

Appendix G- Knox County Components

The 2023-2050 CORPO Transportation Plan is updated every five years and covers transportation needs for the entire region. The plan includes regional transportation goals, objectives, and performance measures, summarizes population and economic trends for the CORPO planning area, describes CORPO’s multimodal transportation system and its conditions, and identifies strategies and projects associated with the management and development of the transportation system.

This County Components appendix is intended to supplement the content in the 2023-2050 CORPO Transportation Plan document, providing a copy of the seven-county information included in the document, with a highlighted focus on data for Knox County.

Sections in this appendix correspond with chapters in the full document text. This appendix provides highlighted data for Knox County without additional analysis or context. For context and analysis about each measure provided in this appendix, reference the corresponding chapters of the full plan document, listed below.

- Knox County Population, Employment, and Households Overview- [Chapter 2, Regional Trends and Conditions](#)
- Knox County Transportation System- [Chapter 3, The Regional Transportation System](#)
 - [Appendix A: Inventory of Bridge Conditions](#), for a complete inventory of bridges and condition ratings as of 2023.
- Knox County Projects- [Chapter 4, Recommended Strategies and Projects](#)

G.1 Knox County Population, Employment, and Households Overview

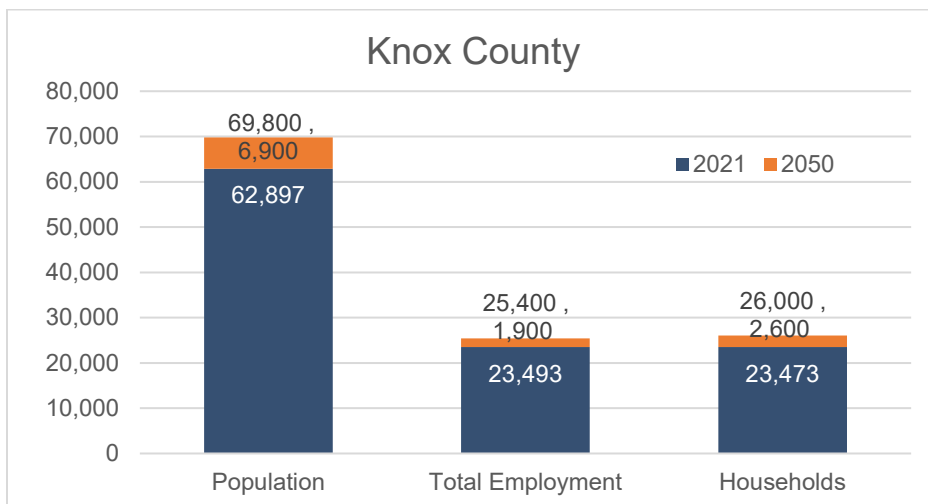
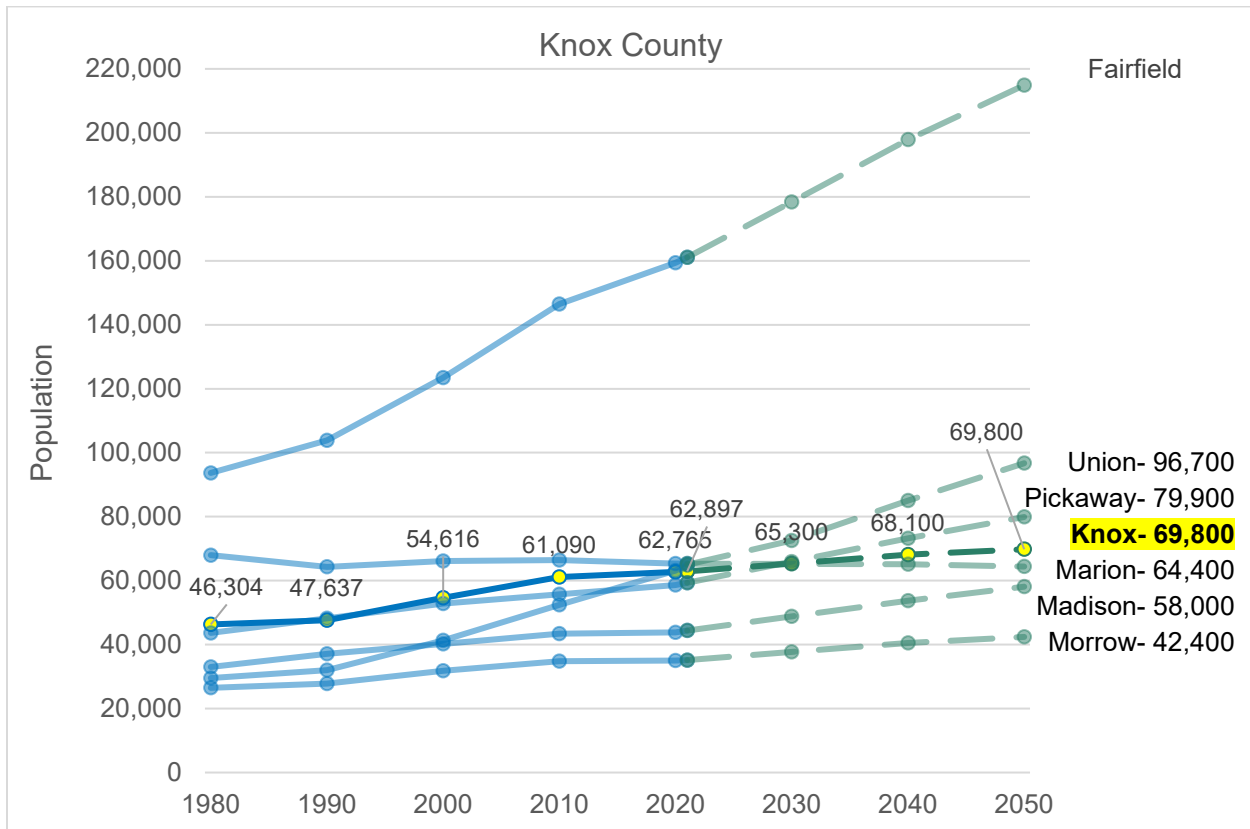


Figure G. 1 Projected Population, Households, and Jobs Growth

Source: MORPC Forecasts

*Forecasted population, employment, and households rounded to nearest 100

Characteristics of Population Growth



County	HISTORIC					FORECASTED		
	1980	1990	2000	2010	2021	2030	2040	2050
Total All CORPO	340,638	360,911	410,413	460,393	493,093	533,800	583,600	626,100
Fairfield	93,678	103,823	123,485	146,417	161,064	178,400	197,900	214,900
Union	29,536	32,010	41,338	52,464	64,971	72,500	85,000	96,700
Pickaway	43,662	48,257	52,808	55,740	59,333	65,900	73,200	79,900
Knox	46,304	47,637	54,616	61,090	62,897	65,300	68,100	69,800
Marion	67,974	64,289	66,135	66,458	65,291	65,200	65,100	64,400
Madison	33,004	37,111	40,218	43,434	44,386	48,800	53,700	58,100
Morrow	26,480	27,784	31,813	34,790	35,151	37,700	40,500	42,400

Figure G. 2 Population Growth, Historic and Forecasted

Source: Census Population Estimates Program & MORPC Population Forecasts

*Forecasted populations rounded to the nearest 100

County	Historic Growth Overview				Forecasted Growth Overview			
	1980 - 2021				2021 - 2050			
	Growth	% Growth	Period Annual Growth Rate	Period Annual Growth	Growth	% Growth	Period Annual Growth Rate	Period Annual Growth
Total ALL CORPO	152,455	45%	1%	3,718	133,007	27%	1%	4,586
Fairfield	67,386	72%	1%	1,644	53,836	33%	1%	1,856
Union	35,435	120%	2%	864	31,729	49%	1%	1,094
Pickaway	15,671	36%	1%	382	20,567	35%	1%	709
Knox	16,593	36%	1%	405	6,903	11%	0%	238
Marion	(2,683)	-4%	0%	(65)	(891)	-1%	0%	(31)
Madison	11,382	34%	1%	278	13,714	31%	1%	473
Morrow	8,671	33%	1%	211	7,249	21%	1%	250

Table G. 1 Population Growth Rates, Historic and Forecasted

Source: Census Population Estimates Program & MORPC Population Forecasts

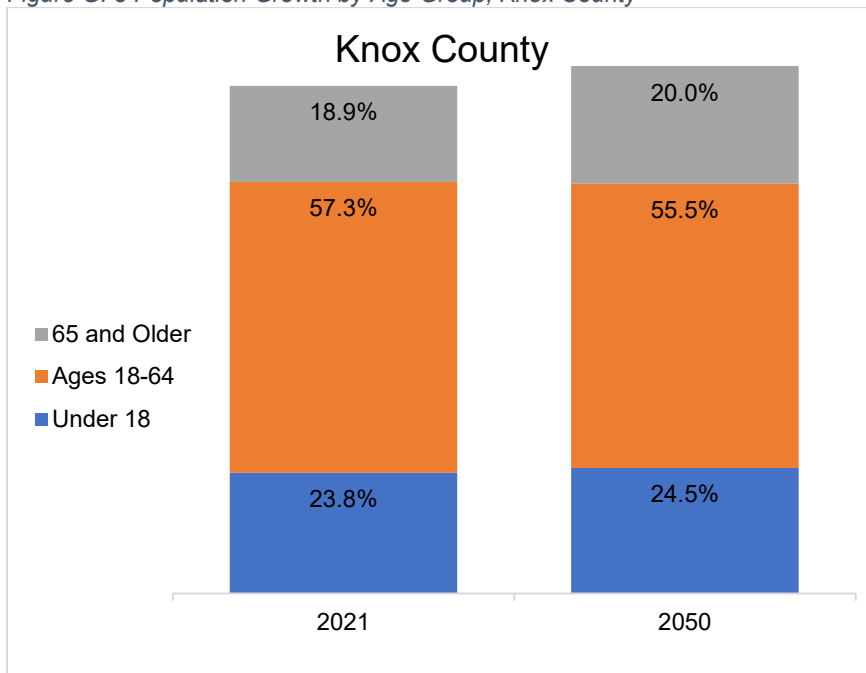
AGE

Table G. 2 Population Growth by Age Group

County	2021			2050		
	Under 18 %	18-64%	65+ %	Under 18 %	18-64%	65+ %
Total ALL CORPO	22.6%	60.6%	16.8%	22.2%	59.3%	18.5%
Fairfield	24.1%	60.0%	17.0%	24.1%	58.9%	17.0%
Knox	24.5%	57.3%	20.0%	24.5%	55.5%	20.0%
Madison	17.7%	63.5%	21.1%	17.7%	61.1%	21.1%
Marion	20.5%	60.2%	18.9%	20.5%	60.6%	18.9%
Morrow	18.8%	59.5%	24.7%	18.8%	56.5%	24.7%
Pickaway	19.0%	62.2%	19.7%	19.0%	61.3%	19.7%
Union	24.3%	62.8%	15.2%	24.3%	60.5%	15.2%

