

Florida Department of Transportation

Northwest Florida Regional Planning Model

2020 & 2050 Socio-Economic Data Documentation

FDOT Office

District Three Systems Planning

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1. INTRODUCTION

This report details the development of the Northwest Florida Regional Planning Model (NWFRPM) 2020 base and 2050 future year socio-economic data. The NWFRPM is the travel demand model for all 16 counties within the Florida Department of Transportation's (FDOT) District 3, as shown in **Figure 1**.

In a travel demand model, the primary unit of analysis is the traffic analysis zone (TAZ). A TAZ is a geographic area of relatively similar land use and activity. It represents the origins and destinations of travel activity within a region. All population, dwelling unit, places of employment, enrollment, and other activities in a region are aggregated and represented in TAZs. The model uses this socio-economic data to generate trip productions (i.e. origins) and attractions (i.e. destinations) for each TAZ.

The NWFRPM includes socio-economic data in its Zone List. The focus of the data included in these files are the socio-economic aspects of households that have a significant impact on trip making. For each TAZ in the model the Zone List file includes attributes representing population, dwelling units, vacancy rates, vehicle availability, retirement status, hotel/motel units, school enrollment, and employment. The full list of these socio-economic variables is detailed in **Table 1**. This data in this Zone List is developed for both the 2020 base and 2050 horizon year.

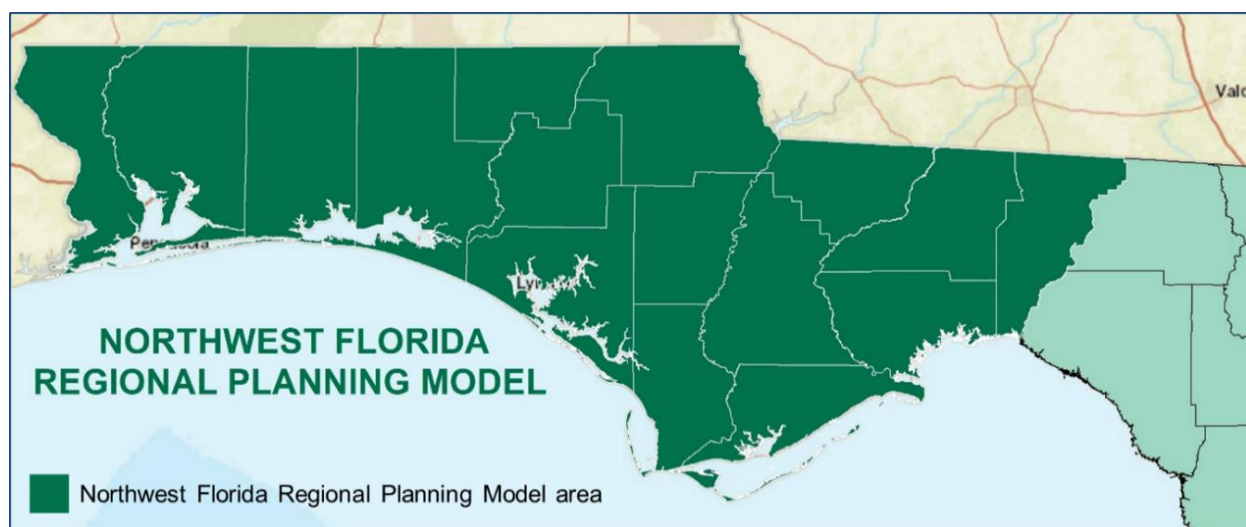


Figure 1. Northwest Florida Regional Planning Model Area

Table 1. Zone List Socio-economic Data Variables and Definitions

Zone List Variable	Definition
Z	NWFRPM TAZ
County	County Name
DISTRICT	District Used in Model Validation Statistic Calculations 1 = Florida-Alabama Transportation Planning Organization (TPO) 2 = Okaloosa-Walton TPO 3 = Bay TPO 4 = Calhoun, Franklin, Gulf, Holmes, Jackson, Liberty, and Washington Counties 5 = Capital Regional Transportation Planning Agency
SFDU	Single Family Dwelling Units
SF_PCTVNP	Single Family Dwelling Units Percent Vacant and Non-Permanent
SF_PCTVAC	Single Family Dwelling Units Percent Vacant, Non-Permanent, and Seasonal
SFPOP	Single Family Population
SF_0AUTO	Percent of Single-Family Dwelling Units with No Vehicles Available
SF_1AUTO	Percent of Single-Family Dwelling Units with 1 Vehicle Available
SF_2AUTO	Percent of Single-Family Dwelling Units with 2 or More Vehicles Available
MFDU	Multi-Family Dwelling Units
MF_PCTVNP	Multi-Family Dwelling Units Percent Vacant and Non-Permanent
MF_PCTVAC	Multi-Family Dwelling Units Percent Vacant, Non-Permanent, and Seasonal
MFPOP	Multi-Family Population (includes Group Quarters Population)
MF_0AUTO	Percent of Multi-Family Dwelling Units with No Vehicles Available
MF_1AUTO	Percent of Multi-Family Dwelling Units with 1 Vehicle Available
MF_2AUTO	Percent of Multi-Family Dwelling Units with 2 or More Vehicles Available
HMDU	Hotel/Motel Dwelling Units (i.e. Number of Rooms)
HM_PCTOCC	Percent of Hotel/Motel Dwelling Units Occupied
HMPOP	Hotel Motel Population
IND_EMP	Industrial Employment - Number of Employees
COM_EMP	Commercial Employment - Number of Employees
SER_EMP	Service Employment - Number of Employees
TOT_EMP	Total Number of Employees
SCHOOL_ENR	Public, Private, and Higher Education School Enrollment Totals
PCTRETIRED	Percent of Retired Households
PCTWWC	Percent of Households Working with Children
PCTAUTOS0	Percent of Dwelling Units with No Vehicles Available
PCTAUTOS1	Percent of Dwelling Units with 1 Vehicle Available
PCTAUTOS2	Percent of Dwelling Units with 2 Vehicles Available
PCTAUTOS3	Percent of Dwelling Units with 3 or More Vehicles Available

