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Housing Accommodation
by the
State Development and
Redevelopment Plan

November 1988

Preliminary
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Plan

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DEVELOPMENT AND REDEVELOPMENT PLAN

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       This report was prepared by Robert Burchell and David
Listokin under contract to the New Jersey Office of State Planning.
The findings and opinions within do not necessarily reflect those
of the Office of State Planning or the State Planning Commission.
It should also be noted that when this work was done the November
1988 version of the Preliminary State Plan was not yet available.
Therefore, certain statements and assumptions made by the authors,
and based on an earlier Draft Plan, may no longer be appropriate.
The conclusions reached by the authors may still be valid, but
should be examined in light of these new circumstances.

DRAFT

HOUSING ACCOMMODATION BY THE STATE DEVELOPMENT AND REDEVELOPMENT PLAN

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HOUSING REGIONS

There are six housing regions in New Jersey based primarily on 1980 commuting sheds whose ties are increasing as we approach the decade of the 1990s. These regions are the *Northeast* Region (Bergen, Hudson, and Passaic Counties); the *Northwest* Region (Union, Essex, Moms, and Sussex Counties); the *West Central* Region (Middlesex, Somerset, Hunterdon, and Warren Counties); the *East Central* Region (Monmouth and Ocean Counties); the *Southwest* Region (Burlington, Camden, Gloucester, and Mercer Counties); and the *South-Southwest* Region (Atlantic, Cape May, Cumberland, and Salem Counties).

HOUSING SUPPLY AND DEMAND

Housing supply essentially meets demand over the course of the viewed projection period. Supply comes within five percent of demand using very liberal estimates of demand and reasonably conservative estimates of supply. In most regions, supply is in excess of demand: in two regions, the Northwest and the Southwest, supply lags demand by a significant margin. In each of these latter cases, there is sufficient supply in a county of a neighboring region to render the imbalance not a significant problem.

HOUSING COST AND TENURE/TYPE

While there is demonstrable parity between supply and demand, the key issue to be addressed in New Jersey housing markets is housing costs. For single-family housing, there is an absence of new housing for those whose household income is below $50,000. For multifamily housing, there is an absence of units which would rent to those below $18,000 in household income.

On the other hand, there are oversupplies of single-family housing for those above the $100,000 income level and of multifamily housing for those of income $50,000 or more.

LAND-HOLDING CAPACITY

Using full employment and full housing demand (including a factor for vacancy), the State Development and Redevelopment Plan accommodates projected growth. This is true across the majority of regions with the presence of village, town, and corridor centers. The latter are icing on the cake of land-holding capacity rather than significant growth area contributors in and of themselves. The East-Central Region and the Northeast Region are areas which will have their housing and employment markets spill over to the southwestern and northwestern pans of the state, respectively. This will accommodate some uneasiness of fit between future housing/employment growth and land availability in these areas.

FUTURE REQUIREMENTS OF COUNTIES
DURING CROSS-ACCEPTANCE

Counties will be asked to accept from 4,000 to 58,000 housing units over a twenty-year period to accommodate projected housing needs. These numbers, in many cases, are below the levels currently being accommodated due to significantly reduced housing demand in the decade 2000-2010 (Exhibit A).

IMPACTS OF THE STATE PLAN ON HOUSING COSTS

There will probably be only limited overall impacts on housing costs as a direct result of the State Plan. This is true because, on a statewide basis, the State Plan fits. While it is difficult to gauge whether there will be any impact of the Plan on land price, if the State Plan did increase land prices by as much as 50 percent, the effect on the occupancy costs of multifamily housing would be an increase of no more than 5 to 10 percent

MELIORATIVE HOUSING ACTIONS

The cross-acceptance process relative to State Plan implementation is a window of opportunity to address housing cost and type/tenure imbalances. Not only must full demand numbers be met, but new single-family housing for those below $50,000 household incomes and multifamily housing of rental tenure for those below $18,000 income must be provided. More multifamily housing must be zoned for all income groups in the central and southern parts of the State.

Efforts of the Council on Affordable Housing (COAH) must be supported by the State Plan, and State housing programs should be targeted to those communities who embrace State Plan objectives and the efforts of CO AH.

EXHIBIT A

CROSS-ACCEPTANCE HOUSING AND EMPLOYMENT PARAMETERS OF COUNTIES WITHIN HOUSING REGIONS OF NEW JERSEY
(1990-2010)

	HOUSING	EMPLOYMENT
REGION 1 NORTHEAST		
BERGEN	11,359	28,378
HUDSON	3,784	7,160
PASSAIC	14,876	32,538
TOTAL	**30,019**	**68,076**
REGION 2 NORTHWEST		
ESSEX	14,998	20,885
MORRIS	50,444	103,136
SUSSEX	13,046	25,478
UNION	7,993	11,105
TOTAL	**86,481**	**160,604**
REGION 3 WEST CENTRAL		
HUNTERDON	20,181	31,556
MIDDLESEX	58,074	80,873
SOMERSET	37,215	73,966
WARREN	12,276	18,259
TOTAL	**127,745**	**204,654**
REGION 4 EAST CENTRAL		
MONMOUTH	54,200	31,183
OCEAN	47,350	35,657
TOTAL	**101,550**	**66,840**
REGION 5 SOUTHWEST		
BURLINGTON	49,139	46,940
CAMDEN	51,402	39,714
GLOUCESTER	39,612	47,615
MERCER	46,047	63,149
TOTAL	**186,200**	**197,418**
REGION 6 SOUTH-SOUTHWEST		
ATLANTIC	31,926	22,648
CAPE MAY	10,616	21,276
CUMBERLAND	23,871	18,869
SALEM	11,241	3,884
TOTAL	**77,655**	**66,677**
STATE TOTAL	**609,650**	**764,269**

INTRODUCTION

The purpose of this report is to view housing demand versus supply over the period 1990 to 2010 in terms of: numbers, cost, and type (tenure) of housing as well as the capacity to accommodate this housing under the territorial demarcations of the State Development and Redevelopment Plan. In addition, the report looks at the components of housing cost and the impacts of land supply limitations on those costs.

ORGANIZATION OF THE REPORT

The report begins with a discussion of housing markets in New Jersey and how these markets are configured relative to journey-to-work. It further discusses other influences on regional designation such as data availability (correspondence with Census PMSAs), and similarity across and diversity within regions.

Next to be undertaken are projections of housing demand based on the growth of households for the State. Projections of household growth are made for the year 2010 using combined State models and county-specific headship rates for the projection period, It is absolutely essential to forecast households rather than population for they form the key demand units for future housing need.

On the other side of the equation, housing supply is projected to the future. This is done by housing type/tenure and by current cost relationships. From this exercise a picture of gaps in cost and tenure alternatives emerge. Housing supply is based on historic delivery of both type and cost of housing, and is limited by demand as it is projected to the future.

Once housing demand and supply are projected, the report focuses on a key issue relative to the State Plan—housing production as influenced by the growth-management Tier designations of the State Plan. Here is viewed future land-holding capacity by county according to the way in which projected regional growth in employment and housing will fill developable land throughout the State. From this emerges the beginnings of cross-acceptance obligations on the part of counties relative to both future housing and employment accommodations.

The report concludes with a discussion of the components of housing costs and the degree to which land supply limitations could cause increases in housing costs. It is important to view the carrying costs of housing because this represents the day-to-day cost of occupying housing. With the cost of interest, taxes, maintenance, and utilities, the construction costs of housing, including land, have much less a role in influencing housing price. For those at the bottom of the income scale where any cost increases—no matter how small—are intolerable, basic housing-subsidy programs are outlined and their availability highlighted.

- HOUSING MARKETS
- HOUSING DEMAND
- HOUSING SUPPLY
- LAND-HOLDING CAPACITY
- HOUSING COSTS
- HOUSING PROGRAMS

DEFINITION OF A HOUSING MARKET

The purpose of this section is to trace the origins and definitions of housing markets. Using this description, housing markets in New Jersey are then defined. The first section of this report defines housing markets and their prime ingredient, the journey-to-work. New Jersey's markets are isolated using a grouping algorithm, and their journey-to-work profiles analyzed.

The Federal Housing Administration (FHA) defines a housing market region or area as "the geographic entity within which non-farm dwelling units are in mutual competition."[1] Ernest and Robert Fisher, who have written several texts on real estate, have an essentially similar definition:

> The extent of a [housing-real estate] market is defined by the area over which units in the standing stock are assumed to be substituted for one another.[2]

However, there are no hard and fast rules for determining whether or not housing units are competing with one another. The FHA, for example, has admitted that:

> A technique is not available to determine the exact points at which specific dwelling units are just beyond the range of competition with other units so that the precise limits can be established for delineating the housing market area.[3]

Journey-to-Work as a Determinant
of the Housing Market

There is widespread consensus that the length of the journey-to-work has a major influence on the purchase or rental of a dwelling unit and thus the definition of a housing market. Studies have varied from those who contend that residents seek to minimize travel costs to those who argue that the goal is to seek an optimum trade-off between travel and housing costs.[4] One study, for example, noted that the most important determinant of the individual's residential choice is the travel or distance from his income earning function, i.e., job or business.[5] Similarly, the FHA has observed that the location of actual and prospective employment centers and the availability of transportation facilities are among the major considerations in the location choice of the working population.[6]

The estimation of average or usual work-trip length is highly speculative. Two basic ingredients in deriving such estimates are the distances and times people actually travel, and the verbalized preferences of people regarding work-trip length. In the case of the former, in early journey-to-work analyses, the dimension of comparison was always *distance*. Studies were concerned with road or rail miles from the employment site. It quickly became apparent, however, that to elicit a more clear-cut measure of the real cost (i.e., sacrifice) of die journey-to-work, the dimension of *time* had to be added. Thus, an individual traveling 30 minutes by automobile sacrifices the same amount of time as another individual opting for a 30-minute trip on a different mode of transit or on foot, even though actual distances traveled are considerably different.

The 1980 *Census of Population* indicates that the average (mean) distance to work nationally was about 12 miles among householders, while the .average travel time was approximately 24 minutes. The latter is down 7 percent from 1970. The 1980 figures for New Jersey are 12 miles and 25 minutes, respectively, and also are below those of 1970.[7]

An interesting paradox exists in the journey-to-work literature. This concerns a "burdensome" journey-to-work versus the travel time of most households. A burdensome commute is defined by *FHA Techniques of Housing Market Analysis* as greater than one hour.[8] The Journey-to-Work Division of the Bureau of the Census suggests that a "burdensome" commute might be empirically isolated as the point in the commuting distribution where there is a significant break in who does/does not commute that far or for that long.[9] If this were true, most "burdensome" commutes might well be at the 45-minute level, where indeed there is a fall-off in the number of workers commuting this amount of time or more. Thus, what is believed to be a burdensome commute from both of these sources is approximately double the time/distance experience of most American households. While a one-half-hour traveling time "standard" is working its way into the planning literature, its origin reflects the outer range of the time that the majority of Americans are actually willing to spend traveling to work. Further, the actual work-trip time remains significantly smaller than what is deemed burdensome by American households.

THE JOURNEY-TO-WORK
AND THE HOUSING REGION

Housing sub-regions related to journey-to-work have historically been constructed using travel times on various categories of roads during prime commuting periods. The first formal procedure for the accomplishment of this was published by the American Society of Planning Officials in 1951, following planner-economist, J.D. Carroll's work on journey-to-work analysis and its importance in planning.[10] Points on roads outward from an *employment center* representing travel times would be connected to each other in the same fashion as if one were to weave together points in the spokes of a wheel. These zones of potential residence, emanating outward from the center of an employment zone, would take on an amoeba-like form as various gradations of roadways (collectors, arterials, freeways, etc.) would allow different distances to be traveled for the same travel time. The "isotime zones," as they were called, represented an estimate of all places accessible from the employment center within the time specified on the outer edge of the zone. These were termed local markets or sub-markets.[11]

While this procedure may have gained acceptance for the delineation of a sub-market, clearly for data presentation purposes a more recognizable and permanent market area has had to be constructed. The market area, while keyed to journey-to-work, had to take into account the availability of employment data to isolate centers of employment. Historically, this was available only on a county basis in the form of *County Business Patterns,* an annual tabulation of jobs by category in the United States published by the U.S. Department of Commerce.[12] Recognizing the expanding scope of the market, *FHA Techniques of Housing Market Analysis* lists the prerequisites for housing market delineation:

> The location of actual and prospective employment centers and the availability of transportation facilities of all types underlie the selection of general locational alternatives as places of residence for the working population.

> The housing market area usually extends beyond city limits regardless of the magnitude of the market under consideration. In the larger markets, the market area may extend into several adjoining counties through the outward growth of the primary metropolitan area.

> The actual delineation of a housing market area and submarket areas is determined primarily by Census area definitions.[13]

CONSTRUCTING NEW JERSEY
HOUSING REGIONS

The linkage of housing regions and journey-to-work has been discussed in the previous section. It is now necessary to use this criterion to prescribe housing regions for New Jersey. The procedure employed consists of several steps. Initially, it is necessary to group counties which evidence strong commuting linkages between themselves and other counties. Once grouped according to pre-specified matching criteria, it is then necessary to attempt to maximize within-region differences and across-region similarities of income and housing characteristics. The following sections detail the statistical procedures used to carry out these objectives.

The Initial Grouping by Journey-to-Work Linkages

Information on journey-to-work for New Jersey counties may be obtained from the *1980 Census,* Public Use Sample (File A) for New Jersey; this is a five-percent sample of all New Jersey households.[14] Information is available on times traveled one-way to work (in minutes) for all those employed in households as of April 1980. Also a part of the data set are origin and destination of the worktrip. The information to be used in the initial grouping procedure concerns worktrip origin and destination. This information is used only at the county level, i.e., for each employed member of the household, worktrip county of origin and county of destination. All modes of travel are included: automobile, bus, rail, and miscellaneous (walking, biking, etc.).