Source: Census Population Estimates Program & MORPC Population Forecasts

Figure G. 3 Population Growth by Age Group, Knox County

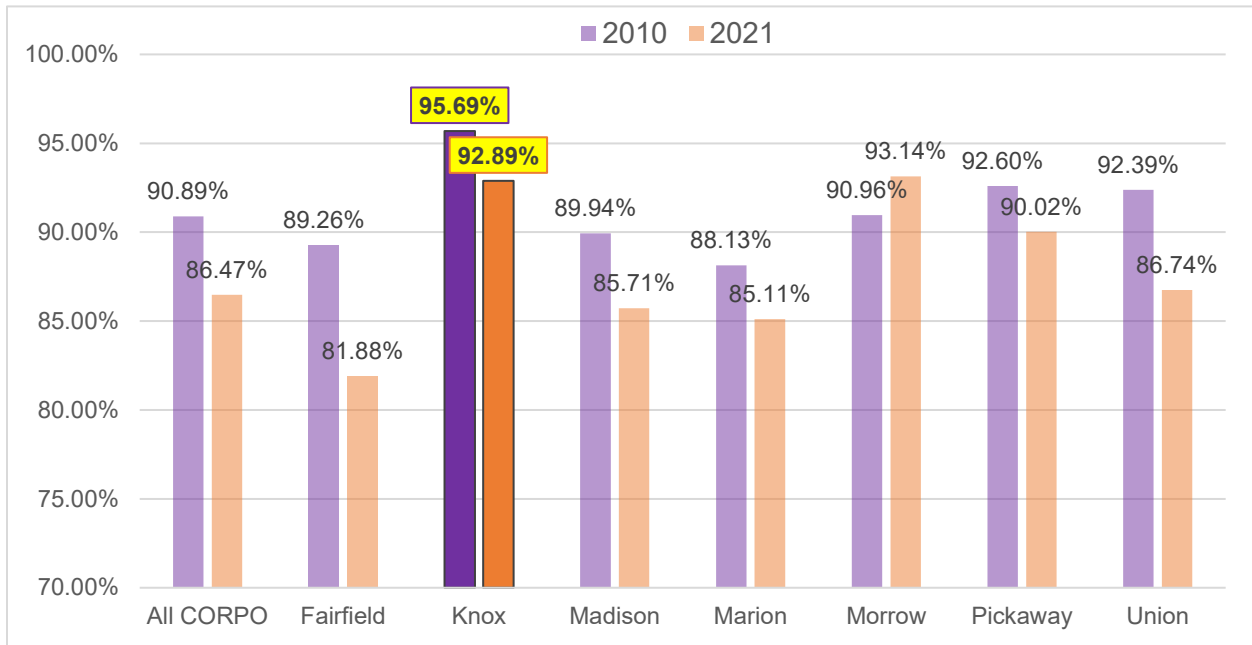


Source: Census Population Estimates Program & MORPC Population Forecasts

POPULATION DEMOGRAPHIC AND SOCIOECONOMIC FACTORS

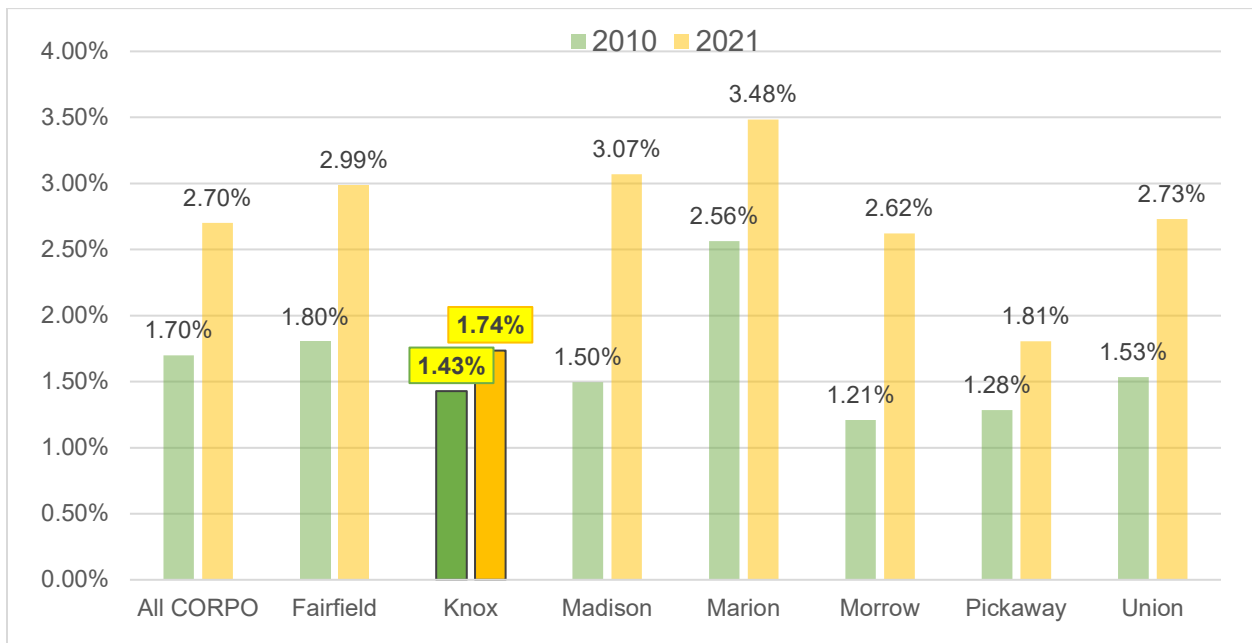
RACE AND ETHNICITY

Figure G. 4 Share of Population Identifying as White Alone, 2010 & 2021



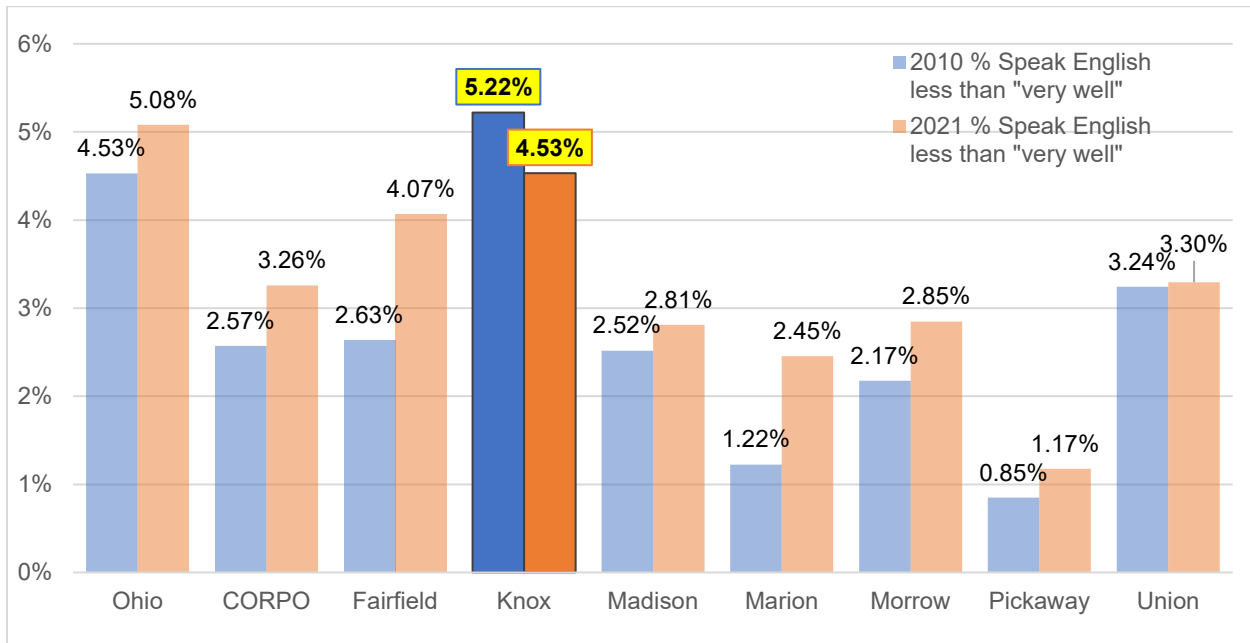
Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

Figure G. 5 Share of Population Identifying as Hispanic or Latino, 2010 & 2021



Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

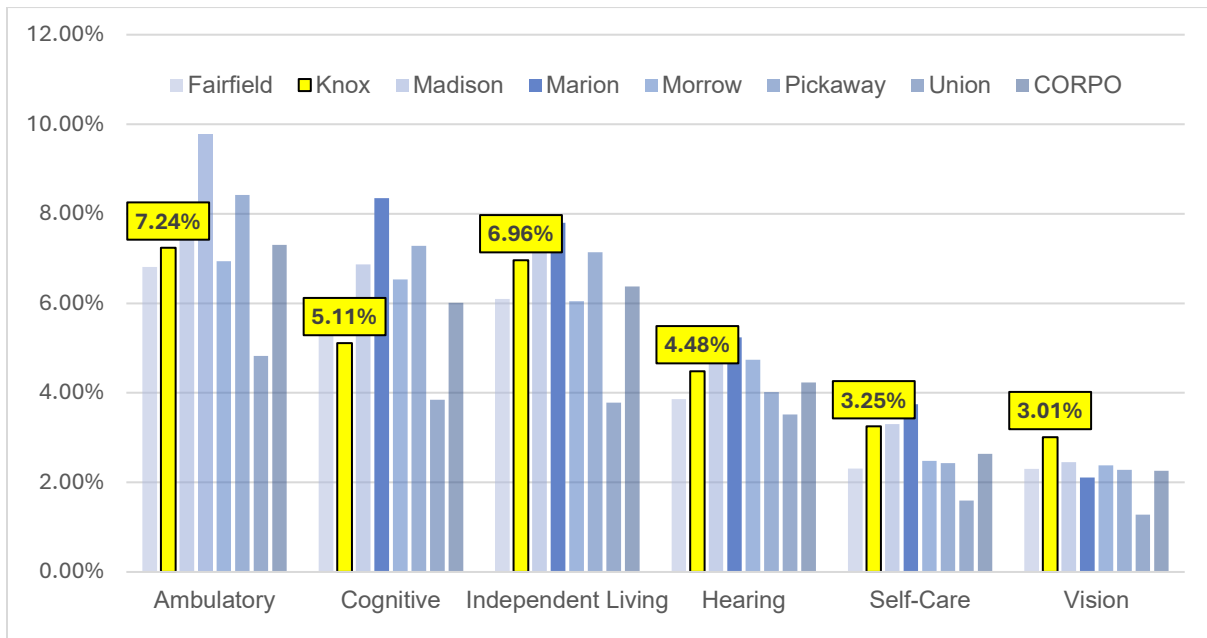
Figure G. 6 Percent of Population Age 5 years & over, LEP, 2010 & 2021



Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

DISABILITY STATUS

Figure G. 7 Percent of Population* with Denoted Disabilities by County, 2021

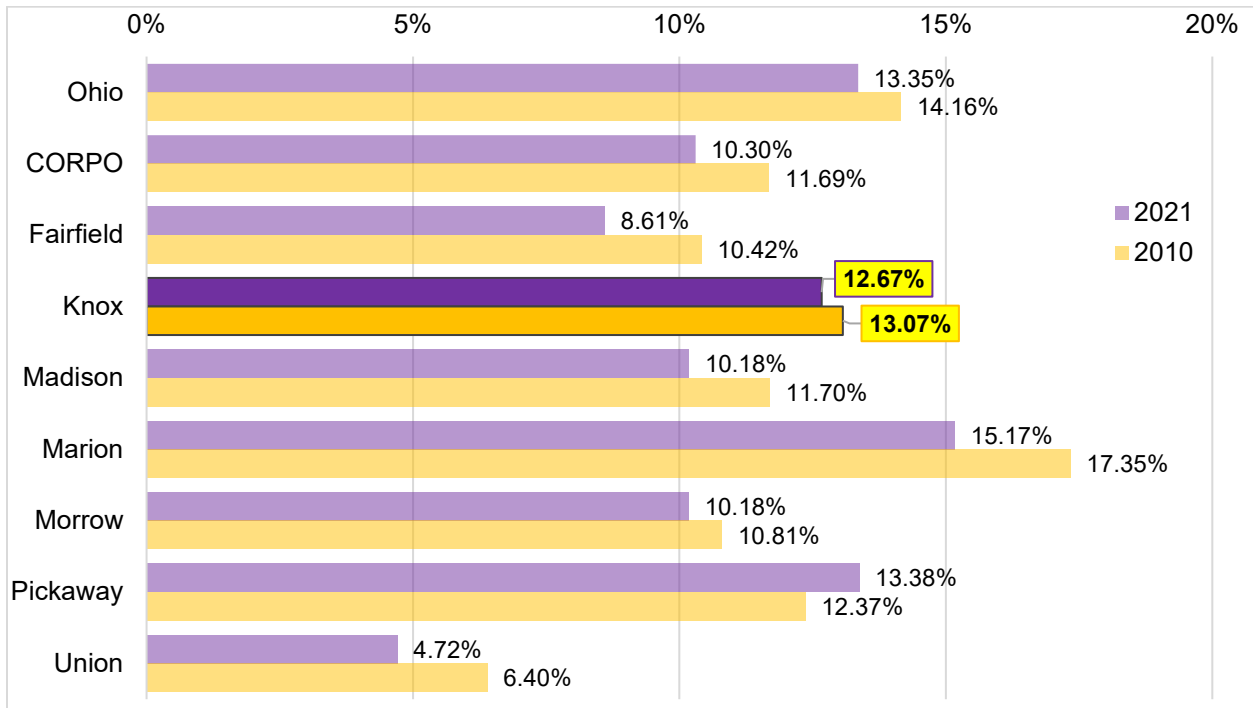


*Populations of Interest age groups- Ambulatory, Cognitive, and Self-Care disabilities cover populations over 5 years of age, independent living disability covers populations over 18 years of age, and hearing and vision disabilities cover all ages.

