SOCIAL AND ECONOMIC FACTORS Likely to Influence Pinelands Development

PINELANDS COMMISSION New Lisbon, New Jersey

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Trenton, N.J. and Philadelphia, Pa.

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SOCIAL AND ECONOMIC FACTORS

INTRODUCTION

This report is devoted to a series of separate discussions of a number of social and economic factors or trends which, separately or together, are capable of influencing, potentially in a significant way, the course of development in and around the Pinelands region. In this report we focus on four such factors, the first two relatively specific and localized, the latter two more generalized, both in their impact and in the nature of the underlying factor:

- · retirement community development
- · casino development in Atlantic City
- \cdot general economic trends affecting the region
- · trends in the cost and availability of energy

It is in the nature of all of these factors that any discussion of their effects is likely to be highly speculative. It is important, therefore, to consider the information and ideas presented in this report as a basis for planning and discussion, and a suggestion of possible future directions, rather than anything explicitly predictive in nature.

I. RETIREMENT COMMUNITY DEVELOPMENT

A. Overview to 1980

Although there are retirement communities located throughout New Jersey, and particularly in the coastal plain, they have, for a variety of reasons, come to be a significant factor, both economically and demographically, in Ocean County alone*. Since the initial development of retirement communities

^{*}According to one study, 80% of all retirement communities in New Jersey are in Ocean County. Based on official records, we have identified only three such communities in the balance of the Pinelands, of which only one, Leisure Towne in Southampton Township, is of significant size.

in the middle 1960's, over 23,000 such units have been constructed and occupied in Ocean County. The distribution of retirement community units is shown in Table I below. The table illustrates one significant shift

TABLE 1: RETIREMENT COMMUNITY UNITS IN OCEAN COUNTY BY MUNICIPALITY AND TIME PERIOD

municipality	constructed before 1976	constructed 1976 - 1979	remaining approvals
Brick	1,652	256	0
Dover	2,297	15	5
Lakewood	4,990	31	100
Berkeley	3,150	1,628	2,504
Jackson	628	346	6
Manchester	7,110	1,468	2,900
Eagleswood	0	1	53
Stafford	28	62	0
Tuckerton	55	31	0

SOURCE: Ocean County Planning Board surveys 1976 and 1979. Analysis by Alan Mallach Associates

that has taken place since the early or middle 1970's (unfortunately, the data does not permit us to pinpoint the time of the shift) in the distribution of retirement community development; prior to that point, a significant part of the development activity was taking place in the Northeastern subarea, particularly in Dover and Lakewood Townships. With the completion of many of the initial developments, including Leisure Village and Leisure Village East (Lakewood), and Holiday City (Dover), retirement community construction largely ceased in that area. At present, the center of gravity is firmly lodged in the two central communities of Manchester and Berkeley, where nearly all the recent construction as well as the outstanding site plan aprovals are to be found.

In addition to the remaining approvals noted in the table, there is a certain amount of anticipated activity. Substantial, although not comparable to the largest, developments are in the planning stages in Little Egg Harbor Township and Barnegat Township; in addition, approximately 300 units of senior citizen housing under governmental subsidy programs were under construction or in planning, in addition to approximately 300 such units in the county at present.

During the past fifteen years, retirement communities have been a significant, although not a dominant element in the development picture in Ocean County. Although it is impossible to tell with precision, it would appear that units in retirement communities (those classified as such by the county planning board) represent between 30% and 35% of all units constructed ir the county*. It should be noted, as will be discussed in more detail below, that by no means all of the increment in senior citizen population in Ocean County is accounted for by retirement community households.

Specifically, the development of retirement communities since the middle 1960's has generated a total estimated population of individuals over 55 of 42,300**, through 1980, assuming a 1979-1980 level of increment comparable to the past three years. During the period that this has been taking place, the estimated population of Ocean County aged 55 and over has increased by roughly 73,750. The population in retirement communities represents, therefore, about 57% of the total. This is very much in keeping with informal information about

^{*}Total building permits issued from 1/1970 through 12/1978 in Ocean County are 55,428, to which one may add 21,138 units constructed from 1965-1970 according to the 1970 Census, for a total of 76,566. Reported retirement community units represent 30.8% of this total; the share may be higher, however, since some percentage of building permit issued do not result in construction **This is based on Ocean County Planning Board estimates of population in retirement communities, brought up to 1980 on the basis of an average 1.79 people per unit, from which we have subtracted an estimate of 5% of the population of retirement communities aged under 55 years.

development in Ocean County, which indicates that large numbers of the units in modest developments not explicitly limited to senior citizens are indeed bought by such households, either for retirement or as 'pre-retirement' dwellings*. An example of such a community is Beach Haven West in Stafford Township.

B. Demographic Trends to 2000

The development of retirement communities in Ocean County is a phenomenon that is triggered by demographic trends on a statewide, rather than a local, basis. According to the county planning board, 70% of the population of retirement communities is made up of New Jersey residents, including a substantial share from within Ocean County itself. The level of increase in population aged 55 or over in the State of New Jersey, therefore, is the most significant determinant of the future of retirement community development, leaving aside, for the moment, any discussion of possible constraints on development unrelated to demand. Table 2 presents past and projected trends in statewide population relevant to retirement community development.

Two factors are readily apparent apparent from the table on the following page. First, that the increase in the number of potential occupants of senior citizen communities is diminishing, although gradually, during the 1980's and 1990's; second, that within the increase, the age distribution is shifting: the increase is greater among the 'older' senior citizens, than among the younger, more active, retirees **.

^{*}A common pattern, it appears, is for individuals to move to such a home or community a few years before retirement, commute for those few years to their work (generally in north Jersey), thus using that period as a transition, in terms of both geographic change, and the occupational change from work to retirement.

^{**}Although the table does not show those numbers, the shift in emphasis from the 55-64 age group to the 65+ age group, is paralleled by a shift within the latter to older individuals, aged 75 or older.

TABLE 2: POPULATION 55 AND OVER IN NEW JERSEY 1960 TO 2000

a. total population

	1960	1970	1980	1990	2000
55-64 65+	571,491 550,237	694,722 696,989		795,300 1,086,600	
TOTAL	1,121,728	1,391,711	1,666,300	1,881,900	2,027,200

b. population increase by decade

	1960-70	1970-80	1980-90	1990-2000
55-64 65+	123,231 146,752	117,178 157,411	(16,600) 232,200	45,900 99,400
TOTAL	269,983	274,589	215,600	145,300

SOURCE: 1960 and 1970 data from US Census of Population. 1980, 1990, and 2000 projection by NJ Department of Labor & Industry (ODEA Model)

This shift in age distribution should not necessarily have a significant

This shift in age distribution should not necessarily have a significant impact on retirement community development; despite the image of many such developments as oriented toward the 'younger' retirees, the demographic data for Ocean County strongly suggests that the great majority of retirement community residents are indeed aged 65 or over. Specifically, between 1970 and 1980, the county population over 65 is estimated to have increased by roughly 41,000, compared to an increase of only 10,000 for the population between 55 and 64. This is shown in Table 3 on the following page. It is noteworthy that, based on this series of estimates from the Department of Labor & Industry, during the 1970's, Ocean County accounted for 26% of the statewide increase in population aged 65 and over.

More significantly, for purposes of future projection, the ODEA model projections of age distribution suggest a sharp decline in the Ocean County share of statewide senior citizen population growth during the 1980's and

1990's. The question that must be raised, in the light of retirement community development trends, is whether that is a realistic assumption, and if

TABLE 3: POPULATION 55 AND OVER IN OCEAN COUNTY 1960 TO 2000

The second of th

a. total population

	1960	1970	1980	1990	2000
55-64	10,790	22,608	33,000	38,600	45,400
65+	12,793	32,920	73,900	100,200	96,500

b. population change by decade

	1960-70	1970-80	1980-90	1990-2000
55-64	11,818	10,392	5,600	6,800
65+	20,127	40,980	26,300	[3,700]

SOURCE: see table 2

so, to what degree. Looking at the entire population 55 and over, we see that from a share of 18.7% of the statewide total in 1970-1980, Ocean County's share is projected to decline moderately to 14.8% during the 1980's, and to become negligible by the 1990's. Significant increases in senior citizen population (net increase of 10,000+ in the 65+ age category) are projected for the 1990's in Bergen, Burlington, Middlesex and Morris Counties.

