

Broward County Population Forecasting Model

Municipal And Traffic Analysis Zone Allocation

August 2004



**Broward County Board of County Commissioners
Office of Urban Planning and Redevelopment
Planning Services Division**

EXECUTIVE SUMMARY

Population projections are an important part of planning for any county or municipality. Projections allow government agencies to plan for development of roads, water, sewer and other infrastructure projects.

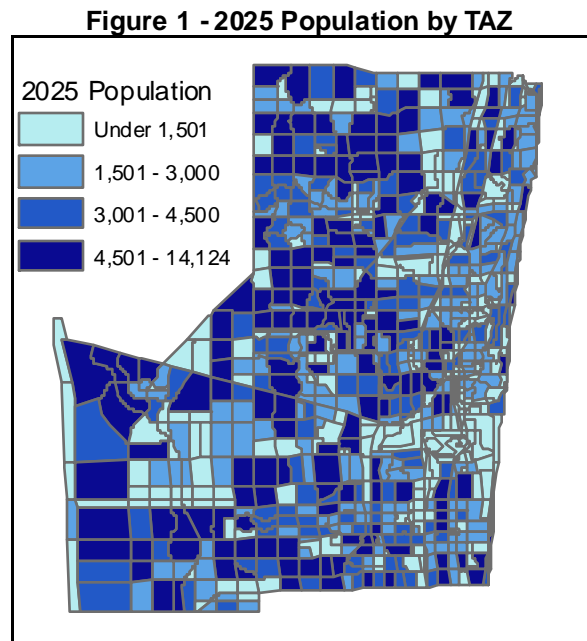
There are three steps in developing the Population Forecasting Model (Model):

Step 1. Develop a Countywide Population Forecast

The Model forecasts an increase in population from 1.6 million in 2000 to 2.5 million in 2030. The growth rate between 2000 and 2030 is projected to decline over the 30-year period from 2.9% in 2000 to 1.2% by 2030.

Step 2. Allocate Population to TAZs

TAZs (Traffic Analysis Zones) are used because their areas are relatively consistent in size and are the basis for transportation and water supply planning. Figure 1 shows the projected 2025 population by TAZ.



Source: Broward County Population Forecasting Model.

Step 3. Allocate the TAZ Projections to Municipalities

Through the City/County Population Forecasting Roundtable, a cooperative effort between the County and its municipalities, forecasts were completed for all 30 municipalities in Broward County. Figure 2

displays municipal population forecasts to 2010 and 2025 based on current boundaries.

Figure 2 - Municipal Population 2010 & 2025

Municipality ¹	2010	2025
Coconut Creek	51,314	63,509
Cooper City	31,040	32,842
Coral Springs	134,321	143,670
Dania Beach	33,425	40,687
Davie	96,283	111,843
Deerfield Beach	70,327	82,456
Fort Lauderdale	198,707	299,617
Hallandale Beach	38,712	48,800
Hillsboro Beach	2,769	3,859
Hollywood	155,827	232,569
Lauderdale Lakes	35,895	46,940
Lauderdale-by-the-Sea	6,861	9,203
Lauderhill	66,467	76,953
Lazy Lake Village	44	47
Lighthouse Point	11,374	12,779
Margate	57,949	67,589
Miramar	125,050	140,712
North Lauderdale	41,793	49,543
Oakland Park	33,995	43,728
Parkland	37,543	39,632
Pembroke Park	8,084	10,516
Pembroke Pines	165,133	173,549
Plantation	95,112	109,972
Pompano Beach	100,792	123,632
Sea Ranch Lakes	740	998
Southwest Ranches	10,705	11,563
Sunrise	108,755	115,436
Tamarac	61,143	68,020
Weston	63,771	66,568
Wilton Manors	13,281	14,967
Unincorporated ¹	97,486	123,696
Allocated Population	1,954,599	2,365,894
Countywide Population	1,954,572	2,418,641
Difference ²	27	-52,747

Source: Broward County Population Forecasting Model.

Notes: 1 Municipal and Unincorporated Population boundaries are based on all incorporations and annexations between April 1, 2000 and October 1, 2003 and does not assume any additional incorporations or annexations after this date.

