

SECTION 4

—

**COMMUNITY LIFE
ASSESSMENT**

COMMUNITY LIFE ASSESSMENT

INTRODUCTION

“Community life” is used here in place of the term “quality of life” in *Report I: Research Strategy—Research Design, Model Descriptions, Case Study Profiles, Variable Selection* (Section 4, Part I) because it more closely follows the specific assessment component language of the State Planning Act. Although the study team assesses community life in three separate analyses—housing demand and supply, housing cost, and quality of community life—the surface of this broad area of individual perceptions and feelings is barely scratched by these analyses. This will be explained below.

Community life is a series of activities that describe how people feel about where they live and work. Much of what they feel is subjective, i.e., it can't really be measured; a small portion of it is objective, and even here the measures are difficult to come by. The subjective aspects of community life may involve the architectural style of the dwelling unit, the comfort and feel of the housing, the housing's proximity to the workplace, the age and extent of tree cover and/or landscaping of the immediate environment, the neighborhood vis-à-vis its level of traffic or commercial development, the extent of a downtown that is available, whether it is within walking distance, whether it is open and accessible at night, and so on. These are very difficult aspects of community life to quantify.

Somewhat more measurable but also an incomplete picture of community life are the availability and cost of housing, the ability of a community to deliver public services in a nonconfiscatory manner, the personal safety of a community, and finally, the community's sustaining power in terms of the value of its property base and economic worth of citizens. While these can be more easily measured, the very act of doing so locks one into an incomplete picture of community life. Notwithstanding these shortcomings, the analyses that are contained herein approach the evaluation of community life using the basic dimensions of: housing demand and supply, housing cost, and indicators of public service delivery, taxing base and revenue-raising capacity, relative affluence or poverty, public safety, and private worth.

Clearly within the definition of community life, and very much influencing perceptions of community, is the housing choice available in a community. The community life assessment addresses this issue in two distinct parts. The first is housing availability; the second, housing cost. Community life is directly related to having appropriate housing available at a reasonable cost.

The CUPR Housing Demand/Supply Model is driven by projections of household formation and the historic provision of housing at the local level. It receives most of this information from the Land Capacity Model. The Housing Demand/Supply Model projects total housing demand by type, tenure, and cost for each of the six New Jersey housing regions defined by the New Jersey Council on Affordable Housing¹ and pairs this with historic rates of housing supply found there.

A second component of this Model allows the land-limiting aspects of IPLAN policies to alter the price of land and thus impact on housing cost and affordability. It further allows the increased densities of Centers to attempt to compensate for potential housing-cost increases experienced in the environs. TREND and IPLAN are compared, and both are evaluated according to the parity of demand and supply they produce in the region, as well as their ability to promote affordable housing.

A quality of community life assessment is performed using a model that contains a composite community rating indicative of more versus less preferential living environments. More preferential living environments may include good schools, low taxes, affordable housing, cultural and recreational facilities, low crime rates, low welfare-burdened populations, and so on. Less-preferential living environments contain the reverse.

The quality of life (QOL) rating that is used in this community satisfaction analysis is a composite of six equally weighted dimensions derived for communities in New Jersey. Each dimension contains multiple variables both static (measured in 1990) or dynamic (measured from 1980 to 1990). A community is given a quality of life rating, and each household and job directed to that community receives this rating. The combination of number of households and jobs multiplied by the rating is the score for quality of community life under each of the two alternative development scenarios. Individual quality of community life scores are summed to the State level and compared in the overall evaluation of TREND versus IPLAN.

¹ The New Jersey Council on Affordable Housing has partitioned the State of New Jersey into six 2- to 4-county housing regions. Based on an analysis of journey-to-work patterns conducted by the Center for Urban Policy Research at Rutgers University, the State's housing regions are as follows: 1. Bergen, Passaic, and Hudson counties; 2. Essex, Morris, Union, and Sussex counties; 3. Middlesex, Somerset, Hunterdon, and Warren counties; 4. Monmouth and Ocean counties; 5. Camden, Gloucester, Burlington, and Mercer counties; and 6. Atlantic, Cape May, Cumberland, and Salem counties.

PART I
—
**IMPACTS ON
QUALITY OF
COMMUNITY LIFE**

COMMUNITY LIFE ASSESSMENT: PART I — IMPACTS ON QUALITY OF COMMUNITY LIFE

BACKGROUND

This portion of the evaluation attempts to measure potential community satisfaction as part of the Community Life portion of the Impact Assessment. As has been mentioned earlier, this is just one of several measurable indicators of community life being viewed here, including housing supply and affordability; it doesn't begin to assess the numerous subjective aspects that determine the intricate fabric of community life. In the larger picture, community life could easily be impacted more as a result of the outcomes of all of the other assessment components than what is possible to measure here. This analysis does, however, provide excellent insight to the potential community life impacts on the portion of the population that may choose other locations as a result of the redevelopment objectives of the State Plan.

The quality of community life evaluation for the Impact Assessment of New Jersey's Interim State Development and Redevelopment Plan (IPLAN) focuses on the effects of population and employment being exposed to different qualities of community life (QOL) at the municipal level. These QOL measures are developed from the community satisfaction literature and calibrated to best interpret local (municipal) conditions. The units of analysis are the 567 municipalities of New Jersey.

This element of the overall Community Life Assessment determines the impact of locating households and jobs differently to specific communities under TREND and IPLAN. These differences in location reflect population and job-filling assumptions developed in other sections of the analysis. The population of these two major alternative growth plans are exposed to objective quality of life indicators of these communities and are tested and evaluated according to the aggregate scores achieved by all households and jobs of one scenario versus those of the other. Quality of life is a dynamic objective measure of a community. Thus, in the Model, a municipality's QOL index can change over the analysis period depending, in large part, on how fortunate it is in expanding its ratable base.

CONCEPTS

The Quality of Community Life Model rates TREND versus IPLAN according to the number of people that are associated with more- versus less-desirable local community settings. A single QOL rating, based on the six dimensions outlined below, is developed for each municipality. This rating varies from 1 (low) to 5 (high). (See *Report I: Research Strategy—Research Design, Model Descriptions, Case Study Profiles, Variable Selection*

at Section 4, Part I.) The six dimensions developed to measure QOL in New Jersey municipalities are as follows:

- (1) Economic well-being
- (2) Housing value and ownership
- (3) Property tax base and rates
- (4) Public safety
- (5) School achievement
- (6) Community amenity

Each dimension contains between two and five variables both static (measured in 1990) and dynamic (measured from 1980 to 1990). For example, "Housing value and ownership" is based on three variables: 1. percent homeownership in 1990; 2. median housing value in 1990; and 3. change in median housing value between 1980 and 1990. The variables selected for inclusion in the QOL evaluation are those that show variation from place to place within the State.

Households and employees are projected and located in communities for the years 1990, 1995, and 2010, according to population projections and historical location patterns (TREND) or the specific growth dimensions inherent within the State Plan (IPLAN). The resultant QOL score is a weighted product of the number of households and jobs located in a community and its associated QOL rating.

A municipality's QOL rating can change over time. Case Study 6, *The Effects of Growth on the Quality of Life*,² finds that the addition of nonresidential ratables has the most significant impact on change in a municipality's QOL. The Quality of Life Model employs this factor in order to incorporate a dynamic element in the assessment. The addition of nonresidential ratables is the increase in commercial and industrial property value per household in each municipality. This is calculated by multiplying construction costs per square foot of nonresidential space (from data available from the New Jersey Department of Labor) by the area of space per employee, and the total number of jobs created in the municipality. This factor is only one of six individual factors affecting quality of community life. As such, its impact on quality of community life change is a fraction of the observed ratable base percentage change. Quality of life can also decrease with

² See Appendix to Report I: Results of the Case Studies.

nonresidential ratable-base loss; in this case, however, decreases are taken at one-half the ratable base per household percent change and are also fractionalized for overall impacts.³

The alternate output scenarios for TREND and IPLAN are assessed by comparing aggregate QOL totals. In addition to an aggregate total for the State as a whole, the data is partitioned by region (Northeast, Northwest, West Central, East Central, Southwest, and South-Southwest) to facilitate a comparative analysis.

EXPECTED DIFFERENCES UNDER TREND AND IPLAN

Community satisfaction, at least for the share of the State's residents that will not pursue redeveloping neighborhoods under TREND, will probably be higher under TREND than IPLAN. This reflects the fact that quality of life ratings are higher in the suburbs and exurbs, the locations that are being sought under TREND; quality of life ratings are lower in the closer-in suburban and urban areas in which a portion of the IPLAN population may locate. The expectation is that households will choose to live in municipalities in near-rural areas, with primarily single-family development, growing tax bases, low crime rates, and low dependent populations. "Exposure" to quality of life will be higher here. Under IPLAN, a share of population and employment growth is likely to emerge in some of the redeveloping areas of the State. The initial expectation is that under IPLAN some portion of overall population growth will occur in municipalities with lower QOL scores. Hence, these people will register lower quality of life exposures that are factored into the overall "exposure" rating of this latter growth scenario.

It is also very possible that, just as adding population to suburban and rural communities may at some point change the character of those communities in ways that reduce measures of quality of life, redirecting population growth to urban areas will, in the long run, alter somewhat the QOL found there. The investments in commercial and industrial property associated with growth will enhance the tax base of the host communities, thereby adding to local revenues and, as well, municipal capacity for providing public services. The human and physical capital put into these locations in the long run can reap rewards. It is anticipated that this will have a positive influence on the QOL and serve to diminish the historic disparity between urban and exurban locations.