C. Retirement community development trends

Based on the ODEA projections, and our assessment of the relationship between population increase and household increase, we have estimated an increase between 1980 and 1990 of 24,400 households headed by an individual 65 or over in Ocean County, or roughly 75% of the increase during the 1970-1980 period. It would appear, referring back to the information presented in Table 1 and the accompanying narrative, that this is a sustainable level

in the light of retirement community development trends.

In Berkeley and Manchester Townships, construction has been sustained at a level of roughly 1,000 units per year during recent years, and can be expected to continue. As the table indicates, existing approvals are adequate to provide for 5,400 additional units; based on current trends, these would be achieved by 1985. The two developments noted in the southern part of the county* can be expected to add, most likely within a five year span or less, 1800 units to this total. Assuming, as would appear to be reasonable, that during the next five years at least one additional moderate-sized retirement community is carried out within the county, one arrives at a conservative estimate of 8,000 additional retirement community units in Ocean County by 1985.

From a demand standpoint there is no reason to believe that this level could not be maintained for the remainder of the 1980's. As shown in Table 2, the rate of increase in the over 65 population, which is the principal demand group for senior citizen communties, will increase in the 1980's. If anything, it is likely that the demand for retirement community units in Ocean County could increase during the 1980's; we are not aware of any social or economic factors working that, given the increase in senior citizen population, would lead a substantially reduced share to choose the retirement community option**.

^{*}The two developments are Mystic Shores in Little Egg Harbor (projected total of 1327 additional units) and Great Oaks in Barnegat (530 units).

^{**}It is interesting to speculate, however, about such factors. Continuing inflation, particularly with regard to housing, should increase demand, since it is likely to increase the value and cost of existing primary housing in areas such as Northern New Jersey relative to retirement community units, which tend to be more cost efficient. Energy costs could, arguably, divert a larger share of such development to the Sunbelt, but it is likely that proximity to existing communities, friends, and family are a more sigificant factor in the choice to move to an area such as Ocean County. What is likely to change, however, is the orientation of many such developments, away from the active community (Leisure Village) and toward a development type with more supportive services for an older, more sedentary, population.

From the standpoint of feasibility, leaving aside any additional constraints that may be imposed, such as those stemming from Pinelands regulation, there appears to be no serious barrier to continued retirement community development. All of the preconditions appear to be in place. Land in large amounts at reasonable prices, in view of the nature of the use, is available throughout the county, with the exception of the barrier islands and, possibly, the northeast subarea. The scale of much senior citizen development makes possible the construction of infrastructure, including a high quality of sewerage treatment facility, within reasonable cost constraints. Finally, there is no reason to believe that local land use regulation will significantly impede continued retirement community development; one municipality, Manchester Township, continues to welcome such development, and others appear, at a minimum, willing to entertain additional proposals. In short, although it is always possible, there appears to be no reason why retirment community development should decline, at least during the 1980's.

In this context, it is interesting to note that our five year estimate to 1985 of roughly 8,000 retirement community units, represents a rate of activity identical to that of the 1970's during which period, we estimate, a total of almost exactly 16,000 such units will have been constructed. A reasonable projection for the 1980's, therefore, in the absence of additional imposed constraints, would be for a level of retirement community development at least equal to that of the 1970s. It would, however, be concentrated in Manchester, Berkeley, and the southern and central subareas, rather than in the Lakewood and Dover areas. Although development generally may continue in the northeastern subarea, it is likely that the cost of land, and the difficulty of assembling large parcels, makes this area less suitable for retirement

commuity development. This means, of course, that a significantly larger share of such development will take place within the Pinelands region.

There is one major, unanswerable, question affecting the increase in senior citizen population. As we noted, over 40% of the increase in senior citizen population did not take place in retirement communities, but in other areas. During the 1980's, as demand associated with casino development increases, it is likely that the southern part of Ocean County will be affected by this demand. Developments of modest homes in the southern part of the county, which have traditionally catered, at least in part, to senior citizens, will suddenly become within reasonable commuting distance of a major employment center, Atlantic City. The rate of job growth in Atlantic City during the 1980's, as we discuss in detail in the next section of this report, is likely to be such that both existing and new house markets will be dramatically affected. In such a setting, it is likely that (a) new construction will be more and more oriented toward casino and related workers; and (b) this working population will outbid retirees or potential retirees with regard to existing units, as they come on the market*. The result of this trend, therefore, could be not only a diminishing percentage of senior citizens in new developments, but even a reduction in the number of senior citizen households in existing developments over time, relative to their 1970-1980 population share.

The significance of this point is clear: senior citizens are likely to become a smaller part of the southern Ocean County population during the 1980's and 1990's, outside of formally designated retirement communities.

^{*}Even among those senior citizens economically capable of competing for this housing, it is likely that fewer will choose to do so; since they are not locationally tied to the Atlantic City area, they are likely to find comparable housing for less, or better housing for the same amount, in areas showing less demand pressure.

Development of retirement communities, however, should be sustained, if not expanded, in the absence of imposed constraints; the reduced availability of alternatives may, indeed, increase the demand for retirement community units on the part of senior citizens. There is no reason that this should not continue through the 1980's and into the 1990's, although at a reduced level in keeping with the reduction in the rate of growth of the senior citizen population statewide. In addition to the decline in demand, a second factor capable of reducing senior citizen development activity during the 1990's would be the increasingly developed character of Ocean County by that time, which could lead to increased land costs in areas which are today largely undeveloped.

Although this is possible, we believe that it is more likely, given the vast land resources of the county, that retirement community development will continue, perhaps at a level of roughly half that of the 1970's and 1980's, into the 1990's. This would suggest that the population projection for the 1990-2000 period may underestimate the number of senior citizen households added to the population of the county. Table 10 in the Population Trends report, which is based on the ODEA Model projections, projects a net decrease of slightly under 2,000 senior citizen households in Ocean County from 1990 to 2000. Based on the analysis here, we suggest that a more likely outcome would be for a net increase of 5,000 to 8,000 senior citizen households in Ocean County during the 1990's, nearly all of which will result from retirement community development*.

^{*}the assumption of zero net migration of senior citizens to Ocean County during the decade results in a projected loss of 2,000 to 3,000 senior citizen households. Our revised projection above assumes an inmigration of 7,000 to 10,000 senior citizen households during the decade, of which at least 7,000 to 8,000 will be accommodated in retirement community development, and modest numbers in other forms of housing development in the county.

There is reason to believe that the geographical distribution of senior citzen or retirement community development may shift. As noted, much of the southern part of the county will be influenced by Atlantic City development, and will reorient such development as takes place to that market. Retirement community development is likely to continue in Manchester Township, which is relatively far removed from Atlantic City influences*. Assuming a positive local climate, another community that would be locationally attractive would be Jackson Township which, up to now, has experienced only modest retirement community activity. Finally, depending on a variety of factors, including changes in preference, increasing regulatory pressures, and the effect of the age shift within the senior citizen population, higher density multifamily development may accommodate a progressively larger share of the senior citizen inmigrating population. Although it may appear unlikely at present, this may come to include the possibility of highrise development in selected locations along the shore**.

^{*}In addition to the favorable political climate, a particular factor in Manchester Township is the large acreage, over 5000 acres, in use at present for extraction by American Smelting & Refining Co. (ASARCO), which will gradually be made available for development after reclamation, largely in the 1990s. It should also be noted that Leisure Technology (developers of Leisure World, etc.) own over 1000 acres in Manchester Township for which no plans have yet been approved.

^{**}There is no reason to believe that retirement community development will be a major factor in other parts of the Pinelands, although there is no question that some such activity will take place. In those areas where there is major demand pressure for commuter-oriented housing, such as the Philadelphia SMSA and much of Atlantic County, it is not competitive. In the absence of regulations constraining such development, however, there could be interest in parts of the Central Pinelands in Burlington County, and in Western Atlantic County, in retirement community construction between now and 2000.

