APPENDIX C

ENVIRONMENTAL JUSTICE ANALYSIS:
AN ASSESSMENT OF THE
2040 LONG RANGE TRANSPORTATION PLAN

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SECTION 1
INTRODUCTION

The purpose of this Appendix to the 2040 Long Range Transportation Plan Update is to address the Environmental Justice (EJ) regulatory requirements in light of Executive Order 12898. The objective of this analysis is threefold: (1) to present a demographic profile of the transportationally disadvantaged populations; (2) to assess the performance of the Plan over the 20-year horizon period in terms of regional accessibility to employment opportunities; and, (3) to review the impact of the Plan on identified populations in order to address disproportionate adverse impacts. The analysis concludes with findings and recommendations aimed at improving future analyses.

1.1   Environmental Justice Requirements[1]

A 1994 Presidential Executive Order directed federal agencies to make EJ part of their mission by identifying and addressing the affects of all programs, policies, and activities on "minority populations and low-income populations." The United States Department of Transportation (USDOT) EJ initiatives expect to accomplish this goal by involving the potentially affected public in developing transportation projects that fit harmoniously within their communities without sacrificing safety or mobility.

In 1997, USDOT issued its final "Order to Address Environmental Justice in Minority Populations and Low-income Populations" to summarize and expand upon the requirements established earlier under Executive Order 12898. The USDOT final Order requires full and fair public participation in the transportation planning process[2], prevents the denial of, or reduction in, benefits to minority and low-income populations, and the avoidance of disproportionately high and adverse social, economic and/or environmental impacts of transportation services, programs or projects on minority and low-income populations.[3] Rules released in the Spring of 2000 expanded EJ regulations to other populations which include those suffering disabilities, the elderly and those discriminated against because of gender or sexual orientation.[4] In June 2012 FHWA released a directive regarding the analyses and testing of programs and policies to prevent disproportionately high and adverse effects on minority and low income populations and to achieve a more equitable distribution of benefits and burdens. [5]

The USDOT order applies to all policies, programs and activities that are undertaken, funded, or approved by the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA) or other USDOT components including systems planning, metropolitan and statewide planning, project development, National Environmental Policy Act (NEPA) reviews, right-of-way, construction, operations and/or maintenance. Federal agencies are expected to ensure that EJ considerations are integral to all Surface Transportation Programs (STP). FHWA and FTA are to ensure that EJ requirements are understood and implemented in statewide and metropolitan planning activities. The federal agencies are also to take actions to identify effective practices, potential models and other technical assistance resources to promote the integration of EJ in all planning, development and implementation activities. As State Departments of Transportation (DOT) allocate resources from various federal-aid programs they are to ensure that State Transportation Improvement Programs (STIP's) satisfy the letter and intent of EJ principles. State DOT's are charged with the responsibility of developing technical capabilities to assess the

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[1] https://www.transportation.gov/sites/dot.gov/files/docs/eo12898.pdf
[2] CFR 450.316 (a)
[3] https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/index.cfm
[4] https://www.fhwa.dot.gov/legsregs/directives/orders/664023a.cfm
[5] https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/

benefits and/or adverse affects of transportation projects and to develop procedures and measures to further EJ analyses.

1.2   Metropolitan Planning Organizations & Environmental Justice

Metropolitan Planning Organizations (MPO's) are intended to serve as the primary forum where transit providers, local agencies and the public develop local transportation plans and programs that address a metropolitan area's needs. MPO's are charged with assisting local communities in understanding how Title VI and EJ requirements improve the planning and decision-making process. In order to achieve this understanding, MPO's have the responsibility of: (1) enhancing their analytical capabilities to ensure that developing Long Range Transportation Plans and their Transportation Improvement Programs (TIP's) comply with Title VI and EJ requirements; (2) identifying residential, employment, and transportation patterns of low-income and minority populations so that affected/interested parties can fully participate in the planning process, their needs can be considered and the benefits and burdens of transportation improvements can be fairly distributed; and, (3) evaluating and improving, when necessary, their public involvement process to include and engage the elderly, the disabled, as well as the low-income and minority populations in the transportation decision making process.

1.3   Public Transit Agencies & Environmental Justice

Public transit providers offer mobility to all citizens whether they own a motor vehicle or not. Public transit provides an essential service for many low-income, elderly, disabled and minority populations who have no other way to travel to work, shopping, child care, medical appointments or other destinations. Transit providers are offered the following guidance from USDOT on EJ requirements: (1) ensure that new investments and changes in transit facilities, services, maintenance, and vehicle replacement deliver equitable levels of service and benefits to minority and low-income populations; (2) avoid, minimize or mitigate disproportionately high and adverse affects on minority and low-income populations; and, (3) enhance public involvement activities to identify and address the needs of the minority and low-income populations in making transportation decisions.

The MPO and Transit Authority carry out the metropolitan planning process in a coordinated and collaborative manner. ODOT and the Transit Authority recognize the value of the planning conducted by the MPO and transportation and have supported the metropolitan transportation planning process financially. As evidence of its commitment to the metropolitan transportation planning process, the MPO prepared the coordinated public transit-human services transportation plan for west central Ohio[6] as required by 49 U.S.C. 5310.

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[6] http://www.lacrpc.com/pdfs/West%20Central%20Ohio%20Regional%20Transportation%20Coordination%20Plan--COMPLETE--December%202017.pdf; and, http://www.lacrpc.com/pdfs/Appendices--COMPLETE--December%202017.pdf

Based on the available guidance from USDOT, as well as information from FHWA and FTA, the Lima-Allen County Regional Planning Commission (LACRPC), as the MPO, and the Allen County Regional Transit Authority (ACRTA), as the Public Transit Agency, are expected to address several points pertinent to EJ requirements. Those requirements include: (1) whether the planning process has developed a demographic profile of the metropolitan area which incorporates the location of various socio-economic groups encompassing low-income and minority populations; (2) whether the planning process has developed an analytical operation to assess regional benefits/burdens of transportation system investments; and, (3) whether disproportionate benefits are borne by the various socioeconomic groups. In order to comply with the stated expectations, the following analysis presents a demographic profile of the transportationally disadvantaged populations; assesses the performance of the Plan over the 20-year horizon period in terms of regional accessibility to employment opportunities in order to analyze transportation investments; and, reviews the impact of the Plan on identified populations in order to address Title VI and EJ requirements.

2.1   Demographic Profile of the Transportationally Disadvantaged
Transportationally disadvantaged populations were identified and targeted for analysis to assess EJ regulatory compliance. Targeted populations included minority populations, elderly populations, low-income populations, the population of persons with mobility limitations, and the population of persons without access to motor vehicles. Various demographic indices were compiled in Table C-1 by political subdivisions in an attempt to provide a geographic based reference to the State of Ohio, Allen County and its various components. Data contained in this analysis reflects 2000 and 2010 census data supplemented with ACS 2016 5-Year Estimates.

Table C-2 provides demographic information for the various targeted populations at the census tract level. Map C-1 provides the parameters of the 2010 census tract boundaries within Allen County. Subsequent maps establish the residential location of the transportationally disadvantaged with respect to specific projects recommended in the 2040 Transportation Plan Update within the Lima Urbanized Area. Discussion of the Delphos Urban Area and Bluffton Urban Area are addressed separately.

2.1.1   Minority Populations
For purposes of this analysis minority populations were identified as those persons who were Black, Hispanic, Asian, American Indian or Native Alaskans and "Other." "Hispanic" refers to any individual responding to the Census identifying themselves as either "Hispanic", "Latino" or "Spanish". Populations were self-determined as documented by the 2016 ACS 5-Year Estimate.

Table C-1 reveals that while the proportion of minority populations at the State and County levels were similar (20.0% and 18.5% respectively), Lima's minority population in 2016 was 35.1% of the City's total population. The 12 townships in Allen County were all well below the County's and State's minority percentage, ranging from a high of 15.2% in American Township to a low of 0.4% in Monroe Township. Within the incorporated areas, outside of Lima, the minority population concentration once again was found to be much lower than the County or State, ranging from a high of 10.7% in Elida to a low of 0.8% in Lafayette. Table C-2 identifies the transportationally disadvantaged groups by category and by census tract in the Allen County planning area.

TABLE C-1
DEMOGRPHIC SUMMARY OF POLITICAL SUBDIVISIONS

Political Subdivision	Total Pop.	Area (Sqmi.)	Density (Pop./Sqmi)	Total Minority	Total Black	Total Hispanic	Over 65	Over 18	Mobility Limited[1]	Total Households	Households w/ No Available Vehicles	Per Capita Income	Median Household Inc.	Pop. Below Poverty	High School Graduates[2]	Post-Secondary Degree[2]
Ohio	11,586,941	40,860.6	283.6	2,321,818 20.0%	1,421,943 12.3%	400,932 3.5%	1,796,337 15.5%	8,947,081 77.2%	816,211 7.6%	4,601,449	387,532 8.4%	$27,800	$50,674	1,732,839 15.4%	4,271,106 54.4%	2,751,785 35.1%
Allen County	104,664	407.0	257.2	19,311 18.5%	12,448 11.9%	2,874 2.7%	16,636 15.9%	80,205 76.6%	7,366 7.7%	40,039	2,983 7.5%	$23,600	$45,575	16,228 16.1%	42,161 60.8%	19,707 28.4%
Beaverdam	466	0.6	776.7	6 1.3%	0 0.0%	2 0.4%	61 13.1%	340 73.0%	26 6.5%	191	2 1.0%	$24,251	$47,344	68 14.6%	208 71.5%	50 17.2%
Bluffton	4,376	3.7	1,182.7	260 5.9%	58 1.3%	58 1.3%	904 20.7%	3,396 77.6%	242 6.0%	1,687	78 4.6%	$29,729	$73,132	236 6.0%	1,284 45.2%	1,438 50.6%
Cairo	470	0.3	1,566.7	7 1.5%	0 0.0%	3 0.6%	96 20.4%	368 78.3%	67 15.1%	186	3 1.6%	$27,803	$46,875	46 10.0%	242 73.8%	55 16.8%
Delphos	7,216	3.4	2,122.4	537 7.4%	94 1.3%	337 4.7%	1,282 17.8%	5,633 78.1%	604 9.1%	2,968	151 5.1%	$22,261	$44,528	663 9.4%	2,956 60.3%	1,416 28.9%
Elida	1,935	1.1	1,759.1	208 10.7%	90 4.7%	67 3.5%	246 12.7%	1,399 72.3%	73 4.0%	687	2 0.3%	$29,069	$70,069	35 1.8%	790 61.7%	451 35.2%
Harrod	425	0.2	2,125.0	11 2.6%	0 0.0%	11 2.6%	47 11.1%	287 67.5%	13 3.3%	153	4 2.6%	$22,940	$47,321	76 17.9%	168 62.2%	82 30.4%
Lafayette	384	0.2	1,920.0	3 0.8%	0 0.0%	3 0.8%	56 14.6%	299 77.9%	33 8.8%	147	5 3.4%	$20,579	$41,625	65 17.2%	197 74.9%	54 20.5%
Lima	37,836	13.7	2,761.8	13,272 35.1%	9,807 25.9%	1,237 3.3%	4,228 11.2%	28,129 74.3%	3,005 9.1%	14,051	2,065 14.7%	$16,705	$30,953	9,992 28.5%	14,583 63.2%	4,740 20.5%
Spencerville	2,339	1.0	2,339.0	71 3.0%	41 1.8%	16 0.7%	341 14.6%	1,683 72.0%	169 8.2%	897	20 2.2%	$23,105	$40,430	557 24.4%	960 66.3%	332 22.9%
Amanda Township	1,833	34.4	53.3	122 6.7%	0 0.0%	28 1.5%	295 16.1%	1,485 81.0%	99 5.5%	716	32 4.5%	$31,375	$68,831	100 5.5%	794 58.6%	439 32.4%
American Township	12,268	23.2	528.8	1,866 15.2%	1,033 8.4%	391 3.2%	2,756 22.5%	9,696 79.0%	937 8.1%	5,191	562 10.8%	$26,890	$50,530	1,291 10.7%	5,736 65.0%	2,502 28.4%
Auglaize Township	2,300	35.9	64.1	254 11.0%	0 0.0%	203 8.8%	269 11.7%	1,613 70.1%	96 4.4%	771	66 8.6%	$19,099	$50,088	215 9.4%	928 66.6%	356 25.6%
Bath Township	9,616	32.1	299.6	974 10.1%	431 4.5%	318 3.3%	1,667 17.3%	7,618 79.2%	528 5.8%	3,630	260 7.2%	$23,450	$45,776	1,171 12.4%	3,795 59.7%	1,778 28.0%
Jackson Township	2,589	35.8	72.3	35 1.4%	0 0.0%	23 0.9%	491 19.0%	2,110 81.5%	141 1.6%	966	5 0.5%	$27,222	$58,124	176 6.9%	1,253 65.2%	572 29.8%
Marion Township	2,854	40.6	70.3	166 5.8%	128 4.5%	22 0.8%	463 16.2%	2,290 80.2%	129 4.8%	1,072	111 10.4%	$30,404	$68,297	130 4.6%	1,284 62.4%	673 32.7%
Monroe Township	1,937	35.9	54.0	8 0.4%	8 0.4%	0 0.0%	257 13.3%	1,368 70.6%	158 8.6%	678	29 4.3%	$23,585	$53,553	184 9.5%	793 63.1%	418 33.3%
Perry Township	3,446	32.7	105.4	2,321,818 20.0%	88 2.6%	21 0.6%	664 19.3%	2,849 82.7%	377 11.6%	1,377	172 12.5%	$22,163	$36,250	281 8.3%	1,456 57.0%	647 25.3%
Richland Township	1,548	38.6	40.1	19,311 18.5%	4 0.3%	51 3.3%	301 19.4%	1,234 79.7%	107 7.5%	565	80 14.2%	$28,448	$55,730	79 5.4%	623 52.4%	444 37.4%
Shawnee Township	12,243	29.3	417.8	6 1.3%	615 5.0%	112 0.9%	2,438 19.9%	9,633 78.7%	799 6.9%	4,760	246 5.2%	$35,759	$66,373	996 8.2%	4,447 51.1%	3,701 42.6%
Spencer Township	699	22.3	31.3	260 5.9%	0 0.0%	0 0.0%	128 18.3%	471 67.4%	36 5.3%	263	60 22.8%	$25,973	$60,049	37 5.3%	387 82.2%	56 11.9%
Sugar Creek Township	1,245	24.2	51.4	7 1.5%	0 0.0%	62 5.0%	211 16.9%	956 76.8%	32 2.8%	480	0 0.0%	$26,585	$56,500	62 5.0%	594 72.5%	209 25.5%

Source: ACS 2016 5-Year Estimate
[1]Total Mobility Impaired percentages based against non-institutionalized population 5 years and older
[2]Population over 25.

