FOUR-FACTOR ANALYSIS TECHNICAL REPORT FOR LIMITED ENGLISH PROFICIENT (LEP) POPULATION IN MICHIGAN DEPARTMENT OF TRANSPORTATION PROGRAMS

September, 2015

Michigan Department of Transportation

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Introduction

On August 11, 2000 U.S. Congress passed the Executive Order 13166, "Improving Access to Services for People with Limited English Proficiency." The Executive Order requires Federal agencies to examine the services they provide, identify any need for services to those with Limited English Proficiency (LEP), and develop and implement a system to provide those services so LEP populations can have meaningful access to federally-funded programs and projects. This document explains MDOT's LEP four-factor analysis that outlines the procedures undertaken and the agency's compliance and adherence to Executive Order 13166 directives.

Goals of the Four-Factor Analysis

1. To determine LEP populations eligible or likely to be impacted by MDOT projects and programs within the State Of Michigan.
2. To determine the frequency at which LEP populations may come in contact with MDOT projects and programs.
3. To emphasize the nature and importance of MDOT projects, programs, or services to the lives of LEP populations in their areas.
4. To inform and educate LEP populations of the resources available to them through MDOT programs and projects.

Thus, the four-factor analysis as provided here will be used by MDOT to guide project managers to making informed decisions in the following areas:

- How to strategically direct public involvement and participation toward the most needed and most affected low-income, minority, and Title VI population groups in the state.
- How to order and distribute brochures to notify the public about MDOT projects and programs.
- How to notify the public of their Title VI rights and how proposed projects and programs may impact them.

Scope of the Analysis

The scope of this analysis is a county-level analysis of the 83 counties with the State of Michigan. The analysis establishes a state baseline LEP ratio for all of Michigan from which inferences can be made. The determination of the state baseline LEP ratio is further discussed within the analysis.

Methodology

This analysis relies solely on U.S. Census Bureau 2009-2013 American Community Survey (ACS) data. Using the ACS data, the following steps were followed to support the methodology:

1. A county-level query for data table **B16001: Language Spoken At Home by Ability to Speak English for the Population 5 Years and Over** was performed.
    a. A selection was made for associated records of populations identified by the ACS as people living in Michigan counties that speak English "<u>less than very well</u>."
2. The query included the following columns of data generated from the ACS report:
    a. Total population of Michigan by county (for all 83 counties).
    b. Total population of Michigan by county (for all 83 counties) speaking one of 39 listed languages (see Appendix A).
3. The query was downloaded in Microsoft Excel format for further statistical rendering.
4. For the purpose of developing a statewide LEP baseline ratio, the total record of each racial group within all counties was summed up for the total aggregate number of people living in each county under the status of speaking English "less than very well."
5. The total population by county was also determined by summing up the total number of people living in each county together, i.e. summing the population column together.
6. The state LEP baseline ratio was determined by dividing the number of people speaking English "less than very well" with the total number of people living in the state.
7. A true and fair spread of the population across the state by county, relative to the state average, was determined by using the Location Quotient (LQ) method (see Defining Location Quotient Method section).
8. Those counties having LQ values greater than one (LQ>1) shall be considered LEP Significant Counties (see Appendix B).
9. Due consideration shall be given to LEP Significant Counties when MDOT Highway Call for Projects (CFP) are issued and analyses are done.
10. During the annual Highway CFP and the development of the Environmental Justice (EJ) Analysis Document, due consideration shall be given to projects considered to be EJ Significant that are located within LEP Significant Counties.
11. Highway CFP thematic map(s) shall be overlaid on the LEP area map for LEP analysis.
12. Project managers shall be informed of the population groups to identify during project development and outreach programs, as well as project implementation phases, in order that adequate provisions are made to accommodate the LEP identified populations.

Developing State LEP Baseline Ratio

For this analysis, it is important to develop a state LEP baseline ratio in order to identify disproportionate locations of LEP populations. To determine the ratio, an initial query was performed using ACS 2009-2013 data at the county level to determine the total number of LEP populations residing within all 83 Michigan counties. The state LEP baseline ratio was the found by dividing the LEP population summation values at the county level (total number of LEP populations residing within all 83 Michigan counties) by the total population of the state (see Table 1).

Table 1: Calculating State Level LEP Baseline Ratio

State Level LEP Baseline Ratio		
Summation of Total Number of LEP People in All Michigan Counties =	301467	
Total Number of People in the State of Michigan (by ACS 2006-2010 data) =	9886095	

$$\text{State Baseline Ratio} = \frac{\text{Summation of Total Number of LEP People in ALL Michigan Counties}}{\text{Total Number of People in the State of Michigan}}$$

$$\text{State Baseline Ratio} = \frac{301467}{9886095} \qquad 0.030494 \qquad 3.05\%*$$

* For every 3.05% of the State of Michigan's residents sampled in ACS survey, one of them is speaking English less than "very well."

