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# **Public Mass Transportation in West Michigan: The Case for Expanding Services**

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# **Public Mass Transportation in West Michigan: The Case for Expanding Services**

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This policy research paper explores the issues of public mass transportation in the region of West Michigan. It considers the current state of public mass transportation in the region. An effort is made to look for and uncover disparities between perceived needs and desires on the one hand, and actual provision and availability of services on the other. As well, this paper compares and contrasts the West Michigan region with other areas of the state, particularly the populous South-east Michigan region to look for regional inconsistencies and/or deficiencies. Consideration is given to local intracity transportation services, as well as local intercity services (moving people between core metro areas and local satellite cities), and longer-haul services to transport people between major metro areas within Michigan. Analysis and arguments are supported by data from the Michigan Public Policy Survey, as well as other sources of data and information. As helpful for comparative purposes, the experiences of other regions are considered, such as the recent effort and public referendum to establish a robust regional transit authority in the several counties of South-east Michigan. The paper concludes with broad policy recommendations for enhancement of public mass transportation in West Michigan, and suggests next steps for further researching and refining policy goals.

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Assignment: Final Policy Research Paper - (xx points)

David W Baker

**PUBPOL 475 – Policy Research Paper (Final)**

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**The Case for Expanding Services**

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### **Introduction & Overview.**

There is a strong and long-standing tradition in this nation for individual, personal transportation. The automobile culture has been a pervasive social and economic force for the last century. And as the economic clout of the auto industry and the petroleum industry that it has, at least in part, spawned have increased, it has even become entrenched in politics and reinforced in policy decisions. Indeed Michigan, historically the epicenter of the American automotive industry, has been long and thoroughly indoctrinated into this set of preferences and perceptions, and has in many ways been a prime beneficiary of this culture.

At the same time as this automobile-centric lifestyle was expanding, the railways – formerly the bulwark of intercity and regional transportation of both people and goods - was contracting. This once mighty national asset of mass public transportation that facilitated our nation's expansion across the continent was in decline. Though some such rail infrastructure still exists, much has by now fallen into disrepair, been abandoned, or been removed, often as a part of the “rails to trails” movement. And while promoting green space experiences, exercise, and walking and biking transportation options are commendable, it is questionable whether it is best achieved at the expense of our traditional long-haul and intermediate mass transportation infrastructure. The interstate highway program, initiated after World War II, was arguably the tipping point that pushed us fully into the automotive, roadway future.

Clearly, on a number of fronts, the trend over the last century is unmistakable. Fostered by cheap oil, lucrative industry, and a cultural disposition towards maximum personal autonomy, shared public transportation decreased while personal vehicle ownership and use increased.

Nonetheless, there have been resurgent forces promoting shared transportation of people en masse. Urban planners have appreciated the great benefits offered by such transportation

approaches in relieving congestion of roads and parking areas in destination areas, and in expediting ingress and egress to/from the city to/from its surrounding suburban residential areas and satellite communities. Additionally, some local road commissions may favor mass transportation as a part of the mix based on efficiencies and cost-effectiveness, since they may lighten wear and tear on roadways, and they may diminish or forestall needs to expand roadway facilities. Social welfare activists may also support public mass transportation services as a vital service to some disadvantaged citizens, such as the elderly, the young, the poor, or the inner-city denizen who, for various economic or pragmatic reasons, may not be able to participate in the individualized transportation paradigm of the prevailing automobile-owning mainstream culture. Environmental activists have also been a source of support and encouragement for public mass transportation as a means to multiple benefits, including reduced emissions and fuel efficiency.

The impetus for mass public transportation has not, however, been equally influential across the diversity of the nation's communities. Unlike times past, when railroads laced the countryside and every town large or small was and serviced by a depot, the contemporary reality is that mass public transportation systems are most prevalent in large, densely-populated, tier one cities. Perhaps this is the environment where the benefits are, due to economies of scale, most easily attained. Additionally, they may be communities where the benefits are most impactful, since such communities suffer the most from problems such as urban congestion, air quality issues, and disadvantaged citizenry. But arguably, even if America's major cities are the low-hanging fruit in the public transportation orchard, there are still plenty of other opportunities to be harvested. It may require challenging some cultural stereotypes and erroneous assumptions, but the greater expanse of the nation could participate in and benefit from enhanced mass public transportation. The evidence is not only in our own past, as the old railroad lines illustrate, but

also in some of our modern, industrial peer nations. Much of Europe is far better integrated with mass public transportation infrastructure, in the form of both bus and rail systems, than America is.