* Persons may have more than one denoted disability Source- American Community Survey 5-Year Population Estimates, **2017-2021

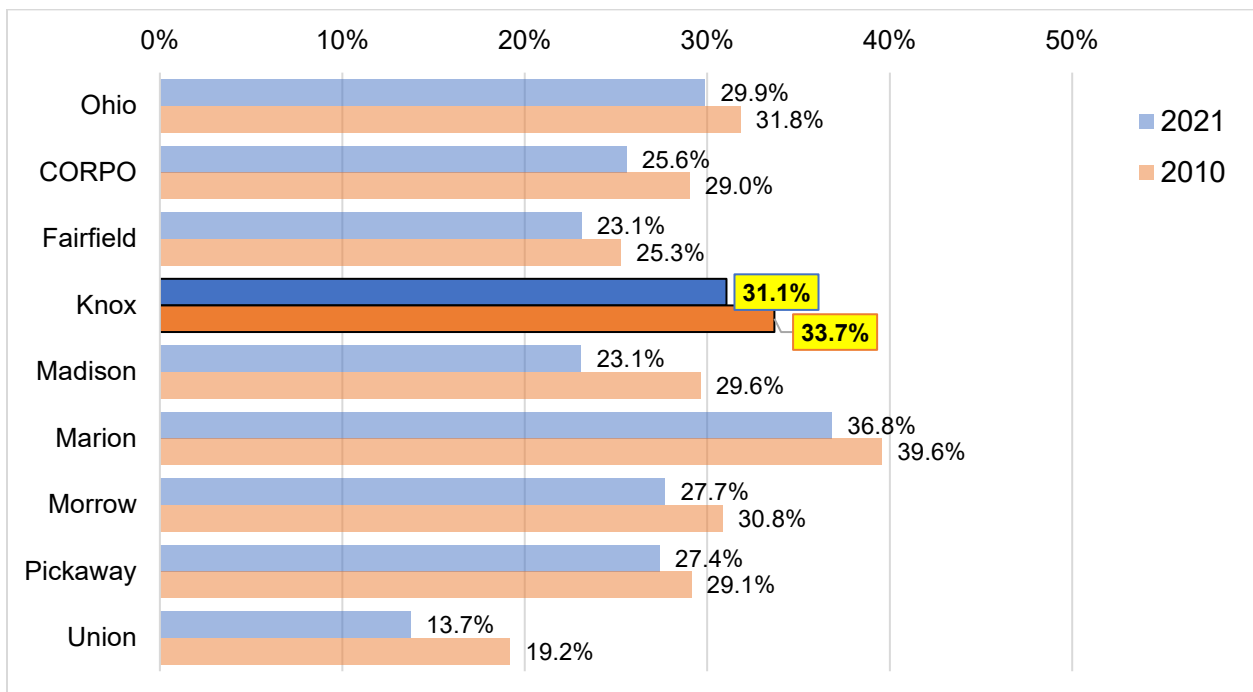
POPULATION IN POVERTY

Figure G. 8 Percent of Population under 100% Federal Poverty Line, 2010 & 2021



Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

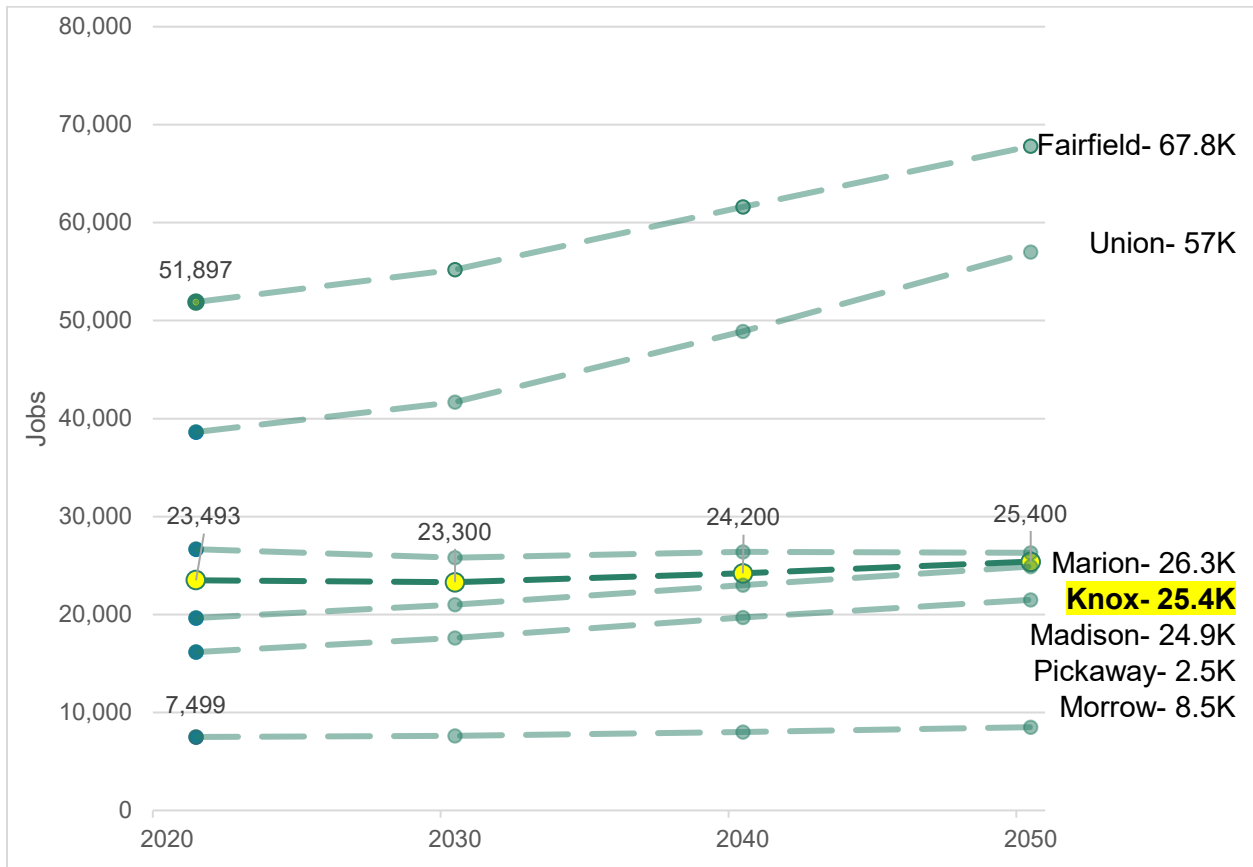
Figure G. 9 Percent of Population under 200% Federal Poverty Line, 2010 & 2021



Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

Characteristics of Employment Growth

Figure G. 10 Total Employment Trend, 2021-2050



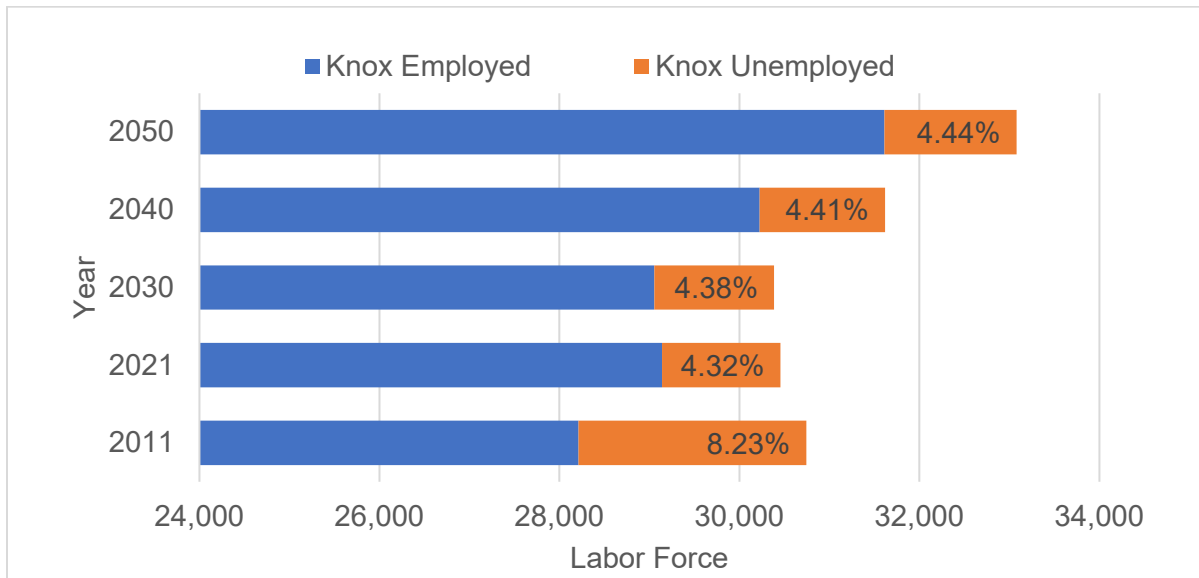
County	HISTORIC	FORECASTED		
	2021	2030	2040	2050
Total All CORPO	183,992	192,200	211,800	231,400
Fairfield	51,897	55,200	61,600	67,800
Union	38,627	41,700	48,900	57,000
Marion	26,665	25,800	26,400	26,300
Knox	23,493	23,300	24,200	25,400
Madison	19,646	21,000	23,000	24,900
Pickaway	16,165	17,600	19,700	21,500
Morrow	7,499	7,600	8,000	8,500

Source: MORPC Employment Forecasts

*Forecasted employment rounded to the nearest 100

UNEMPLOYMENT

Figure G. 11 Knox County Unemployment Historic & Projected



Source: American Community Survey, 5-Year Estimates 2007-2011; 2021-2050 MORPC Employment Forecasts

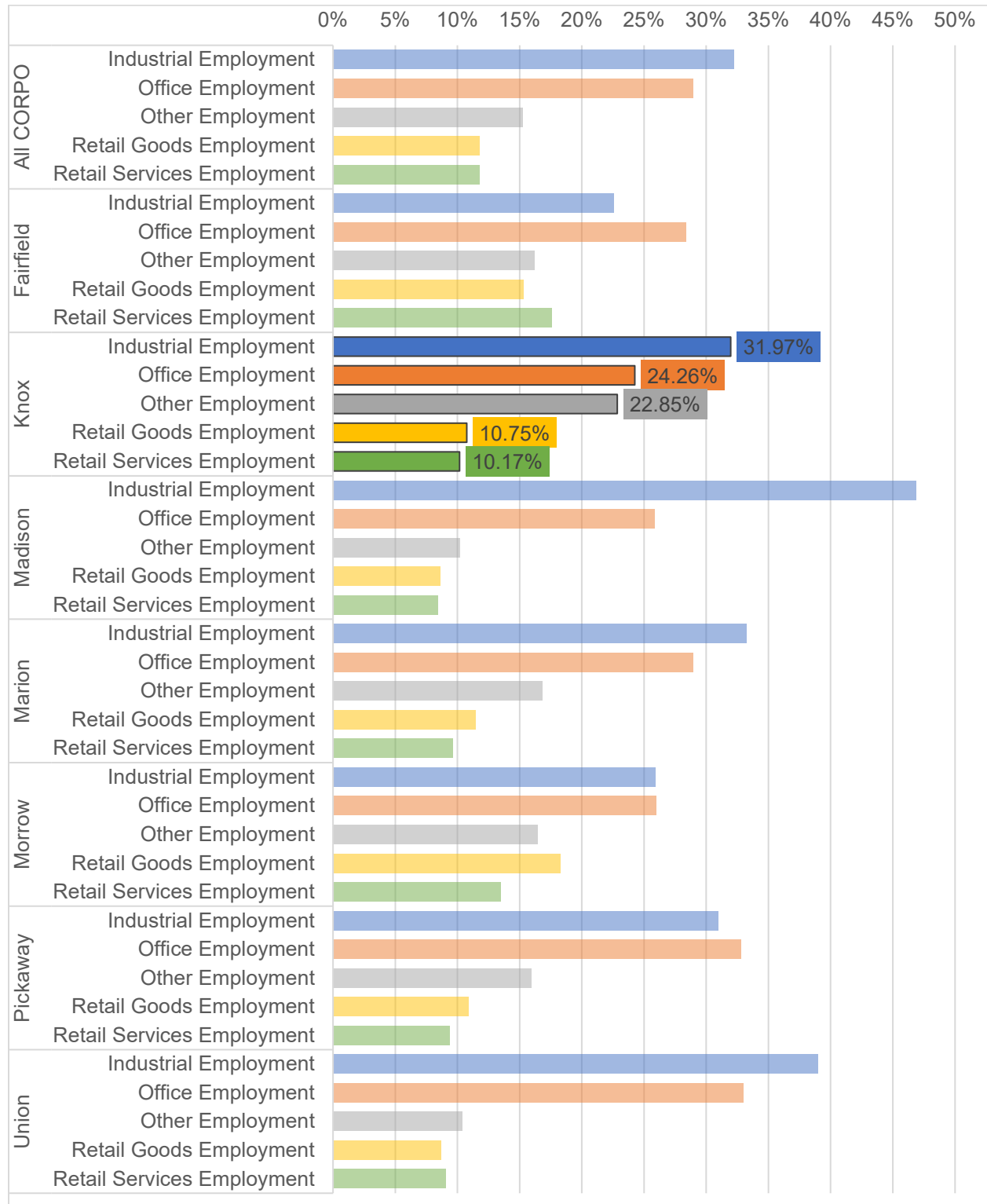
Table G. 3 Knox County Unemployment Compared to CORPO, Historic & Forecasted

County	Historic				Forecasted					
	2011		2021		2030		2040		2050	
	Labor Force	% Unemployed	Labor Force	% Unemployed	Labor Force	% Unemployed	Labor Force	% Unemployed	Labor Force	% Unemployed
Total All CORPO	224,685	7.58%	236,364	4.18%	249,400	4.15%	273,200	4.14%	297,100	4.09%
Fairfield	74,419	8%	80,424	4%	86,600	4%	96,100	4%	105,800	4%
Knox	30,742	8%	30,456	4%	30,400	4%	31,600	4%	33,100	4%
Madison	20,447	6%	20,158	4%	21,700	4%	23,700	4%	25,700	4%
Marion	30,892	9%	27,820	6%	27,100	6%	27,800	6%	27,600	6%
Morrow	17,568	7%	18,136	3%	18,700	3%	19,700	3%	20,900	3%
Pickaway	25,074	8%	26,311	4%	28,900	4%	32,100	4%	35,000	4%
Union	25,543	6%	33,059	3%	36,000	3%	42,000	3%	49,000	3%