As identified within ACS 2009-2013 data, the development of the state LEP baseline ratios has determined:

- There are approximately 301,467 people living in Michigan considered to be speaking English "less than very well."
- This number represents about 3.05% of the entire population of the State Of Michigan.
- Should any MDOT public outreach activity involve at least 3.05% of the LEP population groups in any county (with representation from groups identified as LEP), MDOT would have appropriately met the population threshold requirement.
- For every 3.05% of county populations considered LEP significant, adequately involving at least 3.05% of residents would have been a satisfactory benchmark for public outreach for MDOT programs and plan implementation.
- Outreach for at least 3.05% of such population groups will be considered significant to conforming to Executive Order 13166.

Defining Location Quotient Method

Location Quotient (LQ) is a statistical technique used in calculating and comparing the shared contribution of an area's local economy to another reference economy. The LQ method can also be defined as a statistical method that strives to show if a local economy has a greater share than expected of a given economy. Using the average of the local economy against the average of the larger economy, the LQ method marks the extra contribution of such local economy.

The statistical notation for LQ is:

$$\textbf{LQ}_i = \frac{\dfrac{x_i}{n_i}}{\dfrac{x}{n}} \quad \text{or} \quad \frac{x_i}{x} \times \frac{n_i}{n}$$

Where,

LQ_i = Location Quotient for the local economy
x_i = Total number of LEP identified population groups for a local economy
n_i = Total population for the economy
x = Total number of LEP identified population groups for a reference economy
n = Total population for a reference economy

For this analysis, the LQ method is used to determine whether or not a particular county (local economy) has a greater share of its LEP populations than expected in the state (reference economy). Hence, that county having a Location Quotient greater than one (LQ>1) will be recognized as an LEP Significant County within the state.

Using Location Quotient Method to Determine LEP Significant Counties

The Location Quotient (LQ) method as described above helps to determine the true value of the location of LEP populations in a county, as related to the total population of the state. As an illustrated example, Table 3 shows a calculated LEP LQ analysis for Alcona and Kent counties.

Table 3: Examples of Location Quotient Calculation for Counties

Examples of Location Quotient Calculations for Counties

x_i =	Total Number of LEP Identified Population Groups in the County
n_i =	Total Population for the County
x =	Total Number of LEP Identified Population Groups in the State of Michigan
n =	Total Population for the State of Michigan (by ACS 2009-2013 data)

Examples:

Counties	Total Pop. In County (n_i)	LEP Pop. In County (x_i)	Total Pop. In State (n)	LEP Pop. In State (x)	LEP LQ
Alcona County	10461	60	9886095	301467	0.18809
Kent County	565758	28321	9886095	301467	1.64158

The resulting values of the calculations made above are interpreted in the following statistical ways:

LQ<1.0: Such counties having LEP populations considered insignificant enough to be designated as LEP Significant Counties. This implies that any county having an LQ value of less than one has insufficient Title VI populations considered speaking English "less than very well."

LQ=1.0: Such counties have populations that are just sufficient enough to be considered as LEP Significant Counties.

LQ>1.0: Such counties with LEP LQ values greater than one provide evidence that these counties have concentrations of Title VI populations that are greater than what other counties have within their county boundaries. These counties are considered LEP Significant Counties and represent the selection set considered in the thematic map analysis.

In light of the calculations above and the statistical findings, it is safe to conclude that:

1. For every 3.05% of the total population, it is strongly likely to identify Title VI populations with LEP status; that is, speaking English "less than very well" as in the 11 identified counties in Appendix B as having an LEP LQ>1.
2. If projects identified as EJ Significant Projects exist in the identified 11 counties, it is more than likely that these projects of EJ significance have significant impact(s) on LEP populations within the 11 identified counties compared to other counties having an LEP LQ<1.
3. It is therefore highly recommended that program managers in the 11 identified counties pay particular attention to methods of engaging LEP populations in order to comply with Executive Order 13166.

Developing an LEP Thematic Map in ArcGIS

The ACS 2009-2013 data is saved as a database file and imported into ArcGIS computer mapping software for mapping and analytical purposes (see Map 1). Using the LEP LQ column of the database, a thematic map is generated to show three levels of LEP counties in Michigan:

1. LEP County of High Significance (LEP LQ>1.0)
2. LEP County of Medium Significance (LEP LQ between .5 and 1.0)
3. LEP County of Low Significance (LEP LQ<.5)

The LEP thematic map is relative to the MDOT MAP database snapshot query from the FY 2016-2020 EJ Analysis that specifically screens projects as to whether they are Categorical Exclusion projects or EJ Significant projects.

Categorical Exclusion (CE) Projects

Categorical Exclusion (CE) projects are here defined as projects that do not individually or cumulatively have significant impacts on the human, social, or natural environment and for neither an environmental assessment nor an environmental impact statement is required. As identified in the MDOT MAP database snapshot query, a CE project will have a primary work type of road resurfacing, restoration and rehabilitation, bridge or deck replacement, capital preventive maintenance, traffic operations/safety, and other projects at listed on the FHWA-certified CE checklist[1].