II. CASINO DEVELOPMENT IN ATLANTIC CITY

The issue of casino development in Atlantic City is of particular significance to the Pinelands Commission, since the employment population and housing that are likely to be triggered as a result are the most significant unknown variable in the entire regional development picture. Even within the short period since development has begun, agencies concerned with predicting its impacts have made numerous changes to their projections, or engaged in extensive controversies over the scale and nature of these impacts. As a result, it must be stressed that any assessment made here is inevitably preliminary and tentative in nature; still, with the experience of the past two years behind us, it should be possible to attempt a preliminary evaluation of the current and future situation. The discussion here is in three sections: (a) the scope of casino impacts, in terms of employment, population, and housing demand; (b) the geographic spread of those impacts; and (c) the manner in which they are likely to affect the Pinelands.

A. The Scope of Casino Impacts

In order to make any judgement as to the extent of casino development impacts, it is necessary to make a series of prior judgements, regarding, initially, the number of casinos projected to open and their timetable; the level of employment anticipated per casino; and, the secondary employment likely to follow from the casino activity. Given employment figures, it is then necessary to establish relationships between those figures and reasonable linked population levels, household numbers, and housing demand figures. In all of these areas there is considerable room for disagreement.

Based on the most recent available information, however, we have attempted

to draw some tentative conclusions about these factors. All of these conclusions, in turn, point to massive development and population growth taking place.

(1) employment: There are three casinos in operation, one to three likely to be in operation in the very near future, at least an additional six in advanced construction or planning, and many others in preliminary but serious planning stages. The two most recent analyses have suggested, respectively, that there will be 12 casinos in operation by the end of 1982*, and that there will be 26 casinoes in operation by the end of 1990**. The latter analysis suggests that the pace will remain rapid through 1985, by which time there will be 20 casinos in operation, and will moderate from 1985 to 1990. The latter, a study conducted by Economic Research Associates, has also estimated the demand for noncasino hotel and motel space at roughly 32,300 rooms by 1985 and 39,300 rooms by 1990, in addition to the 15,000 to 16,000 casino hotel rooms that will be available by that point***.

The ERA study assumes that employment in each 500-600 room casino hotel complex will be in the area of 2500 to 3000 workers. Although reasonable, they appear to be on the conservative side, since initial employment levels in the first two casinos opened, according to the DCA study, are over 4,000 per casino. That figure is considerably higher than most projections, or than experience with comparable facilities elsewhere; as a result, and in the absence of any reason being put forward to explain the higher figures, we are doubtful that they will be sustained. A conservative projection, in our judgement, would be for an average of 3,000 employees per casino by 1990, or 78,000 employees (3000 x 26).

^{*}NJ Department of Community Affairs, A Review of the Probable Impact of Atlantic City Casino Development (1980), henceforth referred to as DCA study

^{**}Economic Research Associates, Evaluation of the Effects of Casino Hotel Development on the Demand for Housing in the Atlantic City Market Area, prepared for the Atlantic City Housing Authority (1979) henceforth referred to as ERA study.

^{***}This is an estimate by Alan Mallach Associates on the basis of more limited data presented in the ERA study. This study is extremely selective in the amount and type of primary data which it presents to support its conclusions.

The increase in hotel and motel rooms will generate a substantial level of employment over and above the casino employment, since as noted above, the great majority of new and renovated hotel rooms in the Atlantic City area will be separate from the casinos. Various figures have been suggested for employment per hotel room; 2 employees/room appears, from the sources reviewed, to be a moderate level. This would result in a noncasino hotel and motel employmnt level of 64,600 by 1985 and 78,600 by 1990.

In addition, it should be noted that the casino and related industries can be anticipated to employ, more or less consistently through 1990, a volume of construction workers estimated at 8,000 to 10,000. Although the number of construction workers employed directly on casinos is anticipated to decline after the middle 1980's, it is a reasonable assumption that the increase in noncasino construction, particularly housing, will effectively replace casino construction as an employment base for this part of the labor force. Table 4 presents a summary of direct casino related employment anticipated.

TABLE 4: CASINO AND CASINO-RELATED EMPLOYMENT 1	in laan

	1985	1990
Casino employment	60,000	78,000
hotel and motel employment	64,600	78,600
construction employment	9,000	9,000
TOTAL	133,600	165,600

SOURCE: Alan Mallach Associates projection

The total employment in the Atlantic City area, of course, includes not only the above, but a certain amount of secondary employment as well. The ratio between the primary employment shown in the table, and secondary employment, which is that

employment generated by the demands of the casinos, the hotels and motels, and their employees for goods and services, is known as a 'multiplier'. A great deal of the discussion of multipliers in the reports that have been produced dealing with casinos in Atlantic City is confusing, and potentially misleading. What is poorly understood is that a multiplier which attempts to determine secondary employment levels within a confined geographic area will always be significantly smaller than the total multiplier associated with a facility, because of the leakage of economic effects outside the area. The second serious misunderstanding is the idea that all of the multiplier effects stem from Atlantic City proper*. This last is not true, and deserves some discussion.

Of all of the multiplier effects, only those dealing directly with the purchases of goods and services by the casinos themselves, which are a small part of the total, are entirely derived from within Atlantic City. The noncasino hotels and motels, as well as other tourist services, are likely to be distributed in part in Atlantic City, and in part in a wide variety of nearby community. Finally, the largest part of the multiplier effect is derived from the purchase of goods and services by the employees of the various facilities. The greater part of that activity takes place where the employee lives, rather than where he or she works. As a result, these jobs and their associated population will be widely distributed across the larger region in parallel with the residential distribution of the casino and casino related labor force.

Based on experience with economic multipliers elsewhere, we would estimate that the total multiplier, including both requirements of the casinos and their employees, distributed across an area much larger than Atlantic City or Atlantic

^{*}Perhaps the most serious misuse of multiplier analysis is found in the Rutgers Urban Design Studio report Casino Impacts: Atlantic City, N.J. (1978), where a Las Vegas multiplier is 'borrowed', and on the basis of certain reasons, raised when applied to Atlantic City. If the authors had understood multiplier theory, they would have found it necessary to reduce rather than increase that multilier for their use.

County, of 1.65 during the earlier years, rising to 1.8 at the point where the casino economy has 'matured', which we are estimating to take place by 1990. In order to calculate the projected secondary employment, it is important to distinguish between the two sources of the multiplier; the employment geneated by the needs of the casinos and hotels for goods and services will be relatively centralized, that generated by the needs of the employees will be more widely dispersed. Furthermore, in using primary employment as a base, the construction employment will be used only as a basis for the latter category. Our projections of secondary employment are presented in Table 5*. It should be stressed that a

TABLE 5: PROJECTED SECONDARY AND TOTAL EMPLOYMENT DERIVED FROM CASINO ACTIVITY TO 1990

	SECONDARY EMPLOYMENT A		SECONDARY EMPLOYMENT	В		TOTAL
1985 base multiplier secondary total	$\frac{[124,600]}{\times 0.25}$ 31,000	+	[133,600] × 0.40 54,000		=	133,600 + 85,000 218,600
1990 base multiplier	$ \begin{array}{r} [156,600] \\ \times 0.30 \\ \hline 47,000 \end{array} $	+	$\begin{array}{c} [165,600] \\ \times 0.50 \\ \hline 82,800 \end{array}$		=	165,600 + 129,800 295,400

SECONDARY EMPLOYMENT A - employment derived from purchase of goods and services by casino and hotel/motel industry

SECONDARY EMPLOYMENT B - employment derived from purchase of goods and services by primary employees in casinos, hotel/motel indstry, and related construction

SOURCE: Alan Mallach Associates

multiplier of 1.8 means that <u>total</u> employment is 1.8 times primary employment, and that secondary employment is .8 times, or 80% of primary employment.

^{*}It should be stressed that this entire subject is highly complex, and that it is impossible to arrive at anything remotely like a precise estimate without carrying out a careful systematic economic impact study, using a proper methodlogy. To this point, no such study has been carried out; instead, analysts have employed a variety of shortcuts (including that used here) all of which have serious limitations to them.

Given the baseline of 20 casinos in peration by 1985, and 26 casinos in operation by 1990, we estimate that the total number of jobs generated as a result will be 218,600 by 1985 and 295,400 by 1990. Since, as dicussed above, some significant portion of these jobs will come into being outside Atlantic County, it would be meaningless to derive a figure for total countywide employment by adding this total to a baseline figure for Atlantic County employment independent of casino activity.

