergarten (k) class. A K-1 (kindergarten to first grade) ratio then ages the kindergarten cohort into the school system.

The cohort survival technique is commonly applied because of its mathematical simplicity and logical appeal that “the future will mirror the past.” The latter, however, is a major drawback because cohort survival is an accurate gauge only to the extent that future patterns in the school district will mirror the historical record (i.e., that the level of new growth will be similar). Another drawback is that the cohort survival approach does not deal directly with the impacts of growth in the sense of examining how many school children are generated per new housing unit.

These drawbacks are addressed by an alternative to the cohort survival technique—a demographic analysis of school enrollment. This combines two items of information: 1) an estimate of the future five years of residential development by type and size of housing unit and 2) identification of the average school children found in these different housing units—in other words their demographic multipliers. Applying the future growth by year (numbers of given type/size housing units) against the appropriate demographic multipliers generates the new school children that will be added by growth and these, together with the underlying trend of existing school enrollment (i.e., the cohort survival that is not related to growth that is separately tracked by the demographic approach), yields the future school enrollment via a demographic technique.

The demographic approach monitors other factors affecting future school enrollment. For instance, it identifies from the residential multipliers the number of pre-school age children introduced by growth and these are cued to enter the school system (and hence the school enrollment projection) as they become of school age. Thus, if 10 single-family detached, three bedroom housing units built in 2000 have about three pre-school-age children four years of age, or under (applying the New Jersey general application average value multipliers contained in Part Two, table II-A-1), then these three children will be counted as entering kindergarten in 2001-2005 assuming that in the district in question kindergarten starts at age five.

While the cohort survival technique predominates in use by school districts, its shortcomings are being recognized and in its place is the demographic approach described above. The latter methodology directly incorporates the pupil demographic multipliers and represents an emerging application of multiplier data.

Traffic Impact Studies and Demographic Multipliers

Yet another emerging application of demographic multiplier involves traffic impact analysis. A traffic impact study is often required in subdivision and site plan review, rezoning applications, and the like. In these contexts, a traffic impact is conducted for such reasons as enabling responsible agencies to consider the effects on the local transportation system and to relatedly examine whether capacity improvements will be needed along streets or at critical intersections.

An important component of traffic impact analysis is the projection of the number of trips that will be generated by a development. It is in this context that demographic multipliers may be incorporated into the analysis. That application is detailed below.

Most traffic impact studies use trip generation data published by the Institute of Transportation Engineers (ITE). ITE compiles the results of trip generation studies conducted by transportation professionals across the country in its publication *Trip Generation*. *Trip Generation* presents trip data in such forms as a rate, such as a certain number of trips per dwelling unit or a stated frequency of trips per 1,000 square feet of gross leasable area, or trips per unit of population (persons or employees).

Demographic multipliers can be applied in utilizing and refining these trip generation rates. For instance, an earlier edition (5th edition, published 1991) *Trip Generation* indicates a weekday trip generation of 9.55 for single-family detached houses, 6.47 for rental apartments, and 5.86 for (owned) townhouses and condominiums (garden). *Trip Generation* further presents “adjustment factors” based on the household size and other characteristics of these units, such as the vehicles owned. These adjustments are shown in table I-17. To illustrate, the trip generation rate for a single-family detached home with a “smaller” household size (three or fewer members) would be reduced while that of a townhouse would be increased if it had a “larger” household size (two or more members). In turn, knowledge of the household size in the different residential units would be forthcoming from the demographic multipliers. Thus, according to the New Jersey statewide data for average value homes (Part Two, table II-A-2), the ITE trip generation figure would be reduced for 2- and 3-bedroom single-family detached homes in New Jersey while the ITE figures would be increased for 3 bedroom townhouses. Place sensitivity should also be considered, such as townhouses in a transit oriented development generating fewer relative trips as the townhouse’s residents in the TOD will more often take transit as opposed to relying on their automobiles.

Demographic multipliers can be incorporated in other traffic projections. *Trip Generation* sometimes gives trip statistics that are directly related to population, such as reporting the trip yield per person or per worker. Since the demographic multipliers provide data on population, they are invaluable in the application of trip generation calculations that are population-based.

In short, traffic impact analysis has become increasingly sensitive to the variations in trip generation by such characteristics as population intensity (e.g., numbers of people in a housing unit and workers in nonresidential uses) and other characteristics (e.g., automobile ownership). The incorporation in traffic impact analysis of demographic and related data represents yet another emerging application of demographic multipliers.

TABLE I-17
ITE Trip Generation
Adjustment Factors by Housing Type

Housing Unit Characteristic	Housing Type		
	Single-Family Detached	Rental Apartment	Owned Condominiums/Townhouses
Household Size	Adjustment Factors		
1-2	-3.4	-1.0	-0.07
2-3	-1.8	+0.9	+0.04
> 3	0.0	+2.8	+0.15
Vehicles Owned			
0-1	-1.5	-0.3	-1.7
1-2	0.0	+0.2	0.0
>2	+2.9	+0.4	+3.6

Source: Institute of Transportation Engineers. 1991. *Trip Generation*. Washington, D.C.: ITE.

Adjustment factor to be added (or subtracted) from the weekday vehicle trip generation rate per dwelling unit. These are 9.55 for the single-family detached homes, 6.47 for the rental apartments, and 5.86 for the condominiums/townhouses.

Note: The most current (2001) *Trip Generation* does not contain these adjustment factors.

Cost of Sprawl Studies and Demographic Multipliers

A recent use of demographic multipliers is found in “cost of sprawl studies.” These investigations analyze the environmental, economic, fiscal, social, and other characteristics of the traditional pattern of growth in the United States (termed “sprawl”) versus more concentrated growth capitalizing on available infrastructure capacity in older urban, suburban, and rural centers (termed “smart growth”).

A land consumption model is a central component of the cost of sprawl studies (Burchell 2002; 2000; 1999; 1997a; 1997b; 1995). This model allows a future projection of households and jobs to be converted to the demand for residential and nonresidential structures and ultimately to the demand or consumption of land for the residential and nonresidential purposes respectively.

Demographic multipliers are an integral component of the land consumption model incorporated in the cost of sprawl analyses. To illustrate, assume that an employment projection in the two counties encompassing the “region” of the mixed-use project example cited earlier shows a future (2005–2010) employment growth of 1,000 office workers and 1,500 retail workers. A land consumption model applied to this region and focusing on the land needs of the area’s nonresidential growth between 2005 and 2010 would proceed as follows. The job growth by type would first be translated to physical development space demand by applying the nonresidential multipliers. This is a variation of the market analysis described earlier. Thus, if the multipliers in a given location are 3 workers per 1,000 square feet of office space (or 333 square feet of office space per office employee) and 2.0 workers per 1,000 square feet of retail space (or 500 square feet of retail space per retail employees)—parameters supported by the data from Part Two, table II-I-1 of this study-- then the 1,000 increase in office employment results in demand for 333,000 square feet of office space (1,000 x 333) and the 1,500 increase in retail employment results in demand for 750,000 square feet of retail space (1,500 x 500). It is assumed that the above

employment growth figures and attendant space needs are the same for both sprawl and smart growth.

The sprawl and smart growth patterns differ, however, in their relative utilization of land per given increment of development and this relationship, expressed in terms of a floor to area ratio (FAR), is incorporated in the land consumption model. FARs are lower for office versus retail space and for both land uses are lower for sprawl versus smart growth (table I-18).

Table I-18
Illustrative FARs Under Sprawl and Smart Growth

Type of Land Use	Development Scenario FARs	
	Sprawl	Smart Growth
Office	.20	.22
Retail	.25	.27

Under the sprawl scenario, the 2005–2010 office space development in the two counties encompassing the mixed-use development’s region will consume 1,665,000 square feet of land ($333,000 \text{ ft}^2$ of office space \div .20 FAR) while the five years of retail development in the region will require 3,000,000 square feet of land ($750,000 \text{ ft}^2$ of retail space \div .25 FAR) for a total of 4,665,000 square feet of land. At 43,560 square feet per acre, the 4,665,000 total square feet of land consumed under sprawl translates into 107.1 acres utilized.

Under smart growth, 1,513,636 square feet of land for office space would be consumed ($333,000 \text{ ft}^2$ of office space \div .22 FAR) and 2,777,778 square feet of land for retail needs ($750,000 \text{ ft}^2$ of retail space \div .27 FAR) for a total of 4,291,414 square feet of land or 98.5 acres ($4,291,414 \div 43,560$). Thus, the land consumption model shows smart growth to be more land efficient, utilizing about 10 percent fewer acres (107.1 versus 98.5 acres) in the mixed-use two county region example.

In short, the land consumption model is a powerful analytical tool incorporated in the cost of sprawl studies. Nonresidential multipliers are one item of data essential for “running” the land consumption model as described above.

Residential multipliers are used in the cost of government services (COGS) studies conducted by the American Farmland Trust and others. These studies purport to show that preserving land is superior fiscally to development and en route that conclusion, the COGS investigations tap residential multipliers to document the expenses involved in residential growth to the host community.

The principal author of this monograph was involved in a variation of the COGS in Allamuchy Township, New Jersey. Two alternative development scenarios for this community were examined. The first, termed the “residential development” option, assumed full development as currently zoned between 2000 and 2030. The second 2000-2030 scenario assumed that major land parcels are purchased by the community and kept as open space. The latter option, termed the “open space purchase” scenario, included development, but at a much reduced scale.

The analysis found that at buildout, the residential development scenario would add approximately 3,292 persons, including 445 school children in kindergarten through 12th grade (K-12). The open space purchase scenario would generate far fewer new residents—842 persons and 179 K-12 school-age pupils. These population figures were derived by utilizing demographic multipliers. The investigation then translated the development-induced population into municipal and school costs, projected the public revenues contributed by growth, and finally calculated the net fiscal impact of the two alternative development scenarios. It found that the open space purchase scenario produced an overall annual fiscal deficit (because land purchases were expensive in Allamuchy). The open space scenario, however, was relatively fiscally superior, because the residential development scenario at buildout yielded a slightly larger fiscal deficit. Such analysis, which informs preservation versus development policy decisions, relies on residential multipliers, amongst other data.

REFINING AND TESTING THE MULTIPLIERS

As is evident from the discussion in the previous section, the multipliers presented in Part Two of this study provide invaluable data for a variety of crucial analyses. Yet multipliers are a moving target and it is incumbent to continue to refine and test the assembled information.

Multipliers need to be updated. When the next decennial census is completed in 2010, the general application residential multipliers that were derived from the PUMS should be recalculated. Updating is important for conditions may change over time. The “baby boom echo”—the children of the baby boom generation will likely have a different demographic profile than their parents and the “echo” generation’s children may differ once again. There is also a changing nonresidential environment. Take, for instance, the nonresidential multipliers for office space. Growing telecommuting, downsizing, outsourcing, shared work arrangements, and other forces may very well alter the number of employees per 1,000 square feet of such space in the future.

Beyond the issue of dating, multipliers continuously need to be refined. That is especially the case for the specialized housing and nonresidential categories. As noted, the data presented for the age-restricted, transit oriented, and *Mount Laurel* units in the current investigation is exploratory and surely does not provide information for all specialized housing types, such as vacation homes. The same can be said for the employee density information. The data on the number of employee per 1,000 square feet of nonresidential space is often inconsistent across sources and covers only major but surely not all categories of nonresidential uses.

Testing the multipliers against observed experience is a recommended practice. In doing such testing, one compares the reported multipliers against the observed numbers of people, school children, and/or workers in built and occupied residential and nonresidential development.

Rutgers has begun such testing in New Jersey with respect to:

1. The school-age children in about 14,000 attached housing units.
2. The number of person in about 5,100 age-restricted units.
3. The number of workers in about 11.7 million square feet of office space.

The first above-noted test proceeded as follows:

1. Through the Office of Smart Growth, New Jersey Builders Association, New Jersey county planning offices, and other contacts, the Rutgers research team identified a sample of recently built (approximately 1990 to 2000) attached housing developments in New Jersey. Rutgers focused on attached as opposed to detached homes because the greatest controversy concerning the “real world” demographic impact concerns the former units.

2. Rutgers then sought housing information (type, size, tenure, and value) for these developments. The research team was successful in obtaining all or most of these housing descriptors for 61 developments scattered throughout New Jersey comprising a total of 14,191 housing units. The 61 projects ranged in size from 8 to 1,042 dwellings apiece.

3. In tandem, information was obtained from the developers-owners-managers of these 61 projects on the public school children living in these developments. (Rutgers focused on the public school children demographic for that, much more so than household size, is a subject of considerable controversy.) That public school children information was then cross-checked with the local school districts responsible for providing elementary and secondary education to the 61 developments. At times, there was one responsible (kindergarten -12th grade) school district while in other cases, responsibility was divided between two school districts such as a kindergarten -6th grade, and 7th grade -12th grade arrangement. All the host school districts were called; some, however, could or would not provide the requested information. Rutgers was successful in obtaining the actual public school children from the host school districts in about 40 percent of the cases (for 26 developments containing 7,542 housing units of the total 61 developments with an aggregate of 14,191 housing units).

4. From the school district and/or developer sources indicated above, it was found that the 14,191 housing units contained 1,975 public school children or an overall public school demographic multiplier of 0.14 (1,975 / 14,191)

5. Applying the census-based public school children demographic multipliers for the housing units classified by housing type, size, tenure, and value (as best as the research team could make that differentiation), yields an estimate of 1,941 public school children. (The 90 per confidence interval of the census-based demographics range from 923 public school children [low] to 3,066 public school children [high].) Thus, the actual public school children (1,975) and the estimated public school children (1,941) based on census data are in reasonable approximation of one another.

The age-restricted analysis proceeded as follows:

1. From the New Jersey Builders Association, Monmouth-Ocean County planning departments, (two counties with many age-restricted projects), and other sources, Rutgers identified build and occupied age-restricted developments in New Jersey.

2. Rutgers then sought to quantify the number of residents in these developments by contacting their developers and homeowners’ associations (no government entity had this information). Only the developers had some population data (e.g. from questionnaires)

administered to the purchasers-renters of the age-restricted homes) that would inform on the subject—not the ideal source, but the only one that Rutgers could tap.¹

3. Rutgers was able to secure the developer-provided resident population information for 19 age-restricted developments (ranging in size from 20 to almost 1,000 homes) scattered throughout New Jersey. In total, the age-restricted developments contained 5,060 housing units, about two-thirds (3,390 units) detached, and one-third (1,670 units) attached, mostly townhouses. According to the developers, the 5,060 age-restricted units, contained a total of 7,664 persons or an average of 1.51 residents per unit (7,664 / 5,060).

4. From the AHS-based data detailed in Part Two of this monograph, an analyst would have projected that the 3,390 detached age-restricted homes would have contained 5,322 persons (3,390 X 1.57) while the 1,670 attached townhouse units would have contained 2,321 persons (1,670 X 1.39) for a total of 7,643 residents in the 19 age-restricted developments. The 7,643 multiplier-predicted population for the 5,060 age-restricted units comports with the developer-reported figure of 7,664 population.

The nonresidential test proceeded as follows:

1. From New Jersey commercial realtors, the New Jersey Office of the National Association of Industrial and Office Parks, the real estate offices of national companies, and other sources, Rutgers identified 12 examples of office buildings (and office parks) in New Jersey and also obtained information on their employment from the same sources. These buildings-office parks ranged in size from 32,000 square feet to 1,200,000 square feet and in the aggregate contained 11,726,457 square feet of gross floor area (GFA). In total, all 13 cases contained 46,105 employees or 3.93 workers per 1,000 square feet GFA. The low nonresidential multiplier was 2.00 workers per 1,000 square feet GFA for a research and development office facility of a national pharmaceutical company; the high was 6.21 workers per 1,000 square feet GFA for the back office space of a utility company.

It is difficult to compare these figures against an “expected standard” because as was earlier noted, there are many sources of nonresidential multipliers and they are far from consistent. On an order of magnitude basis, however, the national data on office worker density is roughly 3 to 4 workers per 1,000 square feet GFA (table II-I-2). Therefore the average of 3.93 employees per 1,000 square feet of GFA obtained by Rutgers from the 13 New Jersey office examples comports reasonably closely.

The above residential and nonresidential multiplier tests conducted by Rutgers represents only a start of what must be contained testing of the population and worker density of built housing and nonresidential developments throughout New Jersey.

THE CONTINUED NEED FOR LOCAL ANALYSIS

The assembled data can only go so far, however, in accurately predicting the actual number of growth-engendered residents and pupils in a specific community or the number of workers in a

¹ Unlike with the analysis of the attached, non-age restricted homes described earlier, there was no independent third party source, such as a school district, through which Rutgers could verify the developer-provided information.

given nonresidential development. Optimally, the benchmark data gathered in this document from many sources will be supplemented by local case study analysis of the actual population and workers contained within occupied projects comparable in character (housing type, housing size, housing price, housing tenure, and nonresidential category) and location (i.e. immediate community, county, or larger market area) to the residential and/or nonresidential development(s) being examined.

Case study investigation is admittedly challenging because information on a given built project may be difficult to obtain in terms of the number, type, and price of the housing units or exact nonresidential square footage and business composition. Securing credible arms-length information on a project's actual demographic impacts, such as from a local school district or a retail mall's management company, is more difficult to secure. Yet, case studies can be effected; they are in essence what was accomplished by the nascent Rutgers testing previously described. Further, case studies tremendously enhance the "real world" credibility of demographic study and may reveal local contextual factors, such as the quality of the local school system, or retail sales per square foot, that may bear on the demographic impacts from development. In short, the optimal strategy is to combine this document's benchmark data with local case study investigation.

CONCLUSION

In sum demographic multipliers refer to the number and characteristics of the people, school children, and workers in different land uses. Residential multipliers indicate the number of persons and school children and their associated characteristics (e.g., share of school children attending public schools) in different categories of housing. Nonresidential multipliers reveal the number of workers in different types of nonresidential development.

Demographic multipliers are applied in a broad range of often inter-related applications. These include conducting fiscal, traffic, and other development impact analyses; formulating development standards; calculating impact fees; effecting school enrollment projections; and aiding cost of sprawl studies.

This study has presented residential demographic multipliers for household size, school-age children, and public school children differentiated by housing type, size, value, tenure, and location in New Jersey. In addition, the age distribution of the household members contained within newer built dwellings in New Jersey is presented as well. Rutgers has further developed exploratory data on the public school children impact of transit oriented development (found to be negligible) and has also assembled information on the demographics of age-restricted and *Mount Laurel* housing. Data on nonresidential multipliers has further been compiled. The study authors have begun what must be an ongoing process of testing the demographic multipliers against real world experience; the study's findings to date are that the residential and nonresidential multipliers assembled herein provide a reasonably accurate depiction of the demographic impacts from residential and nonresidential development. That depiction will optimally be supplemented by further case study analysis. All of the above would not have been possible without the assistance of planners, government officials, and developers throughout

New Jersey and Rutgers hopes to continue this collaboration in the future to refine our knowledge of demographic multipliers for New Jersey.

PART TWO

NEW JERSEY DEMOGRAPHIC MULTIPLIERS

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² Bergen, Essex, Hudson, Morris, Passaic, Sussex, and Union counties.

³ Hunterdon, Mercer, Middlesex, Monmouth, Ocean, and Somerset counties.

⁴ Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem counties.

PART TWO
NEW JERSEY GENERAL APPLICATION RESIDENTIAL
MULTIPLIERS:

A. STATEWIDE- ALL NEW JERSEY (2000)

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**TABLE I-A-1
STATEWIDE NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
Single-Family Detached, 2 BR									
All Values	2.032	0.081	0.118	0.229	0.190	0.109	0.321	0.674	0.310
Below Median \$267,744	1.971	0.086	0.118	0.267	0.191	0.106	0.264	0.628	0.311
Above Median \$267,744	2.145	0.070	0.119	0.159	0.187	0.115	0.425	0.760	0.309
Single-Family Detached, 3 BR									
All Values	2.977	0.333	0.575	0.632	0.686	0.359	0.202	0.134	0.056
Below Median \$267,744	3.038	0.350	0.636	0.719	0.681	0.329	0.164	0.109	0.048
Above Median \$267,744	2.913	0.315	0.510	0.540	0.690	0.391	0.242	0.160	0.065
Single-Family Detached, 4-5 BR									
All Values	3.774	0.422	1.077	0.539	0.998	0.492	0.146	0.063	0.038
Below Median \$576,679	3.730	0.424	1.040	0.613	0.993	0.437	0.125	0.061	0.037
Above Median \$576,679	3.863	0.417	1.152	0.391	1.007	0.603	0.187	0.066	0.040
Single-Family Attached, 2 BR									
All Values	1.997	0.150	0.156	0.557	0.366	0.265	0.220	0.186	0.097
Below Median \$226,552	2.068	0.166	0.206	0.612	0.385	0.262	0.211	0.147	0.079
Above Median \$226,552	1.914	0.132	0.096	0.492	0.344	0.268	0.232	0.232	0.119
Single-Family Attached, 3 BR									
All Values	2.655	0.239	0.438	0.652	0.530	0.392	0.239	0.110	0.055
Below Median \$267,744	2.823	0.254	0.561	0.754	0.578	0.387	0.178	0.070	0.041
Above Median \$267,744	2.444	0.220	0.283	0.524	0.470	0.398	0.316	0.160	0.073
Single-Family Attached, 4-5 BR									
All Values	3.980	0.640	1.035	0.900	0.628	0.400	0.184	0.163	0.029
Below Median \$370,722	4.537	0.915	1.306	1.226	0.619	0.261	0.101	0.079	0.029
Above Median \$370,722	3.211	0.261	0.661	0.451	0.639	0.592	0.297	0.279	0.029
5+ Units–Own Rent, 0-1 BR									
All Values	1.526	0.072	0.076	0.565	0.201	0.103	0.082	0.150	0.277
Below Median \$129,835	1.424	0.068	0.090	0.333	0.151	0.106	0.089	0.245	0.343
Above Median \$129,835	1.628	0.076	0.061	0.799	0.252	0.099	0.074	0.055	0.211
5+ Units–Own Rent, 2 BR									
All Values	2.106	0.154	0.245	0.780	0.340	0.224	0.143	0.102	0.118
Below Median \$185,361	2.242	0.192	0.351	0.833	0.346	0.222	0.139	0.083	0.077
Above Median \$185,361	1.954	0.112	0.127	0.720	0.334	0.226	0.148	0.123	0.163
5+ Units–Own Rent, 3 BR									
All Values	3.109	0.343	0.769	0.894	0.539	0.253	0.163	0.096	0.052
Below Median \$206,451	3.499	0.358	1.150	0.879	0.622	0.281	0.139	0.062	0.009
Above Median \$206,451	2.719	0.328	0.388	0.910	0.455	0.224	0.188	0.131	0.095

**TABLE I-A-1
STATEWIDE NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
5+ Units-Own, 0-1 BR									
All Values	1.694	0.094	0.125	0.530	0.304	0.145	0.124	0.159	0.214
Below Median \$185,361	1.702	0.137	0.167	0.474	0.364	0.140	0.097	0.151	0.171
Above Median \$185,361	1.682	0.036	0.069	0.605	0.223	0.150	0.159	0.171	0.270
5+ Units-Own, 2 BR									
All Values	1.797	0.071	0.122	0.485	0.320	0.294	0.191	0.153	0.161
Below Median \$226,552	1.771	0.074	0.131	0.520	0.324	0.290	0.164	0.121	0.147
Above Median \$226,552	1.844	0.064	0.105	0.419	0.312	0.301	0.243	0.215	0.186
5+ Units-Own, 3 BR									
All Values	2.469	0.213	0.471	0.537	0.481	0.332	0.243	0.129	0.063
Below Median \$226,552	2.828	0.301	0.655	0.588	0.524	0.412	0.204	0.103	0.041
Above Median \$226,552	2.104	0.124	0.283	0.486	0.438	0.250	0.282	0.155	0.086
5+ Units-Rent, 0-1 BR									
All Values	1.507	0.069	0.070	0.569	0.190	0.098	0.077	0.149	0.284
Below Median \$125,716	1.370	0.053	0.083	0.285	0.143	0.100	0.093	0.262	0.351
Above Median \$125,716	1.644	0.085	0.057	0.855	0.237	0.097	0.061	0.035	0.216
5+ Units-Rent, 2 BR									
All Values	2.303	0.207	0.323	0.967	0.353	0.180	0.113	0.069	0.090
Below Median \$177,123	2.493	0.265	0.478	0.951	0.364	0.195	0.115	0.065	0.060
Above Median \$177,123	2.107	0.147	0.165	0.984	0.342	0.164	0.112	0.073	0.121
5+ Units-Rent, 3 BR									
All Values	3.545	0.431	0.973	1.137	0.577	0.199	0.109	0.075	0.044
Below Median \$173,004	3.666	0.392	1.242	1.064	0.587	0.246	0.114	0.022	0.000
Above Median \$173,004	3.422	0.470	0.702	1.212	0.568	0.151	0.104	0.128	0.088
2-4 Units, 0-1 BR									
All Values	2.043	0.179	0.288	0.747	0.278	0.221	0.112	0.087	0.133
Below Median \$123,574	1.868	0.151	0.259	0.650	0.282	0.141	0.111	0.117	0.158
Above Median \$123,574	2.225	0.207	0.318	0.847	0.274	0.304	0.113	0.057	0.106
2-4 Units, 2 BR									
All Values	2.651	0.250	0.453	0.940	0.477	0.217	0.157	0.094	0.063
Below Median \$149,607	2.857	0.341	0.603	0.939	0.497	0.200	0.144	0.082	0.052
Above Median \$149,607	2.440	0.158	0.300	0.940	0.456	0.235	0.169	0.106	0.075
2-4 Units, 3 BR									
All Values	3.529	0.293	0.805	1.062	0.654	0.363	0.209	0.107	0.036
Below Median \$226,552	3.665	0.355	1.070	1.085	0.718	0.269	0.099	0.047	0.021
Above Median \$226,552	3.388	0.228	0.530	1.038	0.588	0.460	0.322	0.170	0.052
2-4 Units, 4-5 BR									
All Values	3.995	0.384	0.749	1.141	0.623	0.527	0.216	0.194	0.162
Below Median \$370,722	4.231	0.474	0.965	1.212	0.744	0.557	0.073	0.129	0.078
Above Median \$370,722	3.699	0.270	0.477	1.052	0.471	0.490	0.396	0.276	0.268

