

From: Larry Liu <larry.z.liu@gmail.com>

Date: October 18, 2020 at 11:14:58 PM EDT

To: TownBoard <townboard@mynewcastle.org>, Ivy Pool <ipool@mynewcastle.org>, Jeremy Saland <JSALAND@mynewcastle.org>, Lisa Katz <LKATZ@mynewcastle.org>, Lauren Levin <llevin@mynewcastle.org>, Jason Lichtenthal <jlichtenthal@mynewcastle.org>

Cc: "ViTipp@ccsd.ws" <ViTipp@ccsd.ws>, "HoMcCall@ccsd.ws" <HoMcCall@ccsd.ws>, "HiGrasso@ccsd.ws" <HiGrasso@ccsd.ws>, "JaShepardson@ccsd.ws" <JaShepardson@ccsd.ws>, "WaMessner@ccsd.ws" <WaMessner@ccsd.ws>

Subject: Minority Residents' Open Letter to New Castle Town Board Regarding Formed Based Code

October 18, 2020

Dear Town of New Castle Supervisor Pool and Members of the Town Board,

We are concerned residents of New Castle, NY. Many of us are first generation immigrants and minority residents, a fast growing demographic in New Castle. Some belong to discrete and insular groups often excluded from the town's decision making processes because of cultural and language barriers. The town's leadership does not look like many of us, but we have faith that it represents us. That's why we find our home in the idyllic New Castle that always aspires to be inclusive.

Most of us only recently learned about the Form Based Code. Frankly, the term "form based code" is novel and *abstract*; and it was introduced to us only in advocacy. The open letter from the Chappaqua Central School District Board of Education was timely and finally shed light on the *real* choices before the current residents in New Castle. We are writing to you to express support for the Board of Education's request that the Town Board delay its public engagement and decision-making process in order to provide adequate and reasonable time for the Chappaqua Board of Education and Administration to obtain and present an accurate analysis of school enrollment and other impacts of the FBC on the School District. The request should be granted, particularly when the enrollment data analyses in the Generic Environmental Impact Statement (GEIS) are *objectively* flawed, because it uses data from the Center for Urban Policy Research of Rutgers University without following the guide issued by the same center on how to use the data for places known for the quality of the local school district.

The GEIS produced by the Town Board does not seem to show confidence in its own numbers, disclaiming "[i]t is important to note that this source is over 10 years old,

not specific to New Castle or Westchester County, and provides very conservative estimates" even before presenting the estimate on the additional school enrollment. GEIS (9/25/2020) 3-146. "[C]onservative estimates" is an unfortunately chosen euphemism for "significant underestimates."

The aforementioned 10-year-old data source is residential demographic multipliers produced by the Center for Urban Policy Research of Rutgers University. *Id.* The age of the data source is not the main problem. The distressing fact is that GEIS did not follow the quick guide provided by Rutgers University on how to correctly use their residential demographic multipliers. (Listokin, David, et al. "A QUICK GUIDE TO NEW JERSEY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS." (2006).) The quick guide even provides Princeton Township as an example of areas where the residential demographic multipliers should not be simplistically relied upon, because Princeton is known for the "quality of the local school district." *Id.* at viii. New Castle's school district is comparable to Princeton's.

The quick guide is clear and *specific* on how to analyze places like New Castle:

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 communities with 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 quantifying the likely public school children generation from 3-bedroom townhouses priced at \$300,000 per unit proposed for Princeton Township, an analyst should first consider the "Quick Guide" statewide data for the average number of public school children (0.24) in housing of this type (single-family attached), size (3-bedrooms), and price level (above median value). The analyst should then identify comparable townhouses (e.g., 3-bedroom units priced \$250,000 to \$350,000) 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). The combination of this document's multipliers and local analysis provides a comprehensive framework for answering "who lives in New Jersey housing."

Id. at viii.

There are more problems. For example, according to GEIS, 64% of the housing units are expected to be one bedroom apartments. This is highly unlikely. Once the FBC is passed, we, including the town board, do not have control over the type of apartments to be built. Nobody believes the market force will drive to produce 64% one bedroom apartments. New Castle is similar to Princeton Town, and "households with more children may disproportionately self-select to live in communities with high-quality school systems." Listokin, David, et al. viii. In addition, GEIS was unable to use the actual number for the students in the zoning area in question as the base number to calculate the estimated increase in student enrollment for the same area. GEIS 3-143. This is a crucial number in the analysis, because it is a number that can undermine GEIS's methodology. GEIS 3-143. According to footnote 31, "[a]ctual number of students in the study area from fall 2019 has been requested of the school district/Town." GEIS 3-143. When crucial information is not available, it is unwise to rush the process.

The estimated new student enrollment number presented in GEIS is based on an objectively flawed methodology. If the actual number of new enrolled students is significantly more, the school district will face an impossible choice between sharply deteriorated education quality and sharply increased property tax. Many in the community believe there probably will be one new student per housing unit based on statistics from Chappaqua Crossing. That is roughly 1000 more students. Many believe property tax will eventually be raised 30% on top of the routine tax increases each year in order not to lose educational quality. The Town Board vehemently disagrees, but is unable to provide its own reliable and convincing data. For the good of our community, we plead with the Town Board to grant the request by the Board of Education to obtain and present an accurate analysis of school enrollment and other impacts of the FBC on the School District. Without agreed upon basic facts, all the hearings and comments are not particularly meaningful. It unnecessarily scars our community and creates distrust of the Town Board.