- (2) population and housing: we believe that these two factors must be treated together, rather than sequentially, since we believe that housing considerations are likely to influence population growth as well as the reverse. The most important step is to acknowledge that the shortage of housing, particularly for workers at lower wage levels, (a) is inevitable; and (b) will significantly influence the relationship of employment growth to population growth. Even under the most optimistic scenarios imaginable, there is no plausible way in which enough housing affordable to low wage level workers can be constructed in the area to make possible the inmigration of large numbers of families in which a low wage casino related worker is the primary or sole wage earner in the family. That leads to two very important corrolaries:
 - large numbers of low wage level positions will be filled from among secondary workers; i.e., husbands or wives of individuals working in more highly paid positions
 - additional low wage level positions will be filled by workers undertaking long distance commuting to their jobs from their present place of residence, who will not relocate as a result of their job.

As a result, the ratio of employment increase to population and household growth in the rgion will be substantially different than a ratio that would be expected in a 'normal' environment. An additional byproduct, however, is that by the late 1980's it may become more and more difficult to fill jobs in a variety of support

services in Atlantic City because of the lack of housing*. Similarly, existing low wage industries in the region, particularly those offering less attractive working conditions, may find their labor force diverted to casino related activities, and may have grave difficulty in replacing them with other workers.

It wuld appear that, without governmental subsidies, little housing if any will be constructed that can be afforded by a family in which a low wage level casino employee is the sole source of income. There seems to be widespread agreement that such workers represent a large part of the casino labor force*, and can be expected, given the nature of the secondary employment likely to be generated, to be an even larger part of the balance of the employment created. If we define, for example, the cutoff point at \$15,000, it is likely that 50% to 60% of casino jobs (in 1978 dollars) are below that point. Given the nature of the Atlantic City housing market, as well as housing costs generally today, we consider it unlikely that any appreciable amount of housing for families with a gross income of \$15,000 or less will be made available within the region**. Given current levels of Federal housing subsidy funding, and realistic expectations for coming years, it is unlikely that more than a trickle of such units will be added to the Atlantic County and nearby housing stock. Even then, the inmigrating

^{*}The ERA report presents a table with a breakdown of casino personnel by wage levels, although the ranges given are absurdly wide; e.g., "professionals \$8,000 - \$75,000", or "officials and managers \$10,000 - \$65,000". A highly speculative analysis of this data indicates that roughly 56% of the jobs listed would be below \$15,000. In addition, a source dealing with Fiscal Year 1975 Las Vegas data indicates that representative per employee payrolls were for gaming employees \$10,085, and for other employees \$8,270. In 1978-1979 dollars, those would be roughly equal to \$14,000 and \$11,500 respectively. It should be noted, however, that all sources agree that the tips a casino employee can earn are capable of significantly increasing his or her actual income during the course of a year.

^{**}Assuming the following cost coefficients (13% mortgage for 25 years, 25% down payment, 2.8% property taxes on market value, and \$100/month for utilities) one finds that the direct cost of a \$40,000 house is \$6539 per year. If one assumes, furthermore, a net tax bracket of 20% for purposes of calculating deductions, the net cost of the unit is roughly \$5525 per year. This represents 25% of the gross income of a family earning \$22,100. It would be 37% of the gross income of a family earning \$15,000 per year. Furthermore, it is doubtful that any homes will be built in the Atlantic City area at that price level.

low wage level workers will have to compete with resident families now living in substandard housing, senior citizens, and others for that meager supply. Given historical patterns, it is likely that households already resident in the area in which the housing is constructed will have effective, if not legal, priority for the new units. The units vacated as a result are likely to be either substandard or rapidly bid out of the reach of a low wage level households.

Given the anticipated shortage of housing units, we believe it most likely that it will have a severe constraining effect on the nu mber and characteristics of low wage level worker households, a moderate effect on intermediate wage level worker households; the only households who will not be constrained are those in which wages are high enough to complete effectively, a level likely to be in the area of \$25,000 /year in 1979 dollars. This is consistent with the phenomenon noted by many observers, that the typical inmigrating household is the so-called "casino couple", a childless couple, both of whom work (generally at low wage level work) in the casino. In order to reflect these constraints in a projection of the likely population increase associated with casino development, we have developed a series of coefficients to reflect varying ratios of employment to population by wage level, as well as inmigration (relocation) to commuting from pre-existing residence. We have assumed, for example, that the employment: population ratio for low wage level households will be 2:3, or three people for every two jobs at that .level. This follows the assumption that workers at that level will include large numbers of single individuals and couples, and that the associated dependent population will be small. The households associated with jobs paying \$25,000 and over in 1979 dollars are assumed to be normal in their employment:population relationship*.

^{*}even there, the ratio will be higher than that used in recent studies, partly since the ratio is increasing generally in the nation, and partially since it is unlikely that there will be parallel inmigration of non-labor force attached households.

TABLE 6: P	ROJECTED	MIGRATING	POPULATION	AS A	RESULT	0F	CASINO	RELATED	EMPLOYMENT
------------	----------	-----------	------------	------	--------	----	--------	---------	------------

wage level 2	of jobs ²	number of jobs	employment to population ratio ³	total linked population	% migrating	number migrating
1985						
0 to \$14,999 \$15,000 to \$24,999 \$25,000+	56% 22% 22%	122,400 48,100 48,100	.67:1 .56:1 .46:1	182,700 85,900 104,600 TOTAL MIGRA	60% 80% 100%	109,600 68,700 104,600 282,900
1990			·	TOTAL HIGHA	TING	202,900
0 to \$14,999 \$15,000 to \$24,999 \$25,000+	56% 22% 22%	165,400 65,000 65,000	.67:1 .56:1 .46:1	246,900 116,100 141,300	60% 80% 100%	148,100 92,900 141,300
				TOTAL MIGRA	ΓING	382,300

NOTES: (1) wage levels in 1979 dollars

- (2) distribution based on analysis of casino employee wage level distribution given in ERA report
- (3) Ratio of .46:1 is current national ratio of labor force to total population. Other ratios are based on estimates by Alan Mallach Associates.

SOCIAL AND ECONOMIC FACTORS (21)

One more factor remains to be dealt with in this area, the relationship of population to households. The factors that we have summarized, which lead to an 'abnormal' employment:population ratio for other than the high wage level households, suggest some deviation (although to a lesser degree) from the average levels with regard to household size. The households of low wage level workers, for example, are likely to have few dependent children; on the other hand, since our analysis is based on the premise that most such households need two wage earners in order to be able to migrate, there will be few single individuals among them. Although the two considerations tend to balance each other, it would appear likely that the average household size in this group will be slightly below the national average for non-elderly households, which is approximately 3.0. The houeholds in the high wage level category, on the other hand, are likely to be somewhat larger than the national average.Based on the above, we estimate the number of inmigrating households to be as follows.

TABLE 7: PROJECTED INMIGRATING HOUSEHOLDS

wage level	average housε- hold size	number of	number of households		
		1985	1990		
0 to \$14,999 2.5 \$15,000 to \$24,000 3.0 \$25,000+ 3.2		43,800 22,900 32,700	59,200 31,000 44,200		
TOTAL		99,400	134,400		

SOURCE: Alan Mallach Associate projection

one point should be stressed: the wage level ranges presented in the above table and in table 6 do not mean that these will be family income ranges for the number of households cited. This is only a representation of the number of households

generated as a result of job creation in that wage level range. Many of the household incomes, for example, of those shown in the '0 to \$14,999' range will have substantially higher incomes, since they will be two wage earner households.

Housing demand will be greater than the number of households seeking housing units in the region, since based on recent experience, there will be a continuing loss of older housing units, principally in Atlantic City, from the housing stock. During the course of the 1980's, we estimate the loss of units at approximately 1,000 per year. The total projected housing demand associated with casino development is presented in Table 8. In the following

TABLE 8: PROJECTED HOUSING DEMAND ASSOCIATED WITH CASINO DEVELOPMENT TO 1990

	1980-1985	1986-1990
inmigrating households removal of units from stock total housing demand	99,400 6,000 105,400	35,000 5,000 40,000
annual housing demand	17,600	8,000

SOURCE: Alan Mallach Associates projection

section we address the question of where this demand is likely to be distributed.