Information is available for only nineteen subsets of the State; in two instances (Warren/Hunterdon and Cape May/Salem), the data of two counties has to be joined as they are too small (county populations below 100,000) to be reported individually. In all subsequent analyses any regional grouping of counties always contains these two sets of counties appearing as one.

The program chosen to group counties is the CLUSTER procedure from the Statistical Analysis System (SAS) package.[15] CLUSTER is a grouping procedure designed to help identify groups of observations that have similar attributes. It partitions the data into a smaller number of groups such that data units belonging to one group are "similar" in a certain sense, while data units belonging to different groups are "dissimilar" in the same sense. The procedure is dependent upon "distance" (value separation) between variables. It is unique in that it assumes no conceptual associations or distance values *a priori.* CLUSTER computes its own distance matrix and standardizes the matrix across the data set

Certain controls are placed on the grouping mechanism. Counties that could be grouped based on similar commuting ties have to be contiguous. In addition, no less than two nor more than five counties are allowed to cluster as part of any group. The lower threshold is to ensure that no single county appeared "left over"; the upper threshold was chosen to avoid large commuting distances within any one identified region.

The initial grouping of counties produces groups of the following composition:

GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6	GROUP 7
BERGEN	ESSEX	MIDDLESEX	MONMOUTH	CAMDEN	ATLANTIC	HUNTERDON
PASSAIC	MORRIS	SOMERSET	OCEAN	GLOUCESTER	CAPE MAY	WARREN
HUDSON	UNION			BURLINGTON	CUMBERLAND	SUSSEX
				MERCER	SALEM	

Group 1 shows particularly strong commuting linkages between Bergen/Passaic Counties and Hudson/Bergen Counties, and less so, between Passaic/Hudson Counties.

Group 2 shows strong commuting linkages between Union/Essex Counties, Morris/Essex Counties, and less so, between Union/Morris Counties.

Group 3 shows significant commuting between Middlesex/Somerset Counties.

Group 4 evidences similar heavy commuting between Monmouth/Ocean Counties.

Group 5 shows the heaviest commuting between Burlington/Camden Counties, Camden/Gloucester Counties, and Mercer/Burlington Counties. Commuting ties are less in evidence between Gloucester and the two northern counties or between Mercer and the two southern counties.

Group 6 shows strong commuting ties between Atlantic/Cape May-Salem Counties and Cape May-Salem/Cumberland Counties. Less strong commuting ties are in evidence between Atlantic/Cumberland Counties.

Group 7 is joined together as a residual because Warren County unites with Hunterdon County due to data unavailability and, as such, prevents Hunterdon County from joining the Somerset County group. Further, since there are some times between Sussex and Warren Counties, yet almost none between Warren and Morris Counties, Warren County does not allow Sussex to join the Morris County group.

In all cases, the. commuting ties between counties of these groups are stronger among each other than between a single county of the group and another group as a whole. There may be selected instances where a single county of one group is related more intensely to a single adjacent county of another group than to members of its own group; yet overall, there are usually weaker commuting ties with the other group as a whole. The above listings provide the first sort of constituent New Jersey counties along commuting lines.

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t The county specified before the "slash" is place of work; after the slash is place of residence. This format has meaning only within this section. Only the major commuting linkages are mentioned.

Refining the Grouping by
Difference/Similarity Characteristics

In addition to maximizing the journey-to-work linkage of areas, it is further desired that when the areas are finally joined, they each evidence some socioeconomic variation within them. It is obvious that the State of New Jersey is very different from north to south and also from east to west, and any regional grouping is bound to be characterized by these mrerregional differences. Yet, to the degree possible, differences within regions (mfnjregionai) are also desired.

In order to achieve this, another grouping program is employed. The procedure chosen here is the Fortran Program H-GROUP.16 H-GROUP compares a series of score profiles over a series of variables, and progressively associates the profiles into groupings in such a way as to minimize the variation of the profiles within clusters.

The program uses a generalized distance function based on the concept of an *error* function which it normally attempts to *minimize*. H-GROUP is a unique program in that it easily may be adjusted to perform exactly the opposite procedure, i.e., associate members into groupings that are dissimilar along a set of variables. This is done by associating members of a group that are characterized by a *maximum error* function. The variables used to view dissimilarity within regions are:

INCOME	% BELOW POVERY LEVEL MEDIAN INCOME % ABOVE $50,000
HOUSING COSTS	RENT (MEDIAN) OF RENTAL UNITS VALUE (MEDIAN) OF UWNED UNITS OWNER COSTS (MEDIAN) OF OWNED UNITS
HOUSING QUALITY	% UNITS BUILT PRE-1950 % UNITS CROWDED (>1.01 PERSONS/ROOM)

Controls are also applied to this grouping mechanism. Commuting ties of the new groupings have to equal or exceed those of previous groupings. In addition, grouped counties have to be contiguous, and assembled groups cannot be less than two nor exceed five counties.

The *dissimilar* grouping program allows Hunterdon/Warren Counties to join the Middlesex-Somerset County grouping and Sussex County to join the Essex-Union-Morris County grouping. Thus produced are the following six groupings of counties:

GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
BERGEN	ESSEX	HUNTERDON	MONMOUTH	BURLINGTON	ATLANTIC
HUDSON	MORRIS	MIDDLESEX	OCEAN	CAMDEN	CAPE MAY
PASSAIC	SUSSEX	SOMERSET		GLOUCESTER	CUMBERLAND
	UNION	WARREN		MERCER	SALEM

Maximum *similarity* across groups is also attempted. Here the H-GROUP Program is used in its unaltered State across the variable set specified previously. Controls emphasized are as follows: maintaining commuting linkages; two-county minimum/five-county maximum groupings; the contiguousness of grouped counties; and within-group dissimilarity. The program specifies a search of all existing county groups to potentially produce another set of groupings. This set of groupings, in addition to maintaining the above specifications, would allow one county to be traded between groups for another county which might enhance across-group similarity. With the controls specified, the former grouping of the State's counties into six groups of two to four counties each remains intact. More similar groups cannot be found that also meet the control criteria. Thus, the county groups are finalized and given the geographic labels as indicated in Exhibit 1.

Post-1980 Changes

Most of the discussion which has taken place reflects procedures based on 1980 data. Could the relationships have changed post 1980? While anything is possible, Exhibit 2 indicates clearly that, in 1980, 80-95 percent of commuting was contained within the specified regions. The median commutation trip time is 20-24 minutes. In Exhibit 3 is contained physically close-in counties which could possibly alter the existing scenario. What is apparent is that the commutation linkages are strong within region, and very weak in adjacent counties outside the region. For instance, there may be some linkage between Mercer County and the Middlesex-Somerset-Hunterdon-Warren Region, but it is a very weak linkage compared to Mercer County's tie to Burlington County which, if anything, is increasing.

Similarly, Sussex County's ties to Morris County are strong, but very weak with Passaic and Hunterdon-Warren. Finally, Atlantic County has strong links with Cape May-Salem Counties, and very minimal links with Camden, Burlington, and Ocean Counties. With the advent of the rise of employment due to the casino industry (only a portion of which was caught by the 1980 Census), most employees are captured by Atlantic County, and a reasonably significant portion by Salem-Cape May Counties, this again tends to solidify rather than dilute the regions described previously.

EXHIBIT **1 THE** SIX **HOUSING**

REGIONS **OF** NEW JERSEY

REGION 1
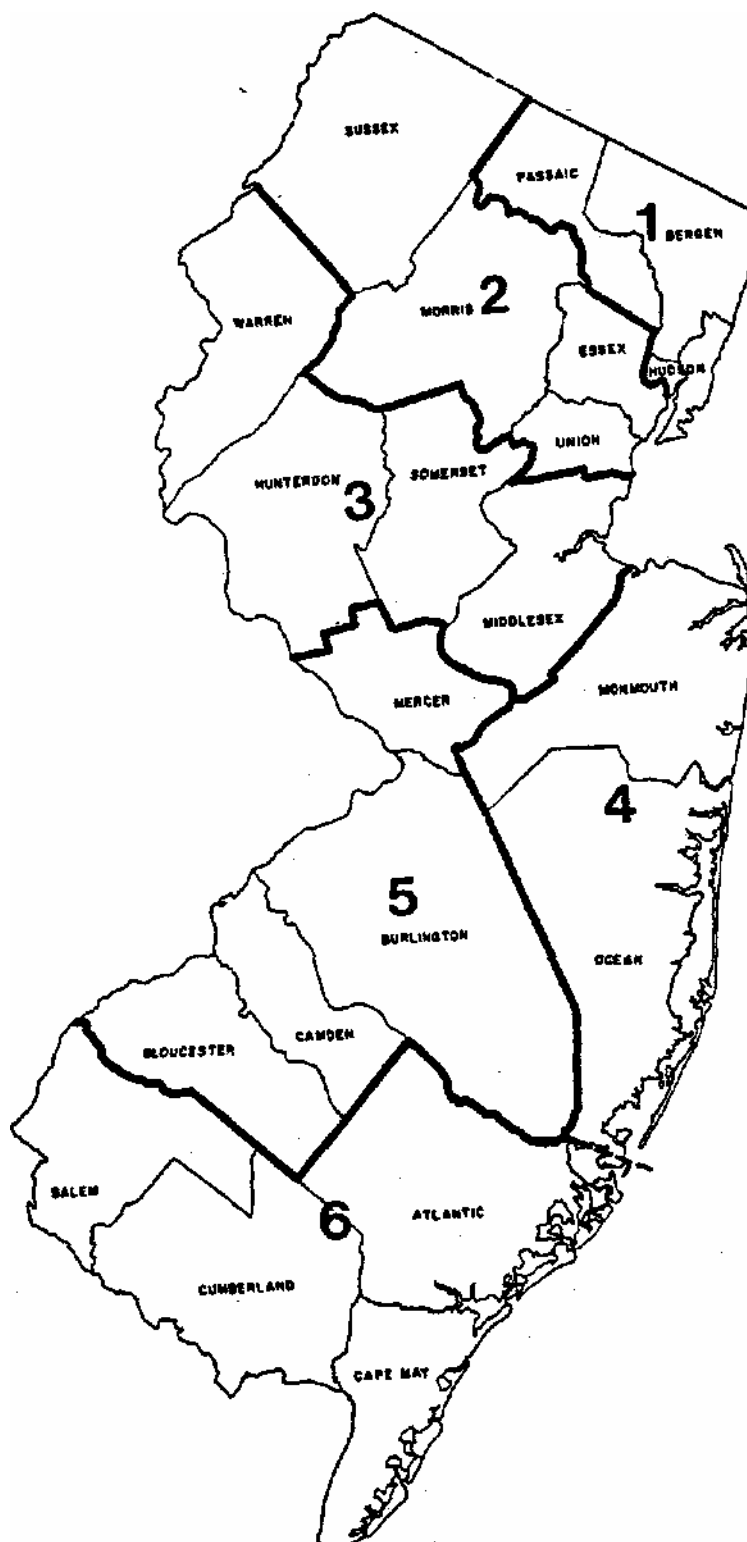**NORTHEAST**
BERGEN
HUDSON
PASSAIC

REGION 2
NORTHWEST
ESSEX
MORRIS
SUSSEX
UNION

REGION 3 WEST
CENTRAL
HUNTERDON
MIDDLESEX
SOMERSET
WARREN

REGION 4
EAST CENTRAL
MONMOUTH
OCEAN

REGION 5
SOUTHWEST
BURLINGTON
CAMDEN
GLOUCESTER
MERCER

REGION 6
SOUTH-SOUTHWEST
ATLANTIC CAPE
MAY CUMBERLAND
SALEM

EXHIBIT 2

PERCENTAGES OF RESIDENTS LIVING IN SPECIFIED COUNTIES WORKING IN SPECIFIED REGIONS

WORK IN REGION	LIVE IN COUNTY																		
	Bergen	Passaic	Hudson	Essex	Union	Morris	Sussex	Middlesex	Somerset	Hunterdon-Warren	Monmouth	Ocean	Camden	Gloucester	Burlington	Mercer	Atlantic	Cumberland	Cape May-Salem
REGION 1 NORTHEAST	74	81	72	11	4	11	12	3	2	1	3	2	0	0	0	0	0	0	0
REGION 2 NORTHWEST	6	13	10	79	78	77	77	15	18	11	7	7	0	0	0	1	0	0	0
REGION 3 WEST CENTRAL	1	1	1	3	11	5	4	70	72	76	9	6	0	0	1	7	0	0	0
REGION 4 EAST CENTRAL	0	0	0	0	0	0	0	2	0	0	71	76	0	0	1	1	0	0	0
REGION 5 SOUTHWEST	0	0	0	0	0	0	0	2	4	4	2	5	73	72	81	84	4	4	7
REGION 6 SOUTH-SOUTHWEST	0	0	0	0	0	0	0	0	0	0	0	2	2	9	1	0	93	95	86
OUT-OF-STATE	20	5	17	7	6	6	7	7	4	7	9	4	24	19	16	7	3	1	7
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Note: Numbers may not add lo 100 due to rounding.