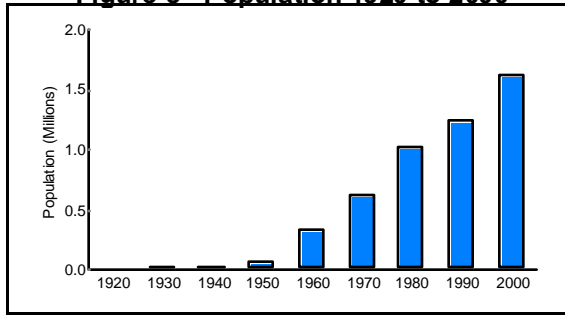
2 This Difference results from two separate consequences. For years 2000 through 2010, it is primarily a rounding area; consequences of reconciling municipal and traffic analysis zone boundaries. For years 2015 through 2025, the negative differences represents the population not assigned to any jurisdiction because of the lack of capacity in the Broward County Land Use Plan. For more information, please refer to Appendix B and C.

Introduction

Population projections are an important part of future planning for any county or municipality. Projections allow government agencies to plan for future development of roads, water, sewer and other infrastructure projects. In Broward's case, projections can also identify potential redevelopment areas.

Broward County's population has increased steadily from a population of 5,135 in 1920 to 1.6 million in 2000 (see Figure 3). Broward County ranks as the 15th largest county in the United States and second largest county in the State of Florida. Between 1990 and 2000, Broward County was the seventh fastest growing county in the United States.

Figure 3 - Population 1920 to 2000



Source: U.S. Bureau of the Census.

Broward County staff has developed a population projection model that allocates future population into the County's 892 Traffic Analysis Zones (TAZs) and 31 municipalities. The County completed this process using information gathered from the Broward County Population Forecasting Model (Model) and through the City/County Population Forecasting Roundtable, a collaboration between County and municipal staff to create accurate and reasonable population projections.

The first section of this report discusses countywide population projections from 2000 to 2030. This portion of the report is a summary based on the "Broward County Population Forecasting Model Report" which can be accessed at <http://gis.broward.org/psd/POPPRO.pdf>. The second section describes how the countywide projections are allocated to TAZs. The third and final section explains how the TAZ projections are allocated into municipal forecasts.

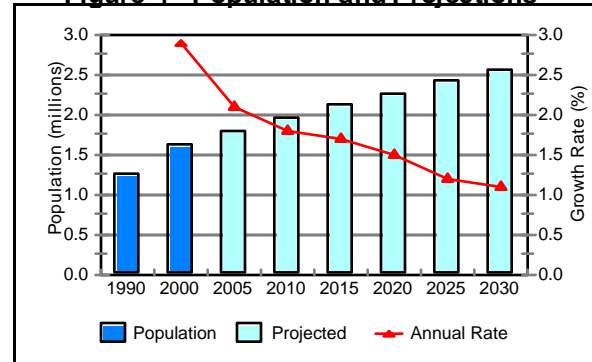
Attached to this report are appendices A through C which explain the model assumptions and impact assumptions for each section of the report. Appendix D identifies the most frequently asked questions concerning the modeling process.

1. Countywide Forecast

Based on 2000 Census figures, County staff has forecasted future population using the Model. This model is a cohort survival model consisting of two major parts, natural increase and net migration. Natural increase is the difference between the number of births and the number of deaths for a given period. Net migration equals the net number of people moving into the County versus people moving out of the County.

As shown in Figure 4, the Model shows an increase in population from 1.6 million in 2000 to 2.5 million in 2030. The growth rate between 2000 and 2030 is projected to decline over the 30-year period from 2.9% in 2000 to 1.2% by 2030.

Figure 4 - Population and Projections



Source: U.S. Bureau of the Census and Broward County Population Forecasting Model.

Based on continued international migration, the Model projects an increase in racial and ethnic diversity between 2000 and 2030. Large increases in Hispanic, Black and Other minority populations will have a dramatic effect on the County's race and ethnicity as shown in Figure 5. For model and impact assumptions for countywide projections, please refer to Appendix A.

Figure 5 – Race and Ethnicity 2000-2030

Year	Non-Hispanic			Hispanic	Total
	White	Black	Other		
2000	941,674	325,305	84,387	271,652	1,623,018
2005	916,515	381,611	120,021	371,769	1,789,916
2010	886,297	433,000	159,437	475,838	1,954,572
2015	862,777	480,442	197,845	575,974	2,117,038
2020	849,744	524,647	231,823	667,073	2,273,287
2025	847,284	566,149	258,676	746,532	2,418,641
2030	850,762	605,962	278,417	813,162	2,548,303

Source: Broward County Population Forecasting Model.