³ See "Critical Assumptions and Data Parameters"

CRITICAL ASSUMPTIONS AND DATA PARAMETERS

1. Quality of community life has many objective and subjective dimensions, only a portion of which can be measured. Even those that can be measured provide very limited insight into the true nature of quality of community life.
2. Between 1990 and 2010, TREND and IPLAN represent two relatively similar growth scenarios for the State at the State and regional levels, and two very different growth alternatives at the municipal level. Under TREND conditions, municipalities that have grown in the past will basically continue to grow; municipalities that have declined will continue their decline. IPLAN succeeds in redirecting growth between municipalities in the State, continuing growth at an abated pace in many areas, and slowing decline in others.
3. The quality of community life analysis assumes that municipalities are the appropriate level at which to measure quality of community life. Municipalities are assumed to be the best approximation of the scale of community life and the appropriate level at which to assemble data. In addition, municipalities have considerable discretion over land use and local fiscal decisions and are the most coterminous public service districts with independent school districts.
4. The overall quality of life rating is an accurate yet incomplete representation of the quality of community life in a municipality. In constructing the quality of life rating it has been assumed that each dimension of the quality of life index is equally important (given equal weighting). It is also assumed that each of the variables within a dimension is equally important in that dimension. The result of these assumptions, as explained in *Report I: Research Strategy* at Section 4, Part I, is that the relative weights for the eighteen variables that comprise the QOL index differ.
5. The impact of the addition to nonresidential tax base of the community is reflected in the quality of community life level of that community. This variable represents a wealth index of a community that signals its fiscal and economic health. The basis for this assumption is outlined above; briefly, however, it finds that improvement in the quality of community life is closely related to its ability to secure an enhanced fiscal posture.
6. The full value of nonresidential ratable addition is taken where communities are growing; only one-half the value is taken in a declining situation. The latter reflects owners of buildings who, even in the face of reduced demand for space, continue to pay essentially the same level of taxes on the building.

7. Quality of community life is experienced differently by workers and residents. The importance of quality of community life is less significant to an employee who spends a workday in a community with a specific QOL rating than a person residing there. In calculating the aggregate quality of life exposure level in a community, the addition of employment to a community multiplied by its quality of life is rated at one-third that of the addition of households multiplied by its quality of life.
8. The projection of current levels of quality of community life, adjusted by nonresidential ratable growth, is a fair indication of quality of community life in the future. Thus, the 1990 (1–5) quality of life index of a community is its future value altered only by changes introduced by the tax-base index.

TREND FINDINGS

The overall finding is that quality of community life will be, on the whole, better in 2010 than in 1990. This reflects sustained household and job growth and tax base additions to most communities over this period. The aggregate quality of community life exposure levels under TREND are summarized in Exhibit 1. The scores are given for the years 2010 and 1995 with 1990 as a base year for comparison. Also shown are the components of the aggregate exposure level: the quality of life index and the households and jobs that, when multiplied by the index, equal the exposure level.

Quality of community life exposure expands from an 11 million level in 1990 to a 13.50 million level in 2010 under TREND. The twenty-year period between 1990 and 2010 shows a 22-percent expansion in these exposures. These exposure levels reflect the number of households and one-third of the jobs applied to the quality of life ratings at the two different points in time. Both components of this product change positively over time. The 22-percent change discussed above for the period 1990–2010 is composed of the aggregate of households and employment that has increased by 15.6 percent and a quality of life rating that has increased by 5.3 percent.

Findings by Region

Exhibit 1 also outlines the percent change in the aggregate QOL scores for the State by region. Under TREND, the regions appear to group themselves into three distinct ranges of improvement. The West Central, East Central and Southwest regions show the greatest expansion of QOL exposure under TREND conditions. The level of household and job change in a region directly affects its quality of community life exposure rating. The central portion of New Jersey is the economic breadbasket, containing its fastest-growing

EXHIBIT 1
COMPONENTS OF COMMUNITY LIFE
BY REGION

	Quality of Community Life 1990	Quality of Community Life 2010 TREND	Percent Change 1990-2010 TREND	Quality of Community Life 2010 IPLAN	Percent Change 1990-2010 IPLAN	IPLAN as a Percent of TREND
Exposure Level (Aggregate)						
New Jersey	11,090,217	13,505,687	21.78%	13,155,168	18.62%	97.40%
Northeast	2,774,503	3,098,724	11.69%	3,061,404	10.34%	98.80%
Northwest	2,767,971	2,983,612	7.79%	2,891,720	4.47%	96.92%
West Central	1,910,499	2,562,596	34.13%	2,477,735	29.69%	96.69%
East Central	1,510,558	2,036,922	34.85%	1,973,832	30.67%	96.90%
Southwest	1,630,108	2,235,214	37.12%	2,169,753	33.10%	97.07%
South-Southwest	496,579	588,619	18.53%	580,724	16.94%	98.66%
QOL Index (Mean)						
New Jersey	2.77	2.92	5.32%	2.84	2.60%	97.42%
Northeast	2.85	2.92	2.40%	2.88	1.17%	98.80%
Northwest	2.91	3.10	6.30%	3.00	3.09%	96.98%
West Central	3.22	3.39	5.12%	3.28	1.63%	96.68%
East Central	3.16	3.30	4.61%	3.20	1.39%	96.92%
Southwest	2.24	2.49	11.14%	2.42	7.88%	97.07%
South-Southwest	1.78	1.77	-0.01%	1.75	-1.35%	98.66%
Households & Jobs (1/3)						
New Jersey	4,001,519	4,626,875	15.63%			
Northeast	974,025	1,062,369	9.07%			
Northwest	949,667	962,942	1.40%			
West Central	592,663	756,258	27.60%			
East Central	478,272	616,517	28.91%			
Southwest	727,143	897,148	23.38%			
South-Southwest	279,749	331,641	18.55%			

Source: Quality of Life Model, 1992

population and employment centers. These regions average a 34- to 37-percent increase in exposure. Thus, while quality of community life is increasing somewhat in municipalities in the central part of the State, the exposure level increases are being driven primarily by household and job growth. The South–Southwest region registers an intermediate increase of 18.5 percent in exposure levels. This is the second fastest-growing area of the State and a slowly emerging center of nonresidential growth. The Northeast and Northwest regions see the least quality of life exposure expansion over the twenty-year study period. These are areas of slow growth in suburban and rural areas, and growth decline in urban areas.

IPLAN FINDINGS

Again, the overall finding is that quality of community life will increase over time such that it will be better in 2010 than it is today. This relates to the continued growth in the job base. In general, the quality of community life under IPLAN shows a pattern similar to that found under TREND, but at a less exaggerated level. There is an expansion of quality of life exposures reflecting both an increase in population and, on average, a general increase in the quality of life index in most communities. The somewhat lower number than TREND (13.15 million exposure level) reflects the redirection of households and jobs under IPLAN. Exhibit 1 also outlines the statewide and regional changes in the quality of community life scores under IPLAN for the study years. Under this scenario there is about a 19-percent increase in quality of community life in the State as a whole between 1990 and 2010 versus 22 percent under TREND. This 3-percent decrease from the overall level found under TREND reflects the decreases in quality of community life of those households relocating to redeveloping areas. The above notwithstanding, on average everyone's quality of life is up from 1990 levels under this and the TREND scenario as well.

Findings by Region

The regional breakdown of quality of community life under IPLAN exhibits the same three-part pattern found under TREND conditions. As with the findings at the State level, regional exposure increases prove to be somewhat less under IPLAN. Specifically, exposure expansions for the West Central, East Central, and Southwest regions range from a 30- to 33-percent change between 1990 and 2010. This is 4 percent less than the 34- to 37-percent increase under TREND. The other regions show similar smaller changes under IPLAN. For example, in the South–Southwest region, the expansion of community life exposure levels under IPLAN is 17 percent, whereas under TREND it is 18.5 percent. This represents an approximate 1.5 percent absolute difference in the two scenarios. Again, the

Northeast and Northwest regions exhibit the least change during the time period, achieving a 1-percent and 5-percent improvement, respectively, under the IPLAN scenario.

What these aggregate trends portray is people experiencing quality of community life under two different growth scenarios for the future. Several forces are at work here. First, as indicated earlier, the nonresidential ratable base of the State is being expanded. This will contribute to an increase in the overall quality of life in the State. In communities where these additions of nonresidential ratable base are taking place, increases occur because the new ratable base is valued more per square foot than the old. In communities where decreases are taking place, these are less noticeable than the increases because this does not always result in a full loss of ratable base; when it does, the older space is usually not worth very much.⁴ Thus, the overall population's quality of life is being marginally affected by different changes in ratable bases in varying locations determined by the nonresidential growth increment in the periods 1990–1995 and 1990–2010 for the two scenarios.

Second, a large share of the households and jobs under TREND are relocating to areas experiencing the highest and fastest-growing qualities of community life. Under IPLAN, on the other hand, a portion of these households and jobs are locating in closer-in areas. Quality of life may not be as high in these locations as in the more exurban and rural locations. These households and jobs will contribute to a slightly lower quality of life exposure level under the IPLAN scenario. This situation may change over time, as will be discussed below.

COMPARISON OF TREND AND IPLAN

The comparative findings for TREND and IPLAN are presented in Exhibit 1. The quality of community life exposures in 2010 are compared, and IPLAN results are presented as a proportion of those under TREND. The 4,626,875 households and jobs in 2010 are applied to the quality of community life measures according to the weighted scheme outlined above. As indicated earlier, both scenarios show an increased quality of community life in 2010 relative to 1990. Under TREND development conditions, a combined quality of community of life exposure level of 13.50 million is observed. For the same number of households and jobs at the regional and State levels under IPLAN, the overall quality of community life exposure level is 13.15 million. On average, households under IPLAN are exposed to a 3 percent lower level of QOL than those under TREND for the study period. This is related to a portion of households under IPLAN that could, for

⁴ These losses are taken at only one-half their actual value in the Model.

instance, have located in a rural community with a QOL rating of 3 but locate instead in a closer-in suburb with a QOL rating of 2.

The difference in the quality of community life under TREND and IPLAN is least marked for households in the Northeast and the South-Southwest regions. A less-than 1.5-percent difference between TREND and IPLAN in these regions compares favorably to the statewide average. The remaining regions (Northwest; West Central; East Central; Southwest) achieve aggregate exposure levels of 3 percent lower than those found under TREND conditions.

The differences between TREND and IPLAN quality of community life levels in the State should also be considered with respect to baseline quality of life in urban and suburban neighborhoods. Suburban communities, such as Sparta (Sussex) and Morris Plains (Morris) are among the highest-scoring communities on the QOL index. Under TREND conditions, such communities would be expected to see a larger proportion of the population and employment growth of the region. However, under IPLAN a portion of this growth may choose the closer-in suburban areas of Union and Essex counties, some of which have somewhat lower QOL ratings than the aforementioned communities. Hence, the aggregate QOL of the State sees an overall reduction as IPLAN attempts to address the disparities between the young and more fiscally stable Suburban-Rural communities, and the older and less fiscally stable Urban Centers.