**TABLE I-A-1
STATEWIDE NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
All Housing Types (Own), 0-1 BR									
All Values	2.139	0.144	0.282	0.529	0.448	0.247	0.167	0.146	0.176
Below Median \$185,361	1.973	0.134	0.256	0.548	0.350	0.244	0.154	0.135	0.152
Above Median \$185,361	2.326	0.155	0.312	0.507	0.560	0.250	0.181	0.158	0.204
All Housing Types (Own), 2 BR									
All Values	1.933	0.098	0.116	0.420	0.294	0.223	0.256	0.348	0.178
Below Median \$226,552	1.928	0.107	0.137	0.484	0.315	0.233	0.219	0.271	0.163
Above Median \$226,552	1.939	0.089	0.094	0.351	0.272	0.212	0.296	0.430	0.195
All Housing Types (Own), 3 BR									
All Values	2.851	0.294	0.505	0.637	0.627	0.378	0.222	0.132	0.056
Below Median \$308,935	2.931	0.313	0.567	0.707	0.656	0.356	0.181	0.102	0.049
Above Median \$308,935	2.726	0.265	0.409	0.529	0.581	0.410	0.286	0.178	0.068
All Housing Types (Own), 4-5 BR									
All Values	3.767	0.423	1.066	0.542	0.989	0.494	0.148	0.066	0.039
Below Median \$576,679	3.728	0.429	1.030	0.616	0.985	0.438	0.128	0.063	0.038
Above Median \$576,679	3.844	0.411	1.139	0.394	0.996	0.605	0.188	0.073	0.040
All Housing Types (Rent), 0-1 BR									
All Values	1.655	0.092	0.130	0.620	0.222	0.121	0.084	0.138	0.249
Below Median \$123,903	1.503	0.073	0.127	0.372	0.169	0.116	0.101	0.232	0.312
Above Median \$123,903	1.808	0.110	0.133	0.869	0.276	0.125	0.066	0.042	0.186
All Housing Types (Rent), 2 BR									
All Values	2.453	0.242	0.390	0.957	0.406	0.196	0.119	0.062	0.081
Below Median \$164,765	2.629	0.298	0.542	0.902	0.440	0.196	0.125	0.063	0.062
Above Median \$164,765	2.274	0.184	0.235	1.013	0.372	0.195	0.113	0.061	0.100
All Housing Types (Rent), 3 BR									
All Values	3.466	0.358	0.945	1.017	0.640	0.270	0.139	0.060	0.037
Below Median \$167,567	3.590	0.364	1.135	1.081	0.573	0.268	0.134	0.033	0.004
Above Median \$167,567	3.341	0.353	0.753	0.953	0.708	0.271	0.145	0.087	0.071
All Housing Types (Rent), 4-5 BR									
All Values	4.572	0.626	1.433	1.256	0.733	0.314	0.089	0.089	0.033
Below Median \$218,149	4.638	0.568	1.347	1.524	0.776	0.257	0.080	0.049	0.036
Above Median \$218,149	4.506	0.684	1.520	0.984	0.689	0.372	0.099	0.130	0.029

**TABLE I-A-2
STATEWIDE NEW JERSEY
SCHOOL-AGE CHILDREN (SAC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2 BR				
All Values	0.118	0.057	0.025	0.037
Below Median \$267,744	0.118	0.053	0.024	0.041
Above Median \$267,744	0.119	0.063	0.026	0.030
Single-Family Detached, 3 BR				
All Values	0.575	0.360	0.123	0.092
Below Median \$267,744	0.636	0.399	0.137	0.100
Above Median \$267,744	0.510	0.319	0.108	0.083
Single-Family Detached, 4-5 BR				
All Values	1.077	0.691	0.218	0.169
Below Median \$576,679	1.040	0.666	0.213	0.161
Above Median \$576,679	1.152	0.741	0.228	0.183
Single-Family Attached, 2 BR				
All Values	0.156	0.099	0.029	0.028
Below Median \$226,552	0.206	0.137	0.034	0.036
Above Median \$226,552	0.096	0.055	0.023	0.018
Single-Family Attached, 3 BR				
All Values	0.438	0.248	0.111	0.079
Below Median \$267,744	0.561	0.314	0.159	0.088
Above Median \$267,744	0.283	0.165	0.050	0.068
Single-Family Attached, 4-5 BR				
All Values	1.035	0.681	0.183	0.171
Below Median \$370,722	1.306	0.934	0.194	0.178
Above Median \$370,722	0.661	0.331	0.168	0.162
5+ Units–Own Rent, 0-1 BR				
All Values	0.076	0.050	0.014	0.012
Below Median \$129,835	0.090	0.058	0.018	0.014
Above Median \$129,835	0.061	0.042	0.010	0.009
5+ Units–Own Rent, 2 BR				
All Values	0.245	0.164	0.042	0.039
Below Median \$185,361	0.351	0.238	0.061	0.051
Above Median \$185,361	0.127	0.082	0.020	0.025
5+ Units–Own Rent, 3 BR				
All Values	0.769	0.488	0.167	0.115
Below Median \$206,451	1.150	0.731	0.269	0.151
Above Median \$206,451	0.388	0.244	0.066	0.078

**TABLE I-A-2
STATEWIDE NEW JERSEY
SCHOOL-AGE CHILDREN (SAC)(Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
5+ Units-Own, 0-1 BR				
All Values	0.125	0.100	0.016	0.008
Below Median \$185,361	0.167	0.137	0.015	0.015
Above Median \$185,361	0.069	0.051	0.018	0.000
5+ Units-Own, 2 BR				
All Values	0.122	0.083	0.015	0.024
Below Median \$226,552	0.131	0.088	0.013	0.031
Above Median \$226,552	0.105	0.076	0.019	0.011
5+ Units-Own, 3 BR				
All Values	0.471	0.335	0.076	0.060
Below Median \$226,552	0.655	0.435	0.151	0.070
Above Median \$226,552	0.283	0.234	0.000	0.049
5+ Units-Rent, 0-1 BR				
All Values	0.070	0.044	0.014	0.012
Below Median \$125,716	0.083	0.050	0.019	0.014
Above Median \$125,716	0.057	0.038	0.009	0.010
5+ Units-Rent, 2 BR				
All Values	0.323	0.216	0.059	0.049
Below Median \$177,123	0.478	0.317	0.088	0.072
Above Median \$177,123	0.165	0.112	0.028	0.025
5+ Units-Rent, 3 BR				
All Values	0.973	0.591	0.229	0.152
Below Median \$173,004	1.242	0.814	0.251	0.177
Above Median \$173,004	0.702	0.367	0.208	0.127
2-4 Units, 0-1 BR				
All Values	0.288	0.168	0.055	0.064
Below Median \$123,574	0.259	0.148	0.044	0.067
Above Median \$123,574	0.318	0.190	0.067	0.061
2-4 Units, 2 BR				
All Values	0.453	0.304	0.079	0.071
Below Median \$149,607	0.603	0.422	0.091	0.090
Above Median \$149,607	0.300	0.182	0.066	0.051
2-4 Units, 3 BR				
All Values	0.805	0.468	0.189	0.147
Below Median \$226,552	1.070	0.615	0.256	0.200
Above Median \$226,552	0.530	0.316	0.120	0.093
2-4 Units, 4-5 BR				
All Values	0.749	0.405	0.178	0.167
Below Median \$370,722	0.965	0.481	0.319	0.165
Above Median \$370,722	0.477	0.309	0.000	0.168

**TABLE I-A-2
STATEWIDE NEW JERSEY
SCHOOL-AGE CHILDREN (SAC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.282	0.181	0.065	0.036
Below Median \$185,361	0.256	0.173	0.048	0.036
Above Median \$185,361	0.312	0.191	0.085	0.036
All Housing Types (Own), 2 BR				
All Values	0.116	0.071	0.023	0.022
Below Median \$226,552	0.137	0.088	0.022	0.027
Above Median \$226,552	0.094	0.053	0.024	0.016
All Housing Types (Own), 3 BR				
All Values	0.505	0.310	0.110	0.085
Below Median \$308,935	0.567	0.353	0.125	0.090
Above Median \$308,935	0.409	0.244	0.087	0.078
All Housing Types (Own), 4-5 BR				
All Values	1.066	0.682	0.216	0.168
Below Median \$576,679	1.030	0.658	0.211	0.161
Above Median \$576,679	1.139	0.730	0.226	0.182
All Housing Types (Rent), 0-1 BR				
All Values	0.130	0.076	0.027	0.027
Below Median \$123,903	0.127	0.072	0.028	0.028
Above Median \$123,903	0.133	0.080	0.027	0.026
All Housing Types (Rent), 2 BR				
All Values	0.390	0.255	0.066	0.069
Below Median \$164,765	0.542	0.363	0.084	0.095
Above Median \$164,765	0.235	0.146	0.047	0.043
All Housing Types (Rent), 3 BR				
All Values	0.945	0.554	0.241	0.151
Below Median \$167,567	1.135	0.662	0.289	0.183
Above Median \$167,567	0.753	0.444	0.191	0.117
All Housing Types (Rent), 4-5 BR				
All Values	1.433	0.942	0.271	0.221
Below Median \$218,149	1.347	0.749	0.306	0.292
Above Median \$218,149	1.520	1.136	0.235	0.149

**TABLE I-A-3
STATEWIDE NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2 BR				
All Values	0.101	0.045	0.020	0.035
Below Median \$267,744	0.102	0.045	0.018	0.039
Above Median \$267,744	0.098	0.046	0.024	0.027
Single-Family Detached, 3 BR				
All Values	0.484	0.291	0.112	0.082
Below Median \$267,744	0.542	0.330	0.123	0.089
Above Median \$267,744	0.423	0.250	0.099	0.074
Single-Family Detached, 4-5 BR				
All Values	0.872	0.549	0.183	0.140
Below Median \$576,679	0.861	0.538	0.186	0.138
Above Median \$576,679	0.892	0.572	0.176	0.144
Single-Family Attached, 2 BR				
All Values	0.126	0.081	0.021	0.024
Below Median \$226,552	0.164	0.108	0.027	0.030
Above Median \$226,552	0.081	0.050	0.015	0.016
Single-Family Attached, 3 BR				
All Values	0.381	0.210	0.098	0.073
Below Median \$267,744	0.491	0.274	0.139	0.078
Above Median \$267,744	0.244	0.130	0.048	0.066
Single-Family Attached, 4-5 BR				
All Values	0.577	0.313	0.136	0.128
Below Median \$370,722	0.670	0.392	0.129	0.150
Above Median \$370,722	0.449	0.205	0.145	0.099
5+ Units–Own Rent, 0-1 BR				
All Values	0.066	0.046	0.012	0.008
Below Median \$129,835	0.078	0.051	0.016	0.011
Above Median \$129,835	0.054	0.040	0.008	0.006
5+ Units–Own Rent, 2 BR				
All Values	0.206	0.138	0.036	0.032
Below Median \$185,361	0.310	0.206	0.056	0.047
Above Median \$185,361	0.090	0.062	0.013	0.015
5+ Units–Own Rent, 3 BR				
All Values	0.674	0.424	0.164	0.087
Below Median \$206,451	1.038	0.681	0.262	0.095
Above Median \$206,451	0.309	0.166	0.066	0.078

**TABLE I-A-3
STATEWIDE NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC)(Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
5+ Units-Own, 0-1 BR				
All Values	0.117	0.100	0.009	0.008
Below Median \$129,835	0.167	0.137	0.015	0.015
Above Median \$129,835	0.051	0.051	0.000	0.000
5+ Units-Own, 2 BR				
All Values	0.098	0.067	0.013	0.018
Below Median \$226,552	0.101	0.065	0.013	0.024
Above Median \$226,552	0.092	0.072	0.013	0.007
5+ Units-Own, 3 BR				
All Values	0.442	0.321	0.068	0.054
Below Median \$226,552	0.598	0.406	0.134	0.058
Above Median \$226,552	0.283	0.234	0.000	0.049
5+ Units-Rent, 0-1 BR				
All Values	0.060	0.040	0.012	0.008
Below Median \$125,716	0.069	0.043	0.015	0.011
Above Median \$125,716	0.051	0.037	0.009	0.006
5+ Units-Rent, 2 BR				
All Values	0.275	0.183	0.051	0.041
Below Median \$177,123	0.432	0.286	0.081	0.065
Above Median \$177,123	0.115	0.078	0.019	0.017
5+ Units-Rent, 3 BR				
All Values	0.832	0.493	0.229	0.109
Below Median \$173,004	1.103	0.761	0.251	0.091
Above Median \$173,004	0.560	0.225	0.208	0.127
2-4 Units, 0-1 BR				
All Values	0.250	0.139	0.052	0.059
Below Median \$123,574	0.237	0.126	0.044	0.067
Above Median \$123,574	0.264	0.153	0.060	0.051
2-4 Units, 2 BR				
All Values	0.382	0.252	0.074	0.057
Below Median \$149,607	0.514	0.360	0.084	0.071
Above Median \$149,607	0.248	0.141	0.064	0.042
2-4 Units, 3 BR				
All Values	0.684	0.386	0.171	0.128
Below Median \$226,552	0.946	0.523	0.244	0.180
Above Median \$226,552	0.412	0.244	0.094	0.074
2-4 Units, 4-5 BR				
All Values	0.556	0.247	0.143	0.167
Below Median \$370,722	0.742	0.321	0.256	0.165
Above Median \$370,722	0.322	0.154	0.000	0.168

**TABLE I-A-3
STATEWIDE NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.239	0.154	0.051	0.034
Below Median \$185,361	0.222	0.144	0.043	0.036
Above Median \$185,361	0.257	0.166	0.059	0.032
All Housing Types (Own), 2 BR				
All Values	0.094	0.057	0.018	0.020
Below Median \$226,552	0.110	0.068	0.019	0.024
Above Median \$226,552	0.077	0.046	0.017	0.015
All Housing Types (Own), 3 BR				
All Values	0.429	0.254	0.098	0.077
Below Median \$308,935	0.487	0.293	0.112	0.082
Above Median \$308,935	0.339	0.192	0.077	0.069
All Housing Types (Own), 4-5 BR				
All Values	0.860	0.540	0.181	0.139
Below Median \$576,679	0.850	0.530	0.183	0.137
Above Median \$576,679	0.880	0.561	0.176	0.143
All Housing Types (Rent), 0-1 BR				
All Values	0.114	0.066	0.025	0.023
Below Median \$123,903	0.113	0.064	0.024	0.025
Above Median \$123,903	0.115	0.068	0.026	0.021
All Housing Types (Rent), 2 BR				
All Values	0.331	0.215	0.059	0.057
Below Median \$164,765	0.477	0.321	0.079	0.077
Above Median \$164,765	0.182	0.107	0.038	0.037
All Housing Types (Rent), 3 BR				
All Values	0.819	0.468	0.227	0.123
Below Median \$167,567	1.010	0.600	0.274	0.137
Above Median \$167,567	0.627	0.336	0.180	0.110
All Housing Types (Rent), 4-5 BR				
All Values	0.894	0.500	0.213	0.182
Below Median \$218,149	1.077	0.531	0.270	0.276
Above Median \$218,149	0.709	0.468	0.154	0.087

**TABLE I-A-4
STATEWIDE NEW JERSEY
STATISTICS FOR TOTAL PERSONS**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2 BR						
All Values	2.032	15,971	0.111	1.849	2.215	9%
Below Median \$267,744	1.971	10,356	0.135	1.750	2.192	11%
Above Median \$267,744	2.145	5,615	0.196	1.822	2.468	15%
Single-Family Detached, 3 BR						
All Values	2.977	51,365	0.085	2.837	3.117	5%
Below Median \$267,744	3.038	26,415	0.122	2.838	3.238	7%
Above Median \$267,744	2.913	24,950	0.121	2.714	3.111	7%
Single-Family Detached, 4-5 BR						
All Values	3.774	101,445	0.074	3.652	3.896	3%
Below Median \$576,679	3.730	67,672	0.090	3.581	3.879	4%
Above Median \$576,679	3.863	33,773	0.133	3.644	4.082	6%
Single-Family Attached, 2 BR						
All Values	1.997	26,481	0.085	1.858	2.137	7%
Below Median \$226,552	2.068	14,342	0.119	1.872	2.263	9%
Above Median \$226,552	1.914	12,139	0.121	1.715	2.114	10%
Single-Family Attached, 3 BR						
All Values	2.655	27,410	0.106	2.480	2.829	7%
Below Median \$267,744	2.823	15,259	0.150	2.575	3.070	9%
Above Median \$267,744	2.444	12,151	0.149	2.199	2.689	10%
Single-Family Attached, 4-5 BR						
All Values	3.980	2,894	0.469	3.209	4.751	19%
Below Median \$370,722	4.537	1,677	0.693	3.397	5.678	25%
Above Median \$370,722	3.211	1,217	0.597	2.229	4.194	31%
5+ Units–Own Rent, 0-1 BR						
All Values	1.526	28,732	0.065	1.418	1.633	7%
Below Median \$129,835	1.424	14,409	0.088	1.280	1.568	10%
Above Median \$129,835	1.628	14,323	0.098	1.467	1.788	10%
5+ Units–Own Rent, 2 BR						
All Values	2.106	26,347	0.089	1.960	2.252	7%
Below Median \$185,361	2.242	13,928	0.129	2.030	2.455	9%
Above Median \$185,361	1.954	12,419	0.122	1.753	2.154	10%
5+ Units–Own Rent, 3 BR						
All Values	3.109	4,644	0.297	2.621	3.598	16%
Below Median \$206,451	3.499	2,324	0.466	2.732	4.266	22%
Above Median \$206,451	2.719	2,320	0.374	2.103	3.334	23%

**TABLE I-A-4
STATEWIDE NEW JERSEY
STATISTICS FOR TOTAL PERSONS (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				Low	high	
5+ Units-Own, 0-1 BR						
All Values	1.694	2,892	0.225	1.324	2.064	22%
Below Median \$185,361	1.702	1,653	0.299	1.211	2.194	29%
Above Median \$185,361	1.682	1,239	0.342	1.120	2.244	33%
5+ Units-Own, 2 BR						
All Values	1.797	10,228	0.125	1.590	2.003	11%
Below Median \$226,552	1.771	6,700	0.153	1.519	2.024	14%
Above Median \$226,552	1.844	3,528	0.218	1.485	2.203	19%
5+ Units-Own, 3 BR						
All Values	2.469	1,880	0.382	1.840	3.098	25%
Below Median \$226,552	2.828	948	0.605	1.832	3.824	35%
Above Median \$226,552	2.104	932	0.474	1.324	2.884	37%
5+ Units-Rent, 0-1 BR						
All Values	1.507	25,840	0.068	1.395	1.619	7%
Below Median \$125,716	1.370	12,959	0.090	1.223	1.518	11%
Above Median \$125,716	1.644	12,881	0.104	1.473	1.815	10%
5+ Units-Rent, 2 BR						
All Values	2.303	16,119	0.123	2.101	2.505	9%
Below Median \$177,123	2.493	8,150	0.185	2.189	2.798	12%
Above Median \$177,123	2.107	7,969	0.162	1.841	2.374	13%
5+ Units-Rent, 3 BR						
All Values	3.545	2,764	0.432	2.833	4.256	20%
Below Median \$173,004	3.666	1,384	0.630	2.630	4.702	28%
Above Median \$173,004	3.422	1,380	0.593	2.446	4.398	29%
2-4 Units, 0-1 BR						
All Values	2.043	5,658	0.188	1.734	2.352	15%
Below Median \$123,574	1.868	2,881	0.244	1.466	2.270	22%
Above Median \$123,574	2.225	2,777	0.288	1.751	2.698	21%
2-4 Units, 2 BR						
All Values	2.651	8,926	0.186	2.344	2.957	12%
Below Median \$149,607	2.857	4,514	0.280	2.397	3.317	16%
Above Median \$149,607	2.440	4,412	0.247	2.034	2.846	17%
2-4 Units, 3 BR						
All Values	3.529	6,949	0.271	3.082	3.975	13%
Below Median \$226,552	3.665	3,538	0.394	3.017	4.312	18%
Above Median \$226,552	3.388	3,411	0.374	2.773	4.003	18%
2-4 Units, 4-5 BR						
All Values	3.995	1,087	0.768	2.733	5.258	32%
Below Median \$370,722	4.231	605	1.084	2.449	6.014	42%
Above Median \$370,722	3.699	482	1.076	1.929	5.469	48%

**TABLE I-A-4
STATEWIDE NEW JERSEY
STATISTICS FOR TOTAL PERSONS (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				Low	high		
All Housing Types (Own), 0-1 BR							
All Values	2.139	6,840	0.177	1.847	2.431	14%	
Below Median \$185,361	1.973	3,629	0.228	1.598	2.348	19%	
Above Median \$185,361	2.326	3,211	0.278	1.869	2.784	20%	
All Housing Types (Own), 2 BR							
All Values	1.933	50,365	0.060	1.835	2.032	5%	
Below Median \$226,552	1.928	26,108	0.083	1.792	2.065	7%	
Above Median \$226,552	1.939	24,257	0.087	1.797	2.081	7%	
All Housing Types (Own), 3 BR							
All Values	2.851	78,922	0.066	2.742	2.959	4%	
Below Median \$308,935	2.931	47,888	0.087	2.788	3.075	5%	
Above Median \$308,935	2.726	31,034	0.102	2.558	2.894	6%	
All Housing Types (Own), 4-5 BR							
All Values	3.767	103,462	0.073	3.646	3.887	3%	
Below Median \$576,679	3.728	68,966	0.090	3.581	3.875	4%	
Above Median \$576,679	3.844	34,496	0.131	3.629	4.060	6%	
All Housing Types (Rent), 0-1 BR							
All Values	1.655	32,613	0.065	1.547	1.763	7%	
Below Median \$123,903	1.503	16,344	0.086	1.362	1.644	9%	
Above Median \$123,903	1.808	16,269	0.100	1.644	1.972	9%	
All Housing Types (Rent), 2 BR							
All Values	2.453	27,360	0.099	2.290	2.617	7%	
Below Median \$164,765	2.629	13,807	0.149	2.385	2.874	9%	
Above Median \$164,765	2.274	13,553	0.133	2.056	2.492	10%	
All Housing Types (Rent), 3 BR							
All Values	3.466	11,446	0.208	3.124	3.808	10%	
Below Median \$167,567	3.590	5,743	0.303	3.091	4.089	14%	
Above Median \$167,567	3.341	5,703	0.286	2.872	3.811	14%	
All Housing Types (Rent), 4-5 BR							
All Values	4.572	2,139	0.618	3.555	5.589	22%	
Below Median \$218,149	4.638	1,076	0.883	3.185	6.090	31%	
Above Median \$218,149	4.506	1,063	0.866	3.082	5.930	32%	

**TABLE I-A-5
STATEWIDE NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2 BR						
All Values	0.118	15,971	0.016	0.092	0.145	23%
Below Median \$267,744	0.118	10,356	0.020	0.085	0.151	28%
Above Median \$267,744	0.119	5,615	0.028	0.074	0.165	38%
Single-Family Detached, 3 BR						
All Values	0.575	51,365	0.024	0.536	0.614	7%
Below Median \$267,744	0.636	26,415	0.035	0.578	0.694	9%
Above Median \$267,744	0.510	24,950	0.031	0.458	0.562	10%
Single-Family Detached, 4-5 BR						
All Values	1.077	101,445	0.026	1.034	1.121	4%
Below Median \$576,679	1.040	67,672	0.032	0.988	1.092	5%
Above Median \$576,679	1.152	33,773	0.048	1.072	1.231	7%
Single-Family Attached, 2 BR						
All Values	0.156	26,481	0.015	0.131	0.180	16%
Below Median \$226,552	0.206	14,342	0.024	0.168	0.245	19%
Above Median \$226,552	0.096	12,139	0.017	0.068	0.123	29%
Single-Family Attached, 3 BR						
All Values	0.438	27,410	0.027	0.393	0.482	10%
Below Median \$267,744	0.561	15,259	0.043	0.490	0.631	13%
Above Median \$267,744	0.283	12,151	0.031	0.232	0.334	18%
Single-Family Attached, 4-5 BR						
All Values	1.035	2,894	0.153	0.784	1.287	24%
Below Median \$370,722	1.306	1,677	0.240	0.911	1.702	30%
Above Median \$370,722	0.661	1,217	0.170	0.381	0.942	42%
5+ Units–Own Rent, 0-1 BR						
All Values	0.076	28,732	0.010	0.060	0.091	21%
Below Median \$129,835	0.090	14,409	0.015	0.066	0.115	27%
Above Median \$129,835	0.061	14,323	0.012	0.041	0.081	33%
5+ Units–Own Rent, 2 BR						
All Values	0.245	26,347	0.019	0.214	0.277	13%
Below Median \$185,361	0.351	13,928	0.033	0.296	0.405	15%
Above Median \$185,361	0.127	12,419	0.019	0.095	0.159	25%
5+ Units–Own Rent, 3 BR						
All Values	0.769	4,644	0.097	0.610	0.929	21%
Below Median \$206,451	1.150	2,324	0.185	0.846	1.454	26%
Above Median \$206,451	0.388	2,320	0.086	0.246	0.530	37%

**TABLE I-A-5
STATEWIDE NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
5+ Units-Own, 0-1 BR	0.125	2,892	0.039	0.060	0.190	52%
All Values	0.167	1,653	0.062	0.066	0.268	61%
Below Median \$185,361	0.069	1,239	0.044	0.000	0.140	105%
Above Median \$185,361						
5+ Units-Own, 2 BR	0.122	10,228	0.021	0.088	0.157	28%
All Values	0.131	6,700	0.027	0.087	0.175	33%
Below Median \$226,552	0.105	3,528	0.033	0.052	0.159	51%
Above Median \$226,552						
5+ Units-Own, 3 BR	0.471	1,880	0.109	0.292	0.650	38%
All Values	0.655	948	0.192	0.340	0.970	48%
Below Median \$226,552	0.283	932	0.112	0.099	0.467	65%
Above Median \$226,552	0.125	2,892	0.039	0.060	0.190	52%
5+ Units-Rent, 0-1 BR						
All Values	0.070	25,840	0.010	0.054	0.086	23%
Below Median \$125,716	0.083	12,959	0.015	0.058	0.107	30%
Above Median \$125,716	0.057	12,881	0.012	0.037	0.078	35%
5+ Units-Rent, 2 BR						
All Values	0.323	16,119	0.029	0.275	0.371	15%
Below Median \$177,123	0.478	8,150	0.053	0.391	0.564	18%
Above Median \$177,123	0.165	7,969	0.028	0.119	0.211	28%
5+ Units-Rent, 3 BR						
All Values	0.973	2,764	0.149	0.727	1.218	25%
Below Median \$173,004	1.242	1,384	0.254	0.824	1.660	34%
Above Median \$173,004	0.702	1,380	0.167	0.428	0.976	39%
2-4 Units, 0-1 BR						
All Values	0.288	5,658	0.046	0.212	0.363	26%
Below Median \$123,574	0.259	2,881	0.060	0.160	0.358	38%
Above Median \$123,574	0.318	2,777	0.070	0.203	0.432	36%
2-4 Units, 2 BR						
All Values	0.453	8,926	0.049	0.373	0.533	18%
Below Median \$149,607	0.603	4,514	0.083	0.467	0.739	23%
Above Median \$149,607	0.300	4,412	0.053	0.212	0.388	29%
2-4 Units, 3 BR						
All Values	0.805	6,949	0.082	0.670	0.940	17%
Below Median \$226,552	1.070	3,538	0.142	0.837	1.303	22%
Above Median \$226,552	0.530	3,411	0.087	0.386	0.674	27%
2-4 Units, 4-5 BR						
All Values	0.749	1,087	0.197	0.425	1.072	43%
Below Median \$370,722	0.965	605	0.317	0.443	1.487	54%
Above Median \$370,722	0.477	482	0.217	0.121	0.834	75%