2. TAZ Allocation

The next step is to allocate this population into Traffic Analysis Zones (TAZs). TAZs are used because unlike municipal boundaries, TAZ boundaries are relatively consistent in size and are usually bounded by a major roadway or natural boundary. In addition to their relative size, TAZ projections are the basis for transportation and water supply planning.

Most TAZ boundaries are equal to a large city block. For example, as shown in Figure 6, TAZ 466 in Tamarac is bounded by McNab Road to the north, Pine Island Road to the east, Commercial Boulevard to the south and Nob Hill Road to the west.

Figure 6 - TAZ 466 in Tamarac



Source: Broward County OUPR, Planning Services Division.

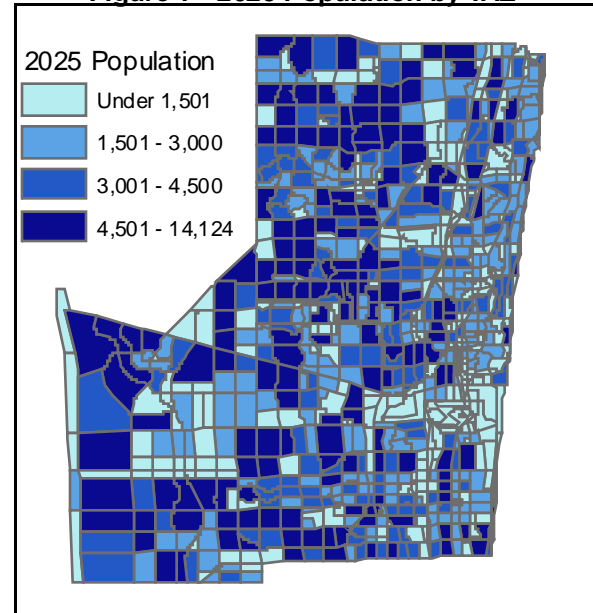
Broward County is expected to reach build-out by 2010. In the past, projected population was dispersed in portions of western Broward County that were currently vacant and would see development in the future. However, beyond 2010, vacant land will not accommodate the projected population. Therefore to allocate future population, the Model must make assumptions about where redevelopment will occur. The Model identifies not only existing vacant areas but also areas that are likely to redevelop within the 25-year timeframe. In eastern areas such as Deerfield Beach, Pompano Beach, Fort Lauderdale and Hollywood, redevelopment has already begun.

In order to forecast where future development will occur, County staff analyzed areas that may be potential areas of redevelopment. Using data from Broward County's Property Appraiser's Office, staff identified residential units that were 40 to 50 years old. Staff also identified units that exhibited a low ratio of building value versus land value. If the majority of units in the TAZ met these criteria, this

TAZ was identified as a redevelopment TAZ. In addition to this process, staff also projected the creation of mixed-used development along arterials and major collectors located in the eastern two-thirds of the County. For model and impact assumptions for TAZ allocation, please refer to Appendix B.

Based on existing vacant residential parcels and areas where redevelopment is expected to occur, Figure 7 shows the projected 2025 population by TAZ.

Figure 7 - 2025 Population by TAZ



Source: Broward County Population Forecasting Model.

This process was completed through the City/County Population Forecasting Roundtable, a cooperative effort between County and municipal staff to identify potential redevelopment areas and determine the density of future development and redevelopment.

3. Municipal Allocation

Once TAZ projections were created, the next step was to allocate this population into municipalities. Municipal boundaries and TAZ boundaries do not coincide with one another. Many TAZs are split between 2, 3 and even 4 different municipalities.

To place population into the correct municipality, staff divided the population of these split TAZs based on the capacity allowed by the Broward County Land Use Plan (BCLUP). For projections between 2000 and 2010, capacities were developed based on vacant land. For 2015 to 2025, capacities were based on all BCLUP residential land use. Capacities were calculated for each municipality in the TAZ. Then a ratio was created between the municipality's capacity

and the entire TAZ capacity. That ratio was applied to the total TAZ population to obtain the municipal population. Once all of the split TAZs were completed, staff tabulated the data to obtain municipal projections.

municipal population forecasts to 2025, based on boundaries that include all annexations and incorporations between 2000 and 2003.