EJ Significant Projects

EJ Significant projects are here defined as projects that may individually or cumulatively have significant impacts on the human, social, or natural environment and for which either an environmental assessment and/or an environmental impact statement is required As reported in the MDOT MAP database snapshot query, an EJ Significant project will have a primary work type of new route/structure, major and minor widening, and other projects that may include property condemnation or acquisitions and/or takings, or the acquisition of major right-of-way.

If projects considered as EJ Significant exist within an LEP Significant County, the information shall reflect on the map overlay and be subsequently shared with the office of MDOT Equal Employment Opportunity (EEO) to ensure that adequate attention, procedures and resources are deployed to mitigate and adequately address any adverse or consequential impact that cumulates to conforming with and adhering to all existing federal and state regulations.

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[1] http://www.dot.ca.gov/ser/downloads/ce/CE-CECheklist.doc

Map 1: Thematic Map of LEP Significant Counties in Michigan

MAP SHOWING MICHIGAN COUNTIES WITH SIGNIFICANT LIMITED ENGLISH PROFICIENT POPULATION GROUPS, 2009-2013

Legend

Counties

MDOT Regions

LEP Location Quotient

0.000000 - 0.499999 (Low)

0.500000 - 1.000000 (Medium)

1.000001 - 1.654649 (High)

0   35   70   140 Miles

N

MDOT

Source: U.S. Census Bureau
American Community Survey 2009-2013, B16001
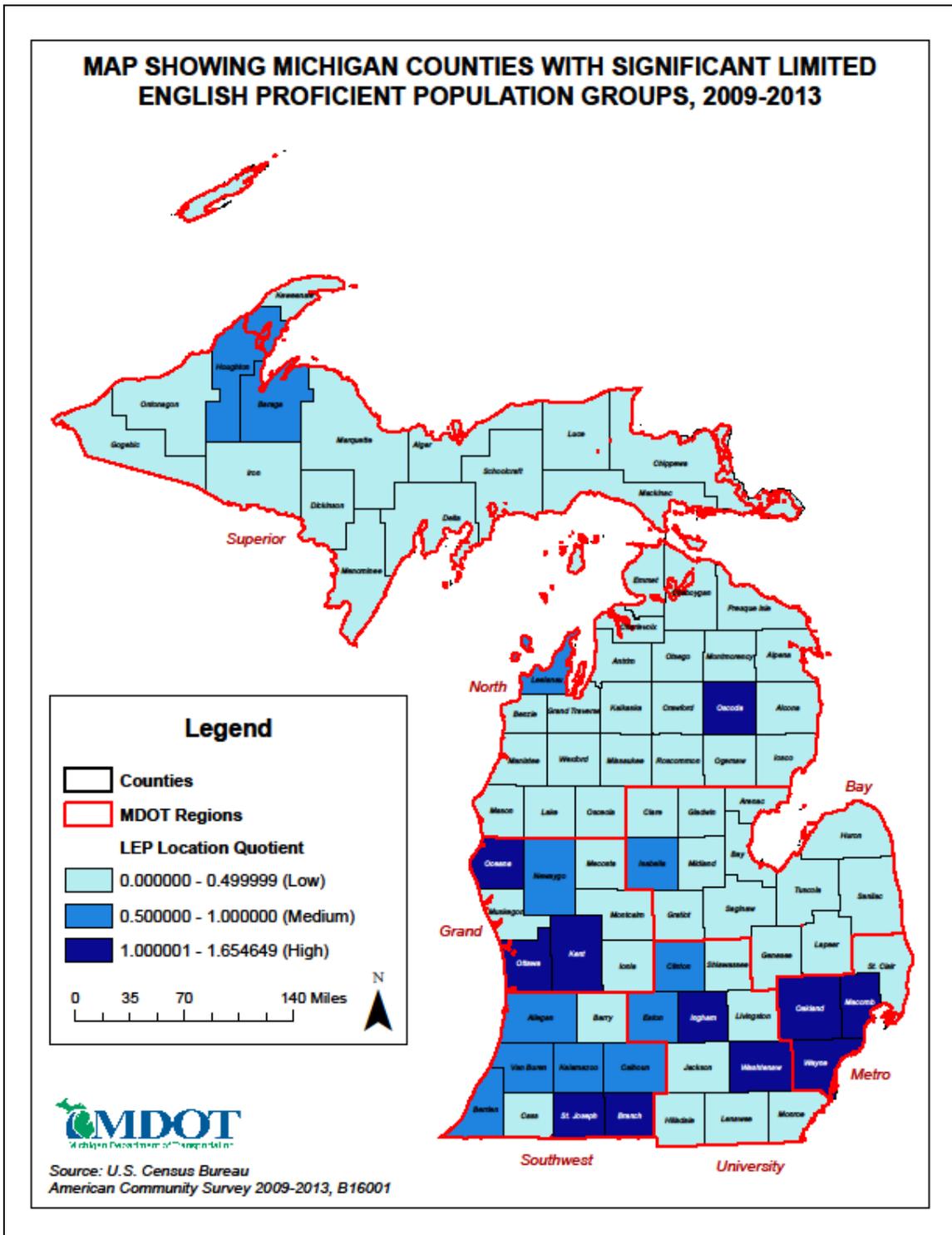
Analyzing MDOT FY 2016-2020 MAP database Snapshot Query for LEP and Title VI Significance