Source: U.S. Census of Population and Housing, 1980 (New Jersey Public Use Sample)

EXHIBIT 3 NEW JERSEY

WORKPLACE AND RESIDENCE BY COUNTY

Source: U.S. Census of Population and Housing, 1980

PLACE OF WORK	PLACE OF RESIDENCE	
	CLOSE-IN COUNTIES WITH STRONG COMMUTING TIES (IN DESCENDING ORDER)	CLOSE-IN COUNTIES WITH MINIMAL COMMUTING TIES (IN DESCENDING ORDER)
ATLANTIC	CAPE MAY–SALEM, CUMBERLAND	CAMDEN, BURLINGTON, OCEAN
BERGEN	HUDSON, PASSAIC	UNION, ESSEX, MORRIS
BURLINGTON	CAMDEN	ATLANTIC, OCEAN
CAMDEN	BURLINGTON, GLOUCESTER	ATLANTIC
CAPE MAY–SALEM	CUMBERLAND, ATLANTIC	—
CUMBERLAND	ATLANTIC, CAPE MAY–SALEM	—
ESSEX	UNION, MORRIS	—
GLOUCESTER	CAMDEN	CUMBERLAND
HUDSON	BERGEN	—
HUNTERDON–WARREN	SOMERSET	—
MERCER	BURLINGTON	HUNTERDON—WARREN
MIDDLESEX	SOMERSET	—
MONMOUTH	OCEAN	MERCER, BURLINGTON
MORRIS	ESSEX, SUSSEX, UNION	HUNTERDON–WARREN
OCEAN	MONMOUTH	ATLANTIC, BURLINGTON
PASSAIC	BERGEN	SUSSEX
SOMERSET	MIDDLESEX, HUNTERDON–WARREN	MERCER
SUSSEX	MORRIS	PASSAIC, HUNTERDON–WARREN
UNION	ESSEX	—

PROJECTIONS OF HOUSING DEMAND

To determine future housing demand, both population projection and forecasting techniques are employed. The term *projection* as opposed, for instance, *to forecasts* or *goals,* has very specific meaning. It means that the resulting figures are measurements of a future if the rules and assumptions of the method hold as empirically valid.[17] Thus, if the inherent operations of a projection are carried out without error, the projection is correct. While there may be disagreement on rules and/or assumptions, there can be no disagreement on results obtained once there is agreement on assumptions and the model has operated correctly.

Forecasts, on the other hand, often contain value judgments which are inserted in a model usually for more accurate prediction. They enhance accuracy yet are often not empirically based.[18] The U.S. Census uses a forecasting procedure with its population models. The most common approach is to average two population projections to use as a third projection. There is no empirical basis for averaging the two models, many of whose assumptions are dissimilar, but it is done in the quest of accuracy. Historically, this procedure has given very good results and is a favorite of the U.S. Census Bureau.

Finally, *goals* are statements of the future, usually of an advocacy nature. For example, populations may be shown to remain constant rather than decrease because psychologically, if decrease were shown, it might hasten or contribute to additional decrease. This would go contrary to the goal of growth or sustained viability for the affected area. This type of approach may be used in analyzing central city growth trends where a projection of decline for a city from a recognized population source may reinforce insecure feelings about the city and hasten its decline.[19]

The statements of future housing demand contained in this report are both *projections* and *forecasts;* they consist of a judgment concerning expected future conditions. They are expressed by using an accepted base of population modeling *(projection)* developed and promulgated by the New Jersey Department of Labor,[20] and averaging the output of two such projections for a more accurate result *(forecast)*. The models which are averaged here are the Office of Demographic and Economic Analysis' Economic-Demographic Model and its Historical Migration Model. The first model is based on standard projection procedures but assumes employment growth to be a major determinant of migration for persons under age 65. The model is driven primarily by labor demand at the State and county levels.

The Historical Migration Model, like the Economic-Demographic Model, is a cohort-component projection. The assumptions regarding the base population, fertility, and mortality are the same as those of the Economic-Demographic Model and most standard models. Rather than inferring migration under 65 by economic factors, the Historical Migration Model applies past net migration rates directly to the population distributed at each projection interval. Thus, the Economic-Demographic Model uses *projected employment* to estimate the migration component of future population increase; the Historical Migration Model uses *past migration* to estimate the future migration component.

The Economic-Demographic Model tends to project overall higher population growth for the State and allocates a moderate amount of this growth to central city and developed counties. The Historical Migration Model projects lower overall growth for the State and shows this growth to take place in the less developed counties. Backcasting has shown that these two methods bracket true population growth and also confine this growth too narrowly. The "averaged" projection avoids serious under- or overcounting of total population and dampens the distribution of this growth by allocating a share to central city counties and the rest to rural counties. Thus, each of the two models carries the projection too far in a single direction. The averaged projection seems to be much more on target in terms of both the magnitude of the overall projection as well as its distributional consequences.

Population in New Jersey—1990, 2000, 2010

Population projections for the State of New Jersey were undertaken using the eighteen age cohorts of the models of the Department of Labor and collapsing them into ten age cohorts. The population models begin with population projections of 7.78 million people in New Jersey for the year 1990 (Exhibit 4).

Projections for the combined models show a statewide population of 8.25 million in the year 2000 and 8.51 million a decade later (2010). Over the period 1990 to 2000 there is a projected growth of about 469,000 people in the State of New Jersey; for the period 2000 to 2010, a growth of 259,000. Overall, the anticipated growth from 1990 to 2010 is 728,000. Thus, population growth for the second decade of the projection period is only about one-half of that projected for the first decade. Of the growth which does take place, the clear leaders are the East Central (Monmouth and Ocean Counties) and the Southwest (Burlington, Camden, Gloucester, and Mercer Counties) Regions. At a growth of about 250,000 residents each, these two regions represent two-thirds of the projected statewide growth in population for me period 1990-2010. At slightly more and slightly less than one-half this level (145,000; 97,000) are the West Central (Middlesex, Somerset, Hunterdon, and Warren Counties) and South-Southwest (Atlantic, Cape May, Cumberland, Salem Counties) Regions, respectively. Growth in population over the period 1990-2000 is only about 50,000 for the Northwest Region (Union, Essex, Morris, and Sussex Counties), and the Northeast Region is projected for a near-60,000 population decline for the multiple-decade period.

Thus, a twenty-year projection for the State shows growth at the level of three-quarters of a million in population, the bulk of which will take place in the South and East Central portions of the State. Population growth during the first decade will be almost twice what will take place in the second decade.

The Headship Rate and Households

The headship rate measures the propensity of society at a given time to group individuals into units mat live together for shelter and economic purposes. In post-hoc form, it is the ratio of the number of households that have been formed from the number of persons within a specific age cohort

In its predictive mode, the headship rate is an indicator by age of the potential for a segment of the population to form a household. While it is always applied to age groupings, it is the socioeconomic characteristics within the age group such as sex, marital status, education, etc., which determine household formation, like headship rates seen in Exhibit 4 have been developed for New Jersey counties by dividing the households observed in an age category in 1980 in the county by the households found with a head in the same age category.

EXHIBIT 4

POPULATION, POPULATION CHANGE, AND HEADSHIP RATES FOR THE SIX HOUSING REGIONS OF NEW JERSEY (1990-2010)

Age Group	Population 1990	Headship Rate: 1990	Population 2000	Headship Rate: 2000	POPULATION CHANGE 1990–2000	Population 2010	Headship Rate 2010	POPULATION CHANGE 2000–2010	TOTAL POPULATION CHANGE 1990-2010
NORTHEAST REGION (BERGEN, HUDSON, PASSAIC)									
Under 25	596,250	.0459	553,600	.0470		519,000	.0474		
25–29	156,250	.4203	114,850	.4226		111,000	.4234		
30–34	158,300	.4953	140,800	.4943		111,200	.4944		
35–44	288,200	.5396	319,350	.5418		262,400	.5425		
45–54	207,900	.5565	275,700	.5639		304,200	.5672		
55–64	187,850	.5900	179,750	.5957		236,050	.5986		
65–74	157,300	.6363	135,350	.6419		130,200	.6440		
75+	102,150	.6370	125,450	.6546		121,850	.6637		
TOTAL	1,854,190		1,844,839		(9,351)	1,795,890		(48,952)	(58,303)
NORTHWEST REGION (UNION, ESSEX, MORRIS, SUSSEX)									
Under 25	641,000	.0428	595,850	.0434		567,100	.0435		
25–29	165,950	.4216	126,050	.4234		118,400	.4237		
30–34	161,550	.4925	164,900	.4913		125,500	.4907		
35–44	295,750	.5466	342,300	.5481		305,800	.5502		
45–54	217,650	.5692	279,150	.5766		325,200	.5796		
55–64	179,850	.5818	190,650	.5877		243,500	.5905		
65–74	142,650	.6277	131,650	.6303		141,400	.6286		
75+	91,950	.6071	113,400	.6215		118,100	.6238		
TOTAL	1,896,333		1,943,932		47,599	1,944,984		1,049	48,648
EAST CENTRAL REGION (MIDDLESEX, SOMERSET, HUNTERDON, WARREN)									
Under 25	342,400	.0439	325,650	.0446		321,050	.0450		
25–29	93,400	.4131	72,650	.4145		67,250	.4149		
30–34	95,900	.4911	97,300	.4904		76,950	.4902		
35–44	170,300	.5326	209,800	.5353		191,550	.5366		
45–54	119,750	.5526	168,100	.5599		207,950	.5631		
55–64	103,300	.5791	110,600	.5848		155,800	.5878		
65–74	82,000	.6090	84,300	.6148		91,400	.6182		
75+	47,250	.5718	74,450	.5908		87,650	.5993		
TOTAL	1,054,297		1,142,841		88,544	1,199,591		56,748	145,292

e Group	Population 1990	Headship Rate: 1990	Population 2000	Headship Rate: 2000	POPULATION CHANGE 1990–2000	Population 2010	Headship Rate 2010	POPULATION CHANGE 2000–2010	TOTAL POPULATION CHANGE — 1990-2010
ïT CENTRAL REGION (MONMOUTH, OCEAN)									
Jnder 25	306,900	.0378	308,250	.0384		316,450	.0388		
25–29	75,650	.4304	62,800	.4330		63,750	.4337		
30–34	73,950	.4892	82,500	.4897		69,750	.4902		
35–44	147,150	.5485	173,500	.5514		166,850	.5539		
45–54	103,100	.5647	152,150	.5713		178,900	.5748		
55–64	89,100	.5716	109,200	.5765		160,900	.5786		
65–74	96,500	.6211	99,650	.6270		118,900	.6299		
75+	86,650	.6545	126,550	.6755		143,750	.6834		
TOTAL	978,999		1,114,599		135,600	1,219,247		104,648	240,248
ïTHWEST REGION (BURLINGTON, CAMDEN, GLOUCESTER, MERCER)									
Jnder 25	523,250	.0495	528,750	.0504		538,300	.0508		
25–29	126,100	.4313	104,100	.4316		106,400	.4332		
30–34	129,000	.5100	125,450	.5093		108,650	.5088		
35–44	228,950	.5367	275,450	.5397		246,800	.5407		
45–54	154,050	.5668	226,450	.5743		272,800	.5780		
55–64	133,100	.5883	145,650	.5943		212,300	.5975		
65–74	109,050	.6238	112,200	.6259		123,750	.6266		
75+	67,400	.5919	100,100	.6066		117,300	.6113		
TOTAL	1,470,890		1,618,135		147,245	1,726,283		108,146	255,391
ïTH-SOUTHWEST REGION (ATLANTIC, CAPE MAY, CUMBERLAND, SALEM)									
Inder 25	176,650	.0575	178,750	.0588		179,050	.0596		
25–29	44,700	.4608	37,350	.4616		36,500	.4612		
30–34	47,050	.5113	45,250	.5101		37,600	.5098		
35–44	76,650	.5351	101,100	.5380		88,050	.5393		
45–54	51,400	.5665	79,050	.5748		103,500	.5798		
55–64	49,050	.5937	52,100	.5998		79,700	.6029		
65–74	46,750	.6549	45,550	.6614		48,200	.6645		
75+	36,550	.6356	48,800	.6574		53,300	.6674		
TOTAL	528,799		587,948		59,150	625,899		37,950	97,100
kTETOTAL	7,783,507		8,252,294		468,787	8,511,893		259,599	728,386

New Jersey-specific headship rates from 1980 have been projected to 1990,2000, and 2010 inversely to the expected change in household size for this period and directly to the predicted rates of marriage and divorce for the same period. As household size is expected to decline, marriages remain essentially flat, and divorces across all age categories projected to grow, these trends will increase headship rates in most of the mature age categories. Age-specific headship rates are projected to 1990 at levels of change estimated for national headship rates and to the years 2000 and 2010 at one-half the rate of increase of the previous decade.

In Exhibit 4 are contained the populations for the years 1990,2000, and 2010 as well as headship rates for these periods. The population change figures of the averaged model for the six New Jersey housing regions are shown not in the aggregate, but rather are detailed by age cohort. As is indicated in Exhibit 4, for the prime household-forming years, headship rates increase with age from about .45 for the age group 25 to 29, to .65 for the age group 65-K

Households in New Jersey—1990, 2000, 2010

Future households statewide are shown in Exhibit 5. There is a net increase of about 585,000 households over the period 1990 to 2010. This represents approximately 80 percent of the projected 730,000 increase in population shown in Exhibit 4.

The number of households in New Jersey increases from 2.96 million to 3.55 million during the two-decade period. The largest increases in households, paralleling population growth, again take place in the East Central and Southwest regions of the State (about 150,000 households each). These two regions represent about one-half of projected statewide household growth. At two-thirds to one-half this rate of household growth (87,000 to 105,000 households) are found the West Central and Northwest Regions, respectively. Finally, at much lower levels are the South-Southwest region (62,000) and the Northeast Region (29,000). It is interesting to note that, in the latter case, household growth over the period 1990 to 2010 is positive, even though there is an overall decline in population for the period

PROJECTIONS OF HOUSING SUPPLY

There are approximately 3.0 million housing units in New Jersey in 1988. In 1980, there were approximately 2.7 million. Of the three-million-unit standing stock, about two million are owner-occupied, and one million are renter-occupied. About 55 percent of the units are single-family detached, five percent single-family attached, 20 percent two- to four-family units, and 25 percent in structures of five or more units. New Jersey has built approximately 40,000 units annually since 1980, the bulk of which is in the form of single-family housing. Over the course of this near-decade period, building construction has ranged from about 21,000 annually at the depths of the 1980-1982 recession to 56,000 annually in the full building years of 1985 and 1986 (Exhibit 6).

