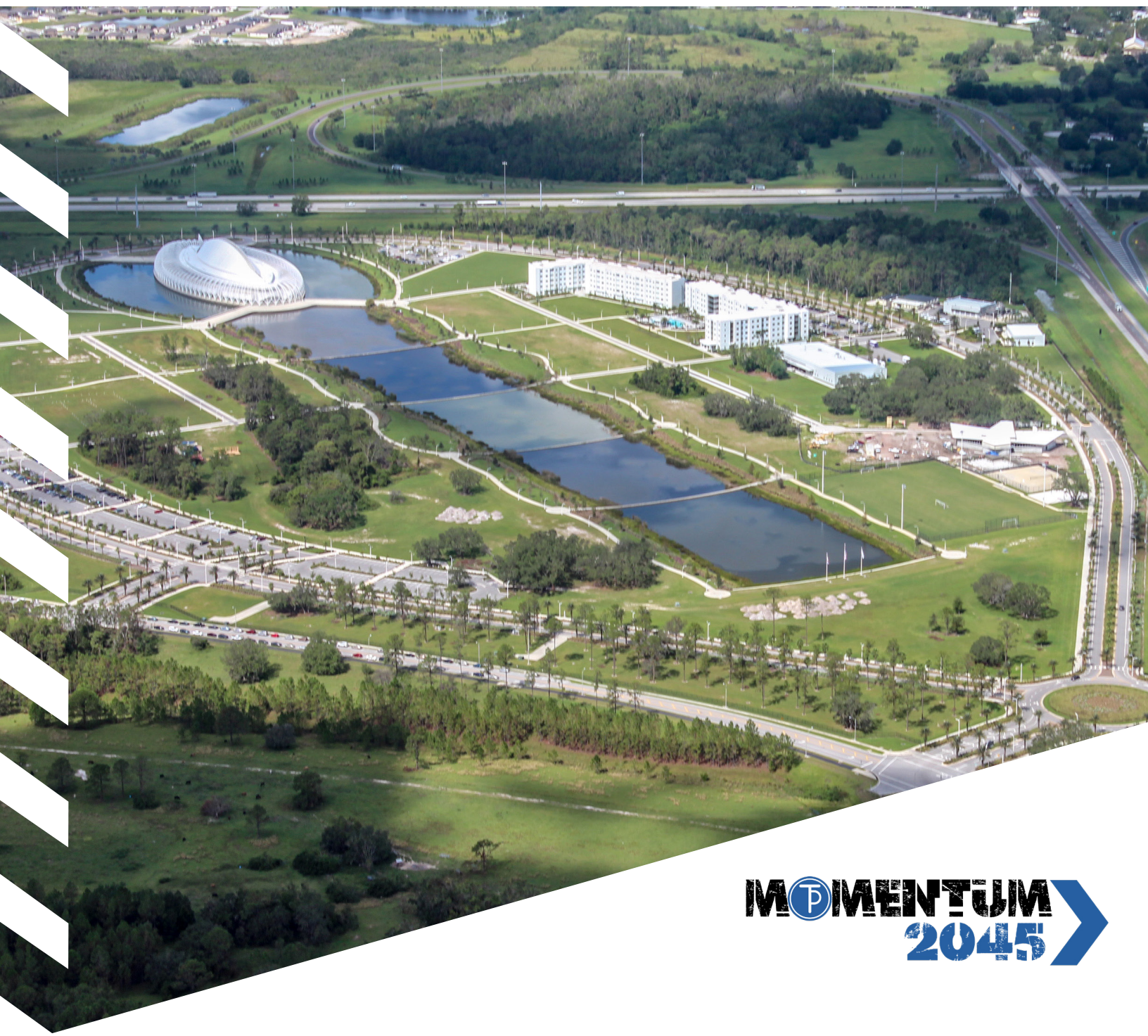


# 2045

Population & Employment Forecast

# 2045



# 2045 Population & Employment Forecast 2045 October 3, 2019

**Prepared For:**



**Prepared By:**

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# CHAPTER 1



## Chapter 1

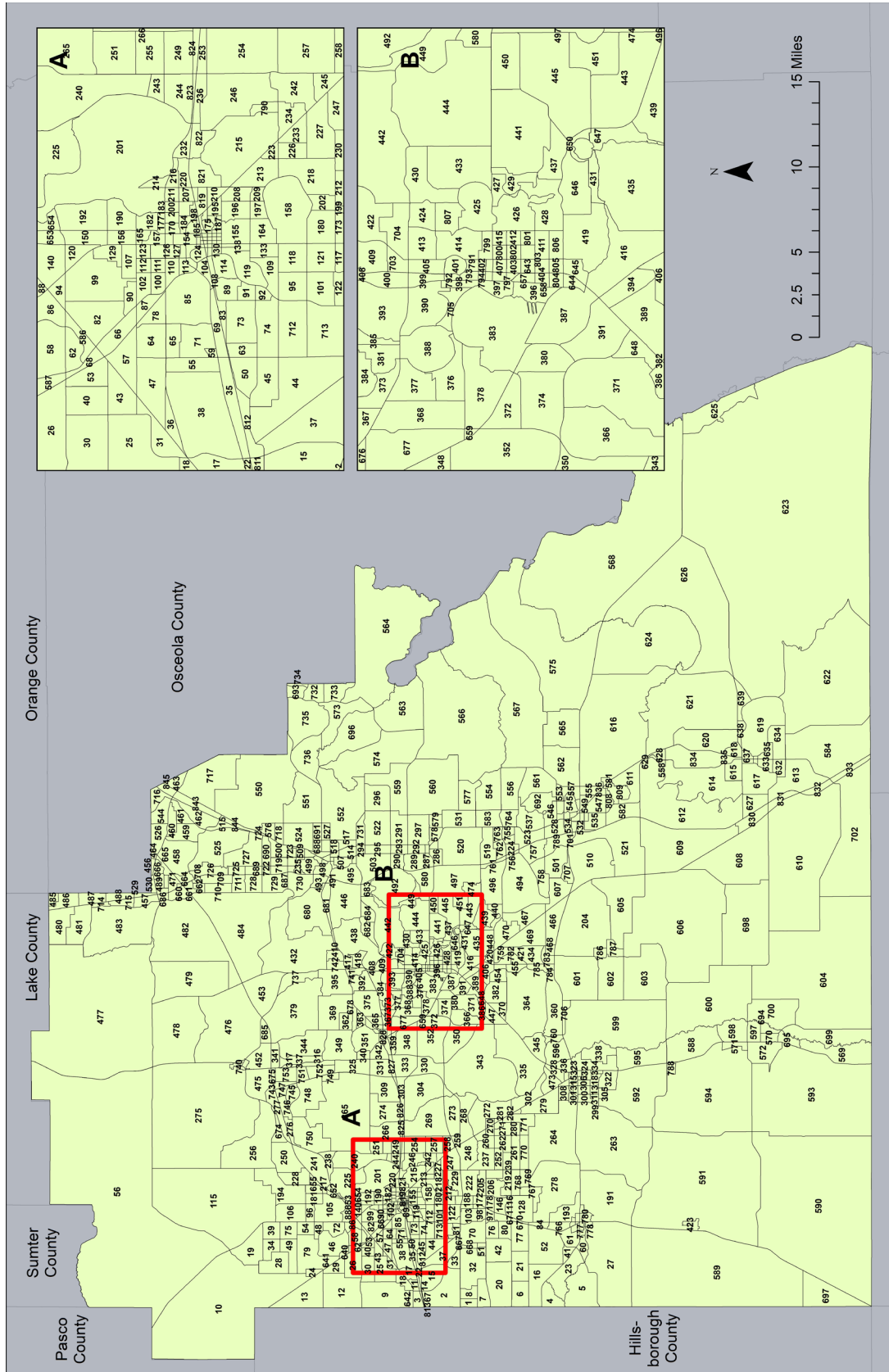
### Introduction

The Polk Transportation Planning Organization (TPO) is responsible for conducting and coordinating transportation planning for Polk County. As part of this effort, the TPO is responsible for updating the federally-mandated Long Range Transportation Plan (LRTP) every five years. The purpose of the LRTP is to identify needed transportation improvements within the county and a cost feasible plan for funding the highest priority improvements. The local government Comprehensive Plan guides public policy in terms of land use through the Future Land Use Element. With the guidance of these documents, attempts were made to maintain an appropriate degree of consistency between the 2045 forecasts and the 2040 forecasts prepared five years ago.

One of the first steps in the LRTP process is to develop a forecast of the geographic distribution of the county's population and employment over the LRTP timeframe. These "socioeconomic" data document anticipated population and employment concentrations at a traffic analysis zone (TAZ) level and are used to forecast future travel patterns. Figure 1-1 illustrates the TAZ geographic structure for Polk County used for this forecast effort. It should be noted that the TAZ structure for Polk County was revised after the 2010-2040 forecast, resulting in a net increase of 154 TAZs for a total of 845. The forecast data represents a cooperative effort among the Polk TPO, FDOT District 1, and the local government jurisdictions in Polk County.



Figure 1-1: Traffic Analysis Zones







An aerial photograph of a city, likely Memphis, Tennessee, showing a large lake in the center, a school complex with several blue-roofed buildings and a football field, and a dense residential area. The text "CHAPTER 2" is overlaid in large blue letters at the bottom right, with a blue arrow pointing right.