Evaluating EJ and LEP populations are two mutually related endeavors – both analyses look at similar population data to provide information on how to best involve and mitigate low-income, minority, and Title VI population concerns. This LEP Analysis will be incorporated as a mutual part of the full FY 2016-2020 EJ Analysis since both analyses are mutually reinforcing and strengthening. Hence, this part of the analysis shall focus on one specific analytical finding(s) titled EJ Significant projects, as identified in the FY 2016-2020 EJ Analysis. The emphasis will be to use the finding(s) to draw reasonable conclusions and inferences on the likely impact of MDOT projects and programs on LEP populations in Michigan.

LEP Significant Projects Statistics

Within the Grand Region, there are twelve projects considered EJ Significant and located in a county with an LEP LQ>1. The projects are located in Ottawa and Kent County and have an estimated cost of nearly $28.3 million. According to ACS 2009-2013 data, these projects will affect a county LEP population of 37,129 but are expected to bring economic benefits and developmental impacts to the entire Grand Region.

Within the Metro Region, there are five projects considered EJ Significant and located in counties with LEP LQ>1. These projects are throughout Wayne, Oakland, and Macomb counties and have a combined estimated cost of approximately $356.8 million. According to ACS 2009-2013 data, these 5 projects will affect a three-county LEP population of 178,185 but are expected to deliver needed infrastructure and economic improvement benefits to the entire Metro Region.

Within the University Region, there are three projects considered EJ Significant and in counties with an LEP LQ>1. Found in Ingham and Washtenaw counties, these projects have a combined estimated cost of approximately $27.2 million. According to ACS 2009-2013 data, the projects will affect a two-county LEP population of 27,727 but are expected to deliver needed infrastructure and economic improvement benefits to the entire University Region.

Table 4: EJ Significant Projects Locating in LEP Counties (by fiscal year)

Year	County	Region	Job ID#	Route	Location	Primary Work Type	Trunkline Template	Phase	Phase Cost	EJ Significance
2016	Ottawa	Grand	88876	US-31 NB	Lakewood Boulevard North to Quincy Street	Widen – Major (Capacity Increase)	Capacity Improvement	CON	$16,260,000	American Indian or Alaskan Native; Asian; Native Hawaiian or Other Pacific Islander; Hispanic or Latino; Low-Income (Income over past 12 months below poverty level)
2016	Kent	Grand	110807	I-296 SB (US-131 SB)	Leonard Street North to Ann Street	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	CON	$7,400,000	Black or African America; American Indian or Alaskan Native; Hispanic or Latino; Disabled; Low-Income (Income over past 12 months below poverty level); Persons Living in Occupied Housing Units with No Vehicle(s) Available
2016	Kent	Grand	123324	I-96 WB	At M-21	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	EPE	$134,000	Elderly (Age 65 and older); Disabled; Persons Living in Occupied Housing Units with No Vehicle(s) Available
2016	Oakland	Metro	115576	I-75	From North of Adams Road to South of M-59	Widen – Major (Capacity Increase)	Trunkline Modernization	CON	$97,332,000	Black or African American; Asian; Hispanic or Latino; Elderly (Age 65 and older); Persons in Occupied Housing Units with No Vehicle(s) Available
2016	Washtenaw	University	123268	NB US-23	US-23 from M-14 to M-36	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	CON	$27,100,000	Hispanic or Latino

2017	Macomb	Metro	120383	M-59	Crossover East of Heydenrich	Widen - Minor	Congestion Mitigation and Air Quality (CMAQ)	CON	$210,000	Asian
2018	Kent	Grand	123324	I-96 WB	At M-21	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	ROW	$550,000	Elderly (Age 65 and older); Disabled; Persons Living in Occupied Housing Units with No Vehicle(s) Available
2018	Kent	Grand	123324	I-96 WB	At M-21	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	PE	$300,000	Elderly (Age 65 and older); Disabled; Persons Living in Occupied Housing Units with No Vehicle(s) Available
2018	Kent	Grand	123325	I-96 WB	At M-21	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	PE	$300,000	Elderly (Age 65 and older); Disabled; Persons Living in Occupied Housing Units with No Vehicle(s) Available
2018	Kent	Grand	127354	I-196	Fuller Avenue to I-196 EB	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	CON	$775,000	Black or African; Hispanic or Latino; Low-Income (Income over past 12 months below poverty level); Persons Living in Occupied Housing Units with No Vehicle(s) Available
2018	Kent	Grand	127477	I-196	M-11 East 0.74 Miles	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	PE	$146,000	Hispanic or Latino; Persons Living in Occupied Housing Units with No Vehicle(s) Available
2018	Kent	Grand	127477	I-196	M-11 East 0.74 Miles	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	SUB	$54,000	Hispanic or Latino; Persons Living in Occupied Housing Units with No Vehicle(s) Available
2018	Wayne	Metro	122367	I-94	From Conner Avenue to Chene Street	Widen – Major (Capacity Increase)	Trunkline Modernization	PE	$67,300,000	Black or African American; American Indian or Alaskan Native; Hispanic or Latino; Elderly (Age 65 and older); Disabled; Low-Income (Income over past 12 months