It is the argument of this paper that one of the geographic areas in Michigan that is underserved by robust public mass transit systems is that part of the state commonly referred to as West Michigan, of which Grand Rapids is the clear and unmistakable anchor as the largest city and the major metropolitan hub of much of the surrounding area. I will attempt to offer evidence of an discrepancy between demand and provision of services, and well as an inconsistency between this part of the state and other parts of the state (and the state as a whole). I will argue that there is no rational reason such incongruities should exist, and I will make some suggestions on how to redress them, and bring the West Michigan transit service level in line with demand and also with the surrounding regions of our state.

### **Analysis of MPPS Data.**

One source of interesting data for analysis is the Michigan Public Policy Survey (MPPS), conducted by the University of Michigan's Center for Local, State, and Urban Policy (CLOSUP). The survey of Michigan's local governments (counties, cities, villages, and townships) is conducted in waves, a couple of times per year. One recent wave, in the Fall of 2014, includes a set of questions regarding transportation in the respondents' jurisdictions. Questions include: types of transit options available in the community (Q31), level of satisfaction/dissatisfaction with transit options by several demographic groups in the community (Q32 a-f), factors contributing to dissatisfaction in the community(Q33 a-d), level of

encouragement/discouragement of transit development in the community by several factors (Q34 a-g), importance of well-functioning transit system to needs of community (Q35).

It is important to keep in mind that these survey local government officials about their experiences, perceptions, and plans in certain key public policy issues; they do not capture public sentiment. Sometimes the questions ask the official to gauge his or her community's needs, desires, or preferences, but it is still filtered through the public official's perception, and therefore subject to how well he/she knows his constituency on the matter at hand.

It is worth noting, and is relevant to this analysis, that the MPPS groups the state's counties (and the cities, townships, and villages they contain) into several regions. Specifically, there are six regions. The Upper Peninsula stands alone as one region onto itself, while the Lower Peninsula is further subdivided into the five regions of Northern, West Central, East Central, Southwest, and Southeast Lower Peninsula, respectively.

The West Central region is comprised of Kent County, along with the seven immediately adjacent counties (Allegan, Barry, Ionia, Montcalm, Muskegon, Newaygo, Ottawa), as well as six additional less-populous counties directly to the north (Lake, Manistee, Mason, Mecosta, Oceana, Osceola). Grand Rapids, situated in Kent county, and central to the southern portion of the region, is by far the major metro area of the region, though Muskegon and Holland/Zeeland, situated on the lakeshore, are also significant centers of population and/or industry. (The region does not include the cities of Kalamazoo and Battle Creek, which are situated in the neighboring Southwest Lower Peninsula region.

In addition to the raw data from the survey responses, MPPS includes many pre-fabricated tabulations of that data. These tables can be useful in making some general

observations without the necessity of conducting one's own statistical analysis of the raw survey data.

Several relevant insights can be observed from some of the pre-fabricated tabulations by regions of responses to several questions in the transportation section of the Fall 2014 survey. Four such tables, relevant to this analysis, are included below for reference. In table MPPS Q35, notice that in the West Central Lower Peninsula region, 54% of the local governments report that a well-functioning transit system is very or somewhat important to their communities. This is similar to the state-wide figure of 57%. From this, it would appear that demand for transit services is reasonably high in the West Central LP region, assuming that local officials adequately understand their constituencies.

In table MPPS Q33d, we see that 43% of West Central LP respondents report that their communities are dissatisfied with the connectivity to other communities via transit systems. This indicates there is some failure to meet public demand for transit services, and it also indicates that there is a fairly high level of dissatisfaction specifically with intercity connections and/or commuter lines between satellite communities and larger commercial centers.

Now, having found some evidence for demand, and some evidence for dissatisfaction, we can look more deeply for possible causes. If we examine table MPPS Q31b, we find that only 19% of West Central LP respondents report that their communities have fixed-route bus service. If we compare that value to the corresponding value for the other regions in the table, we see that it is by far the lowest percentage of any of the regions, and is significantly lower than the state-wide figure of 28%. And, if we look at table MPPS Q31c, we see that only 7% of West Central LP respondents report that their communities are serviced by Greyhound, Indian Trails, or comparable private bus service. Again, this is the lowest of any of the regions, though only



slightly so in a couple of cases. It is lower than the state-wide figure of 12%. So, there is some suggestion that dissatisfaction with transit in West Central LP may be associated with fewer transit service options than is typical in other regions, and the state as a whole.