2. 2020 SOCIO-ECONOMIC DATA

Section 2 details the development of the 2020 socio-economic data. The primary source of population and demographic data is the United States Census Bureau’s 2016-2020 American Community Survey (ACS) 5-Year Estimates. ACS data was utilized because the NWFRPM trip generation utilizes the trip characteristics of populations living in single family (e.g. standalone residential homes) and multi-family (e.g. apartment complex) structures. While the Decennial Census once reported this data, it was transferred to the ACS when the Decennial Census Long Form was discontinued. Hotel/motel data was obtained from the Florida Department of Business and Professional Regulations and school enrollment was primarily developed using resources from the Florida Department of Education. Employment data was derived from the Dun & Bradstreet Dataset procured from FDOT Central Office Systems Forecasting and Trends Office. The sections below provide information on the data sources, calculations, as well as assumptions and limitations for the socio-economic variables.

2.1 Single Family and Multi-Family Population

Data Source: US Census Bureau, 2016 – 2020 American Community Survey Five Year Estimates, Table B25033 – Total Population in Occupied Housing Units by Tenure by Units in Structure

Data Source: US Census Bureau, 2016– 2020 American Community Survey Five Year Estimates, Table B26001 – Group Quarters Population

The NWFRPM Zone List includes variables reporting the population in single family (SFPOP) and multi-family (MFPOP) dwelling units in a TAZ. To calculate these variables, *Table B25033 – Total Population in Occupied Housing Units by Tenure by Units in Structure* was obtained at the Census Block Group summary level for all counties included in the NWFRPM. From this data the total population in single family and multi-family dwelling units was calculated for each Census Block Group using the variables detailed in **Table 2**.

Table 2. Single Family and Multi-Family Total Population Data Development

Zone List Variable	ACS Variable
SFPOP: Single Family Population	Owner occupied, 1 unit detached or attached Renter occupied, 1 unit detached or attached
MFPOP: Multi-Family Population	Owner occupied, 2 to 4 units Owner occupied, 5 or more units Owner occupied, mobile home Owner occupied, boat, RV, van, etc. Renter occupied, 2 to 4 units Renter occupied, 5 or more units Renter occupied, mobile home Renter occupied, boat, RV, van, etc.

After calculating the total population in single family and multi-family dwelling units for each Census Block Group, the data was allocated from the Census Block Groups to the NWFRPM TAZs using the process described in **Section 2.1.1**, below.

Additionally, in the NWFRPM Zone List the multi-family population variable (MFPOP) includes the population living in group quarters. The US Census Bureau defines group quarters as a place where people live or stay, in a group living arrangement, that is owned or managed by an entity or organization that provides housing and/or services for the residences. This population is not included in *Table B25033*; therefore, *Table B26001 – Group Quarters Population* was also obtained at the Census Tract summary level for all counties included in the NWFRPM.

Group quarters in FDOT District 3 include college residence halls, group homes, assisted living facilities, military barracks, and correctional facilities. The group quarters population was manually assigned to TAZs based on spatial data representing these features and is included in the multi-family population totals.

2.1.1 Data Allocation: Census Block Group to NWFRPM TAZ

Section 2.1.1 outlines the methodology for allocating data from Census Block Groups to NWFRPM TAZs. A Census Block Group is a geographical unit defined by the United States Census Bureau and typically contains between 600 and 3,000 people. It is generally larger than a TAZ, meaning multiple TAZs can fall within a single Census Block Group.

To distribute single-family and multi-family population data down to the NWFRPM TAZ level, the process began by disaggregating Census Block Group data to the finer Census Block level. Census Blocks are the smallest geographic area used by the US Census Bureau and nest within Census Block Groups. ArcGIS was used to proportionally allocate the data from each Census Block Group to its respective Census Blocks based on their share of land area, as illustrated in **Figure 2**.