For model and impact assumptions for municipal allocation, please refer to Appendix C.

Based on the process completed by the City/County Population Forecasting Roundtable, Figure 8 shows

Figure 8 - Municipal Population 2000 to 2025

Municipality¹	2000	2005	2010	2015	2020	2025
Coconut Creek	43,381	49,998	51,314	56,007	60,286	63,509
Cooper City	28,226	29,638	31,040	32,254	32,808	32,842
Coral Springs	118,355	129,641	134,321	137,945	141,420	143,670
Dania Beach	26,996	28,809	33,425	36,426	39,367	40,687
Davie	75,210	84,035	96,283	102,678	108,202	111,843
Deerfield Beach	64,383	67,188	70,327	75,069	79,000	82,456
Fort Lauderdale	168,393	178,801	198,707	231,130	271,089	299,617
Hallandale Beach	34,349	35,616	38,712	43,088	46,433	48,800
Hillsboro Beach	2,430	2,515	2,769	3,037	3,202	3,859
Hollywood	140,088	146,735	155,827	186,130	216,024	232,569
Lauderdale Lakes	31,489	32,991	35,895	40,098	43,940	46,940
Lauderdale-by-the-Sea	6,379	6,521	6,861	7,679	8,427	9,203
Lauderhill	57,665	62,807	66,467	70,821	73,978	76,953
Lazy Lake Village	43	43	44	46	46	47
Lighthouse Point	10,964	11,223	11,374	11,912	12,437	12,779
Margate	54,232	55,883	57,949	60,792	63,567	67,589
Miramar	71,393	107,602	125,050	130,122	135,549	140,712
North Lauderdale	38,595	40,522	41,793	45,173	47,941	49,543
Oakland Park	31,065	32,576	33,995	37,633	40,987	43,728
Parkland	13,855	21,191	37,543	38,566	39,336	39,632
Pembroke Park	6,400	7,434	8,084	9,265	9,984	10,516
Pembroke Pines	137,992	157,712	165,133	168,815	171,789	173,549
Plantation	83,357	88,582	95,112	101,760	107,470	109,972
Pompano Beach	85,492	90,149	100,792	111,043	118,787	123,632
Sea Ranch Lakes	707	720	740	826	902	998
Southwest Ranches	7,256	9,126	10,705	11,235	11,532	11,563
Sunrise	85,089	94,372	108,755	111,676	113,963	115,436
Tamarac	55,679	58,676	61,143	64,173	66,393	68,020
Weston	49,320	59,334	63,771	65,093	65,977	66,568
Wilton Manors	12,689	12,960	13,281	14,092	14,630	14,967
Unincorporated ¹	81,799	86,784	97,387	109,760	119,422	123,696
Total Allocated Population	1,623,270	1,790,180	1,954,599	2,114,343	2,264,887	2,365,894
Countywide Forecast	1,623,018	1,789,916	1,954,572	2,117,038	2,273,287	2,418,641
Difference ²	262	264	27	-2,695	-8,400	-52,747

Source: Broward County Population Forecasting Model.

Notes: 1 Municipal and Unincorporated Population boundaries are based on all incorporations and annexations between April 1, 2000 and October 1, 2003 and does not assume any additional incorporations or annexations after this date.

2 This Difference results from two separate consequences. For years 2000 through 2010, it is primarily a rounding area; consequences of reconciling municipal and traffic analysis zone boundaries. For years 2015 through 2025, the negative differences represents the population not assigned to any jurisdiction because of the lack of capacity in the Broward County Land Use Plan. For more information, please refer to Appendix B and C.

For More Information

Please refer to Appendices A through C which detail the assumptions for all three sections of this report. Also, much greater detail can be found at:

<http://gis.broward.org/psd/POPPRO.pdf> or
http://gis.broward.org/psd/growth_data.pdf

APPENDIX A COUNTYWIDE FORECAST ASSUMPTIONS

All population forecasts require assumptions. For these appendices each set of assumptions has been separated into:

A. Model Assumptions, which address the fundamentals of the forecasting or allocating process and are generally accepted as valid; and,

B. Impact Assumptions, which materially affect the results of the model and require additional explanation.

A. Model Assumptions.

1. A cohort-survival forecasting model is appropriate for an urban county.
2. Local birth and death rates are appropriate, as are the projected national rates of change.
3. In-migrants to Broward will exceed out-migrants, though the difference becomes smaller over time.