Year	County	Region	ID	Route	Location	Work Type	Program	Phase	Cost	Affected Populations
										below poverty level); Persons in Occupied Housing Units with No Vehicle(s) Available
2018	Wayne	Metro	122367	I-94	From Conner Avenue to Chene Street	Widen – Major (Capacity Increase)	Trunkline Modernization	ROW	$20,000,000	Black or African American; American Indian or Alaskan Native; Hispanic or Latino; Elderly (Age 65 and older); Disabled; Low-Income (Income over past 12 months below poverty level); Persons in Occupied Housing Units with No Vehicle(s) Available
2018	Ingham	University	124071	M-43	M-52 & M-43, Leroy Township	Widen - Minor	Traffic & Safety – Safety Programs	PE	$24,000	Low-Income (Income over past 12 months below poverty level)
2019	Kent	Grand	123325	I-96 WB	At M-21	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	ROW	$350,000	Elderly (Age 65 and older); Disabled; Persons Living in Occupied Housing Units with No Vehicle(s) Available
2019	Ottawa	Grand	127479	M-104	Kruger Street east to 148th Avenue	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	PE	$118,000	American Indian or Alaskan Native; Elderly (Age 65 and older)
2019	Wayne	Metro	122367	I-94	From Conner Avenue to Chene Street	Widen – Major (Capacity Increase)	Trunkline Modernization	CON	$172,000,000	Black or African American; American Indian or Alaskan Native; Hispanic or Latino; Elderly (Age 65 and older); Disabled; Low-Income (Income over past 12 months below poverty level); Persons in Occupied Housing Units with No Vehicle(s) Available
2019	Ingham	University	124071	M-43	M-52 & M-43, Leroy Township	Widen - Minor	Traffic & Safety – Safety Programs	CON	$103,000	Low-Income (Income over past 12 months below poverty level)
2020	Kent	Grand	123324	I-96 WB	At M-21	Widen – Major (Capacity Increase)	Congestion Mitigation and Air Quality (CMAQ)	CON	$1,865,000	Elderly (Age 65 and older); Disabled; Persons Living in Occupied Housing Units with No Vehicle(s) Available
Source: MDOT MAPS database Snapshot Query, FY 2013-2017										

Chart 1: Total Number of Projects in LEP Significant Counties

NUMBER OF PROJECTS PER REGION

Region	Number of Projects
Grand	12
Metro	5
University	3
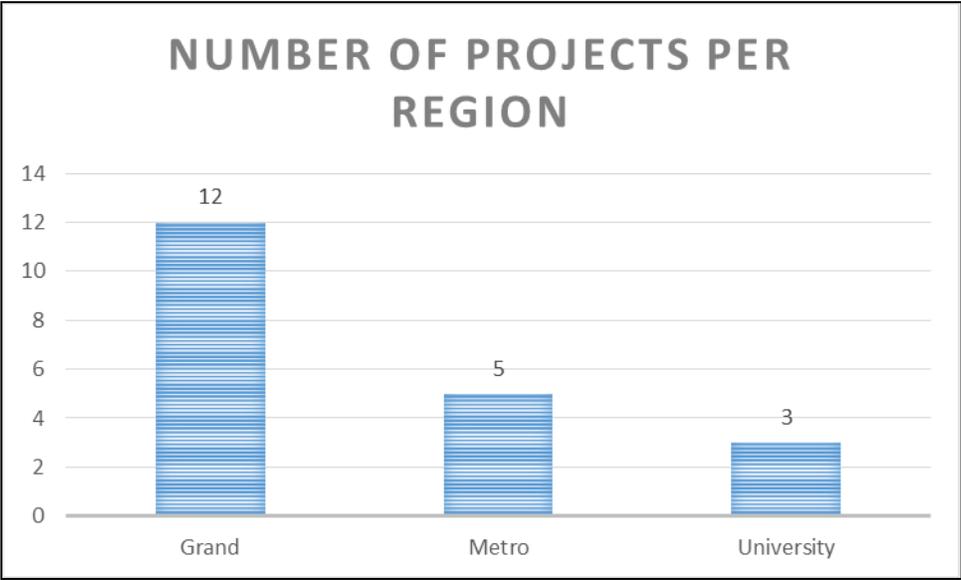
Chart 2: Cost of Projects in LEP Significant Counties