Census tracts with high concentrations of minority populations were found to encompass almost the entirety of the City of Lima in tracts 109, 110, 112, 122, 123, 124, 126, 127, 129, 130, 131, 132, 133, 134, 136, 137, 138 and 141. Map C-2 identifies the proportion of the minority population by census tract within Allen County.

Census Tract	Total Population	Percent Over 65	Percent Minority	Percent Mobility Limited	Percent Below Poverty Level	Percent HH w/ No Vehicle Available
TABLE C-2 DEMOGRAPHIC SUMMARY OF CENSUS TRACTS						
Allen County	104,644	15.9	18.5	7.7	16.1	7.5
101	4,535	20.9	5.6	6.0	5.8	4.5
102	4,165	16.0	2.0	9.1	9.2	1.2
103	1,553	18.0	4.6	2.9	5.4	0.0
106	4,871	15.7	4.8	6.7	14.4	3.0
108	7,382	22.3	7.3	6.3	2.5	3.9
109	4,690	16.7	17.4	6.1	14.4	6.6
110	5,902	16.2	23.8	8.5	21.7	4.8
112	2,961	8.8	32.8	7.4	14.3	5.7
113	7,300	19.2	8.1	5.2	9.7	2.6
114	2,973	18.4	1.3	6.2	8.3	0.4
115	2,725	11.6	9.7	4.2	10.8	3.8
116	2,583	20.8	4.2	12.0	9.4	6.8
118	2,524	20.2	16.2	6.2	6.1	0.5
119	3,000	22.4	8.0	10.8	15.1	7.0
120	2,373	23.9	5.7	5.4	2.1	1.1
121	3,511	18.3	14.2	6.1	8.6	1.5
122	3,652	10.6	36.4	9.8	19.8	10.3
123	3,808	10.1	19.7	5.7	27.0	6.8
124	2,571	7.4	24.6	7.1	25.4	13.6
126	1,892	13.8	22.6	5.2	21.0	7.1
127	1,860	7.5	40.4	11.6	56.4	24.0
129	1,534	7.0	38.4	6.8	39.6	22.7
130	4,346	18.1	22.1	8.7	19.4	9.9
131	2,302	14.4	23.9	3.0	12.4	3.9
132	2,065	10.1	38.3	8.8	18.6	10.4
133	1,344	16.0	50.1	13.0	16.6	14.9
134	2,411	13.4	40.0	17.1	52.9	33.3
136	1,029	8.7	48.8	11.8	45.2	13.7
137	1,143	11.4	65.3	16.8	38.9	29.3
138	2,871	9.8	56.7	12.9	23.9	19.9
139	3,362	15.7	3.4	7.8	8.5	4.0
140	3,444	19.2	11.2	5.9	8.3	3.8
141	1,982	6.6	43.2	12.4	36.3	31.4
205*	5,248	15.0	4.2	5.9	5.4	1.2
13**	3,112	19.0	6.0	10.6	7.0	4.0
Source: ACS 2016 5-Year Estimate **Van Wert County Census Tract* ***Hancock County Census Tract*						

MAP C-1
CENSUS TRACT BOUNDARIES
ALLEN COUNTY

101

13

66

102

I-75

30

205

140

30

103

139

309

112

113

114

110

108

122

124

81

81

130

123

109

129

141

131

126

132

133

127

106

134

136

309

118

137

117

120

138

117

121

116

115

119

I-75

66

RPC

N

August 2018

0   1   2   4   6   8   10

Miles
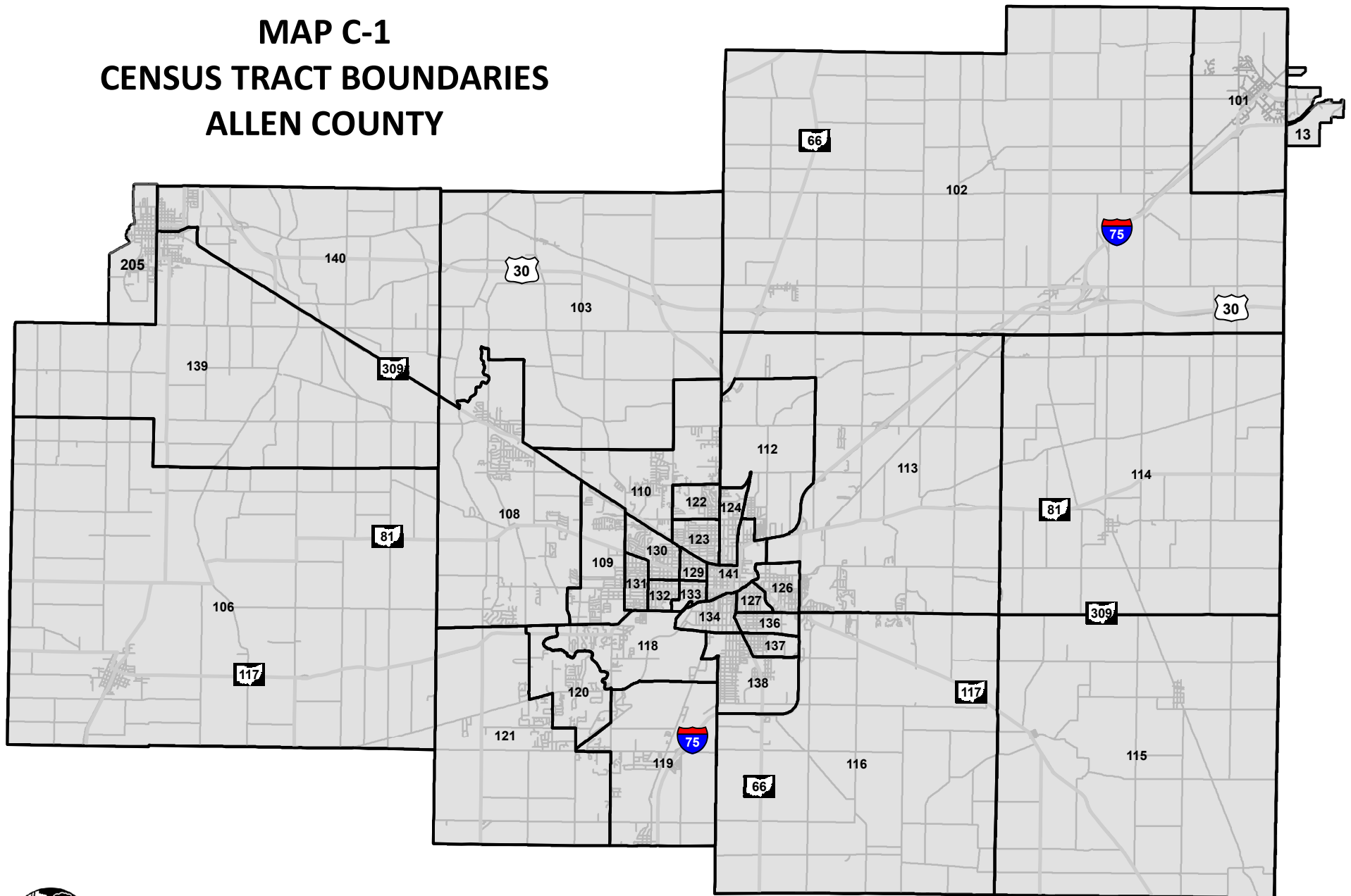
MAP C-2
MINORITY POPULATION
CENSUS TRACTS

205

140

139

101

13

102

103

108

110

112

113

114

122

124

123

130

109

141

131

126

132 133

129

134

127

136

137

118

138

120

121

119

116

115

106

Percent Minority

⬜	0% - 5%
🟨	6% - 15%
🟩	16% - 25%
🟦	26% - 50%
🟦	51% - 65%

August 2018

N

0 1 2   4   6   8   10
Miles

C - 7
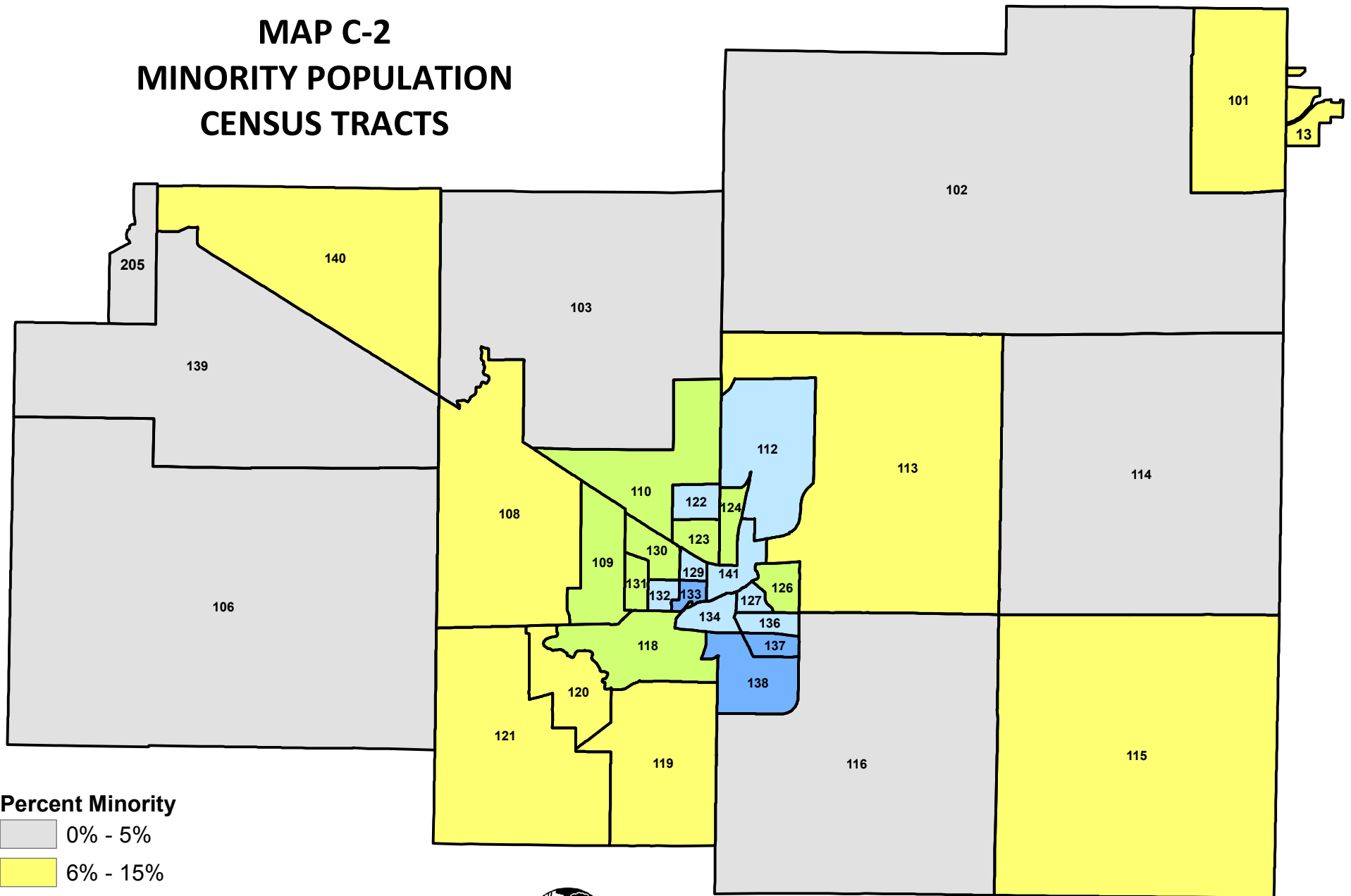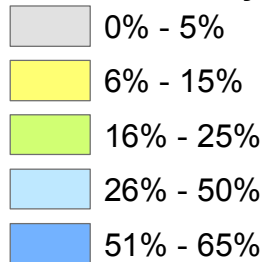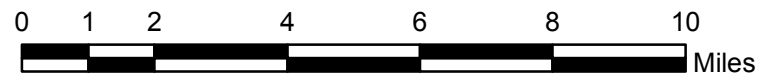
2.1.2   Elderly Person Population

Elderly persons (those persons aged 65 years or older) were also identified for purposes of this analysis and assessed at various geographic levels. This population is further divided by those living in an urban setting and those considered within a rural setting. Urbanized areas reflect a concentrated population of 50,000 or more residents, Urban areas are defined by the Census as communities of 2,500 or more in population. Rural refers to that segment of the population that does not reside in either of the above defined locations.

The elderly population accounted for 15.5% of Ohio's total population and 15.9% of Allen County's total population. The elderly population in the City of Lima, as a proportion of its total population was less than both the State and the County at 11.2%. Tracts 101, 102, 103, 108, 109, 110, 113, 114, 115, 116, 118, 119, 120, 121, 129, 130, 133 and 140 had elderly populations higher than the County average. While only three incorporated areas exceeded the County average (Bluffton – 20.7%, Cairo – 20.4% & Delphos – 17.8%), 10 of the 12 townships surpassed the County with only Auglaize (11.7%) and Monroe (13.3%) coming in under the recorded average. Map C-3 identifies the proportion of elderly persons by census tract in Allen County.
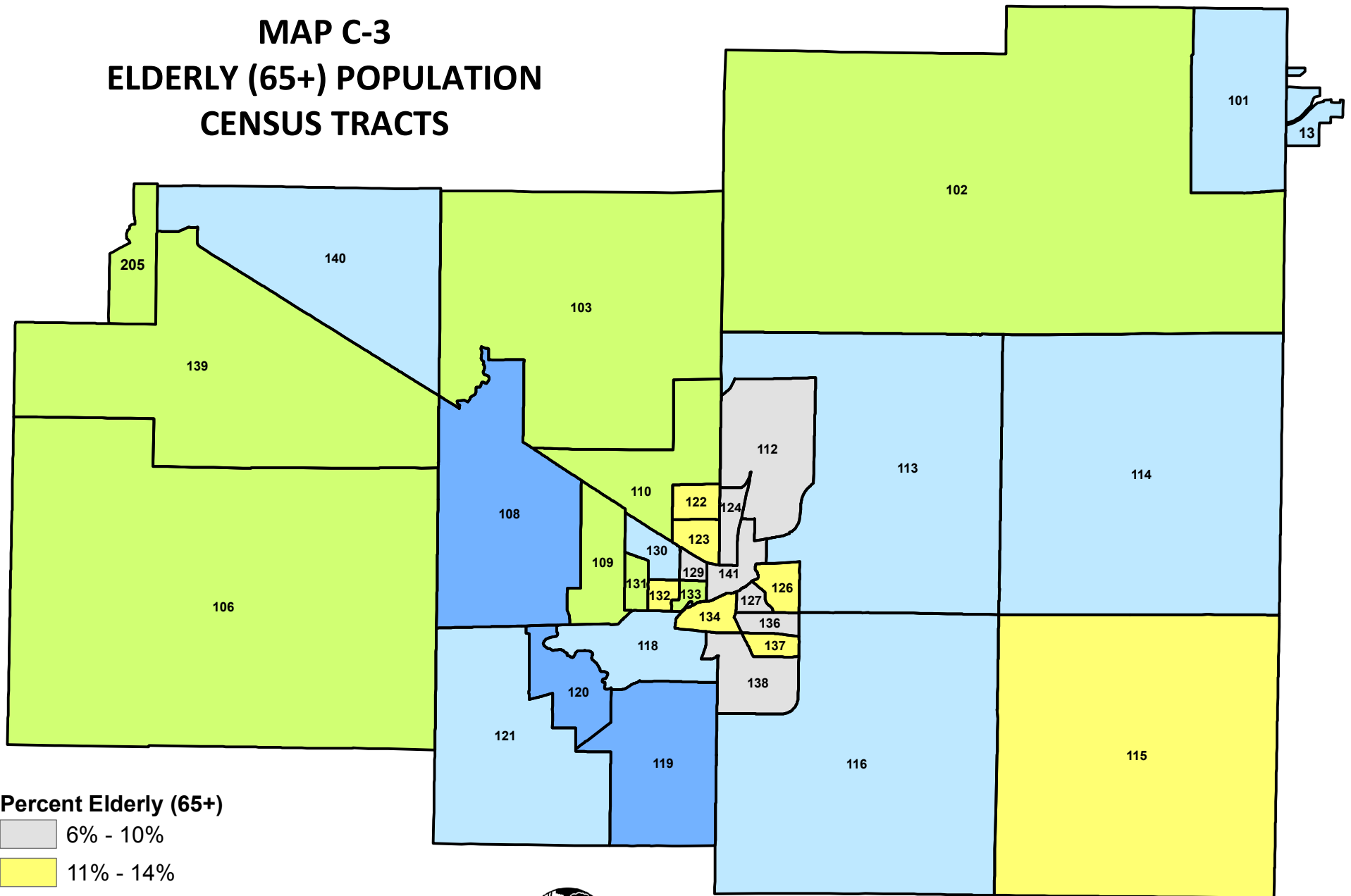
2.1.3   Mobility Limited Population