**TABLE I-A-5
STATEWIDE NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.282	6,840	0.041	0.215	0.350	24%
Below Median \$185,361	0.256	3,629	0.053	0.168	0.344	34%
Above Median \$185,361	0.312	3,211	0.064	0.207	0.417	34%
All Housing Types (Own), 2 BR						
All Values	0.116	50,365	0.009	0.101	0.131	13%
Below Median \$226,552	0.137	26,108	0.014	0.114	0.159	17%
Above Median \$226,552	0.094	24,257	0.012	0.075	0.113	20%
All Housing Types (Own), 3 BR						
All Values	0.505	78,922	0.017	0.476	0.534	6%
Below Median \$308,935	0.567	47,888	0.024	0.527	0.607	7%
Above Median \$308,935	0.409	31,034	0.024	0.369	0.449	10%
All Housing Types (Own), 4-5 BR						
All Values	1.066	103,462	0.026	1.024	1.109	4%
Below Median \$576,679	1.030	68,966	0.031	0.979	1.081	5%
Above Median \$576,679	1.139	34,496	0.047	1.061	1.217	7%
All Housing Types (Rent), 0-1 BR						
All Values	0.130	32,613	0.012	0.110	0.150	15%
Below Median \$123,903	0.127	16,344	0.017	0.099	0.155	22%
Above Median \$123,903	0.133	16,269	0.017	0.105	0.162	21%
All Housing Types (Rent), 2 BR						
All Values	0.390	27,360	0.025	0.349	0.432	11%
Below Median \$164,765	0.542	13,807	0.044	0.470	0.615	13%
Above Median \$164,765	0.235	13,553	0.026	0.192	0.279	18%
All Housing Types (Rent), 3 BR						
All Values	0.945	11,446	0.072	0.827	1.063	12%
Below Median \$167,567	1.135	5,743	0.116	0.944	1.326	17%
Above Median \$167,567	0.753	5,703	0.086	0.612	0.895	19%
All Housing Types (Rent), 4-5 BR						
All Values	1.433	2,139	0.229	1.057	1.809	26%
Below Median \$218,149	1.347	1,076	0.307	0.842	1.852	38%
Above Median \$218,149	1.520	1,063	0.340	0.961	2.080	37%

**TABLE I-A-6
STATEWIDE NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2 BR						
All Values	0.101	15,971	0.017	0.073	0.129	28%
Below Median \$267,744	0.102	10,356	0.021	0.067	0.137	34%
Above Median \$267,744	0.098	5,615	0.028	0.051	0.144	48%
Single-Family Detached, 3 BR						
All Values	0.484	51,365	0.023	0.446	0.523	8%
Below Median \$267,744	0.542	26,415	0.035	0.484	0.600	11%
Above Median \$267,744	0.423	24,950	0.031	0.372	0.474	12%
Single-Family Detached, 4-5 BR						
All Values	0.872	101,445	0.024	0.831	0.912	5%
Below Median \$576,679	0.861	67,672	0.030	0.812	0.910	6%
Above Median \$576,679	0.892	33,773	0.043	0.821	0.963	8%
Single-Family Attached, 2 BR						
All Values	0.126	26,481	0.015	0.102	0.151	19%
Below Median \$226,552	0.164	14,342	0.023	0.126	0.203	23%
Above Median \$226,552	0.081	12,139	0.017	0.052	0.110	35%
Single-Family Attached, 3 BR						
All Values	0.381	27,410	0.028	0.336	0.427	12%
Below Median \$267,744	0.491	15,259	0.043	0.420	0.562	15%
Above Median \$267,744	0.244	12,151	0.032	0.191	0.296	21%
Single-Family Attached, 4-5 BR						
All Values	0.577	2,894	0.111	0.395	0.759	32%
Below Median \$370,722	0.670	1,677	0.160	0.407	0.934	39%
Above Median \$370,722	0.449	1,217	0.145	0.210	0.687	53%
5+ Units–Own Rent, 0-1 BR						
All Values	0.066	28,732	0.010	0.049	0.083	25%
Below Median \$129,835	0.078	14,409	0.016	0.052	0.103	33%
Above Median \$129,835	0.054	14,323	0.013	0.033	0.075	39%
5+ Units–Own Rent, 2 BR						
All Values	0.206	26,347	0.020	0.174	0.239	16%
Below Median \$185,361	0.310	13,928	0.034	0.254	0.366	18%
Above Median \$185,361	0.090	12,419	0.018	0.060	0.120	33%
5+ Units–Own Rent, 3 BR						
All Values	0.674	4,644	0.097	0.515	0.833	24%
Below Median \$206,451	1.038	2,324	0.184	0.735	1.341	29%
Above Median \$206,451	0.309	2,320	0.084	0.172	0.447	45%

**TABLE I-A-6
STATEWIDE NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	90% Confidence Interval			Error Margin as %
			Standard Error	low	high	
5+ Units-Own, 0-1 BR						
All Values	0.117	2,892	0.043	0.046	0.189	61%
Below Median \$185,361	0.167	1,653	0.070	0.052	0.282	69%
Above Median \$185,361	0.051	1,239	0.043	0.000	0.121	138%
5+ Units-Own, 2 BR						
All Values	0.098	10,228	0.021	0.063	0.132	35%
Below Median \$226,552	0.101	6,700	0.026	0.058	0.145	43%
Above Median \$226,552	0.092	3,528	0.034	0.035	0.148	62%
5+ Units-Own, 3 BR						
All Values	0.442	1,880	0.116	0.252	0.632	43%
Below Median \$226,552	0.598	948	0.198	0.273	0.923	54%
Above Median \$226,552	0.283	932	0.126	0.077	0.490	73%
5+ Units-Rent, 0-1 BR						
All Values	0.060	25,840	0.010	0.043	0.077	28%
Below Median \$125,716	0.069	12,959	0.015	0.043	0.094	37%
Above Median \$125,716	0.051	12,881	0.013	0.030	0.073	43%
5+ Units-Rent, 2 BR						
All Values	0.275	16,119	0.030	0.226	0.324	18%
Below Median \$177,123	0.432	8,150	0.055	0.342	0.522	21%
Above Median \$177,123	0.115	7,969	0.026	0.072	0.157	37%
5+ Units-Rent, 3 BR						
All Values	0.832	2,764	0.145	0.594	1.070	29%
Below Median \$173,004	1.103	1,384	0.249	0.692	1.513	37%
Above Median \$173,004	0.560	1,380	0.157	0.302	0.818	46%
2-4 Units, 0-1 BR						
All Values	0.250	5,658	0.047	0.172	0.328	31%
Below Median \$123,574	0.237	2,881	0.064	0.131	0.343	45%
Above Median \$123,574	0.264	2,777	0.070	0.149	0.379	43%
2-4 Units, 2 BR						
All Values	0.382	8,926	0.049	0.303	0.462	21%
Below Median \$149,607	0.514	4,514	0.082	0.379	0.649	26%
Above Median \$149,607	0.248	4,412	0.053	0.160	0.335	35%
2-4 Units, 3 BR						
All Values	0.684	6,949	0.080	0.553	0.815	19%
Below Median \$226,552	0.946	3,538	0.140	0.716	1.176	24%
Above Median \$226,552	0.412	3,411	0.082	0.277	0.547	33%
2-4 Units, 4-5 BR						
All Values	0.556	1,087	0.176	0.266	0.845	52%
Below Median \$370,722	0.742	605	0.286	0.272	1.212	63%
Above Median \$370,722	0.322	482	0.188	0.012	0.631	96%

**TABLE I-A-6
STATEWIDE NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.239	6,840	0.042	0.170	0.308	29%
Below Median \$185,361	0.222	3,629	0.055	0.131	0.313	41%
Above Median \$185,361	0.257	3,211	0.064	0.152	0.362	41%
All Housing Types (Own), 2 BR						
All Values	0.094	50,365	0.009	0.079	0.110	16%
Below Median \$226,552	0.110	26,108	0.014	0.087	0.133	21%
Above Median \$226,552	0.077	24,257	0.012	0.057	0.097	26%
All Housing Types (Own), 3 BR						
All Values	0.429	78,922	0.017	0.400	0.458	7%
Below Median \$308,935	0.487	47,888	0.024	0.447	0.527	8%
Above Median \$308,935	0.339	31,034	0.024	0.299	0.379	12%
All Housing Types (Own), 4-5 BR						
All Values	0.860	103,462	0.024	0.821	0.900	5%
Below Median \$576,679	0.850	68,966	0.029	0.802	0.898	6%
Above Median \$576,679	0.880	34,496	0.042	0.810	0.949	8%
All Housing Types (Rent), 0-1 BR						
All Values	0.114	32,613	0.013	0.093	0.135	18%
Below Median \$123,903	0.113	16,344	0.018	0.083	0.142	26%
Above Median \$123,903	0.115	16,269	0.018	0.085	0.145	26%
All Housing Types (Rent), 2 BR						
All Values	0.331	27,360	0.025	0.289	0.373	13%
Below Median \$164,765	0.477	13,807	0.045	0.404	0.551	15%
Above Median \$164,765	0.182	13,553	0.026	0.140	0.224	23%
All Housing Types (Rent), 3 BR						
All Values	0.819	11,446	0.070	0.703	0.934	14%
Below Median \$167,567	1.010	5,743	0.115	0.821	1.199	19%
Above Median \$167,567	0.627	5,703	0.083	0.490	0.763	22%
All Housing Types (Rent), 4-5 BR						
All Values	0.894	2,139	0.173	0.610	1.179	32%
Below Median \$218,149	1.077	1,076	0.278	0.619	1.535	42%
Above Median \$218,149	0.709	1,063	0.209	0.365	1.053	48%

**PART TWO
NEW JERSEY GENERAL APPLICATION RESIDENTIAL
MULTIPLIERS:**

B. STATEWIDE- ALL NEW JERSEY (1990)

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TABLE II-B-1
STATEWIDE NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (1990)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
Single-Family Detached, 2 BR									
All Values	2.084	0.089	0.131	0.320	0.173	0.122	0.377	0.678	0.193
Below Median \$112,500	2.023	0.075	0.135	0.328	0.155	0.084	0.336	0.691	0.220
Above Median \$112,500	2.165	0.108	0.126	0.309	0.197	0.173	0.432	0.661	0.158
Single-Family Detached, 3 BR									
All Values	3.160	0.389	0.610	0.933	0.638	0.270	0.174	0.112	0.034
Below Median \$162,500	3.233	0.437	0.648	1.048	0.590	0.213	0.140	0.120	0.036
Above Median \$162,500	3.043	0.312	0.547	0.747	0.714	0.362	0.230	0.099	0.031
Single-Family Detached, 4-5 BR									
All Values	3.840	0.387	1.077	0.734	1.005	0.398	0.143	0.067	0.030
Below Median \$275,000	3.854	0.418	1.075	0.832	0.984	0.314	0.132	0.072	0.027
Above Median \$275,000	3.824	0.347	1.080	0.610	1.031	0.505	0.157	0.061	0.034
Single-Family Attached, 2 BR									
All Values	2.061	0.177	0.137	0.879	0.332	0.173	0.168	0.143	0.053
Below Median \$137,500	2.074	0.206	0.165	0.952	0.308	0.134	0.132	0.129	0.049
Above Median \$137,500	2.029	0.106	0.069	0.704	0.389	0.268	0.254	0.176	0.063
Single-Family Attached, 3 BR									
All Values	2.764	0.295	0.440	0.935	0.530	0.288	0.186	0.070	0.020
Below Median \$137,500	2.877	0.338	0.534	1.108	0.509	0.218	0.102	0.054	0.014
Above Median \$137,500	2.633	0.245	0.331	0.734	0.554	0.368	0.284	0.088	0.028
Single-Family Attached, 4-5 BR									
All Values	3.354	0.313	0.672	1.133	0.542	0.400	0.199	0.075	0.022
Below Median \$162,500	3.426	0.349	0.748	1.236	0.526	0.310	0.161	0.074	0.023
Above Median \$162,500	3.228	0.250	0.538	0.951	0.570	0.559	0.265	0.076	0.019
5+ Units—Own & Rent, 0-1 BR									
All Values	1.480	0.071	0.062	0.616	0.176	0.084	0.089	0.191	0.192
Below Median \$57,600	1.370	0.074	0.061	0.320	0.125	0.058	0.090	0.330	0.313
Above Median \$57,600	1.591	0.069	0.064	0.914	0.227	0.109	0.087	0.051	0.071
5+ Units—Own & Rent, 2 BR									
All Values	2.128	0.183	0.242	1.021	0.285	0.142	0.104	0.101	0.050
Below Median \$95,000	2.272	0.231	0.360	1.046	0.263	0.119	0.094	0.114	0.045
Above Median \$95,000	1.979	0.133	0.118	0.994	0.307	0.166	0.116	0.089	0.056
5+ Units—Own & Rent, 3 BR									
All Values	3.106	0.302	0.737	1.099	0.510	0.253	0.123	0.062	0.021
Below Median \$97,500	3.364	0.406	1.026	1.044	0.513	0.195	0.093	0.061	0.025
Above Median \$97,500	2.837	0.194	0.435	1.156	0.506	0.313	0.154	0.062	0.017

TABLE II-B-1
STATEWIDE NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
5+ Units-Own, 0-1 BR									
All Values	1.547	0.053	0.036	0.764	0.254	0.178	0.107	0.105	0.050
Below Median \$112,500	1.479	0.065	0.023	0.800	0.214	0.158	0.107	0.063	0.049
Above Median \$112,500	1.669	0.032	0.060	0.699	0.324	0.215	0.108	0.179	0.052
5+ Units-Own, 2 BR									
All Values	1.811	0.106	0.065	0.903	0.248	0.148	0.134	0.147	0.059
Below Median \$112,500	1.766	0.095	0.077	0.918	0.218	0.105	0.130	0.160	0.064
Above Median \$112,500	1.873	0.122	0.050	0.883	0.290	0.205	0.141	0.130	0.052
5+ Units-Own, 3 BR									
All Values	2.728	0.236	0.521	0.828	0.552	0.342	0.169	0.071	0.009
Below Median \$137,500	2.789	0.227	0.673	1.018	0.488	0.263	0.096	0.025	0.000
Above Median \$137,500	2.645	0.249	0.317	0.573	0.638	0.447	0.267	0.132	0.021
5+ Units-Rent, 0-1 BR									
All Values	1.469	0.074	0.067	0.591	0.163	0.068	0.086	0.205	0.216
Below Median \$51,300	1.318	0.053	0.055	0.238	0.104	0.051	0.095	0.370	0.353
Above Median \$51,300	1.622	0.096	0.078	0.951	0.223	0.085	0.076	0.037	0.077
5+ Units-Rent, 2 BR									
All Values	2.361	0.240	0.371	1.107	0.312	0.138	0.082	0.068	0.044
Below Median \$79,600	2.478	0.300	0.490	1.026	0.294	0.134	0.093	0.101	0.039
Above Median \$79,600	2.244	0.179	0.252	1.188	0.329	0.141	0.071	0.035	0.049
5+ Units-Rent, 3 BR									
All Values	3.367	0.347	0.886	1.285	0.481	0.192	0.091	0.055	0.029
Below Median \$81,700	3.800	0.448	1.363	1.000	0.596	0.197	0.102	0.050	0.043
Above Median \$81,700	2.931	0.246	0.405	1.573	0.365	0.187	0.080	0.060	0.016
2-4 Units, 0-1 BR									
All Values	1.777	0.127	0.158	0.830	0.245	0.116	0.089	0.131	0.081
Below Median \$61,800	1.723	0.145	0.171	0.733	0.239	0.105	0.089	0.147	0.093
Above Median \$61,800	1.831	0.109	0.144	0.926	0.251	0.128	0.090	0.115	0.069
2-4 Units, 2 BR									
All Values	2.543	0.249	0.419	1.050	0.336	0.224	0.154	0.073	0.037
Below Median \$77,200	2.669	0.294	0.536	1.101	0.331	0.234	0.092	0.051	0.030
Above Median \$77,200	2.417	0.204	0.301	0.999	0.342	0.213	0.217	0.095	0.045
2-4 Units, 3 BR									
All Values	3.514	0.370	0.831	1.126	0.569	0.303	0.196	0.089	0.029
Below Median \$98,000	3.544	0.427	0.931	1.243	0.516	0.231	0.137	0.046	0.012
Above Median \$98,000	3.484	0.313	0.730	1.008	0.623	0.377	0.255	0.133	0.045
2-4 Units, 4-5 BR									
All Values	4.657	0.262	1.448	1.332	0.576	0.605	0.203	0.083	0.148
Below Median \$148,300	4.385	0.226	1.483	1.560	0.449	0.472	0.067	0.000	0.128
Above Median \$148,300	4.933	0.298	1.412	1.099	0.705	0.740	0.342	0.168	0.168

TABLE II-B-1
STATEWIDE NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
All Housing Types (Own), 0-1 BR									
All Values	1.776	0.074	0.128	0.794	0.285	0.170	0.141	0.117	0.067
Below Median \$112,500	1.698	0.066	0.104	0.811	0.262	0.144	0.132	0.100	0.079
Above Median \$112,500	1.918	0.088	0.173	0.764	0.328	0.217	0.157	0.147	0.045
All Housing Types (Own), 2 BR									
All Values	1.985	0.119	0.095	0.681	0.257	0.155	0.244	0.329	0.105
Below Median \$137,500	1.935	0.122	0.098	0.698	0.224	0.111	0.211	0.356	0.114
Above Median \$137,500	2.112	0.114	0.088	0.639	0.338	0.266	0.325	0.261	0.082
All Housing Types (Own), 3 BR									
All Values	3.011	0.352	0.531	0.907	0.609	0.284	0.192	0.108	0.029
Below Median \$162,500	3.072	0.405	0.565	1.034	0.573	0.223	0.137	0.107	0.027
Above Median \$162,500	2.920	0.273	0.479	0.718	0.662	0.373	0.273	0.110	0.032
All Housing Types (Own), 4-5 BR									
All Values	3.814	0.380	1.061	0.738	0.989	0.402	0.146	0.068	0.031
Below Median \$275,000	3.810	0.408	1.047	0.838	0.960	0.321	0.135	0.073	0.027
Above Median \$275,000	3.820	0.343	1.078	0.609	1.026	0.506	0.161	0.062	0.035
All Housing Types (Rent), 0-1 BR									
All Values	1.533	0.088	0.091	0.640	0.185	0.075	0.084	0.185	0.185
Below Median \$53,700	1.401	0.071	0.087	0.325	0.131	0.065	0.095	0.324	0.303
Above Median \$53,700	1.667	0.105	0.096	0.957	0.240	0.086	0.072	0.044	0.066
All Housing Types (Rent), 2 BR									
All Values	2.411	0.253	0.385	1.082	0.330	0.163	0.094	0.067	0.036
Below Median \$79,500	2.520	0.293	0.492	1.052	0.297	0.169	0.097	0.088	0.033
Above Median \$79,500	2.301	0.214	0.277	1.113	0.364	0.157	0.092	0.046	0.039
All Housing Types (Rent), 3 BR									
All Values	3.340	0.384	0.817	1.164	0.547	0.243	0.111	0.045	0.030
Below Median \$97,500	3.407	0.439	0.947	1.138	0.494	0.199	0.117	0.054	0.021
Above Median \$97,500	3.272	0.327	0.685	1.190	0.601	0.289	0.104	0.035	0.040
All Housing Types (Rent), 4-5 BR									
All Values	4.084	0.405	1.123	1.294	0.685	0.343	0.145	0.045	0.043
Below Median \$108,500	4.066	0.375	1.262	1.470	0.517	0.286	0.068	0.049	0.040
Above Median \$108,500	4.102	0.436	0.979	1.112	0.859	0.402	0.225	0.041	0.047

**TABLE II-B-2
STATEWIDE NEW JERSEY
SCHOOL-AGE CHILDREN (SAC) (1990)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2 BR				
All Values	0.131	0.085	0.024	0.023
Below Median \$112,500	0.135	0.088	0.024	0.024
Above Median \$112,500	0.126	0.081	0.023	0.022
Single-Family Detached, 3 BR				
All Values	0.610	0.410	0.112	0.088
Below Median \$162,500	0.648	0.440	0.116	0.092
Above Median \$162,500	0.547	0.361	0.105	0.081
Single-Family Detached, 4-5 BR				
All Values	1.077	0.642	0.232	0.203
Below Median \$275,000	1.075	0.655	0.226	0.194
Above Median \$275,000	1.080	0.625	0.240	0.214
Single-Family Attached, 2 BR				
All Values	0.137	0.081	0.025	0.030
Below Median \$137,500	0.165	0.099	0.031	0.035
Above Median \$137,500	0.069	0.038	0.013	0.018
Single-Family Attached, 3 BR				
All Values	0.440	0.254	0.087	0.099
Below Median \$137,500	0.534	0.323	0.100	0.111
Above Median \$137,500	0.331	0.175	0.073	0.084
Single-Family Attached, 4-5 BR				
All Values	0.672	0.376	0.146	0.149
Below Median \$162,500	0.748	0.418	0.194	0.136
Above Median \$162,500	0.538	0.303	0.062	0.173
5+ Units–Own & Rent, 0-1 BR				
All Values	0.062	0.041	0.011	0.010
Below Median \$57,600	0.061	0.042	0.008	0.011
Above Median \$57,600	0.064	0.040	0.014	0.009
5+ Units–Own & Rent, 2 BR				
All Values	0.242	0.148	0.050	0.044
Below Median \$95,000	0.360	0.219	0.080	0.062
Above Median \$95,000	0.118	0.074	0.019	0.025
5+ Units–Own & Rent, 3 BR				
All Values	0.737	0.393	0.159	0.185
Below Median \$97,500	1.026	0.536	0.219	0.271
Above Median \$97,500	0.435	0.244	0.096	0.095

TABLE II-B-2
STATEWIDE NEW JERSEY
SCHOOL-AGE CHILDREN (SAC) (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
5+ Units-Own, 0-1 BR				
All Values	0.036	0.008	0.018	0.010
Below Median \$112,500	0.023	0.008	0.011	0.003
Above Median \$112,500	0.060	0.007	0.030	0.023
5+ Units-Own, 2 BR				
All Values	0.065	0.045	0.009	0.012
Below Median \$112,500	0.077	0.051	0.010	0.015
Above Median \$112,500	0.050	0.036	0.006	0.008
5+ Units-Own, 3 BR				
All Values	0.521	0.289	0.127	0.106
Below Median \$137,500	0.673	0.395	0.176	0.102
Above Median \$137,500	0.317	0.147	0.060	0.111
5+ Units-Rent, 0-1 BR				
All Values	0.067	0.046	0.010	0.010
Below Median \$51,300	0.055	0.038	0.007	0.010
Above Median \$51,300	0.078	0.055	0.013	0.010
5+ Units-Rent, 2 BR				
All Values	0.371	0.224	0.081	0.067
Below Median \$79,600	0.490	0.292	0.112	0.086
Above Median \$79,600	0.252	0.156	0.049	0.048
5+ Units-Rent, 3 BR				
All Values	0.886	0.465	0.181	0.239
Below Median \$81,700	1.363	0.659	0.316	0.388
Above Median \$81,700	0.405	0.270	0.046	0.090
2-4 Units, 0-1 BR				
All Values	0.158	0.087	0.037	0.034
Below Median \$61,800	0.171	0.098	0.033	0.041
Above Median \$61,800	0.144	0.076	0.041	0.027
2-4 Units, 2 BR				
All Values	0.419	0.265	0.079	0.075
Below Median \$77,200	0.536	0.348	0.090	0.098
Above Median \$77,200	0.301	0.182	0.067	0.053
2-4 Units, 3 BR				
All Values	0.831	0.485	0.183	0.163
Below Median \$98,000	0.931	0.565	0.220	0.146
Above Median \$98,000	0.730	0.404	0.146	0.181
2-4 Units, 4-5 BR				
All Values	1.448	0.753	0.438	0.257
Below Median \$148,300	1.483	0.806	0.369	0.307
Above Median \$148,300	1.412	0.698	0.508	0.206

TABLE II-B-2
STATEWIDE NEW JERSEY
SCHOOL-AGE CHILDREN (SAC) (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.128	0.068	0.042	0.019
Below Median \$112,500	0.104	0.055	0.038	0.012
Above Median \$112,500	0.173	0.091	0.048	0.033
All Housing Types (Own), 2 BR				
All Values	0.095	0.062	0.015	0.018
Below Median \$137,500	0.098	0.067	0.014	0.018
Above Median \$137,500	0.088	0.048	0.020	0.020
All Housing Types (Own), 3 BR				
All Values	0.531	0.347	0.100	0.084
Below Median \$162,500	0.565	0.380	0.101	0.085
Above Median \$162,500	0.479	0.298	0.098	0.083
All Housing Types (Own), 4-5 BR				
All Values	1.061	0.629	0.230	0.202
Below Median \$275,000	1.047	0.634	0.222	0.191
Above Median \$275,000	1.078	0.622	0.240	0.215
All Housing Types (Rent), 0-1 BR				
All Values	0.091	0.059	0.015	0.017
Below Median \$53,700	0.087	0.058	0.012	0.016
Above Median \$53,700	0.096	0.060	0.018	0.018
All Housing Types (Rent), 2 BR				
All Values	0.385	0.233	0.080	0.072
Below Median \$79,500	0.492	0.297	0.106	0.089
Above Median \$79,500	0.277	0.168	0.053	0.056
All Housing Types (Rent), 3 BR				
All Values	0.817	0.478	0.165	0.174
Below Median \$97,500	0.947	0.564	0.203	0.179
Above Median \$97,500	0.685	0.390	0.127	0.168
All Housing Types (Rent), 4-5 BR				
All Values	1.123	0.670	0.240	0.214
Below Median \$108,500	1.262	0.770	0.235	0.257
Above Median \$108,500	0.979	0.565	0.246	0.169

**TABLE II-B-3
STATEWIDE NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC) (1990)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2 BR				
All Values	0.103	0.062	0.021	0.020
Below Median \$112,500	0.102	0.061	0.022	0.020
Above Median \$112,500	0.104	0.064	0.020	0.020
Single-Family Detached, 3 BR				
All Values	0.479	0.308	0.095	0.075
Below Median \$162,500	0.513	0.331	0.102	0.080
Above Median \$162,500	0.424	0.269	0.085	0.069
Single-Family Detached, 4-5 BR				
All Values	0.841	0.488	0.189	0.163
Below Median \$275,000	0.855	0.497	0.192	0.166
Above Median \$275,000	0.822	0.476	0.186	0.159
Single-Family Attached, 2 BR				
All Values	0.110	0.060	0.023	0.026
Below Median \$137,500	0.135	0.075	0.030	0.031
Above Median \$137,500	0.047	0.023	0.008	0.016
Single-Family Attached, 3 BR				
All Values	0.365	0.208	0.077	0.080
Below Median \$137,500	0.450	0.268	0.090	0.091
Above Median \$137,500	0.267	0.139	0.061	0.067
Single-Family Attached, 4-5 BR				
All Values	0.495	0.247	0.118	0.131
Below Median \$162,500	0.576	0.284	0.156	0.136
Above Median \$162,500	0.353	0.180	0.051	0.122
5+ Units—Own & Rent, 0-1 BR				
All Values	0.046	0.031	0.009	0.007
Below Median \$57,600	0.044	0.030	0.007	0.008
Above Median \$57,600	0.049	0.032	0.012	0.005
5+ Units—Own & Rent, 2 BR				
All Values	0.204	0.121	0.045	0.038
Below Median \$95,000	0.300	0.175	0.071	0.054
Above Median \$95,000	0.103	0.064	0.017	0.022
5+ Units—Own & Rent, 3 BR				
All Values	0.611	0.329	0.135	0.146
Below Median \$97,500	0.867	0.455	0.205	0.207
Above Median \$97,500	0.343	0.198	0.063	0.083