Figure 2. Census Block Group to Census Block Allocation Process

Each Census Block was assigned to a NWFRPM TAZ based on its spatial location. The total single-family and multi-family population data for each NWFRPM TAZ was calculated as the sum of all Census Blocks assigned to that TAZ. After assigning the data using ArcGIS, results were

manually reviewed and compared against county control totals from the 2016–2020 ACS Five-Year Estimates (shown in **Table 5**), with adjustments made where necessary.

While this method was generally effective for allocating Census Block Group data to NWFRPM TAZs, certain limitations should be acknowledged. The allocation process assumes that data can be proportionally distributed based on Census Block land area; however, this may not hold true in cases where development is densely clustered within a small area of the Census Block Group, leaving the remainder largely undeveloped. Therefore, a manual review was conducted to identify such discrepancies, and data adjustments were made where needed to ensure a more accurate allocation.

Table 3. 2020 Single Family and Multi-Family Population County Control Totals

County	Population in Single Family Dwelling Units	Multi-Family Population		Total Population
		Population in Multi-Family Dwelling Units	Population in Group Quarters	
Bay	123,273	54,461	2,342	180,076
Calhoun	7,327	4,993	2,004	14,324
Escambia	235,370	64,061	17,260	316,691
Franklin	7,197	3,110	1,607	11,914
Gadsden	25,514	16,506	3,767	45,787
Gulf	8,972	3,417	2,684	15,073
Holmes	11,046	6,687	1,797	19,530
Jackson	26,248	13,602	7,559	47,409
Jefferson	6,665	5,794	1,819	14,278
Leon	179,846	97,210	14,807	291,863
Liberty	3,754	3,070	1,509	8,333
Okaloosa	163,068	38,258	6,104	207,430
Santa Rosa	147,387	25,968	6,232	179,587
Wakulla	22,533	6,995	3,327	32,855
Walton	49,615	19,707	1,727	71,049
Washington	13,243	9,048	2,803	25,094
Lillian, AL	1,766	463	0	2,229

2.2 Single Family and Multi-Family Dwelling Units

Data Source: US Census Bureau, 2016 – 2020 American Community Survey Five Year Estimates, Table B25024 – Units in Structure

The NWFRPM Zone List includes variables reporting the number of single family (SFDU) and multi-family (MFDU) dwelling units in a TAZ. To calculate these variables, *Table B25024 – Units in Structure* was obtained at the Census Block Group summary level for all counties included in the NWFRPM. From this data the total number of single family and multi-family dwelling units was calculated for each Census Block Group using the variables detailed in **Table 4**.

Table 4. Single Family and Multi-Family Total Dwelling Units Data Development

Zone List Variable	ACS Variable
SFDU: Single Family Dwelling Units	1 unit, detached 1 unit, attached
MFDU: Multi-Family Dwelling Units	2 units 3 or 4 units 5 to 9 units 10 to 19 units 20 to 49 units 50 or more units Mobile home units Boat, RV, van, etc.

After calculating the total number of single family and multi-family dwelling units in each Census Block Group, the data was applied from the Census Block Groups to the NWFRPM TAZs using the data allocation process described in **Section 2.1.1** and compared to the dwelling unit county control totals from the 2016 – 2020 ACS Five Year Estimates, reported in **Table 5**.

Table 5. 2020 Single Family and Multi-Family Dwelling Unit County Control Totals

County	Single Family Dwelling Units	Multi-Family Dwelling Units	Total Dwelling Units
Bay	58,239	45,821	104,060
Calhoun	3,580	2,430	6,010
Escambia	100,560	41,896	142,456
Franklin	6,369	2,395	8,764
Gadsden	13,342	7,385	20,727
Gulf	6,483	3,195	9,678
Holmes	5,102	3,621	8,723
Jackson	13,655	7,456	21,111
Jefferson	3,698	3,106	6,804
Leon	76,466	54,875	131,341
Liberty	1,898	1,596	3,494
Okaloosa	66,207	31,595	97,802
Santa Rosa	59,212	13,811	73,023
Wakulla	9,846	3,840	13,686
Walton	31,655	21,982	53,637
Washington	6,494	4,463	10,957
Lillian, AL	967	248	1,215

2.3 Percent Vacant, Non-Permanent, and Seasonal Single Family and Multi-Family Dwelling Units

Data Source: US Census Bureau, 2016 – 2020 American Community Survey Five Year Estimates, Table B25004 – Vacancy Status

The NWFRPM Zone List includes variables to reflect the percentage of single family and multi-family dwelling units that are either vacant and non-permanent (SF_PCTVNP and MF_PCTVNP) or vacant, non-permanent, and seasonal (SF_PCTVAC and MF_PCTVAC). To calculate these variables, *Table B25004 – Vacancy Status* was obtained at the Census Block Group level for all counties included in the NWFRPM. From this data the number of vacant and non-permanent and vacant, non-permanent, and seasonal dwelling units was calculated for each Census Block Group with the variables detailed in **Table 6**.