For purposes of this analysis the total number of mobility impaired residents were identified as non-institutionalized persons over the age of 5 who have serious difficulty walking or going up stairs. Such ailments did not reflect a temporary condition such as a broken bone that was expected to heal normally. Table C-1 suggests that the State's proportion of mobility limited residents represented 7.6% of the age 5+ population. Allen County had a somewhat slightly higher proportion than the State (7.7%), while the City of Lima had an even higher proportion of its residents identify themselves as suffering from a mobility limitation (9.1%). Half of the incorporated areas experienced greater proportions of limited mobility residents than the county, while only three of the townships exceeded that mark. Map C-4 and Table C-2 reveal that geographic concentrations of the mobility impaired population were found to exist in tracts 102, 110, 116, 119, 122, 127, 130, 132,133, 134, 136, 137, 138 and 141.

2.1.4   Population Below Poverty

The data regarding poverty status was provided in the ACS 2016 5-Year estimates, and is based on individuals. In 2016 the federal poverty threshold for a family of four was $24,600.   Poverty status was determined for all persons except institutionalized persons, persons in military quarters and college dormitories. There was a slight gap in the proportion of persons living below the poverty line in Ohio (15.4%) and Allen County (16.1%) in 2016. The City of Lima residents experienced the highest level of poverty in the county at 28.5 percent, a difference of 12.4 percentage points compared to the County. Other than Lima only three other political subdivisions experienced a poverty rate higher than the County's (Harrod – 17.9%, Lafayette – 17.2% & Spencerville – 24.2%). American Township had the highest poverty rate of the twelve townships at 10.7%, while the Village of Elida (1.8%) and Marion Township (4.6%) had the lowest poverty rates in the County. Map C-5 identifies the population residing below the poverty line by census tract for Allen County.
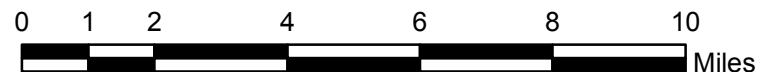
MAP C-3
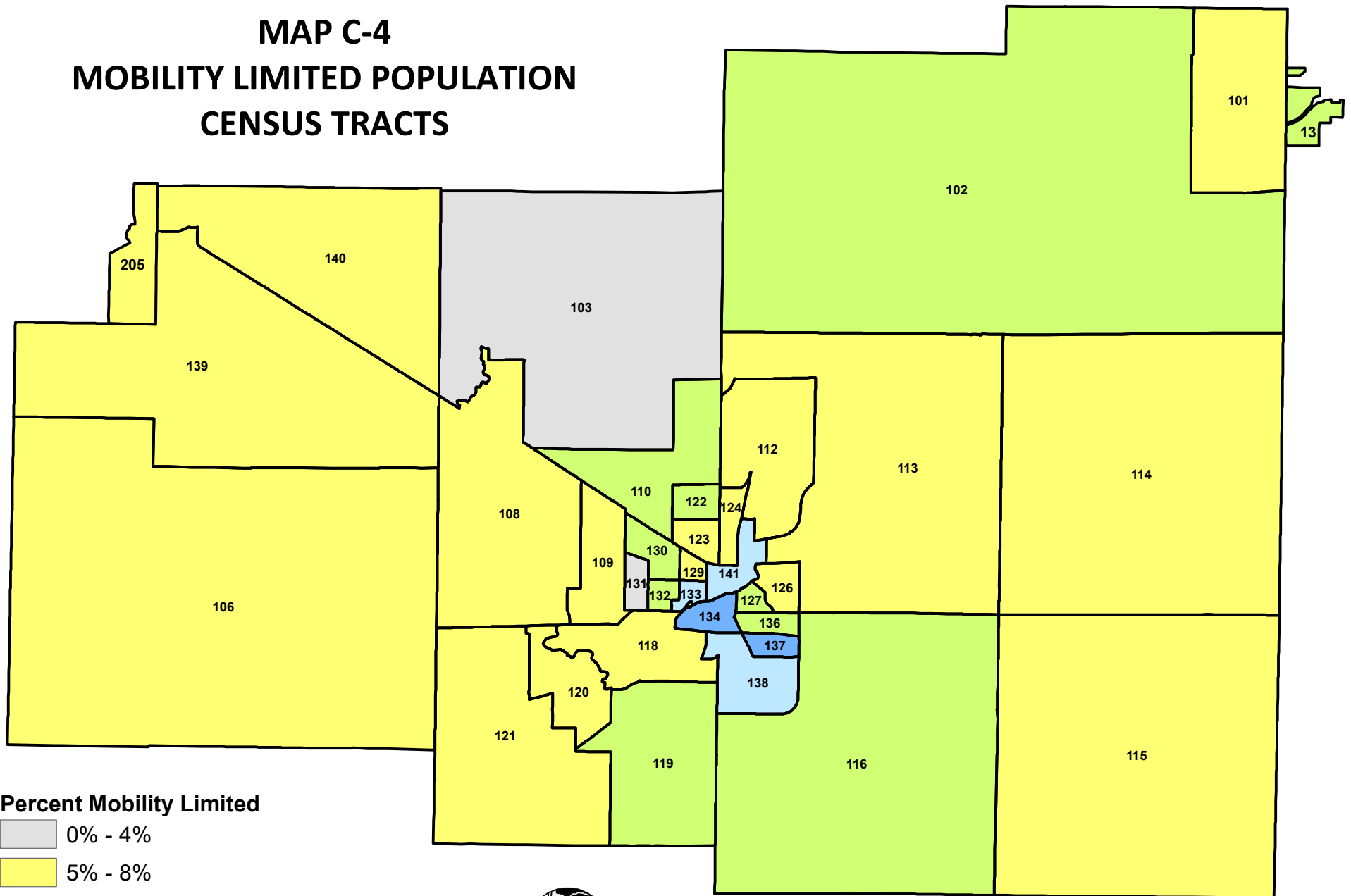**ELDERLY (65+) POPULATION**
CENSUS TRACTS

C - 9

Percent Elderly (65+)

- 6% - 10%
- 11% - 14%
- 15% - 18%
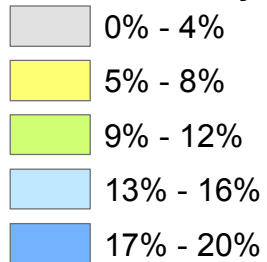- 19% - 22%
- 23% - 26%

August 2018

N

0 1 2 4 6 8 10 Miles
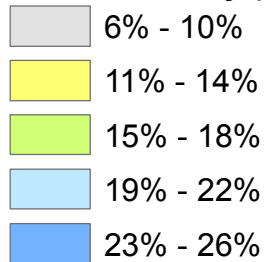
MAP C-4
MOBILITY LIMITED POPULATION
CENSUS TRACTS

Percent Mobility Limited
- 0% - 4%
- 5% - 8%
- 9% - 12%
- 13% - 16%
- 17% - 20%

August 2018

C - 10

N

0 1 2 4 6 8 10 Miles
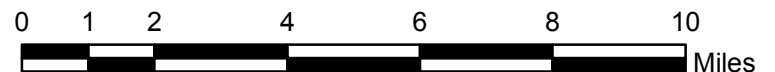
MAP C-5
POPULATION IN POVERTY
CENSUS TRACTS

Percent in Poverty

- 0% - 5%
- 6% - 10%
- 11% - 15%
- 16% - 30%
- 31% - 60%

August 2018

0 1 2 4 6 8 10 Miles
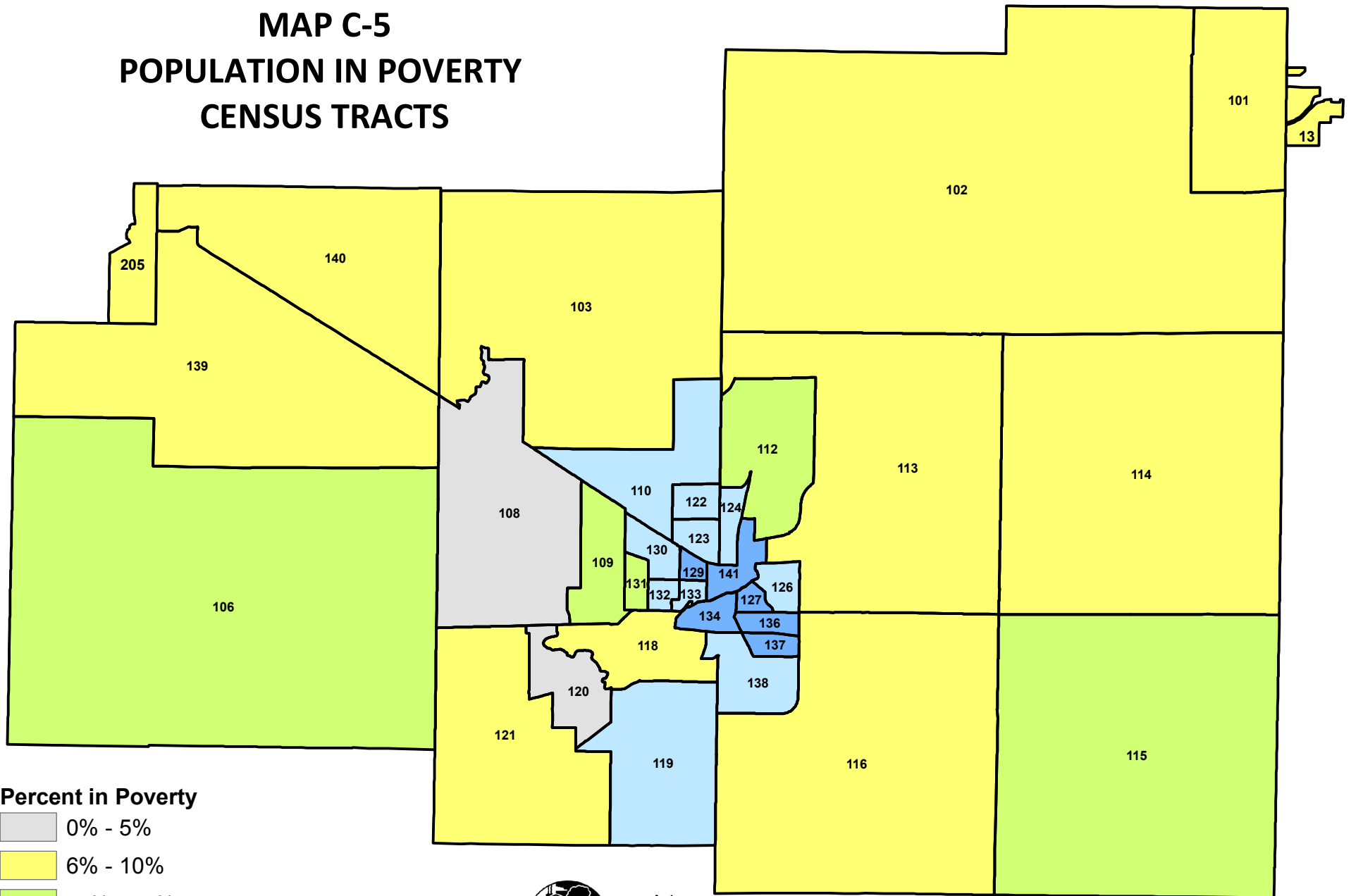
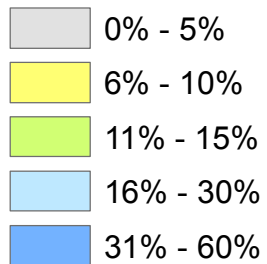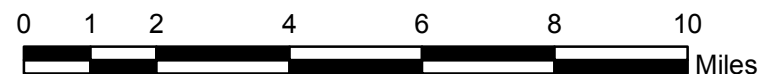Table C-2 reveals the highest concentrations of persons living below the poverty income level located in tracts 110, 122, 123, 124, 126, 127, 129, 130, 132, 133, 134, 136, 137, 138, 139 and 141.

2.1.5   No Vehicle Available Population

This analysis attempted to identify those persons residing in households with no vehicles available in order to better address their transportation needs and concerns. ACS data is predicated on the number of households with a specified number of passenger cars, vans and trucks of one ton or less and available for use by the household.   Dismantled or inoperable vehicles were excluded. Reviewing ACS 2016 5-Year estimates, the State of Ohio recognized 8.4 percent of its households without access to a motor vehicle while Allen County recognized only 7.5 percent.   The population of households without access to a vehicle totaled 14.7 percent of all households within the City of Lima, a significant increase over Allen County as a whole. Table C-2 reveals those census tracts with households without access to a motor vehicle that are higher than the County average; 122, 124, 127, 129, 130, 132, 133, 134, 136, 137, 138 and 141.   Map C-6 recognizes the population of households with no accessibility to vehicles at the census tract level for the Lima Allen County area.