TABLE II-B-3
STATEWIDE NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC) (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
5+ Units-Own, 0-1 BR				
All Values	0.022	0.008	0.012	0.001
Below Median \$112,500	0.022	0.008	0.011	0.002
Above Median \$112,500	0.021	0.007	0.014	0.000
5+ Units-Own, 2 BR				
All Values	0.051	0.033	0.008	0.010
Below Median \$112,500	0.059	0.036	0.010	0.013
Above Median \$112,500	0.040	0.030	0.004	0.006
5+ Units-Own, 3 BR				
All Values	0.433	0.254	0.087	0.092
Below Median \$137,500	0.568	0.335	0.131	0.102
Above Median \$137,500	0.251	0.147	0.027	0.077
5+ Units-Rent, 0-1 BR				
All Values	0.051	0.034	0.009	0.007
Below Median \$51,300	0.042	0.029	0.006	0.006
Above Median \$51,300	0.060	0.040	0.012	0.009
5+ Units-Rent, 2 BR				
All Values	0.316	0.185	0.072	0.059
Below Median \$79,600	0.420	0.241	0.104	0.075
Above Median \$79,600	0.212	0.129	0.040	0.043
5+ Units-Rent, 3 BR				
All Values	0.734	0.381	0.169	0.184
Below Median \$81,700	1.145	0.575	0.291	0.278
Above Median \$81,700	0.320	0.185	0.046	0.090
2-4 Units, 0-1 BR				
All Values	0.134	0.071	0.033	0.031
Below Median \$61,800	0.150	0.086	0.026	0.038
Above Median \$61,800	0.119	0.055	0.041	0.023
2-4 Units, 2 BR				
All Values	0.342	0.213	0.073	0.056
Below Median \$77,200	0.463	0.287	0.087	0.089
Above Median \$77,200	0.221	0.139	0.059	0.022
2-4 Units, 3 BR				
All Values	0.655	0.375	0.157	0.123
Below Median \$98,000	0.781	0.452	0.208	0.121
Above Median \$98,000	0.529	0.298	0.106	0.125
2-4 Units, 4-5 BR				
All Values	0.906	0.510	0.220	0.176
Below Median \$148,300	1.066	0.561	0.258	0.247
Above Median \$148,300	0.743	0.458	0.183	0.103

TABLE II-B-3
STATEWIDE NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC) (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	<u>PUBLIC SCHOOL GRADE</u>		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.106	0.054	0.038	0.014
Below Median \$112,500	0.093	0.044	0.038	0.011
Above Median \$112,500	0.129	0.072	0.038	0.019
All Housing Types (Own), 2 BR				
All Values	0.073	0.044	0.013	0.015
Below Median \$137,500	0.077	0.050	0.013	0.015
Above Median \$137,500	0.062	0.031	0.015	0.016
All Housing Types (Own), 3 BR				
All Values	0.421	0.266	0.086	0.069
Below Median \$162,500	0.456	0.296	0.089	0.071
Above Median \$162,500	0.369	0.223	0.080	0.067
All Housing Types (Own), 4-5 BR				
All Values	0.823	0.476	0.185	0.162
Below Median \$275,000	0.827	0.479	0.185	0.163
Above Median \$275,000	0.817	0.473	0.185	0.159
All Housing Types (Rent), 0-1 BR				
All Values	0.069	0.042	0.013	0.014
Below Median \$53,700	0.065	0.043	0.010	0.012
Above Median \$53,700	0.074	0.042	0.016	0.016
All Housing Types (Rent), 2 BR				
All Values	0.324	0.189	0.074	0.061
Below Median \$79,500	0.422	0.244	0.100	0.078
Above Median \$79,500	0.225	0.134	0.046	0.044
All Housing Types (Rent), 3 BR				
All Values	0.658	0.371	0.144	0.144
Below Median \$97,500	0.768	0.434	0.185	0.149
Above Median \$97,500	0.548	0.308	0.102	0.138
All Housing Types (Rent), 4-5 BR				
All Values	0.872	0.470	0.211	0.191
Below Median \$108,500	0.943	0.503	0.219	0.222
Above Median \$108,500	0.799	0.436	0.203	0.159

**TABLE II-B-4
STATEWIDE NEW JERSEY
STATISTICS FOR TOTAL PERSONS (1990)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	90% Confidence Interval			Error Margin as %
			Standard Error	low	high	
Single-Family Detached, 2 BR						
All Values	2.084	24,492	0.084	1.945	2.223	7%
Below Median \$112,500	2.023	14,012	0.109	1.844	2.203	9%
Above Median \$112,500	2.165	10,480	0.134	1.945	2.385	10%
Single-Family Detached, 3 BR						
All Values	3.160	67,249	0.072	3.041	3.279	4%
Below Median \$162,500	3.233	41,475	0.094	3.078	3.388	5%
Above Median \$162,500	3.043	25,774	0.114	2.856	3.230	6%
Single-Family Detached, 4-5 BR						
All Values	3.840	85,316	0.076	3.715	3.965	3%
Below Median \$275,000	3.854	47,804	0.103	3.685	4.022	4%
Above Median \$275,000	3.824	37,512	0.115	3.634	4.013	5%
Single-Family Attached, 2 BR						
All Values	2.061	41,076	0.064	1.955	2.167	5%
Below Median \$137,500	2.074	29,052	0.077	1.947	2.201	6%
Above Median \$137,500	2.029	12,024	0.118	1.835	2.223	10%
Single-Family Attached, 3 BR						
All Values	2.764	31,050	0.095	2.607	2.921	6%
Below Median \$137,500	2.877	16,633	0.135	2.655	3.100	8%
Above Median \$137,500	2.633	14,417	0.134	2.412	2.854	8%
Single-Family Attached, 4-5 BR						
All Values	3.354	3,764	0.326	2.819	3.890	16%
Below Median \$162,500	3.426	2,400	0.416	2.742	4.109	20%
Above Median \$162,500	3.228	1,364	0.523	2.368	4.089	27%
5+ Units—Own & Rent, 0-1 BR						
All Values	1.480	46,950	0.046	1.405	1.556	5%
Below Median \$57,600	1.370	23,534	0.061	1.269	1.471	7%
Above Median \$57,600	1.591	23,416	0.069	1.477	1.705	7%
5+ Units—Own & Rent, 2 BR						
All Values	2.128	39,312	0.068	2.017	2.240	5%
Below Median \$95,000	2.272	20,055	0.100	2.107	2.437	7%
Above Median \$95,000	1.979	19,257	0.091	1.829	2.129	8%
5+ Units—Own & Rent, 3 BR						
All Values	3.106	4,469	0.279	2.647	3.565	15%
Below Median \$97,500	3.364	2,283	0.419	2.674	4.054	21%
Above Median \$97,500	2.837	2,186	0.369	2.230	3.444	21%

TABLE II-B-4
STATEWIDE NEW JERSEY
STATISTICS FOR TOTAL PERSONS (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				Low	high	
5+ Units-Own, 0-1 BR						
All Values	1.547	6,768	0.126	1.340	1.754	13%
Below Median \$112,500	1.479	4,349	0.152	1.229	1.729	17%
Above Median \$112,500	1.669	2,419	0.224	1.300	2.038	22%
5+ Units-Own, 2 BR						
All Values	1.811	16,652	0.091	1.661	1.962	8%
Below Median \$112,500	1.766	9,510	0.118	1.571	1.960	11%
Above Median \$112,500	1.873	7,142	0.143	1.637	2.108	13%
5+ Units-Own, 3 BR						
All Values	2.728	1,824	0.390	2.085	3.370	24%
Below Median \$137,500	2.789	1,046	0.526	1.924	3.653	31%
Above Median \$137,500	2.645	778	0.582	1.687	3.603	36%
5+ Units-Rent, 0-1 BR						
All Values	1.469	40,182	0.049	1.388	1.550	6%
Below Median \$51,300	1.318	20,267	0.064	1.213	1.424	8%
Above Median \$51,300	1.622	19,915	0.076	1.497	1.748	8%
5+ Units-Rent, 2 BR						
All Values	2.361	22,660	0.098	2.201	2.522	7%
Below Median \$79,600	2.478	11,332	0.144	2.241	2.715	10%
Above Median \$79,600	2.244	11,328	0.132	2.027	2.462	10%
5+ Units-Rent, 3 BR						
All Values	3.367	2,645	0.390	2.726	4.008	19%
Below Median \$81,700	3.800	1,328	0.613	2.792	4.808	27%
Above Median \$81,700	2.931	1,317	0.489	2.126	3.736	27%
2-4 Units, 0-1 BR						
All Values	1.777	8,897	0.123	1.575	1.979	11%
Below Median \$61,800	1.723	4,455	0.170	1.444	2.002	16%
Above Median \$61,800	1.831	4,442	0.179	1.537	2.125	16%
2-4 Units, 2 BR						
All Values	2.543	13,404	0.135	2.321	2.766	9%
Below Median \$77,200	2.669	6,727	0.199	2.341	2.997	12%
Above Median \$77,200	2.417	6,677	0.184	2.114	2.719	13%
2-4 Units, 3 BR						
All Values	3.514	7,513	0.240	3.119	3.908	11%
Below Median \$98,000	3.544	3,768	0.342	2.981	4.106	16%
Above Median \$98,000	3.484	3,745	0.338	2.928	4.039	16%
2-4 Units, 4-5 BR						
All Values	4.657	1,116	0.803	3.335	5.979	28%
Below Median \$148,300	4.385	563	1.071	2.623	6.148	40%
Above Median \$148,300	4.933	553	1.203	2.954	6.912	40%

TABLE II-B-4
STATEWIDE NEW JERSEY
STATISTICS FOR TOTAL PERSONS (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	90% Confidence Interval			Error Margin as %
			Standard Error	Low	high	
All Housing Types (Own), 0-1 BR						
All Values	1.776	10,973	0.111	1.593	1.958	10%
Below Median \$112,500	1.698	7,110	0.133	1.480	1.916	13%
Above Median \$112,500	1.918	3,863	0.199	1.591	2.246	17%
All Housing Types (Own), 2 BR						
All Values	1.985	74,587	0.046	1.909	2.061	4%
Below Median \$137,500	1.935	53,431	0.053	1.847	2.023	5%
Above Median \$137,500	2.112	21,156	0.092	1.961	2.264	7%
All Housing Types (Own), 3 BR						
All Values	3.011	90,383	0.060	2.913	3.109	3%
Below Median \$162,500	3.072	54,029	0.079	2.942	3.202	4%
Above Median \$162,500	2.920	36,354	0.092	2.768	3.072	5%
All Housing Types (Own), 4-5 BR						
All Values	3.814	87,022	0.075	3.691	3.937	3%
Below Median \$275,000	3.810	48,905	0.100	3.645	3.975	4%
Above Median \$275,000	3.820	38,117	0.114	3.633	4.008	5%
All Housing Types (Rent), 0-1 BR						
All Values	1.533	50,305	0.046	1.458	1.608	5%
Below Median \$53,700	1.401	25,259	0.060	1.302	1.500	7%
Above Median \$53,700	1.667	25,046	0.069	1.552	1.781	7%
All Housing Types (Rent), 2 BR						
All Values	2.411	43,697	0.071	2.294	2.529	5%
Below Median \$79,500	2.520	22,000	0.105	2.348	2.693	7%
Above Median \$79,500	2.301	21,697	0.098	2.141	2.461	7%
All Housing Types (Rent), 3 BR						
All Values	3.340	19,898	0.141	3.108	3.571	7%
Below Median \$97,500	3.407	10,001	0.202	3.074	3.740	10%
Above Median \$97,500	3.272	9,897	0.196	2.949	3.595	10%
All Housing Types (Rent), 4-5 BR						
All Values	4.084	3,771	0.388	3.446	4.721	16%
Below Median \$108,500	4.066	1,922	0.541	3.175	4.956	22%
Above Median \$108,500	4.102	1,849	0.556	3.187	5.017	22%

**TABLE II-B-5
STATEWIDE NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (1990)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	90% Confidence Interval			Error Margin as %
			Standard Error	low	high	
Single-Family Detached, 2 BR						
All Values	0.131	24,492	0.013	0.110	0.152	16%
Below Median \$112,500	0.135	14,012	0.017	0.107	0.164	21%
Above Median \$112,500	0.126	10,480	0.019	0.094	0.158	25%
Single-Family Detached, 3 BR						
All Values	0.610	67,249	0.020	0.577	0.642	5%
Below Median \$162,500	0.648	41,475	0.026	0.605	0.692	7%
Above Median \$162,500	0.547	25,774	0.030	0.498	0.597	9%
Single-Family Detached, 4-5 BR						
All Values	1.077	85,316	0.027	1.033	1.121	4%
Below Median \$275,000	1.075	47,804	0.036	1.017	1.133	5%
Above Median \$275,000	1.080	37,512	0.040	1.013	1.146	6%
Single-Family Attached, 2 BR						
All Values	0.137	41,076	0.010	0.120	0.153	12%
Below Median \$137,500	0.165	29,052	0.013	0.142	0.187	13%
Above Median \$137,500	0.069	12,024	0.013	0.048	0.091	31%
Single-Family Attached, 3 BR						
All Values	0.440	31,050	0.024	0.401	0.479	9%
Below Median \$137,500	0.534	16,633	0.037	0.474	0.594	11%
Above Median \$137,500	0.331	14,417	0.029	0.284	0.379	14%
Single-Family Attached, 4-5 BR						
All Values	0.672	3,764	0.090	0.523	0.820	22%
Below Median \$162,500	0.748	2,400	0.122	0.547	0.949	27%
Above Median \$162,500	0.538	1,364	0.129	0.326	0.750	39%
5+ Units—Own & Rent, 0-1 BR						
All Values	0.062	46,950	0.006	0.052	0.072	16%
Below Median \$57,600	0.061	23,534	0.009	0.046	0.075	23%
Above Median \$57,600	0.064	23,416	0.009	0.049	0.078	23%
5+ Units—Own & Rent, 2 BR						
All Values	0.242	39,312	0.014	0.218	0.265	10%
Below Median \$95,000	0.360	20,055	0.026	0.318	0.403	12%
Above Median \$95,000	0.118	19,257	0.014	0.096	0.141	19%
5+ Units—Own & Rent, 3 BR						
All Values	0.737	4,469	0.088	0.591	0.883	20%
Below Median \$97,500	1.026	2,283	0.158	0.767	1.286	25%
Above Median \$97,500	0.435	2,186	0.088	0.290	0.580	33%

TABLE II-B-5
STATEWIDE NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (1990)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
5+ Units-Own, 0-1 BR						
All Values	0.036	6,768	0.012	0.016	0.056	56%
Below Median \$112,500	0.023	4,349	0.012	0.003	0.043	87%
Above Median \$112,500	0.060	2,419	0.027	0.016	0.105	73%
5+ Units-Own, 2 BR						
All Values	0.065	16,652	0.011	0.048	0.083	27%
Below Median \$112,500	0.077	9,510	0.015	0.051	0.102	33%
Above Median \$112,500	0.050	7,142	0.014	0.027	0.074	46%
5+ Units-Own, 3 BR						
All Values	0.521	1,824	0.109	0.342	0.701	34%
Below Median \$137,500	0.673	1,046	0.172	0.391	0.955	42%
Above Median \$137,500	0.317	778	0.121	0.118	0.517	63%
5+ Units-Rent, 0-1 BR						
All Values	0.067	40,182	0.007	0.055	0.078	17%
Below Median \$51,300	0.055	20,267	0.009	0.041	0.070	26%
Above Median \$51,300	0.078	19,915	0.011	0.060	0.096	23%
5+ Units-Rent, 2 BR						
All Values	0.371	22,660	0.025	0.331	0.412	11%
Below Median \$79,600	0.490	11,332	0.042	0.421	0.559	14%
Above Median \$79,600	0.252	11,328	0.028	0.207	0.298	18%
5+ Units-Rent, 3 BR						
All Values	0.886	2,645	0.131	0.670	1.102	24%
Below Median \$81,700	1.363	1,328	0.258	0.939	1.787	31%
Above Median \$81,700	0.405	1,317	0.109	0.226	0.583	44%
2-4 Units, 0-1 BR						
All Values	0.158	8,897	0.024	0.119	0.197	25%
Below Median \$61,800	0.171	4,455	0.035	0.114	0.229	34%
Above Median \$61,800	0.144	4,442	0.032	0.091	0.196	36%
2-4 Units, 2 BR						
All Values	0.419	13,404	0.035	0.362	0.476	14%
Below Median \$77,200	0.536	6,727	0.058	0.441	0.631	18%
Above Median \$77,200	0.301	6,677	0.040	0.236	0.367	22%
2-4 Units, 3 BR						
All Values	0.831	7,513	0.074	0.708	0.953	15%
Below Median \$98,000	0.931	3,768	0.114	0.743	1.119	20%
Above Median \$98,000	0.730	3,745	0.096	0.572	0.888	22%
2-4 Units, 4-5 BR						
All Values	1.448	1,116	0.295	0.963	1.933	33%
Below Median \$148,300	1.483	563	0.423	0.787	2.179	47%
Above Median \$148,300	1.412	553	0.411	0.737	2.088	48%

TABLE II-B-5
STATEWIDE NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (Continued) (1990)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	90% Confidence Interval			Error Margin as %
			Standard Error	low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.128	10,973	0.019	0.097	0.160	24%
Below Median \$112,500	0.104	7,110	0.021	0.070	0.139	33%
Above Median \$112,500	0.173	3,863	0.038	0.110	0.235	36%
All Housing Types (Own), 2 BR						
All Values	0.095	74,587	0.006	0.085	0.106	11%
Below Median \$137,500	0.098	53,431	0.007	0.086	0.110	12%
Above Median \$137,500	0.088	21,156	0.011	0.070	0.107	21%
All Housing Types (Own), 3 BR						
All Values	0.531	90,383	0.016	0.505	0.556	5%
Below Median \$162,500	0.565	54,029	0.021	0.531	0.600	6%
Above Median \$162,500	0.479	36,354	0.023	0.441	0.517	8%
All Housing Types (Own), 4-5 BR						
All Values	1.061	87,022	0.026	1.018	1.103	4%
Below Median \$275,000	1.047	48,905	0.034	0.991	1.104	5%
Above Median \$275,000	1.078	38,117	0.040	1.012	1.144	6%
All Housing Types (Rent), 0-1 BR						
All Values	0.091	50,305	0.007	0.079	0.103	13%
Below Median \$53,700	0.087	25,259	0.010	0.070	0.103	19%
Above Median \$53,700	0.096	25,046	0.011	0.078	0.113	18%
All Housing Types (Rent), 2 BR						
All Values	0.385	43,697	0.018	0.355	0.415	8%
Below Median \$79,500	0.492	22,000	0.030	0.442	0.542	10%
Above Median \$79,500	0.277	21,697	0.021	0.242	0.312	13%
All Housing Types (Rent), 3 BR						
All Values	0.817	19,898	0.045	0.742	0.891	9%
Below Median \$97,500	0.947	10,001	0.071	0.830	1.063	12%
Above Median \$97,500	0.685	9,897	0.056	0.592	0.778	14%
All Housing Types (Rent), 4-5 BR						
All Values	1.123	3,771	0.131	0.907	1.340	19%
Below Median \$108,500	1.262	1,922	0.201	0.930	1.593	26%
Above Median \$108,500	0.979	1,849	0.169	0.701	1.258	28%

**TABLE II-B-6
STATEWIDE NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (1990)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Standar Households d Error	90% Confidence Interval			Error Margin as %
			low	high		
Single-Family Detached, 2 BR						
All Values	0.103	24,492	0.016	0.076	0.130	26%
Below Median \$112,500	0.102	14,012	0.022	0.067	0.138	35%
Above Median \$112,500	0.104	10,480	0.025	0.063	0.146	40%
Single-Family Detached, 3 BR						
All Values	0.479	67,249	0.023	0.441	0.516	8%
Below Median \$162,500	0.513	41,475	0.030	0.462	0.563	10%
Above Median \$162,500	0.424	25,774	0.035	0.367	0.481	13%
Single-Family Detached, 4-5 BR						
All Values	0.841	85,316	0.029	0.793	0.888	6%
Below Median \$275,000	0.855	47,804	0.039	0.792	0.919	7%
Above Median \$275,000	0.822	37,512	0.043	0.751	0.892	9%
Single-Family Attached, 2 BR						
All Values	0.110	41,076	0.013	0.088	0.131	20%
Below Median \$137,500	0.135	29,052	0.017	0.107	0.164	21%
Above Median \$137,500	0.047	12,024	0.016	0.021	0.073	55%
Single-Family Attached, 3 BR						
All Values	0.365	31,050	0.029	0.317	0.413	13%
Below Median \$137,500	0.450	16,633	0.045	0.376	0.523	16%
Above Median \$137,500	0.267	14,417	0.036	0.208	0.326	22%
Single-Family Attached, 4-5 BR						
All Values	0.495	3,764	0.099	0.332	0.659	33%
Below Median \$162,500	0.576	2,400	0.136	0.352	0.800	39%
Above Median \$162,500	0.353	1,364	0.136	0.130	0.577	63%
5+ Units–Own & Rent, 0-1 BR						
All Values	0.046	46,950	0.008	0.034	0.059	28%
Below Median \$57,600	0.044	23,534	0.011	0.026	0.062	40%
Above Median \$57,600	0.049	23,416	0.011	0.030	0.067	39%
5+ Units–Own & Rent, 2 BR						
All Values	0.204	39,312	0.019	0.173	0.234	15%
Below Median \$95,000	0.300	20,055	0.032	0.247	0.353	18%
Above Median \$95,000	0.103	19,257	0.019	0.073	0.134	30%
5+ Units–Own & Rent, 3 BR						
All Values	0.611	4,469	0.103	0.441	0.781	28%
Below Median \$97,500	0.867	2,283	0.180	0.571	1.163	34%
Above Median \$97,500	0.343	2,186	0.106	0.170	0.517	51%

TABLE II-B-6
STATEWIDE NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				low	high		
5+ Units-Own, 0-1 BR							
All Values	0.022	6,768	0.014	0.000	0.045		107%
Below Median \$112,500	0.022	4,349	0.018	0.000	0.051		134%
Above Median \$112,500	0.021	2,419	0.024	0.000	0.060		180%
5+ Units-Own, 2 BR							
All Values	0.051	16,652	0.014	0.028	0.073		45%
Below Median \$112,500	0.059	9,510	0.020	0.026	0.091		55%
Above Median \$112,500	0.040	7,142	0.019	0.009	0.071		77%
5+ Units-Own, 3 BR							
All Values	0.433	1,824	0.132	0.216	0.650		50%
Below Median \$137,500	0.568	1,046	0.205	0.231	0.904		59%
Above Median \$137,500	0.251	778	0.148	0.006	0.495		97%
5+ Units-Rent, 0-1 BR							
All Values	0.051	40,182	0.009	0.036	0.065		29%
Below Median \$51,300	0.042	20,267	0.011	0.023	0.060		45%
Above Median \$51,300	0.060	19,915	0.014	0.037	0.083		38%
5+ Units-Rent, 2 BR							
All Values	0.316	22,660	0.031	0.265	0.367		16%
Below Median \$79,600	0.420	11,332	0.052	0.334	0.505		20%
Above Median \$79,600	0.212	11,328	0.035	0.154	0.270		28%
5+ Units-Rent, 3 BR							
All Values	0.734	2,645	0.150	0.486	0.981		34%
Below Median \$81,700	1.145	1,328	0.283	0.679	1.610		41%
Above Median \$81,700	0.320	1,317	0.131	0.105	0.535		67%
2-4 Units, 0-1 BR							
All Values	0.134	8,897	0.031	0.083	0.186		38%
Below Median \$61,800	0.150	4,455	0.047	0.073	0.227		52%
Above Median \$61,800	0.119	4,442	0.042	0.050	0.187		58%
2-4 Units, 2 BR							
All Values	0.342	13,404	0.043	0.272	0.412		20%
Below Median \$77,200	0.463	6,727	0.071	0.346	0.581		25%
Above Median \$77,200	0.221	6,677	0.047	0.143	0.299		35%
2-4 Units, 3 BR							
All Values	0.655	7,513	0.083	0.518	0.792		21%
Below Median \$98,000	0.781	3,768	0.131	0.565	0.997		28%
Above Median \$98,000	0.529	3,745	0.104	0.358	0.699		32%
2-4 Units, 4-5 BR							
All Values	0.906	1,116	0.265	0.470	1.341		48%
Below Median \$148,300	1.066	563	0.414	0.384	1.747		64%
Above Median \$148,300	0.743	553	0.332	0.197	1.289		73%

TABLE II-B-6
STATEWIDE NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (1990) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	90% Confidence Interval			Error Margin as %
			Standard Error	low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.106	10,973	0.025	0.065	0.147	39%
Below Median \$112,500	0.093	7,110	0.029	0.045	0.141	51%
Above Median \$112,500	0.129	3,863	0.047	0.053	0.206	59%
All Housing Types (Own), 2 BR						
All Values	0.073	74,587	0.008	0.060	0.086	18%
Below Median \$137,500	0.077	53,431	0.010	0.062	0.093	20%
Above Median \$137,500	0.062	21,156	0.014	0.039	0.084	36%
All Housing Types (Own), 3 BR						
All Values	0.421	90,383	0.018	0.391	0.451	7%
Below Median \$162,500	0.456	54,029	0.025	0.415	0.497	9%
Above Median \$162,500	0.369	36,354	0.027	0.325	0.413	12%
All Housing Types (Own), 4-5 BR						
All Values	0.823	87,022	0.028	0.777	0.869	6%
Below Median \$275,000	0.827	48,905	0.038	0.766	0.889	7%
Above Median \$275,000	0.817	38,117	0.042	0.747	0.887	9%
All Housing Types (Rent), 0-1 BR						
All Values	0.069	50,305	0.009	0.054	0.085	22%
Below Median \$53,700	0.065	25,259	0.013	0.044	0.086	32%
Above Median \$53,700	0.074	25,046	0.014	0.052	0.097	30%
All Housing Types (Rent), 2 BR						
All Values	0.324	43,697	0.023	0.287	0.362	12%
Below Median \$79,500	0.422	22,000	0.037	0.361	0.484	15%
Above Median \$79,500	0.225	21,697	0.026	0.181	0.268	19%
All Housing Types (Rent), 3 BR						
All Values	0.658	19,898	0.051	0.574	0.743	13%
Below Median \$97,500	0.768	10,001	0.080	0.637	0.899	17%
Above Median \$97,500	0.548	9,897	0.065	0.441	0.655	20%
All Housing Types (Rent), 4-5 BR						
All Values	0.872	3,771	0.141	0.641	1.104	26%
Below Median \$108,500	0.943	1,922	0.207	0.603	1.284	36%
Above Median \$108,500	0.799	1,849	0.190	0.487	1.111	39%

PART TWO
NEW JERSEY GENERAL APPLICATION RESIDENTIAL
MULTIPLIERS:

C. NORTHERN NEW JERSEY¹ (2000)

Tables

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¹ Bergen, Essex, Hudson, Morris, Passaic, Sussex, and Union counties.