Housing supply is projected to 1990 by using regional building permit tallies from 1980 to 1986 and extending these to 1990 at an annualized rate. Projection is continued to the years 2000 and 2010 dampened by household growth decreases over these periods. Thus, housing projection for the year 2000 is the 1980 to 1990 building rate refined by household growth from 1990 to 2000 as a share of the household growth of the previous decade. This procedure is also repeated for the next decade projection period. Thus, while historical housing supply is used to gauge future increases, supply is significantly controlled by demand over the periods 1990-2000 and 2000-2010.

EXHIBIT 5

**HOUSEHOLDS AND HOUSEHOLD CHANGE FOR THE SIX HOUSING REGIONS
OF NEW JERSEY (1990-2010)**

Age Group	Households 1990	Households 2000	HOUSEHOLD CHANGE 1990–2000	HOUSEHOLDS 2010	HOUSEHOLD CHANGE 2000–2010	TOTAL HOUSEHOLD CHANGE — 1990–2010
NORTHEAST REGION (BERGEN, HUDSON, PASSAIC)						
Under 25	27,381	26,025		24,603		
25–29	65,669	48,530		46,995		
30–34	78,409	69,601		54,981		
35–44	155,511	173,015		142,365		
45–54	115,695	155,473		172,547		
55–64	110,827	107,084		141,300		
65–74	100,086	86,882		83,843		
75+	65,071	82,125		80,877		
TOTAL	718,649	748,734	30,087	747,511	(1,223)	28,864
NORTHWEST REGION (UNION, ESSEX, MORRIS, SUSSEX)						
Under 25	27,431	25,854		24,690		
25–29	69,961	53,365		50,163		
30–34	79,568	81,014		61,580		
35–44	161,647	187,606		168,238		
45–54	123,897	160,968		188,477		
55–64	104,632	112,046		143,798		
65–74	89,544	82,981		88,883		
75+	55,825	70,473		73,674		
TOTAL	712,503	774,305	61,804	799,503	25,197	87,001
WEST CENTRAL REGION (MIDDLESEX, SOMERSET, HUNTERDON, WARREN)						
Under 25	15,022	14,527		14,438		
25–29	38,586	30,116		27,901		
30–34	47,094	47,714		37,723		
35–44	90,697	112,315		102,785		
45–54	66,173	94,111		117,094		
55–64	59,816	64,678		91,576		
65–74	49,936	51,828		56,504		
75+	27,016	43,981		52,525		
TOTAL	394,339	459,269	64,930	500,546	41,277	106,207
EAST CENTRAL REGION (MONMOUTH, OCEAN)						
Under 25	11,588	11,847		12,270		
25–29	32,562	27,190		27,646		
30–34	36,173	40,401		34,188		
35–44	80,710	95,675		92,414		
45–54	58,222	86,916		102,836		
55–64	50,931	62,953		93,099		
65–74	59,936	62,477		74,897		
75+	56,713	85,483		98,243		
TOTAL	386,835	472,941	86,106	535,594	62,653	148,759
SOUTHWEST REGION (BURLINGTON, CAMDEN, GLOUCESTER, MERCER)						
Under 25	25,883	26,642		27,341		
25–29	54,385	44,934		46,097		
30–34	65,789	63,891		55,286		
35–44	122,870	148,656		133,441		
45–54	87,309	130,056		157,686		
55–64	78,303	86,566		126,845		
65–74	68,030	70,225		77,546		
75+	39,893	60,718		71,701		
OTAL	542,460	631,688	89,299	695,942	64,253	153,482
SOUTHWEST REGION (ATLANTIC, CAPE MAY, CUMBERLAND, SALEM)						
-25	10,156	10,505		10,664		
-29	20,600	17,242		16,833		
-34	24,058	23,084		19,169		
-44	41,017	54,396		47,488		
54	29,120	45,437		60,006		
54	29,121	31,247		48,054		
74	30,617	30,125		32,027		
+	23,233	32,081		35,570		
L	207,921	244,118	36,196	269,809	25,693	61,889
STAT iTAL	2,962.704	3331,053	368352	3,548,902	217,850	586,202

Total housing supply for the period 1990-2010 is 554,000 units, which consists of 338,000 units during the period 1990-2000 and two-thirds this number, or 216,000, for the period 2000-2010. The most significant locations of housing supply are also those areas projected to have the highest housing demand. While the East Central, West Central, and Southwest Regions encompass 70 percent of the State's housing supply over the next two decades, there is not a direct relationship between demand and supply. Significant supply (132,000 units) is projected to take place in the West Central Region (Middlesex, Somerset, Hunterdon, Warren), which was third in rank for regional growth. Significant supply is also projected for the Southwest (114,500 units) and East Central (147,500 units) Regions, which were the number one and two locations of regional housing demand. Less housing supply is projected for the Northwest Region (59,000 units), South-Southwest Region (70,000 units), and least for the Northeast Region (30,000 units). Of the latter, the Northwest Region is the only one experiencing significant growth in households (Exhibit 6).

HOUSING **SUPPLY** VERSUS **DEMAND**

In Exhibit 7 is contained housing supply versus demand by region. What is clear from the exhibit is that housing supply across the State of New Jersey essentially meets housing demand.t Overall supply lags demand by 5 to 6 percent after being restrained by demand throughout the projection period. Supply actually exceeds demand in the Northeast (Bergen, Hudson, and Passaic Counties), West Central (Middlesex, Somerset, Hunterdon, and Warren Counties), and South-Southwest (Atlantic, Cape May, Salem, and Cumberland Counties) Regions. Supply is on a par with demand in the East Central (Monmouth and Ocean Counties) Region.

Only in the Northwest (Union, Essex, Morris and Sussex Counties) and Southwest (Burlington, Camden, Gloucester, and Mercer Counties) Regions does supply substantially lag demand. In the Northwest Region there is a significant spread between supply and demand which may cause some cross-commuting to northern Passaic or northeastern Hunterdon Counties. In each case, there is excess supply within these counties' respective housing regions.

In the case of the Southwest region, where supply lags demand by close to 30 percent, this is a situation in which housing supply is under capacity. What is being portrayed here is a lag of supply and demand which was evident in the early and mid-1980s (upon which time period the projection of supply is based), but a factor that may not be present over the next two-decade period. There is a much better chance in this region of meeting any demand-supply intolerance than there is; for instance, in the Northwest Region. Further, it is possible that some spillover from this market could take place into Atlantic and Cumberland Counties, whose Region has some potential for excess supply.

THE QUESTION OF HOUSING COST

The real essence of the current New Jersey housing market, however, is caught in Exhibit 8 (cost imbalances) as opposed to Exhibit 7 (demand-supply imbalances). New Jersey is characterized not by an imbalance in demand versus supply, but rather by an imbalance in what people want or should have to pay for housing, and the selling price or cost of housing. Further, the ability to rent versus own is severely restricted statewide.

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* Demolitions as a source of demand and conversions as a source of supply are assumed as offsetting for cross-comparative purposes.

EXHIBIT 6　　　　　　　　　　　　20

EXISTING AND PROJECTED HOUSING SUPPLY **FOR** THE SIX HOUSING REGIONS OF NEW JERSEY (1990-2010)

Year	Single-Family	Multi-Family	Total
NORTHEAST REGION (BERGEN, HUDSON, PASSAIC)			
1980	1,332	1,799	3,113
1981	991	1,715	2,802
1982	556	1,915	2,500
1983	256	1,598	2,700
1984	483	2,164	3,136
1985	881	2,414	4,086
1986	2,305	2,714	5,095
1986	2,603	3,317	5,900
1980–1989 Estimate	15,644	24,681	41,191
1990–2000 Projection	8,549	13,715	22,266
2000–2010 Projection	3,072	4,928	8,000
1990–2010 TOTAL	11,621	18,643	30,266
NORTHWEST REGION (UNION, ESSEX, MORRIS, SUSSEX)			
1980	2,076	1,681	3,702
1981	1,657	1,086	2,736
1982	480	1,130	2,036
1983	1,208	765	1,971
1984	1,153	1,616	3,051
1985	4,219	2,089	6,308
1986	4,746	1,761	6,010
1980–1989 Estimate	22,199	14,473	43,847
1990–2000 Projection	27,308	14,480	41,788
2000–2010 Projection	11,157	5,916	17,073
1990–2010 TOTAL	38,465	20,396	58,861
WEST CENTRAL REGION (MIDDLESEX, SOMERSET, HUNTERDON, WARREN)			
1980	1,899	1,330	2,703
1981	2,468	1,803	4,310
1982	2,196	1,848	5,139
1983	3,072	4,012	9,731
1984	5,766	4,565	12,954
1985	6,680	4,396	14,276
1986	10,646	3,304	12,646
1980–1989 Estimate	51,043	30,697	88,697
1990–2000 Projection	52,733	27,901	80,634
2000–2010 Projection	33,529	17,741	51,270
1990–2010 TOTAL	86,262	45,642	131,904
EAST CENTRAL REGION (MONMOUTH, OCEAN)			
1980	4,073	1,231	5,304
1981	3,583	1,124	4,741
1982	2,367	895	4,742
1983	5,297	1,782	9,114
1984	4,594	1,479	9,572
1985	10,982	1,573	12,580
1986	12,100	2,361	14,875
1980–1989 Estimate	61,850	15,207	87,040
1990–2000 Projection	69,074	16,258	85,333
2000–2010 Projection	50,325	11,845	62,171
1990–2010 TOTAL	119,399	28,103	147,504
SOUTHWEST REGION (BURLINGTON, CAMDEN, GLOUCESTER, MERCER)			
1980	3,318	507	3,824
1981	2,112	318	2,615
1982	1,418	946	3,336
1983	2,934	2,402	6,851
1984	5,073	988	8,024
1985	7,895	1,402	9,067
1986	8,960	3,171	12,128
1980–1989 Estimate	42,157	13,907	65,871
1990–2000 Projection	51,346	15,132	66,486
2000–2010 Projection	37,104	10,935	48,045
1990–2010 TOTAL	88,450	26,067	114,531
SOUTH-SOUTHWEST REGION (ATLANTIC, CAPE MAY, CUMBERLAND, SALEM)			
1980	1,630	1,617	3,247
1981	1,544	2,534	4,080
1982	809	1,132	2,351
1983	860	2,408	3,588
1984	1,284	2,381	4,213
1985	2,755	2,765	5,662
1986	5,055	1,772	4,731
1980–1989 Estimate	16,630	20,909	40,389
1990–2000 Projection	19,447	22,189	41,638
2000–2010 Projection	13,871	15,826	29,697
1990–2010 TOTAL	33,318	38,015	71,335
STATE TOTAL			
1980	14,328	8,165	21,893
1981	12,355	8,380	21,293
1982	7,326	7,864	21,404
1983	14,054	13,054	36,791
1984	16,754	13,227	42,920
1985	37,436	17,139	55,000
1986	42,113	15,946	56,560
1980–1989 Estimate	206,543	119,964	367,016
1990–2000 Projection	228,458	109,674	338,144
2000–2010 Projection	149,058	67,189	216,257
1990–2010 TOTAL	377,516	176,863	554,401

EXHIBIT 7 HOUSING DEMAND VERSUS SUPPLY IN THE

SIX HOUSING REGIONS OF NEW JERSEY (1990-2010)

PROJECTION PERIOD	HOUSING REGION						
	NORTHEAST (Bergen, Hudson, Passaic)	NORTHWEST (Union, Essex, Sussex, Morris)	WEST CENTRAL (Middlesex, Somerset, Hunterdon, Warren)	EAST CENTRAL (Monmouth, Ocean)	SOUTHWEST (Burlington, Camden, Gloucester, Mercer)	SOUTH-SOUTHWEST (Atlantic, Cape May, Salem, Cumberland)	STATE TOTAL
HOUSING DEMAND							
1990-2000	30,087	61,804	64,930	86,106	89,229	36,196	368,352
2000-2010	(1,223)	25,197	41,277	62,653	64,253	25,693	217,850
1990-2010	28,864	87,001	106,207	148,759	153,482	61,889	586,202
HOUSING SUPPLY							
1990-2000	22,266	41,788	80,634	85,333	66,486	41,638	338,195
2000-2010	8,000	17,073	51,270	62,171	48,045	29,697	216,256
1990-2010	30,266	58,861	131,904	147,504	114,531	71,355	554,451
HOUSING DEMAND VERSUS SUPPLY 1990-2010							
1990-2000	7,821	20,016	− 15,704	773	22,743	− 5,442	30,157
2000-2010	− 9,223	8,124	− 9,993	482	16,208	− 4,004	1,594
1990-2010	− 1,402	28,140	− 25,697	1,255	38,951	− 9,466	31,751

positive indicates **excess** demand; negative indicates excess supply.

Overall, there is a significant demand for single-family ownership housing for those families whose income is less than $50,000, and a significant over-supply of housing for families whose income is $50,000 or more. For multifamily housing, usually of rental tenure, there is a demand statewide for all income groups, but primarily for those whose income falls below $18,000 annually (Exhibit 8).

Housing-cost imbalances are most severe in the Northwest Region (Union, Essex, Morris, and Sussex Counties), West Central Region (Middlesex, Somerset, Hunterdon, and Union Counties), and East Central Region (Monmouth and Ocean Counties). They are less severe in the Northeast Region (Screen, Hudson, and Passaic Counties), the Southwest Region (Burlington, Camden, Gloucester, and Mercer Counties), and the South-Southwest Region (Atlantic, Cape May, Cumberland, and Salem Counties). (See Exhibit 8.)