COST PER REGION

Region	Cost
Grand	$28,252,000
Metro	$356,842,000
University	$27,227,000
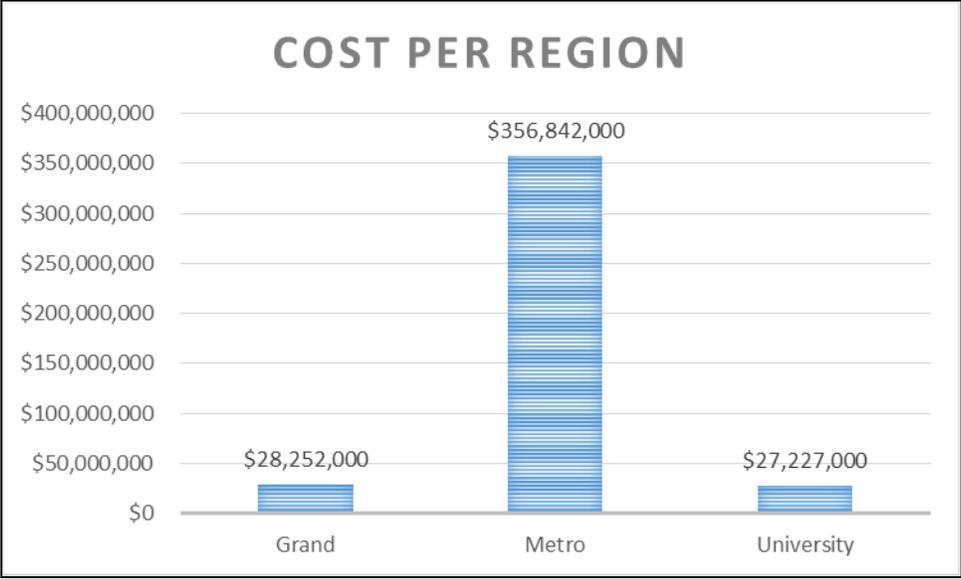
Chart 3: LEP Population in LEP Significant Counties

LEP POPULATION PER COUNTY

County	LEP Population
Ottawa	8,808
Kent	28,321
Macomb	13,415
Oakland	52,022
Wayne	78,928
Ingham	13,415
Washtenaw	14,312
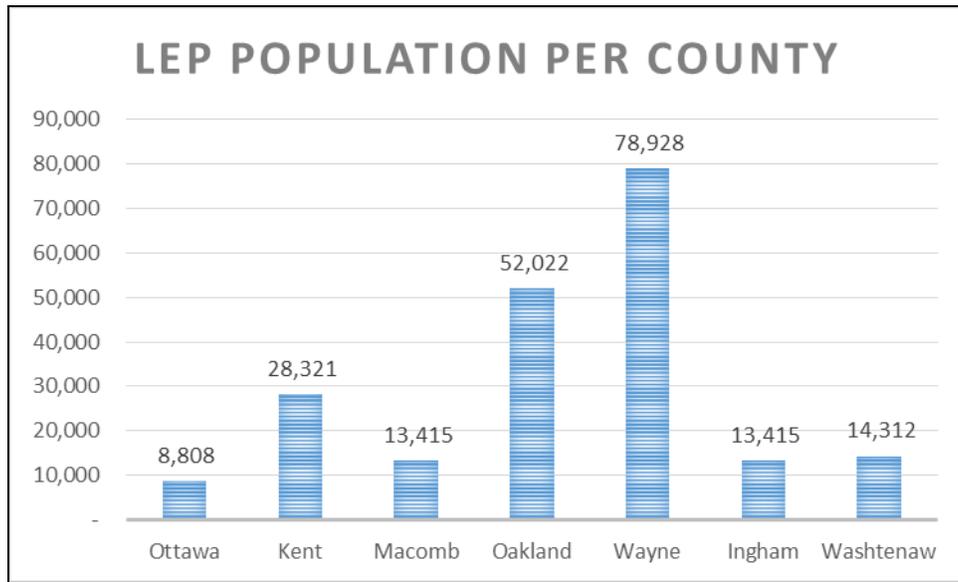
Recommendations and Conclusion

This report and the information therein are considered as public information, and should be shared and distributed appropriately with:

- MDOT officers involved in project design, project development, and project implementation and such groups or citizen groups to whom this information can benefit.
- MDOT coordinating public outreach and involvement should disseminate information on how MDOT projects and programs or services will benefit the lives of LEP population in their areas.
- The information shared should be tailored towards educating the public on how and where MDOT LEP resources are located and how to access them.

LEP Significant Counties	LEP LQ	Outreach Estimate
Macomb County	1.942	5.92%
Ingham County	1.657	5.05%
Oceana County	1.647	5.02%
Kent County	1.642	5.01%
Wayne County	1.534	4.68%
Oakland County	1.490	4.54%
Washtenaw County	1.424	4.34%
Oscoda County	1.212	3.70%
Ottawa County	1.158	3.53%
Branch County	1.077	3.28%
Schoolcraft County	1.012	3.09%

- Information about these projects and their geographic location have been shared with MDOT office of Equal EEO for further monitoring and coordination of services that will considerably improve the participation and involvement opportunities of all Title VI populations and LEP groups in the State Of Michigan.