This can be seen clearly in Exhibit 2 and in condensed form in Exhibit 3, where QOL ratings are given by community type as defined by the Bureau of Government Research at Rutgers University (Rutgers University, 1989; see *Report 1: Research Strategy*). The quality of community life in 2010 improves under IPLAN conditions for all community types over the QOL that was present in 1990. The most dramatic improvements are in Rural Centers and Major Urban Centers. Less dramatic increases are shown in Rural and Suburban-Rural areas. Overall, the results of the analysis indicate that IPLAN, if population shifts were to take place as predicted, would begin to achieve its goal in improving the quality of community life in urban-oriented locations and existing Centers. This would be in direct contrast to TREND conditions where relatively more improvement would occur in suburban or purely rural areas.

EXHIBIT 2
COMPONENTS OF COMMUNITY LIFE
BY REGION

	Quality of Community Life 1990	Quality of Community Life 2010 TREND	Percent Change 1990-2010 TREND	Quality of Community Life 2010 IPLAN	Percent Change 1990-2010 IPLAN	IPLAN as a Percent of TREND
Exposure Level (Aggregate)						
New Jersey	11,090,217	13,505,687	21.78%	13,155,168	18.62%	97.40%
Major Urban Center	441,956	427,671	-3.23%	513,844	16.27%	120.15%
Urban Center	771,453	811,885	5.24%	897,527	16.34%	110.55%
Urban-Suburban	2,590,729	2,863,110	10.51%	2,981,292	15.08%	104.13%
Seashore Resort	190,646	248,006	30.09%	261,879	37.36%	105.59%
Rural Center	176,460	197,401	11.87%	236,425	33.98%	119.77%
Urban Center Rural	43,050	60,621	40.81%	64,793	50.51%	106.88%
Suburban	4,740,656	5,692,755	20.08%	5,353,485	12.93%	94.04%
Suburban-Rural	1,532,745	2,307,943	50.58%	2,040,427	33.12%	88.41%
Rural Center Rural	86,819	119,933	38.14%	119,822	38.01%	99.91%
Rural	515,702	776,364	50.55%	685,675	32.96%	88.32%
QOL Index (Mean)						
New Jersey	2.77	2.92	5.32%	2.84	2.60%	97.42%
Major Urban Center	1.00	1.02	1.57%	1.06	6.06%	104.42%
Urban Center	1.60	1.63	2.21%	1.63	2.20%	99.99%
Urban-Suburban	2.96	3.03	2.52%	3.04	2.69%	100.17%
Seashore Resort	2.95	2.89	-2.13%	2.93	-0.65%	101.51%
Rural Center	2.11	2.22	5.10%	2.32	9.72%	104.39%
Urban Center Rural	1.00	1.14	13.55%	1.09	9.05%	96.04%
Suburban	3.50	3.57	1.93%	3.51	0.20%	98.31%
Suburban-Rural	3.40	3.52	3.32%	3.54	4.03%	100.69%
Rural Center Rural	2.13	2.30	7.79%	2.36	10.83%	102.82%
Rural	3.12	3.33	6.65%	3.30	5.83%	99.23%
Households & Jobs (1/3)						
New Jersey	4,001,519	4,626,875	15.63%	4,626,206	15.61%	
Major Urban Center	441,956	421,073	-4.73%	484,464	9.62%	
Urban Center	482,655	496,957	2.96%	549,436	13.84%	
Urban-Suburban	875,506	943,789	7.80%	981,076	12.06%	
Seashore Resort	64,635	85,911	32.92%	89,367	38.26%	
Rural Center	83,513	88,887	6.43%	101,981	22.11%	
Urban Center Rural	43,050	53,389	24.02%	59,414	38.01%	
Suburban	1,353,741	1,594,888	17.81%	1,525,676	12.70%	
Suburban-Rural	450,530	656,597	45.74%	576,511	27.96%	
Rural Center Rural	40,760	52,238	28.16%	50,760	24.53%	
Rural	165,173	233,146	41.15%	207,521	25.64%	

EXHIBIT 3
(EXHIBIT 2 CONDENSED)
QOL RATING BY MUNICIPAL TYPE, 1990 AND 2010

	1990	2010	
		TREND	IPLAN
Major Urban Centers	1.00	1.02	1.06
Urban-Suburban Centers	2.96	3.03	3.04
Rural Centers	2.11	2.22	2.32
Rural Centers-Rural	2.13	2.30	2.36
Suburban	3.50	3.57	3.51
Suburban-Rural	3.40	3.52	3.54
Rural	3.12	3.33	3.30

Source: CUPR Quality of Life Model, 1992

The revitalization goals of IPLAN guide development and redevelopment toward Centers in a way that maximizes the use of existing facilities and services. However, the areas of existing development and infrastructure capacity do not only include distressed Urban Centers, but also suburban areas and Rural Centers. Therefore, the Major Urban Centers and Urban Centers such as Trenton and New Brunswick may be somewhat in competition with Centers such as Rocky Hill and Princeton for household and employment growth, and hence investment in their nonresidential tax base.

Exhibit 4 documents the percentage of total households and employment associated with various community types under TREND and IPLAN. As outlined in the methodology above, this total is comprised of the total number of households in a location and one-third of the jobs. These results show that a larger proportion of the households and employment under IPLAN is found in municipal Centers rather than suburban areas. However, it is apparent that under IPLAN all Centers, whether rural or urban in nature, enjoy directed growth.

EXHIBIT 4
PERCENT OF HOUSEHOLDS AND EMPLOYMENT (WEIGHTED)
DIRECTED TO COMMUNITY TYPES, 1990 AND 2010

	1990	2010	
		TREND	IPLAN
STATE OF NEW JERSEY			
Major Urban Center	11.04	9.10	10.47
Urban Center	12.06	10.74	11.88
Urban-Suburban	21.88	20.40	21.21
Seashore Resort	1.62	1.86	1.93
Rural Center	2.09	1.92	2.20
Urban Center-Rural	1.08	1.15	1.28
Suburban	33.83	34.47	32.98
Suburban-Rural	11.26	14.19	12.46
Rural Center-Rural	1.02	1.13	1.10
Rural	4.13	5.04	4.49

In order to reduce the competition between Urban Centers and Suburban or Rural Centers, additional assistance may be required for Urban Centers. Economic development programs at the State and local levels would inevitably play an important role in the attraction of public and private funding for urban-oriented revitalization efforts (*Communities of Place: The Interim State Development and Redevelopment Plan for the State of New Jersey: Policy 5; Policy 7*. New Jersey State Planning Commission, 1991).

The findings of the quality of community life analysis indicate that in the future quality of community life will be, on the whole, better than it is today. For both TREND and IPLAN, quality of life in 2010 could be more improved than it is in 1990.

Further, IPLAN exhibits some headway in its goal of revitalizing the State's Urban Centers. QOL increases more in these areas over time than is the case for TREND. A reversal in the shift of population and employment from urban to suburban locales will inevitably be accompanied by a change in a community's property tax base. The impact of even minimal levels of investment in urban areas with a low QOL rating provide a relatively significant foundation for future improvements. A small positive increment may be quite noticeable in the day-to-day life of residents of major urban areas with an overall quality of life rating of 1. In contrast, an equivalent small decrease in the QOL of a suburban community with an already high QOL rating (5) could conceivably go unnoticed.

PART II



**IMPACTS ON HOUSING
DEMAND, SUPPLY, AND
COST**

COMMUNITY LIFE ASSESSMENT: PART II — IMPACTS ON HOUSING DEMAND, SUPPLY, AND COST

BACKGROUND

This section compares the demand, supply, and cost of housing under two development scenarios—TREND and IPLAN. A goal of the Interim State Development and Redevelopment Plan (IPLAN) is to influence the location and density of new development while accommodating the same amount of growth that would occur under TREND without adversely affecting the cost of housing. This analysis projects the number of new households and housing units as well as the cost of housing within each municipality under TREND and IPLAN. Households and housing units are projected by building type for the 1990-1995 and 1990-2010 periods. Housing prices are estimated for new construction by building type; rents are estimated for all units regardless of age or building type. In addition, the analysis includes an affordability index developed for owner- and renter-occupied housing. The analysis thus provides an answer to the question of whether IPLAN can meet the same level of residential demand as TREND, and whether IPLAN will have a neutral effect on the cost of new housing.¹

CONCEPTS

The Housing Demand/Supply Model and Housing and Property Development Cost Model are based on a number of variables and use data from the U.S. Census, the New Jersey Department of Labor, the CUPR Econometric Model, outputs from other elements of the State Plan Impact Assessment (Land Capacity Model, Economic Impact Model), and other sources. Housing demand is defined as projected household growth, which is estimated from age-cohort population projections and headship rates for each New Jersey county. County household projections are then allocated to individual municipalities on the basis of municipal household growth shares during the 1970s and 1980s. Household projections are partitioned by building type. Finally, household growth projections are adjusted to conform with municipal land-holding capacities under TREND and IPLAN. Housing supply is projected at the municipal level from household projections augmented by a vacancy factor.

Housing prices and rents are projected using multivariate regression equations. In one equation, the future price of existing housing is estimated as a function of projected

¹ This section presents the results of both the Housing Demand/Supply Model and the Housing and Property Development Cost Model. Because the two models are integral to the projections of housing costs and affordability, it is helpful to discuss their results within the same section of the State Plan Impact Assessment.

average statewide housing prices, statewide and municipal housing prices in previous years, and projected municipal and statewide per capita income. Existing municipal house price projections are converted into projections of new housing prices by building type on the basis of ratios developed from historical experience. In another regression equation, contract rents are estimated from municipal house price projections, mortgage interest rate projections, equalized property tax rates, and a dummy variable indicating the presence of rent control.

The affordability index generated by the Housing Demand/Supply and Housing and Property Development Cost Models compares the minimum income requirements for average projected house prices with average projected household income. Minimum income requirements are calculated so that annual principal and interest payments, assuming interest rates projected by the CUPR Econometric Model, do not exceed 25 percent of annual household income. Mortgage amounts are estimated at 80 percent of projected house price (i.e., assuming a 20-percent down payment). The affordability index exceeds 100 when average household income exceeds the minimum income requirements; it falls below 100 when average household income is less than the minimum income requirements.²

As is evident from the above discussion, the projection of municipal per capita income serves as a common input to the Housing Demand/Supply Model's house price and affordability index projections. The determination of municipal per capita income, in turn, is based on a statistical model developed by the former New Jersey Office of Economic Policy. The inputs to this income model include municipal per capita income in previous years, population growth rates, and population density. The results are adjusted to conform with the CUPR Econometric Model's projection of per capita personal income for New Jersey Labor Areas.

