

Residential New Construction Attitude and Awareness Baseline Study

Residential New Construction Statistics
Report on Findings

Prepared for the New Jersey Residential New Construction Working Group

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Executive Summary

The purpose of this report is to furnish information on the findings from the Residential New Construction Statistics Task for the New Jersey Residential New Construction Awareness and Attitudinal Baseline Study (RNC study). This report identifies sources of residential construction data, describes what sources were obtained and statistics were developed, and presents detailed tables of statistics. A Summary Report consolidates the information from the series of research tasks conducted for the Residential New Construction Attitude and Awareness Baseline Study.

A. Background

The New Jersey Residential New Construction Working Group (Working Group), which consists of the Public Service Electric & Gas Company, GPU Energy, Conectiv Power Delivery, NUI Elizabethtown Gas Company, South Jersey Gas, Rockland Electric Company, and New Jersey Natural Gas Company, is charged with developing and implementing a coordinated, statewide utility residential new construction program that will increase the energy efficiency of new homes constructed in New Jersey. In support of that effort, the Working Group has commissioned a comprehensive study of New Jersey's residential new construction market with the following goals.

- *Baseline Measurement:* The primary objective of the study is to establish a baseline that documents the current market for ENERGY STAR homes.
- *Program Design and Implementation:* The secondary objective of the study is to enhance the Working Group's understanding of the residential new construction market.
- *Customer Sited Clean Generation:* In addition, this study will support the work of the Customer Sited Clean Generation Working Group (CSCG Working Group).

The Working Group contracted with Roper Starch Worldwide Inc. and XENERGY Inc. to conduct the RNC study.

The purpose of this task is to develop an up-to-date characterization of the New Jersey new construction market. The study used three types of data to achieve this goal: public data sources, commercial databases, and RNC Baseline Survey data.

B. Residential Transactions

The Working Group requested data on “the total number of homes - new or existing – purchased each year.” The New Jersey Division of Taxation is responsible for tracking information on the real estate transfer tax. However, the information available is not completely consistent with the Working Group’s request. The Division of Taxation reports that there were 105,284 Class 2 Real Estate Transactions in FY 2000. This statistic excludes new homes sales and some other residential transactions.

Since the data from the Division of Taxation were not consistent with the Working Group’s information request, we looked to the residential mortgage market as a source of additional information on real estate transactions. Mortgage data shows there were 134,605 home purchase mortgages in 1999.

C. Residential New Construction

In this Report, we present statistics that define the size and scope of the residential new construction market. These statistics were extracted from data furnished by the Division of Codes and Standards (DCS) in the NJ Department of Community Affairs and from the RNC Baseline Nonparticipating Homebuyer Survey.

1. Sources of Data on New Housing Units

DCS tracks three different types of information on new construction: building permits, Certificates of Occupancy, and Homeowner Warranties.

- *Building Permits*: The most comprehensive measure of residential new construction is “housing units authorized by building permits.” However, permits overstate the number of housing units constructed in New Jersey each year.
- *Certificates of Occupancy*: COs are issued when a building is ready for occupancy. DCS staff believe that COs understate

the total number of housing units, and sometimes allocate housing units to the wrong time period.

- *Homeowner Warranty Registry*: The Registry is a reliable source of data on warranted houses. However, it does not include housing units built for lease and housing units for which the intended occupant serves as the general contractor, and understates the number of housing units constructed.

2. Number and Location of New Housing Units

Table 1 shows the three different estimates of the number of new housing units for 1999 by region. There are significant differences among the three estimates, particularly for the North Region. There were many more permits than COs. Both permit and CO estimates are higher than warranty estimates, since warranty data exclude most multifamily homes.

Construction trends derived from permit data are also different from the trends derived from COs data. Building permits have grown continuously over the last four years, while the number of COs issued has not followed a consistent pattern. Moreover, in 1997, there were more COs than permits.

Table 1: Estimates of New Housing Units by Region for 1999

Region	Source of Estimate		
	Permits	COs	Warrantees
North	12,610	6,973	5,905
Central	15,549	13,236	12,198
South	9,363	7,872	6,762
NEW JERSEY 1999	37,522	28,109	24,865
1998	35,676	28,008	
1997	30,017	34,670	
1996	27,577	22,239	

Source: *The New Jersey Construction Report – Annual Report for 1999* and special tabulations of the Homeowner Warranty Registry database.

3. Baseline Estimates of RNC Program Market Share

PSE&G, Conectiv Power Delivery, and GPU Energy had residential new construction programs in place prior to the baseline study. Table 2 shows the 1999 statistics for the existing

utility RNC programs. Two statistics are presented. “Certified Homes” includes only those housing units that have been completed and certified as meeting program requirements. “Homes in Contract” includes homes that were committed to the program in 1999, whether or not they were actually constructed.