B. Impact Assumptions.

1. Broward will continue to attract large numbers of domestic and international migrants.

Historically, Broward's principal engine for growth has been through net migration, *i.e.*, more people moving into Broward than moving out. That is not to say that the steady stream of people moving in has not changed over time. In fact rapid growth experienced through the 1960s and 1970s was fueled by large numbers of retirement-aged households. At the same time, there was a gradually-increasing international migration.

Beginning as early as the 1970s, growth from Latin American and Caribbean countries started to increase. More recently, Asian and, to a lesser extent, African populations began growing significantly. "Conventional wisdom" strongly suggests that a gravitational force grows with the increasing foreign population, the greater the local support network the greater the attraction to friends and relatives back home in the country-of-origin. This phenomenon seems to be responsible for continued growth in border counties and other entry destinations throughout the U.S. ***Each year Broward's population becomes more diverse, simultaneously increasing its international attractiveness. According to Census 2000, one-quarter of Broward's population is foreign-born. As long as people are willing to emigrate, Broward County will become increasingly a choice destination.***

2. International migrants and foreign-born domestic migrants to Broward are younger than the population-at-large.

Generally, international migrants are younger than the resident native population. Current Population Survey tables published by the Bureau of the Census show that the median age of the population that moved to the United States between 1990 and 2002 was 29.7. This is in contrast to the median age for the native resident population of 35.1. The significance of this difference lies in the potential for increased numbers of children. In the long term, sustained population growth becomes likely. Consider the potential difference between the era of retirement in-migration and the current migration. In the 1960s and 1970s, growth only occurred from migration of retirees. Had that trend prematurely ended, Broward's growth would have stopped (even quite likely would have declined) because of the lack of population in the principal child-bearing ages of 20-34, the ages responsible for 70% of births. By comparison, ***the population currently moving to Broward is younger and increasingly foreign-born resulting in more children than their native counterparts.***

The probability is high that even if the net international migration were to subside, there would be enough of the younger population to sustain some population growth simply through having more births than deaths.

Of course, the more likely scenario is that the current migration trend will continue for awhile, increasing the potential for continued population growth.

3. Build-out will not be an impediment to continued housing and population growth.

Just to establish a common usage of the term, ***“Build-out” is defined herein as “the construction of residences on all parcels currently designated on the Broward County Land Use Plan (BCLUP) as residential or the absorption of all parcels within Regional Activity Centers or similar land use designations that contain a residential component.”***

When the Broward County Land Use Plan was first adopted in the late 1970s, the theoretical maximum number of units allowed by the plan was slightly more than 1 million. A more probable number units contemplated by the Plan, considering vacant land and other factors, was 900,000 homes that housed the then build-out population of 1.9 million. But, these were calculated at a time when the influx of retirement-aged households drove the average age upward and household sizes downward. Simply applying the current average household size to the 900,000 homes results in a population of 2.1 million. If calculated today, the build-out number of units would likely be closer to 850,000 if the vacant parcels are built to their maximum.

At the current rate of residential development, all currently available vacant residential parcels will have been absorbed at or about the year 2010. ***But at the time of “build-out”, the demand for housing will continue to grow. Broward will still be exhibiting a growing international population, continuing to attract an ever larger stream of foreign migrants while at the same time recording unprecedented populations in the 20 to 29 year-old age groups--the years when household formation begins.*** While these factors certainly overlap, the combined impact will be to ***increase the demand for housing in Broward County, at an estimated rate of 10,000 new households per year right up to the moment of “build-out.”*** The demand for housing in Broward will not evaporate merely because all residential parcels are absorbed.

On the supply side the analysis becomes more speculative. As previously mentioned, the original BCLUP adopted in the 1970's contemplated a maximum number of units of 1,050,000. Through land use plan amendments that number has risen slightly to 1,090,000. That points to one method of accommodating the expected household increases. As Broward matures and the landscape changes there will be a simultaneous re-arranging and changing of allowed land uses. This will occur first in the vacant properties.