Taken together, there is indication of significant desire for, but unmet need for, public transit services, including inter-city transit systems in the West Central LP region, and that the availability of transit services may be less in this region than other regions and in the state as a whole.

MPPS Q35

Region of Michigan Crosstabulation								
% within Region of Michigan								
		Region of Michigan						Total
		Upper Peninsula	Northern Lower Peninsula	West Central Lower Peninsula	East Central Lower Peninsula	Southwest Lower Peninsula	Southeast Lower Peninsula	
How important, if at all, do you think a well-functioning transit system is to the overall needs of your jurisdiction?	Very Important	23%	24%	13%	15%	21%	23%	19%
	Somewhat Important	36%	38%	41%	37%	33%	42%	38%
	Not Very Important	26%	21%	24%	21%	23%	18%	22%
	Not Important At All	8%	12%	15%	15%	19%	13%	14%
	Don't Know	7%	5%	8%	11%	4%	4%	7%

MPPS Q33d

Region of Michigan Crosstabulation							
% within Region of Michigan							
	Region of Michigan						Total
	Upper Peninsula	Northern Lower Peninsula	West Central Lower Peninsula	East Central Lower Peninsula	Southwest Lower Peninsula	Southeast Lower Peninsula	
Percentage of jurisdictions that believe connectivity to other communities contributes to local dissatisfaction with the transit options currently available in their jurisdiction: (Among those jurisdictions that report one or more groups are dissatisfied and identified any contributing factors)	34%	44%	43%	51%	52%	57%	47%

MPPS Q31b

Region of Michigan Crosstabulation							
% within Region of Michigan							
	Region of Michigan						Total
	Upper Peninsula	Northern Lower Peninsula	West Central Lower Peninsula	East Central Lower Peninsula	Southwest Lower Peninsula	Southeast Lower Peninsula	
Percentage of jurisdictions that report municipal, county-wide, or regional fixed-route bus service is currently available to members of their community:	29%	32%	19%	25%	28%	39%	28%

MPPS Q31c

Region of Michigan Crosstabulation							
% within Region of Michigan							
	Region of Michigan						Total
	Upper Peninsula	Northern Lower Peninsula	West Central Lower Peninsula	East Central Lower Peninsula	Southwest Lower Peninsula	Southeast Lower Peninsula	
Percentage of jurisdictions that report Greyhound, Indian Trails, or other private bus service is currently available to members of their community:	25%	17%	7%	8%	13%	9%	12%

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To further refine our understanding, we took the raw data underlying the above pre-run tables (Fall 2014 Transit), and loaded it into SPSS for statistical analysis. The results of one such test is shown below in a cross-tabulation as well as a stacked bar chart. Specifically, it shows the distributions of transit importance ratings across communities of different population densities state-wide. There are two relevant observations to draw from this analysis. First, regardless of population density, Somewhat Important is always the most common response, fewer respond Very Important, and in the opposite direction there are also fewer Not Very Important, and still fewer Not Important At All. That is, for all population densities, Somewhat Important is the mode, and the distribution slopes downward away from that in both directions. Second, as one moves upward in population density, from low to mid to high, the frequencies of