Some left the engagement sessions with an impression, maybe unfairly, the Town Board takes the position that even assuming the Town Board's estimates of the financial impact on the current residents are egregiously incorrect, the Town Board will exercise its legal authority to pass the form based code, and "the FBC is moving forward" no matter how many residents raise questions. This is particularly chilling

under the current political climate. What is legal, is not necessarily reasonable. The legal authority was given "by the people," and it should be used "for the people," not despite the people. The Town Board does not legally have to heed to the request by the Board of Education, but it is the right thing to do.

Some left the engagement sessions with another impression, maybe unfairly, that, even if taxes will have to be raised dramatically more than the Town Board's estimates, the Town Board believes the current residents are obligated to accept the significantly higher taxes, because more people who cannot afford to live in New Castle will be able to, and their children will receive a better education. It is essentially an admission that a substantial tax transfer will occur for each new student. We are for and willing to contribute. However, it is not unreasonable to have an honest discussion on the level of financial commitment based on reliable data. Let taxpayers take ownership of this cause. It is their money, provide them with accurate numbers, give them an opportunity to say yes, and feel proud!

We are encouraged that Supervisor Ivy Pool promised to listen to everyone. We believe under her leadership, the board will grant the Board of Education's request to find a set of agreed upon facts for the cohesion of our community. We also hope the Town Board will reach out to communities like ours that are traditionally difficult to reach. Those also include senior residents who may feel intimidated by new terms and concepts like "Form Based Code." Significant tax increases will force some of them to leave their homes that they are trying very hard to hold onto. Form Based Code will change the character of New Castle and will have significant tax ramifications. We need to have meaningful inputs from *all* groups in New Castle in the decision making process.

This letter is copied to each member of the Board of Education, and will be forwarded to few local reporters. In spite of COVID, we are able to reach some of our community members. Many are willing to include their names and addresses in the letter, which is a significant thing in our culture. The names and addresses will not be disclosed to the reporters. We look forward to the Town Board's response to our open letter and to the request by the Board of Education.

Finally, we thank the Town Board for each member's voluntary work and commitment to our town. Your public service is greatly appreciated.

Sincerely,

New Castle Residents

Zhengxi Liu, 38 Oak Hill Rd, Chappaqua
Tony Huang, 5 Apple Hill Ln, Chappaqua
Yonggang Xue, 19 Hitching Post Ln, Chappaqua
Shuang Huo, 75 Inningwood Rd, Millwood
Litian Swen, 75 Inningwood Rd, Millwood
Sara Chen, 3 Hayrake Ln, Chappaqua
George G. Chen, 3 Hayrake Ln, Chappaqua
Hao Wang, 36 Neustadt Ln, Chappaqua
Xin Dong, 36 Neustadt Ln, Chappaqua
Shu Han, 29 Hilltop dr, Chappaqua
Yi Wan, 149 King St, #9, Chappaqua
Yue Zhang, 107 Seven Bridge Road, Chappaqua
Angela Liu, 753 Hardscrabble Rd, Chappaua
John Sun, 753 Hardscrabble Rd, Chappaqua
Andrei Salomatov, 669 Quaker Rd, Chappaqua
Daoqi You, 669 Quaker Rd, Chappaqua
Huijing Jiang, New Castle resident
Chongjie Xue, New Castle resident
Xinjie Song, 2 Overbrook Drive, Millwood
Meng Zhao, Chappaqua Resident
Bing Li, 29 Kisco Park Drive, Mount Kisco
Yan Xuan, 20 Garey Dr., Chappaqua
Judith Chang, Chappaqua Resident
Feng Wang, 86 Old Farm Rd N, Chappaqua
Ying Yang, 20 Whitlaw Ln, Chappaqua
Wei Cheng, 20 Whitlaw Ln, Chappaqua
Sharon Hong, 27 Hollow Oak Road, Chappaqua
Yun Ji, Chappaqua Resident
Song Zhang, 6 Cross Ridge Rd, Chappaqua
Ya Ping Chen, 343 N Greeley Ave, Chappaqua
Liye Zhang, 19 Hitching Post Ln, Chappaqua
Jing Li, 40 Random Farms Cir, Chappaqua
Hao Pan, 40 Random Farms Cir, Chappaqua
Ning Lu, 25 Hamilton Dr., Chappaqua
Xiaolan Zhang, New Castle Resident



Who Lives in New Jersey Housing?

A QUICK GUIDE TO NEW JERSEY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS

David Listokin

with

Ioan Voicu

William Dolphin

Matthew Camp

Center for Urban Policy Research
Edward J. Bloustein School of Planning and Public Policy
Rutgers, The State University of New Jersey
New Brunswick, New Jersey



Edward J.
Bloustein School
of Planning and Public Policy

This research was supported by funding from:

New Jersey Department of Community Affairs (NJDCA)
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 (ULI)

NOVEMBER 2006



CONTENTS

Preface	iii
How to Use This Guide	iv
Executive Summary	v
PART I:	
Residential Demographic Multipliers: Description and Illustrative Applications	
Introduction	1
Residential Demographic Multipliers for New Jersey: Overview	2
Illustrative New Jersey Residential Demographic Multipliers	6
Applications of the New Jersey Residential Demographic Multipliers	11
Refining the New Jersey Residential Demographic Multipliers	13
The Continued Need for Local Analysis	17
Conclusion	19
PART II:	
New Jersey Statewide Residential Demographic Multipliers	
Definitions	21
Total Persons (Table II-1)	22
School-Age Children (Table II-2)	25
Public School Children (Table II-3)	28

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 became 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, this 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); *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 are 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.