Table 2: 1999 Utility Residential New Construction Participation

Program	Certified Homes	Homes in Contract
Conectiv / ENERGY STAR	27	349
GPU Energy / GoodCents	62	80
PSE&G / EEH 5 Star	684	1,024
NEW JERSEY	746	1,453

Source: PSE&G, Conectiv Power Delivery, and GPU Energy

We recommend computing a baseline market share for the utility RNC programs as “Certified RNC Program Homes” divided by the total number of homes for which a CO was issued. Using this definition, the RNC market share for 1999 was 746 of 28,109 or 2.6%. An alternative is to compute market share as “Homes in Contract” divided by the total number of building permits. Since “Homes in Contract” and building permits do not always get built, we would recommend against using those numbers to compute the program Baseline.

4. Characteristics of New Housing Units

The information sources developed for this study help us to better understand the characteristics of new residential construction in New Jersey. Table 3 furnishes summary data on the characteristics of new housing units, including: main heating fuel, market share of production homes, market share of affordable housing programs, square footage, price, and housing unit type.

The Baseline Survey shows that most owner-occupied newly constructed housing units use natural gas as the main heating fuel (93%), are production homes (88%), and are not part of an affordable housing program (95%). The median housing unit size, for those respondents who furnished an estimate of housing unit size is about 2,300 square feet. The median price of a home

for which a homeowner warranty was issued was \$221,750, with about one-fourth of homes selling for less than \$150,000, half selling for \$150,000 to \$300,000, and one-fourth selling for more than \$300,000. Eighty-seven percent of COs were issued for 1 & 2 family housing units, 11% for multifamily housing units, and 2% for housing units in mixed-use buildings.

Table 3: Other New Home Characteristics

Characteristic	Category		
		Gas	Electric
Main Heating Fuel (Baseline Survey)	93%	3%	4%
Production/Custom (Baseline Survey)	Production		Custom
	88%		12%
Affordable Housing (Baseline Survey)	Not Part of Affordable Housing Program		Part of Affordable Housing Program
	95%		5%
Square Footage (Baseline Survey)	Less than 1800	1800-2500	More than 2500
	20%	27%	32%
Sales Price (Warranty Registry)	Less than \$150,000	\$150,000-\$300,00	More that \$300,000
	22%	50%	28%
Housing Unit Type (CO Data)	1 & 2 Family	Multifamily	Mixed Use
	87%	11%	2%

5. Prefabricated Housing

There are two types of prefabricated housing; manufactured housing and modular housing.

Manufactured housing is factory built and subject to HUD regulation. Our source at the New Jersey Manufactured Housing Association (NJMHA) reports that "mobile" homes were replaced in 1976 by manufactured housing. According to the Manufactured Housing Institute, 644 manufactured housing units were shipped to New Jersey in 1999.

According to the State of New Jersey, modular or industrialized housing is any building of closed construction, including, but not limited to, modular housing that is factory built single-family and multi-family housing (including closed wall panelized housing) and other modular nonresidential buildings. Modular homes are subject to standard inspections and require a CO. They must be registered with the Homeowner Warranty Program. They also get a "seal" from the New Jersey Industrialized Building Commission. According to the Industrialized Building Commission, for fiscal 2000 (July 1999 - June 2000) 48 modular housing units were shipped to New Jersey. However, the Homeowner Warranty Registry lists 588 modular units. We have not been able to resolve this discrepancy.

D. Residential Additions and Alterations

The Working Group is interested in the number and economic value of additions and alterations done each year. The Division of Codes and Standards collects information on building permits for additions and alterations. Table 4 presents information on the number and value of additions and alterations by region for 1999.

The total value of permits for additions and alterations is \$1.7 billion, about half the size of the \$3.6 billion residential new construction market. However, while the average dollar value of new construction is about \$100,000 per unit, it is only \$8,000 for additions and alterations.

Table 4: 1999 Additions and Alterations to Residential Structures by Region

County	Permits for Additions and Alterations	Total Value (\$ millions)
North Region	106,960	\$44.1
Central Region	80,923	\$271.4
South Region	44,971	\$52.6
State Totals	232,854	\$1,747.2

SOURCE: New Jersey Department of Community Affairs, Division of Codes and Standards

I. Introduction

The purpose of this report is to furnish information on the findings from the Residential New Construction Statistics Task for the New Jersey Residential New Construction Awareness and Attitudinal Baseline Study (RNC study). This report identifies sources of residential construction data, describes what sources were obtained and statistics were developed, and presents detailed tables of statistics. A Summary Report consolidates the information from the series of research tasks conducted for the Residential New Construction Attitude and Awareness Baseline Study.