Source: American Community Survey, 5-Year Estimates 2007-2011; 2021-2050 MORPC Employment Forecasts*
*2030-2050 forecasts rounded to the nearest 100

INDUSTRIES

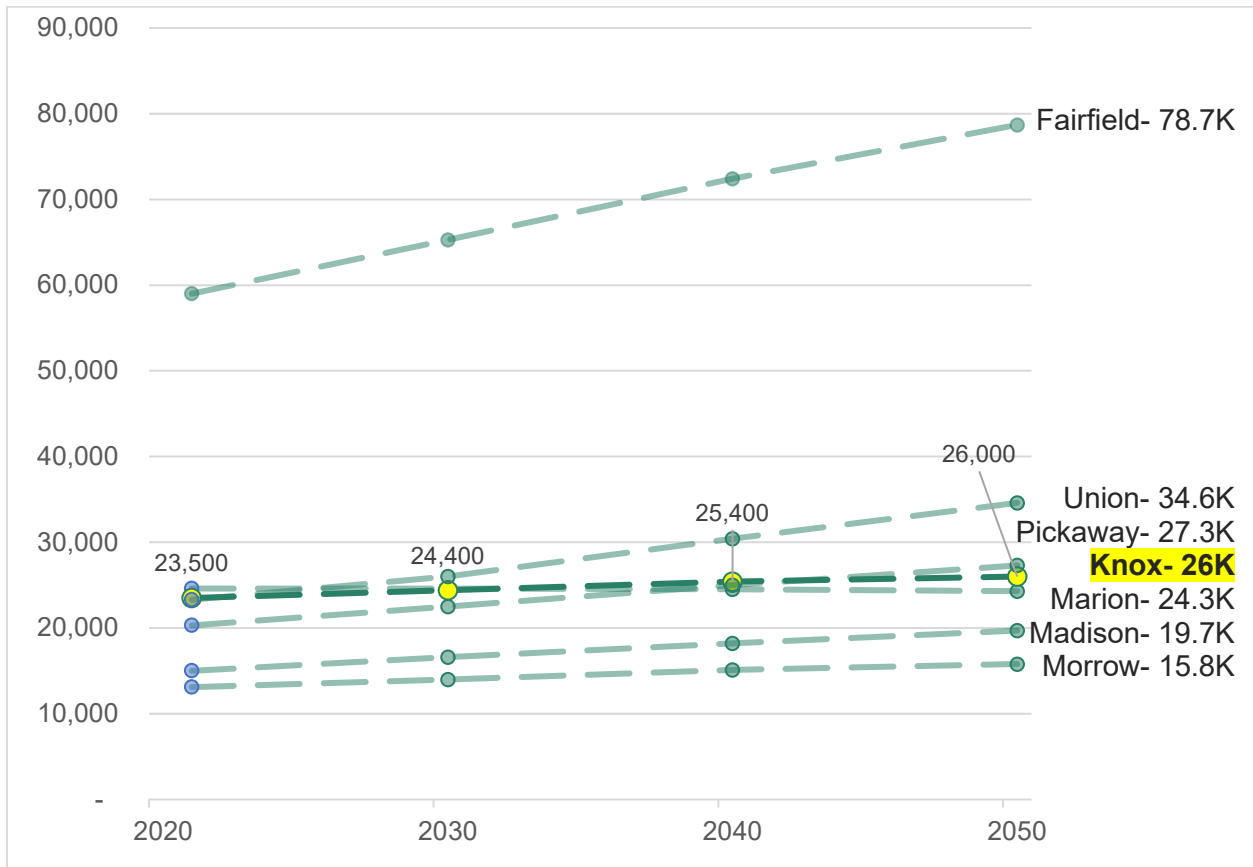
Figure G. 12 Share of Employment by Industry, 2021



Source: MORPC Employment Forecasts

Characteristics of Household Growth

Figure G. 13 Total Household Trend, 2021-2050



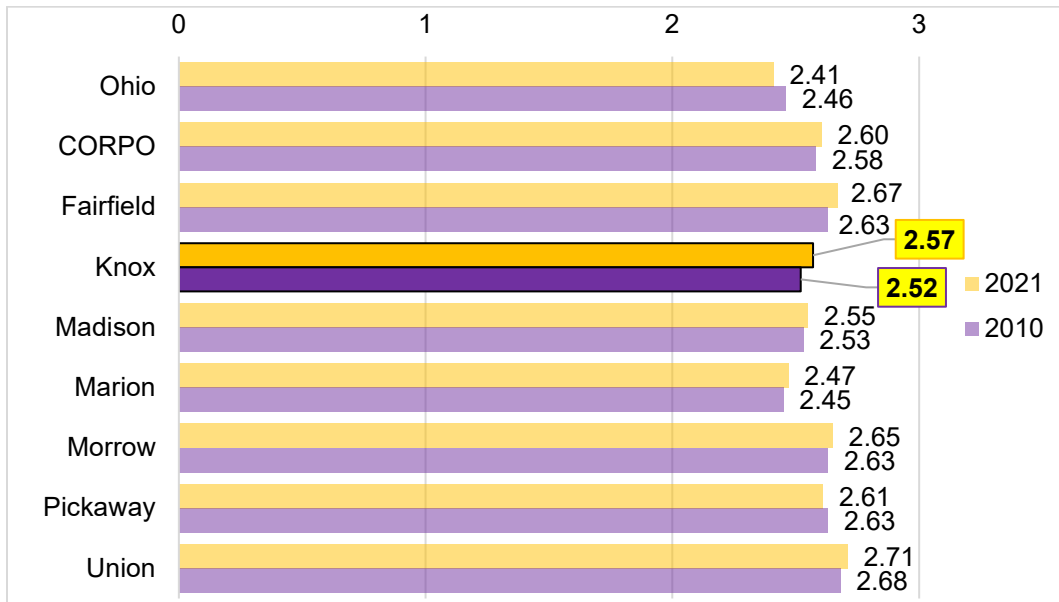
County	HISTORIC	FORECASTED		
	2021	2030	2040	2050
Total all CORPO	178,700	193,300	211,100	226,400
Fairfield	59,000	65,300	72,400	78,700
Marion	24,600	24,600	24,500	24,300
Knox	23,500	24,400	25,400	26,000
Union	23,300	26,000	30,400	34,600
Pickaway	20,300	22,500	25,000	27,300
Madison	15,000	16,600	18,200	19,700
Morrow	13,100	14,000	15,100	15,800

Source: MORPC Population Forecasts

*Forecasted households rounded to the nearest 100

HOUSEHOLD SIZE

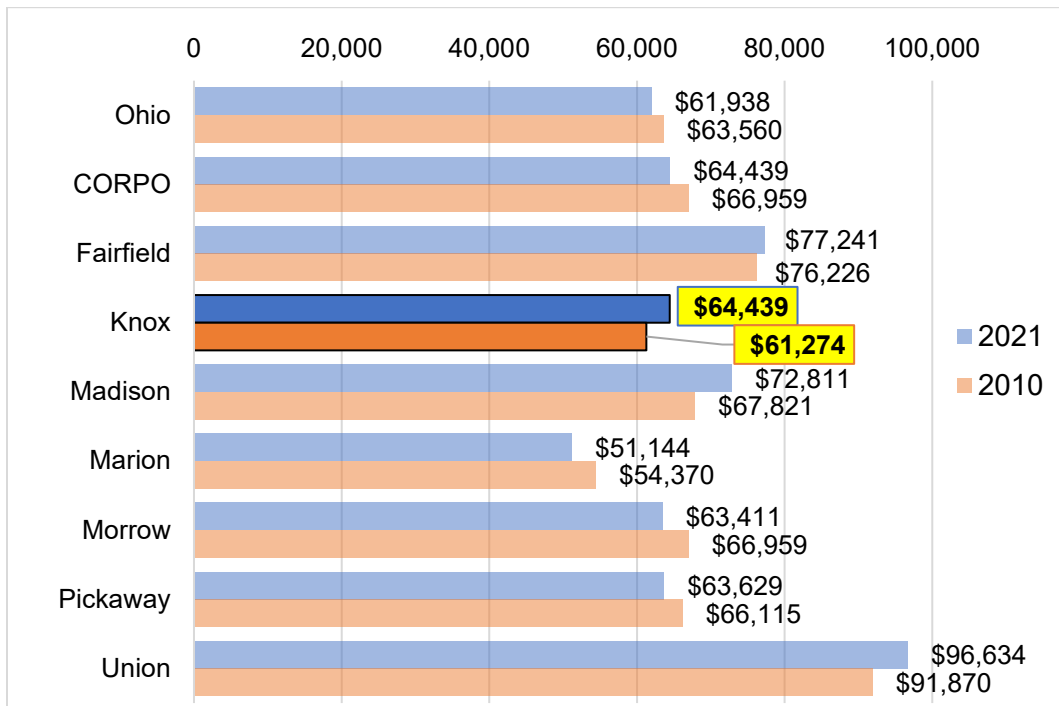
Figure G. 14 Household Size, 2010 & 2021



Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

HOUSEHOLD INCOME

Figure G. 15 Median Household Income, 2010 & 2021 (Inflation Adjusted to 2021 Dollars)