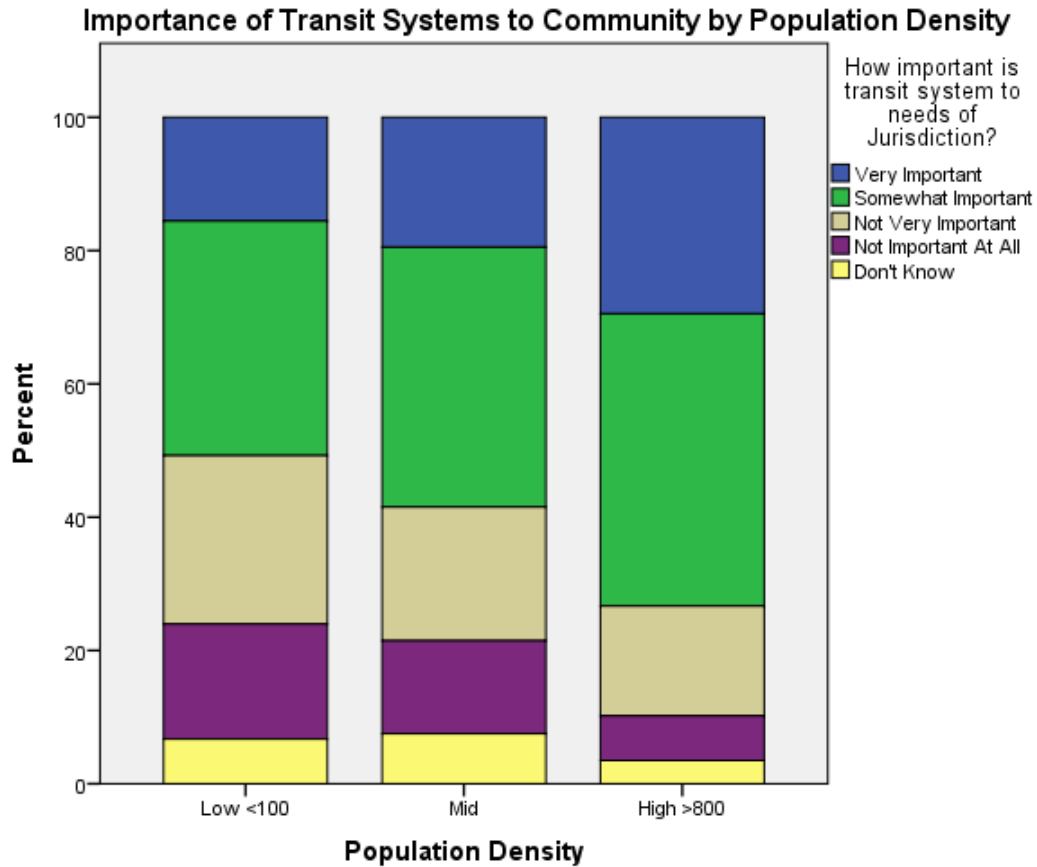
Very Important and Somewhat Important increase and the frequencies of Not Very Important and Not Important At All decrease. This is easy to see in the stacked bar chart. That is to say that, though the mode and overall shape are the same for the different population densities, the frequencies skew increasingly to the higher ratings of importance for communities of higher population densities, and they skew to the lower ratings of importance for communities of lower population densities.

The net take away from this population density analysis is that, though there is at least a perception on the part of local officials in Michigan that transit systems are *more* important to more heavily urbanized areas, there is equally the perception that they are Somewhat Important to all communities, including those less densely populated.

**How important is transit system to needs of Jurisdiction? \* Population Density Crosstabulation**

% within Population Density

		Population Density			Total
		Low <100	Mid	High >800	
How important is transit system to needs of Jurisdiction?	Very Important	15.6%	19.5%	29.5%	19.9%
	Somewhat Important	35.2%	39.0%	43.9%	38.3%
	Not Very Important	25.3%	20.1%	16.5%	21.8%
	Not Important At All	17.3%	13.9%	6.7%	13.9%
	Don't Know	6.7%	7.5%	3.5%	6.2%
Total		100.0%	100.0%	100.0%	100.0%



I would suggest that our analysis of the MPPS data supports the policy goals of 1) improving transit systems in West Central LP of Michigan, 2) improving transit systems in, not just the region’s major urban centers, but in its suburban, small town, and rural areas as well as, and 3) improving transit systems’ provision of inter-community (satellite-to-metro and metro-to-metro) services.

**Relevant Scholarly Literature.**

I have found some studies that address public transportation issues, often from the perspective of urban planning or civil engineering. Some discuss economic factors, like cost/benefit analyses or return on investment. A few engage in political analysis and case studies

on how real world projects have been successfully promoted and gained support. Social factors are often discussed, largely from the standpoint of providing services to the disadvantaged – poor, elderly, etc. – who do not necessarily have personal transportation options. I find less in the literature on how to appeal to new potential riders who do have means for personal transportation. This latter topic is of course critical to some of the goals of mass public transportation, such as easing traffic and parking congestion, or reducing pollution and improving fuel efficiency. Since much of the motivation for this project is environmental quality and sustainability, as well as the livability of communities, I had hoped to find more literature that explores techniques for encouraging independently-mobile citizens to switch to public transportation for at least some of their transportation needs.