This publication produces demographic information on household size and pupil generation that is current, New Jersey-specific, and incorporates the experience of emerging development categories

Note:

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

*The current study
provides contemporary
demographic data for New Jersey
that reflects
modern population and
development trends*

As noted, New Jersey officials, developers, and planners are currently referring to demographic data that are at least 25 years 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 data, 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, multifamily, above- and below-median-value homes, and so on.

Follow these steps when analyzing a specific residential project:

1. Determine the project's housing characteristics. Are single-family detached homes, townhouses, or multifamily 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. Determine where in the range the proposed project is likely to fall, considering 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. Note that 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.) It is not provided for the other types of influences (e.g., quality of the local school system) mentioned below. 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.

EXECUTIVE SUMMARY

How many people and school children are generated by new housing in New Jersey? Government and citizens in general understandably are interested in these population figures because they affect the demand for public services and ultimately public expenditures.

- To provide empirical information concerning “who lives in New Jersey housing,” the current Rutgers University publication contains data on the profile of households in New Jersey housing built between 1990 and 2000, as monitored by the 2000 U.S. Census 5-Percent Public Use Microdata Sample (PUMS). From the census, Rutgers calculates demographic multipliers—the number and profile of people contained in different categories of housing. Multiplier information includes:

Household Size (HS) — Total number of persons in a housing unit

School-Age Children (SAC) — Household members of elementary and secondary school (kindergarten through 12th grade) age

Public School Children (PSC) — SAC attending public school

- The residential demographic multipliers 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 and 4. housing tenure (ownership versus rental). These four 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 demographic information, the 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:

Note:

2. The above-median and below-median price distinctions are 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.

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

<i>Housing Type</i>	<i>Housing Size</i>	<i>Household Size</i>	<i>School-Age Children</i>	<i>Public School Children</i>
	<i>(Bedrooms)</i>	<i>(HS)</i>	<i>(SAC)</i>	<i>(PSC)</i>
Single-family Detached ^a	3 BR	2.98	0.58	0.48
	4 BR	3.77	1.08	0.87
Single-family Attached ^a (Townhouse)	2 BR	2.00	0.16	0.13
	3 BR	2.66	0.44	0.38
Multifamily ^b (5+ Unit Structures)	0–1 BR	1.69	0.13	0.12
	2 BR	1.80	0.12	0.10

Notes: a. Owned and rented units of average value.
b. Owned units only of average value.

Source: Tables II-1 through II-3.

- In other words, for every 100 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 (100) 2-bedroom townhouses would generate approximately 200 persons, including about 16 school-age children, 13 in public school. One hundred (100) 2-bedroom multifamily condominiums would contain about 180 persons, of whom 12 would be of school age, 10 attending public school.
- The above illustrative demographic figures are averages based on the shared experience of comparable housing built in New Jersey from 1990 to 2000 as monitored by the 2000 United States census. This is the latest and most extensive database available to demographers. That data informs the comprehensive multiplier information contained in this document.
- The current study shows:
 - 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.³
 - 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- to 3-bedroom townhouses and 1- to 2-bedroom multifamily units, have a relatively low demographic impact.

Note:

3. The rate of decline has generally moderated or even modestly reversed direction in recent years. For details, see David Listokin et al., *New Jersey Demographic Multipliers: The Profile of Occupants of Residential and Nonresidential Development* (New Brunswick, NJ: Rutgers University, Center for Urban Policy Research, 2006), hereinafter referred to as Listokin et al. 2006).

- A modest demographic impact especially characterizes homes in a transit-oriented development (TOD). Exploratory data from a sample of New Jersey TODs built to date reveal that the TOD units are generating about one-sixth the number of public school children compared to homes of a similar type, size, value, and tenure that are not specifically located near transit.
- Affordable housing—units affordable to low-and moderate-income households (in New Jersey sometimes referred to as *Mount Laurel* homes)—also have a lesser demographic impact than what is commonly believed, as is illustrated shortly.
- It is hoped that the current “Quick Guide” to residential demographic multipliers will serve as an important reference for New Jersey. It replaces demographic information for the state that is quite dated (i.e., based on the 1980 census) yet is still inappropriately referenced. This guide is intended to 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 only for large (four-or-more-bedroom) single-family, detached homes; attached homes generate about 0.1 to 0.7 public school children per unit⁴ (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. Exploratory New Jersey data suggests that each TOD unit contains only about 0.02 public school children. In other words, 100 units in a TOD contain on average only 2 public school children.
- 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).⁵ Approximately 3 of the 19 public school children come from the affordable homes.
- *Demographic multipliers need to be continuously updated, refined and tested.* Rutgers University, in collaboration with New Jersey planners, developers, and 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 information for 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 $1,975 \div 14,191$)—a close fit

***Demographic multipliers
need to be continuously updated,
refined, and tested***

Notes:

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

5. 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 units.

*For best results,
the state-level data presented here
should be supplemented
by local analysis*

with the 1,941 public school children that would have been predicted from the census-based multipliers.

- 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 communities with 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 quantifying the likely public school children generation from 3-bedroom townhouses priced at \$300,000 per unit proposed for Princeton Township, an analyst should first consider the “Quick Guide” statewide data for the average number of public school children (0.24) in housing of this type (single-family attached), size (3-bedrooms), and price level (above median value). The analyst should then identify comparable townhouses (e.g., 3-bedroom units priced \$250,000 to \$350,000) 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). The combination of this document’s multipliers and local analysis provides a comprehensive framework for answering “who lives in New Jersey housing.”*
- As with all studies, there are limitations as well as advantages to the current “Quick Guide.”
 - ▣ The 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. For example, the earlier-cited figure of 0.24 public school children for a 3-bedroom, more-expensive townhouse is based on a statewide sample of 12,151 observations.