The absence of multifamily housing is particularly noticeable in regions from the central portion of the State southward. In the East and West Central Regions and the Southwest and South-Southwest Regions, there is a demand for multifamily housing across all income groups.

HOUSING DEMAND AND
LAND-HOLDING CAPACITY
OF THE STATE PLAN

The aforementioned projection of supply and demand largely relies on historical trends. There is an assumption within both projections that if there is demand there is a supply of land upon which housing can be constructed. A central question involving the implementation of the State Development and Redevelopment Plan concerns the supply of land available for development. Has land been classified by the State Plan in such fashion to render the market inoperable? Is housing supply limited by the amount of land available to develop?

The Tier System

In order to look at this question, developable land in the various Tier designations of the State Plan was tallied. The State Development and Redevelopment Plan has seven tiers or land designations which control growth for development purposes. Basically, Tiers 1-4 affect the sewered and thus more developed areas of the State; Tiers 5 through 7 govern the developing areas of the State. Tiers 1-4 are growth areas; Tiers 5 through 7 are limited growth areas. The explanation for the Tiers is contained in Exhibit 9.

EXHIBIT 8   23

HOUSING-COST MISMATCHES BY HOUSING TYPE AND REGION

Region	1990–2000*	2000–2010*	Total*
NORTHEAST REGION (BERGEN, HUDSON, PASSAIC)			
SINGLE FAMILY			
Less than $18,000	4,083	733	4,816
$18,000–$29,999	4,179	711	4,890
$30,000–$49,999	7,380	908	8,288
$50,000–$99,999	697	935	1,632
$100,000 and over	− 8,340	− 2,542	− 10,882
MULTIFAMILY			
Less than $18,000	790	− 5,064	− 4,274
$18,000–$29,999	− 1,050	− 3,414	− 4,464
$30,000–$49,999	− 738	− 1,311	− 2,049
$50,000–$99,999	821	− 171	650
$100,000 and over	− 16	8	− 8
Total	7,807	− 9,206	− 1,399
NORTHWEST REGION (UNION, ESSEX, MORRIS, SUSSEX)			
SINGLE FAMILY			
Less than $18,000	7,577	5,198	12,775
$18,000–$29,999	9,930	5,147	15,077
$30,000–$49,999	16,422	5,895	22,314
$50,000–$99,999	− 3,972	1,287	− 2,685
$100,000 and over	−14,496	− 4,798	− 19,294
MULTIFAMILY			
Less than $18,000	2,869	− 1,615	1,254
$18,000–$29,999	333	− 2,226	− 1,893
$30,000–$49,999	780	− 855	− 75
$50,000–$99,999	692	64	756
$100,000 and over	− 92	− 10	− 102
Total	20,044	8,087	28,131
WEST CENTRAL REGION (MIDDLESEX, SOMERSET, HUNTERDON, WARREN)			
SINGLE FAMILY			
Less than $18,000	11,120	9,677	20,797
$18,000–$29,999	8,818	5,880	14,698
$30,000–$49,999	10,709	5,263	15,972
$50,000–$99,999	−52,039	−33,546	− 85,582
$100,000 and over	− 3,597	− 2,073	− 5,670
MULTIFAMILY			
Less than $18,000	6,218	4,231	10,449
$18,000–$29,999	1,578	561	2,139
$30,000–$49,999	1,654	148	1,802
$50,000–$99,999	− 193	− 200	− 393
$100,000 and over	62	75	137
Total	−15,670	− 9,983	− 25,653
EAST CENTRAL REGION (MONMOUTH, OCEAN)			
SINGLE FAMILY			
Less than $18,000	23,420	19,540	42,960
$18,000–$29,999	8,384	7,460	15,844
$30,000–$49,999	−19,020	−16,376	− 35,396
$50,000–$99,999	−18,519	−14,696	− 33,215
$100,000 and over	− 5,074	− 4,242	− 9,316
MULTIFAMILY			
Less than $18,000	9,201	7,112	16,313
$18,000–$29,999	1,486	1,184	2,670
$30,000–$49,999	903	632	1,535
$50,000–$99,999	387	160	547
$100,000 and over	− 21	17	− 4
Total	1,146	793	1,939

•Positive indicates excess demand; negative indicates excess supply.

EXHIBIT 8 (CONTINUED) 24.

HOUSING-COST MISMATCHES BY HOUSING TYPE AND REGION

Region	1990–2000	2000–2010	Total
SOUTHWEST REGION (BURLINGTON, CAMDEN, GLOUCESTER, MERCER)			
SINGLE FAMILY			
Less than $18,000	17,936	16,154	34,090
$18,000–$29,999	9,049	7,701	16,750
$30,000–$49,999	– 6,502	– 8,208	– 14,710
$50,000–$99,999	– 9,448	– 8,381	– 17,829
$100,000 and over	– 1,665	– 1,259	– 2,924
MULTIFAMILY			
Less than $18,000	8,287	7,609	15,896
$18,000–$29,999	2,399	1,512	3,911
$30,000–$49,999	2,160	870	3,030
$50,000–$99,999	785	368	1,153
$100,000 and over	38	18	56
Total	23,039	16,383	39,422
SOUTH–SOUTHWEST REGION (ATLANTIC, CAPE MAY, CUMBERLAND, SALEM)			
SINGLE FAMILY			
Less than $18,000	7,891	7,009	14,900
$18,000–$29,999	201	527	728
$30,000–$49,999	– 9,718	– 8,536	– 18,254
$50,000–$99,999	–11,335	– 7,368	– 18,703
$100,000 and over	211	– 13	199
MULTIFAMILY			
Less than $18,000	4,495	3,571	8,066
$18,000–$29,999	1,963	775	2,738
$30,000–$49,999	1,094	327	1,421
$50,000–$99,999	82	– 41	41
$100,000 and over	32	1	33
Total	– 5,084	– 3,747	– 8,831
STATE TOTAL			
SINGLE FAMILY			
Less than $18,000	72,028	58,312	130,340
$18,000–$29,999	40,561	27,427	67,988
$30,000–$49,999	– 729	–21,054	– 21,783
$50,000–$99,999	–94,616	–61,768	–156,384
$100,000 and over	–32,961	–14,926	–47,884
MULTIFAMILY			
Less than $18,000	31,860	15,843	47,703
$18,000–$29,999	6,709	– 1,607	5,102
$30,000–$49,999	5,853	– 188	5,665
$50,000–$99,999	2,573	180	2,753
$100,000 and over	3	108	111
Total	31,281	2,326	33,607

THE APPROACH

The essence of this analysis revolves around the concept of the housing region which was discussed earlier, i.e., that supply, demand, and now holding capacity are regional phenomena. Specifically, with regard to land-holding capacity, if lands are unavailable at one physical location and they are available elsewhere in the region, development will go to those points. At the county level the encompassing land area is too small to make this statement valid; at the state level, the encompassing territorial boundaries are too large. At the regional level, it is possible to limit development at one point and have it reemerge at another.

Using this approach, projections of residential and nonresidential growth are made for regions by county and housing demand assigned to counties within regions according to their ability to absorb the housing and nonresidential growth.

Employment was projected into the twenty-year future based on Covered Employment trends from 1977 to 1987. These employment projections were "passed through" year 2000 estimates of total employment levels to ensure consistency with State data, and then dampened to retain essentially the same ratio of jobs to housing units projected for 1990. Employment was allowed to consume land at the rate of .01 (urban) to .08 (rural) acre per employee. Employment losses were allowed to free land for development at one-half the consumption rate.

Land is allocated to housing development at the rates indicated in Exhibit 9. These densities were obtained *from* the Office of State Planning (OSP) or from the development plans of special districts (CAFRA, Pinelands, Meadowlands). Tiers 6 and 7 were not utilized significantly for employment except as an accompaniment of village and town center growth. This reflects the realities of the market constrained by the effects of the State Plan.

Land capacity is viewed both in the absence and presence of planned village, town, and corridor centers. Centers are programmed for jobs at the rate of one job per housing unit added. In the absence of these, the current density under the Tier system prevails. In the presence of the various types of centers, estimates of their size and location are used.

LAND-HOLDING CAPACITY BY REGION

Land-holding capacity by region is shown in Exhibit 10. At the densities specified for lands governed by Tier designations earlier discussed, there is enough land statewide to cover projected development. As a matter of fact, 15 percent more development can be accommodated (705,687 units) than is planned over the period 1990-2010. Two-thirds of this excess capacity is found in the West Central Region (Middlesex, Somerset, Hunterdon, and Warren Counties); the remaining one-third is found in the Southwest Region (Burlington, Camden, Gloucester, and Mercer). The other four regions are basically filled to capacity by the Year 2010.

EXHIBIT 9

**TIER DESIGNATIONS AND GROWTH ASSUMPTIONS
ACCORDING TO DESIGNATIONS**

STATE DEVELOPMENT AND REDEVELOPMENT PLAN —
TIERS 1-7 —

TIER 1   *REDEVELOPING CITIES AND SUBURBS*

Includes 16 of the largest and most distressed cities as well as declining close-in suburbs. These are growth and redevelopment areas. Neighborhoods are to be stabilized through reinvestment in the housing stock and rehabilitation of public infrastructure.

TIER 2   STABLE *CITIES AND SUBURBS*

Older, attractive and established suburbs/cities which are nearly fully developed. These are growth areas of primarily infill development.

TIER 3   *SUBURBAN AND RURAL TOWNS*

Population centers set somewhat apart from the spread of metropolitan development. These are growth areas and somewhat the focus of future growth.

TIER 4   *SUBURBAN FRINGE*

Emerging suburbs and sewer-extension areas which are the new loci of development. This is a growth zone which recognizes and accommodates development

TIER 5   *EXURBANRESERVE*

Sparsely developed areas near the metropolitan fringe lacking significant infrastructure. A limited growth area which provides a buffer between agriculture and environmentally sensitive areas. Development limited to the expansion of existing villages and towns, and creating new amenities of place.

TIER 6   *AGRICULTURAL AREAS*

Agricultural areas to be protected or preserved. Balance of farmland viability with development in rural communities.

TIER 7   *ENVIRONMENTALLY SENSTTIVE AREAS*

Land containing valued ecosystem and wildlife habitats that have remained relatively undeveloped or rural in character. Preserve land which has only a limited ability to accommodate development

j   *ASSUMPTIONS ON ALLOWABLE DEVELOPMENT BY TIER*   \

ONE JOB/ONE HOUSING Urn CONSUMES ____ACRES:

	JOB	HOUSING UNIT
TIER 1	.01	0.10
TIER 2	.02	0.20
TIER 3	.03	0.33
CAFRA GROWTH AREAS (MONMOUTH COUNTY)	.03	0.67
CAFRA GROWTH AREAS (OCEAN COUNTY)	.03	0.67
PINELANDS TOWNS	.03	0.67
HACKENSACK MEADOWLANDS	.03	0.67
TIER 4	.04	1.00
TIER 5	.05	5.00
CAFRA EXTENSION AREAS	.05	5.00
TIER 6	.06–.07	25.00
TIER 7	.08	33.30
PINELANDS (REMAINING LIMITED GROWTH AREAS)	.08	33.30
CAFRA (LIMITED GROWTH AREAS)	.08	33.30

EXHIBIT 10
RESIDENTIAL LAND-HOLDING CAPACITY BY TIER AFTER NONRESIDENTIAL GROWTH (SPACE) IS
ACCOUNTED FOR AND TAKING INTO ACCOUNT THE PRESENCE OF VILLAGES, TOWN, AND CORRIDOR CENTERS

Region/ County	TIER 1	TIER 2	TIER 3	TIER 4	TIER 5	TIER 6A	TIER 6B	TIER 7	VILLAGE, TOWN, CORRIDOR CENTERS	TOTAL UNITS	TOTAL EMPLOYMENT
ORTHEAST REGION (BERGEN, HUDSON, PASSAIC)											
Bergen	262	8,898	0	1,897	223	18	0	76	0	11,373	28,378
Hudson	3,575	0	0	209	0	0	0	0	0	3,784	7,160
Passaic	595	10,098	1,619	1,681	139	0	0	303	489	14,922	32,538
OTAL REGION	4,431	18,995	1,619	3,786	362	18	0	379	489	30,078	68,076
ORTHWEST REGION (UNION, ESSEX, MORRIS, SUSSEX)											
Union	1,203	6,949	0	0	0	0	0	0	0	8,152	11,105
Essex	2,611	12,681	0	0	4	0	0	0	0	15,296	20,885
Morris	2,061	27,236	636	3,561	2,665	0	96	1,248	13,829	51,332	103,136
Sussex	0	0	1,386	549	1,076	1,122	1,212	1,423	6,852	13,619	25,478
OTAL REGION	5,875	46,866	2,022	4,109	3,745	1,122	1,308	2,671	20,682	88,399	160,604
'EST CENTRAL REGION (MIDDLESEX, SOMERSET, HUNTERDON, WARREN)											
Middlesex	7,989	37,993	78	18,938	3,129	100	0	70	15,462	83,760	80,873
Somerset	3,769	23,485	254	23,836	5,139	811	60	243	1,310	58,907	73,966
Hunterdon	0	0	4,903	5,686	2,292	2,651	1,311	970	9,219	27,032	31,556
Warren	950	1,223	2,556	6,127	818	516	1,409	922	3,302	17,825	18,259
OTAL REGION	12,708	62,701	7,791	54,587	11,379	4,079	2,781	2,204	29,293	187,524	204,654
AST CENTRAL REGION (MONMOUTH, OCEAN)											
Monmouth	7,951	23,366	2,045	14,222	4,046	741	786	717	388	54,261	31,183
Ocean	10,095	0	0	23,937	3,565	255	130	2,284	7,157	47,424	35,657
OTAL REGION	18,046	23,366	2,045	38,159	7,611	995	916	3,001	7,545	101,685	66,840
OUTHWEST REGION (BURLINGTON, CAMDEN, GLOUCESTER, MERCER)											
Burlington	5,251	27,575	3,421	11,270	1,370	2,607	194	3,080	3,642	58,411	46,940
Camden	20,658	28,112	5,550	3,715	361	119	9	195	2,360	61,081	39,714
Gloucester	1,335	7,980	14,008	12,698	1,838	1,867	425	31	6,146	46,327	47,615
Mercer	829	21,436	1,845	19,434	2,974	823	145	25	6,398	53,910	63,149
OTAL REGION	28,073	85,103	24,824	47,118	6,544	5,416	774	3,331	18,546	219,730	197,418
OUTH–SOUTHWEST REGION (ATLANTIC, CAPE MAY, CUMBERLAND, SALEM)											
Atlantic	0	0	1,192	25,989	245	156	5	4,132	417	32,135	22,648
Cape May	0	181	0	3,637	4,563	0	0	537	1,733	10,651	21,276
Cumberland	0	0	12,479	3,688	2,638	1,727	390	2,145	996	24,063	18,869
Salem	0	0	5,439	22	153	4,042	637	0	1,130	11,423	3,884
OTAL REGION	0	181	19,110	33,335	7,600	5,925	1,031	6,814	4,275	78,271	66,677
TATE TOTAL	69,133	237,213	57,411	181,095	37,241	17,554	6,809	18,400	80,830	705,687	764,269