B. Geographic distribution of casino impacts

Workers in employment generated by casino development are likely to distribute themselves around Atlantic City and its immediate environs, on the basis of accessibility and distance, as well as housing availability. The distribution pattern, which is shown in rough terms on the map on the following page, does not necessarily bear any relationship to county boundaries. Instead, we have divided a wider area into two separate areas: (a) a primary market area, representing those

areas that are readily accessible within a half hour drive from Atlantic City, and a secondary market area, representing areas within a half hour to an hour from Atlantic City. In practice, clearly, preferences do not follow a simple step function such as that suggested by the map, but drop off gradually with increasing distance and travel time; it does represent, in our judgement, a useable simplification*.

Historical studies suggest that as many as 80% of the total households seeking housing will seek to locate, assuming housing that they can afford and that reasonably approximates their needs is available, in the primary market area. The realities of the Atlantic City environment, and the amount of housing likely to be developed in that area, suggest that this is not possible. Instead, it is likely that there will be severe competition for a smaller number of units in this area which will increase prices, thereby dictating that the households that will locate in the primary market area will be substantially more affluent than the average casino related household.

Despite the fact that the pressures today are only a modest part of what they are likely to become, the pattern suggested above is already taking place as reflected in the trends in existing house prices. As the table on the following page shows clearly, house prices are rising rapidly throughout the county, but with a visible gradient with increased distance from Atlantic City; the prices are rising most rapidly on Absecon Island, somewhat less in the older suburbs along the bay shore, and somewhat less again in the rural but suburbanizing communities inland. This table suggests as well a reason for the lag in housing construction in response to the increase in casino employment.

^{*}One factor that could significantly alter the pattern would be the establishment of efficient public transportation systems. The creation of nodes of development, for example, around stations on a rapid transit line between Philadelphia and Atlantic City would be an example of such a change.

TABLE 9: 1	PRICE OF	EXISTING	HOUSING	IN	ATLANTIC	COUNTY	1977	TO 19	79
------------	----------	----------	---------	----	----------	--------	------	-------	----

municipality	1977 median house price	1979 median house price	percentage change	
Atlantic City	\$17,100	\$31,000	81.3%	64.5%
Brigantine	36,100	60,100	66.5	
Longport	57,600	92,500	60.6	
Margate	45,200	73,600	62.8	
Ventnor	39,600	60,000	51.5	
Absecon	\$33,900	\$46,000	35.7%	43.7%
Linwood	37,700	59,500	57.8	
Northfield	32,800	46,800	42.7	
Pleasantville	19,800	28,200	42.4	
Somers Point	31,500	44,000	39.7	
Egg Harbor City	\$29,200	\$31,200	6.8%	31.0%
Egg Harbor Twp	29,900	39,000	30.4	
Galloway	26,500	37,900	43.0	
Hamilton	22,000	30,800	40.0	
Mullica	24,600	33,100	34.6	

SOURCE: NJ Division of Taxation. Analysis by Alan Mallach Associates

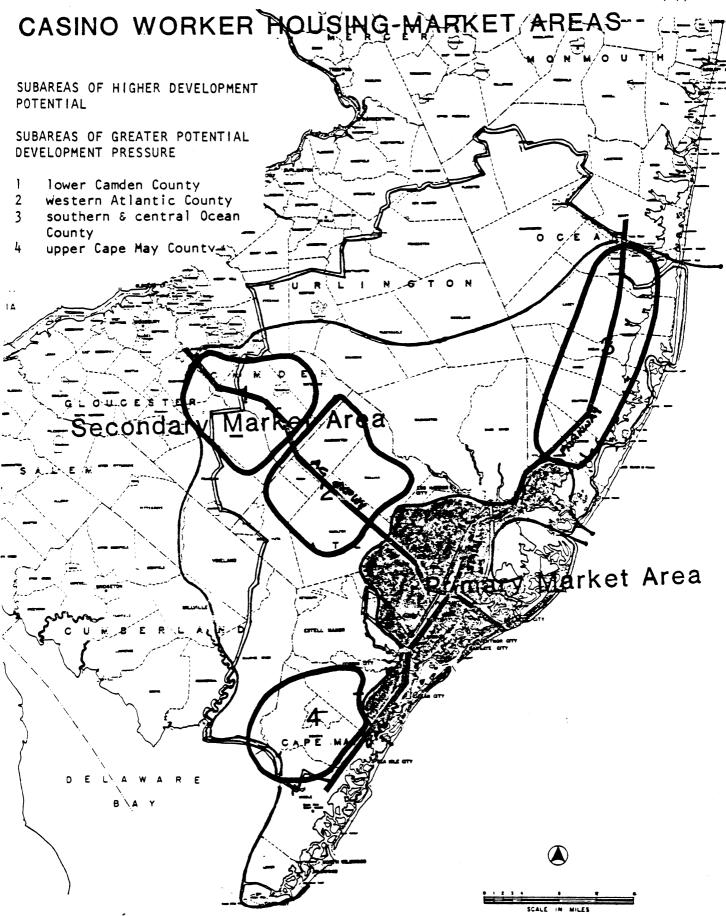
Specifically, Atlantic County has been historically a very low cost housing market area; in 1977, except for two highly desireable shoreline communities, no community in the county had a median house price level at or above \$40,000, a modest level in most parts of the state. As a result, when inmigration began, the availability of inexpensive existing housing of reasonable quality was such that (it would appear) builders found it unprofitable to complete by producing a large volume of, inevitably, more expensive housing. During this lag period, as Table 9 shows clearly, the existing housing inventory is rapidly being bid upward. In a short time it will be comparable to the housing prices prevailing in northern New Jersey, and will be a market in which new housing will be competitive for the large volume market.

Within the secondary market area, as shown in the map on the following page, certain areas appear to be more susceptible to largescale development pressure than others, largely on the basis of two factors (a) the availability of high speed access along expressways to Atlantic City; and (b) the prior existence of some measure of devlopment infrastructure capable of supporting a rapid increase in development within the relatively short time frame under discussion. The former criterion singles out areas with good access via either the Atlantic City Expressway or the Garden State Parkway; the map illustrates four distinct areas meeting this criterion. Among these four areas, two can be considered, by virtue of their recent development history, to have the basic infrastructure* for development in place; these are the band in Ocean County in close proximity to the Garden State Parkway north roughly until Toms River, and to the west, an area in central and lower Camden and Gloucester Counties, which has experienced significant suburban development in recent years. The other two areas, in Atlantic and Cape May Counties, although lacking any significant development history, are nonetheless situated in close enough proximity to Atlantic City to make large scale development there, if feasible, potentially highly attractive.

These areas, therefore, the Primary Market Area, and the four subareas within the Secondary Market Area, can be anticipated to absorb nearly all of the housing development generated by casino activity**. The process, however, of allocating this growth among the different areas is highly speculative. Firm objective criteria on which to base such an allocation are lacking. In

^{*}By infrastructure, one does not necessarily require such features as existing sewer capacity, although they are helpful. This refers to a more broad consideration, in terms of existing development and developer activity, local government awareness, land holdings in developers' hands, real estate familiarity with the area, etc.

^{**}This is predicated, of course, on the absence of additional imposed constraints, such as Pinelands regulations. Such regulations could constrain development in one or more of the areas shown on the map.



the absence of such criteria, one can nevertheless make a somewhat crude allocation on the basis of commonsense judgement. We have done so, on the basis of the following assumptions:

- constraints on development, including land availability, in the primary market area will limit development to a level below potential demand; it will, however, be the scene of substantial sustained development activity;
- within the primary market area, development will be concentrated in the Atlantic County section, with modest (by comparison) activity in the Cape May and Ocean County areas. This is based in large part on the relative amount of available land.
- within the secondary market area, areas 1 and 3 will experience substantially more development than areas 2 and 4. The former have considerably more development readiness, and are less likely to be constrained by environmental considerations:
- the four areas shown on the map in the secondary market area will account for the great majority of development in that area; leakage to other areas will be modest, although potentially significant in selected areas.

Working within the constraints of these assumptions, we have developed two alternative allocations, one based on greater dispersal, and one on greater concentration, of development within the overall market area. The percentages in each of the market areas, and their respective subareas, as well as the resulting housing demand projections, are given in Table 10 on the following page. Each of the alternatives allocates the total projected housing demand associated with casino development, as given in Table 8. It must be stressed that these are not policy projections or judgements as to where this development should be directed; these are best estimates, given the uncertainity in herent in all such estimates, as to where the development is most likely to take place, under current circumstances. The degree to which it can, and should, be directed elsewhere is another matter.