EXPECTED DIFFERENCES BETWEEN TREND AND IPLAN

The State Development and Redevelopment Plan aims to "preserve and expand the supply of safe, decent, and reasonably-priced housing. . . ." (New Jersey State Planning Commission 1991, at p. 49). IPLAN, in other words, is devised to guide future development without restricting the supply of housing or increasing the cost of housing. The Housing Demand/Supply and Housing and Property Development Cost Models were developed to compare the amount of new housing (demand and supply) and the cost and affordability of housing under TREND and IPLAN, thereby testing the capacity of IPLAN

² The affordability index is based on mean household income and mean home prices. It differs from the National Association of Realtors (NAR) Index, which uses median income and median home prices. Data limitations precluded use of median values in this analysis. However, both indices yield comparable results.

to meet its housing-related objectives. In comparing TREND and IPLAN, the Models draw from the Land Capacity Model to assess the extent of household and housing supply growth that would be allowed under IPLAN in each municipality and region. To estimate IPLAN's effect on house prices and rents, the Housing Demand/Supply Model draws from the Housing and Property Development Cost Model to estimate the Plan's impact on the cost of undeveloped land. Drawing from interviews with New Jersey developers and other sources, the cost of land is estimated as a proportion of the total price of housing. The Housing Demand/Supply Model's house price projections under TREND are then adjusted to reflect estimated changes in the cost of land and in the amount of land required for new residential development (i.e., changes in residential density or lot size). Rents under IPLAN are estimated by recalibrating the regression equation described above so that one of the independent variables, house price, is adjusted to reflect the effects of IPLAN. The Model will thus show house prices and rents under TREND and IPLAN for each municipality and region. The Model will also indicate how IPLAN affects the affordability of housing, as measured by the affordability indexes generated by the Model. Differences in housing affordability may reflect IPLAN's impact on housing costs and/or income.

CRITICAL ASSUMPTIONS AND DATA PARAMETERS

A number of assumptions are incorporated in the Model to develop TREND and IPLAN projections. These assumptions pertain to the distribution of households and housing units by building type, and especially to the effects of IPLAN on housing costs and affordability. While the number of projected new households is generated by the Land Capacity Model, the distribution of this growth between detached single-family, attached single-family (townhouse), and multifamily (2-4 and 5+) configurations is determined by the Housing Demand/Supply Model. As explained in *Report I: Research Strategy—Research Design, Model Descriptions, Case Study Profiles, Variable Selection* at Section 4, Part II, building-type distribution is estimated from a combination of trends of the 1980s and projections based on the preferences of different age groups for each building type. The building-type distributions are further adjusted to increase the prevalence of new detached single-family housing from the 1980 to 1990 profile.

Housing supply is projected as a function of household formation plus a vacancy factor. The vacancy rate assumed for single-family and two- to four-family (a component of the multifamily category) housing is 5 percent; for housing with five or more units, the vacancy rate is set at 10 percent. The vacancy rate average is factored in order to maintain desired fluidity in the housing.

Housing costs (prices and rents) are projected by housing region for TREND and IPLAN. Average municipal housing costs and personal income are projected (in 1990 dollars) by means of several multivariate regression equations described in *Report I*. House price projections are generated for detached single-family, attached single-family (town-house), and multifamily housing. Contract rents are projected for the entire rental housing stock regardless of building type. Regional house-price projections are derived from the weighted average of municipal projections. They do not control for differences in house size, quality, or other characteristics; they are not, in technical terms, hedonic price projections.

Regional household income projections are calculated by dividing total personal income by total households. Dollar amounts are expressed in 1990 values, based on the consumer expenditure index. This index is projected to increase from 1.0 in 1990 to 1.253 in 1995, to 2.459 in 2010. Mortgage interest rates, a key component of the housing affordability index, are projected to rise from 10.0 percent in 1990 to 10.8 percent in 1995 and then decline to 9.25 percent in 2010.

IPLAN may affect the cost of housing by influencing the location and configuration of new housing and by changing the density and cost of land per unit. Since regional house cost projections reflect weighted average municipal projections, intraregional shifts in the location and type of new construction can cause IPLAN projections to deviate from TREND. For example, if the proportion of multifamily housing increases at the expense of higher-cost detached single-family housing, IPLAN could yield lower overall housing prices than TREND.

Housing prices are also influenced through IPLAN's impact on the cost of land and on the amount of land consumed by new residential development. In order to estimate the effect of regional development plans on land price, the impacts of the Pinelands Comprehensive Management Plan of 1980 on average municipal land prices (in constant 1990 dollars) were estimated. More than 8,700 land-parcel transactions in southern New Jersey between 1967 and 1989 were analyzed to estimate the impact of the Pinelands program on average annual land-price appreciation rates. The results indicate that land-price appreciation rates: 1. *decline* in municipalities with significant amounts of land (30 percent or more) subject to resource-sensitive (agricultural and environmental) land-use policies; 2. *increase* in adjacent municipalities with no territory so designated; and 3. *remain essentially unchanged* in other municipalities surrounding the resource-sensitive area. While there appears to be a spillover effect in immediately adjacent areas, perhaps reflecting increased demand from neighboring municipalities with resource-sensitive areas, this effect does not appear to extend beyond these adjacent communities. Specifically, the analysis of land

transactions in and around the Pinelands region of southern New Jersey showed that average annual land appreciation rates (1980-1989) in resource-sensitive municipalities decreased by 27.9 percent after the Comprehensive Management Plan went into effect in 1980. In adjacent municipalities, average annual appreciation rates increased by 20.5 percent. Other municipalities within ten miles of the Pinelands saw no significant change in their average annual land-price appreciation rates.

These differences in annual appreciation rates before and after imposition of the Comprehensive Management Plan are used to estimate the effect of IPLAN on land prices in municipalities with at least 30 percent of their territory expected to be Planning Areas 4 and 5 (Agricultural and Environmentally Sensitive Areas) and their immediately adjacent municipalities.³ In adjusting land prices under IPLAN for resource-sensitive municipalities and their neighboring communities, it was assumed that annual appreciation rates would differ from TREND for a period of eight years (through 1988); afterwards, it was assumed that the impact of IPLAN would be fully capitalized in the cost of land, with appreciation rates returning to their TREND levels.⁴ TREND land-price appreciation rates were estimated by calculating average annual appreciation rates for new housing for the 1990-1995 and 1995-2010 periods, assuming that housing and land appreciate at the same rate. Land prices under IPLAN in 1995 are adjusted by altering TREND appreciation rates for resource-sensitive municipalities and their bordering communities by -27.9 percent and +20.5 percent, respectively (i.e., the effects observed for the Pinelands restricted and adjacent municipalities). Using these appreciation rates, 1995 land prices are estimated from 1990 price levels. For the 1990-2010 period, appreciation rates are altered for three additional years (until 1998), after which TREND rates are used for the remainder of the projection period.

In estimating the effect of IPLAN on housing prices through its impact on land costs, it is assumed that land—exclusive of infrastructure improvements and development

³ Before adapting the Pinelands' land-price coefficients for the State Plan study, it was first examined whether "resource-sensitive" areas in the Pinelands program (municipalities with 30 percent or more of their territory designated Preservation, Agricultural, or Forest Areas) are more limiting than "resource-sensitive" areas under IPLAN (municipalities with 30 percent or more of their territory within Agricultural or Environmentally Sensitive Planning Areas). This was impossible to determine at the point of Plan evaluation and no lowering of the coefficients was done. This thus represents a severe test of the IPLAN growth control measures.

⁴ In theory, the full effect of regional growth management programs, such as that represented by IPLAN, would be realized in the price of land at the moment of Plan implementation. After this initial correction the land market would return to equilibrium. In a world of imperfect competition and unequal access to information, however, it would probably take a substantial, but not indefinite, number of years before the Plan's impact is fully reflected in the price of land.

approval costs—represents, on average, 17 percent of total housing costs. This assumption is based on interviews with New Jersey developers.

In addition to the *cost* of land, IPLAN may also affect the *amount* of land consumed by new residential development. Changes in average lot size or residential density are at least as important as land-price changes in determining the effect of IPLAN on housing costs. These changes may have countervailing effects. In resource-sensitive municipalities, for example, land prices may decline relative to TREND. The effect of this decline on housing prices, however, would depend on the extent that land consumption increases under IPLAN. If average lot size increases faster than average land prices decline, the net effect would be for IPLAN housing prices to be higher than TREND prices.

Estimates of the amount of vacant land consumed by new residential development under TREND and IPLAN are generated by the Land Capacity Model. The ratio of these two amounts for resource-sensitive municipalities (those with 30 percent or more of their territory assumed to be in Agricultural or Environmentally Sensitive Planning Areas) and their adjacent communities is calculated to help formulate IPLAN house cost projections. Within the environs of Centers in resource-sensitive municipalities, it is found that new residential development requires 207 percent more land under IPLAN than TREND (2.42 acres per unit under IPLAN as opposed to 0.79 acres per unit under TREND), reflecting larger lots under IPLAN. Conversely, new development in municipalities adjacent to Planning Areas 4 and 5 consumes 13 percent less land than under TREND (0.291 acres per unit as opposed to 0.33 acres), reflecting higher residential densities and smaller lot sizes. These results from the Land Capacity Model are based on the average increase in housing units in relation to the average change in residential land. They reflect higher densities in designated Centers and lower densities in surrounding environs.

In addition to adjusting the cost of land (including changes in land consumption) in resource-sensitive municipalities and their adjacent communities, the Model also takes into account projected changes in residential densities throughout the State within designated Centers. In every Center, but not their environs, the cost of land is reduced by 0.666 percentage points for every percentage-point increase in residential density, as determined by the Land Capacity Model. This reduction in land cost is then used to adjust total housing prices within the Centers. In the few instances where there are Centers within resource-sensitive and adjacent municipalities, land consumption factors associated with each type of Center are used instead of the adjustments developed for all resource-sensitive and adjacent municipalities.

TREND FINDINGS

Housing Demand

The State of New Jersey is projected to gain about 80,000 households between 1990 and 1995 and 408,000 households between 1990 and 2010 (Exhibit 1). There are considerable differences, however, in the increase in households by region. These are detailed below over the 1990 to 1995 period, and then for the full twenty-year 1990 to 2010 projection period.