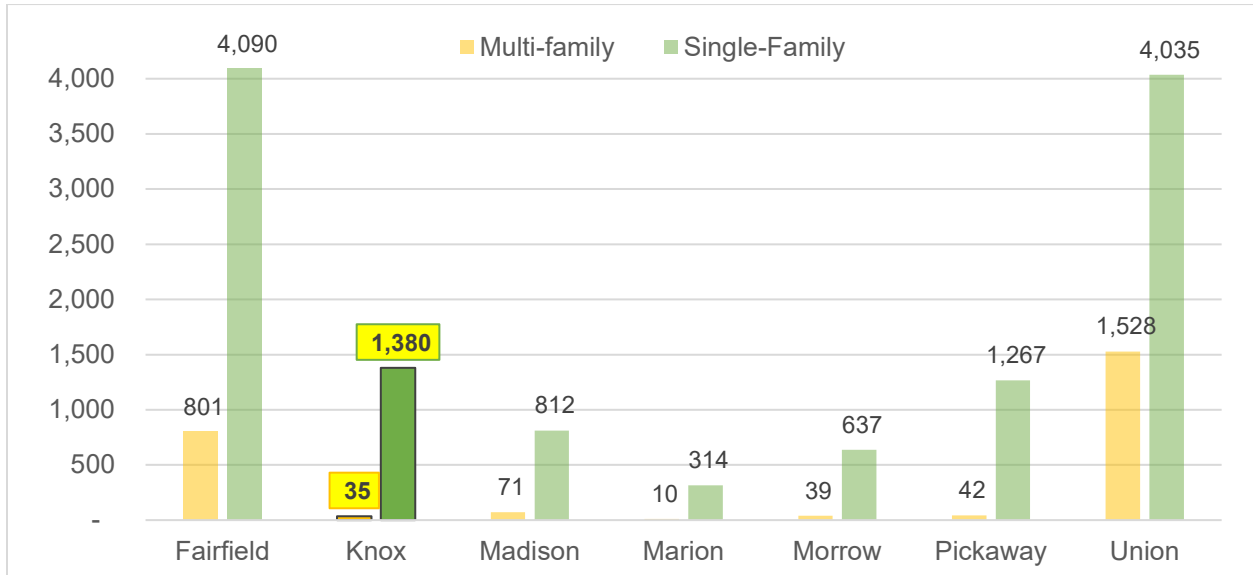


Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

Knox County Land Use and Development Patterns

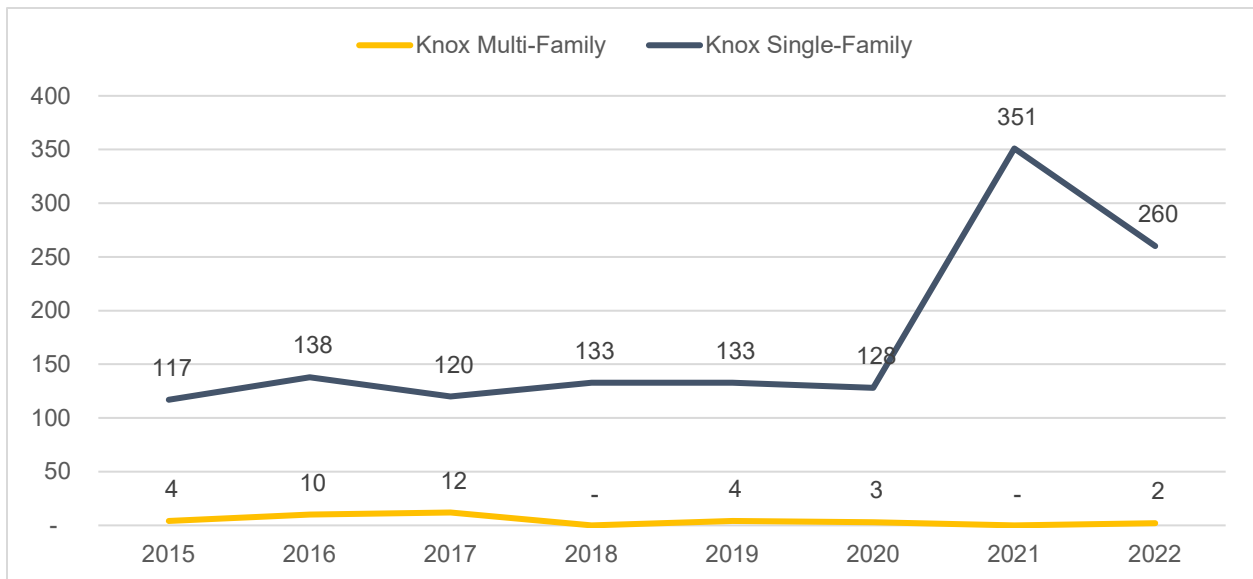
RESIDENTIAL DEVELOPMENT TRENDS

Figure G. 16 Total Residential Building Permits Issued, 2015-2021



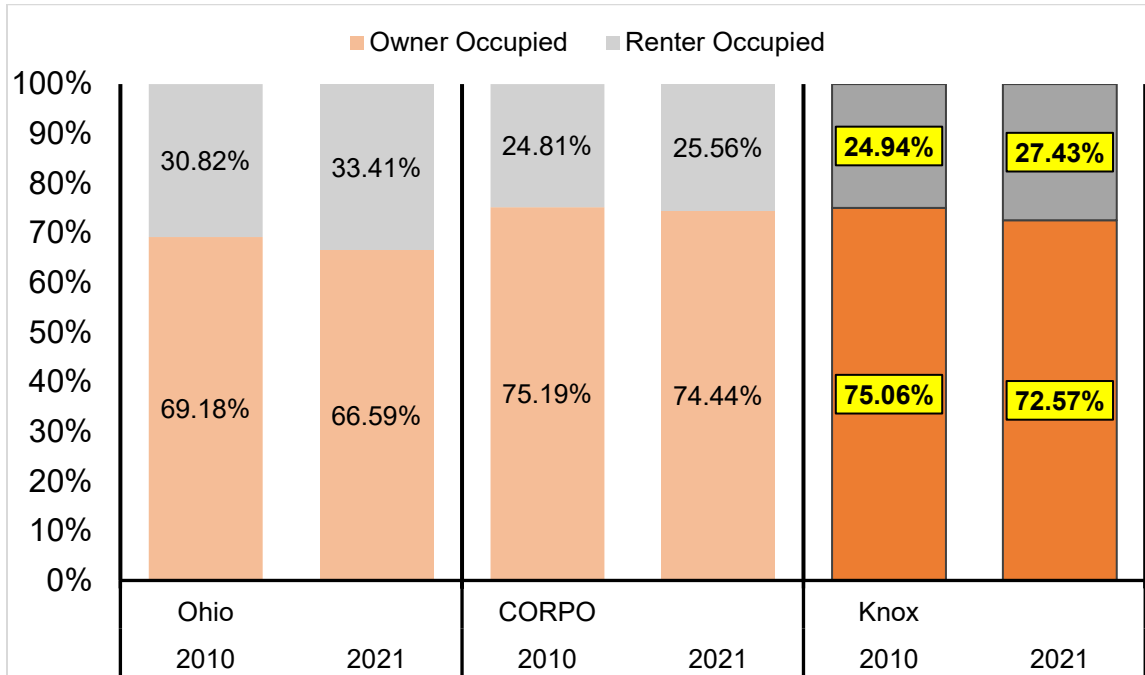
Source: Census Building Permit Survey Data, 2015 – 2021

Figure G. 17 Knox County Residential Permits Issued, 2015-2021



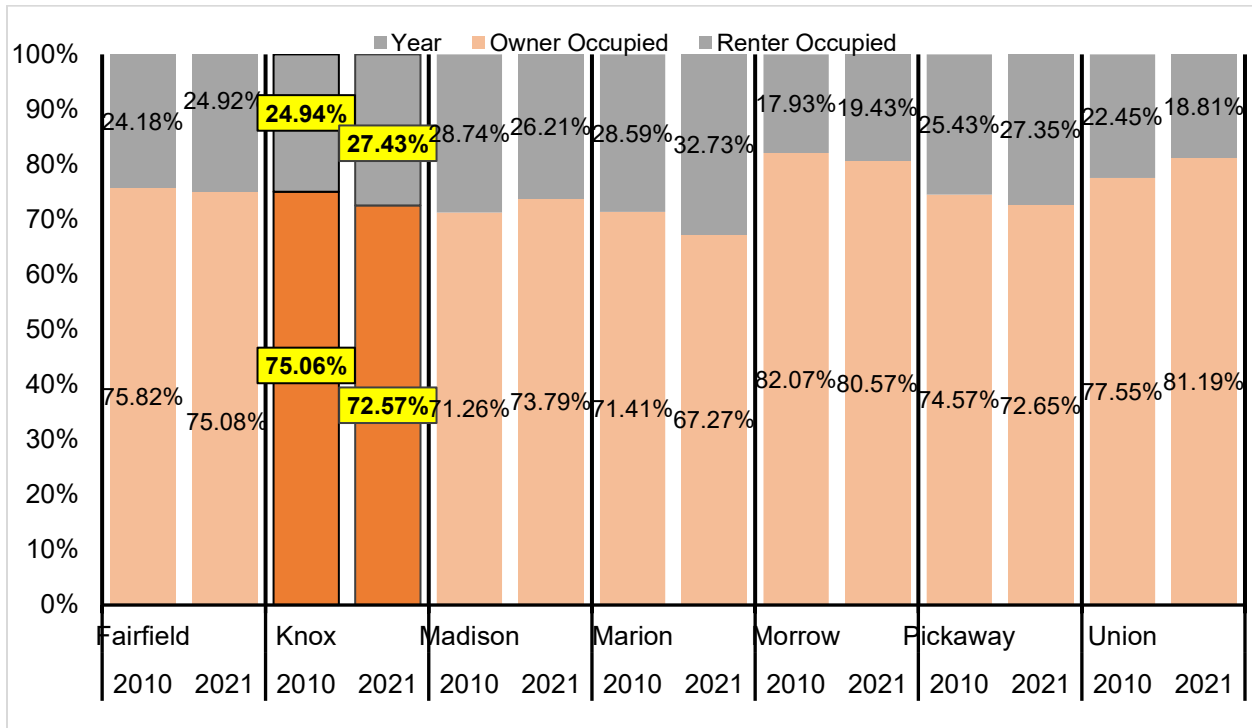
Source: Census Building Permit Survey Data, 2015 – 2021

Figure G. 18 Housing Tenure Ohio, CORPO, & Knox County, 2010 & 2021



Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

Figure G. 19 Housing Tenure by County, 2010 & 2021

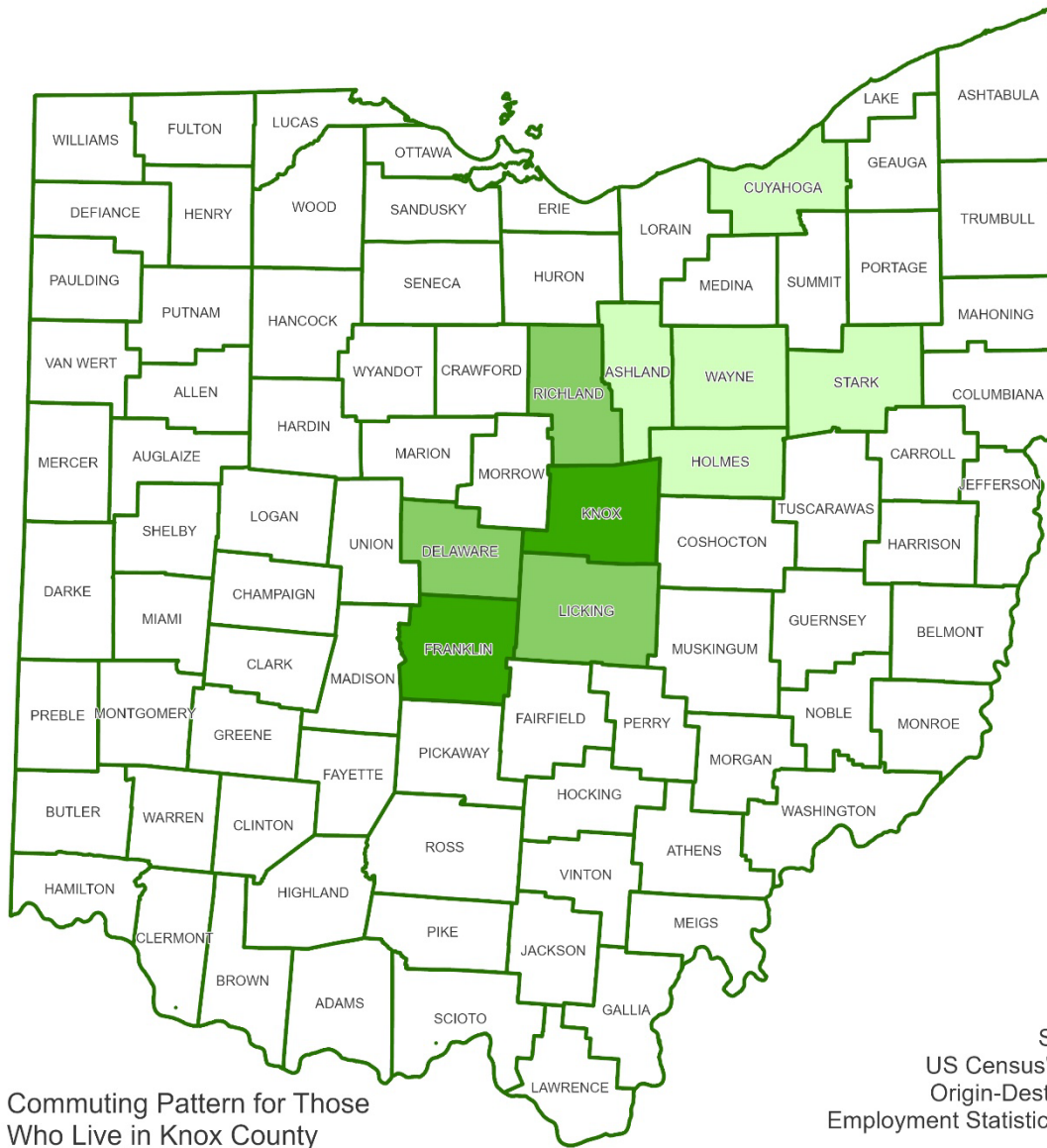


Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

REGIONAL TRAVEL PATTERNS

Figure G. 20 Commuting Pattern for Workers who Live in Knox County, 2020

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**Knox County
Commuter Data**



Source:
US Census' LEHD
Origin-Destination
Employment Statistics 2020

Number of Commuters

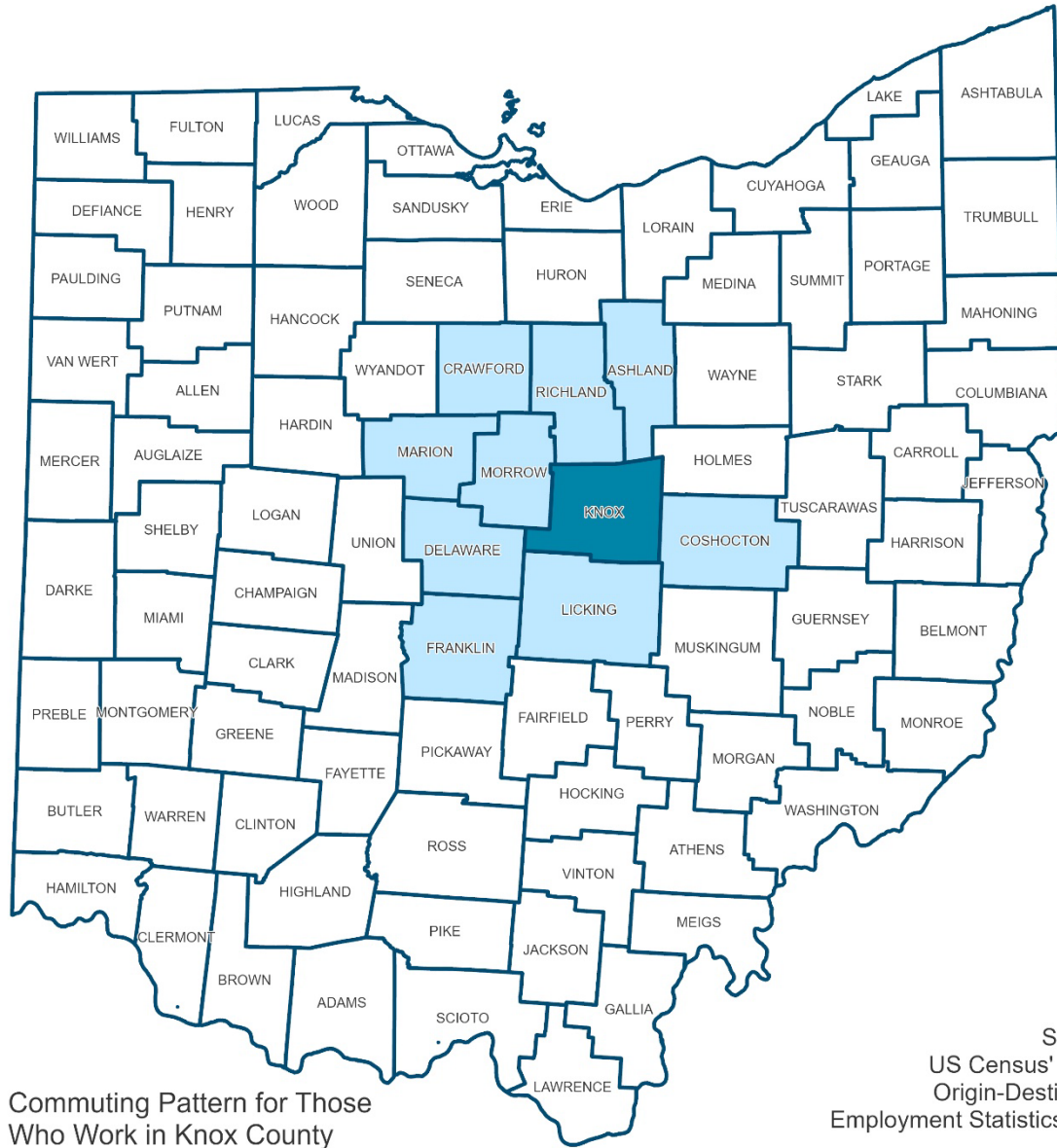
- Under 500
- 500 - 2000
- More than 2000



