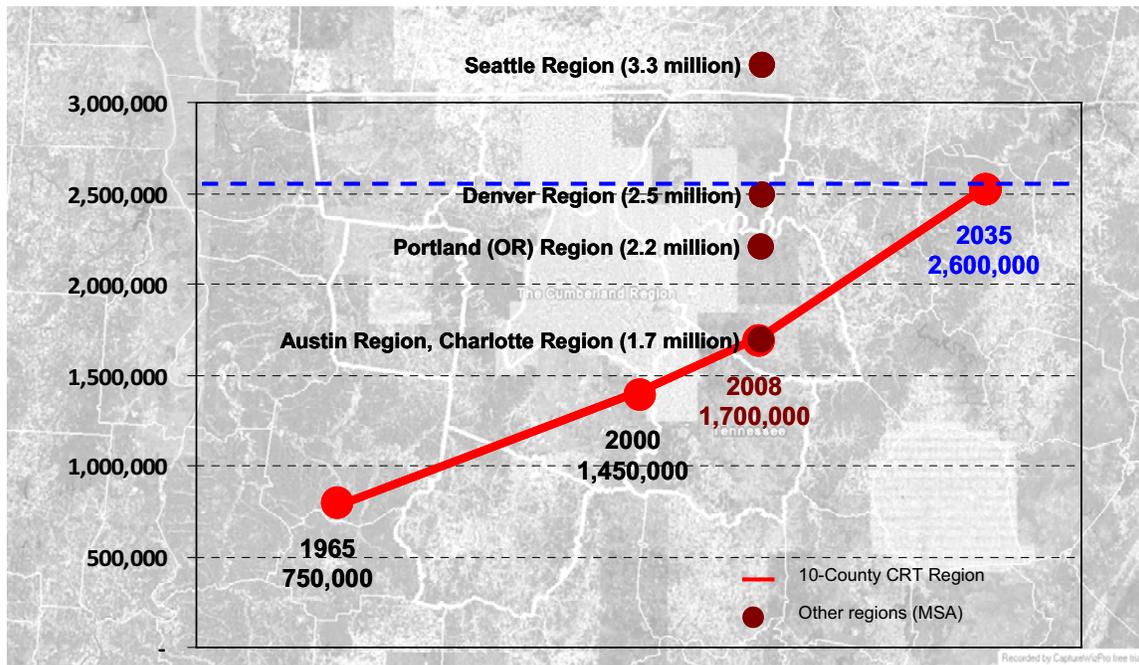


3.0 Regional Growth Forecasts

3.1 Population & Employment Trends

The greater Nashville area is poised to grow by leaps and bounds over the next 25 years. Across the 10-county Middle Tennessee region, the MPO forecasts nearly one million more people to live in the area by the year 2035. Where those people live, work, and play, along with their socio-economic characteristics, will significantly influence the need for investments into our region's transportation infrastructure. As we think about future investments in transportation, it is important to realize that by the 2035, our region will be as large as the Denver region is today.

Figure 9. Middle Tennessee Population Growth Trends and Forecast, 1965 to 2035



Source: U.S. Census Bureau, Woods & Poole Economics.

Much of the projected growth for Middle Tennessee is expected to occur within the seven counties that are included, at least in part, in the planning area of the Nashville Area MPO. As shown in the following tables, from 2006 -- a year following the adoption of the MPO's last regional transportation plan -- to the year 2035, the seven county area is expected to see a 56 percent increase in population and jobs.

Davidson County is expected to remain the most populous county of the region and the center of the region's job market, adding another 138,470 people and 196,429 jobs by the year 2035. Williamson County is expected to see the largest rate of growth, as well as the largest net increase in population (228,976 people), more than doubling its population from 2006 through 2035, from 159,094 people to 387,970-- a 144 percent increase.

Table 2. Population & Jobs Forecast for MPO Counties

	YEAR	MPO	DAVIDSON	MAURY	ROBERTSON	RUTHERFORD	SUMNER	WILLIAMSON	WILSON
People	2006	1,394,928	613,856	77,550	61,708	230,980	148,534	159,094	103,206
	2015	1,637,000	654,879	89,371	73,949	288,734	172,232	229,052	128,783
	2025	1,904,300	702,871	101,595	87,563	349,083	197,500	308,328	157,360
	2035	2,174,914	752,326	114,005	101,324	409,986	223,124	387,970	186,179
Jobs	2006	983,074	559,435	44,773	29,573	131,831	57,236	108,904	51,322
	2015	1,128,118	618,891	50,722	34,251	155,284	64,282	143,628	61,060
	2025	1,316,029	687,059	58,019	40,223	187,195	73,129	196,539	73,865
	2035	1,536,746	755,684	65,964	47,049	226,453	83,053	269,755	88,788