From 1990 to 1995, the East Central housing region (Monmouth and Ocean counties) is anticipated to receive the most household growth, accounting for one-third of the State's total household increase. Two other regions, West Central (Middlesex, Somerset, Hunterdon, and Warren), and Southwest (Mercer, Camden, Gloucester, and Burlington) will secure nearly one-half of the State's additional household growth. In contrast, the Northeast and Northwest will receive only 10 percent of total growth from 1990 to 1995. By itself, the Northwest region is projected to experience a net loss of more than 1,000 households over this five-year period.

For the full twenty-year projection period to 2010, the East Central, West Central, and Southwest housing regions are again projected to claim the lion's share—about three-quarters—of the State's household growth. Growth in the Northeast and Northwest regions is projected to accelerate after 1995. Thus, these two areas will account for almost 17 percent of the State's household increase in the 1990-2010 period, half again greater than their 1990-1995 experience.

Exhibit 1 details the demand for housing by product type—detached single-family, attached single-family (townhouse), and multifamily units. These figures reflect the underlying changes in households just described, as well as a linkage of household growth to specific types of shelter products.

As noted, from 1990 to 2010, the State will grow by almost 408,000 households. If they are housed as the household growth from 1980 to 1990 was accommodated, then about 45 percent would seek single-family attached homes, and the remaining 55 percent would opt for townhouses and multifamily units. This would translate into demand for about 180,000 single-family detached homes and 225,000 townhouses and multifamily units over the twenty years from 1990 to 2010.

It was decided, however, that the future housing mix would not simply mirror the 1980 to 1990 imprint for a number of reasons. First, it was anticipated that market changes would lead to an increase in demand for single-family detached homes relative to the 1980 to 1990 period, when these units comprised less than half the market fulfillment. A second

EXHIBIT 1
HOUSING DEMAND BY BUILDING TYPE, NEW JERSEY HOUSING REGIONS
TREND CONDITIONS: 1990-2010

	1990		1995		2010		Change 1990-1995		Change 1990-2010	
	Total	Percent	Total	Percent	Total	Percent	Total	Percent	Total	Percent
STATEWIDE										
<i>Total Households</i>	2,794,711		2,874,156		3,202,468		79,445	2.8	407,757	14.6
Detached Single-Family	1,526,349		1,586,903		1,806,308		60,554	4.0	279,959	18.3
Attached Single-Family	207,133		223,342		287,075		16,209	7.8	79,942	38.6
Two or More Families	995,316		865,247		1,043,172		-130,069	-13.1	47,856	4.8
NORTHEAST										
<i>Total Households</i>	672,88		682,293		726,236		9,405	1.4	53,348	7.9
Detached Single-Family	265,629		270,490		291,760		4,861	1.8	26,131	9.8
Attached Single-Family	22,575		24,205		31,526		1,630	7.2	8,951	39.6
Two or More Families	372,777		309,484		391,043		-63,293	-17.0	18,266	4.9
NORTHWEST										
<i>Total Households</i>	652,035		650,948		666,425		-1,087	-0.2	14,390	2.2
Detached Single-Family	340,387		348,108		374,321		7,721	2.3	33,934	10.0
Attached Single-Family	21,485		22,374		25,828		889	4.1	4,343	20.2
Two or More Families	280,472		270,775		256,585		-9,697	-3.5	-23,870	-8.5
WEST CENTRAL										
<i>Total Households</i>	399,082		417,388		495,827		18,306	4.6	96,745	24.2
Detached Single-Family	236,913		247,089		288,194		10,176	4.3	51,281	21.6
Attached Single-Family	40,908		45,267		64,997		4,359	10.7	24,089	58.9
Two or More Families	112,987		116,757		134,362		3,770	3.3	21,375	18.9
EAST CENTRAL										
<i>Total Households</i>	365,717		392,535		468,386		26,818	7.3	102,669	28.1
Detached Single-Family	258,280		277,203		329,954		18,923	7.3	71,674	27.8
Attached Single-Family	29,357		34,972		50,924		5,615	19.1	21,567	73.5
Two or More Families	65,778		68,058		75,206		2,280	3.5	9,428	14.3
SOUTHWEST										
<i>Total Households</i>	511,098		529,017		607,777		17,919	3.5	96,679	18.9
Detached Single-Family	303,856		317,193		370,769		13,337	4.4	66,913	22.0
Attached Single-Family	79,764		82,478		95,398		2,714	3.4	15,634	19.6
Two or More Families	114,762		50,086		128,894		-64,676	-56.4	14,132	12.3
SOUTH-SOUTHWEST										
<i>Total Households</i>	193,891		201,975		237,817		8,084	4.2	43,926	22.7
Detached Single-Family	121,284		126,820		151,309		5,536	4.6	30,025	24.8
Attached Single-Family	13,044		14,046		18,403		1,002	7.7	5,359	41.1
Two or More Families	48,540		50,086		57,082		1,546	3.2	8,542	17.6

Source: CUPR Housing Demand/Supply Model, 1992

influence is the preference of households by age. For instance, an aging population would tend to favor more multifamily units as opposed to townhouses.

For these reasons, the future housing demand under TREND modifies the strict 1980 to 1990 patterns as follows. It is anticipated that of the full increase of 408,000 households, the largest share—almost 70 percent—will demand single-family detached units; about 20 percent will favor townhouses; and the remaining 12 percent will choose multifamily units. These percentages translate into a 1990-to-2010 statewide demand for a total of 280,000 single-family detached, 80,000 single-family attached, and 48,000 multifamily units.

The housing demand by region reflects these overall leanings, as well as their specific areal housing and demographic characteristics. For instance, in both the Northeast and East Central regions, most of the housing demand emphasis is on single-family detached homes. The Northeast, however, will fulfill a lower share of its anticipated household growth through such units (50 percent) compared to the East Central region (69 percent) because the Northeast, compared to the East Central region, has historically delivered a larger share of its housing through attached housing configurations. The differences also reflect the demographic characteristics of these two regions.

Housing Supply

Housing supply trends parallel those of housing demand—reflecting household formation and housing product choice—and additionally a vacancy factor. The vacancy factor is differentiated by housing type. For single-family units, both detached and attached, a 5 percent vacancy reserve is incorporated; for certain multifamily units, reflecting market realities, a higher 10-percent vacancy factor is used.⁵

In brief, from 1990 to 2010, the State as a whole will increase by 408,000 households that will, in turn, demand 359,000 single-family detached and attached homes and an additional 48,000 multifamily units. With a 5-percent vacancy cushion for the single-family housing, it is projected that 377,000 single-family homes (294,000 attached and 84,000 detached) will be delivered to market. The multifamily housing demand of 48,000, with the 10-percent vacancy overage to maintain market fluidity, translates to a supply of 53,000 such units.

In short, a total of 430,000 housing units will be built in New Jersey between 1990 and 2010 (Exhibit 2). Almost 95 percent will be occupied. As with housing demand, the

⁵ Actually, only some multifamily housing is assigned a higher vacancy rate. Two- to four-family housing is assumed to have the same 5-percent vacancy rate as single-family housing; buildings with five or more units are assumed to carry a 10-percent vacancy rate.

EXHIBIT 2
HOUSING SUPPLY BY BUILDING TYPE
TREND CONDITIONS: 1990-2010

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
STATEWIDE							
<i>Total Units</i>	2,998,605	3,082,235	3,429,052	83,630	2.8	430,447	14.4
Detached Single-Family	1,637,129	1,700,711	1,931,086	63,582	3.9	293,957	18.0
Attached Single-Family	234,829	251,849	318,768	17,020	7.2	83,939	35.7
Two or More Families	1,126,647	1,129,675	1,179,198	3,028	0.3	52,551	4.7
NORTHEAST							
<i>Total Units</i>	704,211	714,164	760,852	9,953	1.4	56,641	8.0
Detached Single-Family	274,063	279,251	301,501	5,104	1.9	27,438	10.0
Attached Single-Family	24,539	26,251	33,937	1,712	7.0	9,398	38.3
Two or More Families	405,609	408,746	424,414	3,137	0.8	19,805	4.9
NORTHWEST							
<i>Total Units</i>	682,628	681,216	697,135	-1,412	-0.2	14,507	2.1
Detached Single-Family	353,356	361,463	388,987	8,107	2.3	35,631	10.1
Attached Single-Family	23,827	24,760	28,387	933	3.9	4,560	19.1
Two or More Families	305,445	294,993	279,761	-10,452	-3.4	-25,684	-8.4
WEST CENTRAL							
<i>Total Units</i>	410,684	430,082	513,277	19,398	4.7	102,593	24.0
Detached Single-Family	243,689	254,374	297,534	10,685	4.4	53,845	22.1
Attached Single-Family	44,359	48,936	69,652	4,577	10.3	25,293	57.0
Two or More Families	122,636	126,772	146,090	4,136	3.4	23,454	19.1
EAST CENTRAL							
<i>Total Units</i>	423,885	452,133	532,067	28,248	6.7	108,182	25.5
Detached Single-Family	304,430	324,300	379,688	19,870	6.5	75,258	24.7
Attached Single-Family	35,629	41,524	58,274	5,895	16.5	22,645	63.6
Two or More Families	83,826	86,309	94,105	2,483	3.0	10,279	12.3
SOUTHWEST							
<i>Total Units</i>	525,696	544,599	627,808	18,903	3.6	102,112	19.4
Detached Single-Family	311,978	325,981	382,237	14,003	4.5	70,259	22.5
Attached Single-Family	86,394	89,244	102,809	2,850	3.3	16,415	19.0
Two or More Families	127,324	129,374	142,762	2,050	1.6	15,438	12.1
SOUTH-SOUTHWEST							
<i>Total Units</i>	251,501	260,040	297,913	8,539	3.4	46,412	18.5
Detached Single-Family	149,613	155,426	181,139	5,813	3.9	31,526	21.1
Attached Single-Family	20,081	21,133	25,708	1,052	5.2	5,627	28.0
Two or More Families	81,807	83,482	91,066	1,675	2.0	9,259	11.3

Source: CUPR Housing Demand/Supply Model, 1992.

bulk of the new construction (about 70 percent) will be detached single-family units. The distribution of housing supply by region mirrors the area dynamics of household growth discussed earlier. Thus, over the 1990 to 2010 period, the East Central, West Central, and Southwest regions will secure about three-quarters of the State's total housing production because these regions generate a similar share of the new household growth during this period.