# CHAPTER 2



## Chapter 2

# Methodology

### POPULATION CONTROL TOTALS

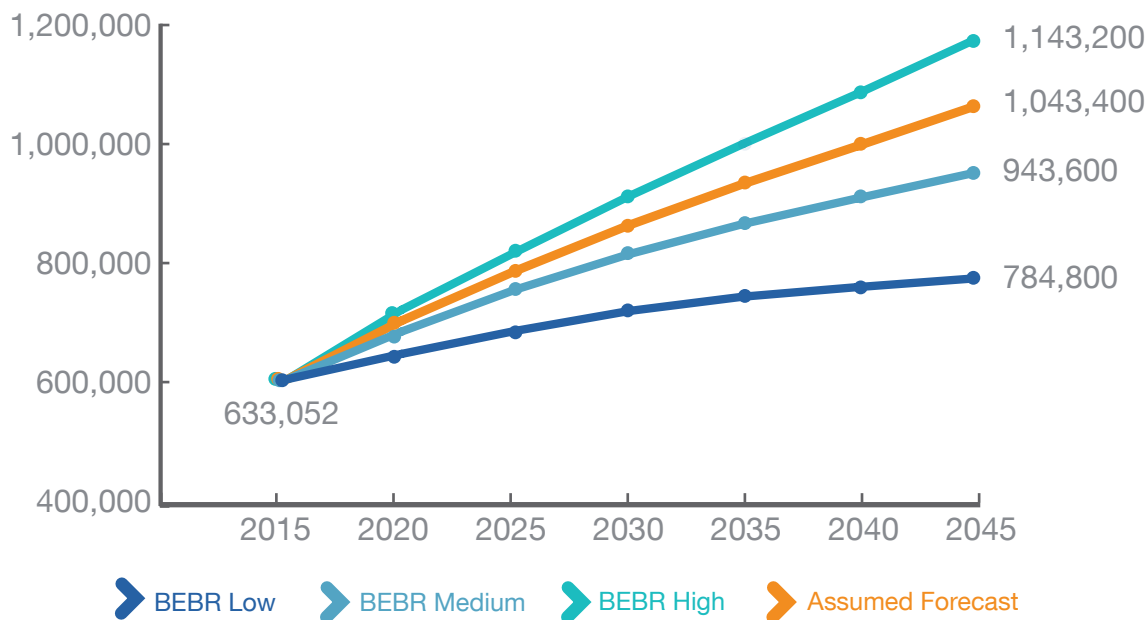
The development of population control totals was one of the first steps in the 2045 socioeconomic data forecast for Polk County. Normally, population control totals used by Florida counties have been based on the University of Florida Bureau of Economic and Business Research (BEBR) population forecasts. These forecasts, prepared for each county, provide three countywide forecasts:

- **Low:** The low range of the forecasts
- **Medium:** The average of all forecasts (typically used for planning forecasts)
- **High:** The high range of the forecasts

BEBR's forecasts have been significantly impacted/reduced by the Great Recession, which lasted from late 2007 through 2009. Historically, the BEBR Medium forecast has underestimated growth in high growth counties. This experience with the BEBR Medium forecast coupled with other factors, including Polk County's continued economic recovery from the recession, the rapid growth of the Lakeland-Winter Haven metropolitan area<sup>1</sup>, the County's strategic logistics and manufacturing benefits as a gateway between the Orlando and Tampa markets, and its similar appeal for commuters, support the use of a population control total higher than the BEBR Medium forecast. The 2045 population forecast will assume a population control total based on the average of the BEBR Medium and High forecasts, resulting in a 2045 forecast of 1,043,400 persons. The relationship between the different BEBR forecasts and the selected 2045 forecast are illustrated in Figure 2-1.

For the purposes of use with the Transportation Demand Model, only the permanent population—residents living in Polk County for more than six months per year—was forecasted. The permanent population includes Household population and Group Quarters population. The U.S. Census Bureau defines Household population as “all the people who occupy a housing unit as their usual place of residence.” A housing unit, according to the U.S. Census Bureau is, “a house, an apartment, a mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters, or if vacant, intended for occupancy as separate living quarters. Separate living quarters are those in which the occupants live separately from any other individuals in the building and which have direct access from outside the building or through a common hall....” The U.S. Census Bureau also describes “all people not living in households as living in group quarters. There are two types of group quarters: institutional (for example, correctional facilities, nursing homes, and mental hospitals) and non-institutional (for example, college dormitories, military barracks, group homes, missions, and shelters).”

<sup>1</sup> The Lakeland-Winter Haven metropolitan area increased in population by 3.2%, or 22,000 people, from July 1, 2017 to July 1, 2018. Source: U.S. Census Bureau.



**Figure 2 1: Population Control Totals**

## EMPLOYMENT CONTROL TOTALS

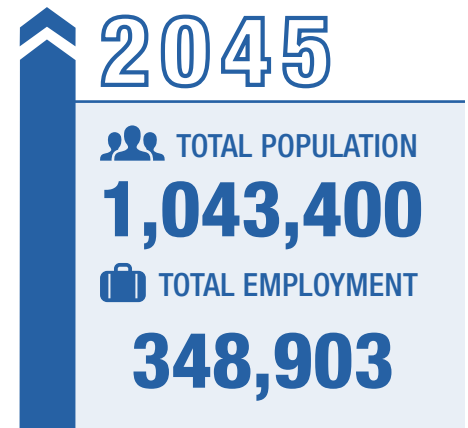
The employment control totals for each of the scenarios were developed based on a total employees/population ratio and an assumption that unemployment will settle at a natural rate of 4 percent by 2020 and remain stable through 2045.

Total employment was broken out into Industrial, Commercial, and Service employment categories. The categories are based on the Standard Industrial Classification (SIC) Manual, published by the U.S. Department of Commerce and described as follows:

- **Industrial Employment** - All full-time and regular part-time employees, and self-employed persons by job location, whose job is in an industry classified in Standard Industrial Classification (SIC) categories 01 to 39 (i.e., agriculture, forestry, fisheries, mining, contract construction, and manufacturing).
- **Commercial Employment** - All full-time and regular part-time employees and self-employed persons, by job location, whose job is in an industry classified in SIC categories 50 to 59 (retail trade and wholesale trade are commonly located in areas zoned for commercial land use activities)
- **Service Employment** - All full-time and regular part-time employees, and self-employed persons, by job location, whose job is in an industry classified in SIC categories 40 to 49 and 60 to 93 (i.e., transportation, communication and utilities services; finance, insurance and real estate services; selected personal services; tourism and recreational services, health and educational services; government services)

The control totals are based on a ratio for each category to total employment. In most Florida counties, the ratio of the three employment categories would be forecasted to change over time to reflect a reduction in the ratio of industrial employment and an increase in service employment. The Polk 2045 employment forecast assumes that the ratios of Industrial and Service employment categories will see a modest annual increase due to a significant level of warehousing, expansion of the CSX Intermodal Logistics Facility, and ongoing construction activity to support the County's high level of growth.

Table 2-1 presents the population and employment forecast for Polk County. It is forecasted that Polk County's 2045 total population will be 1,043,400 persons with an employment total of approximately 348,903 employees. This represents an increase in population of 410,348 persons and employment of 153,648 employees from 2015 to 2045. The forecasted population and employment for Polk County from 2015 to 2045 represents a growth of nearly 65 percent for population and almost 79 percent for employment. As summarized in Table 2-1, the employment-to-population ratio is forecasted to increase from 2015 to 2020, and then remain consistent through the forecast horizon. This initial increase and subsequent stabilization reflect an economy enjoying the accelerated growth of post-recession recovery early on, and then calming to settle at a consistent employment ratio through 2045. Employment is summarized by employee type in Section C of the table.



**Table 2-1: Countywide Population and Employment Control Totals**

**Table 2 1A: BEBR Data (2018)**

	BEBR Forecast							Growth
	2015	2020	2025	2030	2035	2040	2045	15->45
BEBR Low	633,052	671,100	705,900	736,000	757,600	772,000	784,800	151,748
BEBR Medium	633,052	704,900	768,300	822,000	867,500	906,100	943,600	310,548
BEBR High	633,052	737,800	824,900	909,700	988,500	1,064,000	1,143,200	510,148
BEBR Average of Medium and High	633,052	721,350	796,600	865,850	928,000	985,050	1,043,400	410,348

**Table 2-1B: Population Control Totals**

	2015	2020	2025	2030	2035	2040	2045	15->45
Preliminary Control Totals	633,052	721,350	796,600	865,850	928,000	985,050	1,043,400	410,348
Working Control Totals	633,052	721,350	796,600	865,850	928,000	985,050	1,043,400	410,348
Population to Allocate (per time frame)	N/A	88,298	75,250	69,250	62,150	57,050	58,350	410,348