2.1.6   Locational Attributes of the Transportationally Disadvantaged

Analysis of the data revealed that there was a strong geographic correlation amongst various target populations residing within Allen County. Census Tracts 110, 122, 124, 127,129, 130, 132, 133, 134, 136, 137, 138 and 141 were repeatedly identified as geographic locations having a higher than average proportion of the target populations. Over 40 percent of the census tracts were identified as high transportationally disadvantaged with higher than average populations in three of the five categories. The locations of the targeted population are readily evident in Map C-7 as being located inside the Lima Urbanized Area.
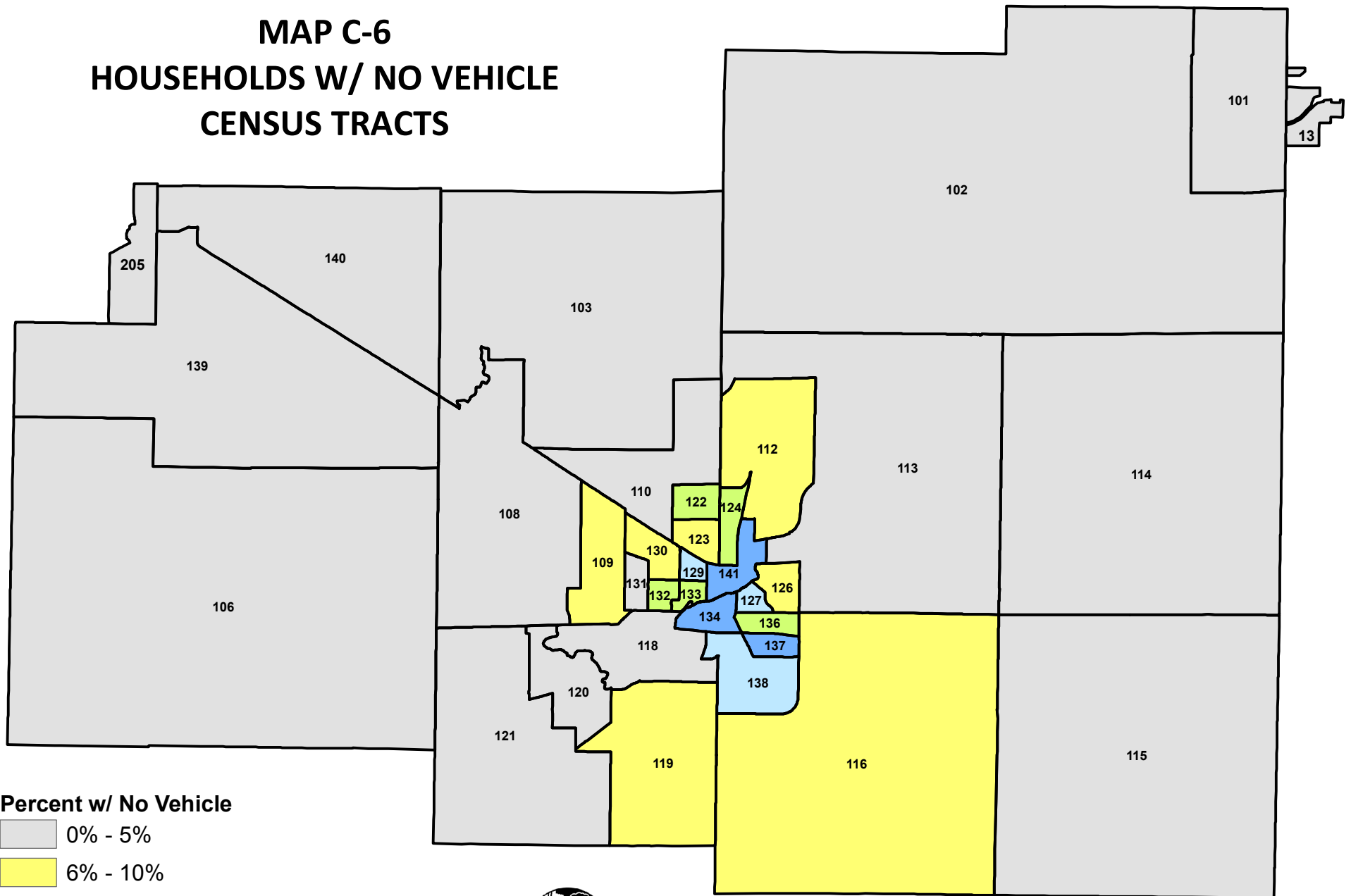
It is of interest to note that Census Tract 134 had the highest concentration of both residents with mobility limitations (17.1%) and of households without a vehicle (33.3%). Census Tract 137 had the highest concentration of minorities (65.3%), census tract 120 had the highest percentage of residents over 65 (23.9%) and census tract 127 had the highest rate of poverty (56.4%) in the County. The RTA service area aims to meet the trasportational needs of Allen County residents living within these high poverty census tracts (Map C-7)

2.1.7   Other Areas in the MPO Planning Area

The MPO planning area includes Allen County, the City of Delphos inclusive of the portion located in Van Wert County (total population 7,216/2016), as well as, the Village of Bluffton located in both Allen and Hancock Counties (4,376/2016).

In terms of demographics when compared to the State of Ohio or Allen County, the City of Delphos is a small, older, relatively affluent and ethnically homogeneous urban area. Table C-3 reveals that as of 2016 the minority population within the City of Delphos was documented as 7.4% (537) of the total population and its proportion of both the population existing below the poverty level (9.4%) and those households having no access to motor vehicles (5.1%) were well below the County bench marks (18.5%, 16.1% and 7.5% respectively).

MAP C-6
HOUSEHOLDS W/ NO VEHICLE
CENSUS TRACTS

101

13

102

205

140

139

103

108

110

112

113

114

122

124

123

130

129

141

109

131

132

133

126

127

134

136

106

118

137

138

120

115

121

119

116

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C - 13

Percent w/ No Vehicle

- 0% - 5%
- 6% - 10%
- 11% - 15%
- 16% - 25%
- 26% - 35%

N

RPC
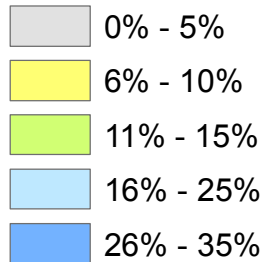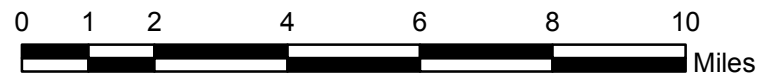
0 1 2 4 6 8 10 Miles

MAP C-7
TRANSPORTATIONALLY
DISADVANTAGED POPULATION
CENSUS TRACTS

101

13

102

140

205

103

139

112

108

110

113

114

122

124

130

123

109

129

141

131

132

133

126

134

127

136

118

137

138

120

106

121

119

116

115
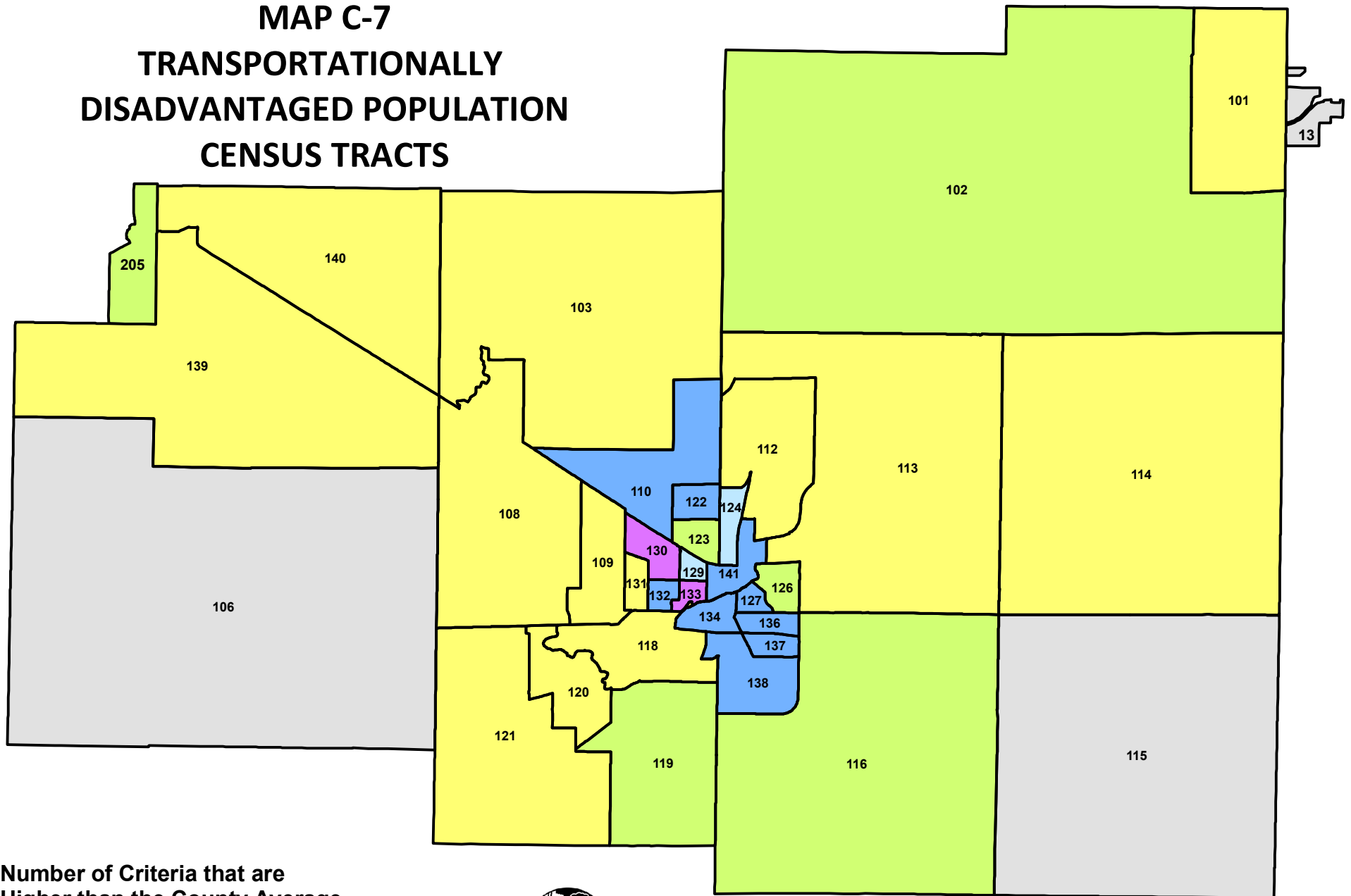
**Number of Criteria that are
Higher than the County Average**

0	1	2	3	4	5

RTA Service Area

RPC

N

August 2018

0	1	2	4	6	8	10

Miles

Delphos's elderly population was higher than either the State (15.5%) or the County (15.9%) average at 17.8%. Together census tracts 140, 139, and 205 encompass the Delphos Urban Area and provides further geographic analysis.

TABLE C-3 DEMOGRAPHIC COMPARISON - CITY OF DELPHOS						
Area	Total Population	PCT Over 65	PCT Minority	PCT with Mobility Limitation	PCT Below Poverty	PCT with No Vehicle Available
State of Ohio	11,586,941	15.5%	20.0%	7.6%	15.4%	8.4%
Allen County	104,664	15.9%	18.5%	7.7%	16.1%	7.5%
City of Delphos	7,216	17.8%	7.4%	9.1%	9.4%	5.1%
Delphos, Allen County	3,952	18.3%	8.5%	8.4%	11.2%	6.1%
Delphos, Van Wert County	3,264	17.1%	6.2%	9.8%	7.2%	3.9%
Source: ACS 2016 5-Year Estimates						

A demographic analysis of the Village of Bluffton reveals a small, older, relatively affluent and ethnically homogeneous urban area. Table C-4 reveals that the minority population residing in Bluffton was documented at 5.9% in 2016. The proportion of the Bluffton population below the poverty level, having no access to motor vehicles, and mobility impaired (6.0%, 4.6%, 6.0%) were well below Allen County bench marks (16.1%, 7.5% and 7.7%) respectively. The elderly population within the Village was higher than either the State or the County average at 20.7%. The current Travel Demand Model (TDM) recognizes the Cities of Lima and Delphos, the 7 villages and all 12 townships within Allen County. As well as the portion of Delphos found in Van Wert County and the portion of Bluffton within Hancock County.

TABLE C-4 DEMOGRAPHIC COMPARISON - VILLAGE OF BLUFFTON						
Area	Total Population	PCT Over 65	PCT Minority	PCT with Mobility Limitation	PCT Below Poverty	PCT with No Vehicle Available
State of Ohio	11,586,941	15.50%	20.00%	7.60%	15.40%	8.40%
Allen County	104,664	15.90%	18.50%	7.70%	16.10%	7.50%
Village of Bluffton	4,376	20.7%	5.9%	6.0%	6.0%	4.6%
Bluffton Allen County	4,279	20.9%	5.9%	6.1%	6.1%	4.8%
Bluffton Hancock County	97	8.2%	6.2%	0.0%	0.0%	0.0%
Source: ACS 2016 5-Year Estimates						

2.2   Regional Accessibility in Terms of Employment

The second objective of this analysis is to assess the performance of the 2040 Plan Update over the 20-year horizon period in terms of regional accessibility to employment opportunities. Herein, accessibility is defined as the nature and scope of movement between locations, or the effort exerted in terms of time expended traveling between one location and another. Accessibility is offered as a means to quantitatively evaluate the effectiveness of the Plan and its potential impact on targeted populations. The primary factors which determine accessibility to

employment opportunities are roadway system characteristics and the location of employment opportunities. Accessibility offers a measure of the potential job pool able to be reached in a specific amount of time from a given residential location.

This exercise is predicated on the identification and location of the targeted populations as documented in Section 2.1. This exercise also relies upon the TDM for the Allen County Planning Area developed by ODOT to document travel time between Traffic Analysis Zones (TAZ's). Accessibility is offered as a measure that captures both travel demand and land use impacts. Such an analysis traditionally employs variables such as population, employment, land use and roadway characteristics. Accessibility can then be measured in terms of travel time between locations by trip purpose. This exercise analyzes travel time between residency and employment.

Mean travel time is defined as the total number of minutes that it usually took a person to get from home to work. The elapsed time includes time spent waiting for public transportation, picking up passengers in carpools, and time spent in other activities related to getting to work. Travel time data represents commuting time for workers 16 years of age or older. As stated earlier, the travel time incurred between one's place of residency and employment is in large measure determined by the distance between the two locations, land use and roadway characteristics. The mean travel time for residents living and working inside and outside the County was calculated by the TDM at 18.3 minutes.

Map C-8 is provided in order to show the Allen County planning area as identified by TAZ. Map C-9 identifies the TAZ's that are accessible within the TDM mean travel time of 18.3 minutes from home to work by model boundary. Travel time derived from the model analyses is restricted to passenger vehicles and excludes public transit oriented trips.