A. Background

The New Jersey Residential New Construction Working Group (Working Group), which consists of the Public Service Electric & Gas Company, GPU Energy, Conectiv Power Delivery, NUI Elizabethtown Gas Company, South Jersey Gas, Rockland Electric Company, and New Jersey Natural Gas Company, is charged with developing and implementing a coordinated, statewide utility residential new construction program that will increase the energy efficiency of new homes constructed in New Jersey. In support of that effort, the Working Group has commissioned a comprehensive study of New Jersey's residential new construction market with the following goals.

- *Baseline Measurement:* The primary objective of the study is to establish a baseline that documents the current market for ENERGY STAR homes against which market changes can be measured.
- *Program Design and Implementation:* The secondary objective of the study is to enhance the Working Group's understanding of the residential new construction market and to identify the opportunities and barriers associated with market transformation efforts.
- *Customer Sited Clean Generation:* In addition, this study will support the work of the Customer Sited Clean Generation Working Group (CSCG Working Group) in its efforts to understand the market for CSCG technologies.

The working group contracted with Roper Starch Worldwide Inc. and XENERGY Inc. to conduct the RNC study. The study consists of 13 research components:

- Nonparticipating Homebuyer Study
- Participating Homebuyer Study
- Nonparticipating Homebuilder Study
- Participating Homebuilder Study
- Lender Study
- Residential Real Estate Appraiser Study
- Residential Real Estate Agent Study
- Building Inspector Study
- Trade Ally Study
- CSCG Analysis
- Residential New Construction Statistics
- Affordable Housing Organizations
- CSCG Industry Statistics

The 13 research tasks were conducted independently, since each required research and interviews with different market actors. However, all of the studies used common language and definitions so that the results are comparable across all studied market sectors.

B. Study Goals and Objectives

The purpose of this task is to develop an up-to-date characterization of the New Jersey new construction market. The study used three types of data to achieve this goal.

- 1) *Public Data Sources*: The project team identified publicly-available data sources, documented the source and quality of those data sources, and developed statistics to address the questions framed by the RNC Working Group.
- 2) *Commercial Data Sources*: The project team identified commercially-available data sources, documented the source and quality of those data sources, and developed statistics to address the questions framed by the RNC Working Group.

- 3) *Survey Data*: The project team used data from the surveys conducted for other research tasks to develop population estimates to answer certain questions framed by the RNC Working Group.

In two cases, the questions posed by the RNC Working Group could have been answered more thoroughly if the Working Group was willing to purchase an expensive database. We gave the Working Group the option to purchase the data. However, the Working Group did not feel that the detail furnished by the databases was an effective use of the RNC Working Group project budget.

C. Organization of Report

Under this task, we developed information in the following areas:

- 1) *Residential Transactions*: In Section II we present statistics on the size and geographic distribution of the residential real estate market in New Jersey.
- 2) *Residential New Construction*: In Section III, we present information on the size and geographic distribution of the residential new construction market. In addition, we present information on the characteristics of new housing units, including: housing unit type, manufactured housing units, custom built housing units, main heating fuel, “affordable” housing units, and price.
- 3) *Residential Additions and Alterations*: In Section IV, we present information on the size and geographic distribution of the remodeling market.

The Working Group also is interested in statistics on Homebuilders and Lenders. Those statistics are reported in the Homebuilder Report and the Lender Report.

II. Residential Transactions

The primary goal of the Residential New Construction Working Group is to develop and implement a collaborative utility residential new construction program. However, each time a household purchases a home, new or existing, there is an opportunity for the household to make decisions that can enhance the efficiency of the energy usage in the home. In this section of the report, we present statistics that characterize the overall size and geographic distribution of the residential real estate market.

A. Residential Real Estate Transactions

The Working Group requested data on “the total number of homes - new or existing – purchased each year.” The best source of information on residential real estate transactions is the New Jersey Department of Treasury’s Division of Taxation. New Jersey levies a transfer tax on all real estate transactions. The Division of Taxation is responsible for tracking information on the real estate transfer tax.

However, the Division of Taxation does not keep information that is consistent with the Working Group’s request. We were able to obtain two types of data from the Division of Taxation. First, the Division of Taxation reports that there were about 280,000 real estate transactions that were subject to the real estate transfer tax during FY 2000 (July 1, 1999 to June 30 2000). This number represents all transactions, including sales of land, commercial properties, and residential dwellings. Second, the Division of Taxation reports that there were 105,284 Class 2 Real Estate Transactions in FY 2000. This represents “usable” residential real estate transactions, and excludes residential land sales, new home sales, and sales that are not “at arm’s length” (e.g., sales from one relative to another).