Source: U.S. Census Bureau, Woods & Poole Economics

Over the next quarter century, the demographic makeup of the region is expected to change significantly from that of today, particularly with respect to race, ethnicity, and age. By the year 2035, 15 percent of residents in the area will be 65 years or older, compared with about 11 percent today. Nationally, by the year 2025, experts expect just over one-quarter of all households will have children living at home – compared with about half of households back in the 1950s. The region’s population also will be more racially and ethnically diverse. According to MPO forecasts provided by Woods and Poole Economics, by the year 2035, the percentage of the population within the region of Hispanic ethnicity will grow to 19 percent from about 6 percent in 2010.

Table 3. Change in Key Demographic Indicators, 1990-2035

Demographic	1990	2000	2010	2035
Total Population	982,486	1,226,954	1,506,645	2,174,914
Median Age	33	35	36	35
Non-White, Non-Hispanic	17%	19%	20%	20%
Hispanic	1%	3%	7%	20%
65 Years of Age or Older	11%	10%	11%	15%

Source: U.S. Census Bureau, Woods & Poole Economics

Since the mid-1980s, the counties surrounding Davidson County have been experiencing rapid population and economic growth, resulting in a diversification of economies and the development of a regional economy. Mirroring trends at the national level, the Nashville region will see continued job losses (-14%) in the Manufacturing and Industrial sectors while Nashville’s strength in the Medical and Services (+78%) sectors will drive future growth. Transportation, Communication and Public Utilities will also experience noteworthy growth.

Table 4. Regional Employment by Industry/ Sector, 2008-2035

Category	Detailed Category	2008		2035		Change 2008-2035
		Jobs	% of Jobs	Jobs	% of Jobs	
Totals		1,013,430	100%	1,536,746	100%	52%
Industrial	Farm and Agricultural Services	13,386	1.32%	14,217	0.93%	6%
	Mining	928	0.09%	912	0.06%	-2%
	Construction Employment	65,045	6.42%	92,297	6.01%	42%
	Manufacturing Employment	83,309	8.22%	71,806	4.67%	-14%
	Trans, Comm, & Public Utilities	40,604	4.01%	68,429	4.45%	69%
	Wholesale Trade	43,167	4.26%	49,819	3.24%	15%
Retail	Retail Trade	185,871	18.34%	278,331	18.11%	50%
Office	Finance, Insurance, & Real Estate	88,668	8.75%	120,327	7.83%	36%
	Services	391,338	38.62%	697,292	45.37%	78%
	Government	101,114	9.98%	143,316	9.33%	42%

Source: U.S. Department of Labor, Woods and Poole Economic

Table 5. Percentage of Jobs by Employment Category and County, 2008-2035

Year	Category	Davidson	Maury	Robertson	Rutherford	Sumner	Williamson	Wilson
2008	Industrial	19%	33%	44%	36%	34%	17%	35%
	Retail	19%	16%	15%	16%	17%	20%	18%
	Office	62%	52%	41%	48%	49%	63%	47%
2035	Industrial	15%	26%	37%	31%	31%	11%	28%
	Retail	17%	15%	13%	20%	16%	21%	21%
	Office	68%	59%	50%	49%	53%	68%	51%

Source: U.S. Department of Labor, Woods and Poole Economic

3.2 Land Development Forecasts

As indicated by the MPO’s projection for a 56 percent increase in population between now and 2035, the Nashville area is anticipated to grow as a region well into the future. Determining where those people will live, work, and play is instrumental in determining where and how transportation infrastructure should be improved or expanded to accommodate that growth. While predicting the future is no easy task, the MPO employs a state-of-the-art geographic information system (GIS) modeling tool to assist in the effort.