The current trend is to convert vacant nonresidential properties to residential. Over the course of the past four years, an annual average of 2,800 new units have been added to the capacity of the “Plan.” In addition, the City of Ft. Lauderdale is in the process of adding another 13,000 units to the downtown area.

The impact of these and the other forthcoming Plan amendments is to push the actual “build-out” further into the future. So while measuring the supply of units available at a future point in time is speculative, it is clear that ***market forces and planning officials are responding to increasing housing demand by creating additional residential capacity.*** Because the number of units realistically allowed by the “Plan”, the 850,000 units calculated by adding the capacity in vacant lands to the existing units, is approximately 250,000 less than the maximum allowed; there are other mechanisms by which additional units can be built.

Approximately 75,000 Reserve and Flex Units—unit capacity created in “Plan” contingent upon additional approvals—combined, are currently available for use throughout the County. While the acquisition of the rights to the units is somewhat more complex and not all will be utilized, those that are located in the path of development (or “redevelopment”) are legitimate additional units.

Because the amount of demand for housing will continue to rise and because there are methods in place for increasing the “build-out” capacity, the current capacity does not represent the equilibrium between the demand and supply at which the housing stock will stabilize. The result is that local market forces, in conjunction with local authorities, will find alternative measures to provide for the housing demand.

APPENDIX B TAZ ALLOCATION ASSUMPTIONS

A. Model Assumptions.

1. Future land use distributions will largely resemble the current Broward County Land Use Plan.
2. Traffic Analysis Zones (TAZ) are the most useful geographic boundary for preparing and reporting population forecasts.
3. Average household sizes will change gradually, if at all, in established neighborhoods.
4. The impact of alternative housing types, such as dormitories and boarding houses will be minimal.
5. Each year of the forecast is based on the units and their characteristics from the previous year.

B. Impact Assumptions.

1. Redevelopment will start in areas exhibiting the lowest building value to land value ratio.

Redevelopment will be initiated in those areas that have the right combination of: size of parcel (or consolidated parcels), land use designation, zoning and other municipal development requirements, and price. All other things being equal, the value of the building(s) on the property, in relation to the land value, provides an indication of redevelopment potential. (A major exception to this are those parcels with amenities that force the land value upward, such as ocean-access. Generally, these parcels are less likely to be redeveloped at a higher density. In fact, they are more likely to decrease in density.) For example, if a structure on a lot represents 25% of the total value of the property and that ratio is declining, one of three things will happen: no improvements will be made and the ratio will continue to decline; improvements will be made to the structure returning the ratio to an acceptable level; or the building will be razed and replaced by a new structure.

The first areas for redevelopment will be parcels that exhibit a lower building to total value ratio, but are sited in relatively stable neighborhoods. Without the increasing demand for housing, the first choice of redevelopment would simply be replacement. But in the current (and future) environment, the likelihood is

that increasing density will be necessary because of the increasing costs of land. Increasing the density (where allowed) and building more units, even at a lesser per unit price, will generate more revenue with less risk. Areas with many such parcels probably will experience continued decline or new construction. Furthermore, new construction likely will not be of the same type that existed. Without extraordinary demand (which should result in an area-wide revitalization) or some form of subsidies, the ability to attract similar development will be severely limited by the condition of the existing stock.

Both the continued decline of neighboring structures and the imminent change to other uses will cause a great deal of uncertainty in the success of any new development. ***These areas will represent the second phase of redevelopment. Either an orchestrated plan to redevelop individual areas will be adopted or developers will start the redevelopment process by determining that the potential return exceeds the risk.*** If successful, others will follow causing the area to be revived as a somewhat different neighborhood.

2. Residences will be incorporated into nonresidential redevelopment.

Exactly what form the “mixed-use” requirements will take is not known currently. But since there is a recognition of its desirability by most municipalities and County agencies, it will see increasing popularity. There are several reasons for this. First, ***placing higher-density residential uses in formerly non-residential areas generally reduces the demand for redevelopment in existing residential areas*** and, as a result, is more acceptable. Fewer residents are impacted directly, thereby reducing the volume of negative reaction. Secondly, ***increasing the population in the area creates a greater demand for the goods and services*** offered by the service and retail components of the development. Finally, ***increasing the number of residences in non-residential areas also creates additional demand for mass transit***. Most non-residential areas are located along Broward’s arterial and collector roadways which figure prominently in the Broward County Transit System. The greater the number of units within one-quarter-mile of a transit stop, the greater the transit demand. Though successful examples of “mixed-use” development are easy to find throughout the U.S. and Florida; it may take longer than anticipated to fully implement in Broward County as local builders and developers gain experience at mixing uses in single structures.