**TABLE II-C-1
NORTH REGION OF NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
Single-Family Detached, 2-3 BR									
All Values	3.137	0.327	0.607	0.731	0.718	0.380	0.193	0.121	0.060
Below Median \$370,722	3.213	0.341	0.644	0.806	0.723	0.341	0.165	0.127	0.066
Above Median \$370,722	2.974	0.297	0.527	0.569	0.709	0.465	0.251	0.108	0.048
Single-Family Detached, 4-5 BR									
All Values	3.809	0.433	1.072	0.531	0.984	0.518	0.161	0.067	0.043
Below Median \$741,444	3.728	0.445	0.981	0.615	0.996	0.429	0.157	0.065	0.041
Above Median \$741,444	3.940	0.414	1.220	0.394	0.965	0.663	0.168	0.071	0.045
Single-Family Attached, 2-3 BR									
All Values	2.477	0.214	0.296	0.628	0.452	0.388	0.284	0.132	0.083
Below Median \$370,722	2.539	0.227	0.356	0.690	0.505	0.379	0.213	0.110	0.059
Above Median \$370,722	2.364	0.191	0.186	0.515	0.356	0.405	0.412	0.174	0.126
Single-Family Attached, 4-5 BR									
All Values	3.520	0.207	0.947	0.626	0.658	0.686	0.188	0.179	0.029
Below Median \$576,679	3.954	0.343	1.163	0.683	0.863	0.629	0.147	0.089	0.038
Above Median \$576,679	2.858	0.000	0.618	0.539	0.345	0.773	0.252	0.315	0.015
5+ Units—Own & Rent, 0-1 BR									
All Values	1.555	0.061	0.092	0.601	0.256	0.121	0.086	0.138	0.200
Below Median \$139,391	1.512	0.077	0.136	0.393	0.221	0.139	0.086	0.222	0.239
Above Median \$139,391	1.597	0.046	0.048	0.809	0.292	0.103	0.087	0.053	0.160
5+ Units—Own & Rent, 2-3 BR									
All Values	2.262	0.176	0.308	0.756	0.356	0.246	0.160	0.126	0.134
Below Median \$227,870	2.526	0.260	0.516	0.759	0.403	0.246	0.136	0.089	0.117
Above Median \$227,870	1.996	0.093	0.099	0.753	0.308	0.245	0.184	0.163	0.151
2-4 Units, 0-1 BR									
All Values	2.056	0.185	0.227	0.674	0.393	0.210	0.137	0.105	0.125
Below Median \$124,563	1.892	0.171	0.175	0.567	0.390	0.134	0.157	0.166	0.133
Above Median \$124,563	2.224	0.200	0.280	0.783	0.396	0.288	0.117	0.043	0.117
2-4 Units, 2-3 BR									
All Values	3.231	0.262	0.675	1.054	0.624	0.304	0.168	0.090	0.054
Below Median \$181,242	3.298	0.312	0.829	1.082	0.619	0.248	0.106	0.063	0.039
Above Median \$181,242	3.163	0.211	0.518	1.025	0.628	0.361	0.231	0.117	0.070

**TABLE II-C-1
NORTH REGION OF NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
All Housing Types (Own), 0-1 BR									
All Values	2.039	0.134	0.217	0.510	0.457	0.223	0.180	0.153	0.165
Below Median \$226,552	1.785	0.138	0.144	0.493	0.392	0.175	0.143	0.139	0.161
Above Median \$226,552	2.359	0.130	0.309	0.531	0.540	0.283	0.227	0.172	0.169
All Housing Types (Own), 2-3 BR									
All Values	2.587	0.207	0.356	0.610	0.523	0.390	0.251	0.152	0.099
Below Median \$370,722	2.571	0.206	0.376	0.630	0.553	0.371	0.195	0.143	0.096
Above Median \$370,722	2.616	0.209	0.318	0.571	0.467	0.426	0.355	0.167	0.104
All Housing Types (Own),4-5 BR									
All Values	3.792	0.429	1.044	0.542	0.964	0.532	0.160	0.074	0.046
Below Median \$741,444	3.714	0.445	0.945	0.631	0.973	0.449	0.154	0.071	0.046
Above Median \$741,444	3.920	0.404	1.205	0.399	0.951	0.667	0.170	0.079	0.045
All Housing Types (Rent), 0-1 BR									
All Values	1.675	0.085	0.140	0.634	0.287	0.138	0.085	0.126	0.179
Below Median \$126,870	1.617	0.095	0.179	0.401	0.250	0.146	0.099	0.214	0.234
Above Median \$126,870	1.733	0.075	0.101	0.868	0.325	0.130	0.071	0.037	0.125
All Housing Types (Rent), 2-3 BR									
All Values	2.894	0.281	0.577	1.039	0.498	0.229	0.134	0.068	0.068
Below Median \$159,328	3.152	0.351	0.788	1.013	0.498	0.264	0.130	0.065	0.043
Above Median \$159,328	2.633	0.211	0.365	1.065	0.497	0.193	0.138	0.072	0.092
All Housing Types (Rent), 4-5 BR									
All Values	4.418	0.343	1.419	1.100	0.889	0.413	0.118	0.090	0.048
Below Median \$185,361	4.903	0.394	1.623	1.305	1.036	0.361	0.110	0.034	0.040
Above Median \$185,361	3.931	0.292	1.214	0.893	0.740	0.465	0.125	0.145	0.056

**TABLE II-C-2
NORTH REGION OF NEW JERSEY
SCHOOL-AGE CHILDREN (SAC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2-3 BR				
All Values	0.607	0.349	0.138	0.119
Below Median \$370,722	0.644	0.359	0.150	0.135
Above Median \$370,722	0.527	0.328	0.113	0.086
Single-Family Detached, 4-5 BR				
All Values	1.072	0.696	0.215	0.162
Below Median \$741,444	0.981	0.637	0.201	0.143
Above Median \$741,444	1.220	0.791	0.237	0.192
Single-Family Attached, 2-3 BR				
All Values	0.296	0.163	0.064	0.068
Below Median \$370,722	0.356	0.198	0.084	0.074
Above Median \$370,722	0.186	0.100	0.028	0.058
Single-Family Attached, 4-5 BR				
All Values	0.947	0.440	0.255	0.252
Below Median \$576,679	1.163	0.659	0.214	0.290
Above Median \$576,679	0.618	0.106	0.318	0.194
5+ Units—Own & Rent, 0-1 BR				
All Values	0.092	0.061	0.016	0.016
Below Median \$139,391	0.136	0.097	0.021	0.017
Above Median \$139,391	0.048	0.024	0.010	0.014
5+ Units—Own & Rent, 2-3 BR				
All Values	0.308	0.188	0.067	0.053
Below Median \$227,870	0.516	0.312	0.114	0.089
Above Median \$227,870	0.099	0.063	0.019	0.017
2-4 Units, 0-1 BR				
All Values	0.227	0.158	0.037	0.032
Below Median \$124,563	0.175	0.143	0.021	0.011
Above Median \$124,563	0.280	0.173	0.053	0.053
2-4 Units, 2-3 BR				
All Values	0.675	0.408	0.146	0.121
Below Median \$181,242	0.829	0.487	0.192	0.150
Above Median \$181,242	0.518	0.327	0.099	0.092

**TABLE II-C-2
NORTH REGION OF NEW JERSEY
SCHOOL-AGE CHILDREN (SAC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.217	0.154	0.041	0.022
Below Median \$226,552	0.144	0.111	0.022	0.010
Above Median \$226,552	0.309	0.208	0.065	0.036
All Housing Types (Own), 2-3 BR				
All Values	0.356	0.208	0.078	0.069
Below Median \$370,722	0.376	0.219	0.088	0.069
Above Median \$370,722	0.318	0.189	0.060	0.069
All Housing Types (Own), 4-5 BR				
All Values	1.044	0.673	0.211	0.160
Below Median \$741,444	0.945	0.609	0.196	0.140
Above Median \$741,444	1.205	0.776	0.237	0.193
All Housing Types (Rent), 0-1 BR				
All Values	0.140	0.089	0.025	0.025
Below Median \$126,870	0.179	0.128	0.027	0.024
Above Median \$126,870	0.101	0.050	0.024	0.027
All Housing Types (Rent), 2-3 BR				
All Values	0.577	0.339	0.127	0.111
Below Median \$159,328	0.788	0.472	0.168	0.148
Above Median \$159,328	0.365	0.205	0.086	0.074
All Housing Types (Rent), 4-5 BR				
All Values	1.419	0.841	0.307	0.271
Below Median \$185,361	1.623	0.897	0.403	0.323
Above Median \$185,361	1.214	0.784	0.211	0.220

**TABLE II-C-3
NORTH REGION OF NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2-3 BR				
All Values	0.514	0.284	0.125	0.104
Below Median \$370,722	0.554	0.296	0.141	0.118
Above Median \$370,722	0.427	0.259	0.092	0.076
Single-Family Detached, 4-5 BR				
All Values	0.845	0.545	0.174	0.125
Below Median \$741,444	0.824	0.525	0.175	0.124
Above Median \$741,444	0.878	0.578	0.172	0.128
Single-Family Attached, 2-3 BR				
All Values	0.242	0.136	0.046	0.060
Below Median \$370,722	0.285	0.167	0.057	0.061
Above Median \$370,722	0.165	0.082	0.025	0.058
Single-Family Attached, 4-5 BR				
All Values	0.908	0.420	0.255	0.233
Below Median \$576,679	1.129	0.625	0.214	0.290
Above Median \$576,679	0.570	0.106	0.318	0.145
5+ Units–Own & Rent, 0-1 BR				
All Values	0.073	0.054	0.011	0.008
Below Median \$139,391	0.110	0.084	0.016	0.010
Above Median \$139,391	0.037	0.024	0.007	0.007
5+ Units–Own & Rent, 2-3 BR				
All Values	0.268	0.164	0.060	0.044
Below Median \$227,870	0.458	0.275	0.110	0.073
Above Median \$227,870	0.078	0.053	0.010	0.015
2-4 Units, 0-1 BR				
All Values	0.165	0.111	0.031	0.023
Below Median \$124,563	0.148	0.116	0.021	0.011
Above Median \$124,563	0.182	0.105	0.042	0.035
2-4 Units, 2-3 BR				
All Values	0.572	0.337	0.135	0.101
Below Median \$181,242	0.739	0.432	0.185	0.121
Above Median \$181,242	0.402	0.240	0.083	0.080

**TABLE II-C-3
NORTH REGION OF NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.174	0.130	0.022	0.022
Below Median \$226,552	0.116	0.093	0.013	0.010
Above Median \$226,552	0.247	0.177	0.034	0.036
All Housing Types (Own), 2-3 BR				
All Values	0.295	0.168	0.065	0.062
Below Median \$370,722	0.314	0.177	0.074	0.063
Above Median \$370,722	0.261	0.151	0.049	0.061
All Housing Types (Own), 4-5 BR				
All Values	0.828	0.529	0.174	0.126
Below Median \$741,444	0.806	0.509	0.174	0.123
Above Median \$741,444	0.865	0.562	0.174	0.129
All Housing Types (Rent), 0-1 BR				
All Values	0.111	0.072	0.021	0.017
Below Median \$126,870	0.140	0.103	0.019	0.018
Above Median \$126,870	0.082	0.042	0.024	0.016
All Housing Types (Rent), 2-3 BR				
All Values	0.497	0.293	0.115	0.089
Below Median \$159,328	0.692	0.428	0.154	0.110
Above Median \$159,328	0.301	0.156	0.077	0.068
All Housing Types (Rent), 4-5 BR				
All Values	1.046	0.567	0.237	0.242
Below Median \$185,361	1.394	0.736	0.334	0.323
Above Median \$185,361	0.697	0.397	0.140	0.160

**TABLE II-C-4
NORTH REGION OF NEW JERSEY
STATISTICS FOR TOTAL PERSONS**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2-3 BR						
All Values	3.137	9,987	0.204	2.802	3.472	11%
Below Median \$370,722	3.213	6,809	0.252	2.798	3.628	13%
Above Median \$370,722	2.974	3,178	0.345	2.406	3.542	19%
Single-Family Detached, 4-5 BR						
All Values	3.809	24,777	0.153	3.558	4.060	7%
Below Median \$741,444	3.728	15,318	0.191	3.414	4.043	8%
Above Median \$741,444	3.940	9,459	0.256	3.519	4.362	11%
Single-Family Attached, 2-3 BR						
All Values	2.477	15,427	0.133	2.258	2.696	9%
Below Median \$370,722	2.539	9,925	0.170	2.260	2.819	11%
Above Median \$370,722	2.364	5,502	0.215	2.010	2.718	15%
Single-Family Attached, 4-5 BR						
All Values	3.520	834	0.783	2.233	4.808	37%
Below Median \$576,679	3.954	504	1.117	2.117	5.792	46%
Above Median \$576,679	2.858	330	1.036	1.154	4.561	60%
5+ Units—Own & Rent, 0-1 BR						
All Values	1.555	14,141	0.095	1.399	1.710	10%
Below Median \$139,391	1.512	7,083	0.131	1.297	1.728	14%
Above Median \$139,391	1.597	7,058	0.137	1.372	1.823	14%
5+ Units—Own & Rent, 2-3 BR						
All Values	2.262	14,562	0.127	2.053	2.471	9%
Below Median \$227,870	2.526	7,305	0.197	2.201	2.851	13%
Above Median \$227,870	1.996	7,257	0.162	1.729	2.263	13%
2-4 Units, 0-1 BR						
All Values	2.056	3,065	0.256	1.635	2.478	21%
Below Median \$124,563	1.892	1,546	0.337	1.338	2.446	29%
Above Median \$124,563	2.224	1,519	0.389	1.584	2.864	29%
2-4 Units, 2-3 BR						
All Values	3.231	10,761	0.201	2.900	3.562	10%
Below Median \$181,242	3.298	5,434	0.289	2.823	3.773	14%
Above Median \$181,242	3.163	5,327	0.281	2.700	3.626	15%

**TABLE II-C-4
NORTH REGION OF NEW JERSEY
STATISTICS FOR TOTAL PERSONS (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				low	high		
All Housing Types (Own), 0-1 BR							
All Values	2.039	3,467	0.239	1.645	2.432	19%	
Below Median \$226,552	1.785	1,935	0.287	1.313	2.257	26%	
Above Median \$226,552	2.359	1,532	0.407	1.689	3.029	28%	
All Housing Types (Own), 2-3 BR							
All Values	2.587	31,174	0.097	2.427	2.746	6%	
Below Median \$370,722	2.571	20,207	0.120	2.373	2.768	8%	
Above Median \$370,722	2.616	10,967	0.166	2.343	2.889	10%	
All Housing Types (Own), 4-5 BR							
All Values	3.792	25,552	0.150	3.546	4.039	6%	
Below Median \$741,444	3.714	15,802	0.188	3.405	4.022	8%	
Above Median \$741,444	3.920	9,750	0.251	3.507	4.333	11%	
All Housing Types (Rent), 0-1 BR							
All Values	1.675	15,930	0.095	1.519	1.830	9%	
Below Median \$126,870	1.617	7,969	0.130	1.402	1.831	13%	
Above Median \$126,870	1.733	7,961	0.138	1.506	1.959	13%	
All Housing Types (Rent), 2-3 BR							
All Values	2.894	19,563	0.135	2.671	3.116	8%	
Below Median \$159,328	3.152	9,814	0.206	2.813	3.491	11%	
Above Median \$159,328	2.633	9,749	0.177	2.342	2.924	11%	
All Housing Types (Rent), 4-5 BR							
All Values	4.418	1,105	0.834	3.047	5.790	31%	
Below Median \$185,361	4.903	554	1.295	2.773	7.032	43%	
Above Median \$185,361	3.931	551	1.063	2.183	5.679	44%	

**TABLE II-C-5
NORTH REGION OF NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				low	high		
Single-Family Detached, 2-3 BR							
All Values	0.607	9,987	0.056	0.515	0.699	15%	
Below Median \$370,722	0.644	6,809	0.071	0.528	0.760	18%	
Above Median \$370,722	0.527	3,178	0.090	0.379	0.675	28%	
Single-Family Detached, 4-5 BR							
All Values	1.072	24,777	0.053	0.984	1.160	8%	
Below Median \$741,444	0.981	15,318	0.064	0.876	1.085	11%	
Above Median \$741,444	1.220	9,459	0.096	1.063	1.377	13%	
Single-Family Attached, 2-3 BR							
All Values	0.296	15,427	0.028	0.249	0.342	16%	
Below Median \$370,722	0.356	9,925	0.039	0.291	0.421	18%	
Above Median \$370,722	0.186	5,502	0.036	0.127	0.245	32%	
Single-Family Attached, 4-5 BR							
All Values	0.947	834	0.266	0.509	1.386	46%	
Below Median \$576,679	1.163	504	0.400	0.504	1.821	57%	
Above Median \$576,679	0.618	330	0.312	0.105	1.131	83%	
5+ Units—Own & Rent, 0-1 BR							
All Values	0.092	14,141	0.015	0.067	0.117	27%	
Below Median \$139,391	0.136	7,083	0.026	0.092	0.179	32%	
Above Median \$139,391	0.048	7,058	0.015	0.023	0.073	52%	
5+ Units—Own & Rent, 2-3 BR							
All Values	0.308	14,562	0.030	0.259	0.357	16%	
Below Median \$227,870	0.516	7,305	0.059	0.419	0.612	19%	
Above Median \$227,870	0.099	7,257	0.022	0.063	0.135	36%	
2-4 Units, 0-1 BR							
All Values	0.227	3,065	0.054	0.138	0.316	39%	
Below Median \$124,563	0.175	1,546	0.065	0.067	0.282	61%	
Above Median \$124,563	0.280	1,519	0.087	0.137	0.423	51%	
2-4 Units, 2-3 BR							
All Values	0.675	10,761	0.058	0.580	0.771	14%	
Below Median \$181,242	0.829	5,434	0.095	0.673	0.984	19%	
Above Median \$181,242	0.518	5,327	0.069	0.405	0.632	22%	

**TABLE II-C-5
NORTH REGION OF NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.217	3,467	0.049	0.135	0.298	38%
Below Median \$226,552	0.144	1,935	0.052	0.058	0.230	60%
Above Median \$226,552	0.309	1,532	0.092	0.157	0.460	49%
All Housing Types (Own), 2-3 BR						
All Values	0.356	31,174	0.022	0.319	0.392	10%
Below Median \$370,722	0.376	20,207	0.029	0.329	0.423	13%
Above Median \$370,722	0.318	10,967	0.035	0.260	0.375	18%
All Housing Types (Own), 4-5 BR						
All Values	1.044	25,552	0.051	0.960	1.129	8%
Below Median \$741,444	0.945	15,802	0.061	0.845	1.045	11%
Above Median \$741,444	1.205	9,750	0.093	1.052	1.359	13%
All Housing Types (Rent), 0-1 BR						
All Values	0.140	15,930	0.018	0.111	0.169	21%
Below Median \$126,870	0.179	7,969	0.029	0.131	0.227	27%
Above Median \$126,870	0.101	7,961	0.021	0.066	0.136	34%
All Housing Types (Rent), 2-3 BR						
All Values	0.577	19,563	0.039	0.514	0.640	11%
Below Median \$159,328	0.788	9,814	0.068	0.676	0.899	14%
Above Median \$159,328	0.365	9,749	0.040	0.298	0.431	18%
All Housing Types (Rent), 4-5 BR						
All Values	1.419	1,105	0.316	0.900	1.938	37%
Below Median \$185,361	1.623	554	0.497	0.806	2.440	50%
Above Median \$185,361	1.214	551	0.396	0.563	1.865	54%

**TABLE II-C-6
NORTH REGION OF NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				low	high		
Single-Family Detached, 2-3 BR							
All Values	0.514	9,987	0.055	0.423	0.604	18%	
Below Median \$370,722	0.554	6,809	0.070	0.439	0.670	21%	
Above Median \$370,722	0.427	3,178	0.087	0.284	0.570	34%	
Single-Family Detached, 4-5 BR							
All Values	0.845	24,777	0.049	0.765	0.925	9%	
Below Median \$741,444	0.824	15,318	0.061	0.724	0.924	12%	
Above Median \$741,444	0.878	9,459	0.081	0.745	1.011	15%	
Single-Family Attached, 2-3 BR							
All Values	0.242	15,427	0.028	0.196	0.288	19%	
Below Median \$370,722	0.285	9,925	0.039	0.221	0.348	22%	
Above Median \$370,722	0.165	5,502	0.038	0.103	0.228	38%	
Single-Family Attached, 4-5 BR							
All Values	0.908	834	0.280	0.448	1.368	51%	
Below Median \$576,679	1.129	504	0.421	0.437	1.821	61%	
Above Median \$576,679	0.570	330	0.325	0.036	1.104	94%	
5+ Units—Own & Rent, 0-1 BR							
All Values	0.073	14,141	0.015	0.048	0.099	34%	
Below Median \$139,391	0.110	7,083	0.027	0.066	0.154	40%	
Above Median \$139,391	0.037	7,058	0.015	0.012	0.062	68%	
5+ Units—Own & Rent, 2-3 BR							
All Values	0.268	14,562	0.031	0.218	0.319	19%	
Below Median \$227,870	0.458	7,305	0.060	0.359	0.557	22%	
Above Median \$227,870	0.078	7,257	0.022	0.041	0.114	47%	
2-4 Units, 0-1 BR							
All Values	0.165	3,065	0.051	0.081	0.248	51%	
Below Median \$124,563	0.148	1,546	0.067	0.037	0.259	75%	
Above Median \$124,563	0.182	1,519	0.076	0.056	0.307	69%	
2-4 Units, 2-3 BR							
All Values	0.572	10,761	0.057	0.479	0.666	16%	
Below Median \$181,242	0.739	5,434	0.095	0.583	0.895	21%	
Above Median \$181,242	0.402	5,327	0.065	0.295	0.508	27%	

TABLE II-C-6
NORTH REGION OF NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				low	high		
All Housing Types (Own), 0-1 BR							
All Values	0.174	3,467	0.049	0.093	0.255	47%	
Below Median \$226,552	0.116	1,935	0.053	0.029	0.203	75%	
Above Median \$226,552	0.247	1,532	0.090	0.098	0.395	60%	
All Housing Types (Own), 2-3 BR							
All Values	0.295	31,174	0.022	0.259	0.332	12%	
Below Median \$370,722	0.314	20,207	0.029	0.267	0.361	15%	
Above Median \$370,722	0.261	10,967	0.035	0.204	0.318	22%	
All Housing Types (Own), 4-5 BR							
All Values	0.828	25,552	0.047	0.751	0.906	9%	
Below Median \$741,444	0.806	15,802	0.059	0.709	0.903	12%	
Above Median \$741,444	0.865	9,750	0.079	0.735	0.995	15%	
All Housing Types (Rent), 0-1 BR							
All Values	0.111	15,930	0.018	0.081	0.140	27%	
Below Median \$126,870	0.140	7,969	0.029	0.092	0.187	34%	
Above Median \$126,870	0.082	7,961	0.022	0.046	0.118	43%	
All Housing Types (Rent), 2-3 BR							
All Values	0.497	19,563	0.039	0.434	0.561	13%	
Below Median \$159,328	0.692	9,814	0.068	0.581	0.804	16%	
Above Median \$159,328	0.301	9,749	0.040	0.235	0.367	22%	
All Housing Types (Rent), 4-5 BR							
All Values	1.046	1,105	0.269	0.604	1.488	42%	
Below Median \$185,361	1.394	554	0.469	0.622	2.165	55%	
Above Median \$185,361	0.697	551	0.287	0.225	1.169	68%	

**PART TWO
NEW JERSEY GENERAL APPLICATION RESIDENTIAL
MULTIPLIERS:**

D. CENTRAL NEW JERSEY² (2000)

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² Bergen, Essex, Hudson, Morris, Passaic, Sussex, and Union counties.