After nonresidential growth (space) is accounted for and taking into account the presence of village, (own, and corridor centers

The bulk of the land-holding capacity is being consumed by Tier 2 and Tier 4 development: the former (237,000 units) as infill in smaller increments throughout the State, the latter (181,000 units) as new subdivisions of a larger scale in more selective locations. Redevelopment in central cities (69,133 units) and new development in more rural village and town centers (80,830 units) also consume noticeable land-holding capacity. At somewhat smaller levels are found the decreases in land-holding capacity relative to the projected growth of rural or suburban towns (57,500 units), or for development in the exurban reserve area (37,000 units). Thus, for the most part, the Tier system of the State Development and Redevelopment Plan accomplishes its objectives without severely limiting growth due to an insufficient supply of appropriately classified land relative to housing demand. In tandem with employment demand and its consumption of developable land, there is still enough land to accommodate the full array of housing demand that is projected. In one case—the East Central Region (Monmouth and Ocean Counties)—there will be an expansion of housing into the West Central, Southwest, and South-Southwest Regions. In another case, there will be an expansion of employment from the Northeast Region into the Northwest (Union, Essex, Sussex, and Morris) and West Central Regions (Middlesex, Somerset, Hunterdon, and Warren).

HOLDING CAPACITY AFTER PROVIDING FOR ADEQUATE HOUSING DEVELOPMENT

Appearing in Exhibit 11 and summarized in the first row of Exhibit 12 are total housing units necessary to meet housing demand and provide a vacancy cushion in the State of New Jersey. These appear in the next-to-the-last column of Exhibit 11. Total required units for a twenty-year projection period are about 610,000t or an average of slightly over 30,000 per year. These are distributed between regions and counties and vary at the county level from 4,000 to 58,000 for the twenty-year period. These are the housing units required by county over the next twenty years, reflecting the Tier designations of the State Plan. After some adjustments between regions, the projected housing units can be accommodated in each county of the regions of the State. Thus, the intent of the State Plan can be carried out taking into account necessary movement of population and jobs westward and southward in the State (Exhibit 12).

In terms of where growth is going to take place, it is clear from Exhibit 11 that the areas of most significant expansion are the south central portions of the State. The Southwest Region (Burlington, Camden, Gloucester, and Mercer Counties), the West Central Region (Middlesex, Somerset, Hunterdon, and Warren Counties), as well as the East Central Region (Monmouth and Ocean Counties), are clearly the growth areas. The essence of the territorial designations of the State Plan is that it has been able to harness growth without significantly curtailing it The central economic breadbasket of the State remains as such, in tandem with center-city revitalization and environmental protection objectives in the northern and southern parts of the State, respectively. The new, emerging growth area of the State is the Southwest Region. This is true for both housing and employment.

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t Projected housing supply is increased by ten percent to meet demand and provide for a small vacancy allowance over the production period.

EXHIBIT 11
ADEQUATE HOUSING SUPPLY, CONSTRAINED BY LAND-HOLDING CAPACITY* AND EMPLOYMENT GROWTH, WITH REALLOCATION TO ADJOINING REGIONS WHERE NECESSARY

Region/ County	TIER 1	TIER 2	TIER 3	TIER 4	TIER 5	TIER 6A	TIER 6B	TIER 7	VILLAGE, TOWN, CORRIDOR CENTERS	TOTAL UNITS	TOTAL EMPLOYMENT
ORTHEAST REGION (BERGEN, HUDSON, PASSAIC)											
Bergen	262	8,898	0	1,897	223	15	0	65	0	11,359	28,378
Hudson	3,575	0	0	209	0	0	0	0	0	3,784	7,160
Passaic	595	10,098	1,619	1,681	139	0	0	257	489	14,876	32,538
OTAL REGION	4,431	18,995	1,619	3,786	362	15	0	322	489	30,019	68,076
ORTHWEST REGION (UNION, ESSEX, MORRIS, SUSSEX)											
Union	1,179	6,814	0	0	0	0	0	0	0	7,993	11,105
Essex	2,560	12,434	0	0	4	0	0	0	0	14,998	20,885
Morris	2,021	26,705	623	3,491	2,613	0	83	1,077	13,829	50,444	103,136
Sussex	0	0	1,359	538	1,055	968	1,046	1,228	6,852	13,046	25,478
OTAL REGION	5,760	45,953	1,983	4,029	3,672	968	1,128	2,305	20,682	86,481	160,604
EST CENTRAL REGION (MIDDLESEX, SOMERSET, HUNTERDON, WARREN)											
Middlesex	4,985	23,707	49	11,817	1,953	59	0	41	15,462	58,074	80,873
Somerset	2,352	14,654	159	14,873	3,207	481	36	144	1,310	37,215	73,966
Hunterdon	0	0	3,059	3,548	1,430	1,572	777	575	9,219	20,181	31,556
Warren	593	763	1,595	3,823	511	306	835	547	3,302	12,276	18,259
OTAL REGION	7,930	39,125	4,862	34,062	7,101	2,418	1,649	1,307	29,293	127,745	204,654
AST CENTRAL REGION (MONMOUTH, OCEAN)											
Monmouth	7,951	23,366	2,045	14,222	4,046	720	764	697	388	54,200	31,183
Ocean	10,095	0	0	23,937	3,565	248	126	2,222	7,157	47,350	35,657
OTAL REGION	18,046	23,366	2,045	38,159	7,611	968	891	2,919	7,545	101,550	66,840
OUTHWEST REGION (BURLINGTON, CAMDEN, GLOUCESTER, MERCER)											
Burlington	4,387	23,037	2,858	9,415	1,145	2,063	154	2,438	3,642	49,139	46,940
Camden	17,258	23,485	4,636	3,104	302	94	7	154	2,360	51,402	39,714
Gloucester	1,115	6,666	11,702	10,608	1,536	1,478	336	25	6,146	39,612	47,615
Mercer	693	17,908	1,542	16,236	2,485	651	115	20	6,398	46,047	63,149
OTAL REGION	23,452	71,096	20,739	39,363	5,467	4,287	613	2,637	18,546	186,200	197,418
OUTH–SOUTHWEST REGION (ATLANTIC, CAPE MAY, CUMBERLAND, SALEM)											
Atlantic	0	0	1,190	25,940	244	150	4	3,980	417	31,926	22,648
Cape May	0	181	0	3,630	4,555	0	0	517	1,733	10,616	21,276
Cumberland	0	0	12,456	3,681	2,633	1,663	376	2,067	996	23,871	18,869
Salem	0	0	5,429	22	153	3,894	613	0	1,130	11,241	3,884
OTAL REGION	0	181	19,075	33,273	7,585	5,707	993	6,564	4,275	77,655	66,677
TATE TOTAL	59,620	195,716	50,321	152,673	31,799	14,364	5,274	16,053	80,830	609,650	764,269

After nonresidential growth (space) is accounted for and taking into account the presence of village, town, and corridor centers.

EXHIBIT 12

HOUSING UNIT LAND-HOLDING CAPACITY WITH AND WITHOUT CENTERS   IN THE SIX HOUSING REGIONS OF NEW JERSEY
(1990-2010)

PROJECTION PERIOD: 1990-2010	H O U S I N G R E G I O N						
	NORTHEAST (Bergen, Hudson, Passaic)	NORTHWEST (Union, Essex, Sussex, Morris)	WEST CENTRAL (Middlesex, Somerset, Hunterdon, Warren)	EAST CENTRAL (Monmouth, Ocean)	SOUTHWEST (Burlington, Camden, Gloucester, Mercer)	SOUTH-SOUTHWEST (Atlantic, Cape May, Salem, Cumberland)	STATE TOTAL
DISTRIBUTION OF ADEQUATE HOUSING SUPPLY BY REGION	30,019	86,481	127,745	101,550	186,200	77,655	609,650
ULTIMATE LAND-HOLDING CAPACITY, 1990-2010 WITH CENTERS	30,078	88,399	187,524	101,685	219,730	78,271	705,687
ULTIMATE LAND-HOLDING CAPACITY, 1990-2010 WITHOUT CENTERS	29,750	69,874	165,503	97,519	205,462	74,770	642,879
REFERRING TO LAND-HOLDING CAPACITY WITH CENTERS:	ADEQUATE HOLDING CAPACITY	ADEQUATE HOLDING CAPACITY	ADEQUATE HOLDING CAPACITY	ADEQUATE HOLDING CAPACITY	ADEQUATE HOLDING CAPACITY	ADEQUATE HOLDING CAPACITY	ADEQUATE HOLDING CAPACITY

The figures for housing provision previously discussed support and embrace the *new* housing component of the Affordable Housing Council low- and moderate-income pre-credited need numbers. This is true because low- and moderate-income housing need is roughly a 40-percent share of all need that is projected. The figures for counties within regions include the CO AH 1987-1993 new housing obligation of approximately 60,000 units, as follows:

Having dealt with the issues of housing demand, supply, and land-holding capacity, it is now time to turn again to the issue of housing costs. This time, the focus is the impact of potentially restricted land on the cost of housing. What are the impacts on housing costs, if in the short term, land supply is limited due to the territorial demarcations

NORTHEAST		NORTHWEST		EAST CENTRAL		WEST CENTRAL		SOUTHWEST		SOUTH-SOUTHWEST	
BERGEN	7,000	UNION	2,000	MONMOUTH	11,000	MIDDLESEX	3,000	BURLINGTON	3,000	ATLANTIC	5,000
HUDSON	800	ESSEX	1,000	OCEAN	7,500	SOMERSET	2,500	CAMDEN	3,000	CAPE MAY	2,000
PASSAIC	3,000	SUSSEX	200			HUNTERDON	500	GLOUCESTER	2,000	CUMBERLAND	500
		MORRIS	4,500			WARREN	300	MERCER	2,000	SALEM	250
TOTAL	10,300		7,750		18,500		6,300		10,000		7,750

of the State Plan? Is there a direct relationship between land and housing costs? The following section includes:

- THE COMPONENTS OF HOUSING COSTS
- HOUSING COSTS AND AFFORDABUJTY
- LAND COST INCREASES AND AFFORDABEJTY
- LAND COST INCREASES AND HOUSING COST INCREASES

new housing construction as required by CO AH taking into account secondary housing supply, caps, and the regional contribution agreement

HOUSING COSTS

The Basic Structure of Housing Costs
and Housing Affordability

Housing costs have been differentiated in numerous ways. At the one end of the spectrum are very general approaches. One example is the compilation of single-family cost components reported by the National Association of Home Builders (NAHB). The NAHB considers only four components: *land, financing, labor and materials,* and *overhead and profit.* In 1986 (the latest year for which component cost data are available), the NAHB reported that the average single-family house in the United States cost $92,000. Of that amount, land comprised 25 percent, financing 8 percent, labor and materials 47 percent, and overhead and profit, 20 percent. Other sources follow a much more detailed breakdown. The *Means Building Construction Cost Data* handbook, for instance, apportions housing costs among literally thousands of individual items, e.g., clamps, panels, siding, caulking, etc.

For the present objective of considering housing costs and housing strategies, neither of the above-described approaches is adequate. The NAHB format is too general; the *Means,* much too detailed. In addition, neither presents the sequential flow of the housing delivery process: land is first acquired and developed, a unit and surrounding subdivision improvements are built, and the house is ultimately sold or rented with attendant costs borne by the purchaser or renter. Much more satisfactory for our purposes is the housing cost breakout initially utilized in the Kaiser and Douglas Commissions of the late 1960s, later adopted by the Rutgers University Center for Urban Policy Research. This methodology categorizes housing expenses into the stages of *development, construction,* and *occupancy* defined as follows:

1. *Development Costs*—The expenses incurred on a housing project which are not directly related to construction outlays. The most significant development expense typically is the amount paid for *land.* To this must be added *soft costs* (interim financing, professional expenses, advertising and promotional outlays, etc.), and the developer's *overhead and profit.*

2. *Construction Costs*—The expenses incurred on a project which are directly related to the physical improvement of the property. The two component items are outlays for the *housing unit* itself (building/preparation of the site and foundation, frame, interior systems, etc.), as well as *improvements* (on- and off-site roads, streets, sidewalks, utilities, recreation, and landscaping amenities). While the unit construction price is usually far more substantial than the improvement expense, in recent years the cost of the latter has escalated

The sum of development and construction costs is the *total housing unit cost.*

3. *Occupancy Cost*—The total housing cost is typically not paid for in a lump sum but rather in increments over time. The recurring housing carrying charge is termed the occupancy cost. It is usually expressed on a monthly basis — either as the rent to be paid, or in fee situations, when a unit is sold, as the recurring owner's cost to be met. Occupancy costs include principal and interest, property taxes, insurance and fees, and maintenance and utility outlays.