**Table 2-1C: Control Totals**

	2015	2020	2025	2030	2035	2040	2045	15->45
Household Population	630,019	717,894	792,783	861,702	923,554	980,331	1,038,401	408,382
SF Population Ratio	0.705	0.701	0.697	0.693	0.689	0.685	0.681	N/A
MF Population Ratio	0.295	0.299	0.303	0.307	0.311	0.315	0.319	N/A
Group Quarters Percent	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%	0.48%	N/A
SF Population	444,188	503,272	552,601	597,193	636,365	671,565	707,192	263,004
MF Population	185,831	214,622	240,182	264,509	287,189	308,766	331,209	145,378
Labor Force (Resident)	277,426	316,121	349,099	379,446	406,683	431,684	457,255	179,829
Employed Labor Force	245,518	296,206	331,644	360,474	386,349	410,100	434,392	188,874
Unemployment Rate	0.06	0.04	0.04	0.04	0.04	0.04	0.04	N/A
Employees	195,255	241,212	266,375	289,532	310,314	329,391	348,903	153,648
Employee/Population Ratio	0.31	0.336	0.336	0.336	0.336	0.336	0.336	N/A
Industrial	28,117	35,217	39,690	44,009	48,099	52,044	56,174	28,057
Commercial	55,205	67,716	73,448	78,386	82,461	85,883	89,226	34,021
Service	111,933	138,279	153,236	167,137	179,754	191,464	203,503	91,570
Industrial/Employment Ratio	0.144	0.146	0.149	0.152	0.155	0.158	0.161	N/A
Commercial/Employment Ratio	0.283	0.281	0.276	0.271	0.266	0.261	0.256	N/A
Service/Employment Ratio	0.573	0.573	0.575	0.577	0.579	0.581	0.583	N/A

## SCHOOL ENROLLMENT CONTROL TOTALS

Table 2-2 presents the recommended school enrollment forecasts for Polk County. It is forecasted that the 2045 Polk County kindergarten to 12th grade (K-12) school enrollment, including enrollment from both public and private schools, will be approximately 165,762 students, an increase of 57,373 students from 2015 to 2045. The recommended school enrollment forecast for Polk County from 2015 to 2045 represents a growth of around 1.8% a year. Higher education enrollment is forecast for 2045 at approximately 49,302 students. The base 2015 higher education enrollment is approximately 32,998; the resulting increase from 2015 to 2045 is approximately 16,304 students. In both K-12 and higher education forecasts, the jump in enrollment from 2015 to 2020 reflects the rapid increase in population growth resulting from in-migration. Guidance on the forecast school enrollment control totals and location of schools was provided by the Polk TPO staff and representatives of the Polk County Public Schools.

**Table 2-2: School/College Enrollment Control Totals**

	Students							Growth
	2015	2020	2025	2030	2035	2040	2045	15->45
Pre K to Grade 12	108,389	129,399	137,352	144,926	152,097	158,960	165,762	57,373
College/University	32,998	38,487	41,529	44,083	46,114	47,747	49,302	16,304

## HOTEL/MOTEL CONTROL TOTALS

Table 2-3 summarizes the recommended hotel/motel unit forecasts for Polk County. New hotel/motel units planned for approved developments, including Developments of Regional Impact (DRIs) and Master Planned Unit Developments (MPUDs), were added to the appropriate forecast year with direction from staff from the Polk TPO, Polk County, as well as staff from the local municipalities. It is forecasted that Polk County 2045 hotel/motel units will be approximately 12,427 units, a growth of 4,887 units.

**Table 2-3: Hotel/Motel Control Totals**

Hotel/Motel Units							Growth
2015	2020	2025	2030	2035	2040	2045	15->45
7,540	8,592	9,488	10,313	11,053	11,732	12,427	4,887

## ALLOCATION METHODOLOGY

### ***Base Year Population and Employment Data***

This section describes the technical methodology of the Land Use Allocation tool and how dwelling units, population, and employment were allocated for the 2045 forecast. This methodology was used to develop the population and employment forecasts at the TAZ level for the years 2020, 2025, 2030, 2035, 2040 and 2045. The forecast of population and employment included the standard Florida Standard Urban Transportation Model Structure (FSUTMS) dwelling unit/population (single family and multi-family) and employment (Industrial, Commercial, and Service) categories. Control totals of countywide employment by category were developed using the forecast methodology, with the results presented in previous sections of this report. The base of the population and employment data forecasts was a 2015 population and employment data file developed by FDOT. Population and employment growth was allocated to the TAZ level based on the TAZ's anticipated propensity to accommodate or attract development. This methodology is described in the following sections.

### ***Vacant Developable Lands Methodology***

The first step in determining a TAZ's growth potential was to quantify the amount of vacant developable acres by Future Land Use category. This was done using information from the Polk County Property Appraiser's files. Vacant land was identified using the DOR code. In addition, single residential parcels greater than five acres were also considered to be vacant due to the likelihood of being subdivided into additional residential parcels for development in the future. When this occurred, the parcel was treated as vacant and available for development despite having a structure on it. Once the vacant land by TAZ was determined, the following adjustments were made to calculate the total developable land by Future Land Use Category:

- Roadway right-of-way acreage was removed
- Government-owned properties were removed
- Conservation and environmentally-sensitive areas were removed

The adjustments resulted in the vacant developable acres by Future Land Use category by TAZ.

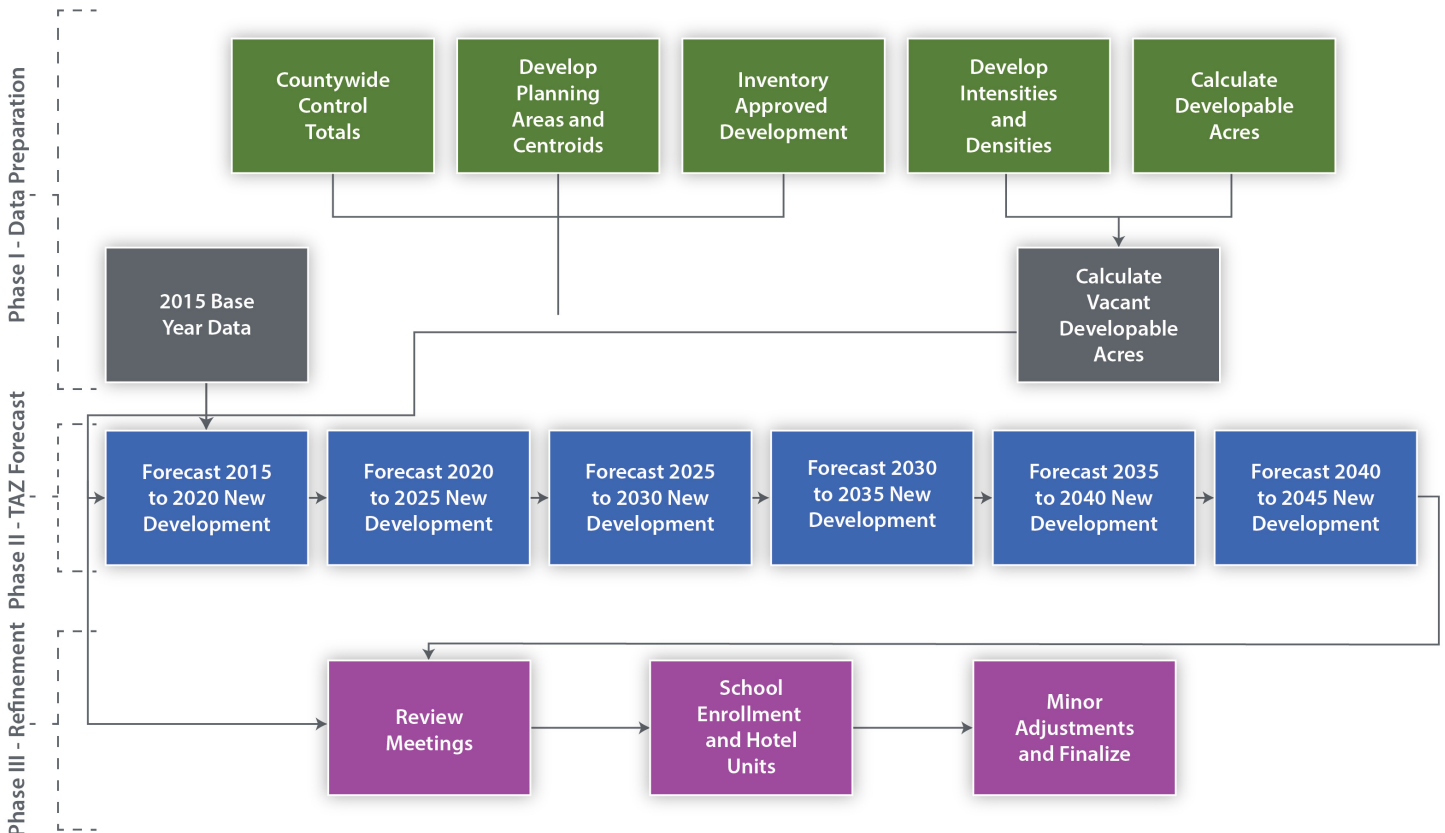
Estimated land-use densities and multiplier factors were applied to unoccupied developable land based on what is reasonably expected to occur. The factors were applied to account for the fact that many land use categories do not develop at their maximum allowable levels. For example, if a specific TAZ has 10 acres of unoccupied developable land designated for residential uses at an approved density of two dwelling units per acre and a multiplier factor of 80% is used, the maximum allowable number of new dwelling units for this TAZ is 16 dwelling units. Employment intensities were applied to developable acreage of land uses that generate employees (commercial, industrial, mixed use, etc.). If there was a mix of uses allowed in the Future Land Use category assumptions for a particular parcel, assumptions were made related to the makeup of land uses. From this information, allowable employee growth was estimated.