LOW PROJECTIONS

TABLE 10: DISTRIBUTION OF CASINO RELATED HOUSING DEMAND BY SUBAREA - HIGH AND

area/subarea	dispersal alternative	concentration alternative	housing deman	d projection DISP
PRIMARY	50%	60%	87,200	72,700
Atlantic County Cape May County Ocean County	70% 15% 15%	80% 10% 10%	69,800 8,700 8,700	50,900 10,900 10,900
SECONDARY	50%	40%	58,200	72,700
subarea 1 subarea 2 subarea 3	30% 15% 30%	35% 10% 40%	20,400 5,800 23,300	21,800 10,900 21,800

subarea 1 lower Camden and Gloucester Counties

15%

10%

subarea 2 western Atlantic County

subarea 3 south-central Ocean County

subarea 4 upper Cape May County

subarea 4

balance

SOURCE: Projection by Alan Mallach Associates

10%

5%

5,800

2,900

10,900

7,300

The projected household increase and housing demand reflected in the table above is substantially larger than that derived from the ODEA projections, when applied to the Pinelands region and presented in the report <u>Population Trends</u> and <u>Demand Pressures in the Pinelands</u>. This must be qualified by noting that at least some part of the population and housing demand reflected in Table 10 will take place outside the Pinelands; this is true of some part of the Primary Market area demand in Atlantic and Cape May Counties, and the Secondary Market area demand in lower Camden and Gloucester Counties. These are not likely, however, to make more than a modest difference in the outcome. The non-Pinelands areas in Atlantic and Cape May Counties are largely developed where suitable for

development, with modest exceptions. Furthermore, within this area a substantial part of the housing stock, principally in Atlantic City, will be removed during the coming decade, a replacement need that has not been included in the totals presented here. As a result, it is unlikely that the net contribution of the non-Pinelands section of the primary market area will be more than a small part of the total, at most 10,000 to 15,000 units during the decade. The contribution of the non-Pinelands area in Camden and Gloucester Counties may be a significant share of the development anticipated in subarea 1, but that too is only a small part of the total. In short, of the total 145,400 units projected, it is likely that at least 125,000 will be located within the Pinelands. Table 11, an adaptation of Table 10, presents estimated breakdowns (based on the CONCENTRATION alternative) by counties and for the Pinelands region.

TABLE 11: DISTRIBUTION OF CASINO RELATED HOUSING DEMAND FOR PINELANDS REGION AND BY COUNTY (concentration alternative from Table 10)

	Pinelands	Balance	Total
Atlantic County Camden County (1) Cape May County Gloucester County (2) Ocean County	65,600 6,800 12,500 3,400 32,000	10,000 6,800 2,000 3,400 -0-	75,600 13,600 14,500 6,800 32,000
undistributed (3)	2,900	-0-	2,900
TOTAL	123,200	22,200	145,400

NOTES: (1) 2/3 of projected amount for subarea 1 evenly divided between Pinelands and balance

- (2) 1/3 of projected amount for subarea 1 evenly divided between Pinelands and balance
- (3) including portions of Atlantic (southern tier), Burlington (central Pinelands) and Cumberland Counties

SOURCE: Projection by Alan Mallach Associates

C. Casino Impacts and the Pinelands Region

Housing development to the extent projected in the preceding section is likely significantly to alter the future growth projections developed for the Pinelands region in the <u>Population Trends</u> report. The housing demand figures from that report, which were derived in turn from the ODEA model population projections, are presented alongside our casino related demand figures in Table 12. The table shows that at least three counties - Atlantic,

TABLE 12: COMPARISON OF TREND HOUSING DEMAND PROJECTION (NON-SENIOR CITIZEN HOUSING DEMAND ONLY) WITH CASINO RELATED HOUSING DEMAND PROJECTION BY COUNTY - PINELANDS REGION ONLY - 1980 TO 1990

	TREND PROJECTION - TOTAL HOUSING DEMAND	CASINO RELATED HOUSING DEMAND
Atlantic County	27,700	65,600
Burlington County	14,700	*
Camden County	10,000	6,800
Cape May County	3,200	12,500
Cumberland County	900	*
Gloucester County	6,300	3,400
Ocean County	32,400	32,000

^{*}casino related demand insignificant

SOURCE: trend projection from <u>Population Trends</u> report, Table 19 (non-senior citizen demand only). <u>Casino related demand figures from Table 11.</u>

Cape May, and Ocean are likely to have a significant increase in demand as a result of the housing demand triggered by casino gambling and its attendant investment*, at a level capable of drastically transforming those areas. The increase in Camden and Gloucester County Pinelands areas, although far less, is hardly negligible.

^{*}The ODEA projections, which were used as the basis for the trend projections of housing demand, do take into account casino development activity, although it would appear at a far more modest level. Thus there is a small overlap between the figures presented in the two columns of Table 12.

Having presented these numbers, some discussion of their implications is in order. It should be stressed that, at least in the context of current projections of casino development activity, these numbers are clearly on the conservative side, having built into them the implications of certain of the constraints affecting potential housing supply and demand in the market area*. Conservative as they may be in the abstract, hoever, they may still reflect a level of housing production higher than is realistic. That consideration must be taken into account.

An assumption that is inescapable given the realities of the Atlantic City situation is that no likely, or even plausible, level of housing production will during the 1980's significantly reduce the intense pressure on the existing housing stock in the market area. Given the cost of new housing, there will be intense pressure on existing housing from those households unable to afford new units; these households, although perhaps not affluent by comparison with many others moving into the area, will be able to outbid a large part of the indigenous population for the available housing units. Barring a major intervention by the public sector, we see little relief on the horizon.

This will create major hardships for resident low and moderate income households. Certain areas in Atlantic City, for example, defined by the presence of largescale subsidized lower income developments, will undoubtedly remain as 'enclaves' of lower income, or lower cost, housing. Other areas, where more scope is offered to speculators and developers, will be rolled over for more affluent or less poor households. Areas in which the existing housing stock is of such poor quality as to be unsuitable for middle and upper income

^{*}Another question, which has been raised recently, is whether the pace of casino development could be slowed down, for a variety of reasons, including greater caution on the part of the Casino Control Commission in the future, financing difficulties, etc. The entire subject is very volatile; it is only recently that the projections of the numbers of casinos and their timetable have been increased, and accelerated.

occupancy are likely to be redeveloped, with a resulting loss (at least for a time) in housing units, while in others, landlord pressures, rising property taxes, etc., will push less affluent occupants out of sound units in order to make room for newcomers. Although the most intense pressures are being felt in Atlantic City proper, it is likely that during the coming decade they will spread throughout the market area, wherever an existing housing stock amenable to upgrading is to be found.

One major area in which change is anticipated is that of shore-related housing, including both what is at present year-round and seasonal housing. Conversion of seasonal housing to year-round occupancy is likely to be strong along a substantial part of the shoreline, perhaps extending from Sea Isle City to Long Beach Island*. While this may not result in hardship, strictly speaking, to anyone, it will significantly change the characterof these communities, resulting, among other matters, in a sharp increase in demand for public services in communities in which services today are largely rudimentary in nature. On the mainland, as has been noted earlier, many of the modest developments in southern Ocean County are occupied by retirees and other moderate income households. These developments have represented, after all, in recent years among the least expensive housing units available anywhere in the region. Although the direct pressures will not be as strong as in Atlantic City, it is likely that during the course of the decade there will be a high level of turnover in these developments, with the initial occupants more and more replaced by more affluent, younger, households. Similar trends, although less visible, will take place among the more scattered modestly priced housing units throughout the rural reaches of Atlantic County and adjacent areas.

^{*}most communities on Long Beach Island are within roughly one hour of Atlantic City, in the absence of severe bottlenecks. The housing stock in that area, although not inexpensive, is certainly competitive with available alternatives.