The Class 2 Real Estate Transaction data appear to furnish the best information to the Working Group. They appear to represent “arm’s length” sales of existing homes and, when added to information on new home sales, give the Working Group some information on residential market activity. Table 2.1 furnishes information on the number of transactions and the mean sales price by county.

Table 2.1: Class 2 Real Estate Transactions by County (July 1, 1999 Through June 30, 2000)

County	Number of Transactions	Mean Sales Price
Atlantic County	4,075	\$128,387
Bergen County	11,355	\$292,243
Burlington County	5,311	\$143,128
Camden County	5,705	\$112,336
Cape May County	3,725	\$226,171
Cumberland County	994	\$89,031
Essex County	7,470	\$222,788
Gloucester County	2,591	\$118,691
Hudson County	4,607	\$168,580
Hunterdon County	1,802	\$231,607
Mercer County	3,858	\$187,345
Middlesex County	9,794	\$163,055
Monmouth County	10,302	\$220,637
Morris County	5,825	\$290,790
Ocean County	10,000	\$157,878
Passaic County	4,900	\$186,226
Salem County	497	\$107,994
Somerset County	2,600	\$226,233
Sussex County	2,490	\$163,590
Union County	6,071	\$226,227
Warren County	1,312	\$159,063
State Totals	105,284	\$197,072

SOURCE: Department of the Treasury Division of Taxation database of Class 2 Real Estate Transactions for Fiscal 2000.

Table 2.2 summarizes the residential transaction data for the State. It shows that the North Region has the highest level of sales and the highest sales prices.

Table 2.2: Class 2 Real Estate Transactions by Region (July 1, 1999 Through June 30, 2000)

Region	Number of Transactions	Mean Sales Price
North Region	44,030	\$235,183
Central Region	38,356	\$187,118
South Region	22,898	\$140,466
State Totals	105,284	\$197,072

SOURCE: Department of the Treasury Division of Taxation database of Class 2 Real Estate Transactions for Fiscal 2000.

B. Residential Home Purchase Mortgage Transactions

Since the data from the Division of Taxation were not consistent with the Working Group's information request, we looked to the residential mortgage market as a source of additional information on real estate transactions. While some homebuyers are able to purchase homes without a mortgage, a count of the number of mortgages for home purchases should give the Working Group a reasonable estimate of the size of the real estate market.

As a result of the Home Mortgage Disclosure Act, all mortgage transactions must be reported to the Federal Government. The government makes the data available to commercial vendors for processing. CBMI Corporation is one such mortgage data vendor. HMDA data was available for no charge from CBMI for 1997. We purchased state-level data from CBMI for 1999. (Note: The primary use for the mortgage data was to develop a list of the top 75 mortgage lenders for 1999 for the Lender Survey.) The HMDA database for 1999 was available from CBMI, but the Working Group chose not to purchase the data for county level analysis.

The CBMI data furnishes data on conventional, FHA/VA, and RHS/FSA mortgages for home purchases. Table 2.3 presents the state totals for each mortgage type and for all home purchase mortgages. The table shows that there were about 134,605 home purchase mortgages in 1999, up by more than 25% from 1997. These data show that the Class 2 real estate transaction data exclude a significant share of residential real estate transactions. A large part of the underreporting appears to result from the exclusion of the sale of new homes.

Table 2.3: Home Purchase Mortgages by Type and Calendar Year

Type	Year	
	1997	1999
Conventional	84,911	109,432
FHA/VA	19,282	24,589
RHS/FSA	226	584
All Types	104,429	134,605

Source: CBMI HMDA Data

III. Residential New Construction

In this Section, we present statistics that define the size and scope of the residential new construction market. These statistics were extracted from data furnished by the Division of Codes and Standards in the NJ Department of Community Affairs and from the RNC Baseline Nonparticipating Homebuyer Survey. As we review the statistics, it is clear that there is no definitive source of information on the number, location, and characteristics of new housing units. However, the information presented should be sufficiently accurate to furnish guidance to the Working Group for purposes of program design and assessment.

A. *New Housing Units – Sources and Definitions*

Three different data sources can be used to estimate the number of new housing units in New Jersey. The data sources are:

- *Building Permits*: The Division of Codes and Standards (DCS) in the NJ Department of Community Affairs (NJDCA) collects data from municipal construction officials regarding the number of housing units authorized each month.
- *Certificates of Occupancy*: DCS collects data from municipal construction officials regarding the number of housing units for which they have issued COs each month.
- *Homeowner Warranty Registry*: DCS maintains a registry of new home warranties for all warranted houses.