Land use densities were obtained from the Future Land Use Plan categories for the county and each municipality within the county. The land use densities contained in the Future Land Use Plans were adjusted to reflect reasonable build-out densities within Polk County. Reduction factors were applied to reflect more reasonable densities, as not all parcels build out to the maximum allowable densities in many cases. The maximum development for each TAZ was estimated by adding the allowable growth to the existing land use components (from 2015 County population, dwelling units, and employment categories). The maximum development was used to determine if the allocated growth was physically possible within the TAZ. If the growth was not possible, the model reallocated it to other TAZs.

## Population and Employment Allocation Methodology

The allocation methodology for population and employment to vacant developable lands was accomplished using a multi-step process that culminated in the allocation of growth based on the results of a gravity model. The process used to complete the allocation to vacant developable land is illustrated in Figure 2-2. The gravity model distributes growth based on the “mass” (or attractiveness) of a TAZ multiplied by the “mass” of an activity centroid divided by the square of the distance between the two. The results of the TAZ distribution were reviewed in several meetings with staff from the Polk TPO and staff from the local municipalities. Where appropriate, adjustments were made to individual TAZs based on the feedback received from staff.

**Figure 2-2: Land Use Allocation Process**



## Population and Employment Allocation Methodology

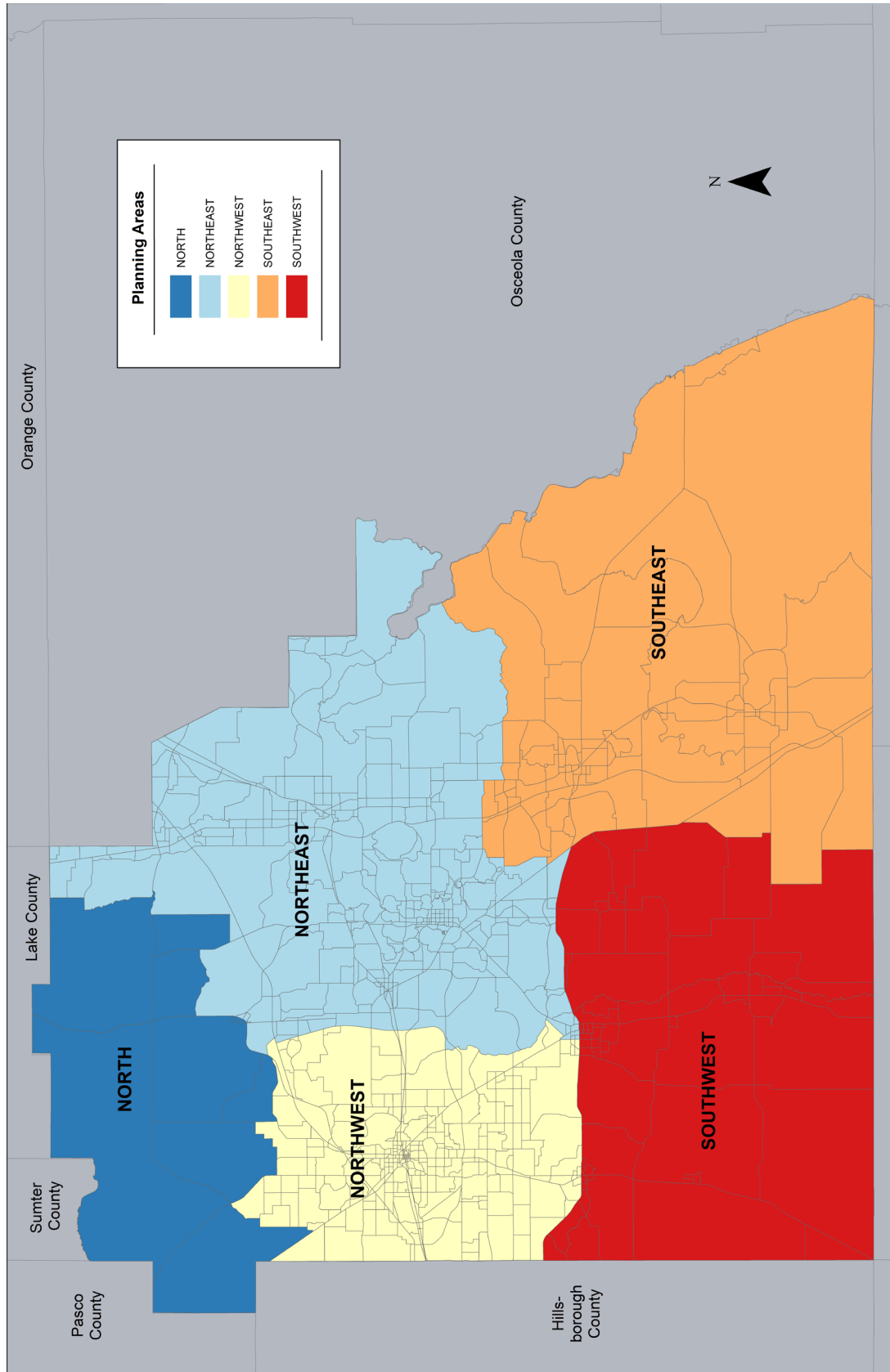
The county was delineated into five Planning Areas identified by the Polk TPO staff. Planning Areas represent a set of TAZs that have been grouped together based on a number of factors which may include:

- Existing land use
- Future land use
- Existing population and employment
- Character of areas
- Functional relationship of land uses
- Location of cities
- Major roadway corridors

These Planning Areas are illustrated in Figure 2-3.



Figure 2-3: Planning Area Map



Activity centroids were developed for each Planning Area for dwelling units and for industrial, commercial, and service employment. The activity centroids were found by weighting each geographical center of each TAZ by these land use components (dwelling units and industrial, commercial, and service employment) within the planning area for the year 2015. Stated another way, each TAZ has its own weighted centroid for each category. Centroids were calculated for each Planning Area based on the location of the existing units, which relates to population, as well as for each of the three employment categories based on the weighted centroids for each TAZ. The weighted geographical centers of each TAZ were then combined to find the center of mass for each Planning Area for population and the individual employment categories. The location and weighting of planning areas was adjusted for some forecasts at the direction of staff to adjust the allocation taking place between the different planning areas.

Thus, the centroid of the Planning Area does not represent the geographical center of the area, but rather a more realistic center based on the existing concentration of each land use component. Generally, these centroids represent locations of existing urbanized development or locations that will likely become more urbanized in the future. Due to the concentric allocation procedure, it was unnecessary to redefine regions or centroids for each planning year of the socioeconomic data sets. The allocation methodology simulates compact growth patterns from the centroid of the Planning Area outward.

### ***Calculation of Attractiveness Index***

As mentioned previously, the Land Use Allocation Model was based on the gravity model. An “attractiveness” index was found for each TAZ and divided by the sum of all the attractiveness indexes for each TAZ. This ratio was then multiplied by the growth increment for the specific year to determine the quantity of growth to allocate to each TAZ. If the sum of existing development plus the allocated growth exceeded the maximum development in the TAZ, then the model reallocated the growth to other TAZs. The maximum allowable development in a TAZ can be exceeded by applying a manual adjustment within the spreadsheet. The variables used in the model were:

- $i$  = TAZ number (1–845)
- $j$  = Activity centroid (A–E)
- $AI_{ij}$  = Attractiveness index between TAZ $i$  and centroid $j$
- $F(AI_{ij})$  = Function of attractiveness index (see below)
- $AG_i$  = Allowable growth for TAZ $i$  (units population)
- $D_{ij}$  = Straight line distance from geographical center of TAZ $i$  to centroid $j$
- $Ff_{ij}$  = Friction factor based on the function  $e^{-kD}$ , where  $D$  is the distance from the geographical center of the TAZ to the centroid and  $k$  is a constant
- $NG_i$  = New growth for TAZ $i$
- $TAZ(AI)_i$  = Total attractiveness for TAZ $i$  ( $F(AI_iA) + F(AI_iB) + f(AI_iC) + F(AI_iD)$ ...)
- $\Sigma TAZ(A)$  = Sum of all total attractiveness indexes for each TAZ in the county
- $GI_x$  = Growth increment for year  $x$

The attractiveness index ( $AI_{ij}$ ) is a number that can start from zero and continue until it approaches infinity. An attractiveness index of zero has no “attractiveness.” As the index increases, the “attractiveness” of the TAZ increases as well. The function of the attractiveness index ( $F(AI_{ij})$ ) is the question used to develop the attractiveness index.

It is defined as follows:

$$\frac{F(AI_{ij})}{D_{ij}} = \frac{AG_j \times CU_j \times FF_{ij}}{D_{ij}}$$

The variable  $AG_j$  is the first “mass” or maximum allowable growth in the gravity model calculations. The centroid units ( $CU_j$ ) is the second “mass” in the gravity model and is the total sum of all the land use components under analysis (employees by category) for the particular region. The above mass components were multiplied together, divided by the distance ( $D_{ij}$ ), and multiplied by the friction factor ( $FF_{ij}$ ) to determine the attractiveness index.