The percentage of vacant and non-permanent and vacant, non-permanent, and seasonal dwelling units was computed for each Census Block Group by dividing the number of vacant units by the total number of dwelling units identified in **Section 2.2**. In the Zone List, these percentages are reported as whole numbers.

A limitation of this dataset is that the data was not available detailing whether the vacant units were in a single family or multi-family structure. Therefore, the same calculated percentage is used for both dwelling unit types. Additionally, each TAZ was assigned the vacant and non-permanent dwelling unit percentage of the Census Block Group in which it is primarily located. As detailed in **Section 2.1.1**, Census Block Groups are typically larger than TAZs and therefore may be more representative of an area larger than the individual TAZ.

Table 6. Single Family and Multi-Family Number of Vacant, Non-Permanent, and Seasonal Units Data Development

Zone List Variable	ACS Variable
SF_PCTVNP and MF_PCTVNP: Single Family and Multi Family Percent Vacant and Non-Permanent Dwelling Units	For rent Renter, not occupied For sale only Sold, not occupied For migrant workers Other vacant
SF_PCTVAC and MF_PCTVAC: Single Family and Multi Family Percent Vacant, Non-Permanent, and Seasonal Dwelling Units	For rent Renter, not occupied For sale only Sold, not occupied For seasonal, recreational, or occasional use For migrant workers Other vacant

2.4 Single Family and Multi-Family Vehicle Availability

Data Source: US Census Bureau, 2016 – 2020 American Community Survey Five Year Estimates, Table B25044 – Tenure by Vehicles Available

The NWFRPM Zone List includes the following variables that reflect the auto availability of single family and multi-family dwelling units: SF_0AUTO, SF_1AUTO, SF_2AUTO, MF_0AUTO, MF_1AUTO, and MF_2AUTO. To calculate these variables, *Table B25044 – Tenure by Vehicles Available* was obtained at the Census Block Group level for all counties included in the NWFRPM. From this data the number of dwelling units with 0 vehicles, 1 vehicle, and 2 or more vehicles was calculated for each Census Block Group with the variables detailed in **Table 7**.

The percentage of single family and multi-family dwelling units with 0 vehicles, 1 vehicle, and 2 or more vehicles was computed for each Census Block Group by dividing the number of units with each vehicle availability by the total number of dwelling units identified in **Section 2.2**. In the Zone List, these percentages are reported as a whole number.

As with the vacancy data discussed in **Section 2.3**, a limitation of this dataset, is that information was not available detailing whether the units and their corresponding vehicle availabilities were in a single family or multi-family structure. Therefore, the calculated percentages are used for both sets of dwelling units. Again, each TAZ was assigned the vehicle availability percentages of the Census Block Group in which it is primarily located, which may be representative of an area larger than the individual TAZ.

Table 7. Single Family and Multi-Family Vehicle Availability Data Development

Zone List Variable	ACS Variable
SF_0AUTO and MF_0AUTO: Percent Single Family and Multi-Family Dwelling Units with 0 Vehicles Available	Owner occupied, no vehicles available Renter occupied, no vehicle available
SF_1AUTO and MF_1AUTO: Percent Single Family and Multi-Family Dwelling Units with 1 Vehicle Available	Owner occupied, 1 vehicle available Renter occupied, 1 vehicle available
SF_2AUTO and MF_2AUTO: Percent Single Family and Multi-Family Dwelling Units with 2 or more Vehicles Available	Owner occupied, 2 vehicles available Owner occupied, 3 vehicles available Owner occupied, 4 vehicles available Owner occupied, 5 or more vehicles available Renter occupied, 2 vehicles available Renter occupied, 3 vehicles available Renter occupied, 4 vehicles available Renter occupied, 5 or more vehicles available

2.5 Hotel and Motel Dwelling Units, Percent Occupied, and Population

Data Source: Florida Department of Business and Professional Regulation, District 6 2020 Hotel and Motel Database

In the NWFRPM Zone List, three variables represent hotel and motel data: hotel/motel dwelling units (HMDU), hotel/motel percent occupied (HM_PCTOCC), and hotel/motel population (HMPOP). To develop this data, a database of 2020 hotels and motels was acquired from the Florida Department of Business and Professional Regulation for all counties included in the NWFRPM. It included information on the name, physical location, and number of rooms for each hotel/motel.

To assign hotel and motels to a TAZ, the database records were geo-coded to the physical location of the business. Geocoding is the process of converting an address to its corresponding geographic coordinates. Each hotel and motel record were then assigned a TAZ based on the geocoded location. Following this initial TAZ assignment the records were manually verified to ensure proper geocoding to the appropriate TAZ.