**TABLE II-D-1
CENTRAL REGION OF NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
Single-Family Detached, 2-3 BR									
All Values	2.578	0.243	0.367	0.425	0.491	0.259	0.250	0.386	0.158
Below Median \$308,935	2.501	0.229	0.341	0.429	0.450	0.212	0.225	0.426	0.189
Above Median \$308,935	2.683	0.262	0.402	0.419	0.547	0.323	0.284	0.332	0.115
Single-Family Detached, 4-5 BR									
All Values	3.780	0.412	1.094	0.519	1.010	0.501	0.144	0.064	0.037
Below Median \$576,679	3.738	0.420	1.050	0.600	1.001	0.446	0.125	0.062	0.034
Above Median \$576,679	3.860	0.396	1.177	0.367	1.027	0.603	0.179	0.068	0.043
Single-Family Attached, 2-3 BR									
All Values	2.296	0.193	0.292	0.569	0.458	0.299	0.226	0.175	0.083
Below Median \$267,744	2.345	0.189	0.340	0.614	0.490	0.275	0.198	0.157	0.083
Above Median \$267,744	2.217	0.200	0.214	0.497	0.406	0.339	0.272	0.204	0.084
Single-Family Attached, 4-5 BR									
All Values	4.497	1.032	1.210	1.042	0.607	0.305	0.175	0.106	0.020
Below Median \$308,935	5.169	1.585	1.341	1.634	0.301	0.180	0.056	0.071	0.000
Above Median \$308,935	3.709	0.383	1.056	0.348	0.967	0.452	0.314	0.147	0.043
5+ Units—Own & Rent, 0-1 BR									
All Values	1.603	0.100	0.064	0.681	0.163	0.077	0.067	0.154	0.298
Below Median \$131,483	1.468	0.074	0.051	0.437	0.110	0.069	0.082	0.277	0.367
Above Median \$131,483	1.741	0.127	0.077	0.930	0.217	0.085	0.052	0.028	0.226
5+ Units—Own & Rent, 2-3 BR									
All Values	2.342	0.235	0.373	0.872	0.398	0.222	0.104	0.067	0.070
Below Median \$185,361	2.341	0.231	0.406	0.896	0.379	0.221	0.111	0.056	0.041
Above Median \$185,361	2.343	0.240	0.330	0.841	0.423	0.223	0.095	0.083	0.109
2-4 Units, 0-1 BR									
All Values	2.001	0.210	0.276	0.864	0.164	0.265	0.062	0.058	0.101
Below Median \$128,187	1.688	0.186	0.241	0.703	0.170	0.189	0.055	0.032	0.111
Above Median \$128,187	2.319	0.235	0.312	1.028	0.158	0.343	0.068	0.085	0.090
2-4 Units, 2-3 BR									
All Values	2.649	0.268	0.405	0.887	0.416	0.278	0.214	0.148	0.034
Below Median \$185,361	2.808	0.376	0.542	0.955	0.460	0.212	0.164	0.080	0.019
Above Median \$185,361	2.450	0.132	0.233	0.801	0.362	0.360	0.276	0.233	0.053

**TABLE II-D-1
CENTRAL REGION OF NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
All Housing Types (Own), 0-1 BR									
All Values	2.078	0.137	0.275	0.497	0.438	0.277	0.117	0.135	0.202
Below Median \$185,361	1.815	0.106	0.214	0.514	0.338	0.275	0.076	0.127	0.166
Above Median \$185,361	2.451	0.180	0.362	0.471	0.582	0.280	0.176	0.146	0.255
All Housing Types (Own), 2-3 BR									
All Values	2.397	0.209	0.308	0.486	0.462	0.279	0.240	0.292	0.121
Below Median \$267,744	2.307	0.188	0.300	0.522	0.435	0.254	0.207	0.274	0.128
Above Median \$267,744	2.502	0.234	0.317	0.445	0.493	0.307	0.278	0.314	0.114
All Housing Types (Own),4-5 BR									
All Values	3.782	0.418	1.092	0.520	1.005	0.500	0.146	0.065	0.037
Below Median \$576,679	3.746	0.430	1.051	0.600	0.995	0.446	0.128	0.062	0.034
Above Median \$576,679	3.851	0.395	1.170	0.368	1.025	0.602	0.179	0.070	0.043
All Housing Types (Rent), 0-1 BR									
All Values	1.729	0.118	0.110	0.753	0.178	0.099	0.071	0.141	0.260
Below Median \$130,164	1.511	0.088	0.075	0.482	0.117	0.081	0.083	0.241	0.344
Above Median \$130,164	1.950	0.149	0.146	1.027	0.239	0.117	0.058	0.040	0.175
All Housing Types (Rent), 2-3 BR									
All Values	2.670	0.303	0.512	0.962	0.456	0.216	0.105	0.050	0.067
Below Median \$181,901	2.673	0.313	0.578	0.965	0.445	0.185	0.097	0.035	0.055
Above Median \$181,901	2.668	0.292	0.446	0.959	0.467	0.247	0.112	0.066	0.079
All Housing Types (Rent), 4-5 BR									
All Values	4.803	1.053	1.491	1.332	0.543	0.201	0.068	0.096	0.019
Below Median \$234,132	4.435	1.077	1.002	1.874	0.327	0.010	0.052	0.058	0.035
Above Median \$234,132	5.236	1.024	2.066	0.696	0.796	0.426	0.088	0.141	0.000

**TABLE II-D-2
CENTRAL REGION OF NEW JERSEY
SCHOOL-AGE CHILDREN (SAC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2-3 BR				
All Values	0.367	0.231	0.077	0.059
Below Median \$308,935	0.341	0.223	0.061	0.056
Above Median \$308,935	0.402	0.241	0.099	0.062
Single-Family Detached, 4-5 BR				
All Values	1.094	0.706	0.224	0.164
Below Median \$576,679	1.050	0.682	0.215	0.154
Above Median \$576,679	1.177	0.752	0.242	0.183
Single-Family Attached, 2-3 BR				
All Values	0.292	0.177	0.078	0.037
Below Median \$267,744	0.340	0.199	0.099	0.042
Above Median \$267,744	0.214	0.142	0.045	0.028
Single-Family Attached, 4-5 BR				
All Values	1.210	0.868	0.170	0.172
Below Median \$308,935	1.341	1.094	0.135	0.112
Above Median \$308,935	1.056	0.601	0.212	0.243
5+ Units—Own & Rent, 0-1 BR				
All Values	0.064	0.042	0.014	0.008
Below Median \$131,483	0.051	0.020	0.021	0.010
Above Median \$131,483	0.077	0.064	0.006	0.007
5+ Units—Own & Rent, 2-3 BR				
All Values	0.373	0.262	0.056	0.055
Below Median \$185,361	0.406	0.303	0.063	0.041
Above Median \$185,361	0.330	0.210	0.047	0.073
2-4 Units, 0-1 BR				
All Values	0.276	0.182	0.045	0.050
Below Median \$128,187	0.241	0.142	0.038	0.061
Above Median \$128,187	0.312	0.222	0.052	0.039
2-4 Units, 2-3 BR				
All Values	0.405	0.252	0.074	0.079
Below Median \$185,361	0.542	0.373	0.053	0.116
Above Median \$185,361	0.233	0.100	0.100	0.033

**TABLE II-D-2
CENTRAL REGION OF NEW JERSEY
SCHOOL-AGE CHILDREN (SAC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.275	0.171	0.071	0.033
Below Median \$185,361	0.214	0.149	0.033	0.032
Above Median \$185,361	0.362	0.203	0.124	0.034
All Housing Types (Own), 2-3 BR				
All Values	0.308	0.191	0.070	0.047
Below Median \$267,744	0.300	0.183	0.069	0.048
Above Median \$267,744	0.317	0.200	0.071	0.047
All Housing Types (Own), 4-5 BR				
All Values	1.092	0.704	0.223	0.164
Below Median \$576,679	1.051	0.681	0.214	0.155
Above Median \$576,679	1.170	0.747	0.241	0.182
All Housing Types (Rent), 0-1 BR				
All Values	0.110	0.062	0.026	0.022
Below Median \$130,164	0.075	0.030	0.025	0.019
Above Median \$130,164	0.146	0.095	0.027	0.024
All Housing Types (Rent), 2-3 BR				
All Values	0.512	0.347	0.093	0.072
Below Median \$181,901	0.578	0.407	0.093	0.078
Above Median \$181,901	0.446	0.288	0.094	0.065
All Housing Types (Rent), 4-5 BR				
All Values	1.491	1.112	0.187	0.192
Below Median \$234,132	1.002	0.586	0.164	0.253
Above Median \$234,132	2.066	1.730	0.214	0.122

**TABLE II-D-3
CENTRAL REGION OF NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2-3 BR				
All Values	0.304	0.181	0.071	0.052
Below Median \$308,935	0.282	0.173	0.058	0.051
Above Median \$308,935	0.333	0.191	0.089	0.053
Single-Family Detached, 4-5 BR				
All Values	0.902	0.573	0.189	0.140
Below Median \$576,679	0.885	0.562	0.188	0.135
Above Median \$576,679	0.933	0.594	0.189	0.150
Single-Family Attached, 2-3 BR				
All Values	0.251	0.146	0.071	0.033
Below Median \$267,744	0.287	0.163	0.088	0.036
Above Median \$267,744	0.192	0.119	0.045	0.028
Single-Family Attached, 4-5 BR				
All Values	0.449	0.253	0.095	0.101
Below Median \$308,935	0.202	0.118	0.031	0.054
Above Median \$308,935	0.738	0.412	0.171	0.155
5+ Units–Own & Rent, 0-1 BR				
All Values	0.062	0.040	0.014	0.008
Below Median \$131,483	0.051	0.020	0.021	0.010
Above Median \$131,483	0.072	0.060	0.006	0.007
5+ Units–Own & Rent, 2-3 BR				
All Values	0.308	0.215	0.050	0.042
Below Median \$185,361	0.358	0.267	0.057	0.034
Above Median \$185,361	0.242	0.148	0.042	0.052
2-4 Units, 0-1 BR				
All Values	0.264	0.169	0.045	0.050
Below Median \$128,187	0.216	0.117	0.038	0.061
Above Median \$128,187	0.312	0.222	0.052	0.039
2-4 Units, 2-3 BR				
All Values	0.330	0.204	0.058	0.068
Below Median \$185,361	0.435	0.287	0.053	0.095
Above Median \$185,361	0.198	0.100	0.065	0.033

**TABLE II-D-3
CENTRAL REGION OF NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSAC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.236	0.146	0.061	0.028
Below Median \$185,361	0.183	0.119	0.033	0.032
Above Median \$185,361	0.310	0.186	0.101	0.023
All Housing Types (Own), 2-3 BR				
All Values	0.259	0.155	0.063	0.041
Below Median \$267,744	0.253	0.150	0.061	0.041
Above Median \$267,744	0.266	0.160	0.065	0.041
All Housing Types (Own), 4-5 BR				
All Values	0.894	0.567	0.187	0.140
Below Median \$576,679	0.877	0.555	0.187	0.135
Above Median \$576,679	0.927	0.590	0.188	0.149
All Housing Types (Rent), 0-1 BR				
All Values	0.108	0.061	0.026	0.022
Below Median \$130,164	0.075	0.030	0.025	0.019
Above Median \$130,164	0.142	0.092	0.027	0.024
All Housing Types (Rent), 2-3 BR				
All Values	0.421	0.275	0.087	0.060
Below Median \$181,901	0.493	0.341	0.088	0.064
Above Median \$181,901	0.349	0.208	0.086	0.055
All Housing Types (Rent), 4-5 BR				
All Values	0.663	0.393	0.134	0.136
Below Median \$234,132	0.634	0.253	0.164	0.217
Above Median \$234,132	0.698	0.557	0.100	0.041

**TABLE II-D-4
CENTRAL REGION OF NEW JERSEY
STATISTICS FOR TOTAL PERSONS**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				low	high		
Single-Family Detached, 2-3 BR							
All Values	2.578	32,014	0.095	2.422	2.734	6%	
Below Median \$308,935	2.501	18,425	0.122	2.299	2.702	8%	
Above Median \$308,935	2.683	13,589	0.152	2.433	2.933	9%	
Single-Family Detached, 4-5 BR							
All Values	3.780	51,270	0.103	3.610	3.950	5%	
Below Median \$576,679	3.738	33,421	0.128	3.527	3.949	6%	
Above Median \$576,679	3.860	17,849	0.182	3.560	4.159	8%	
Single-Family Attached, 2-3 BR							
All Values	2.296	25,154	0.097	2.136	2.456	7%	
Below Median \$267,744	2.345	15,525	0.126	2.137	2.553	9%	
Above Median \$267,744	2.217	9,629	0.154	1.964	2.469	11%	
Single-Family Attached, 4-5 BR							
All Values	4.497	1,510	0.724	3.306	5.689	26%	
Below Median \$308,935	5.169	815	1.120	3.326	7.012	36%	
Above Median \$308,935	3.709	695	0.898	2.232	5.187	40%	
5+ Units–Own & Rent, 0-1 BR							
All Values	1.603	9,850	0.116	1.412	1.794	12%	
Below Median \$131,483	1.468	4,979	0.153	1.217	1.719	17%	
Above Median \$131,483	1.741	4,871	0.177	1.450	2.033	17%	
5+ Units–Own & Rent, 2-3 BR							
All Values	2.342	11,678	0.146	2.102	2.582	10%	
Below Median \$185,361	2.341	6,576	0.195	2.020	2.661	14%	
Above Median \$185,361	2.343	5,102	0.222	1.979	2.708	16%	
2-4 Units, 0-1 BR							
All Values	2.001	1,718	0.335	1.450	2.552	28%	
Below Median \$128,187	1.688	866	0.410	1.014	2.363	40%	
Above Median \$128,187	2.319	852	0.538	1.434	3.205	38%	
2-4 Units, 2-3 BR							
All Values	2.649	3,388	0.302	2.152	3.146	19%	
Below Median \$185,361	2.808	1,885	0.426	2.107	3.509	25%	
Above Median \$185,361	2.450	1,503	0.425	1.752	3.149	29%	

**TABLE II-D-4
CENTRAL REGION OF NEW JERSEY
STATISTICS FOR TOTAL PERSONS (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval			Error Margin as %
				low	high		
All Housing Types (Own), 0-1 BR							
All Values	2.078	2,322	0.297	1.589	2.566	24%	
Below Median \$185,361	1.815	1,365	0.347	1.245	2.385	31%	
Above Median \$185,361	2.451	957	0.533	1.575	3.327	36%	
All Housing Types (Own), 2-3 BR							
All Values	2.397	59,655	0.064	2.292	2.503	4%	
Below Median \$267,744	2.307	31,978	0.086	2.165	2.449	6%	
Above Median \$267,744	2.502	27,677	0.100	2.339	2.666	7%	
All Housing Types (Own), 4-5 BR							
All Values	3.782	52,008	0.103	3.613	3.951	4%	
Below Median \$576,679	3.746	34,041	0.127	3.537	3.955	6%	
Above Median \$576,679	3.851	17,967	0.181	3.554	4.149	8%	
All Housing Types (Rent), 0-1 BR							
All Values	1.729	11,120	0.116	1.538	1.920	11%	
Below Median \$130,164	1.511	5,592	0.147	1.269	1.753	16%	
Above Median \$130,164	1.950	5,528	0.182	1.650	2.250	15%	
All Housing Types (Rent), 2-3 BR							
All Values	2.670	12,579	0.157	2.412	2.929	10%	
Below Median \$181,901	2.673	6,298	0.223	2.306	3.040	14%	
Above Median \$181,901	2.668	6,281	0.223	2.301	3.035	14%	
All Housing Types (Rent), 4-5 BR							
All Values	4.803	894	1.000	3.158	6.448	34%	
Below Median \$234,132	4.435	483	1.265	2.353	6.517	47%	
Above Median \$234,132	5.236	411	1.597	2.609	7.863	50%	

**TABLE II-D-5
CENTRAL REGION OF NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2-3 BR						
All Values	0.367	32,014	0.022	0.330	0.403	10%
Below Median \$308,935	0.341	18,425	0.028	0.295	0.387	14%
Above Median \$308,935	0.402	13,589	0.036	0.342	0.462	15%
Single-Family Detached, 4-5 BR						
All Values	1.094	51,270	0.037	1.033	1.156	6%
Below Median \$576,679	1.050	33,421	0.045	0.976	1.124	7%
Above Median \$576,679	1.177	17,849	0.067	1.066	1.288	9%
Single-Family Attached, 2-3 BR						
All Values	0.292	25,154	0.022	0.256	0.328	12%
Below Median \$267,744	0.340	15,525	0.031	0.290	0.390	15%
Above Median \$267,744	0.214	9,629	0.029	0.166	0.263	23%
Single-Family Attached, 4-5 BR						
All Values	1.210	1,510	0.238	0.818	1.602	32%
Below Median \$308,935	1.341	815	0.352	0.763	1.919	43%
Above Median \$308,935	1.056	695	0.317	0.535	1.577	49%
5+ Units—Own & Rent, 0-1 BR						
All Values	0.064	9,850	0.015	0.039	0.088	38%
Below Median \$131,483	0.051	4,979	0.019	0.021	0.082	60%
Above Median \$131,483	0.077	4,871	0.023	0.038	0.115	50%
5+ Units—Own & Rent, 2-3 BR						
All Values	0.373	11,678	0.037	0.311	0.435	17%
Below Median \$185,361	0.406	6,576	0.053	0.320	0.493	21%
Above Median \$185,361	0.330	5,102	0.052	0.243	0.416	26%
2-4 Units, 0-1 BR						
All Values	0.276	1,718	0.081	0.143	0.410	48%
Below Median \$128,187	0.241	866	0.105	0.068	0.415	72%
Above Median \$128,187	0.312	852	0.124	0.108	0.517	65%
2-4 Units, 2-3 BR						
All Values	0.405	3,388	0.073	0.284	0.526	30%
Below Median \$185,361	0.542	1,885	0.119	0.346	0.738	36%
Above Median \$185,361	0.233	1,503	0.078	0.104	0.362	55%

**TABLE II-D-5
CENTRAL REGION OF NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.275	2,322	0.070	0.160	0.389	42%
Below Median \$185,361	0.214	1,365	0.078	0.085	0.342	60%
Above Median \$185,361	0.362	957	0.128	0.150	0.573	58%
All Housing Types (Own), 2-3 BR						
All Values	0.308	59,655	0.015	0.284	0.332	8%
Below Median \$267,744	0.300	31,978	0.020	0.267	0.332	11%
Above Median \$267,744	0.317	27,677	0.022	0.281	0.353	11%
All Housing Types (Own), 4-5 BR						
All Values	1.092	52,008	0.037	1.031	1.153	6%
Below Median \$576,679	1.051	34,041	0.045	0.978	1.124	7%
Above Median \$576,679	1.170	17,967	0.067	1.059	1.280	9%
All Housing Types (Rent), 0-1 BR						
All Values	0.110	11,120	0.019	0.079	0.141	28%
Below Median \$130,164	0.075	5,592	0.021	0.039	0.110	47%
Above Median \$130,164	0.146	5,528	0.031	0.095	0.197	35%
All Housing Types (Rent), 2-3 BR						
All Values	0.512	12,579	0.044	0.439	0.585	14%
Below Median \$181,901	0.578	6,298	0.068	0.466	0.690	19%
Above Median \$181,901	0.446	6,281	0.057	0.352	0.541	21%
All Housing Types (Rent), 4-5 BR						
All Values	1.491	894	0.365	0.890	2.092	40%
Below Median \$234,132	1.002	483	0.365	0.401	1.603	60%
Above Median \$234,132	2.066	411	0.703	0.909	3.223	56%

**TABLE II-D-6
CENTRAL REGION OF NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2-3 BR						
All Values	0.304	32,014	0.022	0.267	0.340	12%
Below Median \$308,935	0.282	18,425	0.028	0.236	0.329	16%
Above Median \$308,935	0.333	13,589	0.036	0.274	0.393	18%
Single-Family Detached, 4-5 BR						
All Values	0.902	51,270	0.035	0.844	0.960	6%
Below Median \$576,679	0.885	33,421	0.043	0.815	0.956	8%
Above Median \$576,679	0.933	17,849	0.061	0.832	1.034	11%
Single-Family Attached, 2-3 BR						
All Values	0.251	25,154	0.022	0.214	0.288	15%
Below Median \$267,744	0.287	15,525	0.031	0.236	0.338	18%
Above Median \$267,744	0.192	9,629	0.031	0.140	0.243	27%
Single-Family Attached, 4-5 BR						
All Values	0.449	1,510	0.130	0.235	0.663	48%
Below Median \$308,935	0.202	815	0.111	0.021	0.384	90%
Above Median \$308,935	0.738	695	0.266	0.301	1.175	59%
5+ Units—Own & Rent, 0-1 BR						
All Values	0.062	9,850	0.017	0.034	0.089	45%
Below Median \$131,483	0.051	4,979	0.021	0.016	0.087	68%
Above Median \$131,483	0.072	4,871	0.026	0.030	0.115	59%
5+ Units—Own & Rent, 2-3 BR						
All Values	0.308	11,678	0.037	0.246	0.369	20%
Below Median \$185,361	0.358	6,576	0.054	0.269	0.448	25%
Above Median \$185,361	0.242	5,102	0.049	0.162	0.323	33%
2-4 Units, 0-1 BR						
All Values	0.264	1,718	0.089	0.118	0.409	55%
Below Median \$128,187	0.216	866	0.111	0.033	0.399	85%
Above Median \$128,187	0.312	852	0.139	0.083	0.541	73%
2-4 Units, 2-3 BR						
All Values	0.330	3,388	0.072	0.211	0.448	36%
Below Median \$185,361	0.435	1,885	0.114	0.247	0.623	43%
Above Median \$185,361	0.198	1,503	0.080	0.065	0.330	67%

**TABLE II-D-6
CENTRAL REGION OF NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.236	2,322	0.071	0.118	0.353	50%
Below Median \$185,361	0.183	1,365	0.081	0.050	0.316	73%
Above Median \$185,361	0.310	957	0.131	0.095	0.525	69%
All Housing Types (Own), 2-3 BR						
All Values	0.259	59,655	0.015	0.235	0.283	9%
Below Median \$267,744	0.253	31,978	0.020	0.220	0.285	13%
Above Median \$267,744	0.266	27,677	0.022	0.230	0.303	14%
All Housing Types (Own), 4-5 BR						
All Values	0.894	52,008	0.035	0.838	0.951	6%
Below Median \$576,679	0.877	34,041	0.042	0.808	0.947	8%
Above Median \$576,679	0.927	17,967	0.061	0.827	1.027	11%
All Housing Types (Rent), 0-1 BR						
All Values	0.108	11,120	0.021	0.073	0.143	32%
Below Median \$130,164	0.075	5,592	0.025	0.034	0.115	54%
Above Median \$130,164	0.142	5,528	0.035	0.085	0.200	40%
All Housing Types (Rent), 2-3 BR						
All Values	0.421	12,579	0.043	0.350	0.492	17%
Below Median \$181,901	0.493	6,298	0.068	0.382	0.604	23%
Above Median \$181,901	0.349	6,281	0.055	0.259	0.439	26%
All Housing Types (Rent), 4-5 BR						
All Values	0.663	894	0.218	0.305	1.022	54%
Below Median \$234,132	0.634	483	0.288	0.160	1.107	75%
Above Median \$234,132	0.698	411	0.333	0.151	1.246	78%

PART TWO

**E. NEW JERSEY GENERAL APPLICATION RESIDENTIAL
MULTIPLIERS:**

SOUTHERN NEW JERSEY³

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³ Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, and Salem counties.

**TABLE II-E-1
SOUTH REGION OF NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
Single-Family Detached, 2-3 BR									
All Values	2.822	0.290	0.537	0.602	0.606	0.320	0.220	0.160	0.087
Below Median \$226,552	2.872	0.296	0.587	0.674	0.632	0.273	0.154	0.177	0.079
Above Median \$226,552	2.764	0.284	0.479	0.517	0.575	0.375	0.296	0.141	0.097
Single-Family Detached, 4-5 BR									
All Values	3.728	0.431	1.049	0.587	0.988	0.448	0.135	0.056	0.035
Below Median \$370,722	3.753	0.437	1.078	0.643	1.022	0.381	0.103	0.059	0.030
Above Median \$370,722	3.688	0.421	1.003	0.497	0.934	0.556	0.184	0.050	0.042
Single-Family Attached, 2-3 BR									
All Values	2.232	0.178	0.317	0.648	0.432	0.318	0.175	0.112	0.053
Below Median \$185,361	2.193	0.185	0.355	0.663	0.468	0.265	0.125	0.087	0.044
Above Median \$185,361	2.305	0.165	0.244	0.620	0.364	0.417	0.269	0.157	0.068
Single-Family Attached, 4-5 BR									
All Values	3.255	0.220	0.689	0.925	0.636	0.229	0.202	0.298	0.055
Below Median \$308,935	3.563	0.231	0.794	1.462	0.692	0.115	0.164	0.000	0.105
Above Median \$308,935	2.920	0.208	0.576	0.345	0.576	0.352	0.242	0.621	0.000
5+ Units—Own & Rent, 0-1 BR									
All Values	1.278	0.043	0.052	0.221	0.117	0.102	0.099	0.179	0.464
Below Median \$98,859	1.194	0.023	0.050	0.059	0.066	0.113	0.136	0.249	0.498
Above Median \$98,859	1.365	0.065	0.054	0.389	0.171	0.090	0.060	0.106	0.430
5+ Units—Own & Rent, 2-3 BR									
All Values	2.030	0.071	0.251	0.738	0.343	0.190	0.208	0.107	0.121
Below Median \$148,619	2.142	0.109	0.354	0.817	0.314	0.171	0.199	0.096	0.082
Above Median \$148,619	1.914	0.032	0.145	0.658	0.372	0.210	0.217	0.119	0.161
2-4 Units, 0-1 BR									
All Values	2.078	0.093	0.523	0.768	0.101	0.169	0.122	0.080	0.222
Below Median \$112,041	1.931	0.085	0.497	0.713	0.140	0.118	0.036	0.156	0.187
Above Median \$112,041	2.232	0.101	0.552	0.826	0.059	0.223	0.214	0.000	0.258
2-4 Units, 2-3 BR									
All Values	2.571	0.312	0.581	0.824	0.393	0.144	0.184	0.067	0.067
Below Median \$140,051	2.812	0.281	0.861	0.832	0.452	0.155	0.179	0.022	0.031
Above Median \$140,051	2.323	0.345	0.291	0.815	0.333	0.132	0.188	0.113	0.105

TABLE II-E-1
SOUTH REGION OF NEW JERSEY
TOTAL PERSONS AND PERSONS BY AGE (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	-75+
All Housing Types (Own), 0-1 BR									
All Values	2.605	0.189	0.517	0.661	0.441	0.261	0.234	0.145	0.157
Below Median \$156,527	2.815	0.234	0.612	0.765	0.358	0.272	0.269	0.111	0.195
Above Median \$156,527	2.331	0.132	0.393	0.526	0.550	0.246	0.189	0.189	0.107
All Housing Types (Own), 2-3 BR									
All Values	2.566	0.239	0.423	0.608	0.531	0.319	0.216	0.150	0.081
Below Median \$226,552	2.493	0.224	0.415	0.655	0.529	0.275	0.171	0.149	0.074
Above Median \$226,552	2.702	0.267	0.438	0.521	0.536	0.398	0.299	0.151	0.094
All Housing Types (Own), 4-5 BR									
All Values	3.710	0.426	1.037	0.586	0.979	0.444	0.141	0.062	0.036
Below Median \$370,722	3.742	0.435	1.069	0.647	1.017	0.377	0.105	0.060	0.032
Above Median \$370,722	3.661	0.414	0.986	0.491	0.919	0.547	0.197	0.064	0.043
All Housing Types (Rent), 0-1 BR									
All Values	1.451	0.058	0.141	0.313	0.125	0.113	0.106	0.165	0.428
Below Median \$98,859	1.305	0.027	0.102	0.145	0.072	0.110	0.139	0.248	0.462
Above Median \$98,859	1.601	0.090	0.182	0.488	0.179	0.117	0.072	0.079	0.393
All Housing Types (Rent), 2-3 BR									
All Values	2.490	0.210	0.564	0.811	0.446	0.187	0.135	0.063	0.073
Below Median \$148,288	2.494	0.271	0.651	0.814	0.392	0.120	0.142	0.049	0.056
Above Median \$148,288	2.486	0.150	0.477	0.809	0.501	0.253	0.129	0.076	0.091
All Housing Types (Rent), 4-5 BR									
All Values	4.314	0.129	1.171	2.000	0.714	0.257	0.000	0.043	0.000
Below Median \$220,785	4.392	0.243	0.541	3.000	0.338	0.189	0.000	0.081	0.000
Above Median \$220,785	4.227	0.000	1.879	0.879	1.136	0.333	0.000	0.000	0.000