For the function of attractiveness index ( $F(AI_{ij})$ ),  $i$  remains constant for each TAZ, whereas  $j$  flows through each activity centroid. Starting with TAZ Number 1, the function would be  $F(AI_{1A})$ ,  $F(AI_{1B})$ ,  $F(AI_{1D})$ ,  $F(AI_{1E})$ ,  $F(AI_{1F})$ ,  $F(AI_{2A})$ ,  $F(AI_{2B})$  ... until all TAZs were completed. Friction factors ( $FF_{ij}$ ) further weight distances that are closer to an activity centroid. As the distance increases, its potential for development is less likely. Friction factors are determined by the function  $e^{-kD}$ , where  $D$  is the distance from geographical center of the TAZ to the centroid. The constant “ $k$ ” is based on the allocation preference and may be established by the local governing agency. When the constant “ $k$ ” is small, the model places less emphasis on the proximity of the TAZ to the centroids. As “ $k$ ” increases, the importance of the proximity of the TAZ to the centroid also increases.

### ***Distribution of Growth to Traffic Analysis Zones***

The new growth was determined by dividing the total attractiveness index for a TAZ by the sum of the total attractiveness index for all TAZs in the county. This ratio developed for each TAZ was then multiplied by the growth increment (GIX) for the year (X) analyzed. The new growth formula is:

$$\frac{NGix}{\sum TAZ(AI_{ij})_x} = \frac{TAZ(AI_{ij})_x \times GIX}{\sum TAZ(AI_{ij})_x}$$

This calculation was repeated for each TAZ in the county. The new growth was added to the current development checking against the maximum development, or

$$(NG_{ix} + \text{Current Development}_{ix}) < \text{Maximum Development}_i$$

where  $i$  represents each TAZ. After the new development was allocated and the maximum development was checked, a visual inspection of the allocation process was performed to determine if any spreadsheet adjustments were required. If the current development plus new growth that was allocated to the TAZ was greater than the maximum development, then the model reallocated the new growth to other TAZs.

Staff from the Po0lk TPO and local municipalities reviewed the initial projections. This was accomplished through both an interactive work session using a series of maps illustrating the growth increment in dwelling units and service, commercial, and industrial employment for each planning year horizon and one-on-one meetings or conference calls. Adjustments to specific areas of the county were recommended by staff to more accurately reflect future year patterns. These adjustments also were made to include approved developments. Allocation of growth for each increment of time used the development totals resulting from the preceding growth allocation iteration. This allowed manual data adjustments to the maximum allowable development and manual attractiveness factors to be preserved throughout each analysis period.



## ***Allocation of School Enrollment***

The distribution of school enrollment was accomplished manually. Future school enrollment was tabulated according to the location of educational facilities, not the student's residence. The base year data for the population and school enrollment (private schools, public schools, and community colleges) was the 2015 Polk County school enrollment data provided by FDOT. The forecast school enrollment was prepared and reviewed with representatives of the Polk County Public Schools. Service employment was subsequently adjusted to reflect the future school employees.

## ***Allocation of Hotel and Motel Units***

The distribution of hotel/motel units was also accomplished manually. The base of the hotel/motel units was 2015 Polk County Hotel and Motel units location data provided by FDOT. Future growth of hotel and motel units was tied to growth in service employment. A review of approved developments was completed to determine the likely locations of future hotel/motel units. The remainder of the hotel/motel units was then allocated to TAZs based on the location of future service employment and future land use patterns in the county, as well as input from staff from Polk TPO. Service employment was subsequently adjusted to reflect the future hotel employees.





An aerial photograph showing a large, flat, sandy construction site in the foreground. A multi-lane highway runs diagonally across the middle of the image. To the left of the highway, there are several large, multi-story buildings and a smaller residential-style building. To the right, there are more buildings and a large body of water. The background shows a mix of green fields, trees, and more buildings. The text "CHAPTER 3" is overlaid in large, bold, blue letters at the bottom right, with a blue arrow pointing to the right.

# CHAPTER 3



# Chapter 3

## 2045 Population and Employment Forecast

### POPULATION AND EMPLOYMENT FORECASTS

The forecasted 2045 population and dwelling units are summarized in Appendix A. Appendix B contains maps illustrating the 2015 base year, the 2045 forecast year, and the difference between the base year and the forecast year for single- and multi-family dwelling units. The forecasted 2045 industrial employment, commercial employment, and service employment is summarized in Appendix C. Forecasted 2045 school enrollment and hotel/motel units by TAZ are summarized in Appendix D.

The maps on the following pages illustrate the forecasted data. These maps (Figures 3-1 to 3-5) illustrate the 2015 base year, the 2045 forecast year, and the difference between the base year and the forecast year for each of the forecast categories.

### PLANNING AREA ALLOCATION SUMMARY

There was recognition that the land use policies that guided the 2040 forecast likewise strongly influence the 2045 forecast. Similar to other communities with a historically high growth rate, the economic recession that started in 2008 delayed the growth forecasted between 2008 and 2015 that was previously assumed by the 2040 forecast. Attention was directed throughout the forecast in maintaining relative consistency between the allocation of growth by planning area between the 2040 and 2045 forecasts. The resulting growth forecasts by planning area are summarized in Table 3-1 for each of the major forecast categories (single-family dwelling units, multi-family dwelling units, industrial employment, commercial employment, and service employment). The population and employment growth forecasts by planning area are shown in Figures 3-6 and 3-7.

**Table 3-1: Planning Area Allocation Summary**

Planning Area	Single Family Dwelling Units			Single Family Dwelling Units %		
	2015	2045	2015->2045	2015	2045	2015->2045
<b>NORTH</b>	1,715	3,266	1,551	1%	1%	1%
<b>NORTHEAST</b>	89,797	158,466	68,669	48%	53%	62%
<b>NORTHWEST</b>	73,782	97,113	23,331	39%	32%	21%
<b>SOUTHEAST</b>	15,676	24,304	8,628	8%	8%	8%
<b>SOUTHWEST</b>	7,997	17,139	9,142	4%	6%	8%
<b>Countywide</b>	<b>188,967</b>	<b>300,288</b>	<b>111,321</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

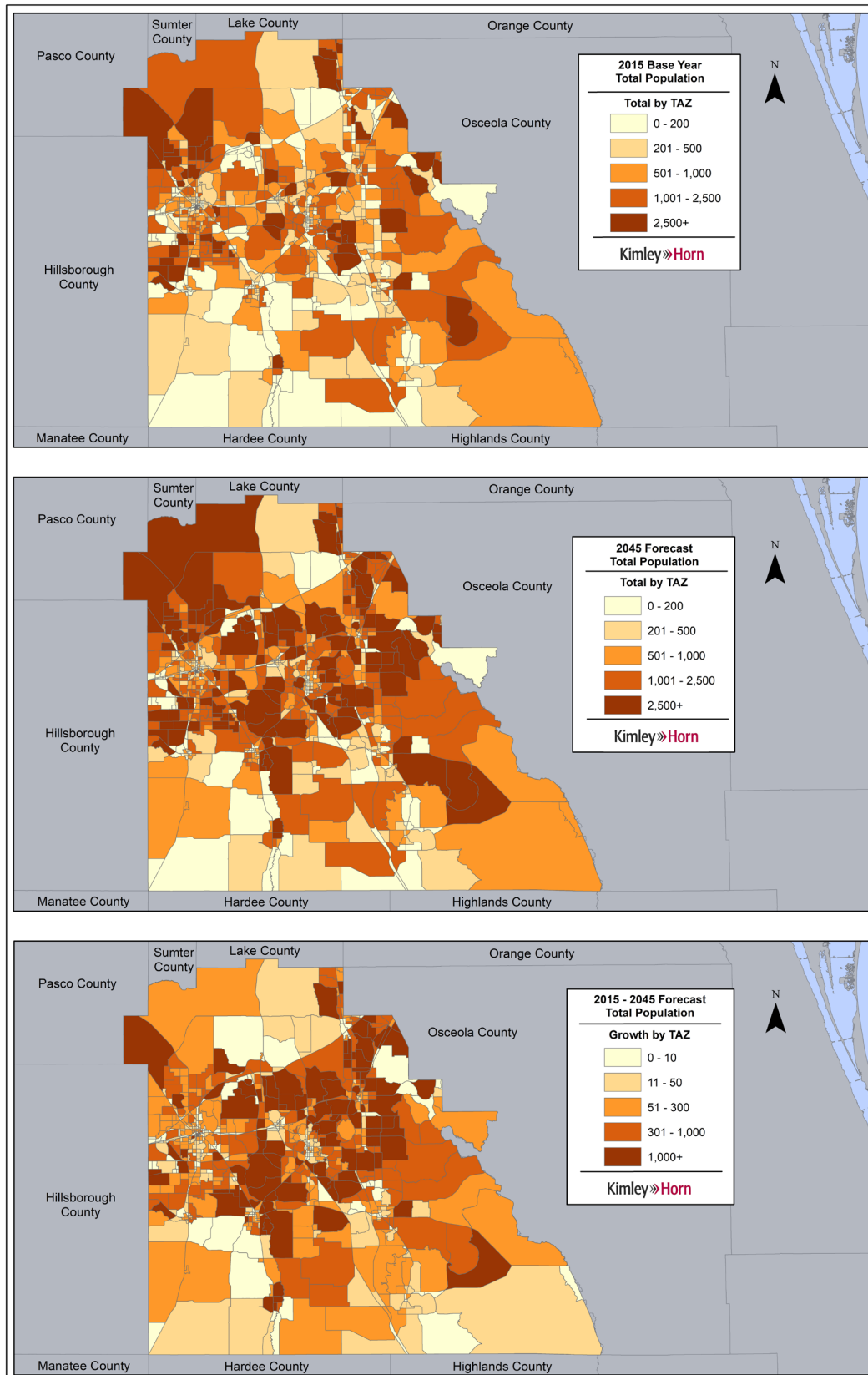
	Multi-Family Dwelling Units			Multi-Family Dwelling Units %		
Planning Area	2015	2045	2015->2045	2015	2045	2015->2045
<b>NORTH</b>	3,206	3,322	116	3%	2%	<1%
<b>NORTHEAST</b>	37,013	80,399	43,386	40%	49%	61%
<b>NORTHWEST</b>	36,951	52,994	16,043	40%	32%	23%
<b>SOUTHEAST</b>	11,929	14,381	2,452	13%	9%	3%
<b>SOUTHWEST</b>	4,388	13,495	9,107	5%	8%	13%
<b>Countywide</b>	<b>93,487</b>	<b>164,591</b>	<b>71,104</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