The most important constituent member of occupancy cost is the *principal and interest*—the payback of the financed portion (total cost less down payment) of the housing unit. Principal and interest payments increase as the down payment is reduced, interest rates rise, and the payback period (term) of the loan is shortened. In addition to principal and interest expenses, another important occupancy cost includes *property taxes, insurance, and fees*. Property taxes are a function of the property's value and local tax rate. Insurance costs, for fire and other major hazards, vary by location, unit construction type, and other factors. Fees are payments to a condominium or homeowners association (where applicable) for exterior/common area maintenance and association recreation and other services. Remaining occupancy costs include *utilities* for heating and cooking and *maintenance*—a charge for recurring repairs/replacement of the housing unit's interior and exterior. (In the case where a homeowners association exists, exterior maintenance is usually provided by the association and paid for by the association fee.)

In sum, the total price of a housing unit comprises development and construction outlays, each of which consists of numerous components. The total housing price, in turn, is "purchased" by housing consumers in the form of a stream of occupancy payments, the latter also comprising numerous outlays for a mortgage, taxes, maintenance, and so on.

The determination of housing occupancy costs further permits analysis of housing affordability. This is typically accomplished in terms of a lender-underwriting framework. Of all the housing-occupancy costs previously enumerated, lenders focus on the first two components: 1. principal and interest, and 2. taxes, insurance and fees (the latter where fees are imposed by a homeowners association and thus constitutes a lien), or as it is commonly referred to—"PITI (principal, interest, taxes, and insurance) and fees." These costs are tallied and a prospective housing purchaser is considered able to afford the housing unit if the sum of PITI and fees does not exceed 28 percent of the purchaser's gross income. Thus, from total housing occupancy costs, we can calculate *housing affordability*—the minimum gross income to afford a housing unit—by applying the prevailing underwriting standard:

$$\underline{PITI\ AND\ FEES} = MINIMUM\ GROSS\ INCOME\ TO\ AFFORD\ UNTT$$
$$28$$

The housing cost and affordability framework allows us to examine the components and interactions of new hosing costs in New Jersey and their affordability by housing consumers.

New Jersey New Housing Costs and Affordability

It is very difficult to specify a single housing cost in New Jersey because there is such a range. Selling prices vary significantly both among and within counties, and by housing type. According to 1987-88 data supplied by the Department of Community Affairs (DCA)/New Home Warranty Program, sales prices for all new housing units insured by DCA ranged between $79,907 in Cumberland County to $324,094 in Moms County. The county averages themselves mask considerable internal variety. In Morris County, for instance, DCA insurance records reveal that new single-family detached homes ranged in price between $195,000 and $1,225,000; attached units (townhouses and garden condominiums) ranged in price from $53,000 to over $250,000,*

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*The Department of Community Affairs/New Home Warranty Program is one of numerous warranty companies. Another major insurer in the state is the Home Owners Warranty Corporation of New Jersey. According to the latter, home prices in the state in 1986-87 ranged between $86.990 in Cumberland County to $441,563 in Bergen County.

There is even more variation with respect to the components of housing costs. Land prices differ significantly by location and situation — i.e., a municipality may donate land to a non-profit sponsor to foster affordable housing construction, while in the same community developable lots, purchased by builders, will fetch a premium on the open market. Overhead and profits are quite different for volume versus spot developers. Equalized tax rates in the state differ by a factor of four to five times among communities.

While acknowledging these variations, it is possible to establish for analytical purposes the "average" sales price of a new house in New Jersey and to break out the modular development, construction, and occupancy cost components. From these, housing affordability can be calculated. These figures are summarized in Exhibit 13. In brief, sales prices were estimated from data supplied by the DCA/New Home Warranty Program and the Home Owners Warranty Corporation of New Jersey. Housing cost components were developed from interviews with numerous type and size developers in the state. The affordability calculation was derived from discussions with major private and public underwriters.

Exhibit 13 indicates the following:

- *TOTAL COSTS.* On average, a single-family detached home in New Jersey costs $200,000; an attached garden/townhouse costs $140,000.

- *DEVELOPMENT COSTS.* Development costs for the detached and attached units comprise a similar share of total costs: 50 and 45 percent, respectively. There are significant differences, however, in the components of development costs, especially land.

  - *Land.* For the detached unit, land constitutes one-quarter of the total selling price and one-half of the development expense. By contrast, for the higher-density attached home, consuming less land per unit, land comprises 15 percent of the total selling price and one-third of the development outlay.

  - *Soft costs/overhead and profit.* These expenses comprise a somewhat higher percentage for the attached versus detached units—reflecting developer economics and the existing land-use approval process in New Jersey. For instance, soft costs are higher for a garden/townhouse project because of the typically lengthy review accorded such developments by many municipalities.

- *CONSTRUCTION COSTS.* For both the detached and attached units, construction expenses for the unit and site improvements comprise about one-half of the total unit selling price.

- *OCCUPANCY COSTS.* Details of occupancy costs and their derivation are shown in Exhibit 13. Total monthly occupancy expenses are equal to about 1 percent of the total sales price. Thus, it costs $2,056 monthly to occupy the $200,000 single-family detached home, and $1,443 monthly for the $140,000 garden/townhouse unit. The components of these total occupying charges are similar for both types of housing.

  - *Principal and interest/other costs.* About 70 percent of the monthly occupancy expense is applied to debt retirement. Thus the total unit price, as amortized by a mortgage repayment, translates into a little over two-thirds of the occupancy cost Of the remaining occupancy expenses, about 20 percent pays for taxes/insurance/fees, and 10 percent is obligated for maintenance and utility outlays combined.

EXHIBIT 13

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ESTIMATED NEW JERSEY HOUSING COSTS/AFFORDABILITY
BY HOUSING TYPE UNDER CURRENT CONDITIONS (1987-1988)

HOUSING COST COMPONENT	SINGLE-FAMILY DETACHED %	$	GARDEN/TOWNHOUSE ATTACHED MULTIFAMILY %	$
I. DEVELOPMENT				
A. LAND[1]	25%	$50,000	15%	$21,000
B. SOFT COSTS[2]	5%	$10,000	10%	$14,000
C. OVERHEAD AND PROFIT[3]	20%	$40,000	20%	$28,000
D. SUBTOTAL (A + B + C)	50%	$90,000	45%	$63,000
II. CONSTRUCTION				
A. UNIT COST[4]	40%	$80,000	40%	$56,000
B. SITE IMPROVEMENT[5]	10%	$20,000	15%	$21,000
C. SUBTOTAL (A + B)	50%	$110,000	55%	$77,000
III. TOTAL UNIT COST (I + II)	100%	$200,000	100%	$140,000
IV. MONTHLY OCCUPANCY				
A. PRINCIPAL AND INTEREST[6]	69%	$1,414	69%	$990
B. TAXES/INSURANCE/FEES				
1. TAXES[7]	16%	$333	16%	$233
2. INSURANCE[8]	2%	$42	2%	$25
3. FEES[9]	—	—	4%	$70
4. SUBTOTAL (1-3)	18%	$375	22%	$328
C. MAINTENANCE[10]	5%	$100	2%	$25
D. UTILITIES[11]	8%	$167	7%	$100
E. TOTAL (A + B + C + D)	100%	$2,056	100%	$1,443
V. HOUSING AFFORDABILITY[12] (HOUSEHOLD INCOME)	NA	$76,671	NA	$56,486

Notes: NA = not applicable
1. For unimproved land.
2. Includes interim financing, professional expenses, advertising, and promotional outlays, etc.
3. This figure varies significantly depending on such factors as housing demand, the size/nature of the developer, etc.
4. For building/preparation of the site and foundation, frame, interior systems, etc.
5. For on- and off-site roads, sidewalks, utilities, recreation, and landscaping amenities.
6. Assumes 20-percent down payment and a 10-percent, 30-year mortgage (constant = .10608).
7. Assumes $2.00 per $100 equalized (full-value) tax rate.
8. Assumes $500 annual insurance premium for the single-family detached unit, and $300 for the gardenAownhouse unit
9. Applies only to garden/townhouse unit A monthly fee of $70 is estimated. The $70 fee as indicated here does not include an underlying insurance cost (an expense typically included in the homeowners fee) because insurance is shown under a separate category.
10. Assumes $1,200 annual cost for single-family detached unit for interior/exterior maintenance, and $300 annual cost for garden/townhouse unit for interior maintenance. For die latter unit, exterior maintenance is provided by the homeowners association and paid for by the homeowners fee.
11. Assumes $2,000 annual cost for the single-family detached unit and $ 1,200 for garden/townhouse unit
12. Applies an underwriting standard. Equals the sum of the monthly principal and interest and taxes/insurance/fees divided by .28, and then multiplied by 12 to determine the annual minimum gross income.

AFFORDABILJTY. From the enumerated occupancy costs, housing affordability can be determined by applying an underwriting standard (PITT + fees should not exceed 28 percent of gross income). On this basis, the minimum income to afford the "average" new $200,000 single-family detached home is $76,671; the minimum income to purchase the $140,000 garden/townhouse is $56,486. In both instances, the housing price to household income ratio is approximately 2.5:1.

**How Do Changes in Land Supply Affect
Overall Housing Costs and Affordability?**

The housing expense and affordability matrix permits analysis of the ultimate impact on housing cost and affordability from a change in any cost component, for instance, land prices. There is no question that land is an important cost component. The thrust of the anti-exclusionary zoning movement of the past two decades is that land is a key factor in housing access, and to foster affordability, restrictions on land use must be removed. The *Mount Laurel* litigation in New Jersey has highlighted this land-to-housing-cost relationship.

While acknowledging the significance of land in the housing-cost equation, it is important to realize that increases in land prices do not affect the overall cost of housing and its affordability on a one-to-one basis for two reasons. First, land is only one of numerous development and construction expenses which together comprise the total unit cost. Second, the total unit cost comprises only one component, albeit an important one, of the ultimate occupancy cost—the latter the most significant figure affecting housing affordability by consumers. Furthermore, these two factors are magnified with respect to attached housing, where land starts as a less significant cost component relative to detached-housing development.

To illustrate, we shall examine the effect of a doubling in land prices on the modular New Jersey housing units indicated in Exhibit 13, holding constant the other cost factors and cost relationships.

Unit Cost

- For the attached unit, since land comprises 25 percent of the total unit cost, a 100-percent rise in land prices would translate into a corresponding one-quarter increase in the unit price. For the attached unit, where land comprises a smaller 15-percent share of the total unit cost, a doubling in the land cost would result in a parallel 15-percent rise in the unit's price.

Occupancy Cost

- As the price of land increases, occupancy costs will likewise move upward because debt service will rise to service the higher unit cost, and property taxes will similarly jump, reflecting the units' higher value. However, compared to the effect on the total unit cost, a doubling in land prices has a lesser bottom-line effect when translated into the impact on the final occupancy cost. For the detached unit, a doubling in land costs, which increases the total unit price by 25 percent, has the effect of increasing the monthly occupancy cost by 20 percent (from $2,056 to $2,462). For the attached unit, the 100-percent increase in land

prices, which raises the unit price by 15 percent, has the impact of increasing the monthly occupancy cost by 11 percent (from $1,443 to $1,607; compare Exhibits 13 and 14 for details). This more muted effect on occupancy expenses results because land prices affect only two of the many components of occupancy charges—principal and interest (and then on an amortized basis), and property taxes; unaffected are the remaining expenses for insurance, fees, maintenance, and utilities.

Housing Affordability

- An increase in land prices decreases access to housing. Again, however, there is a somewhat muted as opposed to direct effect, because the appreciation in land affects the major but not all of the underwriting cost factors which determine affordability: only the principal and interest and tax components of the "Pin and fees" equation are impacted. Thus, a 100-percent increase in land prices raises the minimum income to afford the newly constructed single-family detached home in New Jersey by 23 percent (from $76,671 to $94,071). For the attached unit, the doubling in land prices decreases affordability by 12 percent (the minimum income goes from $56,486 to $63,514; see Exhibits 13 and 14 for details).

Essentially, for a detached unit, a 200-percent increase in land expenses ultimately translates into increases in housing costs (unit and occupancy) and decreases in housing affordability for the consumer about one-fifth to one-quarter as large, or 20 to 25 percent. For the attached units, there is even a more moderate effect: the 100-percent land-cost jump results in a rise in housing costs and decreases in affordability about one-tenth to one-seventh as great, or 10 to 15 percent.

The point of this analysis is not to trivialize the consequence of land becoming more expensive, since any increase affects access, but rather to place the land-cost component in perspective. Exhibit 13 permits the extension of such review to the other housing-cost elements. For instance, increases in factors directly affecting occupancy costs have the most dramatic effect It was previously projected that a doubling in land costs would decrease affordability by 23 percent for the single-family detached unit and 12 percent for the attached unit. By contrast, *a doubling in financing costs would decrease affordability by about 80 percent for both detached and attached housing.* The financing charge is the single most critical factor affecting housing delivery. Less dramatic but nonetheless quite important is the property *tax obligation.* A doubling of the property tax payment decreases affordability by almost 20 percent for both the detached and attached units.