The most comprehensive measure of residential new construction is “housing units authorized by building permits.” These statistics show the total number of new housing units *authorized* for construction by local construction officials. Authorized housing units, however, represent the *potential* amount of building, rather than the actual amount of building and therefore overstate the number of housing units constructed in New Jersey each year.

Certificates of Occupancy (COs) are issued when a building is ready for occupancy. However, DCS staff believe that CO reporting is less timely and complete than permit data reporting. So, though the number of COs appears to furnish a better measure of the number of

new housing units, it may understate the total number of housing units, or it may allocate those housing units to the wrong time period.

The Homeowner Warranty Registry is a reliable source of data on warranted houses. However, two types of housing units do not require a home warranty in New Jersey; housing units built for lease and housing units for which the intended occupant serves as the general contractor. The warranty registry understates the total number of housing units constructed during a year.

B. Number and Location of New Housing Units

Table 3.1 presents statistics on the number of housing units by region that were authorized by building permits during 1999. Table 3.2 presents data on the number of housing units by region for which COs were issued during 1999. Table 3.3 presents data on the number of housing units by region for which a homeowner warranty was issued during 1999. Tables 3.4, 3.5, and 3.6 furnish county level data.

Table 3.1 shows that 37,522 housing units were authorized by building permits during 1999, an increase of about 36% from 1996. Four out of ten permits were issued in the Central Region and one-third of the permits were issued in the North Region.

Table 3.1: 1999 Building Permits by Region

Region	Housing Units Authorized by Building Permits	
	Number	Percent
North	12,610	34%
Central	15,549	41%
South	9,363	25%
NEW JERSEY 1999	37,522	100%
1998	35,676	
1997	30,017	
1996	27,577	

Source: *The New Jersey Construction Report – Annual Report for 1999*

Table 3.2 presents statistics for COs. The number and location of new housing units in 1999 are different in the CO data. Only 28,109 COs were reported for 1999, 25% fewer COs than building permits. While 34% of the permits were issued for housing units in the North Region, only 25% of COs were issued in the North Region. The historical trend is also different. In 1999, building permits reached

their highest level for the years reported. However, in 1997, 34,670 COs were issued, 23% more COs than were issued in 1999.

Table 3.2: 1999 COs by Region

Region	Housing Units Certified	
	Number	Percent
North	6,973	25%
Central	13,236	47%
South	7,872	28%
NEW JERSEY (1999)	28,109	100%
1998	28,008	
1997	34,670	
1996	22,239	

Source: *The New Jersey Construction Report – Annual Report for 1999*

Table 3.3 shows that 24,865 homeowner warranties were issued during 1999. The distribution of homes by region is consistent with the distribution of COs in Table 3.2.

Table 3.3: 1999 Homeowner Warranties by Region

Region	Homeowner Warranties	
	Number	Percent
North	5,905	24%
Central	12,198	49%
South	6,762	27%
NEW JERSEY (1999)	24,865	100%

Source: Special tabulations from the Homeowner Warranty Registry

These warranty data suggest that the CO data furnish a more reliable estimate of residential new construction than the building permit data. According to the data reported in *The New Jersey Construction Report – Annual Report for 1999*, during 1999, 28,037 building permits, 24,395 COs, and 22,994 warranties were issued for one-family and two-family homes. The close match between the number of homes with a warranty (22,994) and the number of COs for one and two-family homes (24,395) for 1999 suggests that COs furnished a better estimate of the number of new homes sold during 1999 than permits. (Note: Most, but not all one and two-family homes require a warranty.)

Table 3.4: 1999 Building Permits by Unit Type and County

County	All Units	1&2 Family Units	Multifamily Units	Mixed Use Units
Atlantic County	1,733	1,415	285	33
Bergen County	1,818	1,263	549	6
Burlington County	2,995	2,945	10	40
Camden County	1,040	830	206	4
Cape May County	1,405	1,361	27	17
Cumberland County	375	369	1	5
Essex County	1,590	1,345	241	4
Gloucester County	1,667	1,479	158	30
Hudson County	3,640	423	3,212	5
Hunterdon County	753	738	13	2
Mercer County	1,241	1,147	85	9
Middlesex County	3,249	2,740	496	13
Monmouth County	3,728	2,864	621	243
Morris County	2,260	1,475	688	97
Ocean County	4,315	3,916	322	77
Passaic County	872	538	272	62
Salem County	148	136	10	2
Somerset County	2,263	1,756	498	9
Sussex County	792	611	165	16
Union County	696	558	88	50
Warren County	942	866	67	9
State Buildings ²	14	13	0	1
State Totals	37,536	28,788	8,014	734

¹ SOURCE: The New Jersey Construction Reporter Annual Report 1999 Table 1c.