As a measure of the Plan's performance over the 20-year horizon period, modeling activities utilized projected population and employment figures by TAZ and the 2040 roadway improvement project schedule as developed during the Plan's public involvement process. Map C-10 reveal changes in commuting at the 18.3 minute mean travel time by TAZ for the horizon year of 2040 with no changes to the transportation network. Map C-11 identifies the proposed 2040 Long Range Plan projects by type and location within the Lima Urbanized Area. With those recommended projects implemented, Map C-12 reveals expected changes in commute time to work within the Allen County Planning Area using the 18.3 minute mean travel time recorded by the TDM. Comparing Map C-9 to Map C-12 or looking at Map C-13 it is clear that the 2040 project schedule has an overall positive impact on the commute times for those living and working in Allen County.
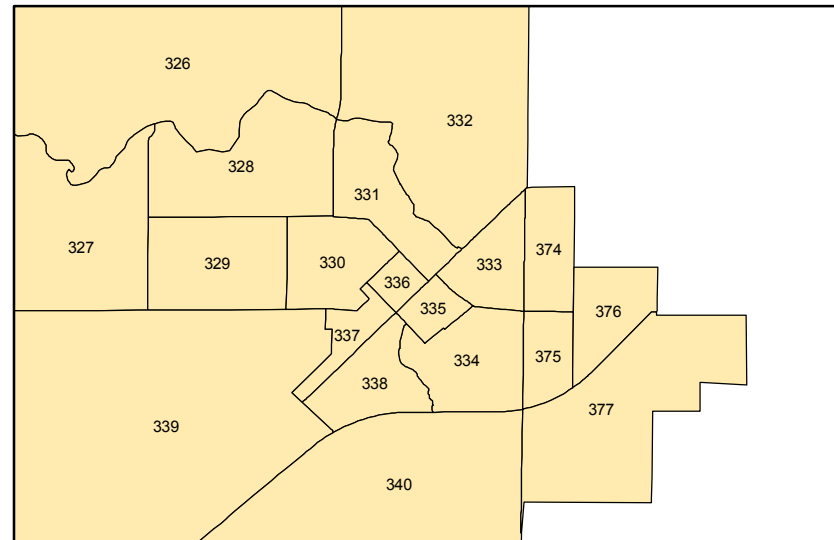
2.3   Disproportionate Impacts on Target Populations
The last objective of this analysis is to review the impact of the 2040 Plan's recommended project listing on identified populations in order to address EJ requirements. Although there are a number of measures that could be employed to address the aforementioned regulatory requirements, the assessment of disproportionate benefits/burdens of transportation projects to the various target populations may best be measured by the overall change in accessibility; a direct result of the implemented transportation improvements. In transportation planning there are traditionally 5 groups comprising the transportationally disadvantaged including; the disabled, elderly, those of minority status, individuals under the poverty level and those households without a vehicle.
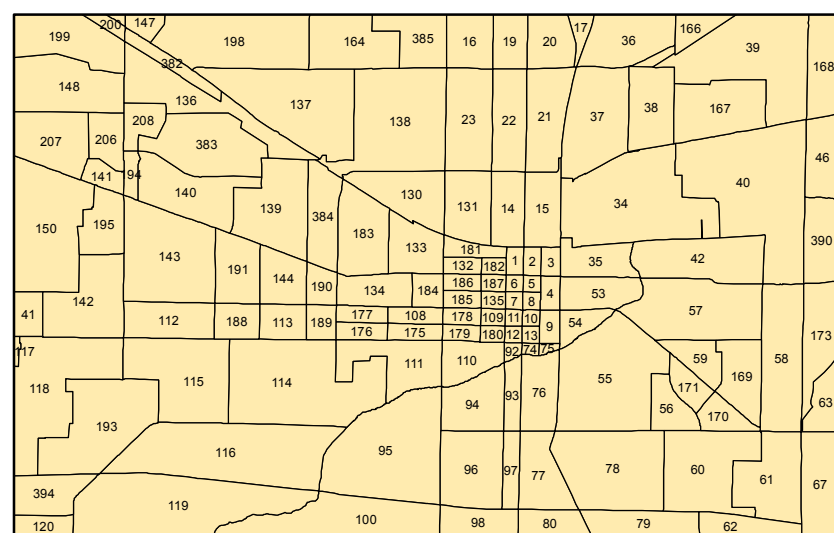
MAP C-8
ALLEN COUNTY PLANNING AREA BY TAZ

CITY OF DELPHOS
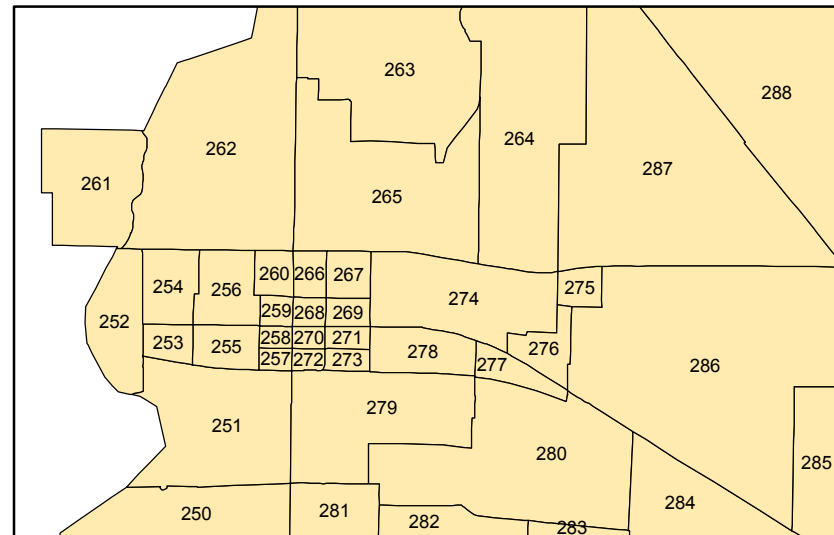
VILLAGE OF BLUFFTON

LIMA CENTRAL CITY

0 1 2 4 6 8 10 Miles

N

RPC
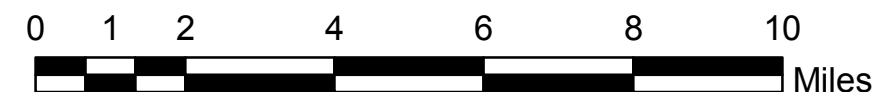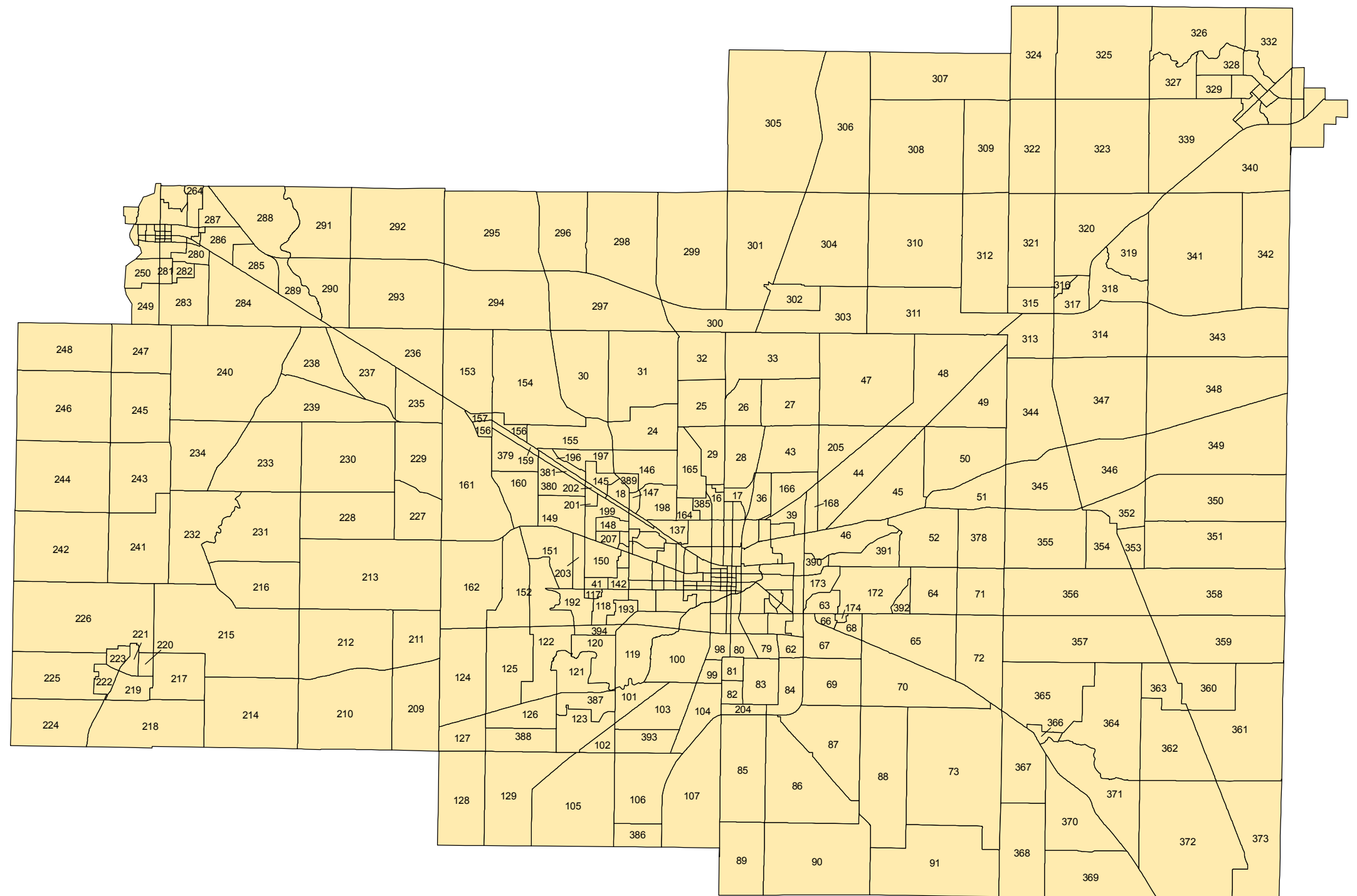
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MAP C-9
COMMUTE TO WORK BY MEAN
TRAVEL TIME OF 18.3 MINUTES
(TDM)

Travel Time in Minutes

- 12.4 - 15.3
- 15.4 - 18.3
- 18.4 - 21.3
- 21.4 - 24.3
- 24.4 - 27.3

0 1 2   4   6   8   10
Miles
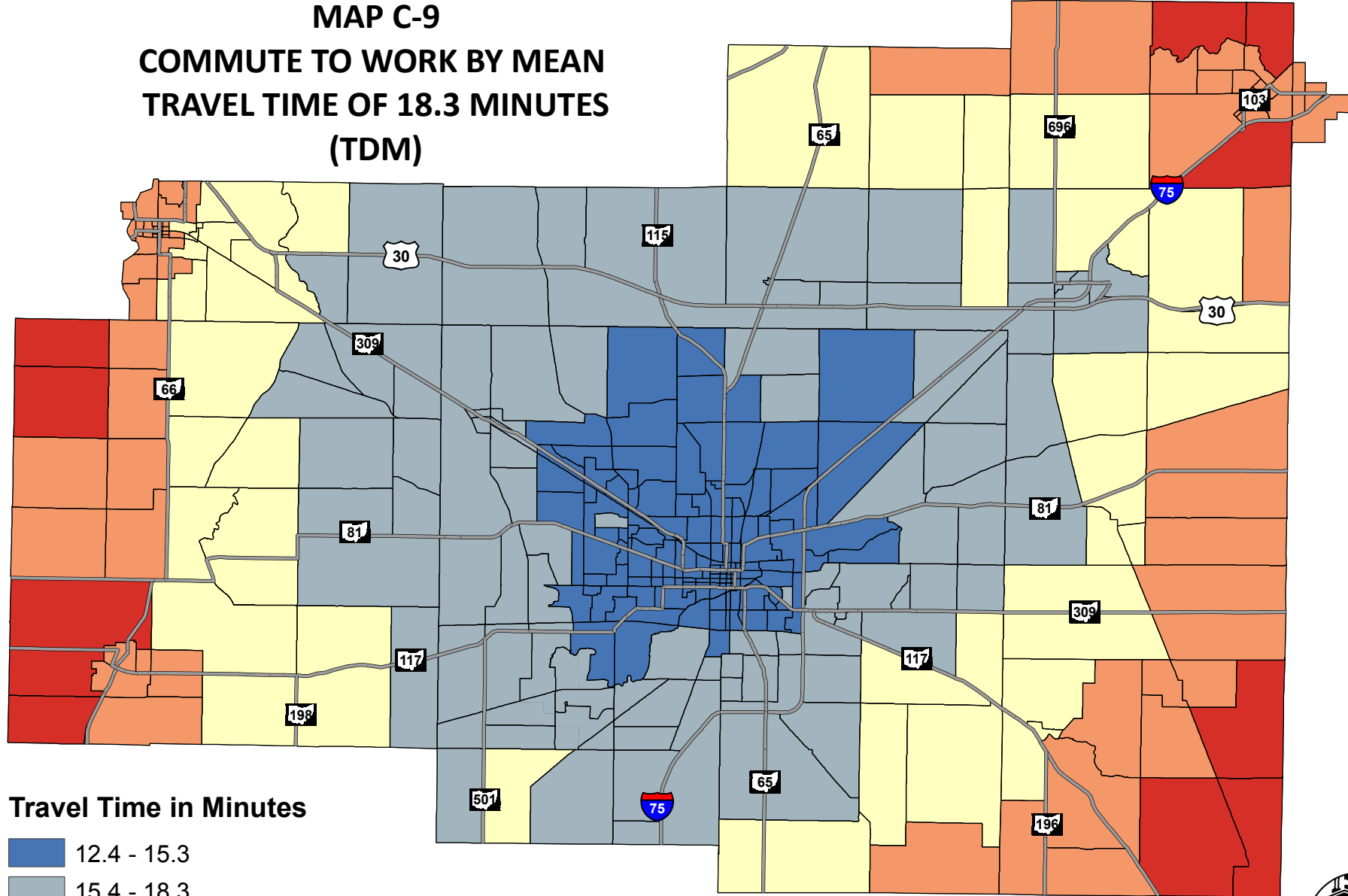
August 2018

MAP C-10
COMMUTE TO WORK BY MEAN
TRAVEL TIME OF 18.3 MINUTES
WITHOUT PROJECTS (2040)