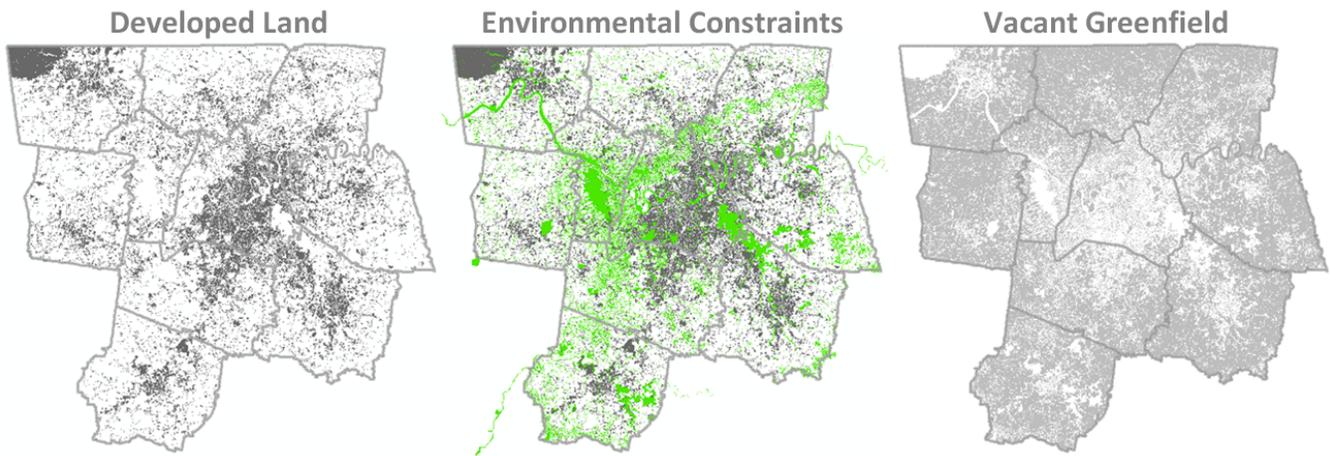
The MPO’s regional land use model, built using *CommunityViz*, is the tool used to predict future demographic potential of each parcel of land throughout the region. This model allocates future households and employment throughout the region based on the land use policies and the each parcel of land’s ability to attract new growth.

The basic premise of the land use model is the concept of supply and demand. The supply is simply the region’s ability to accommodate new development. In other words, it’s the regions "development capacity". Supply is usually determined by land use policies and/or subdivision regulations and provides specific guidelines that developers should follow when looking at a prospective piece of property. Demand is the region’s predicted growth based on the region’s economic outlook. This value can, (and does), change on a regular basis so it’s important to monitor this and revise the demand when appropriate.

Step 1: Identify Land Available for Future Development

The first step in predicating a future land development pattern is to identify those areas that can physically accommodate future growth. This analysis includes the identification of parcels of land throughout the region that are either already developed, or have some characteristic or factor that prevents or precludes future growth from occurring. Natural barriers such as bodies of water or steep slopes, or land protected by public policy or regulation (e.g., parks, conservation areas, etc.) are taken off the table and not considered available for future development. The result of this analysis produces a map of vacant Greenfield parcels that have the capacity to support some amount of future growth.

Figure 10. Land Availability Analysis



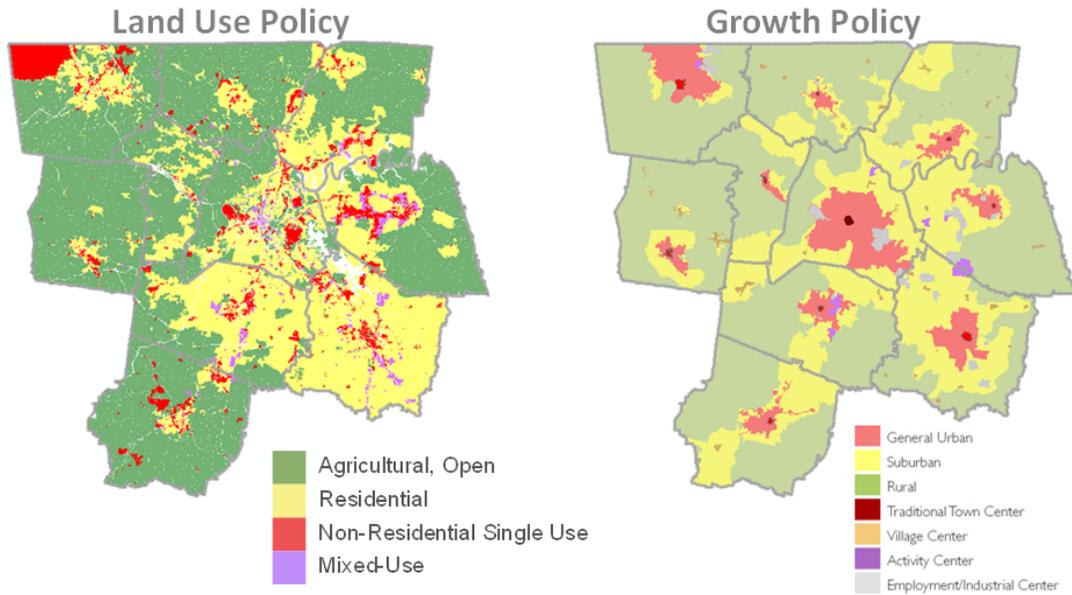
Step 2: Identify the Development Capacity of that Land

Exactly how much opportunity a parcel has to support future growth is determined by several factors. The second step in the land use modeling process measures each parcel's development capacity through an in-depth analysis of its land area, topographic features, and the implications of the overlying land development regulations and local land use policies.