3. Seasonal housing will decrease as taxes associated with non-permanent residency escalate.

The relative cost of maintaining a seasonal (or second) home in Broward is increasing. Permanent residents benefit from both the Homestead Exemption and the “Save Our Homes” law. Seasonal residents could easily pay triple the amount of property taxes paid by their permanent-resident neighbors. Depending upon the particular neighborhood, this could amount to several thousand dollars annually and is escalating rapidly. Eventually, the tax costs of maintaining the home will be overshadowed by the potential resale value. The additional several thousand dollars not paid in property tax could be put to better use, at least in the eyes of the property owner.

Certainly some seasonal homes will remain. Those characteristics, especially those associated with the natural environment, that attracted so many people have not changed. However, Broward’s attractiveness to the retirement community is declining. In the first place, that cohort, nationally, is declining. Beyond that, ***retirees are not moving to Broward in the numbers experienced in the past; therefore its attractiveness for seasonal residents will parallel that trend***.

It is not likely that the seasonal housing market will be replaced entirely by the more wealthy residents able to afford both the initial purchase cost and the escalating costs of taxes. The luxury condominiums being built represent a small portion of the overall housing stock. In addition, their locations are more attractive to permanent residents wanting to live and work in the downtown areas than they are to seasonal residents looking for a “recreational” environment. ***Housing is more affordable to permanent residents and they will assume tenure of a gradually increasing number of former seasonal homes***.

APPENDIX C MUNICIPAL ALLOCATION ASSUMPTIONS

A. Model Assumptions.

1. Census 2000 municipal population counts are the basis for municipal forecasts.
2. TAZ and Municipal boundaries do not necessarily coincide.
3. Aggregating Traffic Analysis Zones (or portions when shared by multiple jurisdictions) will sum to the municipal forecasts.
4. Municipal forecasts utilize the year 2003 municipal boundaries.

B. Impact Assumptions.

1. The capacity of vacant residential parcels is the first determinant for apportioning growth among jurisdictions sharing a TAZ.

The Impact Assumptions related to Municipal Forecasts function only when a Traffic Analysis Zone (TAZ) is shared by multiple jurisdictions. When a TAZ falls entirely within a municipal boundary, there is no need to distinguish the circumstances prompting the growth, *i.e.*, “infill” vs. “redevelopment.” However, when a TAZ is unevenly split between jurisdictions, it becomes necessary to identify the timing and location of the TAZ dwelling unit growth.

For the purpose of creating municipal forecasts only, ***infill--using of vacant properties--is assumed to occur before redevelopment.*** The impact is most obvious in split TAZs that have the entire capacity of the vacant land located only in one jurisdiction. That jurisdiction will be assigned all the “infill” growth. Unfortunately, most TAZ splits are not so simple and require computing the proportion of vacant residential capacity found in each of the municipalities.

2. Redevelopment and Mixed-Use growth will be assigned in proportion to the Broward County Land Use Plan (BCLUP).

Apportioning the housing growth in split TAZs expecting to grow either through redevelopment or mixed-use requires a similar process. For redevelopment—replacing existing housing with housing of a different density—BCLUP capacities are calculated in place of the vacant land capacity. For mixed-use, the Commercial land use acreage for each jurisdiction is calculated and proportions applied.

APPENDIX D

FREQUENTLY ASKED QUESTIONS ABOUT THE POPULATION FORECASTS

1. Why does Broward County prepare municipal population forecasts?

Each jurisdiction is required to have forecasts as part of their comprehensive plan.

2. Why prepare forecasts for all of Broward's municipalities and not just the Unincorporated Area?

Broward County prepares forecasts for other governmental clients. The Long Range Transportation Plan requires population forecasts to the year 2030 for each of the 902 Traffic Analysis Zones (TAZ) within the County. We also provide forecasts to the School Board and to various water supply agencies that also use TAZs. The next logical step after the creation of the TAZ forecasts is to aggregate them into municipalities so that any of them may use them as part of their own comprehensive plan. We are in the process of coordinating all forecasts and input data so that for planning and economic development purposes, Broward's jurisdictions will be using the same set of information.