Variation around this 0.24 average is to be expected and, in this case, the variation will typically⁶ be between a low of 0.19 public school children and a high of 0.30 public school children.⁷

- The 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.
 - In short, there are limitations to the “Quick Guide” data, and caveats are in order whenever dealing with demographics. At the same time, the “Quick Guide” represents the most comprehensive and current compilation of arms-length data concerning the demographic profile of new housing in New Jersey. The “Quick Guide” also benefited from the extensive peer review of knowledgeable professionals from the public and private sectors in New Jersey.
- For easy use, the “Quick Guide” is organized into two parts. The first describes the demographic data and presents illustrative applications. The second part contains the New Jersey household size, school-age children, and public school children multipliers.
 - Readers interested in the *total number of persons and persons by age group* (0–4, 5–17, 18–34, and so on) for different type, size, value and tenure of newly built (1990–2000) New Jersey housing should consult table II-1 (pages 22–24) in Part II of the “Quick Guide.”
 - Readers interested in the *school-age children (SAC) and the SAC by school level* (elementary, junior high, and high school) for different type, size, value, and tenure of newly built New Jersey homes should consult table II-2 (pages 25–27) in Part II of the “Quick Guide.”
 - Readers interested in the *public school children (PSC) and the PSC by school level* for different type, size, value, and tenure of newly built New Jersey housing should consult table II-3 (pages 28–30) in Part II.
 - Readers interested in the exploratory data on the demographics of the occupants of *transit-oriented developments* (public school children) and *affordable housing* (household size, school-age children, and public school children) should consult table I-8 (page 16) and table I-9 (page 17), respectively.
 - The meaning and application of the data contained in the above-indicated tables will be enhanced by reviewing the background information and examples described in Part I of the “Quick Guide.”

Notes:

6. Data presented here is for the 90 percent confidence interval, or the expected results in 9 out of 10 cases.

7. A more detailed version of the current study, *New Jersey Demographic Multipliers: The Profile of Occupants of Residential and Nonresidential Development* (Listokin et al. 2006, cited earlier), contains the sample size, standard error, 90 percent confidence interval, and other statistics for the New Jersey multipliers.

Part I

RESIDENTIAL DEMOGRAPHIC MULTIPLIERS: DESCRIPTION AND ILLUSTRATIVE APPLICATIONS

INTRODUCTION

Projecting the fiscal and other impacts from development, establishing infrastructure standards to accommodate growth, calibrating off-tract developer charges, and numerous other analyses are dependent upon knowing the number of persons and school children found in residential structures. The numbers and profile of these people in different housing categories are referred to in this study as residential *demographic multipliers*.

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.

The current study by Rutgers University provides a "Quick Guide" to New Jersey statewide residential demographic multipliers for **household size (HS)**, **school-age children (SAC)**, and for SAC attending public schools, or **public school children (PSC)**. These multipliers are derived from the federal decennial 2000 *Census of Population and Housing* for New Jersey, focusing on newer built units in this state (New Jersey housing constructed between 1990 and 2000 monitored by the 2000 census). The specific census information that is tapped is the 5 Percent Public Use Microdata Sample (PUMS), because only PUMS allows the detailed cross-tabulation of demographic information detailed shortly.

The "Quick Guide" summarizes the results of a larger monograph published concurrently by Rutgers University.⁸ The larger monograph contains demographic multipliers differentiated by geographic region of New Jersey (north, central, and south), nonresidential multipliers (i.e., the number

The numbers and profile of people in different housing categories are referred to as residential demographic multipliers

Note:

8. David Listokin et al., *New Jersey Demographic Multipliers: The Profile of Occupants of Residential and Nonresidential Development* (New Brunswick, NJ: Rutgers University, Center for Urban Policy Research, 2006), hereinafter referred to as Listokin et al. 2006).

The “Quick Guide” presents the residential information in a readily usable format

of workers per 1,000 square feet of office, retail, and other business uses), statistical detail on the multipliers (e.g., sample size, standard error, and confidence interval), and other subjects (e.g., 1990 to 2000 changes in the multipliers) not covered here. The current “Quick Guide” thus synthesizes the essential, current statewide residential findings from the expanded Rutgers monograph and presents the residential information in a readily usable format.

The “Quick Guide” is organized into two parts. The first describes the demographic data and presents illustrative applications. The second part contains the New Jersey HS, SAC, and PSC demographic multipliers.

RESIDENTIAL DEMOGRAPHIC MULTIPLIERS FOR NEW JERSEY: OVERVIEW

The statewide New Jersey residential demographic multipliers include the following data fields and organization.

1. *Household Size (HS)*: the 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 age 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, and housing tenure*—four variables that have been found by Rutgers to be associated with statistically significant differences in the HS, SAC, and PSC, albeit sometimes these differences are measurably modest in scale. The multipliers are calculated for new housing, here defined as New Jersey housing units enumerated in the 2000 census and built from 1990–2000.

The housing or structure types include: *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)*, such as a starter two-family home. (See page 21 for a formal census definition of each

of these housing types.) As the 2000 census, the source for the residential multipliers, does not have information on the stories in a housing structure (this was last available in the 1980 census), 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.”⁹ 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- to 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- to 1-bedroom units because detached housing is typically built with more rather than fewer bedrooms.