The number of rooms associated with each hotel/motel was then manually reviewed to address issues identified in the dataset. For example, as shown in **Figure 3**, the total number of rooms in a condominium was sometimes assigned to each individual unit. Therefore, to avoid overcounting, the number of rooms in the entire condominium was divided between the number of units.

Name	Code	Address	City	State	Unit	# of Rooms
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT A13	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT A4	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT B6	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT B9	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT C20	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT C29	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT C40	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT C47	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT D15	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT D4	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT E12	12
SUGAR BEACH RENTALS INC	CND1300224	2827 JOAN AVE BLDG A2	PANAMA CITY BEACH	FL	UNIT E9	12

Figure 3. Hotel and Motel Database Review

Each TAZ with a hotel/motel was then assigned a percent of rooms occupied (HM_PCTOCC) using the percentages established for regions in the adopted NWFRPM 2015 model. The percent occupied variable was reviewed for reasonableness before calculating the TAZ hotel/motel population (HMPOP). This population equals the number of hotel and motel rooms (HMDU), multiplied by the percentage of occupied rooms (HM_PCTOCC) and the county's hotel/motel average occupancy per room, used in the adopted NWFRPM 2015 model and reported in **Table 8**.

Table 8. Hotel/Motel County Average Occupancy Rates

County	Hotel/Motel Average Occupancy per Room
Bay	2.39
Calhoun	2.00
Escambia	2.22
Franklin	2.19
Gadsden	2.20
Gulf	3.02
Holmes	2.33
Jackson	2.54
Jefferson	2.20
Leon	2.21
Liberty	2.67
Okaloosa	2.29
Santa Rosa	2.34
Wakulla	2.19
Walton	2.50
Washington	2.25
Lillian, AL	N/A

2.6 Number of Employees by Industry Category

Data Source: Dun & Bradstreet Employment Data, January 2020

The NWFRPM Zone List represents employment data in four variables that detail the number of employees by industrial (IND_EMP), commercial (COM_EMP), or service employment (SER_EMP), as well as the total number of employees (TOT_EMP). This data was obtained from the *January 2020 Dun & Bradstreet* Dataset procured from FDOT Central Office Systems Forecasting and Trends Office. FDOT Central Office recommended use of this dataset that reports 2019 calendar year data, as it reflects employment trends prior to the significant impacts of the pandemic in the spring of 2020.

This employment dataset details the businesses operating in Florida and provides information on the North American Industry Classification System (NAICS) code, number of employees, and physical location of the business place. Categorization of each employment record as either industrial, commercial, or service employment, was based on the six-digit SIC NAICS codes reported in **Table 9**. Following this classification, the employment records were geocoded based on the physical location of the place of business and assigned a TAZ, as was completed for locating hotels and motels and described in **Section 2.5**. The total number of employees in each category as well as the total number of employees for all the businesses located in a TAZ were summed and reported in the variables.

Table 9. Number of Employees by Industry Category Data Development

Zone List Variable	6-digit NAICS Codes
IND_EMP: Industrial Employment	110000 – 399999
COM_EMP: Commercial Employment	500000 – 599999
SER_EMP: Service Employment	400000 – 499999 600000 – 999999
TOT_EMP: Total Employment	110000 – 999999

2.7 School Enrollment

Data Source for Public School Enrollment: Florida Department of Education, Total Enrollment Membership by School, 2019-2020

Data Source for Public School Enrollment: Florida Department of Education, Office of Independent Education and Parental Choice, Total Enrollment Membership by School, 2019-2020

Data Source for Higher Education Enrollment: Florida Department of Education, Florida College System Higher Education Enrollment Report – Fall 2019-2020

The NWFRPM Zone List file includes the variable SCHOOL_ENR to represent the number of students enrolled in an institution located in each TAZ. SCHOOL_ENR includes the total number of students in kindergarten through twelfth grade (K-12) in public and private school, as well as the total number of students enrolled at a higher education institution.

2.7.1 K-12 Public and Private School Enrollment

Databases of 2019-2020 public and private school enrollment were acquired from the Florida Department of Education for all counties located in the NWFRPM. These databases included information on the school name, physical location, and total membership for each school. The addresses for schools in the databases were geocoded and assigned a TAZ based on the geocoding and verification process detailed in **Section 2.5**. The total K-12 school enrollment for each TAZ was calculated by summing the membership for all public and private schools located within a TAZ. This was then added to the higher education enrollments totals described in **Section 2.7.2**.

2.7.2 Higher Education Enrollment

To determine the number of students enrolled in higher education in the 2019-2020 school year, a database of all institutions within the Florida College System was obtained from the Florida Department of Education. State colleges in FDOT District 3 include Tallahassee Community College, Chipola State College, Northwest Florida State College, Gulf Coast State College (GCSC), and Pensacola State College (PSC). For university enrollment, private institutions, and

those state colleges with multiple campuses (NWFC, GCST, PSC), 2019-2020 enrollment was developed by contacting each institution's admission department. Universities and private institutions in FDOT District 3 include Florida State University, Florida Agricultural and Mechanical University, University of West Florida, and Pensacola Christian College. Each institution's address was identified, geocoded, and assigned a TAZ based off the process detailed in **Section 2.5**.