The information shown on this map is compiled from various sources available to us which we believe to be reliable.
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Figure G. 21 Commuting Patterns for Workers who Work in Knox County, 2020

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**Knox County
Commuter Data**



Source:
US Census' LEHD
Origin-Destination
Employment Statistics 2020

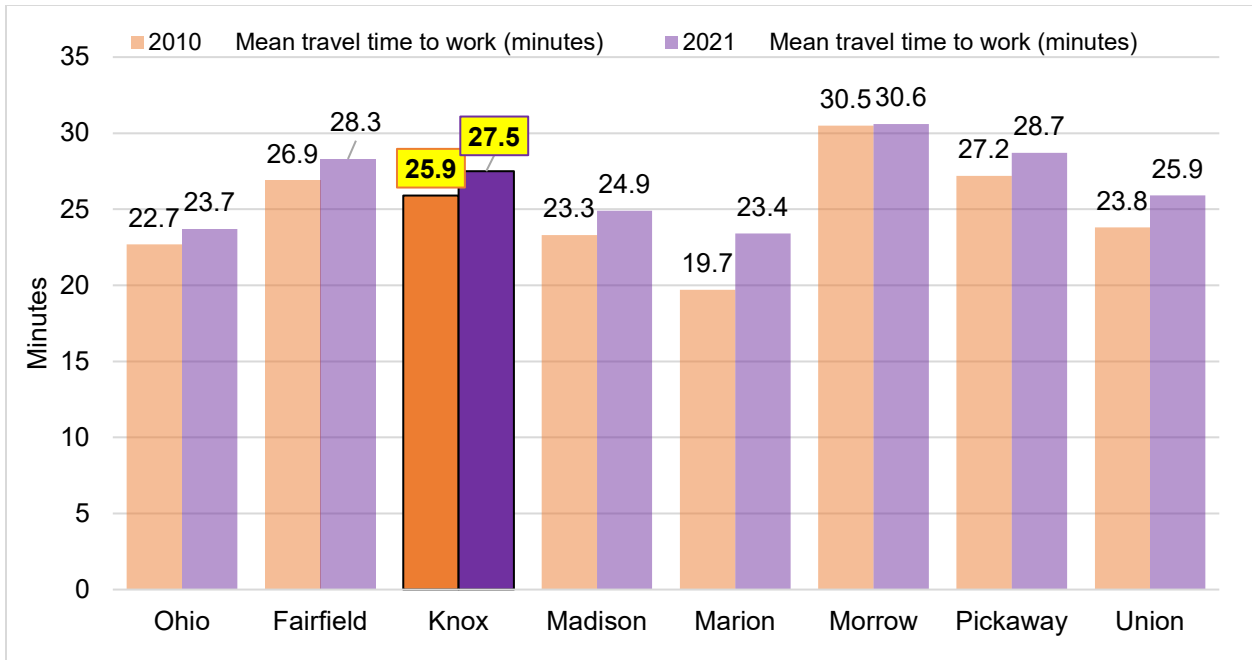
Number of Commuters

- Below 1500
- 1500 - 3000
- More than 3000



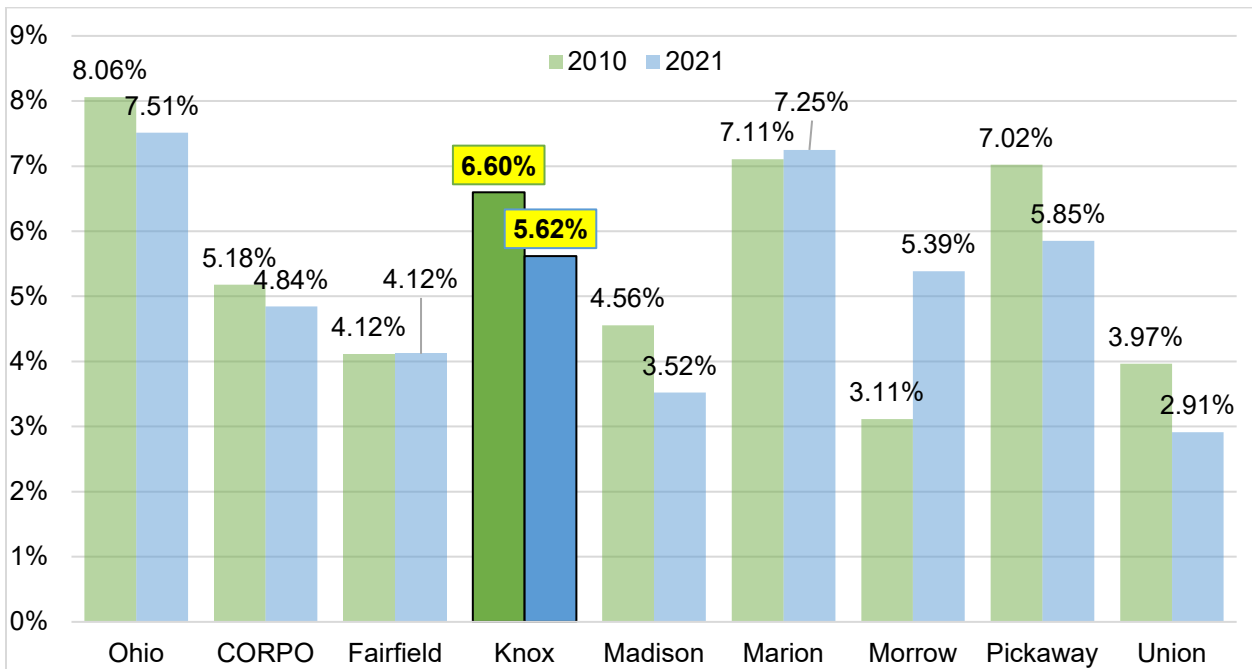
The information shown on this map is compiled from various sources available to us which we believe to be reliable.
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Figure G. 22 State & CORPO Mean Commute Times, 2010 & 2021



Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

Figure G. 23 Percent of Households with No Vehicle, 2010 & 2021



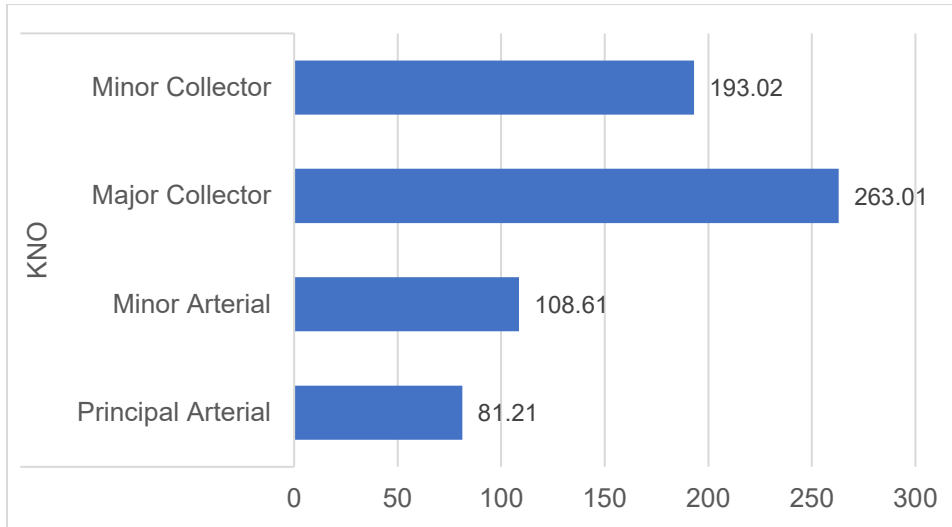
Source: American Community Survey, 5-Year Estimates
 *2006-2010 ACS 5-Year Estimate, 2017-2021 5-Year Estimate

G.2 Knox County Transportation System

Knox County Roadway System

FUNCTIONAL CLASSIFICATION

Figure G. 24 Knox County Sum of Lane Miles by Functional Classification, 2023



Source: ODOT TIMS

Table G. 4 Knox County Lane Miles by Functional Classification

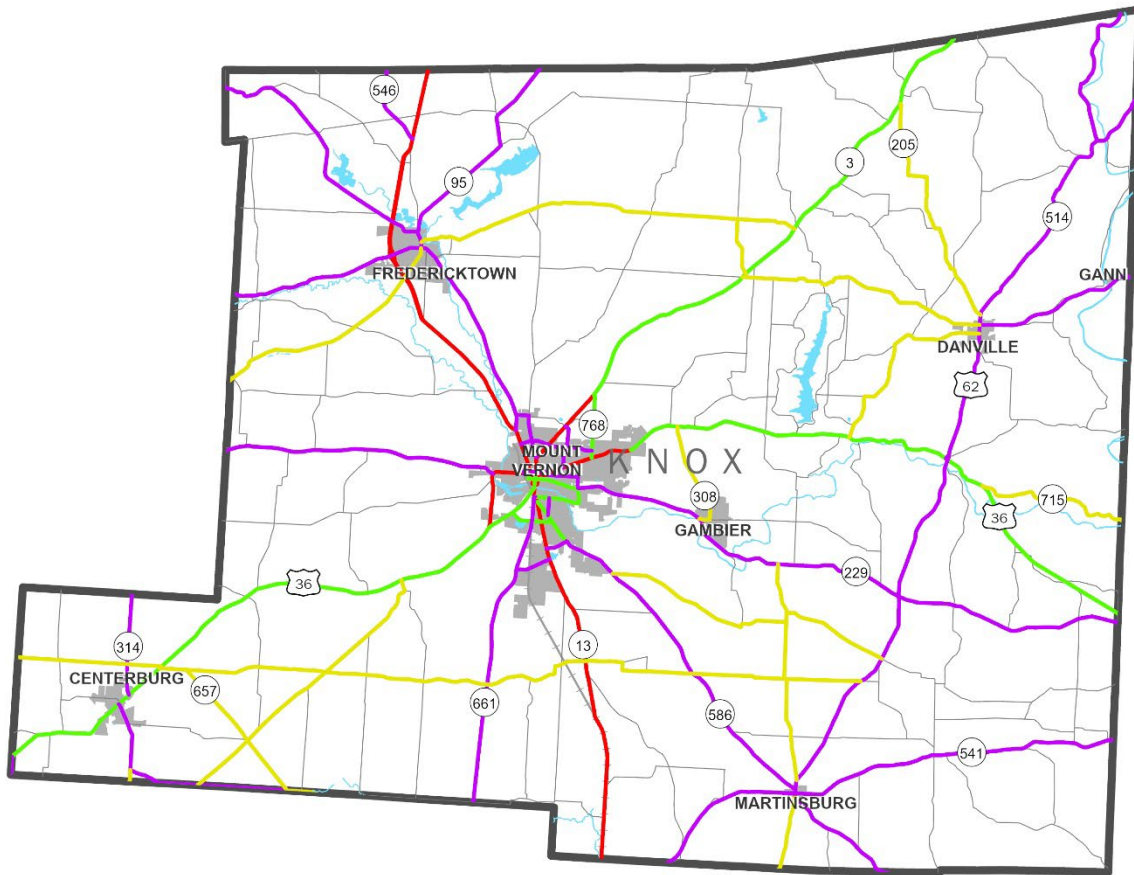
County	Functional Classification Type	Functional Classification Code	Sum of Lane Miles	% of Total Lane Miles
KNO	Principal Arterial	3	81.21	13%
KNO	Minor Arterial	4	108.61	17%
KNO	Major Collector	5	263.01	41%
KNO	Minor Collector	6	193.02	30%
Total			645.85	100%