Capacity is calculated for each parcel for a three-dimensional area called a building envelope. The building envelope exists on the portions of the parcel that can physically support development and is further defined by land development regulations (e.g., parking requirements, allowable density or floor-area-ratios, building heights, setbacks, etc.). The local land use policy dictates what type of capacity is being calculated (e.g., residential, commercial, mixed-use, etc).

Because of the regional scale of the MPO's land use model, it is not practical to analyze the specific land development regulations that apply to every single parcel throughout the area. Instead, the MPO assigns each parcel into one of eight character area types (e.g., general urban, suburban, rural, town center, etc.) which provide generalized assumptions about the land development regulations that would apply to a set of parcels that are part of a relatively homogeneous area. The following figure presents the generalized land use policies and land development regulations (or growth policy) that are used by the land use model.

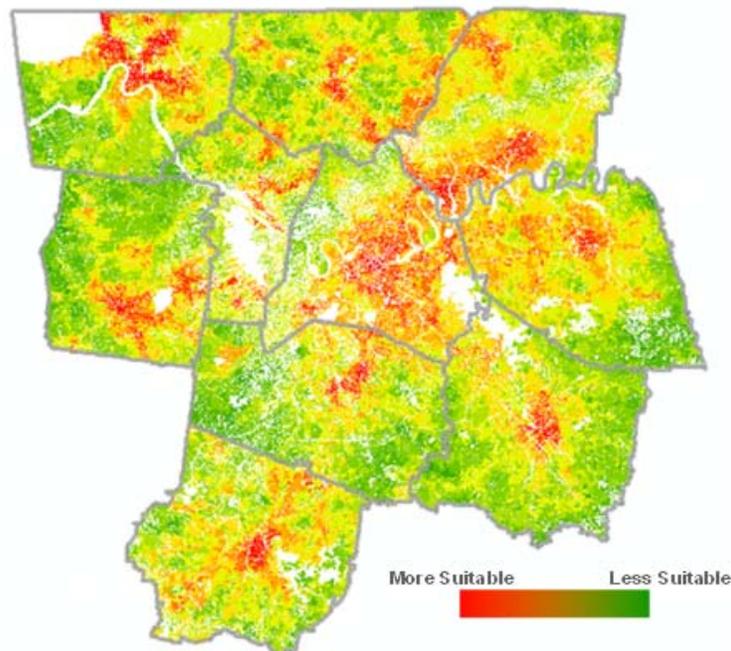
Figure 11. Land Use and Capacity Analysis



Step 3: Assess the Attractiveness of that Land to Future Development

Up to this point, no effort has been made to account for the real-world influences that determine to what extent the real estate market will invest or not in future development. The third step in the land use modeling process involves developing a measure of suitability, or level of attractiveness, for each parcel to develop at some point in the future. In taking this step, the MPO relied heavily on the input from real estate developers from across the region to identify the attributes that must exist in order to make a property a worthwhile investment. Using that local expertise, the MPO assign a suitability score to each parcel based on its proximity to a long list of assets or liabilities that make it more or less attractive for development.