The total enrollment in a TAZ was calculated by summing the enrollment totals for all schools, K-12 public, private, and university enrollment for each TAZ and reported in the variable SCHOOL_ENR.

2.8 Household Work Status

The Zone List represents household work status in two variables that detail the percent of households comprised of retirees and the percent of households made up of workers with children.

2.8.1 Percent of Retired Households

Data Source: US Census Bureau 2016 – 2020 American Community Survey Five Year Estimates, Table B25007 – Tenure by Age of Householder

To determine the percentage of retired households (PCTRETIRED), *Table B25007 – Tenure by Age of Householder* was obtained at the Census Block Group level for all counties included in the NWFRPM. From this data the number of households with retirees was calculated for each Census Block Group using the variables detailed in **Table 10**.

To calculate the households with retirees, an assumption was made that all households with a householder in the age cohorts 65 years and older were retired, due to the common retirement age of 65. To obtain the percentage of retired households, the number of retired households in each Census Block Group was divided by the total number of households in the Census Block Group, also reported in *Table B25007*. This percentage is reported as a decimal to the hundredth place in the Zone List.

A limitation of this dataset is that age alone does not necessarily represent retirement status. However, it was determined to be the best available proxy for the parameter available at the Census Block Group geography. Additionally, each TAZ was assigned the retired household percentages of the Census Block Group in which it is primarily located, which may be representative of an area larger than the individual TAZ.

Table 10. Total Number of Retired Households Data Development

Zone List Variable	ACS Variable
PCTRETIRED: Percent of Retired Households	Owner occupied, householder 65 to 74 years Owner occupied, householder 75 to 84 years Owner occupied, householder 85 years and older Renter occupied, householder 65 to 74 years Renter occupied, householder 75 to 84 years Renter occupied, householder 85 years and older

2.8.2 Percent of Working Households with Children

Data Source: US Census Bureau, 2016 – 2020 American Community Survey Five Year Estimates, Table B11005 – Households by Presence of People Under 18 Years by Household Type

To determine the percent of working households with children (PCTWWC), *Table B11005 – Households by Presence of People Under 18 Years by Household Type* was obtained at the Census Block Group level for all counties included in the NWFRPM. From this data the number of households made up of workers with children was calculated using the variables detailed in **Table 11**.

Table 11. Total Number of Working Households with Children Data Development

Zone List Variable	ACS Variable
PCTWWC: Percent of Households Working Households with Children	Households with one or more people under 18 years old

To calculate this variable, it was assumed that all households with one or more people under 18 years or older were working households with children. To obtain the percentage of working households with children, the number of households comprised of workers with children in each Census Block Group was divided by the total number of households in the Census Block Group, also reported in *Table B11005*. This percentage is reported as a decimal to the hundredth place in the Zone List.

A limitation of this dataset is that it assumes all households with someone under the age of 18 have a working householder. While this may not always be true, the dataset was determined to be the best available proxy for the parameter available at the Census Block Group geography. Additionally, each TAZ was assigned the percentage of the Census Block Group in which it is primarily located, which may be representative of an area larger than the individual TAZ.

2.9 Vehicle Availability

Data Source: US Census Bureau, 2016 – 2020 American Community Survey Five Year Estimates, Table B25044 – Tenure by vehicles Available

The Zone List file details the percent of dwelling units with 0, 1, 2, and 3 or more vehicles available. *Table B25044 – Tenure by Vehicles Available* was obtained at the Census Block Group level for all counties included in the NWFRPM. From this data, the total number of dwelling units with 0 vehicles (PCTAUTOS0), 1 vehicle (PCTAUTOS1), 2 vehicles (PCTAUTOS2), and 3 or more vehicles (PCTAUTOS3) were calculated for each Census Block Group with the variables detailed in **Table 12**.

The percentage of dwelling units with 0 vehicles, 1 vehicle, 2 vehicles, and 3 or more vehicles available was computed for each Census Block Group by dividing the number of units with each vehicle availability by the total number of dwelling units in the Census Block Group. In the Zone List, this percentage is reported as a decimal to the hundredth place. Each TAZ was assigned the vehicle availability percentages of the Census Block Group in which it is primarily located, which may be representative of an area larger than the specific TAZ.