Figure G. 25 Knox County Roadway Functional Classification, 2022

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Road Functional Classification

Knox County



Functional Class

- Interstate
- Other Freeway and Expressway
- Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector

County Boundary



The information shown on this map is compiled from various sources available to us which we believe to be reliable.
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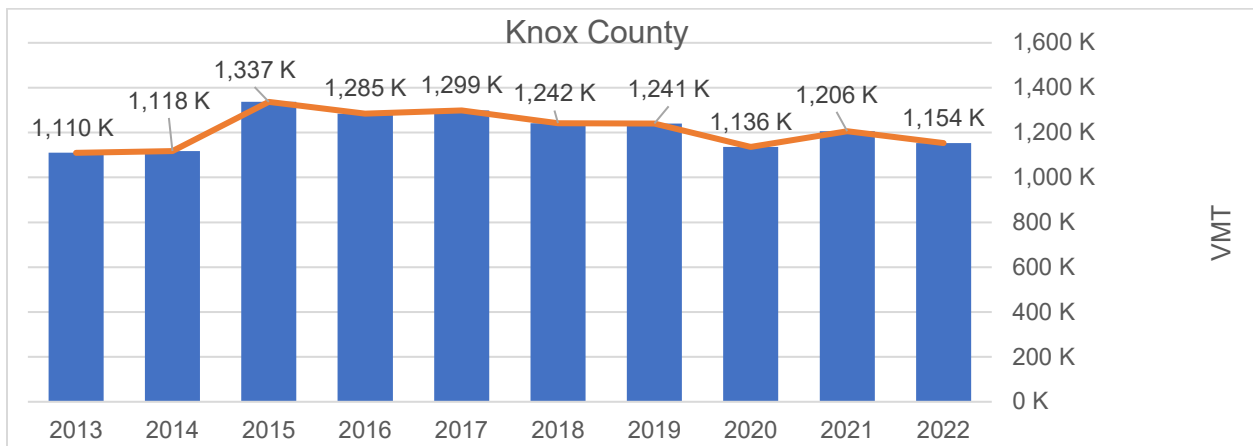
VEHICLE MILES TRAVELED (VMT)

Table G. 5 Knox County VMT & VMT Change by Year, 2013-2022

COUNTY:	KNOX	
YEAR	VMT	% CHANGE
2022	1,154 K	-4.56%
2021	1,206 K	5.84%
2020	1,136 K	-9.22%
2019	1,241 K	-0.14%
2018	1,242 K	-4.59%
2017	1,299 K	1.11%
2016	1,285 K	-4.04%
2015	1,337 K	16.39%
2014	1,118 K	0.71%
2013	1,110 K	

Source: ODOT Traffic Monitoring, Daily Vehicle Miles Traveled, 2013-2022

Figure G. 26 Knox County VMT by Year, 2013-2022



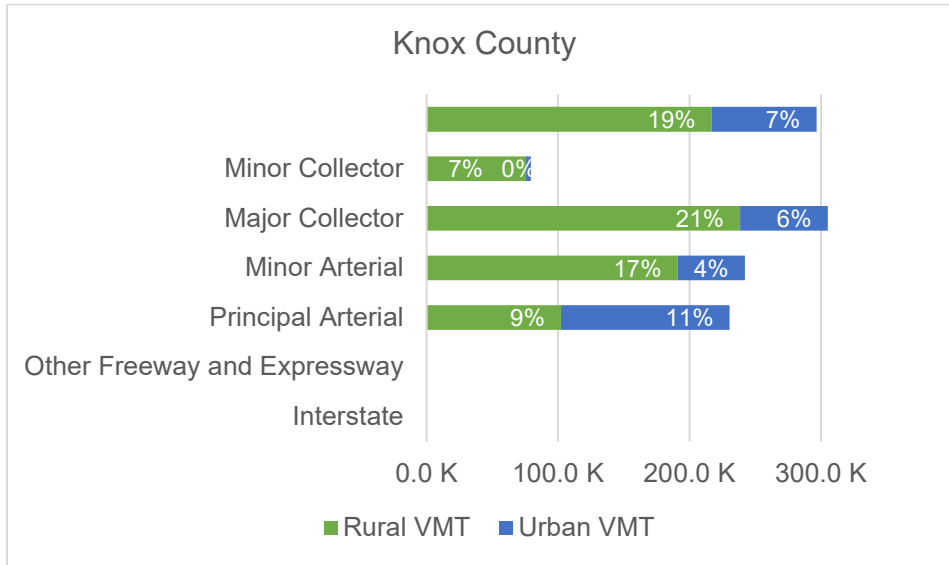
Source: ODOT Traffic Monitoring, Daily Vehicle Miles Traveled, 2013-2022

Table G. 6 VMT & VMT Change by County, 2013 & 2022

COUNTY	VMT		% Change
	2013	2022	
Total All CORPO	13,263.97 K	14,608.92 K	10.1%
Fairfield	3.16 K	3.23 K	2.2%
Knox	1.11 K	1.15 K	4.0%
Madison	1.98 K	2.32 K	16.9%
Marion	1.70 K	1.50 K	-11.5%
Morrow	1.71 K	1.93 K	12.9%
Pickaway	1.80 K	1.91 K	6.4%
Union	1.80 K	2.56 K	42.1%

Source: ODOT Traffic Monitoring, Daily Vehicle Miles Traveled, 2013-2022

Figure G. 27 2022 Knox County VMT by Functional Classification



COUNTY: Knox					
Functional Classification Code	Functional Classification Type	Rural VMT	% of Total	Urban VMT	% of Total
1	Interstate	-	0%	-	0%
2	Other Freeway and Expressway	-	0%	-	0%
3	Principal Arterial	102,240	9%	128,220	11%
4	Minor Arterial	190,950	17%	51,170	4%
5	Major Collector	238,450	21%	66,650	6%
6	Minor Collector	75,480	7%	3,790	0%
7	Local	216,870	19%	79,750	7%
Total		824,002	71%	329,580.00	29%

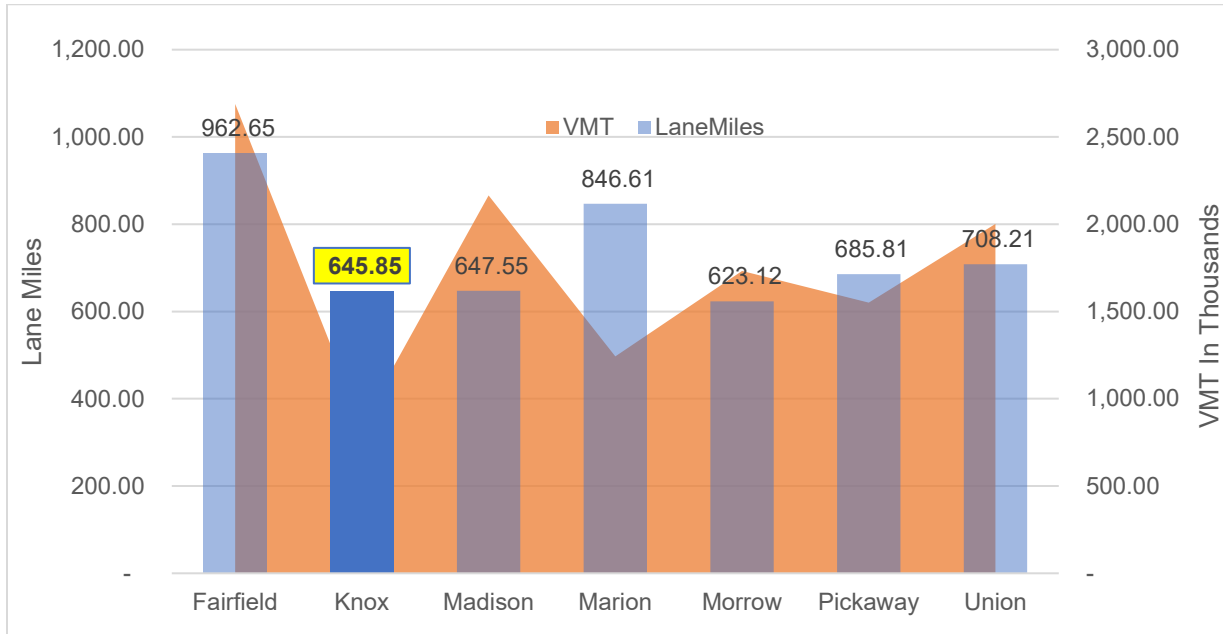
Source: ODOT Traffic Monitoring, Daily Vehicle Miles Traveled, 2022

Figure G. 28 2022 Knox County Lane Miles & VMT by Functional Class



Source: ODOT TIMS and ODOT Traffic Monitoring, Daily Vehicle Miles Traveled, 2022

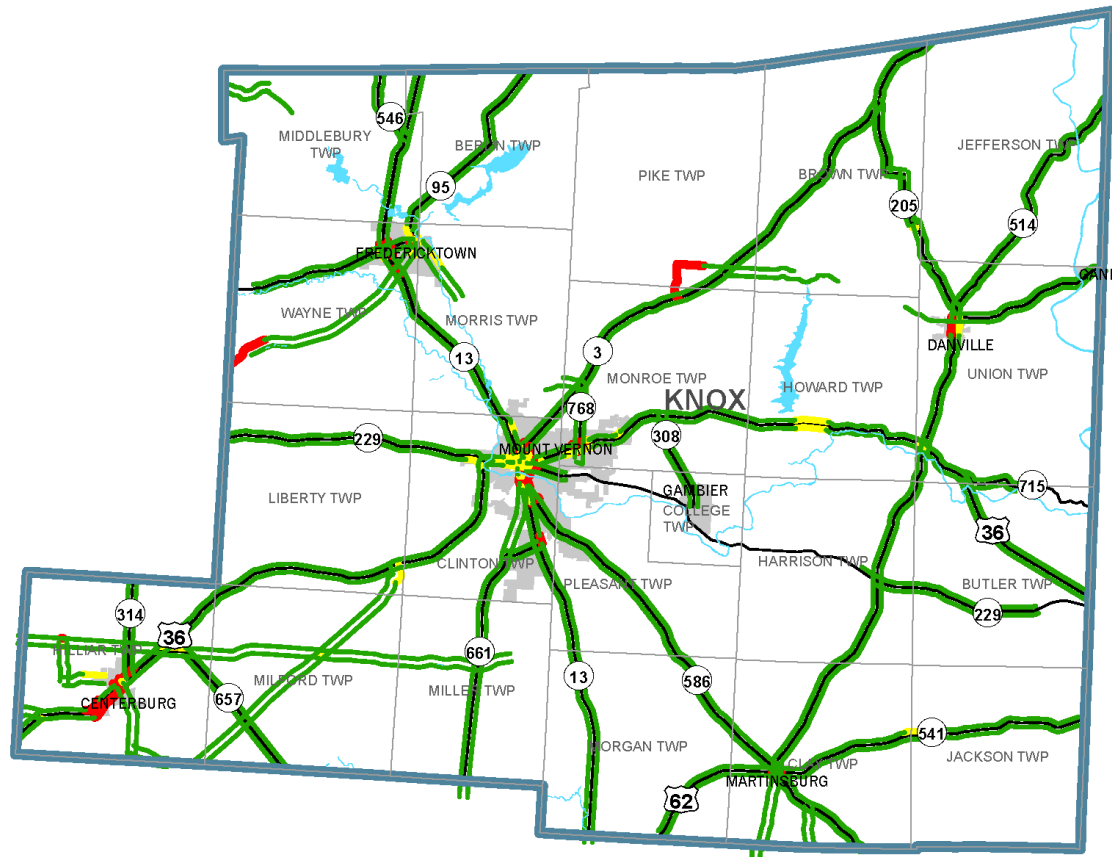
Figure G. 29 2022 Lane Miles and VMT by CORPO County



Source: ODOT TIMS and ODOT Traffic Monitoring, Daily Vehicle Miles Traveled, 2022

CONGESTION

Figure G. 30 Knox County AM Peak Congestion, 2023



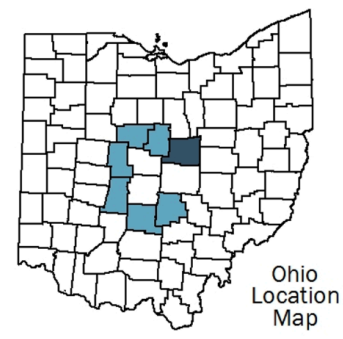
CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2023 AM*

- ≤20% (< 1 day per wk)
- 20 - 60% (2~3 days per wk)
- > 60% (3+ days per wk)