	Industrial			Industrial %		
Planning Area	2015	2045	2015->2045	2015	2045	2015->2045
<b>NORTH</b>	357	357	0	1%	1%	0%
<b>NORTHEAST</b>	9,219	21,724	12,505	33%	39%	45%
<b>NORTHWEST</b>	13,207	21,775	8,568	47%	39%	31%
<b>SOUTHEAST</b>	1,714	3,742	2,028	6%	7%	7%
<b>SOUTHWEST</b>	3,620	8,576	4,956	13%	15%	18%
<b>Countywide</b>	<b>28,117</b>	<b>56,174</b>	<b>28,057</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

	Commercial			Commercial %		
Planning Area	2015	2045	2015->2045	2015	2045	2015->2045
<b>NORTH</b>	188	241	53	<1%	<1%	<1%
<b>NORTHEAST</b>	19,987	35,145	15,158	36%	39%	45%
<b>NORTHWEST</b>	28,311	41,434	13,123	51%	46%	39%
<b>SOUTHEAST</b>	5,594	8,093	2,499	10%	9%	7%
<b>SOUTHWEST</b>	1,125	4,313	3,188	2%	5%	9%
<b>Countywide</b>	<b>55,205</b>	<b>89,226</b>	<b>34,021</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

	Service			Service %		
Planning Area	2015	2045	2015->2045	2015	2045	2015->2045
<b>NORTH</b>	272	409	137	<1%	<1%	<1%
<b>NORTHEAST</b>	38,504	78,672	40,168	34%	39%	44%
<b>NORTHWEST</b>	58,703	94,342	35,639	52%	46%	39%
<b>SOUTHEAST</b>	7,479	12,456	4,977	7%	6%	5%
<b>SOUTHWEST</b>	6,975	17,624	10,649	6%	9%	12%
<b>Countywide</b>	<b>111,933</b>	<b>203,503</b>	<b>91,570</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Figure 3-1: Total Population Map (2015 – 2045)



**Figure 3-2: Industrial Employment Map (2015 – 2045)**

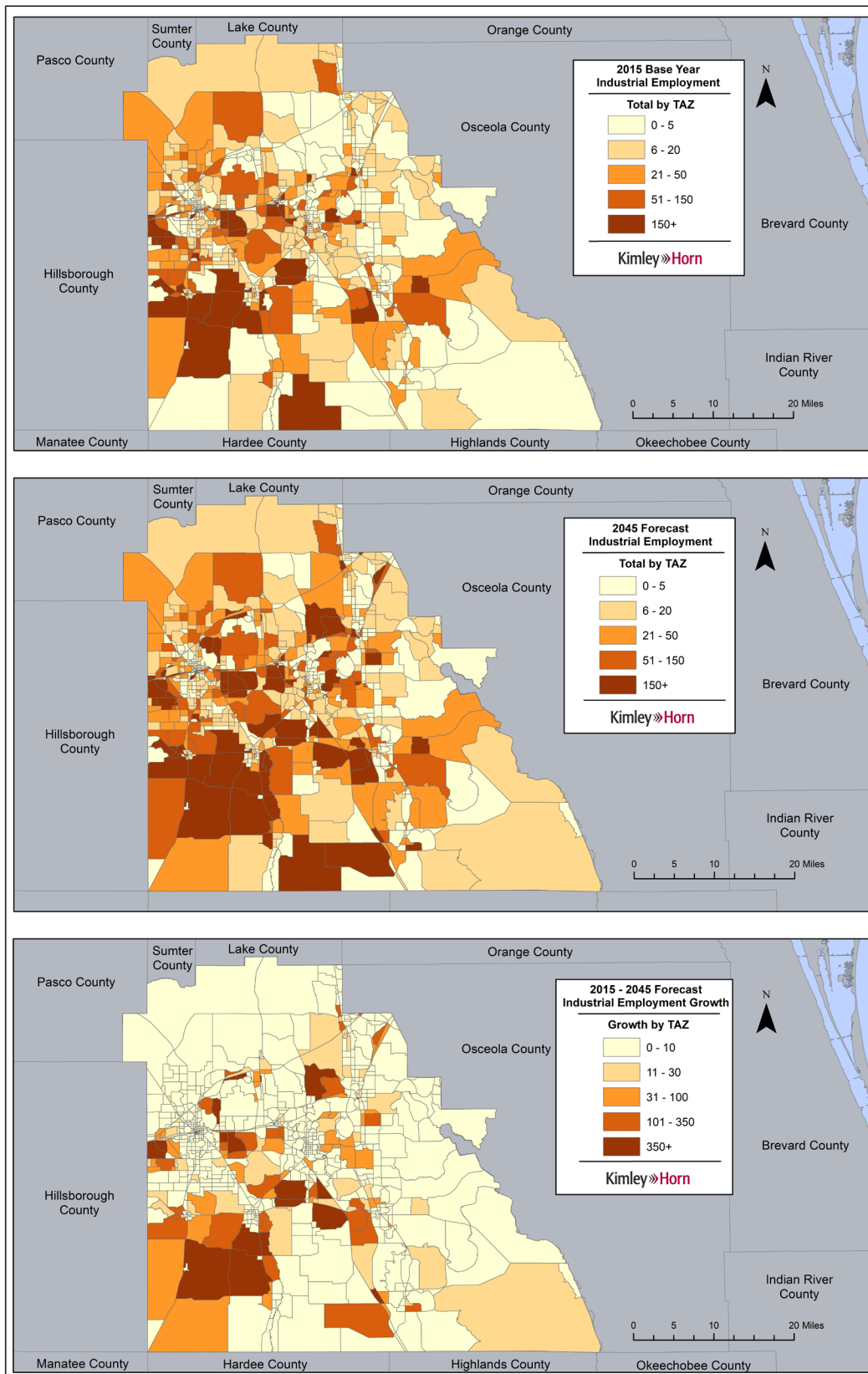
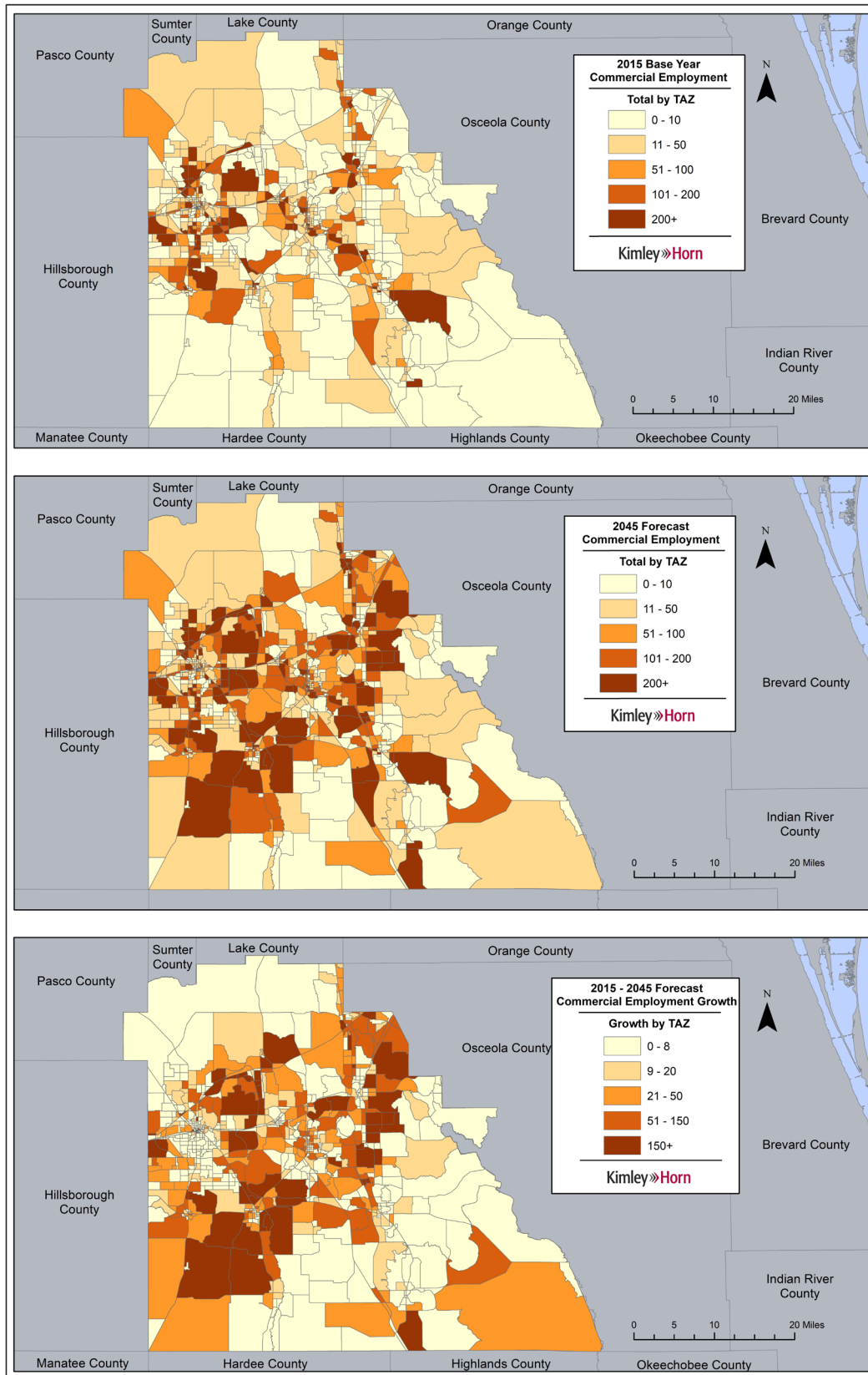