While not as consequential as changes in factors encompassing or directly affecting occupancy costs—especially financing, increases in development and construction-cost factors, other than land, have a significant bottom-line effect For instance, *soft costs and site improvements* have not received nearly the attention as influences on housing access as land availability and price. A doubling in these two costs, however, decreases affordability by 14 percent for the single-family detached unit and 23 percent for the garden/townhouse unit This difference is due to the fact that soft costs and site improvements, are proportionately more significant cost elements for the attached unit) This effect constitutes a significant share of or even exceeds the projected impact of a doubling of land prices where it was estimated that affordability would decline by 23 percent for the detached home and 12 percent for the attached unit. These housing cost and affordability interactions have a direct bearing on New Jersey housing policy.

EXHIBIT 14

ESTIMATED NEW JERSEY HOUSING COSTS/AFFORDABILITY BY HOUSING TYPE UNDER INCREASED LAND-COST CONDITIONS*

HOUSING COST COMPONENT	HOUSING TYPE			
	DETACHED % $		GAKDEN/TOWNBOUSE ATTACHED MULTIFAMILY %	$
I. MONTHLY OCCUPANCY				
A. PRINCIPAL AND INTEREST [2]	69%	$1,768	69%	$1,139
B. TAXES/INSURANCE/FEES				
1. TAXES [3]	16%	$385	16%	$248
2. INSURANCE [4]	2%	$42	2%	$25
3. FEES [4]	—	—	4%	$70
4. SUBTOTAL (1–3)	18%	$427	22%	$343
C. MAINTENANCE [4]	5%	$100	2%	$25
D. UTILITIES [4]	8%	$167	7%	$100
E. TOTAL (A + B + C + D)	100%	$2,462	100%	$1,607
II. HOUSING AFFORDABILITY [4] (HOUSEHOLD INCOME)	NA	$94,071	NA	$63,514

Notes: NA = not applicable

1. Assumes for calculation purposes a 100-percent increase in the existing land costs. For the single-family detached unit, land would double from the $50,000 shown in Exhibit 13 to $100,000; for the attached unit, land would double from $21,000 to $42,000. Total unit costs would therefore amount to $250,000 *($200,000 + $50,000)* and $161,000 *($140.000 + $21,000).* respectively.
2. Factors the additional principal and interest cost from the added land/unit expenses indicated in Note 1. As in Exhibit 13, a 20-percent down payment and a 10-percent, 30-year mortgage are assumed (constant = .10608).
3. Factors the added land/unit costs indicated in Note 1 and applies a $1.85 per $100 equalized (full value) tax rate. The $1.85 rather than the $2.00 equalized rate is used (the latter the figure assumed in Exhibit 13), because practically, as the cost of housing increases, the effective tax rate often decreases.
4. Applies the same costs/methodology indicated in Exhibit 13.

HOUSING POLICY: NECESSARY ACTIONS

Exhibit 15 summarizes the major housing programs offered by the New Jersey Housing and Mortgage Finance Agency (HMFA) and the Department of Community Affairs (DCA). It also indicates which component of housing cost is addressed by each of the HMFA and DCA programs. The existing aids clearly concentrate on providing financial assistance. As financing is the single most critical factor affecting housing affordability, the State's current programs are focusing already on the most significant leverage point. Yet State budgetary realities and federal restrictions on tax-exempt financing make it unlikely that additional significant HMFA or DCA housing financing subsidies will be forthcoming.

Other housing cost components must be addressed To a considerable extent, this is already being done. *Mount Laurel* litigation and the oversight activities of the Council on Affordable Housing are aimed at providing adequate, reasonably priced land. The State Plan itself is attempting to balance the land imperatives of preservation and development.

New Jersey has also acted to reduce unit construction costs through its adoption in 1975 of a uniform construction code. In essence, the latter ensures that all municipalities will allow the cost-efficient materials and building techniques approved by the national Building Officials and Code Administrators (BOCA) provisions.

While these state efforts to reduce land and unit construction costs are to be applauded, much more can be done. Landbanking is a technique to assemble affordable sites for development. It has been efficiently used by agencies ranging from the Philadelphia Industrial Development Corporation to the SL Louis Land Reutilization Authority. The State of New Jersey should encourage similar efforts here. It is especially opportune because the State Plan encourages greater development in built-up areas and it is in just such locations, especially cities, where landbanking is most needed for assemblage.

The State must also continue to work to reduce unit construction costs. Adoption of a uniform code was a critical first step, but "fine-tuning" is necessary. For instance, there are cost-saving construction materials and techniques which fall into a "grey area" as far as the State code is concerned—they are neither expressly allowed nor prohibited. Confronted with such a situation, local inspectors defer action and refer the matter to BOCA or the Department of Community Affairs (DCA) for a decision. The process is time-consuming and the practical effect is that builders will avoid these "grey area" situations despite their potential cost savings. This state of affairs is short-sighted: the State must improve code administration so that the status of cost-efficient materials and technologies is clarified and publicized to local inspectors and builders.

Other State building regulations which affect construction cost must also be carefully reviewed. Access for the handicapped is an example. (Federal rules additionally govern access.) Sprinkling standards are another. For instance, the pending requirement that all three-story structures be sprinkled, in addition to these buildings' more stringent handicapped access standards, may very well effectively preclude development of this cost-efficient construction configuration. Again, the State is confronted with the balancing of development economics and social welfare imperatives.

It is further incumbent upon the State to use its authority as the firamer of land use to guard against excessive costs in two areas which heretofore have not received the same attention as others—to wit, soft costs and site improvement expenses. As projected earlier, increases in these costs have a very significant bearing on housing affordability, especially for attached units.

EXHIBIT **15** NATURE AND Focus OF MAJOR

NEW JERSEY STATE HOUSING PROGRAMS

STATE AGENCY/PROGRAM	PROGRAM ASSISTANCE	HOUSING COST COMPONENT ADDRESSED	

HOUSING AND MORTGAGE FINANCE AGENCY

AFFORDABLE HOUSING PROGRAM	Permanent mortgage loans for the purchase of owner-occupied housing; construction and/or permanent loans for multifamily rental housing; grants or loans to make either home purchases or multifamily rental housing more affordable; and technical and financial assistance.	*Loans* *Technical Assistance*	—Principal and interest —Soft and other costs
MARKET-RATE RENTAL HOUSING	Below-market interest rate mortgage loans are available to non-profit and private developers for those multifamily housing proposals that can demonstrate economic feasibility with 20 percent of the units reserved for low- and moderate-income residents who earn up to SO percent of area median income, or 40 percent of the units reserved for tenants who earn up to 60 percent of area median income.	*Loans*	—Principal and interest
HOUSING ASSISTANCE CORPORATION	Construction and permanent mortgage loans for multifamily rental housing; end-loan mortgage financing for single-family purchase housing; technical assistance. In addition, technical assistance is available to non-profit groups to assist in the development of housing proposals.	*Loans* *Technical Assistance*	—Principal and interest —Soft and other costs
VOME MORTGAGE PROGRAM	Below-market interest rate mortgage with a minimum 5-percent down payment to qualified buyers of newly completed single-family homes or existing one- to four-unit homes (including condominiums).	*Loans*	—Principal and interest
JTHER: RENTAL FINANCING; REVOLVING MAN PROGRAM; RENTAL REPAIR LOAN ROGRAM; BUY-ft AND FIX-IT PROGRAM; toME IMPROVEMENTS LOAN PROGRAM; 'ROJECT OCCUPANCY; ETC.	Below-market interest rate financing (slate and directed federal) for rental and single-family purchase housing.	*Loans*	—Principal and interest

>EPARTMENT OF COMMUNITY AFFAIRSJ

NEIGHBORHOOD PRESERVATION PROGRAM	Loans and grants to rehabilitate substandard housing units, create accessory apartments, convert nonresidential space to residential purposes, acquire real property, construct new housing, and studies/surveys and other technical services.	*Loans* *Technical Assistance*	—Principal and interest —Soft, construction, and other costs
IOVSING DEMONSTRATION PROGRAM	Loans/grants to foster more innovative economical methods of constructing and rehabilitating or otherwise providing housing units for low- and moderate-income families.	*Technical Assistance*	—Soft and other costs
MALL CITIES CDBG	Grants to eligible municipalities/counties for the development of viable communities through the provision of decent housing, a suitable living environment, and expansion of economic opportunities, principally for persons of low and moderate income.	*Loans*	—Principal and interest Note: *CDBG can be applied to reduce many other housing cost components.*
THER: HOUSING VOUCHER, RENTAL EHABILTTATION, SECTION 8 EXISTINGL MODERATE REHAB	Loans/grants (state and federal monies) typically for rental housing.	*Loans*	—Principal and interest g

source: State of New Jersey, Department of Community Affairs, *Programs Book* (Trenton, NJ: Department of Community Affairs, 1988), and text

There is much that the State can do. Soft costs have increased in large pan because land-use approval and processing have become more and more protracted. The processing framework of the Municipal Land Use Law (MLUL), with its specified tight time limits for public review, was a good start, but the reality is far different. One of the largest and most efficient volume builders in New Jersey recounted to the authors that it is currently taking three years to secure all land-use approvals.

Action to realize the original expeditious processing framework of the MLUL is needed. Detailed recommendations to expedite the local review of land-use applications are contained in Article Four of the *Model Subdivision and Site Plan Ordinance* published by the Department of Community Affairs in 1987. The effectuation of these recommendations by municipalities should be fostered by the State,

It is further critical for the State to do its share to expedite processing by its own agencies, especially the Department of Transportation (DOT), Department of Environmental Protection (DEP), and Department of Community Affairs (DCA). Areas of delay, overlapping jurisdictions, and conflicts between state departments and the state and local governments, should be identified and eliminated To this end, the recommendations of the DCA Ad Hoc Task Force on the Land Use Regulatory Process and the DEP Land Use Committee should be operationalized.

The State can also play an important role to reduce site improvement costs. Implementation of Article Six of DCA's Model Subdivision and Site Plan Ordinance at the local level would be an important first step to reduce excessive standards for streets, utilities, and other on-site improvements. An equitable allocation of off-tract costs is yet another dimension of improvement expenses which should be addressed by the State. Whether termed a "developer's agreement," "exaction," or "impact fee," builders in the State are increasingly being forced to shoulder a larger share of off-tract infrastructure improvements. These demands have dramatically increased improvement expenses. The current provisions in the MLUL governing exactions are too vague, a situation contributing to the current abuses. It is incumbent upon the State, if it wishes to foster affordable housing, to frame a "fair share" approach for the allocation of off-tract expenses.

Finally, the State must confront the reality of its dependence on the local property tax. The State and Local Expenditure and Revenue Commission (SLERC) has documented the fiscal inequities of the current tax system. This system additionally has a critical housing effect. As documented previously, an increase in the local property tax obligation (for instance, a doubling) has as significant, or even a more significant, effect on housing affordability as appreciation in land prices. To improve shelter opportunities, the State must reduce local property tax costs. Yet, as experienced by SLERC, the realization of such reform is daunting.

In sum, the matrix of housing cost components, formulated for considering affordability, can also serve as a useful conceptual framework for considering State housing policy. While the State is already addressing many key housing factors which affect housing cost and access, there are additional opportunities to improve this record in the areas of land availability, construction cost efficiency, processing, the sharing of infrastructure improvements, and public tax dependence.

NOTES

1. U.S. Department of Housing and Urban Development, Federal Housing Administration (FHA), Economic and Market Analysis Division. *FHA Techniques of Housing Market Analysis* (Washington, D.C.: Government Printing Office, August 1970).

2. Ernest Fisher and Robert Fisher. *Urban Real Estate* (New York: Henry Holt, 1954).

3. Federal Housing Administration. *FHA Techniques,* p. 11.

4. *See* Michael Goldberg and George Gau, *North American Housing Markets in the Twenty-First Century* (Cambridge: Ballinger, 1983); Urban Land Institute, *Residential Development Handbook* (Washington, D.C.: UU, 1970).

5. Peter Halvorson, "The Income Factor in me Joumey-to-Worfc Attitudes and Behavior." *The Professional Geographer,* Vol. 25, No. 4 (November 1973), p. 357.

6. Federal Housing Administration. *FHA Techniques.*

7. U.S. Department of Commerce, *Bureau of the Census, 1980 Census of Population and Housing—*United Stales, New Jersey (Washington, D.C.: U.S. Government Printing Office, 1983).

8. Federal Housing Administration. *FHA Techniques.*

9. U.S. Department of Commerce, Bureau of Census. *The Journey-to-Work in the United States: 1979* (Washington, D.C.: Government Printing Office, 1982), Series P-23, No. 122.

10. American Society of Planning Officials (ASPO). *Relationships of the Journey-to-Work* (Planning Advisory Service Report #15). Chicago, IL: ASPO, April 1951.

11. *Ibid. See also* John S. Adams, "The Definition of Areal Sub markets for Housing in the Minneapolis and Suburban Areas." Hubert S. Humphrey Institute of Public Affairs, University of Minesota (August 1977) (mimeo).

12. U.S. Department of Commerce, Bureau of the Census, and U.S. Department of Labor. *County Business Patterns* (Washington, D.C.: Government Printing Office, series).

13. Federal Housing Administration. *FHA Techniques.*

14. U.S. Department of Commerce, Bureau of the Census, *1980 Public Use Sample—New Jersey* (Washington, D.C.: U.S. Government Printing Office, 1983).

15. SPSS Inc., *SPSS Users Guide* (New York, NY: McGraw Hill, 1983); SAS Institute, Inc., *SAS Users Guide* (Raleigh, NC: SAS Institute, 1979).

16. Donald J. Vddman, *Fortran Programming for the Behavioral Sciences* (New York, NY: Holt Rinehart, 1967).

17. State of New Jersey, Department of Labor. *New Jersey Revised Total and Age and Sex Population Projections, Julyl, 1990 to 2020* (Department of Labor, July 1985).

18. /6&

19. *Ibid.*

Ito.Ibid.