In our judgement, the emphasis of public policy, within the context of sound planning and environmental protection, must be to the degree possible to ensure that housing be made available for the less affluent indigenous residents of the area, both senior citizens and younger households; and, to the degree possible beyond that, that housing opportunities be created for at least some of the anticipated less affluent inmigrating households. Given the magnitude of the numbers involved, it is unlikely that the resources available from conventional housing subsidy programs, such as the Federal Section 8 program, will be even remotely adequate to meet the anticipated needs. There is a definite need for creative approaches to expanding the availability of moderately priced housing. It is possible, indeed, that the intense demand pressure may make some such approaches feasible, since the potential demand and prices are so high that developers and builders may be quite willing to undertake certain amounts of 'least cost' or internally subsidized housing, as a condition of approval for development of more expensive units*. Another approach could be through the utilization of the recently enacted machinery constituting County Improvement Authorities as housing finance agencies. These could become, if properly utilized, a major vehicle for constructing 'least cost' housing, as well as for maximizing acess on the part of Atlantic and adjacent counties to such Federal subisidy funds as may be available**.

^{*}There is an extensive literature on the ways in which this can be done, often through provisions enacted into the zoning ordinance. The most straightforward is through a requirement that a certain percentage of the units in any development be for low and moderate income households, usually 15% to 25%. Such provisions are generally more effective where strong market demand makes affluent families more willing to live in economically mixed communities, and where the developer, if need be, can pass on his subsidization costs to the expensive units. **If land costs, as appears likely, rise sharply, a possibility is to use Federal Community Development funds for reduction of land costs, and other support, in conjunction with Improvement Authority financing.

The development spurred by casino development activity in the region surrounding Atlantic City is likely to have an overwhelming effect in many areas; the scope of the housing that is likely to be constructed will required far more land to be accomodated than may be consistent with Pinelands goals, as well as current land use practices of the municipalities and counties in which it is likely to take place. At the same time, barring a concerted effort (and possibly even then) the less affluent residents of the region are likely to be severely harmed by the inflation in housing costs as well as the removal of existing inexpensive units from the housing stock. No meaningful effort to prevent or mitigate harm to less affluent households is likely to take place in the absence of a strong and unambiguous committment by all of the governmental agencies involved, including the Pinelands Commission. The nature and strategies of such a committment are beyond the scope of this report; the need for such a committment, however, is clear.

III. TRENDS IN ENERGY AND THE ECONOMY

In contrast to the two preceding areas, which dealt with specific, although to some degree speculative, areas of concern, the final deals with the relationship of a variety of broad and highly uncertain phenomena to the potential development of the Pinelands. These areas - future energy patterns, the regional economy, housing demand patterns - are discussed here with no intention of presenting firm projections, but rather to encourage speculative thinking about them, their relationship with each other, and their implications for the future of the Pinelands, and for the planning activities of the Pinelands Commission.

A. Energy Futures

Although it is likely that there will be many changes in the manner and extent of energy use in the United States during the coming decades, the most direct concern to us here is that of the energy use associated with transportataion, and the travel patterns of American households. To some degree, the pattern of dispersla which has been associated with a large part of Pinelands development has been fostered, as elsewhere in the nation, by the availability of cheap energy for transportation, encouraging in turn progressively longer journeys to work by private automobile. As has been noted in the <u>Growth Shapers</u> report, the Pinelands contain only meager employment opportunities, or shopping resources beyond the neighborhood level. As a result, it is likely that the typical resident of the Pinelands region is a long distance commuter, to work, to shopping, or to both.

Although some writers have hypothesized a dramatic shift in development and settlement patterns, most notably a 'return to the cities' as a result of increased energy and transportation costs, up to this point such a departure appears to be extremely unlikely. The evidence suggests that the social and economic drives inherent in the post World War II American development pattern are fundamental and still strongly held; furthermore, the disadvantages of urban relocation, to the vast majority of Americans, still far outweigh the advantages. Particularly compelling is the fact that during the 1970's, most notably in New Jersey metropolitan areas, the shift of employment to suburban locations has effectively ended much of the historical urban advantage in terms of access to employment opportunities. For example, between 1972 and 1978 the City of Camden lost nearly 6,000 jobs; during the same period, the number of jobs in Cherry Hill and Voorhees Townships increased by over 13,000.

Instead of returning to the cities*, it is likely that the American public will undertake a wide variety of adaptive action in order to deal with energy costs without a fundamental change in life style or setting. Leaving aside the simple purchase of energy efficient private automobiles, which may be the most significant step in the immediate future, we see two directions in which development will be influenced by higher energy costs: (1) increased infill development within more developed suburban communities; and (2) increased development with reference to public transportation systems.

Infill development, by which we mean the development of housing on small parcels of land in the interstices of the existing development pattern, has been suggested as a major alternative for future housing development. There is little question that there are considerable land resources for infill development, although there is considerable disagreement over the actual amount. The question is whwether this can be seen as a major resource, particularly as an alternative to continued development on open land at the suburban perimeter. The most serious limitation on infill development is that the reasons which have led to infill parcels remaining undeveloped while development took place around them may only slightly be mitigated by pressures triggered by increased energy costs. Infill development, with rare exceptions, is more expensive than perimeter development. Problems include higher land costs, often significantly so; smaller parcels, and greater difficulty of assembly; frequently stronger opposition from neighbors and community residents; and stricter land use regulations. The apparent advantages of an infrastructure in place are often negated by the lack of carrying or treatment capacity in older sewerage systems,

^{*}despite the widespread media treatment of the return to the cities, 'gentrification', and the like, available statistical evidence makes clear that it is still a minor phenomenon by comparison to the continued movement to the suburbs. All available evidence indicates that the central cities are losing population at an extremely rapid rate, particularly small cities such as Camden or Newark.

above.

and the like*. Thus, in recent years, infill development has taken place only where it was possible (a) to recoup added costs by building for a upper income or premium market; and/or (b) to build for that market at significantly higher densities than customary suburban development. This is certainly true of the development in Cherry Hill, which is the most notable example in the Philadelphia SMSA in New Jersey, or in Fort Lee, adjacent to New York City. By definition, neither is a mass market approach likely to make possible housing for moderate income households; it is likely, therefore, that future infill development will tend to be limited to the upper reaches of the marketplace, as its greater attractiveness will be paralleld by greater costs**.

Although we anticipate that perimeter development will continue, in the absence of other barriers imposed, we believe that a progressively sharper distinction will be made between areas in which public transportation exists (or where it is realistically anticipated) and those in which it does not exist. This, in turn, is capable of leading to two significant changes in development patterns, although not, perhaps, overly dramatic ones. Specifically, development (a) will be concentrated more closely along corridors and around definable nodes; and (b) will be more acceptable at gradually higher residential densities. Potential home buyers will become more sensitive to the trade-offs between a larger lot and increased commuting costs; a 1/4 acre lot in close proximity to a public transportation line may become more attractive than a lacre lot at a substantially greater remove. There is evidence that well before

^{*}another consideration, often underestimated, is the question of availability. Since within any land inventory a certain (often large) percentage of parcels are not available for any of a number of reasons, as an area becomes more heavily developed, the likelhood of the remaining parcels being unavailable for development increases.

**An example is found in suburban Atlantic County, where infill development in the mainland suburbs such as Linwood and Northfield, although theoretically feasible for many years, has only begun in the last year or two, as rising house prices converted that area into, essentially, a 'premium' housing market area as suggested

the current crunch, the stablishment of the High Speed Line from Lindenwold has had a visible impact on the location of development, and on an increase in high density development in key locations.

From the standpoint of the Pinelands Commission, the greater future importance of public transportation suggests that it should explicitly be taken into consideration as a factor in planning. This can be done in two distinct ways. First, it should be clear that in the identification of areas for future more intensive development, attention must be given to the present service of those areas by public transportation, as well as their suitability (in terms of corridors, nodes, etc.) for future high level public transportation service. The second area is more complex. In the construction of rail systems, the key development generator is the location of the stations, rather than the alignment of the route itself. The placement of stations, therefore, becomes a key issue in planning. This is central to the future of the Atlantic City area, since it is apparent that at some point in the relatively near future a plan for the upgrading of the rail corridor between Philadelphia and Atlantic City will be carried out. The location of stations on that route will be a significant factor in the pattern of casino-related residential development.