Figure 3-3: Commercial Employment Map (2015 – 2045)



**Figure 3-4: Service Employment Map (2015 – 2045)**

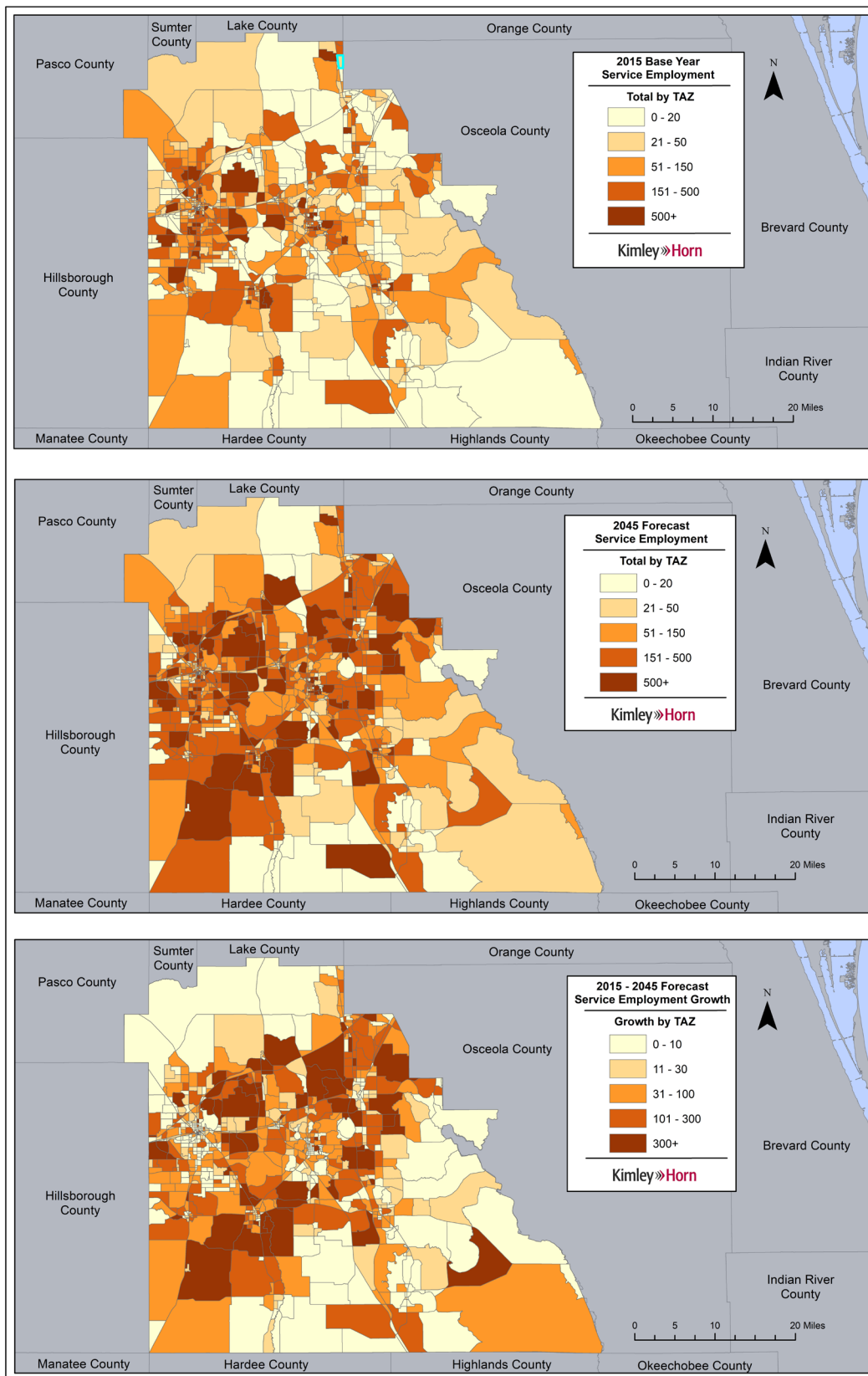


Figure 3-5: Total Employment Map (2015 – 2045)