² Buildings owned by the State including State offices, colleges, hospital, and prisons.

Table 3.5: 1999 COs by Unit Type and County

County	All Units	1&2 Family Units	Multifamily Units	Mixed Use Units
Atlantic County	1,103	926	46	131
Bergen County	1,178	913	250	15
Burlington County	2,660	2,514	82	64
Camden County	1,258	1,125	125	8
Cape May County	1,203	1,130	51	22
Cumberland County	292	288	0	4
Essex County	1,398	1,144	253	1
Gloucester County	1,236	1,131	88	17
Hudson County	648	314	327	7
Hunterdon County	721	707	13	1
Mercer County	1,182	1,102	75	5
Middlesex County	2,671	2,122	537	12
Monmouth County	2,599	2,434	32	133
Morris County	1,614	1,312	292	10
Ocean County	3,995	3,397	539	59
Passaic County	481	324	152	5
Salem County	120	117	1	2
Somerset County	2,068	1,802	265	1
Sussex County	575	534	25	16
Union County	267	265	0	2
Warren County	812	790	16	6
State Buildings ²	28	4	24	0
State Totals	28,109	24,395	3,193	521

¹ SOURCE: The New Jersey Construction Reporter Annual Report 1999 Table 2a.

² Buildings owned by the State including State offices, colleges, hospital, and prisons.

Table 3.6: 1999 Homeowner Warranties by County

County	Number of Warranties
Atlantic County	1,039
Bergen County	1,035
Burlington County	2,389
Camden County	684
Cape May County	1,022
Cumberland County	209
Essex County	934
Gloucester County	1,333
Hudson County	497
Hunterdon County	704
Mercer County	1,097
Middlesex County	2,114
Monmouth County	2,544
Morris County	1,359
Ocean County	3,598
Passaic County	407
Salem County	79
Somerset County	1,799
Sussex County	510
Union County	393
Warren County	733
State Totals	24,479

SOURCE: The New Jersey Construction Reporter Annual Report 1999 Table 14a.

C. *Baseline Estimates of RNC Program Market Share*

Three utility residential new construction programs were in place prior to fielding this study. PSE&G and Conectiv Power Delivery have ENERGY STAR labeled programs that offer substantial financial and marketing incentives to participating builders. GPU Energy has been offering the GoodCents certification program for homes with electric heat since 1986.

Table 3.7 shows the 1999 statistics for the existing utility RNC programs. Two statistics are presented. “Certified Homes” includes only those housing units that have been completed and certified as meeting program requirements. “Homes in Contract” includes homes that were committed to the program in 1999, whether or not they were actually constructed.

Table 3.7: 1999 Utility Residential New Construction Participation

Program	Certified Homes	Homes in Contract
Conectiv / ENERGY STAR	27	349
GPU Energy / GoodCents	62	80
PSE&G / EEH 5 Star	684	1,024
NEW JERSEY	746	1,453

Source: PSE&G, Conectiv Power Delivery, and GPU Energy

We can compute a baseline market share for the utility RNC programs by comparing the statistics in Table 3.7 to those presented previously in this section. One approach is to compute the baseline market share as Certified RNC Program homes divided by the total number of homes for which a CO was issued. Using this definition, the RNC market share for 1999 was 746 of 28,109, or 2.6% of the market. A second approach is to compute the market share as Contract RNC Program homes divided by the total number of residential building permits issued. Using this definition, the RNC market share for 1999 was 1,453 of 37,522, or 3.9% of the market. However, since we have determined that COs best represent the number of new homes sold and that certified homes best represent the number RNC program homes completed, we recommend that the Working Group use 2.6% as the RNC program baseline market share.

D. Characteristics of New Housing Units

In this part of the report we present statistics that segment the new housing market by housing unit type, sales price, main heating fuel, and construction type. The ENERGY STAR program may need to be configured differently to address the needs of different market segments.

Table 3.8 shows the number of COs by region and housing unit type. As noted above, we present the CO data because it appears to represent the construction activity that actually occurred during a year more accurately. In 1999, about 20% of the new homes in the North Region were in multifamily¹ units or in mixed use buildings², while only 13% of homes in the Central Region and 8% of the homes in the South Region were categorized in that way. There do not appear to be any trends over time in terms of the type of housing units being constructed. For the years examined, the number of housing units in multifamily and mixed used buildings was in the range of 13% to 16% of the total number of housing units constructed. Building permit data show a very large increase in the number of multifamily units approved for construction. However, to date, there is no evidence from the data that are available that those units have actually been constructed.