Antonucci's et. al. 2014 studied passenger satisfaction with public transportation, and could thus be helpful in implementing some of the policy suggestions that pertain to increasing and diversifying ridership. The study looked at the influence of various characteristics of service of the transportation system on customer satisfaction. A set of indicators was used, including waiting times, punctuality, frequency, comfort, safety. These were then grouped into several more general category variables like service organization and safety and reliability. The data was analyzed to determine which if the various service characteristics had how much influence on customer satisfaction (punctuality and regularity were quite high, as was staff conduct). Also, respondents were categorized in along several different demographic dimensions for analysis, such as gender, age, education, employment, and area of residence. The analysis made several findings about satisfaction, including that younger people were more satisfied than older people, students were more satisfied than workers, frequent riders were less satisfied than infrequent riders, reason for riding was related to satisfaction (those who used out of necessity were least

satisfied), and satisfaction varied considerably based on area of residence. In cases where satisfaction influences ridership (vs. those who must ride because they have no other option), this study provides some insights into ways to increase ridership. It illuminates two means: optimizing the characteristics of the service, and identifying the ridership or potential ridership that have those characteristics that predisposes them to be satisfied with public mass transportation. Using the latter approach one could direct promotion towards groups that tend to be positively inclined. Alternatively, one could identify groups that tend to be dissatisfied, and survey them to find out what service features might appeal to them enough to cause them to become riders.

Steinbach's et. al. 2011 paper is on bicycling, which is not per se relevant to public mass transportation. It does however explore some sociological factors in people's acceptance of environmentally sound means of transportation. Thus, it may be helpful in developing strategies for promoting public mass transit to a greater, more diverse customer base. The study conducts a qualitative interview of members of London's bicycling community. This group is overwhelmingly represented by affluent white males, which in our context would generally be a inclined to drive their personally-owned automobile rather than take public transportation. The study looks at modes of transportation as a consumer choice that is governed by tastes and preferences, as well as some sociological concepts like group identity, symbolism, and archetypes. Again, though this is about a mode of transportation that is not within scope for my project, the psychological and sociological factors that make those who might be naturally inclined to self-transport in a personal auto instead consider a green alternative mode of transportation would potentially be helpful to a promotional effort to broaden the ridership of public mass transportation.

Gartman's 2004 article evaluates the automobile as an important factor in American cultural history. It provides insights into American socio-cultural values responsible for a preference for individual self-transportation in personal automobiles. By using this comparatively with the Steinbach and similar studies, we could develop a better understanding of the full spectrum of value systems involved in transportation choices. This knowledge can help both in improving public transportation systems with features to make them more appealing to new categories of riders, and in promoting public transportation to such potential riders.

#### **Other Transit Systems, Existing or Proposed, for Reference.**

The Michigan Flyer is an intercity bus line that provides service several times throughout the day from East Lansing to Ann Arbor, and then onward to the Detroit Metro airport, and back again, with standard fares between \$12 and \$50, depending on endpoints and one-way vs round-trip (Michigan Flyer). Curiously, West Michigan – its premier city of Grand Rapids, as well as Muskegon, or the Holland/Zeeland area further to the west – are unique among our southern Michigan peer communities, in that we are disconnected from this and similar public transit systems that link the others. With the I-96 corridor providing the conduit, and the Michigan Flyer bus service already well rooted on the eastern end, it is reasonable for our local government officials to begin evaluating the possibility of collaborating with the other jurisdictions to at least have the line extended from Lansing to Grand Rapids. Additionally, it may be appropriate for the other communities further still to the west – Muskegon, Holland/Zeeland – to also engage such a process.

The A2TC (Ann Arbor to Traverse City) rail project and study being undertaken by The Groundwork Center and the Michigan Department of Transportation is another intercity transit

project that is in the exploratory / study stage. Though rail-based, whereas this paper has been primarily presuming a bus-based solution, this program should still be investigated and treated as a learning opportunity and a possible partner for collaboration. (Groundwork Center – A2TC)

The recently-defeated effort to establish a Regional Transit Authority for Southeastern Michigan should also be research for lessons that can be gleaned from its effort and unfortunate outcome.