TABLE II-E-2
SOUTH REGION OF NEW JERSEY
SCHOOL-AGE CHILDREN (SAC)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2-3 BR				
All Values	0.537	0.337	0.113	0.088
Below Median \$226,552	0.587	0.371	0.113	0.102
Above Median \$226,552	0.479	0.296	0.112	0.071
Single-Family Detached, 4-5 BR				
All Values	1.049	0.654	0.210	0.185
Below Median \$370,722	1.078	0.648	0.232	0.198
Above Median \$370,722	1.003	0.664	0.174	0.165
Single-Family Attached, 2-3 BR				
All Values	0.317	0.183	0.064	0.070
Below Median \$185,361	0.355	0.215	0.071	0.069
Above Median \$185,361	0.244	0.123	0.049	0.071
Single-Family Attached, 4-5 BR				
All Values	0.689	0.533	0.111	0.045
Below Median \$308,935	0.794	0.580	0.213	0.000
Above Median \$308,935	0.576	0.481	0.000	0.095
5+ Units—Own & Rent, 0-1 BR				
All Values	0.052	0.034	0.011	0.007
Below Median \$98,859	0.050	0.024	0.012	0.014
Above Median \$98,859	0.054	0.044	0.009	0.000
5+ Units—Own & Rent, 2-3 BR				
All Values	0.251	0.168	0.053	0.030
Below Median \$148,619	0.354	0.237	0.065	0.052
Above Median \$148,619	0.145	0.096	0.041	0.008
2-4 Units, 0-1 BR				
All Values	0.523	0.179	0.141	0.203
Below Median \$112,041	0.497	0.140	0.085	0.272
Above Median \$112,041	0.552	0.221	0.200	0.131
2-4 Units, 2-3 BR				
All Values	0.581	0.418	0.115	0.048
Below Median \$140,051	0.861	0.586	0.181	0.094
Above Median \$140,051	0.291	0.244	0.047	0.000

TABLE II-E-2
SOUTH REGION OF NEW JERSEY
SCHOOL-AGE CHILDREN (SAC) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.517	0.293	0.135	0.088
Below Median \$156,527	0.612	0.395	0.165	0.052
Above Median \$156,527	0.393	0.160	0.096	0.136
All Housing Types (Own), 2-3 BR				
All Values	0.423	0.264	0.085	0.074
Below Median \$226,552	0.415	0.264	0.074	0.076
Above Median \$226,552	0.438	0.264	0.104	0.070
All Housing Types (Own), 4-5 BR				
All Values	1.037	0.649	0.205	0.182
Below Median \$370,722	1.069	0.645	0.229	0.195
Above Median \$370,722	0.986	0.655	0.169	0.162
All Housing Types (Rent), 0-1 BR				
All Values	0.141	0.064	0.035	0.043
Below Median \$98,859	0.102	0.037	0.011	0.055
Above Median \$98,859	0.182	0.092	0.060	0.030
All Housing Types (Rent), 2-3 BR				
All Values	0.564	0.349	0.134	0.081
Below Median \$148,288	0.651	0.385	0.160	0.105
Above Median \$148,288	0.477	0.313	0.108	0.056
All Housing Types (Rent), 4-5 BR				
All Values	1.171	0.650	0.521	0.000
Below Median \$220,785	0.541	0.365	0.176	0.000
Above Median \$220,785	1.879	0.970	0.909	0.000

**TABLE II-E-3
SOUTH REGION OF NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
Single-Family Detached, 2-3 BR				
All Values	0.459	0.278	0.100	0.081
Below Median \$226,552	0.510	0.314	0.101	0.095
Above Median \$226,552	0.399	0.236	0.099	0.064
Single-Family Detached, 4-5 BR				
All Values	0.836	0.504	0.180	0.152
Below Median \$370,722	0.879	0.517	0.201	0.161
Above Median \$370,722	0.769	0.485	0.147	0.137
Single-Family Attached, 2-3 BR				
All Values	0.282	0.160	0.057	0.065
Below Median \$185,361	0.324	0.194	0.065	0.065
Above Median \$185,361	0.204	0.095	0.042	0.066
Single-Family Attached, 4-5 BR				
All Values	0.427	0.316	0.065	0.045
Below Median \$308,935	0.570	0.444	0.126	0.000
Above Median \$308,935	0.273	0.178	0.000	0.095
5+ Units–Own & Rent, 0-1 BR				
All Values	0.052	0.034	0.011	0.007
Below Median \$98,859	0.050	0.024	0.012	0.014
Above Median \$98,859	0.054	0.044	0.009	0.000
5+ Units–Own & Rent, 2-3 BR				
All Values	0.225	0.148	0.052	0.025
Below Median \$148,619	0.311	0.204	0.065	0.042
Above Median \$148,619	0.137	0.090	0.038	0.008
2-4 Units, 0-1 BR				
All Values	0.523	0.179	0.141	0.203
Below Median \$112,041	0.497	0.140	0.085	0.272
Above Median \$112,041	0.552	0.221	0.200	0.131
2-4 Units, 2-3 BR				
All Values	0.517	0.355	0.115	0.048
Below Median \$140,051	0.783	0.509	0.181	0.094
Above Median \$140,051	0.243	0.196	0.047	0.000

**TABLE II-E-3
SOUTH REGION OF NEW JERSEY
PUBLIC SCHOOL CHILDREN (PSC) (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		Elementary (K-6)	Junior High School (7-9)	High School (10-12)
All Housing Types (Own), 0-1 BR				
All Values	0.459	0.250	0.120	0.088
Below Median \$156,527	0.583	0.366	0.165	0.052
Above Median \$156,527	0.296	0.099	0.061	0.136
All Housing Types (Own), 2-3 BR				
All Values	0.363	0.219	0.075	0.069
Below Median \$226,552	0.362	0.226	0.065	0.071
Above Median \$226,552	0.364	0.207	0.093	0.064
All Housing Types (Own), 4-5 BR				
All Values	0.823	0.498	0.175	0.150
Below Median \$370,722	0.869	0.513	0.196	0.159
Above Median \$370,722	0.751	0.474	0.142	0.135
All Housing Types (Rent), 0-1 BR				
All Values	0.134	0.060	0.031	0.043
Below Median \$98,859	0.102	0.037	0.011	0.055
Above Median \$98,859	0.167	0.084	0.053	0.030
All Housing Types (Rent), 2-3 BR				
All Values	0.510	0.310	0.129	0.071
Below Median \$148,288	0.577	0.336	0.155	0.086
Above Median \$148,288	0.442	0.283	0.103	0.056
All Housing Types (Rent), 4-5 BR				
All Values	1.171	0.650	0.521	0.000
Below Median \$220,785	0.541	0.365	0.176	0.000
Above Median \$220,785	1.879	0.970	0.909	0.000

**TABLE II-E-4
SOUTH REGION OF NEW JERSEY
STATISTICS FOR TOTAL PERSONS**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2-3 BR						
All Values	2.822	25,335	0.115	2.633	3.011	7%
Below Median \$226,552	2.872	13,669	0.160	2.609	3.135	9%
Above Median \$226,552	2.764	11,666	0.168	2.488	3.040	10%
Single-Family Detached, 4-5 BR						
All Values	3.728	25,398	0.146	3.487	3.969	6%
Below Median \$370,722	3.753	15,574	0.190	3.442	4.065	8%
Above Median \$370,722	3.688	9,824	0.236	3.299	4.076	11%
Single-Family Attached, 2-3 BR						
All Values	2.232	13,310	0.131	2.017	2.447	10%
Below Median \$185,361	2.193	8,690	0.160	1.930	2.456	12%
Above Median \$185,361	2.305	4,620	0.229	1.927	2.682	16%
Single-Family Attached, 4-5 BR						
All Values	3.255	550	0.899	1.776	4.733	45%
Below Median \$308,935	3.563	286	1.351	1.341	5.785	62%
Above Median \$308,935	2.920	264	1.180	0.980	4.861	66%
5+ Units—Own & Rent, 0-1 BR						
All Values	1.278	4,741	0.140	1.047	1.508	18%
Below Median \$98,859	1.194	2,421	0.186	0.888	1.500	26%
Above Median \$98,859	1.365	2,320	0.211	1.017	1.712	25%
5+ Units—Own & Rent, 2-3 BR						
All Values	2.030	4,751	0.203	1.695	2.364	16%
Below Median \$148,619	2.142	2,409	0.299	1.650	2.634	23%
Above Median \$148,619	1.914	2,342	0.276	1.460	2.368	24%
2-4 Units, 0-1 BR						
All Values	2.078	875	0.484	1.281	2.874	38%
Below Median \$112,041	1.931	449	0.636	0.885	2.977	54%
Above Median \$112,041	2.232	426	0.737	1.020	3.445	54%
2-4 Units, 2-3 BR						
All Values	2.571	1,726	0.413	1.892	3.250	26%
Below Median \$140,051	2.812	877	0.626	1.782	3.842	37%
Above Median \$140,051	2.323	849	0.540	1.434	3.211	38%

**TABLE II-E-4
SOUTH REGION OF NEW JERSEY
STATISTICS FOR TOTAL PERSONS (Continued)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PERSONS	Number of Standard Households	90% Confidence Interval			
			Error	low	high	Error Margin as %
All Housing Types (Own), 0-1 BR						
All Values	2.605	1,051	0.535	1.725	3.486	34%
Below Median \$156,527	2.815	595	0.761	1.563	4.067	44%
Above Median \$156,527	2.331	456	0.739	1.115	3.547	52%
All Housing Types (Own), 2-3 BR						
All Values	2.566	38,458	0.085	2.426	2.706	5%
Below Median \$226,552	2.493	24,966	0.104	2.322	2.664	7%
Above Median \$226,552	2.702	13,492	0.153	2.451	2.954	9%
All Housing Types (Own), 4-5 BR						
All Values	3.710	25,902	0.144	3.473	3.947	6%
Below Median \$370,722	3.742	15,759	0.188	3.433	4.051	8%
Above Median \$370,722	3.661	10,143	0.231	3.282	4.041	10%
All Housing Types (Rent), 0-1 BR						
All Values	1.451	5,563	0.143	1.216	1.686	16%
Below Median \$98,859	1.305	2,826	0.185	1.002	1.609	23%
Above Median \$98,859	1.601	2,737	0.221	1.238	1.964	23%
All Housing Types (Rent), 2-3 BR						
All Values	2.490	6,664	0.204	2.155	2.825	13%
Below Median \$148,288	2.494	3,334	0.289	2.018	2.969	19%
Above Median \$148,288	2.486	3,330	0.288	2.012	2.961	19%
All Housing Types (Rent), 4-5 BR						
All Values	4.314	140	2.293	0.542	8.086	87%
Below Median \$220,785	4.392	74	3.205	0.000	9.665	120%
Above Median \$220,785	4.227	66	3.279	0.000	9.621	128%

**TABLE II-E-5
SOUTH REGION OF NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC)**

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2-3 BR						
All Values	0.537	25,335	0.032	0.484	0.590	10%
Below Median \$226,552	0.587	13,669	0.047	0.510	0.663	13%
Above Median \$226,552	0.479	11,666	0.044	0.407	0.551	15%
Single-Family Detached, 4-5 BR						
All Values	1.049	25,398	0.051	0.964	1.133	8%
Below Median \$370,722	1.078	15,574	0.067	0.967	1.188	10%
Above Median \$370,722	1.003	9,824	0.081	0.870	1.135	13%
Single-Family Attached, 2-3 BR						
All Values	0.317	13,310	0.032	0.265	0.369	16%
Below Median \$185,361	0.355	8,690	0.042	0.286	0.425	19%
Above Median \$185,361	0.244	4,620	0.046	0.168	0.319	31%
Single-Family Attached, 4-5 BR						
All Values	0.689	550	0.261	0.260	1.118	62%
Below Median \$308,935	0.794	286	0.400	0.136	1.451	83%
Above Median \$308,935	0.576	264	0.332	0.029	1.122	95%
5+ Units—Own & Rent, 0-1 BR						
All Values	0.052	4,741	0.019	0.020	0.084	61%
Below Median \$98,859	0.050	2,421	0.026	0.007	0.093	87%
Above Median \$98,859	0.054	2,320	0.028	0.008	0.100	86%
5+ Units—Own & Rent, 2-3 BR						
All Values	0.251	4,751	0.046	0.175	0.327	30%
Below Median \$148,619	0.354	2,409	0.080	0.223	0.486	37%
Above Median \$148,619	0.145	2,342	0.048	0.067	0.224	54%
2-4 Units, 0-1 BR						
All Values	0.523	875	0.171	0.242	0.805	54%
Below Median \$112,041	0.497	449	0.231	0.117	0.876	76%
Above Median \$112,041	0.552	426	0.254	0.134	0.969	76%
2-4 Units, 2-3 BR						
All Values	0.581	1,726	0.131	0.366	0.795	37%
Below Median \$140,051	0.861	877	0.242	0.463	1.259	46%
Above Median \$140,051	0.291	849	0.119	0.095	0.487	67%

TABLE II-E-5
SOUTH REGION OF NEW JERSEY
STATISTICS FOR SCHOOL-AGE CHILDREN (SAC) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL SAC	Number of Households	90% Confidence Interval			Error Margin as %
			Standard Error	low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.517	1,051	0.155	0.262	0.771	49%
Below Median \$156,527	0.612	595	0.231	0.232	0.991	62%
Above Median \$156,527	0.393	456	0.196	0.070	0.715	82%
All Housing Types (Own), 2-3 BR						
All Values	0.423	38,458	0.022	0.386	0.459	9%
Below Median \$226,552	0.415	24,966	0.027	0.370	0.460	11%
Above Median \$226,552	0.438	13,492	0.039	0.374	0.501	14%
All Housing Types (Own), 4-5 BR						
All Values	1.037	25,902	0.051	0.953	1.120	8%
Below Median \$370,722	1.069	15,759	0.067	0.959	1.178	10%
Above Median \$370,722	0.986	10,143	0.078	0.857	1.115	13%
All Housing Types (Rent), 0-1 BR						
All Values	0.141	5,563	0.031	0.091	0.192	35%
Below Median \$98,859	0.102	2,826	0.036	0.043	0.161	58%
Above Median \$98,859	0.182	2,737	0.050	0.099	0.265	45%
All Housing Types (Rent), 2-3 BR						
All Values	0.564	6,664	0.065	0.457	0.671	19%
Below Median \$148,288	0.651	3,334	0.102	0.484	0.818	26%
Above Median \$148,288	0.477	3,330	0.082	0.342	0.613	28%
All Housing Types (Rent), 4-5 BR						
All Values	1.171	140	0.764	0.000	2.428	107%
Below Median \$220,785	0.541	74	2.450	0.000	4.571	746%
Above Median \$220,785	1.879	66	1.622	0.000	4.547	142%

TABLE II-E-6
SOUTH REGION OF NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
Single-Family Detached, 2-3 BR						
All Values	0.459	25,335	0.032	0.406	0.512	11%
Below Median \$226,552	0.510	13,669	0.047	0.433	0.587	15%
Above Median \$226,552	0.399	11,666	0.043	0.328	0.471	18%
Single-Family Detached, 4-5 BR						
All Values	0.836	25,398	0.047	0.758	0.914	9%
Below Median \$370,722	0.879	15,574	0.063	0.776	0.982	12%
Above Median \$370,722	0.769	9,824	0.072	0.650	0.888	15%
Single-Family Attached, 2-3 BR						
All Values	0.282	13,310	0.033	0.228	0.337	19%
Below Median \$185,361	0.324	8,690	0.044	0.251	0.397	23%
Above Median \$185,361	0.204	4,620	0.047	0.127	0.280	38%
Single-Family Attached, 4-5 BR						
All Values	0.427	550	0.209	0.083	0.772	81%
Below Median \$308,935	0.570	286	0.349	0.000	1.144	101%
Above Median \$308,935	0.273	264	0.231	0.000	0.652	139%
5+ Units—Own & Rent, 0-1 BR						
All Values	0.052	4,741	0.022	0.016	0.088	70%
Below Median \$98,859	0.050	2,421	0.030	0.000	0.100	100%
Above Median \$98,859	0.054	2,320	0.032	0.001	0.107	98%
5+ Units—Own & Rent, 2-3 BR						
All Values	0.225	4,751	0.049	0.145	0.305	36%
Below Median \$148,619	0.311	2,409	0.082	0.175	0.446	44%
Above Median \$148,619	0.137	2,342	0.052	0.050	0.223	63%
2-4 Units, 0-1 BR						
All Values	0.523	875	0.189	0.213	0.834	59%
Below Median \$112,041	0.497	449	0.255	0.078	0.916	84%
Above Median \$112,041	0.552	426	0.280	0.091	1.012	83%
2-4 Units, 2-3 BR						
All Values	0.517	1,726	0.133	0.298	0.737	42%
Below Median \$140,051	0.783	877	0.246	0.378	1.188	52%
Above Median \$140,051	0.243	849	0.120	0.045	0.440	81%

TABLE II-E-6
SOUTH REGION OF NEW JERSEY
STATISTICS FOR PUBLIC SCHOOL CHILDREN (PSC) (Continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE /TENURE	TOTAL PSC	Number of Households	Standard Error	90% Confidence Interval		Error Margin as %
				low	high	
All Housing Types (Own), 0-1 BR						
All Values	0.459	1,051	0.158	0.198	0.719	57%
Below Median \$156,527	0.583	595	0.245	0.179	0.987	69%
Above Median \$156,527	0.296	456	0.184	0.000	0.599	102%
All Housing Types (Own), 2-3 BR						
All Values	0.363	38,458	0.022	0.326	0.400	10%
Below Median \$226,552	0.362	24,966	0.028	0.316	0.408	13%
Above Median \$226,552	0.364	13,492	0.038	0.301	0.427	17%
All Housing Types (Own), 4-5 BR						
All Values	0.823	25,902	0.046	0.746	0.899	9%
Below Median \$370,722	0.869	15,759	0.062	0.767	0.971	12%
Above Median \$370,722	0.751	10,143	0.070	0.636	0.867	15%
All Housing Types (Rent), 0-1 BR						
All Values	0.134	5,563	0.034	0.079	0.189	41%
Below Median \$98,859	0.102	2,826	0.041	0.035	0.169	66%
Above Median \$98,859	0.167	2,737	0.054	0.078	0.256	53%
All Housing Types (Rent), 2-3 BR						
All Values	0.510	6,664	0.067	0.399	0.620	22%
Below Median \$148,288	0.577	3,334	0.103	0.408	0.747	29%
Above Median \$148,288	0.442	3,330	0.087	0.299	0.585	32%
All Housing Types (Rent), 4-5 BR						
All Values	1.171	140	0.820	0.000	2.520	115%
Below Median \$220,785	0.541	74	2.820	0.000	5.179	858%
Above Median \$220,785	1.879	66	1.713	0.000	4.697	150%

PART TWO
F. SPECIALIZED HOUSING RESIDENTIAL MULTIPLIERS:
AGE-RESTRICTED HOUSING

AGE-RESTRICTED HOUSING: BACKGROUND AND DEMOGRAPHICS

As “baby boomers” age, there is a growing number of age-restricted developments, both nationally as well as in New Jersey. These developments typically require that one member of the household be at least 55 years old and that all other members must be at least 19 years of age.

While the Public Use Microdata Sample (PUMS) is an invaluable source for demographers, the PUMS does not allow specification of demographics for residents in age-restricted developments. In contrast, the American Housing Survey (AHS) does have a subset of data for “senior citizen communities,” including separate specification for “communities that are age-restricted to those 55+.” The authors accessed the 2003 AHS for recently built housing (built 1990 to 2003) in age-restricted developments and tabulated those figures by region of the United States. The detailed AHS data are found in table II-F-1. For the Northeast, the average household sizes of newly built (1990 or newer) age-restricted housing were as follows: 1.57 for single-family detached homes, 1.39 for single family detached homes, and 1.20 for multifamily units.

Table II-F-1 gives further age cohort detail for the occupants of the age-restricted units. For instance, most of the occupants are 55 to 74 years of age, followed by those in the 75 through 84 year age cohort.

**TABLE II-F-1
TOTAL PERSONS AND PERSONS BY AGE IN AGE-RESTRICTED HOUSING IN THE NORTHEAST UNITED STATES**

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL PERSONS	<u>AGE</u>							
		0-18	19-34	35-44	45-54	55-64	65-74	75-84	85+
<u>PERSONS</u>									
Single-Family Detached All Values, Bedrooms, And Tenure	1.57	0.00	0.01	0.08	0.00	0.67	0.44	0.37	0.00
Single-Family Attached All Values, Bedrooms, And Tenure	1.39	0.00	0.00	0.00	0.00	0.09	0.61	0.48	0.21
Multi-Family All Values, Bedrooms, And Tenure	1.20	0.00	0.00	0.00	0.00	0.04	0.42	0.49	0.25
All Housing Categories ¹ All Values, Bedrooms, And Tenure	1.38	0.00	0.00	0.02	0.00	0.28	0.53	0.40	0.14
<u>PERCENTAGES</u>									
Single-Family Detached All Values, Bedrooms, And Tenure	100%	0.00	0.01	0.05	0.00	0.43	0.28	0.23	0.00
Single-Family Attached All Values, Bedrooms, And Tenure	100%	0.00	0.00	0.00	0.00	0.06	0.44	0.35	0.15
Multi-Family All Values, Bedrooms, And Tenure	100%	0.00	0.00	0.00	0.00	0.03	0.35	0.41	0.21
All Housing Categories All Values, Bedrooms, And Tenure	100%	0.00	0.00	0.01	0.00	0.21	0.39	0.29	0.10

¹ Includes Mobile Homes

Source: 2003 American Housing Survey

PART TWO

G. SPECIALIZED HOUSING RESIDENTIAL MULTIPLIERS: TRANSIT ORIENTED DEVELOPMENT HOUSING

TRANSIT ORIENTED DEVELOPMENT: BACKGROUND AND DEMOGRAPHICS

Transit oriented developments (TODs), an important component of smart growth, offers many advantages such as reducing dependence on the automobile. Preliminary evidence suggests that TODs also generates few public school children, thus minimizing the impact on local school districts. This section considers the public school children generation of a sample of 10 New Jersey TODs. The major findings follow:

- Although the census is the best overall demographic source, the PUMS may not be accurate for certain specialized housing developments, such as TODs. Case study analysis of TODs therefore should be conducted.
- From the Alan M. Voorhees Transportation Center, the Office of Smart Growth, and other sources, Rutgers identified 10 constructed and occupied TODs in New Jersey (see table I-8). The 10 projects contained 2,183 housing units, all rental in tenure.
- Analysis of 10 TODs in New Jersey, with a total of 2,183 housing units, indicates that they generated 47 public school children (see exhibit II-G-1). That represents a public school children multiplier of 0.02 (47/2,183). In other words, every 100 housing units in infill developments generated only about 2 public school children.
- *The public school children multipliers for the TOD projects are substantially lower than those indicated by the PUMS for housing in general. Based on the PUMS, this analysis would have projected that the 10 New Jersey TODs would have generated 285 public school children (exhibit II-G-2). That is far higher than the TODs' actual public school children yield of 47. The TOD's actual public school generation is about one-eighth the number of public school pupils from homes of similar type, size, tenure, and value yet are not specifically located near transit.*
- While this analysis is preliminary, and one must monitor the demographics of TODs over time, the above-cited evidence suggests that TODs generate relatively few public school children. That is of interest to the host communities containing such projects because few public school children from TODs means that the TODs pose only modest demand on local school districts.

**TABLE II-G-1
PUBLIC SCHOOL CHILDREN GENERATION FROM SELECTED TRANSIT
ORIENTED DEVELOPMENTS (TODs) IN NEW JERSEY**

<i>Project Profile</i>			<i>Size</i>	<i>Pupil Generation</i>	<i>Pupil Multipliers</i>
<i>Project Name</i>	<i>Location</i>	<i>Tenure</i>	<i>Number of Units</i>	<i>Public School Children</i>	<i>Public School Children Multiplier^a</i>
1. Jacobs Ferry	West New York	Rental	254	0	0.00
2. Riverwatch	New Brunswick	Rental	200	1	0.01
3. Chancery Square	Morris-town	Rental	131	1	0.01
4. Franklin Square	Metuchen	Rental	105	10	0.10
5. Gaslight Commons	South Orange	Rental	200	6	0.03
6. Riverbend I	West New York	Rental	302	5	0.02
7. Riverbend II	West New York	Rental	212	4	0.02
8. Riverside West	West New York	Rental	344	5	0.01
9. Harbor Place	West New York	Rental	20	9	0.45
10. Highlands at Plaza Square	New Brunswick	Rental	415	6	0.01
Total			2,183	47	0.02

^a Equals public school children divide by the number of housing units.

Source: The project profile and project size information was derived from the developers of the indicated TODs. The public school children data from each TOD was obtained by contacting the public school district (s) serving the respective TODs.

EXHIBIT II-G-2

SAMPLE NEW JERSEY TRANSIT-ORIENTED DEVELOPMENTS

— CENSUS-PROJECTED VERSUS ACTUAL PUBLIC SCHOOL CHILDREN GENERATED

Housing Type	Size *	Number of Units	Census-Based Public School Children Multipliers [†] (2000 Census)	Census-Based Estimate of Project-Induced Public School Children (2000 Census)	Actual Public School Children Generated ^{††}
Larger Multifamily (5+ units)					
Rent	1-Bedroom	764	0.05	38	
	2-Bedroom	1,244	0.12	149	
	3-Bedroom	175	0.56	98	
Project Total		2,183		285	47

Notes: * Estimated
 ** Equals number of units multiplied by respective demographic profile

Sources: [†] PUMS statewide data for New Jersey for above median value units.
^{††} Rutgers survey of affected host school districts; see Exhibit II-G-1

PART TWO
H. SPECIALIZED HOUSING RESIDENTIAL MULTIPLIERS:
MOUNT LAUREL (AFFORDABLE) HOUSING

MOUNT LAUREL HOUSING: BACKGROUND AND DEMOGRAPHICS

New Jersey communities have an obligation to provide affordable housing, often referred to after the state Supreme Court decision that enunciated that obligation as *Mount Laurel* housing. *Mount Laurel* units may be found in stand alone entirely affordable housing developments or more often are contained within larger developments that include both market-priced and below-market priced homes.

What is the demographic profile of the households living in new *Mount Laurel* housing units? There is no definitive answer to that query because there are no available data on the occupants of *Mount Laurel* housing. However, to begin to provide some information on the subject, the following demographics are presented.

From the 2000 U.S. Census 5-Percent Public Use Microdata Sample for New Jersey, it is possible to identify the demographic profile of low- and moderate-income (LMI) households in the state. Table II-H-1 presents that information. To illustrate, it indicates that all LMI New Jersey households on average contained 2.35 persons and 0.50 school-age children, most of whom (0.45) attended public schools. Table II-H-1 provides further detail. For instance, the average number of public school children for New Jersey LMI households living in rental homes (in 5+ unit structures) as of the 2000 census was 0.14, 0.62, and 1.27 for 1-bedroom, 2-bedroom, and 3-bedroom units respectively. In owned units (in 5+ structures), the LMI households on average would contain 0.06, 0.18, and 0.54 public school children in the 1-bedroom, 2-bedroom, and 3-bedroom homes, respectively.

It is important to realize, however, that the occupants of Mount Laurel housing may not mirror the New Jersey LMI population profile. For instance, it is possible that only the more mobile or more knowledgeable or more relatively affluent LMI households will avail themselves of the *Mount Laurel* housing being offered in different communities throughout the state. Council on Affordable Housing occupancy standards (see table I-H-1) also bear on the demographic profile of *Mount Laurel* housing units. Thus, the data in table II-H-1 must be viewed as only a *starting basis* for framing the demographic profile of *Mount Laurel* housing.