Table 3.8: 1999 COs by Region and Unit Type

Region	Housing Unit Type	
	1&2 Family	Multifamily and Mixed Use
North	5,586	1,387
Central	11,578	1,686
South	7,231	641
NEW JERSEY (1999)	24,395	3,714
1998	23,593	4,415
1997	29,220	5,450
1996	18,797	3,442

Source: *The New Jersey Construction Report – Annual Report for 1999*

¹ A multifamily unit is defined as a building that consists of 3 or more housing units.

² A mixed-use building is defined as a building that includes both residential and non-residential units.

The statistics in Table 3.8 include modular homes (i.e., homes that are manufactured partially off-site, but are assembled at the construction site), but do not include manufactured housing (HUD certified homes) since they are inspected by HUD and do not need local building inspector certification. According to the Industrialized Building Commission, for FY 2000 (July 199 to June 2000), 48 modular housing units were shipped to New Jersey.

Table 3.9 shows the distribution of new homes by sales price, for homes that had a Homeowner Warranty data. (Note: Most homes in the Homeowner Warranty Registry are one-family and two-family homes.)

Table 3.9: 1999 New Homes with a Homeowner Warranty by Price Category

Region	Price Category			
	Less than \$150,000	\$150,000 to \$300,000	More than \$300,000	Median Price
North	23%	39%	39%	\$258,000
Central	16%	53%	31%	\$236,531
South	34%	54%	12%	\$175,485
NEW JERSEY	22%	50%	28%	\$221,750

Source: Special tabulations from the Homeowner Warranty Registry

In New Jersey, about one-fourth of the warranted homes sold for less than \$150,000, about half are priced in the \$150,000 to \$300,000 category, and about one-fourth are valued at more than \$300,000. In the North Region, almost 40% of the homes are priced at more than \$300,000, while only 30% of homes in the Central Region and 12% of the homes in the South Region are sold for over \$300,000. The median sales price for 1999 was \$221,750.

Table 3.10 furnishes information on the number of homes by price category by county. The median price varies from a low of \$122,031 in Cumberland County to a high of \$360,440 in Bergen County. In Cumberland County, three-fourths of the homes sell for less than \$150,000. In Bergen County, two-thirds of the homes sell for over \$300,000.

Table 3.10: 1999 New Homes with a Homeowner Warranty by Price Category

Region	Price Category			
	Less than \$150,000	\$150,000 to \$300,000	More than \$300,000	Median Price
Atlantic County	52%	44%	4%	\$148,042
Bergen County	11%	25%	64%	\$360,440
Burlington County	22%	63%	15%	\$199,000
Camden County	46%	44%	10%	\$157,750
Cape May County	20%	51%	29%	\$237,000
Cumberland County	75%	23%	2%	\$122,031
Essex County	52%	21%	27%	\$150,000
Gloucester County	39%	58%	3%	\$163,179
Hudson County	31%	38%	31%	\$255,000
Hunterdon County	7%	35%	58%	\$339,750
Mercer County	18%	52%	29%	\$227,904
Middlesex County	15%	62%	23%	\$239,990
Monmouth County	10%	40%	50%	\$302,000
Morris County	8%	39%	53%	\$309,900
Ocean County	27%	68%	5%	\$178,369
Passaic County	17%	39%	44%	\$274,376
Salem County	41%	47%	12%	\$156,780
Somerset County	6%	41%	53%	\$310,083
Sussex County	12%	56%	32%	\$254,275
Union County	49%	33%	18%	\$155,000
Warren County	17%	72%	11%	\$219,000
NEW JERSEY	22%	50%	28%	\$221,750

Source: Special tabulations from the Homeowner Warranty Registry

The Nonparticipating Homebuyer Survey also furnishes information for “homes built for sale.” In that survey, we interviewed 200 homebuyers who purchased their homes during 1998, 1999, and 2000. The statistics derived from the Nonparticipating Homebuyer Survey furnish information about the population of houses built for sale in New Jersey. Table 3.11 summarizes these characteristics. (For some characteristics, the percentages add to less than 100% because the respondent didn’t know or refused to answer.) Most new homes in New Jersey are gas heated production homes³. Almost one-third of them are larger than 2,500 square feet. About 5% of them were built as part of an affordable housing program. The sales price distribution demonstrates that the distribution for our sample of homebuyers is similar to the distribution in Table 3.9 from the Warranty Registry.