Table 12. Dwelling Unit Vehicle Availability Data Development

Zone List Variable	ACS Variable
PCTAUTOS0: Percent of Dwelling Units with No Vehicles Available	Owner occupied, no vehicles available Renter occupied, no vehicle available
PCTAUTOS1: Percent of Dwelling Units with 1 Vehicle Available	Owner occupied, 1 vehicle available Renter occupied, 1 vehicle available
PCTAUTOS2: Percent of Dwelling Units with 2 Vehicles Available	Owner occupied, 2 vehicles available Renter occupied, 2 vehicles available
PCTAUTOS3: Percent of Dwelling Units with 3 or More Vehicles Available	Owner occupied, 3 vehicles available Owner occupied, 4 vehicles available Owner occupied, 5 or more vehicles available Renter occupied, 3 vehicles available Renter occupied, 4 vehicles available Renter occupied, 5 or more vehicles available

3. 2050 SOCIO-ECONOMIC DATA

Section 3 details the development of the 2050 socio-economic dataset, represented in the Zone List. The primary source for the population and employment forecasts were the University of Florida's Bureau of Economic Business Research (BEBR) and Woods & Poole Economics, Inc. (Woods & Poole). The sections below provide information on the data sources and calculations, as well as assumptions and limitations for each socio-economic variable reported in the file.

3.1 Single Family and Multi-Family Population

Data Source: Bureau of Economic and Business Research, 2050 Projections of Florida Population by County, Medium Projection Series, acquired September 2024

The BEBR's 2050 Projections of Florida Population by County (Medium Projection Series), were obtained for all counties included in the NWFRPM. The 2050 population projections for the three TAZs in Lillian, Alabama were developed by growing population used in the adopted NWFRPM 2045 dataset by the same growth rate as neighboring Escambia County. These projections, reported in **Table 13**, serve as the total population county control totals for the 2050 data.

Following the determination of the county control totals, the population was allocated to the individual TAZs as single family (SFPOP) and multi-family population (MFPOP). The adopted 2045 dataset was used as the base for the development of the 2050 population distribution.

For counties included in Metropolitan Planning Organization boundaries (i.e., Bay, Escambia, Gadsden, Jefferson, Leon, Okaloosa, Santa Rosa, Wakulla, Walton County, and Lillian, Alabama) Land Use Committee Meetings were held to get feedback on anticipated future development patterns. Meetings were held with Land Use Committee Members of the Florida-Alabama Transportation Planning Organization (TPO), Okaloosa-Walton TPO, Bay County TPO, and the Capital Region Transportation Planning Authority (CRTPA). At these meetings, the adopted 2015 and 2045 datasets were presented, and feedback received on development patterns and trends, large-scale development projects, comprehensive and master plan updates, zoning changes, school site locations, and other relevant local knowledge.

Following these meetings, the information received was verified through examination of Future Land Use Maps, Comprehensive and Master Plans, County Property Appraiser Databases, Developments of Regional Impact, and supplemental coordination with local governments. Then based on this information and using the 2045 data as the base for development, single-family and multi-family population was allocated to the individual TAZs, ensuring the county population control totals were met. The split between single family and multi-family population was based on the 2045 dataset, as it was found to reflect anticipated future land use patterns.

For the counties outside of MPO boundaries (i.e., Calhoun, Franklin, Gulf, Holmes, Jackson, Liberty, and Washington County) the 2045 dataset was used as the base for development and

adjusted as needed to meet the county control total.

Following the initial distribution of 2050 single-family and multi-family population, the data was compared to the 2020 single-family and multi-family population reported in the 2020 Zone List to ensure reasonable growth patterns.

Table 13. 2050 Total Population County Control Totals

County	2050 Total Population
Bay	219,400
Calhoun	14,000
Escambia	376,700
Franklin	15,900
Gadsden	44,800
Gulf	19,500
Holmes	20,300
Jackson	51,200
Jefferson	17,000
Leon	343,300
Liberty	8,300
Okaloosa	262,200
Santa Rosa	278,000
Wakulla	46,900
Walton	124,800
Washington	28,300
Lillian, AL	3,700

3.2 Single Family and Multi-Family Dwelling Units

To determine the 2050 single family (SFDU) and multi-family dwelling units (MFDU) in a TAZ, the 2020 Zone List was used as the base for development. For each zone, the 2020 single family and multi-family occupancy rate was calculated. The same occupancy rate was applied to the single family and multi-family population data developed for 2050. If a TAZ did not have population in 2020, but is anticipated to have population in 2050, an appropriate occupancy rate was selected based on the expected land use patterns or the countywide occupancy average.

3.3 Single Family and Multi-Family Dwelling Unit Vacancy and Auto Availability

As discussed in **Section 2**, the NWFRPM Zone List includes variables that represent the single family and multi-family dwelling unit vacancy and auto availability. **Section 2.3** details the development of the variables that reflect the percentage of single family and multi-family dwelling

units that are either vacant and non-permanent (SF_PCTVNP and MF_PCTVNP) or vacant, non-permanent, and seasonal (SF_PCTVAC and MF_PCTVAC). **Section 2.4** details the development of the variables that reflect the auto availability of single family and multi-family dwelling units (SF_0AUTO, SF_1AUTO, SF_2AUTO, MF_0AUTO, MF_1AUTO, and MF_2AUTO).