In order to maintain sufficient sample size and reliability in the estimates, Part II sometimes groups selected housing size categories. This is typically done for the less-prevalent size groups because as these are less common, there are fewer of them to sample. A small sample size, in turn, would result in an average multiplier with an unacceptably low statistical reliability. For example, as 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- to 1-bedroom group for which there are more robust sample size and statistical reliability. As there are fewer 5-bedroom single-family detached homes, 4- and 5-bedroom detached units are grouped.¹⁰

Housing is additionally classified by tenure: owned or rental. According to the census, a “housing unit 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.”

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 21. With regard to the latter, the current study utilizes the “gross rent” (rent with utilities) rather than the “contract rent.” (See page 21 for rent definitions). If a housing unit is rented, the unit’s housing value is estimated at 100 times the gross monthly 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

A small sample size would result in an average multiplier with an unacceptably low statistical reliability

Notes:

9. U.S. Census Bureau, *Files: Census 2000, Public Use Microdata Sample* (2003), p. B-52.

10. U.S. Census Bureau, *Files: Census 2000, Public Use Microdata Sample* (2003), p. B-63.

*“Housing priced below the median”
should not be confused with
“affordable” or “Mount Laurel”
housing, as it is sometimes
referred to in New Jersey*

determined by extending the FHFB’s indicated housing price change for 2003–04 to both 2004–05 and to 2005–06.

The demographic profiles by 2006 housing values and gross rents are organized following a tripartite classification: *housing priced below the median*, *housing priced above the median*, and *all-value housing*. 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 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. (Table I-9 in this study separately contains exploratory data on “affordable” or “*Mount Laurel*” homes.)

All of the above-described data are found in three tables in Part Two. Table II-1 contains the household size demographic multipliers (and the breakout of residents by age cohort), and tables II-2 and II-3 have the school-age children and public school-age children demographic multipliers, respectively. In summary, then, New Jersey statewide residential demographic data are organized as shown in table I-1.

Statistical analysis of the data in tables II-1 through II-3 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 usually 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 is relatively more population intensive (HS, SAC, and PSC) than the owned housing counterparts. In contrast, smaller (0- to 1-bedroom) rental housing of all housing types tends to contain statistically fewer household members and school children than comparable owned housing.

TABLE I-1
Organization of the New Jersey Residential Demographic Multipliers

<i>Housing Structure: Type / Bedrooms / Value / Tenure (Own and Rent)</i>	<i>Household Size (Table II-1)</i> See page number:	<i>School-Age Children (Table II-2)</i> See page number:	<i>Public School Children (Table II-3)</i> See page number:
Single-Family Detached, Own and Rent^a			
2 Bedrooms	22	25	28
3 Bedrooms	22	25	28
4-5 Bedrooms	22	25	28
Single-Family Attached, Own and Rent^a			
2 Bedrooms	22	25	28
3 Bedrooms	22	25	28
4-5 Bedrooms	22	25	28
Larger (5+ units) Multifamily, Own and Rent^a			
0-1 Bedroom	22	25	28
2 Bedrooms	22	25	28
3 Bedrooms	22	25	28
Larger (5+ units) Multifamily, Own^a			
0-1 Bedroom	23	26	29
2 Bedrooms	23	26	29
3 Bedrooms	23	26	29
Larger (5+ units) Multifamily, Rent^a			
0-1 Bedroom	23	26	29
2 Bedrooms	23	26	29
3 Bedrooms	23	26	29
Smaller (1-4 units) Multifamily, Own and Rent^a			
0-1 Bedroom	23	26	29
2 Bedrooms	23	26	29
3 Bedrooms	23	26	29
All Housing Types, Own^a			
0-1 Bedroom	24	27	30
2 Bedrooms	24	27	30
3 Bedrooms	24	27	30
4-5 Bedrooms	24	27	30
All Housing Types, Rent^a			
0-1 Bedroom	24	27	30
2 Bedrooms	24	27	30
3 Bedrooms	24	27	30
4-5 Bedrooms	24	27	30

Note: a. Differentiated by three housing-value categories: *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 1-9 for exploratory data on the demographic profile of low- and moderate-income households in New Jersey. The indicated dollar figures for New Jersey housing values in this study are as of 2006.

Source: See text.

It is important to differentiate between a statistically significant variation and a difference of practical import

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, and housing tenure 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, followed by building type, building value, and then by housing tenure—but there is not much difference in explanatory power among the latter three variables.¹¹

The manner in which the data in Part II of the “Quick Guide” are presented is guided by the above statistical work.¹² Thus, tables II-1, II-2, and II-3 are organized by housing type, housing size, housing value, and housing tenure because statistically significant variations were found to be associated with the above variables.

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 a 0- to 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 which, 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 household size of 2.91 versus a household size of 3.04 for its below-median counterpart, while significant statistically, may for many analysts not be of practical import.

ILLUSTRATIVE NEW JERSEY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS

Following the background presented above, it is opportune to examine in an illustrative fashion some of the year 2000 data contained in Part II.

How many persons and school children are found in a 2-bedroom townhouse (single-family attached unit) versus a 4- to 5-bedroom single-family detached (SFD) home in New Jersey? Since no price is specified for these respective units, the analyst would use the “all value” data contained in tables II-1 through II-3 in Part II and would ascertain the following:

Notes:

11. To compare the relative explanatory power of different variables, the authors 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 adjusted R^2 has the biggest explanatory variable.

12. 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. The five-tier value group was rejected because it yielded multipliers with an unacceptably high error margin.

TABLE I-2

Illustrative Overall Demographic Data for Townhouse and Detached Housing (2000)

<i>Housing Category</i>		
<i>Type</i>	Townhouse	Single-family detached
<i>Size (bedrooms)</i>	2	4–5
<i>Tenure</i>	Own and rent	Own and rent
<i>Price</i>	All value	All value
<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-1 through II-3.