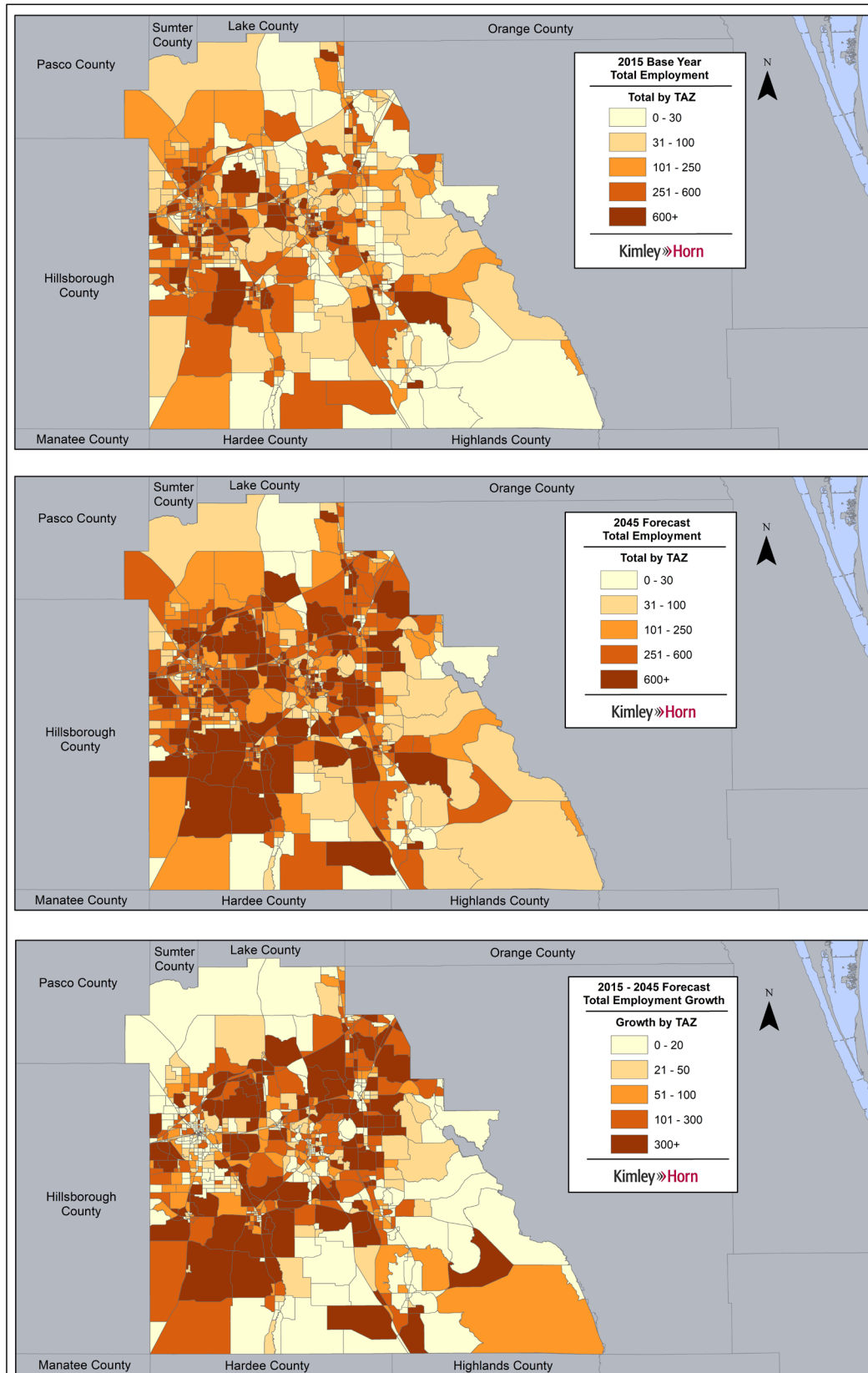




Figure 3-6: Population Growth (2015 - 2045) by Planning Area

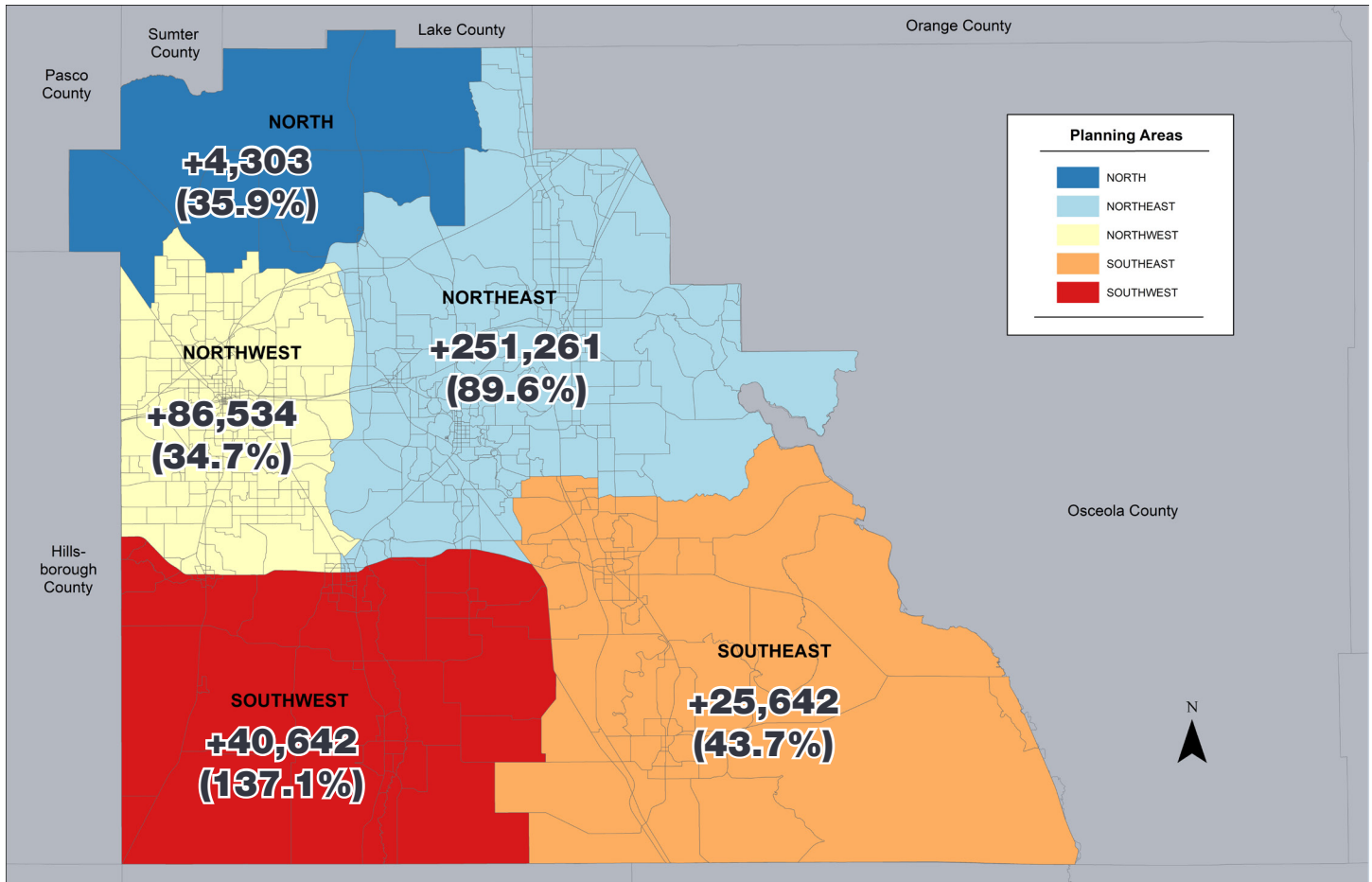
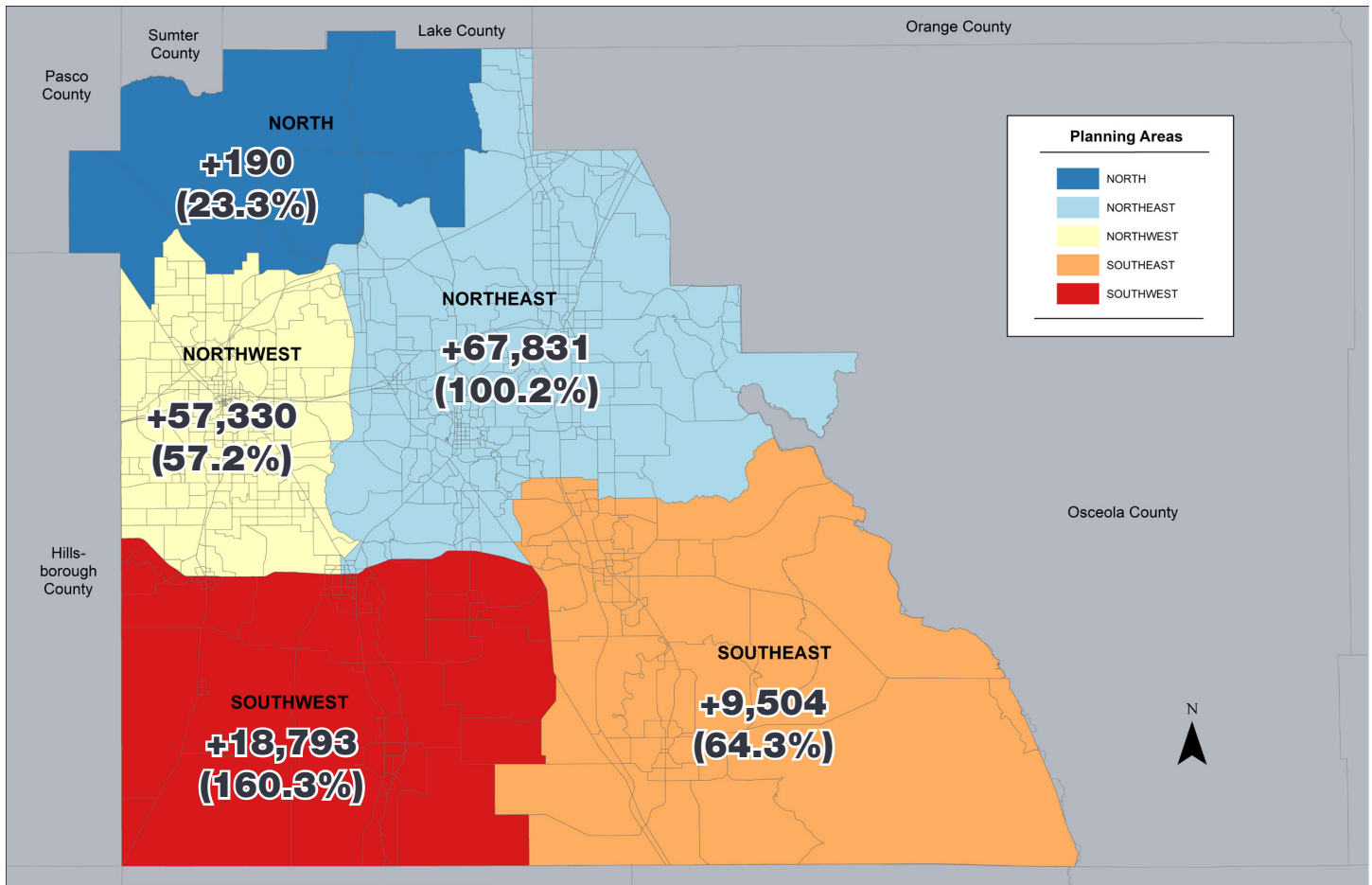


Figure 3-7: Employment Growth (2015 - 2045) by Planning Area







# CHAPTER 4



## Chapter 4 Summary

### RECOMMENDATIONS

The data sets developed as part of this project represent a cooperative effort between the Polk TPO, FDOT District 1, and the local government agencies in Polk County. Numerous review opportunities led to the development of the refined socioeconomic data. These socioeconomic data are recommended for use in the District One Regional Planning Model for the purposes of transportation planning. Application of these data for other uses should be carefully reviewed prior to actual use. These data should also be reviewed periodically to ensure that ongoing growth is adequately provided for in the data files at the Traffic Analysis Zone level. This is especially recommended for areas of the county that are experiencing significant changes in employment due to new development or redevelopment.