B. The Region's Economy

The future of the region's economy will clearly influence the pace of development in the Pinelands. Given the nature of anticipated Pinelands development, however, it is likely to be relatively more immune from all but the most dramatic economic shifts than many other areas. Clearly, the most important single economic growth factor affecting the Pinelands during the coming decade will be the development of Atlantic City as a casino gambling center. Whatever one may feel about gambling on other grounds, it would appear that there are few economic sectors that are more recession-proof than casinos. Furthermore,

throughout the 1980's, it is likely that the region will experience a major net inflow of investment capital, for casinos, residential developments, hotels, etc., well above the amount of money flowing into the area as a result of the gambling itself*. The only factors that we can envisage capable of significantly reducing the economic activity stemming from the legalization of casinos in Atlantic City would be political ones; e.g., actions that might be taken in reaction to scandals, hardships, or other concerns. Given the increasing dependence of a larger and larger body of people on casinos, such actions must be considered just short of inconceivable.

The likely impact of casino development, and the attendant residential development, will most probably neutralize any possible slowdown in Ocean County development that could otherwise result from economic changes in the region and increased commuting costs. To the degree that Ocean County has developed in part as a lower cost outer suburban commuter county to the New York-Northeastern New Jersey metropolitan area, such development could be curtailed during the coming decade. Indeed, there is evidence that it has already slowed down significantly from its heyday in the early 1970's. The pressure, from the opposite direction, for housing related to casino gambling, will more than make up for any losses; similarly, the second 'trigger' for development in Ocean County, retirement communities, should continue at a reasonable, although perhaps somewhat reduced pace from that of the late 1960's and 1970's.

One byproduct of this shift in emphasis is likely to be some change in the economic character of Ocean County as a whole. Increasing development along the Route 9/Garden State Parkway corridor in the souther part of the county may well lead to the development of large scale commercial, and in the

^{*}as noted earlier, this is likely to slow down in the latter part of the decade, as the area becomes more developed, and competition from other gambling centers in the east increases. Investment in ancillary facilities, however, is likely to continue for many years after the pace of new casino openings has slowed to a trickle.

longer run, primary economic centers in that part of the county. Stafford and/or Little Egg Harbor, more likely the former, appears to have the potential to become a major center of economic activity, rather than a more limited residential area. In turn, the increased intensity of development up and down the Ocean County corridor would argue for consideration to be given the idea of rail transportation along the corridor, which could link to the Newark/New York commuting system to the north, and the Philadelphia/Atlantic City route to the south.

The principal area in which regional development is directly linked to the regional and national economy is that of the Philadelphia-New Jersey SMSA, including Burlington, Camden, and Gloucester Counties. As noted, casino impacts in this area will be modest; this is a suburban area linked to the overall economic growth of the SMSA as a whole. The population projections used in our study, the New Jersey ODEA projections, generally speaking project a growth level for the future in these counties comparable to that of recent decades. The historical pattern in this area has been one of growth; although the City of Philadelphia, the center of the region, has shown some loss in employment, particularly in manufacturing, in recent years, the New Jersey part of the SMSA has shown a consistent pattern of growth, although not an explosive one. Between 1972 and 1978 the three counties added 36,000 private sector jobs, for an increase of 16%*. The greatest increase was in Gloucester County, where the number of jobs increased by 12,000 for a proportionate increase of 38%. This growth has been supported by an excellent highway network for both commuting and truck traffic; other than the High Speed Line, there is no

^{*}It should be noted that this includes a loss of 6,000 in Camden, so that the increase for the balance of the SMSA was roughly 42,000 jobs. The rate of increase statewide during the same period was 10%.

commuter rail system in the area.

Sustaining economic growth in the region may be related to its public transportation system; its ability to act as a 'growth center' in the wider region is, we believe, closely linked to its highway system, which in many ways is better than that serving the suburban Pennsylvania counties of the region. A shift to public transportation may well work to the advantage of the Pennsylvania counties, however, particularly if the much-discussed upgrading of the SEPTA system takes place during the coming decade.

Within the realm of likely alternatives, we do not see any changes in the regional economic picture that are capable of significantly altering the growth pressure likely to be experienced in the Pinelands. A large part of the demand will be generated by household formation within the existing, largely stable, population; the growth projections, otherwise, are moderate enough. As noted earlier, this is not the area from which the explosive growth forces in the Pinelands are derived.

C. Patterns of Housing Demand

A third area of potentially significant change during the coming decades is that of the nature of housing demand, particularly, the type of housing that will be sought after by the population. Contrary to much speculation, there is no evidence of a shift in housing preference toward multifamily housing; in fact, the statistical evidence from the early 1970's through 1978 suggests, for a variety of reasons, precisely the opposite, despite the significant rise in energy costs during that period.

The most significant factor, it appears, is a sharp decline in the viability of rental housing in recent years. Rental housing has become less and less profitable to operate, as rising energy and maintenance costs, interest

rates, and taxes, copled with the specter of rent control, have become the norm. At the same time, a variety of factors have made renting less attractive to those parts of the more affluent population that have traditionally been renters rather than home owners*. As a result, building permits for private market rental housing in New Jersey declined from over 25,000 in 1972 to roughly 4,000 in 1978. Although it is hard to pin down, the evidence suggests that during the same period, at least in part as a result of the Mt. Laurel decsion, local zoning ordinances were becoming on the whole more, rather than less, open to multifamily development**.

Outside of central cities, home ownership is still associated with the detached single family house, as distinct from townhouse or various multifamily condominium alternatives. Although there has clearly been an increase in townhouse construction for home ownership in recent years, for reasons of economy both in purchase price and operation, it has not become a dominant part of the market. Furthermore, it appears that many of the buyers of townhouses see them as temporary expedients, or 'starter' homes, rather than a permanent alternative to a 'real' house of one's own**. The result has been that, while the townhouse has met a definite need in the housing market, it has not significantly altered the level of demand for detached single family houses.

^{*}A much-noted phenomoenon in recent years has been the purchase of single family homes by single individuals, unmarried couples, etc., heretofore not considered likely to be homebuyers despite their high incomes. It is likely that inflation, more than anything else, and the desire to accumultate equity, and create a 'hedge' for oneself, has contributed to this pattern.

^{**}Many municipalities have created multifamily zones, or eliminated some of the more egregiously exclusionary features of existing zones as a result of that landmark decision, although there is little evidence that the low and moderate income population has benefited. It is possible that many of the recent townhouse developments have been the result of Mt. Laurel - initiated changes.

^{***}In some ways, today's townhouse developments fulfill the same function as the modest developments, the 'Levittowns', fulfilled during the years immediately after World War II.

The significance of these points lies in their connection to Pinelands planning. Development in many parts of the Pinelands, particularly in the Phila-NJ SMSA, has been an outgrowth of the demand for single family houses. If the Pinelands Commission, for example, were to attempt, in the interest of land conservation, to restrict future development in the Pinelands to multifamily housing, the result quite probably would not be a more efficient development pattern, but the displacement of the demand for single family houses into areas not under the jurisdiction of the Pinelands Commission, in Gloucester and in Burlington Counties.

The exception to the above rule, and the sole one, is potentially to be found in Atlantic County. As we have noted, in the discussion on casino-related development, all plausible scenarios for development in that area appear to result in a severe shortage of supply relative to demand, except at the highest income levels. In such an environment, one is likely to find a substantial population who will accept any reasonably habitable accomodation, since the alternatives are effectively nonexistent. In such an environment, regulations that would distort market demand in order to achieve a higher percentage of multifamily housing (including townhouses) toward the goal of more efficient land utilization, would have a greater likelihood of success. This would be particularly true with regard to the substitution of owner-occupied townhouses for detached single family houses. In view of the lack of private investor interest in much rental development at present, machinery may have to be set up to create large scale rental housing opportunities.

It should be stressed that the insistence of the American populace on single family houses, which appars to be the case for the time being, does not necessarily carry with it a like insistence on large lot sizes or inefficient

development patterns. There is increasing evidence that buyers will accept, and pay high prices for, houses on lots substantially smaller than the norm in exurban or rural New Jersey. Large houses are built in areas such as Bucks County, Pennsylvania on lots of 1/3 or less acres. In California, developments which blend detached houses, duplexes, and townhouses within the same subdivision, at densities of 5 units per acre and more, are widespread, and highly profitable. There is no reason that the fundamental preferences of the public for housing cannot be met in a manner that is far more efficient in its use of land, and in addition, more energy efficient as well, than current developments taking place.

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