TABLE I-3

Illustrative Detailed (Public School Children) Demographic Data for Townhouse and Detached Housing (2000)

<i>Housing Category</i>				
<i>Type</i>	Townhouse		Single-family detached	
<i>Size (bedrooms)</i>	2		4–5	
<i>Tenure</i>	Own and rent		Own and rent	
<i>Price</i>	All value		All value	
<i>Detailed Demographics</i>				
PUBLIC SCHOOL CHILDREN	MULTIPLIER	PERCENTAGE	MULTIPLIER	PERCENTAGE
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-3.

Thus, 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- to 5-bedroom single-family detached home (SFD), the 100 units would generate about 377 persons, of whom 108 would be of school age, with 87 attending public schools.

Of the public school children counts indicated above (table I-2), how many are likely to attend elementary (kindergarten to 6th grade), junior high (7th to 9th grades), and high school (10th through 12th grades)? Table II-3 in Part II shows the school and grade level multiplier data for public school children illustrated here in table I-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- to 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-1 in Part II, the following age-cohort information can be assembled:

TABLE I-4

**Illustrative Detailed (Age Distribution)
Demographic Data for Townhouse and
Detached Housing (2000)**

<i>Housing Category</i>				
<i>Type</i>	Townhouse		Single-family detached	
<i>Size (bedrooms)</i>	2		4-5	
<i>Tenure</i>	Own and rent		Own and rent	
<i>Price</i>	All value		All value	
<i>Detailed Demographics</i>				
AGE DISTRIBUTION	MULTIPLIER	PERCENTAGE	MULTIPLIER	PERCENTAGE
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-1.

From the table I-4 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- to 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,¹³ or 28, would be expected to be at least 65 years old as contrasted with only 2.7 percent,¹⁴ or 10 persons, for the single-family detached home values.

Knowledge of the housing units' price (all home values shown are as of 2006) can refine the selection of the appropriate residential demographic multipliers from Part II. If the 2-bedroom townhouses were priced above \$226,552, then, as is evident from tables II-1 through II-3, the "above median" values would be selected; below \$226,552, the "below median" 2-bedroom townhouse values would be most appropriate. For the 4- to 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 children, and public school children than their lower-priced counterparts.

TABLE I-5

Illustrative Overall Demographic Data for Townhouses, Differentiated by Housing Value (2000)

<i>Housing Category</i>			
<i>Type</i>	Townhouse	Townhouse	Townhouse
<i>Size (bedrooms)</i>	2	2	2
<i>Tenure</i>	Own and rent	Own and rent	Own and rent
<i>Price</i>	All value	Below median	Above median
<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-1 through II-3.

Notes:

13. Combines 9.3 percent and 4.9 percent for the 65–74 and 75+ age cohorts, respectively, for the 2-bedroom townhomes (see table I-4).

14. 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 I-4).

TABLE I-6

**Illustrative Overall Demographic Data for Multifamily
Units (2-Bedroom) Differentiated by
Housing Tenure and Value (2000)**

<i>Housing Category</i>				
<i>Type</i>	Multi-family	Multi-family	Multi-family	Multi-family
<i>Size</i>	2-Bedroom	2-Bedroom	2-Bedroom	2-Bedroom
<i>Tenure</i>	Rent	Own	Rent	Own
<i>Price</i>	Above median	Above median	Below median	Below median
<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-1 through II-3.

For the multifamily homes (i.e., 5+ unit structures), information on price as well as tenure would guide the analyst as to which multipliers to use in Part II. Evident from the illustrative overall demographic figures shown in table I-6 is that the population yield is lower for owned, more-expensive 2-bedroom multifamily homes than for their rented, less-expensive counterparts.

For the 0- to 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- to 1-bedroom homes that tend to generate relatively fewer persons, school-age children, and public school children (table I-7).

This type of data is clearly of interest to planners, educators, and other public officials, as well as the general New Jersey public. The Part II tables thus provide a handy and pertinent reference as to “who lives in New Jersey housing.” That resource is the basis for numerous interrelated analytic applications.

TABLE I-7

**Illustrative Overall Demographic Data for Multifamily
Units (0- to 1-Bedroom) Differentiated by
Housing Tenure and Value (2000)**

<i>Housing Category</i>				
<i>Type</i>	Multi-family	Multi-family	Multi-family	Multi-family
<i>Size</i>	0- to 1-Bedroom	0- to 1-Bedroom	0- to 1-Bedroom	0- to 1-Bedroom
<i>Tenure</i>	Rent	Own	Rent	Own
<i>Price</i>	Above median	Above median	Below median	Below median
<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-1 through II-3.

APPLICATIONS OF THE NEW JERSEY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS

Fiscal Impact of Development

This assessment compares the public costs and public revenues associated with growth. If costs exceed revenues, a deficit is incurred; if revenues exceed expenditures, a surplus is generated. There are different techniques for conducting a fiscal-impact assessment, such as the per capita, case study, and comparable community methods. All, however, begin with the determination of the population generated by growth—principally people, school-age children, and public school children—an analysis that depends on the demographic multipliers.

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.

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 considering only 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

Zoning should not be driven by demographics and fiscal impact

“overzoned” for nonresidential development while they have “underzoned” for housing, especially attached units in general and affordable housing in particular.

Ideally, the multipliers considered in the “Quick Guide” 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. 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.

Projecting Demand for Public Employees

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 and other calculations.

Calculating Impact Fees

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 engendered by growth is provided 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-tract 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 states as California, Florida, and Virginia, 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 are often operationally estimated through reference to the residential demographic multipliers. Since capital improvements are related to the demands posed by population, development that introduces more persons necessitates greater amounts of infrastructure and is charged more while development that is not as population-intensive is charged less. In turn, the specification of persons by development type is identified by the residential multipliers.