3. The University of Florida prepares forecasts, why not use those?

The forecasts are only for Florida Counties with no municipal or unincorporated forecasts.

4. Could you have assigned the University of Florida forecasts to TAZs in Broward County?

Because of the methods used by the University it would have been difficult. Their forecasts are based on averages of several different forecasts equations and do not have any variables that lend themselves to any assignment process. With the Broward County Population Forecasting Model, we forecast the number of households and units necessary to house the population. By matching those to the available capacity in the TAZs, we have a realistic idea of the form that the growth is going to take.

5. How does the Model work?

The model is a cohort-survival model which forecasts individual age/sex/race for individual years from 2001 to 2010 using four major criteria: births, deaths, in migration, and out migration. Each racial group, because they have separate birth, death and migration rates is calculated separately. The races calculated are: White Non-Hispanic, Black Non-Hispanic, American Indian Non-Hispanic, Asian Non-Hispanic, Other-Non-Hispanic, and Hispanic. These tables are then translated into the total number of households by size from 1 person-per-household to 7 plus persons-per-household. Then, of course, there are some seasonal and vacant units to fill out the total number of units needed to house the population.

6. Will all the growth be housed in new units?

Approximately 80% of the growth will go into new units. The remainder will result from larger household sizes (about 12%) and seasonal units being replaced with permanent residents (about 8%).

7. How do you assign households to TAZs?

Starting with the number of housing units that existed in 2000, we add new units based on the size of the households already there, the change in needed households by size, the TAZ growth rate, and the capacity within the TAZ to accommodate more units.

8. Are there any provisions for redevelopment?

There are actually two methods for redevelopment. One is the traditional tearing down of a building and replacing it with a newer, and in Broward's case, larger capacity building. This was forecast for select areas between State Road 7 and Federal Highway. The other method involves incorporating residential uses into non-residential areas. Mostly that means retail and offices on the first floor of a building and residential uses on the remaining floors. This was used on major roadways in the Eastern half of the County.

9. Does the Broward County Land Use Plan have an impact on the assignment of growth?

Where redevelopment was forecast the total units allowed by the Broward County Future Land Use Plan was used as the maximum number for each TAZ. In the newer parts of Broward, where redevelopment is not expected within before 2025, the Plan was used to calculate the maximum number of units allowed on vacant land.

10. What opportunity did the cities have to comment on the forecasts?

City Managers from all the cities were asked to appoint a staff person to become a member of the City/County Population Forecasting Roundtable. Twenty-six of the cities appointed members. The Roundtable met six times from December, 2003 through June, 2004. In addition materials were distributed for their review and comment. Approximately 200 TAZ populations were changed as a direct result of the municipal review and comment. In the end, the 2025 population assigned was 53,000 less than the actual Countywide forecast, because of reductions to available lands as identified by municipal planners.

11. Are all the cities satisfied with the forecasts?

Although the Roundtable worked diligently to gain consensus, there are municipalities that do not accept their level of growth. Their concerns range from the ultimate number of units that can be built in a TAZ to the average household sizes expected in the future. The concerns certainly are legitimate and we will continue to address them the best way possible.

12. Are the cities required to use these forecasts?

Each municipality may choose to use these forecasts or to prepare their own.

13. When will the forecasts be updated?

The model will be reviewed annually with the assistance of local planners. There is general agreement among the participants in the City/County Population Forecasting Roundtable, municipally appointed representatives overseeing the review of the Forecast and the Allocation processes, that the allocation through the year 2010 displays an acceptable level of accuracy. Beyond that date, the difficulties of forecasting “redevelopment” dominate and agreement among the participants lessens. Should the forecasts begin to deviate substantially from measurable benchmarks, these assumptions will be reviewed and modified accordingly. With continued assistance, the Broward County Population Forecasting Model should become a fixture in local planning offices. The Roundtable will meet in January, 2005 to begin the process of updating the forecasts. This will be an annual event.

14. How can I find more information about the Model?

Some information is on our web site at www.broward.org/urbanplanning with more soon to come. Also you can contact Bill Leonard, Senior Planner, Planning Services Division (954) 357-6033



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