C - 19

Travel Time in Minutes

- 12.4 - 15.3
- 15.4 - 18.3
- 18.4 - 21.3
- 21.4 - 24.3
- 24.4 - 27.3

0 1 2 4 6 8 10 Miles
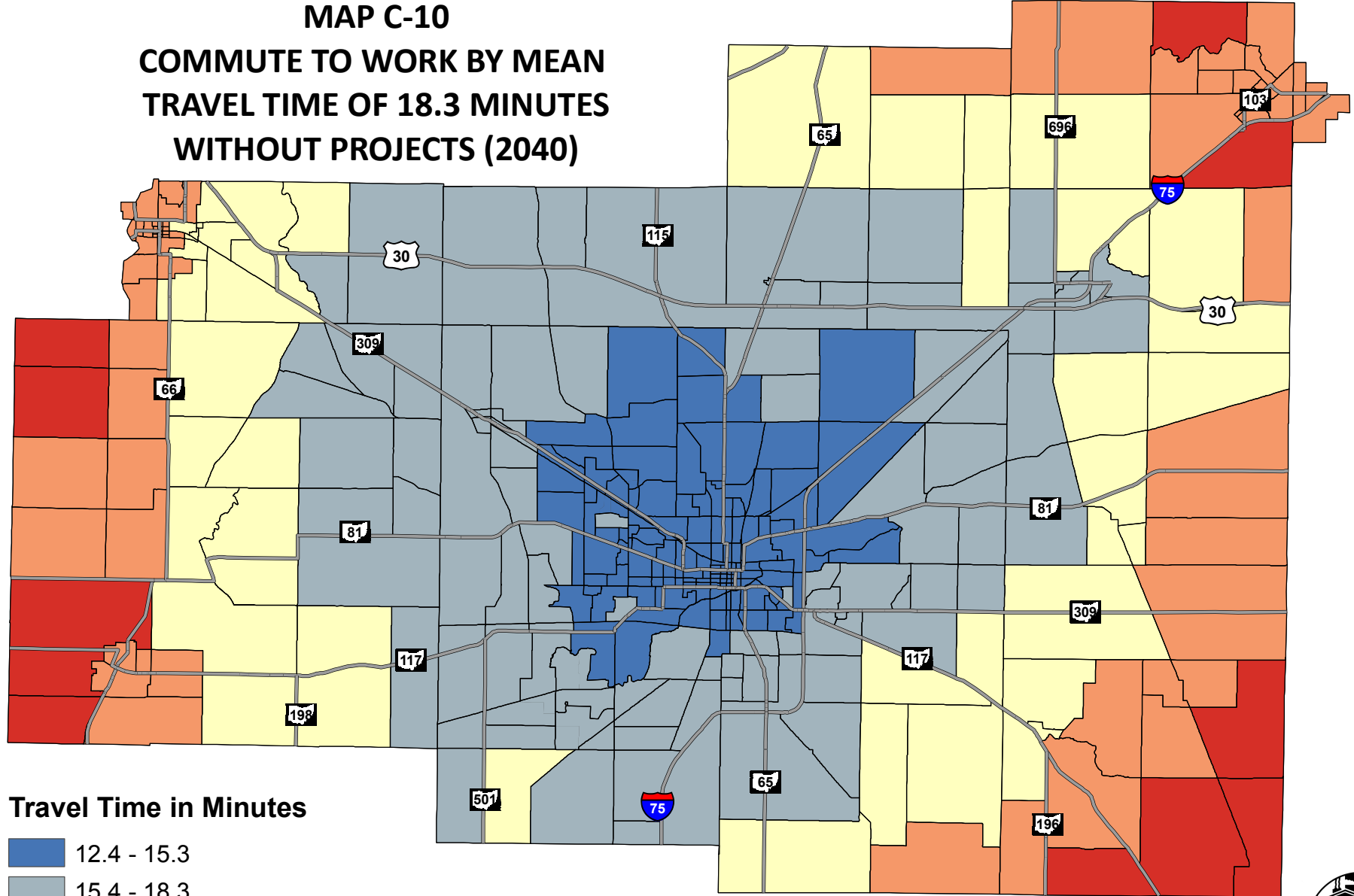
August 2018

MAP C-11
2040 RECOMMENDED
TRANSPORTATION PROJECTS
LIMA URBANIZED AREA

Legend:
- Bike/Ped Project (red dot)
- Bike/Ped Project (red line)
- Bridge Project (green dot)
- Road Project (orange line)
- Road Project (orange dot)
- Streetscape (blue line)
- Streetscape (yellow dot)

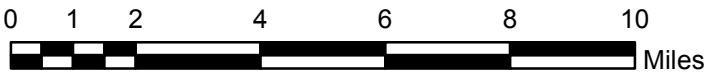0 1 2 4 6 8 Miles

N

RPC
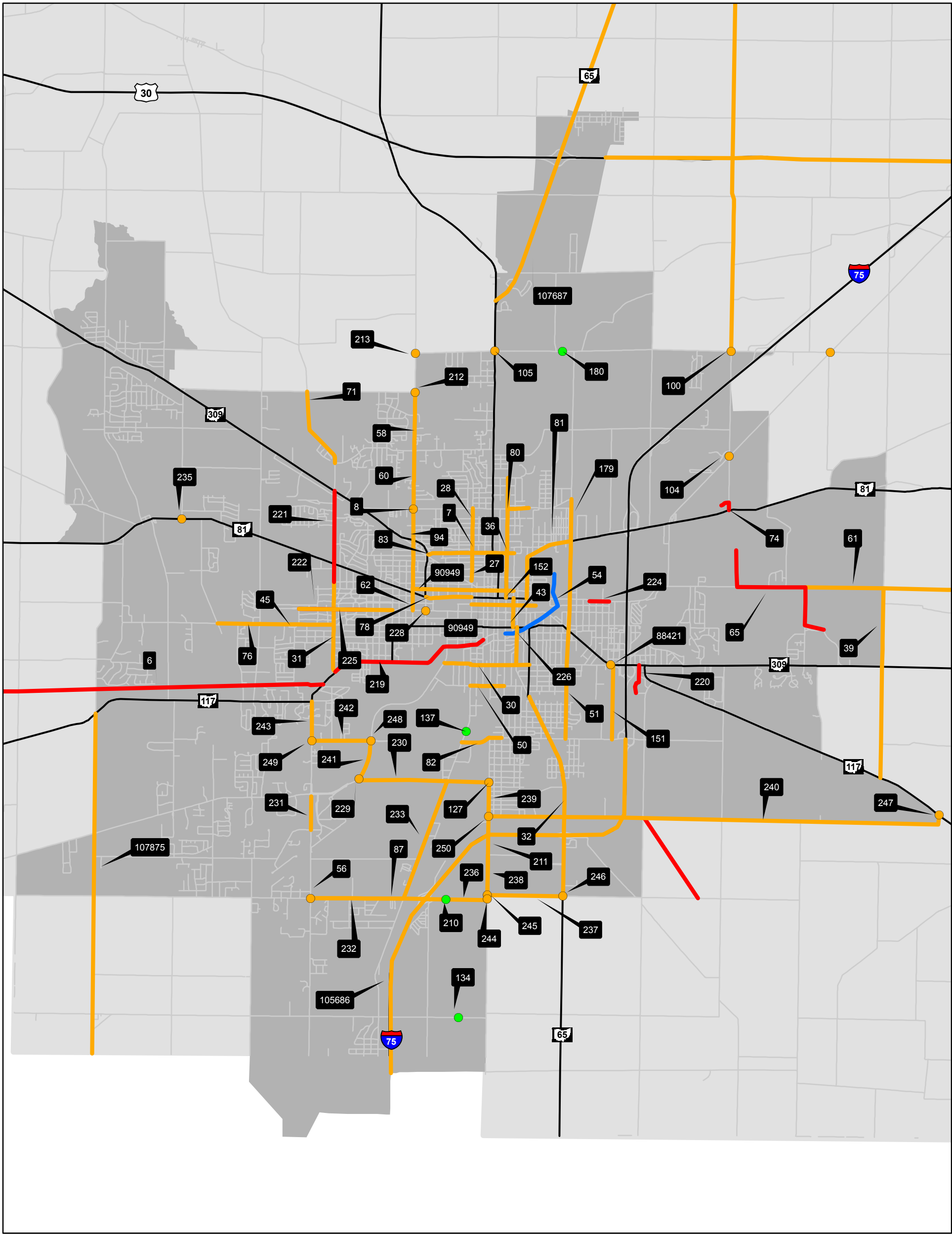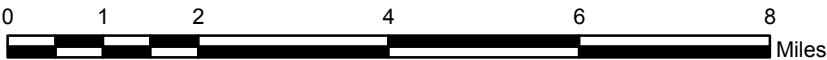
August 2018

MAP C-12
COMMUTE TO WORK BY MEAN
TRAVEL TIME OF 18.3 MINUTES
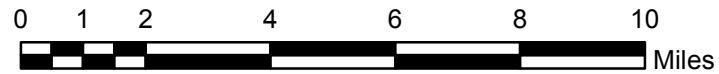WITH PROJECTS (2040)

Travel Time in Minutes

- 12.4 - 15.3
- 15.4 - 18.3
- 18.4 - 21.3
- 21.4 - 24.3
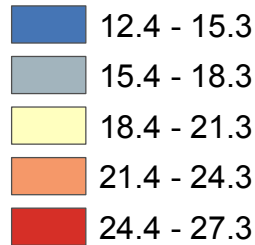- 24.4 - 27.3

0 1 2 4 6 8 10 Miles
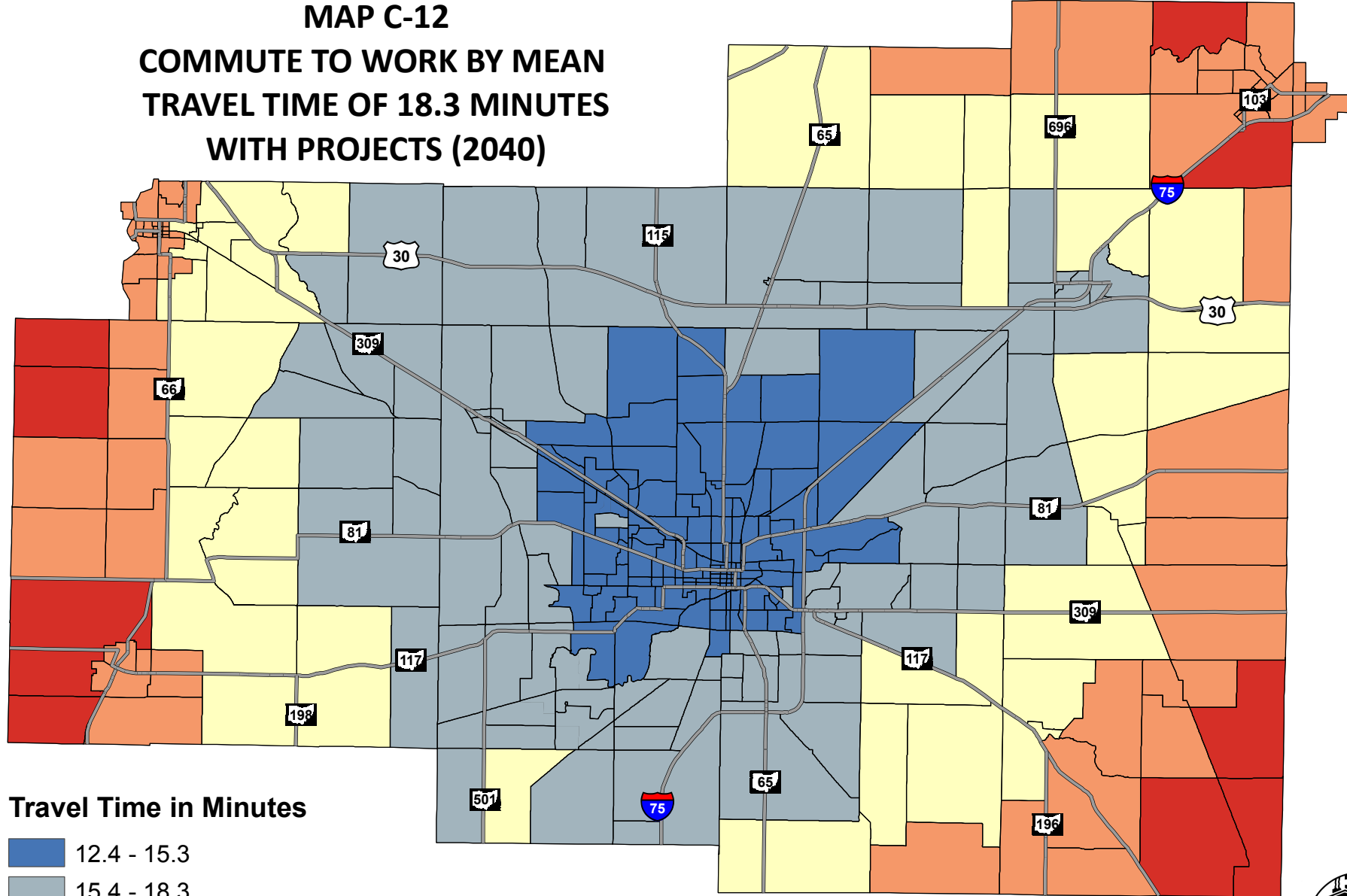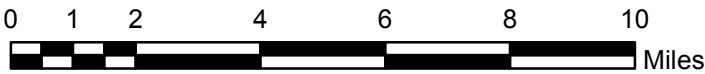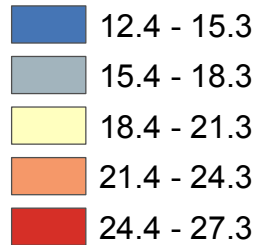
August 2018