In conclusion, as set out in the four goals of the report, the Title VI group identified as people speaking English at "less than very well" are spread-out in every county area of Michigan. However, the pattern of spread are uniquely following this hypothesis: the larger the population, the greater the number of people residing there that can be classified as speaking English "less than very well." The methodology employed in this study points to the following facts:

1. About 80% of the time, counties identified as having significant LEP populations are such counties located in the urbanized area of the state.
2. Roughly 90% of the counties identified are located in the central and southern half of the state with the largest population concentration.
3. For every project implemented within LEP significant counties, it is strongly likely that an upper limit of 5.92% and a lower limit of 3.09% LEP populations could be encountered.
4. Directing strategic planning effort and well-coordinated outreach program in these identified counties will produce greater result and public recognition of MDOT programs across the state.

APPENDIX A

1	Spanish or Spanish Creole	21	Other Indo-European Languages
2	French (Incl. Patois, Cajun)	22	Chinese
3	French Creole	23	Japanese
4	Italian	24	Korean
5	Portuguese or Portuguese Creole	25	Mon-Khmer, Cambodian
6	German	26	Hmong
7	Yiddish	27	Thai
8	Other West German Languages	28	Laotian
9	Scandinavian Languages	29	Vietnamese
10	Greek	30	Other Asian Languages
11	Russian	31	Tagalog
12	Polish	32	Other Pacific Island Languages
13	Serbo-Croatian	33	Navajo
14	Other Slavic Languages	34	Other Native North American Languages
15	Armenian	35	Hungarian
16	Persian	36	Arabic
17	Gujarati	37	Hebrew
18	Hindi	38	African Languages
19	Urdu	39	Other and Unspecified Languages
20	Other Indic Languages		

Source: U.S. Census Bureau American Community Survey 2009-2013, Table B16001.

APPENDIX B

Geography	Total Pop.	Spanish or Spanish Creole	French (Incl. Patois, Cajun)	French Creole	Italian	All Other Languages	Total LEP Pop.	LEP LQ	Outreach Estimate
Macomb County	797570	3934	517	10	3059	39715	47235	1.942	5.92%
Ingham County	265466	3064	206	45	72	10028	13415	1.657	5.05%
Oceana County	24744	1132	3	0	0	108	1243	1.647	5.02%
Kent County	565758	18502	154	127	70	9468	28321	1.642	5.01%
Wayne County	1686973	23463	978	22	1314	53151	78928	1.534	4.68%
Oakland County	1145175	9158	832	33	599	41400	52022	1.490	4.54%
Washtenaw County	329661	2624	443	22	92	11131	14312	1.424	4.34%
Oscoda County	8170	11	0	0	6	285	302	1.212	3.70%
Ottawa County	249402	6074	123	0	21	2590	8808	1.158	3.53%
Branch County	41506	752	56	0	10	545	1363	1.077	3.28%
Schoolcraft County	56900	1203	5	0	0	548	1756	1.012	3.09%
Van Buren County	71088	1888	2	0	0	201	2091	0.965	2.94%
Berrien County	146653	2004	30	9	9	1421	3473	0.777	2.37%
Eaton County	101896	829	71	46	10	1356	2312	0.744	2.27%

Geography	Total Pop.	Spanish or Spanish Creole	French (Incl. Patois, Cajun)	French Creole	Italian	All Other Languages	Total LEP Pop.	LEP LQ	Outreach Estimate
Houghton County	34425	65	0	0	13	649	727	0.693	2.11%
Allegan County	104523	1730	22	0	3	448	2203	0.691	2.11%
Kalamazoo County	237348	2193	121	0	2	2633	4949	0.684	2.09%
Calhoun County	127120	1264	34	0	2	1337	2637	0.680	2.07%
Leelanau County	20806	167	3	0	23	198	391	0.616	1.88%
Newaygo County	45349	598	0	4	3	218	823	0.595	1.81%
Clinton County	71678	575	25	0	16	659	1275	0.583	1.78%
Isabella County	66919	218	23	0	4	942	1187	0.582	1.77%
Baraga County	8375	18	11	0	4	96	129	0.505	1.54%
Lapeer County	83872	870	12	0	3	388	1273	0.498	1.52%
Gladwin County	24449	25	0	0	0	345	370	0.496	1.51%
Saginaw County	187284	1175	15	13	52	1498	2753	0.482	1.47%
Mackinac County	10617	42	1	0	0	111	154	0.476	1.45%
Lenawee County	93884	1094	15	0	6	241	1356	0.474	1.44%
Osceola County	21994	50	0	0	3	261	314	0.468	1.43%
Iron County	11240	25	9	0	2	115	151	0.441	1.34%