Housing Costs and Affordability

Housing prices, adjusted for inflation, are projected to decline throughout New Jersey between 1990 and 2010. More than two-thirds of this decline should take place during the 1990 to 1995 period. (Two years into this period, housing values have already decreased even before inflation is considered.) For the State as a whole, the average price of new residential construction adjusted against general inflationary trends is projected to fall 8.5 percent from \$188,500 in 1990 to \$172,600 in 2010 (Exhibit 3).⁶ Between 1995 and 2010, however, average prices are projected to decline by just 2.8 percent. In terms of individual building types, the price of new detached single-family homes is projected to decline by 0.9 percent during the 1990 to 2010 period; attached single-family homes by 3.3 percent; and multifamily units by 0.3 percent.⁷ Average rents (excluding utility costs) are projected to decline by 4.2 percent, from \$523 in real dollars (1990) to \$505 in 2010.

To understand house-price trends under TREND and IPLAN, it is essential to remember that statewide and regional prices for 1990 and the two projection years (1995 and 2010) constitute weighted municipal averages. Moreover, these averages are calculated separately for total new housing and for each building type. As a result, price changes for total new construction (combining all building types) may be more or less pronounced than that for individual building types. For example, total statewide prices could decline faster than the statewide price of detached single-family housing if the municipal distribution of

⁶ It should be emphasized at this point that these trends are being discussed in terms of constant 1990 dollars. If instead trends were discussed in current dollars the results would be quite different. As an example, using an inflation rate of 5 percent annually in simple terms a house costing \$188,000 in 1990 in the above example would cost \$376,000 in 2010. At \$172,000 in constant dollars in 2010, it is assumed that housing costs are increasing more slowly than inflation over the period.

⁷ Average housing prices for the State as a whole and for individual housing regions often decline at a greater rate in the 1990–2010 period than the price of housing within each building type. In understanding this apparent contradiction, it is important to remember that overall house-price projections constitute weighted averages, reflecting municipal projections of new housing by building type. For example, if communities with steep projected price declines account for a major share of total residential construction while communities with large projected price increases claim only a small share of total growth, overall prices would decline. Note also that statewide and regional prices for individual building types are weighted separately according to municipal projections.

EXHIBIT 3

**AVERAGE PURCHASE PRICE OF NEW HOUSING BY BUILDING TYPE AND CONTRACT RENT OF ALL HOUSING
TREND CONDITIONS: 1990-2010 (thousands of 1990 dollars)**

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
STATEWIDE							
Price							
<i>Total Units</i>	188,509	177,583	172,567	-10,926	-5.8	-15,942	-8.5
Detached Single-Family	223,920	223,439	221,828	-481	-0.2	-2,092	-0.9
Attached Single-Family	144,189	139,909	139,433	-4,280	-3.0	-4,755	-3.3
Two or More Families	126,920	127,744	126,520	823	0.6	-400	-0.3
Rent	523	511	505	-12	-2.3	-22	-4.2
NORTHEAST							
Price							
<i>Total Units</i>	229,008	191,719	197,361	-37,289	-16.3	-31,646	-13.8
Detached Single-Family	321,164	305,722	319,527	-15,441	-4.8	-1,637	-0.5
Attached Single-Family	175,021	173,002	169,658	-2,019	-1.2	-5,362	-3.1
Two or More Families	153,061	150,097	148,964	-2,963	-1.9	-4,097	-2.7
Rent	666	611	600	-55	-8.3	-66	-9.9
NORTHWEST							
Price							
<i>Total Units</i>	219,706	230,623	228,551	10,917	5.0	8,845	4.0
Detached Single-Family	266,915	271,377	269,632	4,463	1.7	2,717	1.0
Attached Single-Family	153,582	172,023	172,181	18,440	12.0	18,599	12.1
Two or More Families	135,389	134,467	130,994	-923	-0.7	-4,396	-3.2
Rent	687	622	629	-65	-9.5	-58	-8.4
WEST CENTRAL							
Price							
<i>Total Units</i>	198,003	192,183	185,888	-5,820	-2.9	-12,115	-6.1
Detached Single-Family	268,048	263,969	261,920	-4,079	-1.5	-6,128	-2.3
Attached Single-Family	161,138	160,774	158,861	-364	-0.2	-2,277	-1.4
Two or More Families	136,867	135,202	133,750	-1,665	-1.2	-3,117	-2.3
Rent	540	501	501	-39	-7.2	-39	-7.2

EXHIBIT 3 (continued)

**AVERAGE PURCHASE PRICE OF NEW HOUSING BY BUILDING TYPE AND CONTRACT RENT OF ALL HOUSING
TREND CONDITIONS: 1990-2010 (thousands of 1990 dollars)**

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
EAST CENTRAL							
Price							
<i>Total Units</i>	188,599	178,729	174,951	-9,870	-5.02	-13,648	-7.2
Detached Single-Family	207,099	209,763	206,090	2,664	1.3	-1,008	-0.5
Attached Single-Family	125,057	129,181	128,931	4,124	3.3	3,874	3.1
Two or More Families	124,120	118,345	118,436	-5,774	-4.7	-5,684	-4.6
Rent	530	489	498	-41	-7.7	-32	-6.0
SOUTHWEST							
Price							
<i>Total Units</i>	159,207	146,221	139,216	-12,986	-8.2	-19,991	-12.6
Detached Single-Family	187,370	177,455	173,797	-9,915	-5.3	-13,574	-7.2
Attached Single-Family	114,653	112,048	109,373	-2,605	-2.3	-5,280	-4.6
Two or More Families	102,120	100,490	97,960	-1,630	-1.6	-4,159	-4.1
Rent	491	445	442	-46	-9.3	-49	-10.0
SOUTH-SOUTHWEST							
Price							
<i>Total Units</i>	161,592	127,175	123,238	-34,417	-21.3	-38,354	-23.7
Detached Single-Family	189,215	161,643	156,554	-27,571	-14.6	-32,660	-17.3
Attached Single-Family	129,559	108,753	105,489	-20,806	-16.1	-24,071	-18.6
Two or More Families	116,834	100,746	98,793	-16,088	-13.8	-18,041	-15.4
Rent	404	355	347	-49	-12.1	-57	-14.0

Source: CUPR Housing Demand/Supply Model, 1992. CUPR Housing and Property Development Cost Model, 1992.

total new housing gives greater weight to lower-cost communities than the distribution of detached single-family housing. Declining rent levels reflect both decreased housing prices as well as falling mortgage interest rates—two key components of the study's rent projection subroutine.

Of the State's six housing regions, the largest decreases, after inflation is accounted for, are projected for the South-Southwest, Northeast, and Southwest regions. The South-Southwest should see the price of new construction fall in real dollars by as much as 23.7 percent, the Northeast by 13.8 percent, and the Southwest region by 12.6 percent. As with the State as a whole, most of these decreases are projected for the first five years of the study period. Of the remaining regions, the Northwest is the only area projected to see housing prices increase in real terms, posting a gain of 4.0 percent. The West Central and East Central regions are projected to have price declines of 6.1 and 7.2 percent, respectively.

In explaining these regional differences, especially the sharp drop of residential prices in the South-Southwest region, note that the regions with the largest price declines tend to have relatively large projected increases in multifamily construction. They account for 84.7 percent of the State's projected twenty-year increase in multifamily housing, compared to just 47.6 percent of total new construction (see Exhibit 2). It is also conceivable that most of the projected household growth is directed to the regions' lowest cost (and lowest income) municipalities, thereby driving down average regional prices. The South-Southwest region's decline may also reflect poor market conditions for second homes in the resort areas of Cape May and Atlantic counties.

Rental costs, in real dollars, are also projected to decrease throughout New Jersey. The sharpest declines, in percentage terms, are again projected for the Southwest (-10.0 percent), South-Southwest (-14.0 percent), and the Northeast (-9.9 percent). Smaller decreases are projected for the East Central (-6.0 percent), West Central (-7.2 percent), and Northwest (-8.4 percent) regions.

The affordability of housing is projected to improve markedly during the 1990-2010 period. Not only are house prices projected to drop after inflation is taken into account, but interest rates are also projected to decrease (from 10.0 to 9.25 percent), and household incomes are projected to rise, again in real dollars (from \$55,792 to \$64,831). Affordability indexes under TREND conditions are presented in Exhibit 4 for total new residential construction and new detached single-family housing. An index reading of less than 100 indicates that mean household income fails to meet the minimum income requirements associated with the mean cost of owner or rental housing. Index readings in excess of 100 show mean incomes to be more than sufficient to afford mean housing costs.

EXHIBIT 4

HOUSING AFFORDABILITY: AFFORDABILITY INDEXES FOR NEW HOUSING
TREND CONDITIONS: 1990-2010

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
STATEWIDE							
<i>Total Units</i>	87	98	118	11	12.2	31	35.8
Detached Single-Family	73	78	92	4	5.9	19	25.5
NORTHEAST							
<i>Total Units</i>	72	92	99	20	27.5	27	37.0
Detached Single-Family	51	58	61	6	12.1	10	18.6
NORTHWEST							
<i>Total Units</i>	79	80	96	0	0.5	17	21.0
Detached Single-Family	65	68	81	2	3.7	16	24.6
WEST CENTRAL							
<i>Total Units</i>	93	98	122	5	5.5	30	32.2
Detached Single-Family	93	71	87	-21	-23.2	-6	-6.2
EAST CENTRAL							
<i>Total Units</i>	85	92	131	7	8.5	46	54.2
Detached Single-Family	85	67	111	-18	-21.0	26	30.9
SOUTHWEST							
<i>Total Units</i>	94	86	126	-9	-9.3	32	33.5
Detached Single-Family	94	73	101	-21	-22.7	7	6.9
SOUTH-SOUTHWEST							
<i>Total Units</i>	78	99	129	20	25.8	51	64.4
Detached Single-Family	67	81	102	14	21.4	35	51.6

Source: CUPR Housing and Property Development Cost Model, 1992

The average statewide cost of new housing in 1990 fell short of the affordability threshold of 100, with an index reading of 87. Future years show the statewide index reaching 98 by 1995 and 118 by 2010. This improvement is especially striking since the next two decades are projected to see relatively expensive, detached single-family housing comprising a larger proportion of new construction than in the 1980s.