MAP C-13
CHANGE IN COMMUTE TIME TO WORK
HORIZON YEAR 2040
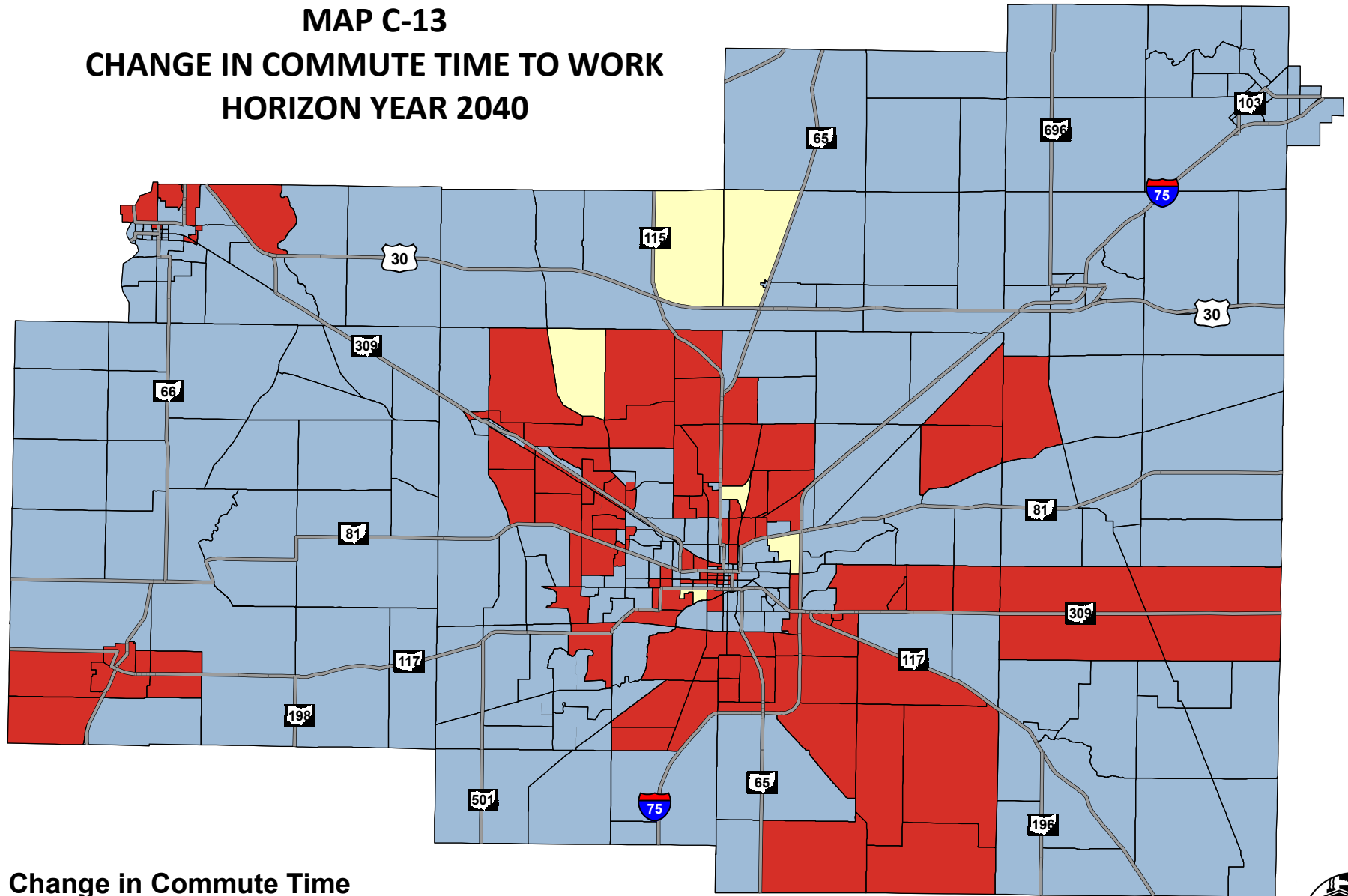
Change in Commute Time

Decrease in Commute Time

No Change

Increase in Commute Time

0 1 2 4 6 8 10 Miles

August 2018

N
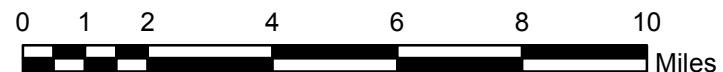
Section 2.3 attempts to address accessibility to employment opportunities from the current network conditions and the 2040 horizon year. Given the rationale of this exercise, changes which result in less accessibility to job opportunities are considered as burdens while gains in accessibility are viewed as benefits.

Based on accepted planning activities, the TDM does recognize changes in population and residency as well as employment opportunities over the course of the planning horizon. The model also acknowledges changes to the transportation system. For purposes of testing for disproportionate impacts, maps identifying the two largest segments of the transportationally disadvantaged population, minority and poverty, were assessed with respect to accessibility. Each of the disadvantaged population groups were identified by census tract, while, commute time to work within the TDM under existing conditions and future conditions (2040) were mapped by TAZ. Those TAZs portrayed in red have the lowest accessibility to jobs in the model area.

Accessibility is identified by the percentage of workers who can access their jobs performed in the Allen County Planning Area within the TDM derived mean commute time of 18.3 minutes. An improvement occurs when the completion of proposed projects is compared to the no build alternative, and results in an increase in the percentage of workers who can get to work within the mean travel time or faster. A decrease indicates a decline in the percentage of workers who can access available employment within the mean commute time. An increase in commute time can reflect an increase in traffic volume or a decrease in available routes to travel to work upon. It can also reflect a projected change in location of identified employment opportunities locating or relocating further from the TAZs in question.
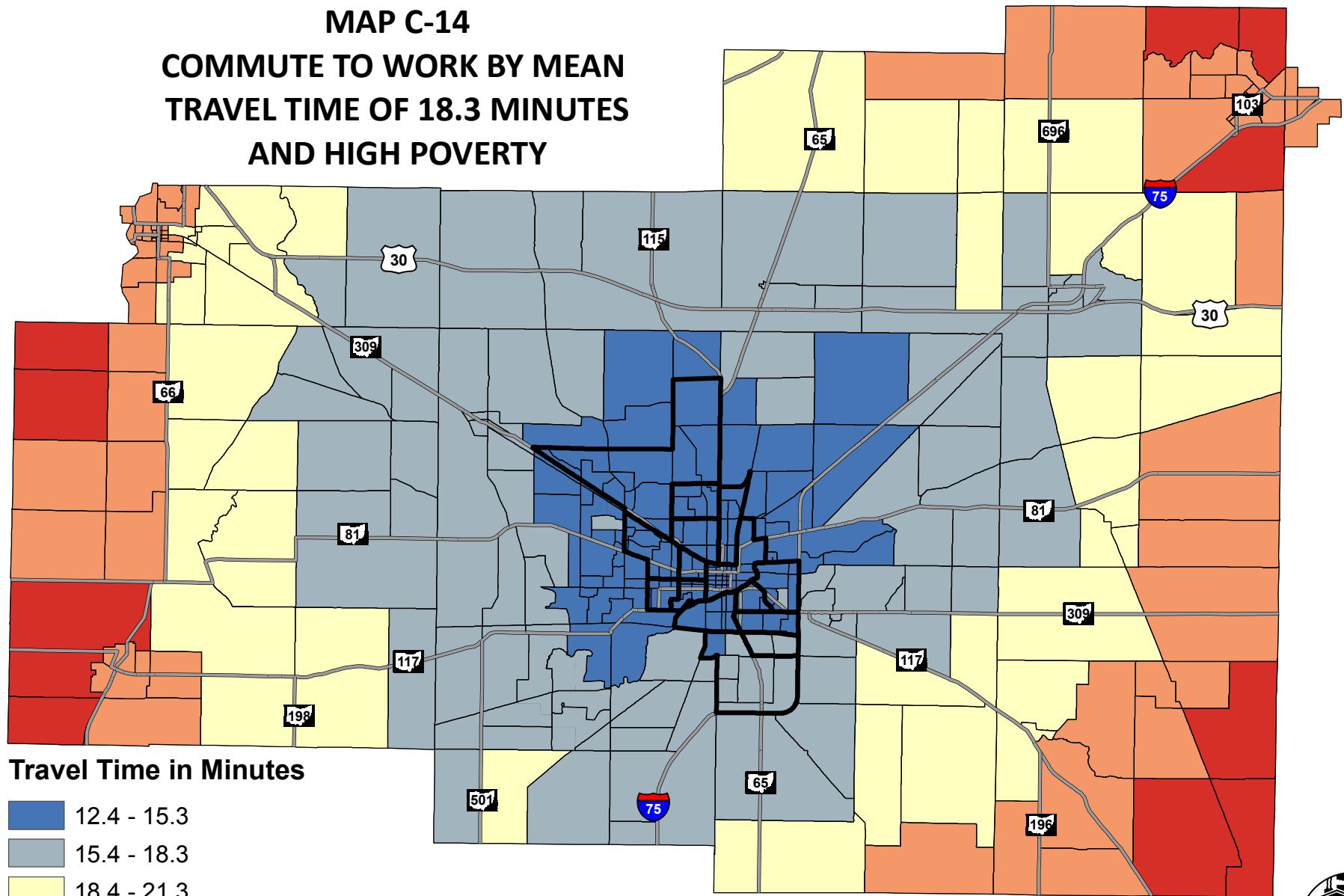
Each of the 2040 Plan's projects were also identified and assessed against the targeted population groups in order to better reveal the nature and scope of the projects impacts upon the respective populations. The model analyses did not project the geographic location of the targeted populations in the year 2040 and therefore, the test for disproportionate impacts utilizes their current residency only. Despite data limitations, there was considerable debate as to whether increased employment or residential opportunities would actually shift said populations geographically equally; therefore, the decision to use current locational considerations was determined prudent.

After comparing the current travel times versus 2040 it becomes evident that commute time to available jobs is virtually unchanged by 2040 within the model area when applying the 18.3 mean travel time. However, when transportation projects are implemented the assessment finds improved commute times in more than 256 of the 395 TAZ's located within the MPO planning area by 2040. Over 50 percent of all available jobs within the planning area experience an improvement in the commute time by the year 2040.

Comparing poverty rates with commute time, maps C-14 and C-15 present those census tracts with poverty rates above that of the Countywide average along with current commute time to work and commute time in the horizon year (2040). Analysis of both sets of maps shows an improvement in commute times for 56 TAZ's located in areas of high poverty.

The minority population also witnessed increased accessibility over the 2040 planning horizon. Maps C-16 and C-17 reveal areas of high minority populations against current commute times to work and after the implementation of the 2040 Plan's recommended projects. Comparing the two sets of maps reveals increased accessibility to employment opportunities for the 2040 planning horizon for the minority populations concentrated in 61 TAZ's, all located within the

MAP C-14
COMMUTE TO WORK BY MEAN
TRAVEL TIME OF 18.3 MINUTES
AND HIGH POVERTY

Travel Time in Minutes

12.4 - 15.3
15.4 - 18.3
18.4 - 21.3
21.4 - 24.3
24.4 - 27.3

High Poverty Census Tracts

0 1 2 4 6 8 10
Miles
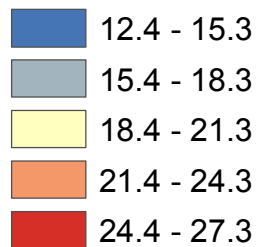
August 2018

MAP C-15
COMMUTE TO WORK BY MEAN
TRAVEL TIME OF 18.3 MINUTES
AND HIGH POVERTY (2040)

C - 25

Travel Time in Minutes

- 12.4 - 15.3
- 15.4 - 18.3
- 18.4 - 21.3
- 21.4 - 24.3
- 24.4 - 27.3

☐ High Poverty Census Tracts

0 1 2   4   6   8   10
Miles

N
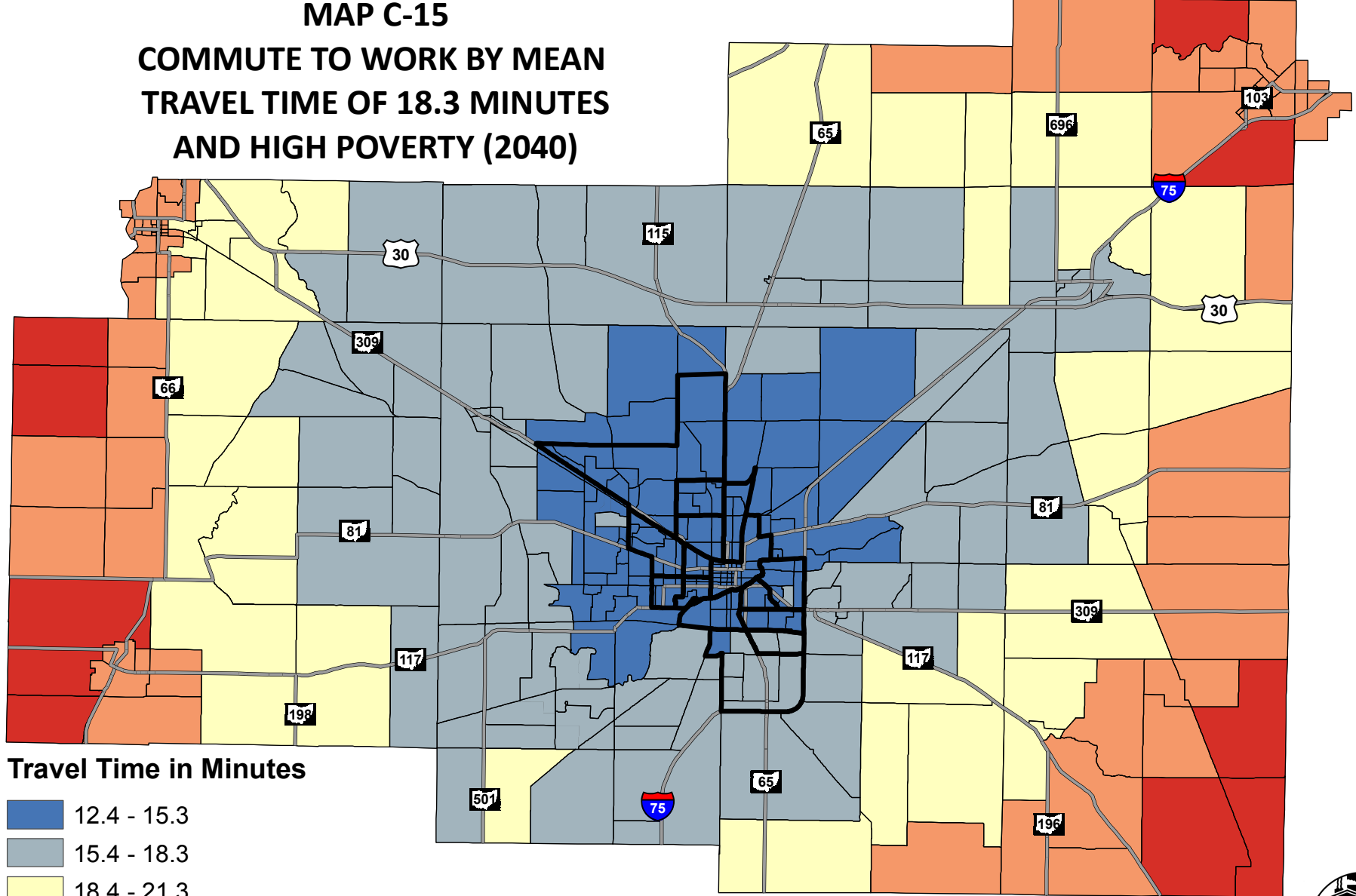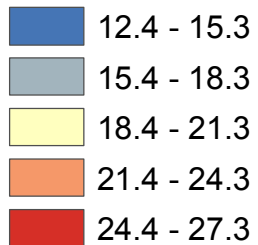
August 2018

MAP C-16
COMMUTE TO WORK BY MEAN
TRAVEL TIME OF 18.3 MINUTES
AND HIGH MINORITY POPULATION

C - 26

Travel Time in Minutes

12.4 - 15.3
15.4 - 18.3
18.4 - 21.3
21.4 - 24.3
24.4 - 27.3

High Minority Census Tracts

0 1 2   4   6   8   10

Miles

N

August 2018

MAP C-17
COMMUTE TO WORK BY MEAN
TRAVEL TIME OF 18.3 MINUTES AND
HIGH MINORITY POPULATION (2040)