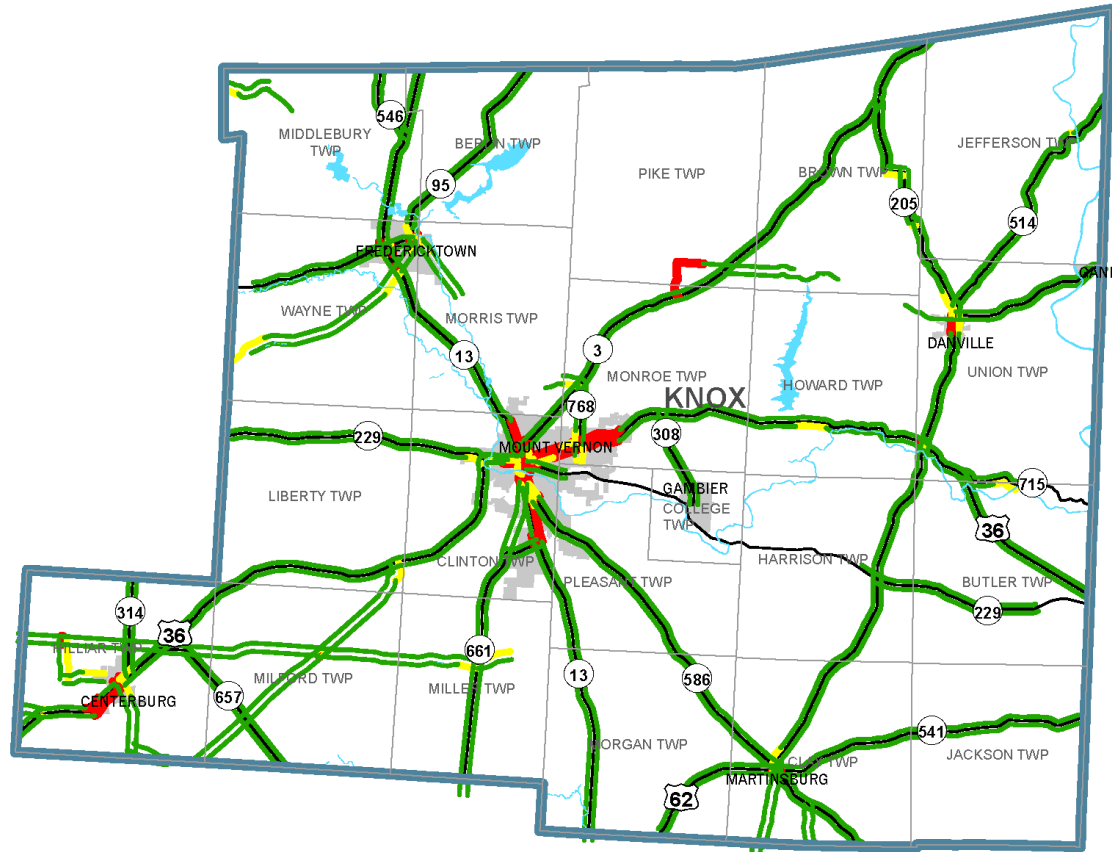
CORPO County

* Congestion: more than 50% extra travel time
Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.
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Figure G. 31 Knox County PM Peak Congestion, 2023



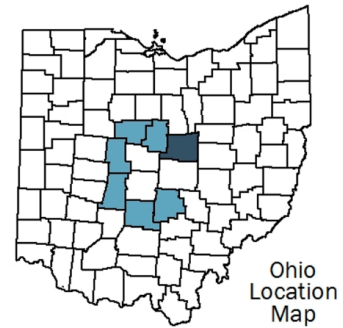
CENTRAL OHIO RURAL PLANNING ORGANIZATION

% Days Congested 2023 PM*

- ≤20% (< 1 day per wk)
- 20 - 60% (2~3 days per wk)
- > 60% (3+ days per wk)

CORPO County

* Congestion: more than 50% extra travel time
Source: INRIX Travel Time data



The information shown on this map is compiled from various sources made available to us which we believe to be reliable.
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Knox County Roadway Condition Performance Measures

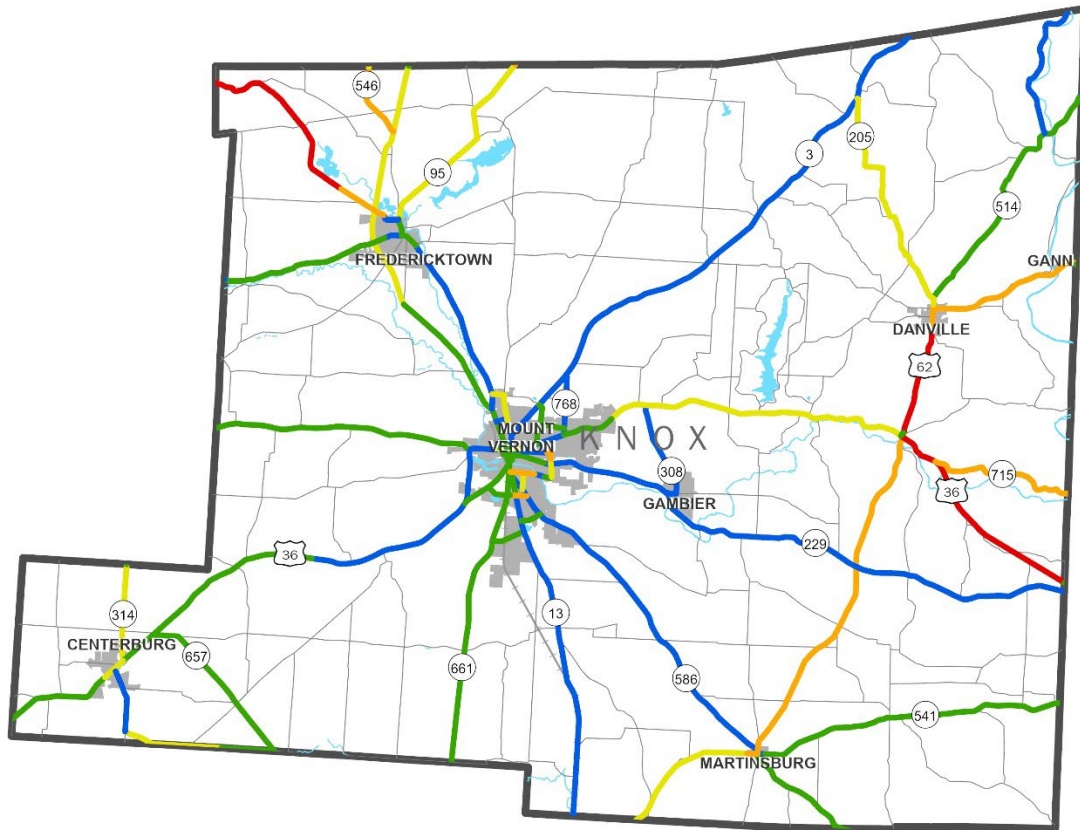
PAVEMENT CONDITION RATINGS

Figure G. 32 Knox County Roadway Network, Pavement Condition Ratings, 2022

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Pavement
Condition
Rating

Knox County



- Pavement Condition
- Below 56 (Poor)
 - 56 - 65 (Fair to Poor)
 - 66 - 75 (Fair)
 - 76 - 90 (Good)
 - 91 - 100 (Very Good)

County Boundary



The information shown on this map is compiled from various sources available to us which we believe to be reliable.
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G.3 Knox County Projects

To carry out the strategies, priority transportation projects have been identified through data analysis and stakeholder engagement. The projects include those that add roadway capacity, provide bicycle and pedestrian facilities, or enhance transit systems. Some of the identified projects encompass the ongoing operation, maintenance and preservation, or study of the existing transportation system.

Each project priority listed includes a brief project description and cost estimate in year of construction dollars, based on its prioritization as near- or long- term between 2023 and 2050.

2023-2050 CORPO Transportation Plan Project Listing

County: *Knox*

County	ID	Timeframe	Type	Location/Roadway	Project Description	Termini		2023 Cost Estimate (Millions)
Knox	KNO1	2040-2050	Major Widening	Edgewood Rd	Edgewood Rd. from SR 229 to US 36; Connection and Major Widening	SR 229	US 36	\$9 - \$11
Knox	KNO2	2023-2030	Access Management	Sandusky St	Improve Sandusky Street corridor to improve connectivity of SR 13			\$15 - \$20
Knox	KNO3	2030-2040	New Road	Beech St	Extend Beech Street from Sychar Road to Mansfield Avenue	Sychar Rd	Mansfield Ave	\$12 - \$15
Knox	KNO4	2030-2040	New Road	Upper Gilchrist Road	Extend Upper Gilchrist Road from New Gambier Road to Eastern Star Road	New Gambier Rd	Eastern Star Rd	\$3.9 - \$4.9
Knox	KNO5	2040-2050	New Road	Blackjack Rd	Blackjack Rd - Extend road to US 36/SR 3, create southern truck route, could utilize Henry Rd corridor- <i>Project Impacted by solar farm</i>	US 36/SR 3		\$40 - \$48
Knox	KNO7	2023-2030	Intersection Modification	US 36/SR 3/Oliver Intersection	Centerburg Intersections - Improvements to correct non-right angled intersection at Oliver at US 36 / SR 3			\$1.3 - \$1.7
Knox	KNO8	2023-2030	Intersection Modification	US 36/ SR 3/ Updike Rd Intersection	Centerburg Intersections - Improvements to correct non-right angled intersection at Updike Road at US 36 / SR3			\$1.3 - \$1.7
Knox	KNO9	2030-2040	Maintenance / Resurfacing	Murray Rd	Murray Rd. improvements from SR 586 to SR 13; Other roadway modifications- May include Glen Rd.	SR 586	SR 13	\$10 - \$13
Knox	KNO10	2030-2040	Study		Mount Vernon and Knox Co. to I-71, I-70 and I-77			\$0.2 - \$0.3
Knox	KNO11	2023-2030	Transit	KAT Transit Facility	KAT Transit Facility Replacement - Expand from 2 acre site to new property. Will handle transfers, GoBus, maintenance and grow from 28 vehicles to 30.			\$3.9 - \$5
Knox	KNO14	2024-2030	Access Management	US36 / SR3 Main Street	Two way turn lanes on US 36 / SR3	Preston Street	Lytle Road	\$5 - \$6.2
Knox	KNO15	2035-2035	Major Widening	US36	Widen US 36 to 4 or 5 lanes	Upper Gilchrist Road	SR16	\$454
Knox	KNO16	2039-2039	Major Widening	SR229	Improve SR-229 to better connect to I-71	W High St	I71	\$75
Knox	KNO17	2030-2030	Major Widening	Hopewell Road	Widen Hopewell Road to SR 13	SR586	SR 13	\$9.3
Knox	KNO18	2032-2032	Major Widening	Edgewood Road	Widen Edgewood Rd to Glen Rd	Mount Vernon Ave	Glen Rd	\$7.1
Knox	KNO19	2024-2028	Major Widening	Upper Gilchrist Road	Intersection improvements, widening, and multi-use path	US 36	City Limits	\$5 - \$5.9
Knox	KNO20	2030-2035	Minor Widening / Rehab.	Dike Road	Connect Dike Road to Tilden Ave on flood levee	US36	Tildon Ave	\$3 - \$3.4
Knox	KNO21	2024-2030	Multi-use Path	SR 308/229	Continue connection from Kokosing Gap Trail to downtown Gambier	Roundabout	KG Trail	\$1 - \$1.2
Knox	KNO22	2024-2030	Multi-use Path	SR 308	Continue sidewalk from Bexley Hall to corp. limits	Milnor Ln	Corp Limits	\$1 - \$1.2
Knox	KNO23	2024-2030	Multi-use Path	Heart of Ohio Trail/ Clayton	Connect the Heart of Ohio bike trail to downtown Centerburg	Trail head	Downtown	\$0.1 - \$0.1
Knox	KNO24	2023-2023	Study	Mount Vernon OH	Study Knox County Transit needs and possible fixed route			\$0.04
Knox	KNO25	2023-2023	Transit	Knox County/ MV Industrial Park	Expand/add transit service to serve Industrial Park and Intel			\$0.3
Knox	KNO26	2024-2025	Transit	Mount Vernon, OH	Bus shelters and signs for new fixed transit routes			\$0.05 - \$0.1
Knox	KNO27	2040-2050	Multi-use Path	Owl Creek Trail	Extend existing Owl Creek Trail to create a loop trail around the Village of Fredericktown	Hyatt Rd	Anknewtown Rd Trailhead	\$2.9 - \$3.5
Knox	KNO28	TBD	Multi-use Path	Owl Creek Trail Extension	Extend existing Owl Creek Trail along railway to connect Fredericktown and Mt. Vernon via trail	Hyatt Rd Owl Creek Trailhead	Mt. Vernon	\$2.1 - \$3.6
Knox	KNO29	TBD	Minor Widening / Rehab.	Lytle Rd/Clover Valley Rd	Improve Lytle Rd/Clover Valley Rd south of Centerburg	Lytle Rd/Clover Valley Rd	Knox County southern boundary	\$6.2 - \$10.5
Knox	KNO30	TBD	Major Widening	Sycamore Rd	Improve Sycamore Rd from SR 657 to SR 62	SR 657	SR652	\$20
Knox	KNO31	TBD	Multi-use Path	Mohican River	Knox County portion of the proposed Mohican Valley Trail from Mohican Valley State Park, connecting to the Ohio to Erie Trail in Brinkhaven	Mohican River, northeast corner of Knox County	Ohio to Erie Trail in Brinkhaven	\$5.8 - \$9.8