For detached single-family housing the index is projected remain under the affordability threshold, with a 25.5-percent increase from 73 to 92. The affordability index for total new construction is higher than the detached single-family index because it also includes less costly townhouse and multifamily housing. Unlike housing prices, which reach most of their projected declines in the first five years of the 1990–2010 study period, affordability indexes continue to increase after 1995, although at a slightly slower pace. This reflects interest-rate decreases and income gains.

The South–Southwest region, reflecting its steep house-price decline, is projected to see the largest regional increase in housing affordability. The region's index should rise by 64 percent, from 78 in 1990 to 129 in 2010, the State's highest regional reading. The next largest increases are posted by the East Central region (54.2 percent), the Southwest (33.5 percent), the Northeast (37 percent), and the West Central (32.2 percent) region. The Northwest region, reflecting its rising real housing prices, is projected to show the least improvement, with its index increasing by 21 percent to 96, the lowest score in 2010. By 2010, four of the six regions should have overall affordability indexes above 100, compared with none in 1990. Only the Northwest and Northeast regions in 2010 score below 100.

IPLAN FINDINGS

Housing Demand

For New Jersey as a whole and its component housing regions, the amount of household growth projected for IPLAN is identical to TREND (Exhibit 5). IPLAN differs from TREND in the municipal distribution of new development within each housing region, with development shifting from rural and exurban localities to more urbanized communities and older suburbs, and in the distribution of new development by building type as detailed below.

Statewide, under IPLAN, detached single-family units are projected to account for 249,000 households, 61 percent of total growth during the 1990–2010 period; townhouses are projected to accommodate 88,000 households, or 21 percent of total growth; and multifamily housing, 72,000 households, or 19 percent of total growth. Even though

EXHIBIT 5

HOUSING DEMAND BY BUILDING TYPE, NEW JERSEY HOUSING REGIONS
IPLAN CONDITIONS: 1990-2010

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
STATEWIDE							
<i>Total Households</i>	2,794,711	2,874,156	3,202,468	79,445	2.8	407,757	14.6
Detached Single-Family	1,526,349	1,579,832	1,775,004	53,483	3.5	248,655	16.3
Attached Single-Family	207,133	225,203	294,553	18,070	8.7	87,420	42.2
Two or More Families	995,316	871,831	1,066,998	-123,485	-12.4	71,682	7.2
NORTHEAST							
<i>Total Households</i>	672,888	682,293	726,236	9,405	1.4	53,348	7.9
Detached Single-Family	265,629	270,650	291,059	5,021	1.9	25,430	9.6
Attached Single-Family	22,575	24,311	31,583	1,736	7.7	9,008	39.9
Two or More Families	372,777	310,814	391,688	-61,963	-16.6	18,911	5.1
NORTHWEST							
<i>Total Households</i>	652,035	650,948	666,425	-1,087	-0.2	14,300	2.2
Detached Single-Family	340,387	344,686	360,852	4,299	1.3	20,465	6.0
Attached Single-Family	21,485	22,393	25,863	908	4.2	4,378	20.4
Two or More Families	280,472	274,178	270,020	-6,294	-2.2	-10,452	-3.7
WEST CENTRAL							
<i>Total Households</i>	399,082	417,388	495,827	18,306	4.6	96,745	24.2
Detached Single-Family	236,913	246,691	286,074	9,778	4.1	49,161	20.8
Attached Single-Family	40,908	45,605	66,282	4,697	11.5	25,374	62.0
Two or More Families	112,987	116,818	135,197	3,831	3.4	22,210	19.7
EAST CENTRAL							
<i>Total Households</i>	365,717	392,535	468,386	26,818	7.3	102,669	28.1
Detached Single-Family	258,280	275,696	323,229	17,416	6.7	64,949	25.1
Attached Single-Family	29,357	35,748	54,055	6,391	21.8	24,698	84.1
Two or More Families	65,778	68,788	78,800	3,010	4.6	13,022	19.8
SOUTHWEST							
<i>Total Households</i>	511,098	529,017	607,777	17,919	3.5	96,679	18.9
Detached Single-Family	303,856	315,725	364,213	11,869	3.9	60,357	19.9
Attached Single-Family	79,764	83,194	98,724	3,430	4.3	18,960	23.8
Two or More Families	114,762	50,616	132,124	-64,146	-55.9	17,362	15.1
SOUTH-SOUTHWEST							
<i>Total Households</i>	193,891	201,975	237,817	8,084	4.2	43,926	22.7
Detached Single-Family	121,284	126,384	149,578	5,100	4.2	28,294	23.3
Attached Single-Family	13,044	13,952	18,047	908	7.0	5,003	38.4
Two or More Families	48,540	50,616	59,170	2,076	4.3	10,630	21.9

Source: CUPR Housing Demand/Supply Model, 1992

IPLAN shows detached single-family housing claiming fewer new households than TREND (249,000 versus 280,000), it bears emphasizing that traditional single-family housing is still projected to remain by far the dominant building type—housing six out of ten households. Furthermore the share of new households accommodated in detached units under IPLAN is considerably above the historical experience for the 1980s. From 1980 to 1990 about 45 percent of the new households were residing in detached homes; for 1990 to 2010 under IPLAN, the proportion of detached units is half again higher under IPLAN.

What is the regional distribution of growth under IPLAN? Since regional household projections are the same under TREND and IPLAN, IPLAN also shows the East Central, West Central, and Southwest regions with nearly three-quarters of total household growth. The shift of detached single-family to other building configurations is most apparent in the Northwest and Southwest regions. In the former, the number of households with new detached single-family units declines by 40 percent to 20,500, while the projected loss in multifamily households goes from 24,000 to 10,000. In the Southwest region, total projected detached single-family households decrease by 10 percent, from 67,000 under TREND to 60,000 under IPLAN. Other regions are projected to see smaller shifts in their housing configurations.

Housing Supply

Unlike demand, where total household growth is the same under TREND and IPLAN, housing supply under IPLAN is projected to be negligibly higher than TREND (Exhibit 6). This difference is due to the higher proportion under IPLAN of multifamily housing, which is assumed to have a higher vacancy rate than single-family housing. The difference between the two scenarios with respect to housing supply, however, amounts to less than 1,000 units because multifamily housing accounts for less than 20 percent of total household growth under IPLAN.

Housing Costs and Affordability

IPLAN affects the price and affordability of housing by altering the intraregional distribution of new construction by building type and location (municipality), and by influencing the cost of land and the amount of land consumed by new construction—in Centers throughout the State and in resource-sensitive and adjacent municipalities. The prices of all new housing and of new housing within each building type, as explained earlier, are calculated independently from weighted municipal averages. That the overall price declines while building-type prices do not, reflects intraregional shifts in both the location (municipality) and configuration (building type) of new housing. For example,

EXHIBIT 6

HOUSING SUPPLY BY BUILDING TYPE
IPLAN CONDITIONS: 1990-2010

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
STATEWIDE							
<i>Total Units</i>	2,998,605	3,082,380	3,429,710	83,775	2.8	431,105	14.4
Detached Single-Family	1,637,129	1,898,287	1,898,217	56,158	3.4	261,088	15.9
Attached Single-Family	234,829	253,803	326,620	18,974	8.1	91,791	39.1
Two or More Families	1,126,647	1,135,290	1,204,874	8,643	0.8	78,227	6.9
NORTHEAST							
<i>Total Units</i>	704,211	714,148	760,837	9,937	1.4	56,626	8.0
Detached Single-Family	274,063	279,335	300,764	5,272	1.9	26,701	9.7
Attached Single-Family	24,539	26,362	33,997	1,823	7.4	9,458	38.5
Two or More Families	405,609	408,451	426,076	2,842	0.7	20,467	5.0
NORTHWEST							
<i>Total Units</i>	682,628	681,305	697,482	-1,323	-0.2	14,854	2.2
Detached Single-Family	353,356	357,870	374,844	4,514	1.3	21,488	6.1
Attached Single-Family	23,827	24,781	28,424	954	4.0	4,597	19.3
Two or More Families	305,445	298,654	294,214	-6,791	-2.2	-11,231	-3.7
WEST CENTRAL							
<i>Total Units</i>	410,684	430,089	513,312	19,405	4.7	102,628	25.0
Detached Single-Family	243,689	253,956	295,308	10,267	4.2	51,619	21.2
Attached Single-Family	44,359	49,956	71,002	4,932	11.1	26,643	60.1
Two or More Families	122,636	126,842	147,002	4,206	3.4	24,366	19.9
EAST CENTRAL							
<i>Total Units</i>	423,885	451,156	532,190	28,271	6.7	108,305	25.6
Detached Single-Family	304,430	322,717	372,626	18,287	6.0	68,196	22.4
Attached Single-Family	35,629	42,340	61,562	6,711	18.8	25,933	72.8
Two or More Families	83,826	87,099	98,001	3,273	3.9	14,175	16.9
SOUTHWEST							
<i>Total Units</i>	525,696	544,612	627,860	18,916	3.6	102,164	19.4
Detached Single-Family	311,978	324,440	375,353	12,462	4.0	63,375	20.3
Attached Single-Family	86,394	89,996	106,302	3,602	4.2	19,908	23.0
Two or More Families	127,324	130,176	146,205	2,852	2.2	18,881	14.8
SOUTH-SOUTHWEST							
<i>Total Units</i>	251,501	260,070	298,030	8,569	3.4	46,529	18.5
Detached Single-Family	149,613	154,968	179,322	5,355	3.6	29,709	19.9
Attached Single-Family	20,081	21,034	215,334	953	4.7	5,253	26.2
Two or More Families	81,807	84,068	93,375	2,261	2.8	11,568	14.1

Source: CUPR Housing Demand/Supply Model, 1992.

increases in the supply of townhouse and multifamily housing—even if the price of this housing is increasing—would drive down overall housing prices since these configurations are less expensive than detached single-family housing.

The average price of new housing is projected to decline slightly more under IPLAN than TREND (Exhibit 7). For the State as a whole, the price of new construction under IPLAN should fall by 12.4 percent, from \$188,500 in 1990 to \$165,200 in 2010. Between 1990 and 2010, the average TREND price declines 8.5 percent to \$172,567. Average contract rents are projected to decline by 18.7 percent, from \$523 to 485. Overall prices decline more under IPLAN because the scenario's higher average price for 2010, at \$165,200, is 4.2 percent less than the corresponding TREND projection, at \$172,600. This difference between IPLAN and TREND reflects the higher proportion of lower-cost townhouse and multifamily housing. For individual building types, there is virtually no difference in projected average prices. The projected price of detached single-family housing under IPLAN for 2010 (\$222,517), for example, is only 0.3 percent higher than TREND (\$221,828).