Geography	Total Pop.	Spanish or Spanish Creole	French (Incl. Patois, Cajun)	French Creole	Italian	All Other Languages	Total LEP Pop.	LEP LQ	Outreach Estimate
Muskegon County	160192	1380	44	0	0	720	2144	0.439	1.34%
Midland County	79237	192	45	0	0	775	1012	0.419	1.28%
Montcalm County	59502	274	13	0	9	463	759	0.418	1.28%
Clare County	29074	92	3	0	4	257	356	0.402	1.22%
Jackson County	150835	1018	13	0	27	720	1778	0.387	1.18%
Mecosta County	40880	135	3	0	0	338	476	0.382	1.16%
Ionia County	59934	425	20	0	0	242	687	0.376	1.15%
Gratiot County	39876	255	0	0	0	201	456	0.375	1.14%
Alpena County	27973	90	2	0	4	221	317	0.372	1.13%
Shiawassee County	40264	167	0	0	14	274	455	0.371	1.13%
Chippewa County	36822	130	38	0	10	231	409	0.364	1.11%
Ontonagon County	6380	16	0	0	0	54	70	0.360	1.10%
Presque Isle County	12751	17	0	0	0	118	135	0.347	1.06%
Genesee County	395118	1072	108	6	48	2869	4103	0.341	1.04%
Sanilac County	152930	618	21	0	29	892	1560	0.335	1.02%
Charlevoix County	24722	97	5	0	11	137	250	0.332	1.01%

Geography	Total Pop.	Spanish or Spanish Creole	French (Incl. Patois, Cajun)	French Creole	Italian	All Other Languages	Total LEP Pop.	LEP LQ	Outreach Estimate
Monroe County	142962	682	86	0	68	591	1427	0.327	1.00%
St. Clair County	8030	22	3	0	0	55	80	0.327	1.00%
Luce County	6247	49	0	0	0	11	60	0.315	0.96%
Cass County	49413	190	25	0	9	240	464	0.308	0.94%
Mason County	27099	167	1	0	2	83	253	0.306	0.93%
Missaukee County	14042	83	0	0	0	47	130	0.304	0.93%
Grand Traverse County	83295	317	23	0	4	427	771	0.304	0.93%
Antrim County	22378	126	10	0	0	68	204	0.299	0.91%
Menominee County	22812	85	26	0	0	89	200	0.288	0.88%
Benzie County	16630	78	12	0	0	53	143	0.282	0.86%
Livingston County	172724	678	32	0	52	713	1475	0.280	0.85%
Marquette County	63948	89	63	0	16	338	506	0.259	0.79%
Wexford County	30527	51	11	0	0	179	241	0.259	0.79%
Barry County	55800	337	2	0	23	78	440	0.259	0.79%
Bay County	101287	282	47	0	0	462	791	0.256	0.78%
Huron County	31234	94	3	0	29	114	240	0.252	0.77%

Geography	Total Pop.	Spanish or Spanish Creole	French (Incl. Patois, Cajun)	French Creole	Italian	All Other Languages	Total LEP Pop.	LEP LQ	Outreach Estimate
Hillsdale County	43765	82	6	0	0	221	309	0.232	0.71%
Arenac County	15050	82	3	0	0	19	104	0.227	0.69%
Emmet County	31217	46	4	0	0	160	210	0.221	0.67%
Roscommon County	23333	66	0	0	22	66	154	0.216	0.66%
Gogebic County	15466	19	10	0	27	43	99	0.210	0.64%
Tuscola County	52237	216	5	0	4	109	334	0.210	0.64%
Keweenaw County	2084	3	0	0	1	9	13	0.205	0.62%
Otsego County	22776	30	4	0	0	105	139	0.200	0.61%
St. Joseph County	66152	149	3	0	23	224	399	0.198	0.60%
Alger County	9173	13	0	0	0	41	54	0.193	0.59%
Delta County	35012	82	4	0	0	117	203	0.190	0.58%
Alcona County	10461	24	6	0	0	30	60	0.188	0.57%
Iosco County	24670	47	0	0	0	81	128	0.170	0.52%
Ogemaw County	20505	39	0	0	0	66	105	0.168	0.51%
Lake County	11006	54	0	0	0	0	54	0.161	0.49%
Manistee County	23598	57	0	0	0	55	112	0.156	0.47%

Geography	Total Pop.	Spanish or Spanish Creole	French (Incl. Patois, Cajun)	French Creole	Italian	All Other Languages	Total LEP Pop.	LEP LQ	Outreach Estimate
Kalkaska County	16154	35	0	0	0	35	70	0.142	0.43%
Crawford County	13424	9	0	0	0	44	53	0.129	0.39%
Dickinson County	24878	48	4	0	0	37	89	0.117	0.36%
Montmorency County	9271	11	1	0	0	20	32	0.113	0.35%
Cheboygan County	24842	17	0	0	2	62	81	0.107	0.33%
Macomb County	797570	3934	517	10	3059	39715	47235	1.942	5.92%
Ingham County	265466	3064	206	45	72	10028	13415	1.657	5.05%
Oceana County	24744	1132	3	0	0	108	1243	1.647	5.02%
Kent County	565758	18502	154	127	70	9468	28321	1.642	5.01%
Wayne County	1686973	23463	978	22	1314	53151	78928	1.534	4.68%
Source: U.S. Census Bureau American Community Survey 2009-2013, Table B16001.									