### **Recommendations.**

Broadly, it is my recommendation that communities in the West Central LP region of Michigan enhance their collective mass public transportation systems at a number of different service levels. Such a shift in transportation practices would serve a number of purposes. It would provide transit options for those who are in some way disadvantaged in this regard, enabling them to more fully participate in the life of the community. It would alleviate traffic and parking congestion in some places, and mitigate the load on some high-volume daily commuter routes. It has the potential to lower overall transportation costs by reducing reliance on inefficient single-occupant, personally-owned automobiles. It may reduce overall environmental impact.

Intracity services, which do already exist in at least some cities, can perhaps be improved further with adjustments to routes, stops, schedules, on-time performance, physical amenities of the buses, stops, terminals, and park-n-ride lots. In addition to improving the services and facilities themselves, I would also recommend promoting them for both increased and more diversified ridership. The goal of diversifying the ridership should also drive much of the process of improvement. Studies must be undertaken to determine what negative attributes are



dissuading otherwise prospective riders and what service features are currently lacking that are most important to potential new riders. These findings should serve as key input into any plans for improvements. Additionally, before such planned changes are implemented, there should be studies to check for any negative impact on current ridership.

Local area intercity services should be established where practical. Perhaps the greatest potential for new ridership is feeder routes from nearby satellite communities into and out of the local metro centers. As work becomes increasingly centralized in larger cities, while simultaneously the workforce emigrates to surrounding rural and small town communities in search of a higher perceived quality of life, daily commuter traffic has grown significantly. Some routes, such as US 131 in Grand Rapids, see a heavy volume of traffic during morning and evening commutes, and mass transit options could consolidate some of the traffic and reduce road congestion. Such new commuter lines should be geared towards this specific demographic and its preferences and priorities, which may differ from those of the typical urbanite bus rider. An appeal must be made to the aforementioned quality of life motivation, selling them on commuter bus service as a way to diminish their expenses, stress, and inconvenience. One way to appeal to such customers, and mitigate one of their concerns, is to offer a program for an expedient and flexible way to return home promptly in the event of a personal crisis of some sort, so that they do not necessarily have to wait for regular bus service. This enables potential riders to use the bus, comfortable with the knowledge that in the event of an illness, emergency, or other special circumstance, they can return home promptly to attend to it.

It is also recommended that the West Central LP region work to tie itself and its communities into statewide transportation networks that connect the state's major metro areas. Working to have the Michigan Flyer route extended from East Lansing to at least Grand Rapids,

and possibly onward to one or another of the Lakeshore destinations, such as Holland, Grand Haven, or Muskegon, would better integrate the west side of the state with the central and east portions. As with the exiting Michigan Flyer route, new stops should be located at or near airports, downtowns, intracity bus terminals, train depots, and college campuses – all are places that, for various reasons, are or can be natural destinations for those who do not have or would rather not use an automobile for the trip. Additionally, it is conceivable that a limited number of strategically placed express stops just off the Interstate would provide benefit to rural and small town residents with little added travel time for the bus. It is possible that State of Michigan assistance might even be available in the establishment and support of such rural bus stop facilities (MDOT Intercity Bus Program).

Again, these recommendations are broad and general. Much specific detail must be worked out, and further research and feasibility studies need to be undertaken to provide the fine-grained data and information that are required for more specific policies and programs. Towards that end, it is recommended that the counties and cities of the West Central LP region of Michigan form and fund an intergovernmental regional transportation task force to undertake the hard work of analysis and planning for the establishment of a well-orchestrated transportation strategy for the communities of the region. Such a body would be well advised to collaborate and/or consult with the Michigan Department of Transportation, the University of Michigan Transportation Research Institute, various bus lines (such as Michigan Flyer, Indian Trails, Greyhound), neighboring city or regional transit authorities, etc.

### **Conclusion.**

To the extent that Public Policy is a proactive, rather than merely reactive, venture to intentionally create better living spaces and facilitate better lifestyles for the greatest possible number of citizens, it is reasonable for policy initiatives to undertake some transformative measures and to encourage and promote paradigm shifts when there are significant net benefits to be gained. As has been discussed, there are substantial potential gains to be had today, and perhaps increasingly in the future, by way of robust mass public transportation systems. From livability to sustainability to public welfare, public mass transportation, if integrated both logistically and culturally, can provide many advantages as an option to augment individual, personal transportation. It is advisable for Michigan's local/municipal governments to collaborate on transportation planning. And Michigan's West Central LP region in particular is ripe for such efforts.

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