More complete knowledge must await future survey of the occupants of such housing units. En route to that goal, the current investigation has begun to empirically investigate the public school children impact of *Mount Laurel* dwellings. Hopefully, this will be the start of follow-up future investigations.

The research protocol proceeded in the following manner. From the Council on Affordable Housing (COAH) and from other affordable housing groups in New Jersey, Rutgers obtained a list of *Mount Laurel* housing developments, both stand alone entirely affordable projects (termed “exclusively affordable”) as well as *Mount Laurel* units intermixed with market rate housing (termed “inclusionary.”) Rutgers then contacted the school districts

responsible for the *Mount Laurel* and market housing to ascertain the number of public school children (PSC) generated from these units. In many instances, the school districts could not or would not provide the requested information. However, Rutgers was able to obtain PSC data for 14 exclusively affordable *Mount Laurel* housing developments containing 1,335 affordable homes and for 19 other inclusionary housing developments, comprising a total of 6,463 housing units: 5,269 market-priced, and 1,194 *Mount Laurel* homes.

The 19 inclusionary projects with the total of 6,463 housing units contained a total of 1,540 public school children or an average of 0.24 per housing unit (1,540/6,463). The PSC generation ranged from a low of 0.14 per housing unit in one project to a high of 1.32 PSC per unit in another. However, since these inclusionary projects contain both market and affordable units, it is impossible from the existing data sources to differentiate the PSC yields from the market versus the below-market homes.

It is possible, however, to quantify the PSC generation from *Mount Laurel* units in the 14 exclusively affordable projects that were studied. The 14 contain 1,335 homes and their host school districts report a total of 577 public school children or 0.52 PSC per *Mount Laurel* housing units. While that figure comports closely with the 0.44 PSC multiplier for all LMI households in New Jersey as reported by the 2000 PUMS, that correspondence should not be viewed as definitive. Quantifying the demographic profile of the households found in the New Jersey *Mount Laurel* housing built to date is a work in progress and much more work needs to be done on this subject. In that light, we observe the considerable variation of the PSC yield from the 1,335 housing units in the 14 exclusively affordable *Mount Laurel* developments that were studied. That PSC generation per affordable housing unit ranged from 0.22 to 1.42.

There may be various reasons for that considerable range besides the inherent variability of the school yield in any given instance. The exclusively affordable *Mount Laurel* housing developments differ in their bedroom composition. Thus, the highest PSC yield, 1.43 per unit, was from a development of affordable homes that was exclusively 3-bedroom in size. Yet, another all 3-bedroom exclusively affordable *Mount Laurel* project has a 0.43 PSC generation per unit. Higher PSC yields were also generally associated with the rental *Mount Laurel* homes as opposed to their for-sale counterparts. Other factors, such as the quality of the local school districts (i.e., better school systems may attract *Mount Laurel* households with more children) may also play a role. In the current instance, there is simply insufficient data to definitively opine on the statistical influences on *Mount Laurel* housing school yields.

Until better data are available, the demographic profile of households in *Mount Laurel* housing is perhaps best approximated by the PUMS data on LMI households for New Jersey (table II-H-1). That data suggests a *Mount Laurel* household size of approximately 2.4 with about 0.50 school-age children, and about .45 public school children per unit. These demographics further differ by housing unit size (number of bedrooms) and housing tenure as is detailed in table II-H-1.

Table I-9
Household Size, School-Age Children, and Public School Children
For Low- and Moderate-Income Households (LMI) In New Jersey (2000)

	Total Persons	School- Age Children	Public School Children
All Housing Types and Bedrooms	2.35	0.50	0.45
Single-Family, Detached			
2BR	1.95	0.24	0.21
3BR	2.49	0.51	0.46
4BR	3.07	0.83	0.73
Single-Family, Attached			
2BR	2.09	0.35	0.32
3BR	3.05	0.86	0.78
5+ Units, Own			
1BR	1.37	0.07	0.06
2BR	1.76	0.21	0.18
3BR	2.51	0.6	0.54
5+ Units, Rent			
1BR	1.61	0.16	0.14
2BR	2.76	0.68	0.62
3BR	3.82	1.37	1.27

Source: U.S. Census of Population and Housing, Public Use Microdata Sample, 2000

Note: The Council on Affordable Housing (COAH) Uniform Housing Affordability Controls (UHAC) indicate the following occupancy standards: "A studio shall be affordable to a one person household; a one bedroom-unit shall be affordable to a one and one-half person household; a two bedroom unit shall be affordable to a three person household; a three bedroom unit shall be affordable to a four and one-half person household; and a four bedroom unit shall be affordable to a six person household." UHAC further indicates that "to the extent feasible...the administrative agent shall strive to: Provide an occupant for each unit bedroom; Provide children of different sex with separate bedrooms; and prevent more than two persons from occupying a single bedroom." While these standards bear on the relationship between housing unit size (bedrooms) and household size, we do not have empirical evidence on the number of persons found in different size COAH units. For instance, a "smaller" household (e.g., a 3-person household in a 3-bedroom unit) may be able to afford such a home with a larger down payment.

PART TWO

I. NONRESIDENTIAL MULTIPLIERS

NONRESIDENTIAL MULTIPLIERS: ORGANIZATION AND FINDINGS

This section presents nonresidential multipliers or the number of employees per 1,000 square feet of nonresidential space (typically 1,000 square feet of gross floor area). The nonresidential multipliers are presented for the following nonresidential land uses.

- Commercial
 - Office
 - Retail
 - Eating and drinking
- Industrial
 - Warehouse
 - Manufacturing & industry
- Hospitality and other
 - Lodging
 - Health
 - Schools

Based on a review of the national literature, the current investigation finds the following nonresidential multipliers.

Table II-I-1
Nonresidential Multipliers Suggested by National Studies

<i>Nonresidential Use:</i>	<i>Nonresidential Multipliers (employees per 1,000 ft of gross floor area)</i>
I. Commercial	
A. Office	3.0 to 4.0
B. Retail	1.0 to 2.0
C. Eating & Drinking	3.0 to 4.0
II. Industrial	
A. Warehouse	0.2 to 0.8
B. Manufacturing & Industry	1.0 to 2.0
III. Hospitality and Other	
A. Lodging	0.5 to 1.0
B. Health	2.0 to 3.0
C. Schools	0.8 to 1.2

Source: Table II-I-2.

TABLE II-I-2
Summary of Statistics Derived from National Studies on Nonresidential Residential Multiplier

Non-Residential Use	A. Source and Employees per 1000 ft ²	B. Statistics on Employees per 1,000ft ²			C. Recommended Range of Employees per 1,000 ft ²
		Minimum – Maximum Range	Median	Mean	
I. Commercial					
A. Office	ITE Parking (1987) 2.68 ITE Trip Generation (1991) 3.30 CA Dept. Energy (1996) Large Office 2.56 Small Office 3.58 ITE Trip Generation (1997) 4.00 BOMA (1997) 3.55 State of Washington (1998) 3.07 Portland OR Survey (1999) 3.64 San Diego Survey (2001) 3.21 CBECS (NE Data) (2001) 2.99 Planners Estimating (2004) 3.05 Rutgers Regional (2004) 4.27	2.56 – 4.27	3.25	3.26	3.0 to 4.0 (The figure should be 3 or less in areas with larger amounts of R & D space. The type and amenity of the space, such as “corporate” versus “back” office will also affect office worker density.)
B. Retail	CA Dept. Energy (1996) 1.70 Census of Retail (1997) 2.44 ITE Trip Generation (1997) 2.00 State of Washington (1998) .57 Portland OR Survey (1999) 1.67 CBECS (NE Data) (2001) 1.72 San Diego Survey (2001) 1.70 Planners Estimating (2004) 2.48	.57 – 2.48	1.71	1.50	1.0 to 2.0 (Figure will be closer to 1 in full time equivalent [FTE] employee basis and in areas experiencing “big box” development, smaller stores and “high end” retailers tend to have a higher worker density.)
C. Eating and Drinking	CA Dept of Energy (1996) 4.90 ITE Trip Generation (1991) Restaurant 8.70 Fast Food 14.29 CA Dept of Energy (1996) 4.90 CBECS (NE Data) (2001) .38	.38 – 14.29	6.26	1.33	3.0 to 4.0 (This figure clearly ranges significantly depending on type of eating establishment such as “fast food” or “sit down”; the indicated 3 to 4 range is a starting parameter that must be refined on a case by case basis.)
II. Industrial					
A. Warehouse	ITE Parking (1987) .46 ITE Trip Generation (1991) 1.28 CA Dept of Energy (1996) .70 ARES Study (1997) 1.58 ITE Trip Generation (1997) 1.28 Portland OR Survey (1999) .59 CBECS (NE Data) (2001) 1.11 Rutgers (2006) 0.2	.02 – 1.58	.85	.59	0.2 to 0.8 (This figure varies tremendously; it will be higher for facilities that combine office and warehouse use [“flex space”] and lower for “pure” storage use.)
B. Manufacturing	ITE Parking (1987) 2.42 ITE Trip Generation (1991) 1.96 ARES Study (1997) 2.61 ITE Trip Generation (1997) 1.82 State of Washington (1998) 1.70 Portland OR Survey (1999) 1.43 San Diego Survey (2001) 3.40 Planners Estimating (2004) 4.76	1.70 - 4.76	1.98	1.87	1.0 to 2.0 (The figure varies significantly by type of manufacturing, degree of mechanization, and other influences.)
III. Hospitality and Others					
A. Lodging	CA Dept of Energy (1996) .79 Portland OR Survey (1999) .67 CBECS (2001) .43 San Diego Survey (2001) 1.10 Energy Star Hosp. (2002) .57	.43 – 1.10	.66	.64	0.5 to 1.0 (This figure varies; it is higher for higher amenity lodging, and facilities with restaurant and convention space, and lower for budget accommodations.)
B. Health	CA Dept of Energy (1996) 2.99 ITE Trip Generation (1997) 3.25 State of Washington (1998) 2.00 Portland OR Survey (1999) 2.00 to 2.86 CBECS (2001) 2.18 Planners Estimating (2004) 2.62	2.00 – 3.25	2.62	2.47	2.0 to 3.0 (Figure varies by specific health application which can range tremendously. Medical office space is shown under the “office” category in this table.)
C. Schools	CA Dept of Energy (1996) 1.19 ITE Trip Generation (1997) .92 CBECS (NE Education) (2001) .77	.77 – 1.19	.92	.96	0.8 to 1.2 (Reflects indicated range. A limited number of studies challenge our knowledge on the subject.)

Source: Tables II-I-3 through II-I-9.

The nonresidential multiplier figures in tables II-I-1 and II-I-2 are presented as a range because there is far from unanimity on the number of employees per 1,000 square feet indicated in the variety of studies on the subject. That variability is evident in column A in table II-I-2 and the statistics shown in column B in that table.

As noted, the nonresidential multiplier information shown in tables II-I-1 and II-I-2 are based on national studies and therefore care must be exercised in applying these figures to New Jersey. For instance, a disproportionate amount of office space in New Jersey, compared to the nation, is used for research and development (e.g. in the state's significant pharmaceutical industry) and R&D office space tends to have relatively few employees (about 2) per 1,000 square foot. Further, macro economic and social trends, such as downsizing, mechanization, telecommuting, and work sharing are influencing and changing worker density, both in New Jersey and the nation at larger. Therefore, the table II-I-1 and II-I-2 figures should be viewed as a start rather than a last word on nonresidential multipliers.

As future researchers might be interested in the national studies assembled Rutgers on employee density by nonresidential land use, the remainder of this section reports on this data organized by nonresidential land use category.

Table II-I-3
Commercial – Office
 Employees per 1000 ft² of Gross Floor Area (GFA)

Source: Commercial Buildings Energy Consumption Survey (CBECS), Data for 1990 or Newer Construction

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	<i>Median</i>
Office Professional - By Region:		
<i>Northeast</i>	2.99	3.20
<i>Midwest</i>	2.16	2.10
<i>South</i>	1.97	1.78
<i>West</i>	1.98	1.33
<i>Total</i>	2.11	2.11

Source: Institute of Transportation Engineers (ITE), TRIP Generation 5th Edition, 1991

<i>Type: (ITE use code)</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
(710) General Office Building - All	3.29	
<i>Less than 100,000 Sq. Ft.</i>	3.39	
<i>100,000 to 200,000</i>	3.84	
<i>201,000 to 500,000</i>	3.22	
<i>More than 500,000</i>	2.88	
(714) Corporate Office Building	3.85	
(715) Single Tenant Office	3.39	
(720) Medical Office Building	4.83	
(750) Office Park	3.59	
(760) Research and Development Ctr.	2.47	
(770) Business Park	3.01	

Source: Nelson, Arthur. 2004. Planner's Estimating Guide. "Projecting Land-Use and Facility Needs". Chicago: Planners Press, American Planning Association, p43.
Gross Building Space Occupied Per Employee

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA</i>	
	<i>Mean - Adjusted Net Area</i>	<i>Mean - Gross Area</i>
General Office	3.04	2.85
Office Park	3.04	2.85
Suburban Multilevel	3.04	2.98
Subtotal Office	3.04	2.87

Includes FIRE, services, and government.

Figures used to estimate future employment land use needs

Source: CA Department of Energy, 1996 Pacific Gas & Electric Survey

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean - Enclosed</i>	<i>Mean - Business</i>
Large Office	2.56	2.87
Small Office	3.58	4.00

Using Energy Weights

Codes: Large Office (>30K enclosed sq. ft.) ~ 011 (admin, mgmt); 012 (financial, legal); 013 (insurance, real estate); 014 (other); Small Office (≤30K enclosed sq.ft.) ~ 011; 012; 013; 014

Source: Puget Sound Regional Council, 1998 Industrial Land Supply and Demand in the Central Puget Sound Region

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
Finance, Insurance, Real Estate	3.08	
Producer Services	3.08	
Consumer Services	3.08	
Services (Proprietors)	3.08	

Source: Institute of Transportation Engineers (ITE), TRIP Generation 6th Edition, 1997

<i>Type: (ITE use code)</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
(710) General Office Building – All		
10,000 Sq. Ft.	4.39	
25,000 Sq. Ft.	4.04	
50,000 Sq. Ft.	3.79	
100,000 Sq. Ft.	3.57	
200,000 Sq. Ft.	3.35	
(770) Business Park	3.16	

Source: Institute of Transportation Engineers (ITE), Parking Generation 2nd Edition, 1987

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
General Office	2.68	

Source: Building Owners and Managers Association (BOMA), 1996 Office Space Utilization Rates

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>US</i>	<i>Canada</i>
Private Sector	3.54	3.95

Source: Study by the San Diego Association of Governments, 2001

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
Average of All Building Types	3.20	

Source: Metro Employment Density Study: Portland, Oregon 1999

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
Finance	3.64	

Table II-I-4
Commercial – Retail
 Employees per 1000 ft² of Gross Floor Area

Source: Commercial Buildings Energy Consumption Survey (CBECS), Data for 1990 or Newer Construction

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
Retail (food sales) – By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	1.95	1.99
<i>Midwest</i>	0.83	0.80
<i>South</i>	1.49	1.33
<i>West</i>	1.42	1.60
<i>Total</i>	1.46	1.60

Retail (excluding mall) – By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	1.79	2.00
<i>Midwest</i>	0.46	0.22
<i>South</i>	0.91	0.87
<i>West</i>	0.90	0.63
<i>Total</i>	1.02	0.87

Retail (enclosed mall) – By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	2.25	2.63
<i>Midwest</i>	1.04	1.00
<i>South</i>	0.59	0.47
<i>West</i>	0.77	1.06
<i>Total</i>	1.23	0.79

Retail (strip shopping mall) – By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	0.87	0.75
<i>Midwest</i>	1.86	1.56
<i>South</i>	1.63	1.44
<i>West</i>	2.39	1.45
<i>Total</i>	1.80	1.44

**Source: US Census Bureau – Census of Retail Trade (CRT) 1997, Summary 1997
Economic CRT: Subject Series EC97R44S-SM, January 2001**

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean – Total Space</i>	<i>Mean – Selling Space</i>
(445110) Supermarkets & other grocery stores (excl. convenience)	2.57	3.47
(445120) Convenience stores	3.17	4.15
(452110) Department stores (excl. leased □epts.)	1.65	2.10
(4521101) Conventional department stores (excl. leased □epts.)	1.38	1.71
(4521102) Discount or mass merchandising department stores (excl. leased □epts.)	1.80	2.22
(4521103) National chain department stores (excl. leased □epts.)	1.64	2.35

**Source: Nelson, Arthur. 2004. Planner’s Estimating Guide. “Projecting Land-Use and Facility Needs”, Chicago: Planners Press, American Planning Association, p43.
Gross Building Space Occupied Per Employee**

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA</i>	
	<i>Mean – Adjusted Net</i>	<i>Mean – Gross</i>
Neighborhood	1.67	1.58
Community	1.57	1.49
Regional	1.47	1.40
Super Regional	1.38	1.30
Subtotal Retail Trade	2.47	2.35

Figures used to estimate future employment land use needs

Source: CA Department of Energy, 1996 Pacific Gas and Electric Survey

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean – Enclosed</i>	<i>Mean – Business</i>
Grocery	2.38	2.38
Retail	1.55	1.70

Using Energy Weights

Codes: Grocery ~ 031(supermarket); 032 (convenience store); 033 (other); Retail ~ 041(dept/variety); 042 (shop in enclosed mall); 043 (other)

Source: Puget Sound Regional Council, 1998 Industrial Land Supply and Demand in the Central Puget Sound Region

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
Retail	.57	

Source: Institute of Transportation Engineers (ITE), TRIP Generation 6th Edition, 1997

<i>Type: (ITE use code)</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
(820) Commercial / Shopping Center		
25,000 Sq. Ft.		3.33
50,000 Sq. Ft.		3.33
100,000 Sq. Ft.		2.86
200,000 Sq. Ft.		2.50
400,000 Sq. Ft.		2.00

Source: Study by the San Diego Association of Governments, 2001

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
Community Shopping Center		1.70
Neighborhood Shopping Center		2.80

Source: Metro Employment Density Study: Portland, Oregon 1999

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
Retail (General)		1.67

Table II-I-5
Commercial – Eating and Drinking
 Employees per 1000 ft² of Gross Floor Area

Source: Commercial Buildings Energy Consumption Survey (CBECS), Data for 1990 or Newer Construction

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
Food Service - By Region	<i>Mean</i>	<i>Median</i>
Northeast	0.38	0.38
Midwest	1.80	1.86
South	3.06	3.43
West	9.23	9.23
Total	3.77	3.43

Source: Institute of Transportation Engineers (ITE), TRIP Generation, 5th Edition, 1991

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
(831) Quality Restaurant		7.46
(832) High Turnover (Sit-Down) Restaurant		9.92

Source: CA Department of Energy, 1996 Pacific Gas and Electric Survey

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean - Enclosed</i>	<i>Mean - Business</i>
Restaurant	4.94	4.89

Using Energy Weights

Codes: 041(fast food, self service), 022 (table service), 023 (bar, other)

Table II-I-6
Industrial – Warehouses
 Employees per 1000 ft² of Gross Floor Area

Source: Commercial Buildings Energy Consumption Survey (CBECS), Data for 1990 or Newer Construction

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
Non-Refrigerated - By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	1.36	1.47
<i>Midwest</i>	0.38	0.00
<i>South</i>	0.16	0.00
<i>West</i>	0.17	0.00
<i>Total</i>	0.39	0.00

<i>Type:</i>	<i>Mean</i>	<i>Median</i>
Refrigerated - By Region		
<i>Northeast</i>	0.86	1.00
<i>Midwest</i>	0.18	0.18
<i>South</i>	1.34	1.55
<i>West</i>	1.19	0.51
<i>Total</i>	1.20	1.25

Source: Institute of Transportation Engineers (ITE), TRIP Generation, 5th Edition, 1991

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
(150)Warehouse	1.28
(151)Mini-warehouse	0.05

Source: CA Department of Energy, 1996 Pacific Gas and Electric Survey

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean - Enclosed</i>	<i>Mean - Business</i>
Non-Refrigerated	0.35	0.51
Refrigerated	0.84	0.89

Using Energy Weights

Codes: 52 (Non-refrigerated. Warehouse), 51 (Refrigerated. Warehouse)

Source: Institute of Transportation Engineers (ITE), TRIP Generation 6th Edition, 1997

<i>Type: (ITE use code)</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
(150) Warehousing	1.28

Source: Institute of Transportation Engineers (ITE), Parking Generation 2nd Edition, 1987

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Warehousing	0.46

Source: Metro Employment Density Study: Portland, Oregon 1999

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Distribution / Warehouse	.59

Source: Industrial Employment Densities, ARES, 1997

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Warehouses	1.58

Table II-I-7
Industrial – Industry & Manufacturing
 Employees per 1000 ft² of Gross Floor Area

Source: Institute of Transportation Engineers (ITE), TRIP Generation, 5th Edition, 1991

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
(110) General Light Industry	2.16
(120) General Heavy Industry	1.82
(130) Industrial Park	2.00
(140) Manufacturing	1.87

Source: Nelson, Arthur. 2004. Planner's Estimating Guide. "Projecting Land-Use and Facility Needs", Chicago: Planners Press, American Planning Association, p43.
Gross Building Space Occupied Per Employee

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA</i>	
	<i>Mean - Adjusted Net</i>	<i>Mean - Gross</i>
Construction	3.65	3.47
Manufacturing	1.73	1.64
TCU	3.80	3.61
Wholesale Trade	1.51	1.43
Subtotal Industrial	2.67	2.54

Figures used to estimate future employment land use needs

Source: Puget Sound Regional Council, 1998 Industrial Land Supply and Demand in the Central Puget Sound Region

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Construction	1.73
Manufacturing	1.70
Transportation, Communications, and Utilities	1.60

Wholesale Trade		0.89
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Source: Institute of Transportation Engineers (ITE), TRIP Generation 6th Edition, 1997

<i>Type: (ITE use code)</i>		<i>Employees per 1000 sq. ft. GFA:</i>
		<i>Mean</i>
(140) Manufacturing		1.82

Source: Institute of Transportation Engineers (ITE), Parking Generation 2nd Edition, 1987

<i>Type:</i>		<i>Employees per 1000 sq. ft. GFA:</i>
		<i>Mean</i>
Light Industrial		1.87
Industrial Park		2.23
Manufacturing		2.42

Source: Study by the San Diego Association of Governments, 2001

<i>Type:</i>		<i>Employees per 1000 sq. ft. GFA:</i>
		<i>Mean</i>
Industrial / R&D Park		3.40

Source: Metro Employment Density Study: Portland, Oregon 1999

<i>Type:</i>		<i>Employees per 1000 sq. ft. GFA:</i>
		<i>Mean</i>
Manufacturing (General)		1.43

Source: Industrial Employment Densities, ARES, 1997

<i>Type:</i>		<i>Employees per 1000 sq. ft. GFA:</i>
		<i>Mean</i>
Factories		2.61

Table II-I-8
Hospitality and other – Lodging
 Employees per 1000 ft² of Gross Floor Area

Source: Commercial Buildings Energy Consumption Survey (CBECS), Data for 1990 or Newer Construction

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	<i>Median</i>
Lodging - By Region		
<i>Northeast</i>	0.43	0.43
<i>Midwest</i>	0.38	0.29
<i>South</i>	0.35	0.29
<i>West</i>	0.16	0.00
<i>Total</i>	0.26	0.15

Source: US Environmental Protection Agency (EPA), Energy Star Hospitality Industry Facts, http://yosemite.epa.gov/Estar/business.nsf/content/business_hospitality_industryfacts.htm

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Number of Employees / 1000 Sq. Ft.	0.57
Number of Employees / Number of Rooms	0.44

Source: CA Department of Energy, 1996 Pacific Gas and Electric Survey

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean - Enclosed</i>	<i>Mean - Business</i>
Hotel	0.79	0.79

Using Energy Weights
 Codes: 081 (hotel), 082 (motel), 083 (resort)

Source: Study by the San Diego Association of Governments, 2001

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Hotel (non-resort)	1.10

Source: Metro Employment Density Study: Portland, Oregon 1999

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Hotel / Motel	0.67

Table II-I-9
Hospitality and other – Health
 Employees per 1000 ft² of Gross Floor Area

Source: Commercial Buildings Energy Consumption Survey (CBECS), Data for 1990 or Newer Construction

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
Inpatient – By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	n/a	n/a
<i>Midwest</i>	1.89	1.32
<i>South</i>	0.72	0.27
<i>West</i>	2.22	2.50
<i>Total</i>	1.53	1.29

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
Outpatient – By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	2.18	1.82
<i>Midwest</i>	2.31	2.40
<i>South</i>	3.58	2.22
<i>West</i>	3.28	3.00
<i>Total</i>	3.41	2.22

Source: Nelson, Arthur. 2004. Planner’s Estimating Guide. “Projecting Land-Use and Facility Needs”, Chicago: Planners Press, American Planning Association, p 53. Space & Land Consumption Based on the Institute of Transportation Engineers (ITE)

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
(610) Hospital	3.25
(620) Nursing Home	2.00

Source: California Department of Energy, 1996 Pacific Gas and Electric Survey

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean – Enclosed</i>	<i>Mean - Business</i>
Health	2.99	2.99

Source: Puget Sound Regional Council, 1998 Industrial Land Supply and Demand in the Central Puget Sound Region

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Health Services	2.00

Source: Institute of Transportation Engineers (ITE), TRIP Generation 6th Edition, 1997

<i>Type: (ITE use code)</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
(610) Hospital	3.25

Source: Metro Employment Density Study: Portland, Oregon 1999

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean</i>	
Health Services	2.0 – 2.85	

Table II-I-10
Hospitality, and Other-- Education – Schools
 Employees per 1000 ft² of Gross Floor Area

Source: Commercial Buildings Energy Consumption Survey (CBECS), Data for 1990 or Newer Construction

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
Education - By Region	<i>Mean</i>	<i>Median</i>
<i>Northeast</i>	0.77	0.79
<i>Midwest</i>	1.03	0.71
<i>South</i>	0.87	0.71
<i>West</i>	1.74	2.00
<i>Total</i>	1.30	1.33

Source: California Department of Energy, 1996 Pacific Gas and Electric Survey

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>	
	<i>Mean - Enclosed</i>	<i>Mean - Business</i>
Education	1.19	1.27

Using Energy Weights

Codes: 071 (preschool), 072 (elementary/secondary)

Source: Puget Sound Regional Council, 1998 Industrial Land Supply and Demand in the Central Puget Sound Region

<i>Type:</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
Government/Education	3.08

Source: Institute of Transportation Engineers (ITE), TRIP Generation 6th Edition, 1997

<i>Type: (ITE use code)</i>	<i>Employees per 1000 sq. ft. GFA:</i>
	<i>Mean</i>
(520) Elementary Schools	.92

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