During the initial 1990-1995 period, overall statewide prices are projected to fall 9.7 percent to \$170,241, with detached single-family and multifamily prices increasing by 0.1 and 1.0 percent, respectively, and townhouse and multifamily prices decreasing by 3 percent. Average statewide rental costs, excluding utilities, are projected to decline 4.8 percent, from \$523 in 1990 to \$498 in 1995.

Housing prices are projected to decline in five of the State's six regions during the 1990-2010 period. Only in the Northwest are housing price projected to rise after adjusting for inflation. In the Northeast, average prices should increase by 3.1 percent (somewhat less than the region's projected TREND increase of 4.0 percent), with detached single-family prices going up by 3.5 percent, townhouses by 9.5 percent, and multifamily prices dropping off by 0.4 percent. Rents, in contrast, are projected to decline by 11.8 percent.

The remaining five regions are projected to see declining house prices. As under TREND, the largest decreases are projected for the South-Southwest, Northeast, and Southwest regions. The South-Southwest is projected to post a 26.6-percent drop, from \$161,600 to \$118,627. Rents in this region should decrease by 15.5 percent. Housing prices in the Northeast region decline by 19.7 percent, and in the Southwest by 17.4 percent. Rents in the Southwest and Northeast are forecast to fall by 17.5 percent and 10.2 percent, respectively. The East Central region is projected to show a 10.7-percent overall price decrease in the 1990-2010 period, although prices for each configuration should increase under IPLAN. Rents, however, decline by 6.1 percent. The West Central region registers the smallest price decrease, 5.8 percent. This is the only region where IPLAN

EXHIBIT 7

**AVERAGE PURCHASE PRICE OF NEW HOUSING BY BUILDING TYPE AND CONTRACT RENT OF ALL HOUSING
IPLAN CONDITIONS: 1990-2010 (thousands of 1990 dollars)**

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
STATEWIDE							
Price	188,509	170,241	165,185	-18,268	-9.7	-23,324	-12.4
Total Units	223,920	224,138	222,517	218	0.1	-1,403	-0.6
Detached Single-Family	144,189	139,560	138,858	-4,629	-3.2	-5,331	-3.7
Attached Single-Family	126,920	128,213	126,971	1,292	1.0	50	0.0
Two or More Families	523	498	484	-25	-4.8	-39	-7.5
Rent							
NORTHEAST							
Price	229,008	182,907	183,977	-46,101	-20.1	-45,031	-19.7
Total Units	321,164	296,645	299,264	-24,519	-7.6	-21,900	-6.8
Detached Single-Family	175,021	171,654	171,652	-3,366	-1.9	-3,369	-1.9
Attached Single-Family	153,061	145,226	145,805	-7,835	-5.1	-7,255	-4.7
Two or More Families	666	620	598	-46	-6.9	-68	-10.2
Rent							
NORTHWEST							
Price	219,706	230,292	226,615	10,586	4.8	6,909	3.1
Total Units	266,915	276,998	276,213	10,083	3.8	9,298	3.5
Detached Single-Family	153,582	169,020	168,148	15,438	10.1	14,566	9.5
Attached Single-Family	135,389	139,542	134,832	4,153	3.1	-557	-0.4
Two or More Families	687	609	606	-78	-11.4	-81	-11.8
Rent							
WEST CENTRAL							
Price	198,003	191,113	186,563	6,890	-3.5	-11,440	-5.8
Total Units	268,048	267,656	268,943	-392	-0.1	895	0.3
Detached Single-Family	161,138	165,376	164,033	4,238	2.6	2,895	1.8
Attached Single-Family	136,867	134,896	133,309	-1,972	-1.4	-3,558	-2.6
Two or More Families	540	504	501	-36	-6.7	-39	-7.2
Rent							

EXHIBIT 7 (continued)

**AVERAGE PURCHASE PRICE OF NEW HOUSING BY BUILDING TYPE AND CONTRACT RENT OF ALL HOUSING
IPLAN CONDITIONS: 1990-2010 (thousands of 1990 dollars)**

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
EAST CENTRAL							
Price							
<i>Total Units</i>	188,599	171,775	168,339	-16,824	-8.9	-20,260	-10.7
Detached Single-Family	207,099	212,458	211,328	5,359	2.6	4,229	2.0
Attached Single-Family	125,057	129,576	129,948	4,519	3.6	4,891	3.9
Two or More Families	124,120	124,588	124,872	469	0.4	753	0.6
Rent	530	498	498	-32	-6.1	-32	-6.1
SOUTHWEST							
Price							
<i>Total Units</i>	159,207	138,627	131,520	-20,580	-12.9	-27,687	-17.4
Detached Single-Family	187,370	176,688	174,728	-10,683	-5.7	-12,643	-6.7
Attached Single-Family	114,653	104,358	101,596	-10,295	-9.0	-13,057	-11.4
Two or More Families	102,120	96,893	94,771	-5,227	-5.1	-7,349	-7.2
Rent	491	413	405	-78	-15.9	-86	-17.5
SOUTH-SOUTHWEST							
Price							
<i>Total Units</i>	161,592	119,073	118,627	-42,519	-26.3	-42,965	-26.6
Detached Single-Family	189,215	161,963	158,520	-27,251	-14.4	-30,695	-16.2
Attached Single-Family	129,559	111,432	108,639	-18,127	-14.0	-20,920	-16.1
Two or More Families	116,834	101,553	99,970	-15,281	-13.1	-16,864	-14.4
Rent	404	347	341	-57	-14.0	-63	-15.5

Source: CUPR Housing Demand/Supply Model, 1992. CUPR Housing and Property Development Cost Model, 1992.

prices for 2010 (\$186,563) are higher than TREND (\$185,888), albeit only slightly. Rents go down by 7.2 percent.

The affordability of housing under IPLAN, as measured by the index developed for this study, should change only slightly from TREND (Exhibit 8). While overall house prices decrease less under IPLAN than TREND, mortgage interest rates and household income—the other determinants of housing affordability—should remain essentially the same in the two scenarios. Overall, the IPLAN affordability index is projected to increase 41.6 percent between 1990 and 2010; between 1990 and 1995, by 18.2 percent. The index for detached single-family housing increases by 24.8 percent for the complete 20-year period. Interestingly, the overall affordability index for IPLAN increases more than the TREND index, while the IPLAN index for detached single-family housing increases slightly less.

At the regional level there are few significant differences in housing affordability between TREND and IPLAN. As under IPLAN, five of the six regions are projected to score above 100 in 2010. On the other hand, indexes for detached single-family housing continue to fall short of the affordability standard for both scenarios.

COMPARISON OF TREND AND IPLAN

Housing Supply

Unlike demand, where total household growth is the same under TREND and IPLAN, housing supply under IPLAN is projected to be very slightly higher than TREND (Exhibits 2 and 7). This difference is due to the higher proportion under IPLAN of multifamily housing, which is assumed to have a higher vacancy rate than single-family housing. The difference between the two scenarios amounts to only 1,000 units because multifamily housing accounts for less than 20 percent of total household growth under IPLAN.

Housing Costs and Affordability

Unlike the last several decades, when housing was one of the best investments available as prices almost always outstripped inflation, the future presents a much different dynamic. Housing prices are likely to rise somewhat more slowly than inflation, resulting in decreasing real prices. With household income projected to post real gains and housing prices and interest rates projected to stay relatively flat, the affordability should improve under both IPLAN and TREND.

There are only slight differences in the housing cost and affordability projections for TREND and IPLAN. Both scenarios show the price of new housing, adjusted for

EXHIBIT 8

HOUSING AFFORDABILITY: AFFORDABILITY INDEXES FOR NEW HOUSING
IPLAN CONDITIONS: 1990-2010

	1990	1995	2010	Change 1990-1995		Change 1990-2010	
				Total	Percent	Total	Percent
STATEWIDE							
<i>Total Units</i>	87	103	123	16	18.2	36	41.6
Detached Single-Family	73	78	91	5	6.7	18	24.8
NORTHEAST							
<i>Total Units</i>	72	96	105	24	33.8	33	45.8
Detached Single-Family	51	59	65	8	15.7	13	25.7
NORTHWEST							
<i>Total Units</i>	79	81	97	2	2.2	17	22.0
Detached Single-Family	65	67	80	2	3.2	14	21.6
WEST CENTRAL							
<i>Total Units</i>	93	100	122	7	7.7	29	31.7
Detached Single-Family	93	71	85	-21	-23.1	-8	-8.6
EAST CENTRAL							
<i>Total Units</i>	85	93	136	8	9.8	51	60.2
Detached Single-Family	85	66	108	-18	-21.6	23	27.6
SOUTHWEST							
<i>Total Units</i>	94	91	134	-4	-4.1	39	41.7
Detached Single-Family	94	73	101	-21	-22.4	6	6.7
SOUTH-SOUTHWEST							
<i>Total Units</i>	78	104	132	25	32.5	54	68.7
Detached Single-Family	67	82	99	15	21.7	32	47.8

Source: CUPR Housing and Property Development Cost Model, 1992

inflation, declining during the 20-year study period. Under TREND, average prices go down by 8.5 percent, from \$188,509 in 1990 to \$172,567 in 2010. Under IPLAN, they decline by 12.4 percent to \$165,185. IPLAN's lower overall average price, however, reflects the scenario's higher proportion of new housing constructed in lower-cost townhouse and multifamily configurations. For similar configurations, TREND and IPLAN price projections are nearly identical. The affordability-index projections for TREND and IPLAN are also extremely close.

Housing costs and affordability under IPLAN are shaped by a combination of factors. Increased residential densities within designated Centers lowers the amount of land consumed by each housing unit. In resource-sensitive communities (with 30 percent or more of their territory classified as Agricultural or Environmental Sensitive Planning Areas) land costs per acre decline but the amount of land consumed goes up; conversely in communities adjacent to these resource-sensitive municipalities, land prices increase but are partly offset by higher residential densities. IPLAN prices are also shaped by regional redistributions of housing by building type and location. Increased multifamily and townhouse construction, as part of the overall development mix, decreases average housing prices. Changes in the municipal distribution of new housing within a region may either increase or decrease overall prices, depending on prevailing house prices in the municipalities that are gaining and losing new households as a result of IPLAN.