Table 3.11: Other New Home Characteristics

Characteristic	Category		
	Gas	Electric	Other
Main Heating Fuel	93%	3%	4%
Production/Custom	Production		Custom
	88%		12%
Affordable Housing	Not Part of Affordable Housing Program		Part of Affordable Housing Program
	95%		5%
Square Footage	LT 1800	1800-2500	More than 2500
	20%	27%	32%
Sales Price	Less than \$150,000	\$150,000-\$300,00	\$300,000 or More
	19%	55%	22%

E. Prefabricated Housing

In this part of the report we furnish information on prefabricated housing. There are two types of prefabricated housing; manufactured

³ A custom home is defined as a home that is built to the homebuyer’s specifications.

housing and modular housing. We define each type of prefabricated housing and furnish estimates of the number of prefabricated units.

1. Manufactured Housing

Manufactured housing is factory built and subject to HUD regulation. The regulations are part of the 1974 National Manufactured Home Construction and Safety Standards Act. Our source at the NJ Manufactured Housing Association (NJMHA) reports that "mobile" homes were replaced in 1976 by manufactured housing.

Before a manufactured unit leaves the factory it must have a HUD seal. It can be shipped anywhere in the US. In NJ outside dimensions must be at least 22' by 22'. This applies to single family detached residential only. On site, the dwelling is subject to only foundation inspection and how the unit is attached to the foundation. Inspectors do not inspect the dwelling since that was done at the factory. Inspectors check the smoke detectors and often check to be sure the lights work and the plumbing works, but they do not inspect the building details. The HUD standards are considered to be higher than the NJ BOCA standards. These homes can be two stories, although single story are the most common. They can come in pieces that need to be joined on site; however essentially they are completely prebuilt. They do not require a Certificate of Occupancy (CO).

According to the Manufactured Housing Institute (a national association), 644 manufactured housing units were shipped to New Jersey in 1999.

2. Modular or Industrialized Housing

According to the State of New Jersey, modular or industrialized housing is any building of closed construction, including, but not limited to, modular housing that is factory built single-family and multi-family housing (including closed wall panelized housing) and other modular nonresidential buildings. It "does not include any structure subject to the requirements of the National Manufactured Home Construction and Safety Standards Act of 1974." These homes are subject to standard inspections, require a CO, and are often less complete than manufactured homes. While

the walls are up, they *usually* are not painted, *usually* do not have light fixtures, and *usually* do not have tile, carpet etc. Local inspectors inspect the structure and foundation. Along with the building design, electrical and plumbing designs must have local approval.

Modular homes must be registered with the New Jersey Homeowner Warranty Program. They also get a "seal". The seals are issued through the federal government (HUD contracts with an outside group). For New Jersey, Rhode Island and Michigan that group is the Industrialized Building Commission.

According to the Industrialized Building Commission, for fiscal 2000 (July 1999 - June 2000) 48 modular housing units were shipped to New Jersey. However, the Homeowner Warranty Registry lists 588 modular units. We have not been able to resolve this discrepancy.

IV. Residential Additions and Alterations

The Working Group is interested in the number and economic value of additions and alterations done each year. The Division of Codes and Standards collects information on building permits for additions and alterations. Table 4.1 presents information on the number and value of additions and alterations by county for 1999.

Table 4.1: 1999 Additions and Alterations to Residential Structures

County	Permits for Additions	Permits for Alterations	Total Value (\$ millions)
Atlantic County	405	5,930	\$44.1
Bergen County	1,967	30,729	\$271.4
Burlington County	726	9,543	\$52.6
Camden County	663	11,283	\$67.3
Cape May County	612	5,300	\$43.9
Cumberland County	223	3,003	\$13.4
Essex County	628	14,904	\$139.4
Gloucester County	503	5,262	\$27.1
Hudson County	43	9,114	\$140.6
Hunterdon County	314	3,989	\$38.1
Mercer County	501	10,631	\$75.6
Middlesex County	775	16,509	\$91.1
Monmouth County	1,499	20,131	\$165.1
Morris County	1,414	14,422	\$133.2
Ocean County	1,458	15,045	\$103.6
Passaic County	545	10,277	\$66.6
Salem County	156	1,362	\$8.8
Somerset County	431	9,603	\$80.2
Sussex County	300	4,985	\$28.2
Union County	648	13,435	\$115.4
Warren County	183	3,366	\$19.8
State Totals	13,995	218,859	\$1,747.2

SOURCE: New Jersey Department of Community Affairs, Division of Codes and Standards

The total value of permits for additions and alterations is \$1.7 billion, about half the size of the \$3.6 billion residential new construction market. However, while the average dollar value of new construction is about \$100,000 per unit, it is only \$8,000 for additions and alterations.