REFINING THE NEW JERSEY RESIDENTIAL DEMOGRAPHIC MULTIPLIERS

The data in Part II is a baseline reference that will need to be updated and refined over time as well as tested against real-world experience. With the help of the public sector in New Jersey, including municipalities, school districts, and counties, as well as the state's planning and development communities, the authors of the current "Quick Guide" have begun the updating, refinement, and testing described above. The full results to date will be detailed in the larger Rutgers University monograph, *New Jersey Demographic Multipliers: The Profile of Occupants of Residential and Nonresidential Development* (Listokin et al. 2006). As a preview of the larger effort, the current "Quick Guide" concludes with the major findings set forth below.

Comparing the census-based demographic multipliers to the actual school children impacts of built New Jersey projects supports the real-world veracity of the census information. This exploratory test proceeds as follows:

1. Through the New Jersey Office of Smart Growth, the 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.
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 because that, much more so than household size, is a subject of considerable controversy.) The public school

The public school children multipliers for the TOD projects are substantially lower than those indicated by the PUMS for average New Jersey housing

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 through 12th grade) school district, while in other cases, responsibility was divided between two school districts such as a kindergarten through 6th grade, and 7th grade through 12th grade, arrangement. All the host school districts were called; some, however, could not 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.
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 school-age children. Thus, the actual public school children (1,975) and the estimated public school children (1,941) are in reasonable approximation of one another. The above test is a start of what should be an ongoing procedure. It does, however, provide some “real-world” evidence that the PUMS-based demographic multipliers contained in Part II of this study are reasonable.

Rutgers has also developed “real-world” data for New Jersey transit-oriented developments (TODs). TODs, an important component of smart growth, offer many advantages, such as reducing dependence on the automobile. Preliminary evidence suggests that TODs generate few public school children, thus minimizing the impact on local school districts. The TOD analysis proceeded as follows:

1. From the Alan M. Voorhees Transportation Center at Rutgers University, 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.
2. Rutgers contacted the elementary and secondary school districts serving these 10 projects and found that they contained a total of 47 public school children. That represents a public school children multiplier of .02 ($47 \div 2,183$). In other words, every 100 housing units in a TOD 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 average New

Jersey housing. Based on the PUMS, this analysis would have projected that the 10 New Jersey TODs would have generated 285 public school children. That is far higher than the TODs' actual public school children yield of 47. The TODs' actual public school children generation is about one-sixth the number of public school pupils from homes of similar type, size, tenure, and value that are not specifically located near transit.

While this analysis is preliminary and the demographics of TODs must be monitored 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.

Rutgers has also gathered exploratory data on the demographics of affordable housing. By way of background, 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 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 I-9 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, of whom almost all (0.45) attended public schools. Table I-9 provides further detail. For instance, the average number of public school children for New Jersey LMI households living in owned units in 5+ unit structures as of the 2000 census was 0.06, 0.18, and 0.54 for 1-bedroom, 2-bedroom, and 3-bedroom units, respectively. For rental homes (in 5+ unit structures), the LMI households on average would contain 0.14, 0.62, and 1.27 public school children from the 1-bedroom, 2-bedroom, and 3-bedroom units, 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, more knowledgeable, or more relatively affluent LMI households will avail themselves of the *Mount Laurel* housing being offered in different communities throughout the state. New Jersey Council on Affordable Housing occupancy standards (see table I-9) also bear on the demographic profile of *Mount Laurel* housing units. Thus, the data in table I-9 must be viewed as only a starting basis for framing the demographic profile of *Mount Laurel* housing.

***TODs pose only modest demand
on local school districts***

While keeping in mind the above caveat, the table I-9 data can inform the demographic impact of affordable or mixed-income housing. For instance, how many public school children can be expected from 100 *Mount Laurel* townhomes comprising half two-bedroom and half three-bedroom units? From the exploratory data in table I-9, the answer is 55 public school children ($[50 \times 0.32] + [50 \times 0.78]$).

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) comprised of for-sale condominiums in 5+ unit structures? The answer, as indicated in table I-10, is 19 public school children, about 3 coming from the affordable homes.

TABLE I-8

Public School Children Generation from Selected Transit-Oriented Developments (TODs) in New Jersey

PROJECT PROFILE		Tenure	SIZE	PUPIL GENERATION	PUPIL MULTIPLIERS
<i>Project Name</i>	<i>Location</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	Morristown	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

Note: a. Equals public school children divided by the number of housing units.

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

TABLE I-9

**Household Size, School-Age Children, and Public School Children for
Low- and Moderate-Income Households (LMI) in New Jersey (2000)**

	<i>Total Persons</i>	<i>School-Age Children</i>	<i>Public School Children</i>
All Housing Types and Bedrooms	2.35	0.50	0.45
Single-Family, Detached			
2 BR	1.95	0.24	0.21
3 BR	2.49	0.51	0.46
4 BR	3.07	0.83	0.73
Single-Family, Attached			
2 BR	2.09	0.35	0.32
3 BR	3.05	0.86	0.78
5+ Units, Own			
1 BR	1.37	0.07	0.06
2 BR	1.76	0.21	0.18
3 BR	2.51	0.60	0.54
5+ Units, Rent			
1 BR	1.61	0.16	0.14
2 BR	2.76	0.68	0.62
3 BR	3.82	1.37	1.27

Note: The New Jersey 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.