C - 27

Travel Time in Minutes

- 12.4 - 15.3
- 15.4 - 18.3
- 18.4 - 21.3
- 21.4 - 24.3
- 24.4 - 27.3

☐ High Minority Census Tracts

0 0.75 1.5   3   4.5   6   7.5
Miles

N
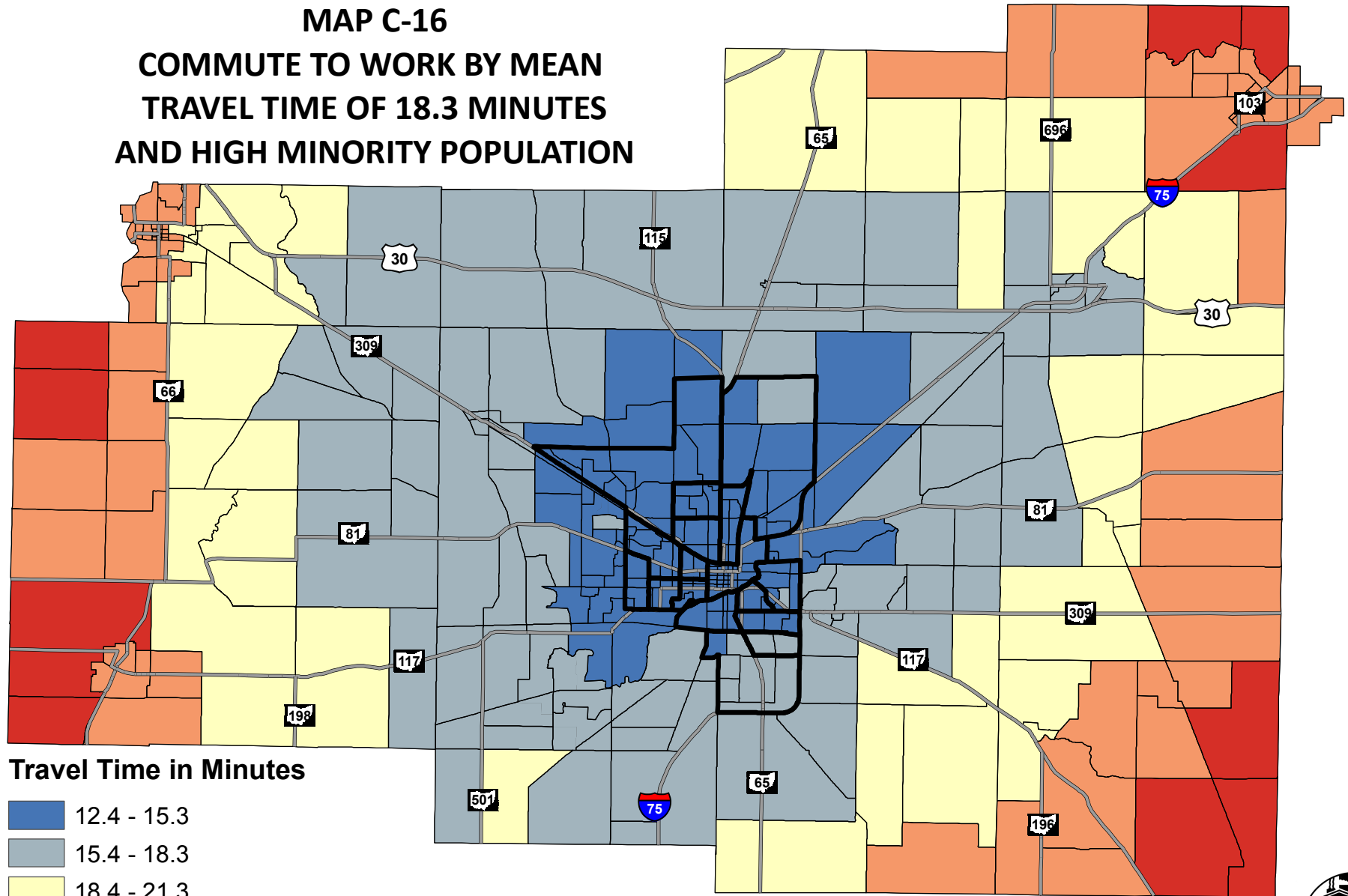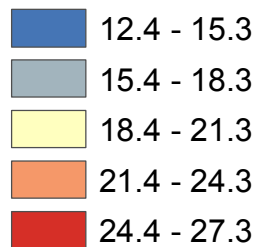
August 2018

Lima Urbanized Area. Table C-6 identifies change in commute to work time by TAZ for both targeted populations at location of residency at the 18.3 minute average commute time.

In sum, the change in commute did not appear to be disproportionately affecting low-income or minority populations in an adverse manner. Analyzing areas of high poverty revealed 55.2% of TAZ's with decreased commute to work times when transportation projects have been implemented, while areas with large concentrations of minority revealed 53.0% of TAZ's with decreased commute to work time.

When considering the entire Allen County Planning area, consisting of 395 TAZs, Map C-13 indicates decreased accessibility in 133 TAZ's. Averages in increased commute time to work were very minimal and represented less than 10 seconds.

When considering those TAZ's with improved commute times within the entire model area, 256 TAZ's had a positive response to the completion of those projects proposed within the 20-year planning horizon. Averages in improved commute time to work were very also minimal and represented less than 10 seconds. This exercise suggests that the benefits and burdens of the transportation investments, appear to be in balance with, and in the best interests of, the larger Allen County community.

TABLE C-5
CHANGES IN COMMUTE TIME OVER 2010-2040 PERIOD
BY TAZ BY TARGET POPULATION & COMMUTING CHARACTERISTICS

Traffic Analysis Zone (TAZ)	Change in Commute Time (min)	Poverty Concentration	Minority Concentration	Current System	2040 Build	Traffic Analysis Zone (TAZ)	Change in Commute Time (min)	Poverty Concentration	Minority Concentration	Current System	2040 Build
1	-0.135	X	X	X	X	95	-0.044	X	X	X	X
2	-0.115	X	X	X	X	96	-0.011	X	X	X	X
3	-0.106	X	X	X	X	97	-0.124	X	X	X	X
4	0.038	X	X	X	X	98	0.095	X	X	X	X
5	-0.062	X	X	X	X	108	0.185	X	X	X	X
6	-0.170	X	X	X	X	109	0.194	X	X	X	X
7	-0.033	X	X	X	X	110	0.203	X	X	X	X
8	0.071	X	X	X	X	111	0.000	X	X	X	X
9	-0.236	X	X	X	X	112	-0.018		X	X	X
10	0.042	X	X	X	X	113	0.013	X	X	X	X
11	-0.084	X	X	X	X	114	0.183	X	X	X	X
12	-0.331	X	X	X	X	115	-0.049		X	X	X
13	-0.146	X	X	X	X	130	-0.009	X	X	X	X
14	-0.064	X	X	X	X	131	-0.093	X	X	X	X
15	0.029	X	X	X	X	132	-0.020	X	X	X	X
16	0.011	X	X	X	X	133	0.091	X	X	X	X
17	0.000	X	X	X	X	134	-0.020	X	X	X	X
18	0.004	X	X	X	X	135	0.148	X	X	X	X
19	-0.042	X	X	X	X	136	-0.009	X	X	X	X
20	0.018	X	X	X	X	137	-0.011	X	X	X	X
21	0.035	X	X	X	X	138	-0.015	X	X	X	X
22	0.060	X	X	X	X	139	-0.071	X	X	X	X
23	-0.018	X	X	X	X	140	-0.022	X	X	X	X
25	0.042	X	X	X	X	143	-0.009		X	X	X
26	0.020		X	X	X	144	0.024	X	X	X	X
27	-0.042		X	X	X	145	0.007	X	X	X	X
28	0.038		X	X	X	146	-0.002	X	X	X	X
29	0.007	X	X	X	X	147	0.031	X	X	X	X
34	-0.011	X	X	X	X	163	-0.002	X	X	X	X
35	-0.139	X	X	X	X	164	0.033	X	X	X	X
36	0.073		X	X	X	165	0.068	X	X	X	X
37	0.024	X	X	X	X	166	0.066		X	X	X
38	0.004		X	X	X	167	-0.002		X	X	X
39	0.057		X	X	X	169	-0.130	X	X	X	X
42	-0.342	X	X	X	X	170	-0.060	X	X	X	X
43	0.009		X	X	X	171	-0.192	X	X	X	X
53	-0.026	X	X	X	X	175	-0.053	X	X	X	X
54	-0.013	X	X	X	X	176	-0.024	X	X	X	X
55	-0.044	X	X	X	X	177	0.115	X	X	X	X
56	-0.128	X	X	X	X	178	0.172	X	X	X	X
57	-0.148	X	X	X	X	179	-0.004	X	X	X	X
58	0.395	X	X	X	X	180	-0.241	X	X	X	X
59	-0.168	X	X	X	X	181	0.086	X	X	X	X
60	-0.095	X	X	X	X	182	0.009	X	X	X	X
61	0.221	X	X	X	X	183	0.053	X	X	X	X
62	0.031	X	X	X	X	184	0.049	X	X	X	X
74	-0.139	X	X	X	X	185	0.119	X	X	X	X
75	-0.060	X	X	X	X	186	0.135	X	X	X	X
76	-0.099	X	X	X	X	187	0.106	X	X	X	X
77	-0.124	X	X	X	X	188	0.004	X	X	X	X
78	-0.038	X	X	X	X	189	-0.009	X	X	X	X
79	0.115	X	X	X	X	190	-0.026	X	X	X	X
80	0.119	X	X	X	X	191	-0.004	X	X	X	X
81	0.137	X	X	X	X	194	0.031	X	X	X	X
82	0.049	X	X	X	X	196	-0.007	X	X	X	X
83	0.068	X	X		X	197	0.004	X	X	X	X
84	0.055	X	X	X	X	198	-0.011	X	X	X	X
92	-0.501	X	X	X	X	204	0.031	X	X	X	X
93	-0.170	X	X	X	X	208	0.011	X	X	X	X
94	0.044	X	X	X	X						

3.1   Planning Requirements

Guidance on addressing EJ principles require that MPO's and Public Transit Authorities seek out and consider the needs of those traditionally underserved such as low-income and minority populations. Planning requirements also suggest that transportation decisions must consider the overall environmental, economic and social effects of transportation services, programs and projects on the human, natural and man-made environments (See Appendix B). Combined, issues identified during these first steps must be tested for disproportionate adverse affects on the low-income and minority populations. Planning requirements also suggest that MPO's and Transit Authorities evaluate and improve their public involvement process in order to include low-income and minority populations in the transportation decision making process.

The analysis was prepared in an attempt to identify the population groups that have been historically under-served by transportation investments and to assess the projects for their impact on such groups. The MPO identified each targeted population using existing ACS 2016 5-year estimates. The MPO employed a transportation demand model in an attempt to document residential and employment patterns of low-income and minority populations and quantitatively assess the impact of projects recommended in the 2040 Transportation Plan to ensure that transportation improvements are fairly distributed. The demographic analysis identifying the respective population groups compiled by, and utilized in, developing the ACRTA's service areas (fixed route and demand response) can be found in the Transit Authority's most current Comprehensive Operational Analysis (FY 2018-2022)[7]. The MPO and the Transit Authority have worked together to compile the necessary demographic data and to develop transit planning activities accordingly.

Planning requirements targeting full and fair public participation in the planning process are addressed in Appendix E of the 2040 Transportation Plan.[8] The appendix offers insights as to the duration of the planning process, the extent of the MPO's public involvement process and its inclusion of non-traditional partners in the development of the Transportation Plan including neighborhood association involvement. Appendix E also documents any comments or questions raised during the MPO's public involvement process. Information is offered as an attempt to satisfy the federal regulatory requirements of Title VI and EJ.

Planning requirements to address the disproportionately high and adverse social, economic and/or environmental (SEE) impacts of transportation services, programs or projects on minority and low-income populations is identified in Appendix B of the 2040 Transportation Plan. The Appendix provides information on the potential impact of recommended projects on not only the transportationally disadvantaged but the region. Projects are mapped by targeted populations; potential impacts are charted. The MPO offers Appendix B as a preliminary screening for EJ impacts on the recommended projects. The ACRTA suggests that their COA is considered adequate to demonstrate the Transit Authority's attempt to quantify the extent and quality of their fixed route transit services and their complementary paratransit services to the targeted populations.

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[7] http://www.lacrpc.com/pdfs/FY%202018-2022%20Comprehensive%20Operational%20Analysis%20and%20Management%20Plan--COMPLETE.pdf

[8] CFR 450.316 (a)

3.2   Current Limitations

Modeling improvements to include socioeconomic shifts will be necessary to further this type of exercise in the future. Analysis of the ACS 2016 estimates provided valuable insight with respect to historical geographic shifts by population subgroups.

Also, of concern was the MPO's inability to independently utilize the current Travel Demand Model's ability to assess transit-based commutes in its analysis of travel time. ODOT has advanced the need to include transit in future MPO's planning efforts. The MPO and the ACRTA recognize that the identification of objective methods to evaluate potential environmental, economic and social impacts of transportation services, programs and projects on various target populations is expected but remains beyond the scope of this analysis. Appendix B attempts to identify the potential social, economic and environmental concerns which have historically been a part of the transportation planning process. The inclusion of additional nontraditional impacts will need to be studied further.

The MPO and the ACRTA recognize the need to revisit their public involvement policies and procedures to assess whether targeted population groups are adequately engaged in the transportation planning process. The MPO and the ACRTA will assess their advertising and notification process specifically in order to assess whether lower than expected levels of participation are being negatively impacted by content or format[9].

3.3   Conclusion

The MPO and the ACRTA conducted demographic analyses to identify the transportationally underserved populations by area. The MPO, with the assistance of ODOT also conducted various model analyses to assess the impact of projects in the 2040 Long Range Transportation Plan on targeted populations. The analyses failed to identify any disproportionate impacts on several targeted populations including those residing below the poverty level and the minority population.

There were, however, various limitations to the analysis as identified earlier in Section 3.2. Any of which could skew the overall conclusion. The data sets and the measure of disproportionate burden where compiled and offered as a good faith effort to address EJ planning requirements and potential discriminatory practices pursuant to Title VI of the 1964 Civil Rights Act. The MPO and the ACRTA recognize that there will be additional model considerations and planning activities necessary to comply with federal regulatory controls and await further guidance from FHWA, FTA and ODOT.

In addition, the LACRPC and the ACRTA, have recognized the need to study, fairly assess and modify their Public Involvement Policies and Processes as warranted in order to meet EJ regulatory policies. The Public Involvement Process is further documented in Appendix E and offers insights on the planning activities conducted to date as well as the intent to include non - traditional partners in any future transportation planning process. The MPO and the Transit Authority also recognize the need to quantitatively and subjectively evaluate potential projects for adverse affects proposed for inclusion in their Transportation Improvement Projects. Future actions by the MPO and the Transit Authority will integrate warranted modifications to the 3C transportation planning process for full compliance.

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[9] CFR 450.316 (a)(1)(x)