Figure 12. Land Suitability Analysis

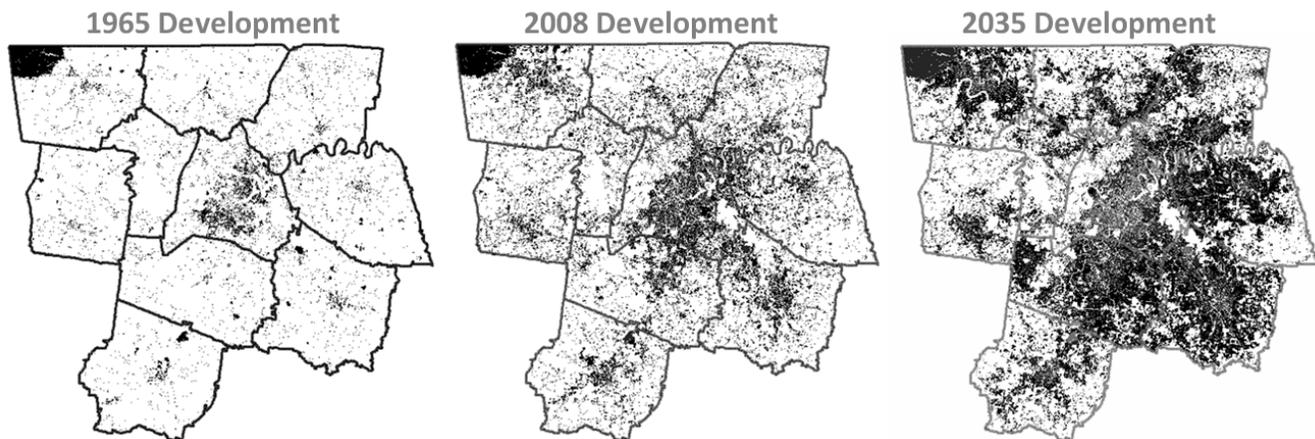


Step 4: Allocate New Growth to Suitable Land

The last step in the land use modeling process is the allocation of future growth to vacant parcels. In this final step, the model first looks to allocate future growth to the more suitable parcels, but not to exceed any one parcel's available capacity for growth. Once a parcel has reached its full potential – as defined by its own physical features as well as local policy and regulation – the model removes the parcel from further consideration.

The following figure presents the results of the 2035 land use model, compared with the observed land development pattern of 1965 and 2008.

Figure 13. Land Development Trends and Forecast, 1965 to 2035



Distribution of People and Jobs

With the land use modeling task complete, the MPO is able to complete its forecasts of future growth by identifying where people will live in work in the future. The results of such analysis become the basis for predicting future traffic congestion using the MPO's regional travel demand model.

The following figures present the resulting forecast for the distribution of people and jobs throughout the MPO area, with a comparison made to the observed pattern of 2008.

Figure 14. MPO Residential Growth by Block, 2008 to 2025

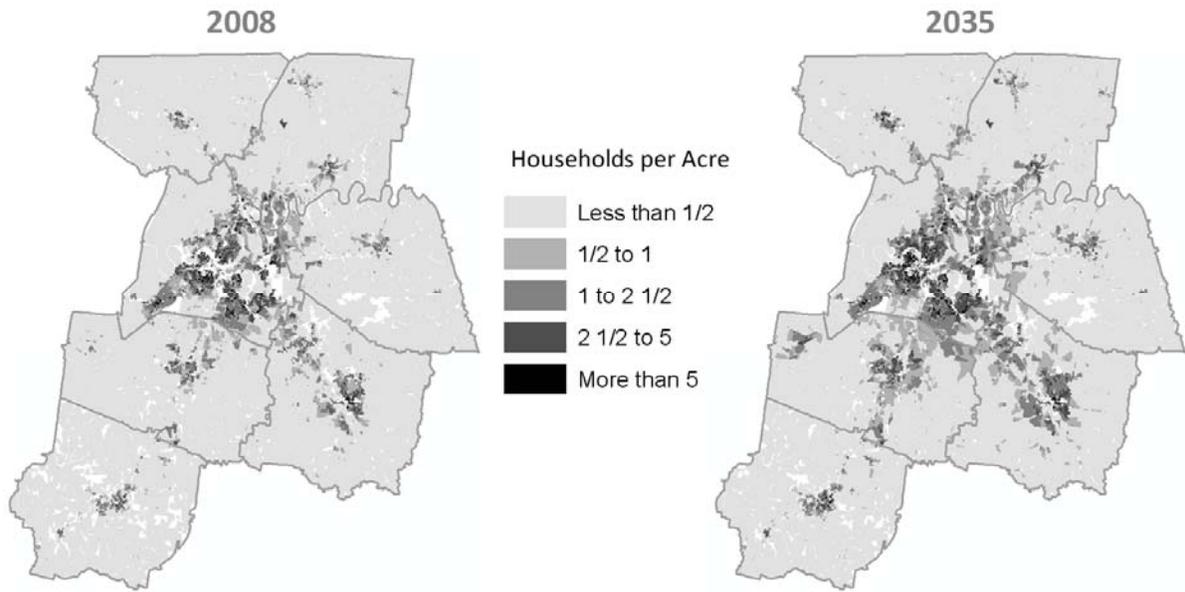


Figure 15. MPO Employment Growth by Block, 2008 to 2025