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

THE CONTINUED NEED FOR LOCAL ANALYSIS

The demographic multipliers contained in this document provide important statewide average benchmark data derived from the best demographic source for New Jersey—the decennial census. The statewide data can go only so far, however, in accurately predicting the actual number of growth-engendered residents and pupils in a specific community. Optimally, the statewide benchmark data will be supplemented by local case study analysis of the actual population impacts from built projects comparable in character (housing type, housing size, housing price, and housing tenure) and location

TABLE I-10

**Illustrative (Public School Children) Demographic Impact from a 100-Unit
Inclusionary Housing Development (For-Sale Homes in 5+ Unit Structures)**

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

Note: a. Above-median value.

Source: Tables I-9 and II-3.

(immediate community, county, or larger market area) to the development being examined.

Case study investigation is admittedly challenging because information on a given project may be difficult to obtain in terms of the number, type, size, and price of the housing units, and securing credible arms-length information on a project's actual demographic impacts, such as from a local school district, is even more difficult. Yet, case studies can be effected; they are in essence what was accomplished by the nascent Rutgers testing previously described. Further, case studies enhance the "real-world" credibility of demographic study and may reveal local contextual factors, such as quality of the local school system, or particular geography (e.g., proximity to Manhattan), 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 summary, the 2000 census provides the best information concerning “who lives in New Jersey housing,” and the current publication analyzes that data to provide a “Quick Guide” as to the statewide demographic profile of recently built New Jersey dwellings. Residential demographic multipliers are presented for household size, school-age children, and public school children differentiated by housing type, size, value, and tenure. 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 likewise has assembled exploratory data on the demographics of affordable homes (found to be less than is commonly assumed). Additionally, Rutgers has 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 census-based multipliers provide a reasonably accurate depiction of the demographic impacts from residential 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 its knowledge of “who lives in New Jersey housing.”

Part II

NEW JERSEY STATEWIDE RESIDENTIAL DEMOGRAPHIC MULTIPLIERS

The definitions contained in the table on page 21 are from the U.S. Census Bureau, *File: Census 2000, Public Use Microdata Sample (PUMS)*, 2003.

DEFINITIONS

**Bedrooms (BR)
(Housing Size)**

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.

**Housing Categories
(Structure Type)**

Single-family, detached. 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.

Single-family attached. 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.

2–4 units. These are units in structures containing 2, 3, or 4 housing units.

5+ units. These are units in structures containing 5 or more housing units.

Housing Rent (Contract Rent)

Contract rent is the monthly rent agreed to or contracted for, regardless of any furnishings, utilities, fees, meals, or services that may be included.

Housing Rent (Gross Rent)

Gross rent is the *contract rent* 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 *Housing Value*) are indicated in the demographic table.

Household Size

The total number of persons in a housing unit.

**Housing Tenure
(Ownership or Rental)**

A housing unit 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.

Housing Unit

A housing unit 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).

Housing Value (Rent)

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 *gross rent*. 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 tripartite classification: *housing priced below the median*, *housing priced above the median*, and *all-value housing*. The above housing price 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).

Median Housing Value

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.

Public School Children (PSC)

The school-age children attending public school.

**Residential Demographic
Multipliers**

Multipliers show the population associated with different *housing categories* as well as housing differentiated by *housing value*, *housing size* (bedrooms), and *housing tenure*.

School-Age Children (SAC)

The household members of elementary and secondary school age, defined here as those 5 through 17 years of age.

TABLE II-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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL PERSONS	AGE							
		0-4	5-17	18-34	35-44	45-54	55-64	65-74	75+
		<hr/>							
5+ UNITS-OWN, 0-1 BR									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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
<hr/>									
5+ UNITS-RENT, 0-1 BR									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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
<hr/>									
2-4 UNITS, 0-1 BR									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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 II-1: Statewide New Jersey: Total Persons and Persons by Age (continued)

TABLE II-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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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									
<i>All Values</i>	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 II-2
Statewide New Jersey: School-Age Children (SAC)

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL SAC	GRADE		
		ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL
		K-6	7-9	10-12
SINGLE-FAMILY DETACHED, 2 BR				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL SAC	GRADE		
		ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL
		K-6	7-9	10-12
5+ UNITS-OWN, 0-1 BR				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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 II-2: STATEWIDE NEW JERSEY: SCHOOL-AGE CHILDREN (SAC) (continued)

TABLE II-2
Statewide New Jersey: School-Age Children (SAC) (continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL SAC	GRADE		
		ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL
		K-6	7-9	10-12
ALL HOUSING TYPES-OWN, 0-1 BR				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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 II-3
Statewide New Jersey: Public School Children (PSC)

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL
		K-6	7-9	10-12
SINGLE-FAMILY DETACHED, 2 BR				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL
		K-6	7-9	10-12
5+ UNITS-OWN, 0-1 BR				
<i>All Values</i>	0.117	0.100	0.009	0.008
Below Median \$185,361	0.167	0.137	0.015	0.015
Above Median \$185,361	0.051	0.051	0.000	0.000
5+ UNITS-OWN, 2 BR				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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 II-3: STATEWIDE NEW JERSEY PUBLIC SCHOOL CHILDREN (PSC) (continued)

TABLE II-3
Statewide New Jersey: Public School Children (PSC) (continued)

STRUCTURE TYPE/ BEDROOMS/ VALUE/TENURE	TOTAL PSC	PUBLIC SCHOOL GRADE		
		ELEMENTARY	JUNIOR HIGH SCHOOL	HIGH SCHOOL
		K-6	7-9	10-12
ALL HOUSING TYPES-OWN, 0-1 BR				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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				
<i>All Values</i>	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