There is not a data source that provides updated forecasts of these variables. Therefore, the percentages in the 2020 dataset were utilized in 2050. Percentages were reviewed for reasonableness and adjusted if anticipated land use patterns were particularly different from those in 2020.

3.4 Number of Employees by Industry Category

Data Source: Woods & Poole Economics, Inc., 2050 Employment Projections, acquired September 2024

Data Source: Bureau of Economic and Business Research, 2050 Projections of Florida Population by County, Medium Projection Series, acquired September 2024

The source of the 2050 population projections, BEBR, does not develop employment projections. Therefore, Woods & Poole's 2050 Employment Projections was utilized to develop the 2050 employment county control totals. However, the Woods & Poole projection methodology is different from the methodology used by BEBR. While BEBR does not create employment projections, Woods & Poole does create population projections. To ensure consistency in the forecasts, the percentage adjustment required for the Woods & Poole population projections to match the BEBR projections was determined. This same percentage was applied to the Woods & Poole employment projections to reach adjusted county control totals that are consistent with the BEBR population totals. The 2050 employment projections for the three TAZs in Lillian, Alabama were developed by growing employment used in the adopted NWFRPM 2045 dataset by the same growth rate as neighboring Escambia County. These adjusted projections, reported in **Table 14**, serve as the employment county control totals for the 2050 Zone List.

Following the determination of the county control totals, the employment by category was allocated to the individual TAZs. The process to allocate this data was the same as done for single family and multi-family population, described in **Section 3.1**.

Table 14. 2050 Employment County Control Totals

County	Industrial	Commercial	Service	Total
Bay	15,810	32,048	102,108	149,966
Calhoun	854	217	3,422	4,493
Escambia	22,295	86,115	181,014	289,424
Franklin	1,217	1,516	4,697	7,430
Gadsden	8,110	2,861	13,940	24,911
Gulf	1,216	3,679	5,131	10,026
Holmes	1,529	665	4,548	6,742
Jackson	5,835	2,368	16,629	24,832
Jefferson	1,721	1,199	3,557	6,477
Leon	11,971	52,756	205,644	270,371
Liberty	824	194	2,391	3,409
Okaloosa	15,135	45,055	130,586	190,776
Santa Rosa	11,950	19,543	82,312	113,805
Wakulla	993	3,455	11,194	15,642
Walton	12,274	25,758	80,098	118,130
Washington	1,631	1,534	8,555	11,720
Lillian, AL	0	141	79	220

3.5 Hotel and Motel Dwelling Units, Percent Occupied, and Population

As detailed in **Section 2.5**, the NWFRPM Zone List three variables representing hotel and motel data: hotel/motel dwelling units (HMDU), hotel/motel percent occupied (HM_PCTOCC), and hotel/motel population (HMPOP). The 2045 hotel/motel dwelling unit projections were the basis of the 2050 dataset. The dwelling unit locations were reviewed in coordination with the 2020 data and adjusted to ensure reasonable growth.

The 2020 percent of rooms occupied (HM_PCTOCC) was utilized in the 2050 Zone Lis. If a TAZ did not have hotel/motel dwelling units in 2020, it was assigned an occupancy rate consistent with surrounding TAZs. The hotel/motel population (HMPOP) was again calculated by multiplying the number of hotel/motel rooms (HMDU) by the percentage of occupied rooms (HM_PCTOCC) and the county's hotel/motel average occupancy per room, used in the 2020 Zone List and reported in **Table 8**.

3.6 School Enrollment

As detailed in **Section 2.7**, the NWFRPM Zone List file reports the number of enrolled students (SCH_ENR). The 2045 school enrollment projections were the basis of the 2050 dataset. The data was adjusted based on the change in the population forecast from 2045 to 2050. For example, if

the population forecasted for a county increased by 3-percent from 2045 to 2050, school enrollment was increased by approximately 3-percent. The school locations and enrollment totals were reviewed in coordination with the 2050 population and dwelling unit totals and adjusted for reasonableness.

3.7 Household Work Status

As discussed in **Section 2.8**, the NWFRPM Zone List represents household work status in two variables that details the percent of households that are comprised of retirees (PCTRETIRED) and the percent of households made up of workers with children (PCTWWC). There is not a data source that provides updated forecasts of these variables. Therefore, the percentages developed for the 2020 dataset are also utilized in 2050. The percentages were reviewed for reasonableness and adjusted if anticipated land use patterns were particularly different from those in 2020.

3.8 Vehicle Availability

Section 2.9 details the development of the variables that reflect percent of dwelling units with 0, 1, 2, and 3 or more vehicles available (PCTAUTOS0, PCTAUTOS1, PCTAUTOS2, and PCTAUTOS3). There is not a data source that provides updated forecasts of these variables. Therefore, the percentages developed for the 2020 dataset are also utilized in 2050. The percentages were reviewed for reasonableness and adjusted if anticipated land use patterns were particularly different from those in 2020.