Over the last ten years, communities around the country have begun to implement comprehensive reforms designed to ensure that roadway users of all ages and abilities can safely utilize the transportation system. This complete streets policy framework has emerged as an important tool for communities to improve opportunities for active living with over 500 policies adopted nationwide.

Complete streets policy diffusion has been rapid, but uneven, and the extent to which policy adoption is making a difference in the implementation of projects at the local and regional level is unclear. This research project seeks to address this need through a national survey of the 385 metropolitan planning organizations (MPOs) around the country, evaluating the extent to which complete streets policies are being adopted and implemented at the MPO level, what opportunities and barriers to complete streets exist, and implications for future policy diffusion and innovation efforts.
Evaluation of Complete Streets Policy Implementation by Metropolitan Planning Organizations

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September 2015
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Executive Summary

Over the last ten years, complete streets policy diffusion has been rapid, but uneven, and the extent to which policy adoption is making a difference in the implementation of projects at the local and regional level has been unclear, as this innovative approach is still competing with decades old auto-oriented design practices. Tracking the transition and understanding the opportunities and barriers to policy diffusion can help communities craft more appropriate strategies to meet the changing demands and expectations of the public. Through a national survey of the 385 metropolitan planning organizations (MPOs) around the country, this research sought to evaluate the extent to which complete streets policies are being adopted and implemented at the MPO level, what opportunities and barriers to complete streets adoption and implementation at the MPO level exist, the impact of MAP-21 on complete streets adoption and implementation, and implications for future policy diffusion and innovation efforts.

A total of 139 MPOs participated in the survey, representing a variety of regions and metropolitan area sizes. The survey asked participants to describe the extent of policy adoption in their region, policy characteristics, and to identify what steps have been taken at the MPO-level toward integration of active transportation into planning processes and funding decisions. It also aimed to identify the primary barriers to policy diffusion, and to capture information about the role of various stakeholders in supporting or hindering a complete streets policy approach. Finally, the survey asked participants to describe the current transportation funding process in their region as pertains to active transportation under MAP-21.

Additional research was conducted on three case study regions which have made substantial progress toward implementing complete streets concepts, or which are currently in the process of developing key regional policy. In addition, this study supported the execution of a statewide summit on active transportation policy for Louisiana, wherein survey findings were used to guide discussion around needed action steps for policy diffusion and implementation, as well as the importance of coalition building in support thereof.

Key Findings from this study include:

- Despite the rapid rise in popularity of the complete streets movement over the last decade, actual formal policy diffusion has been limited to less than 3% of all relevant local, regional, and state entities.
• Of the 34% of MPOs that responded to the survey for this study, (18%) indicated that their agencies had adopted a policy, and the degree of familiarity with the concept among all respondents was high, with 77% of responding MPOs indicating that they are very familiar with complete streets concepts. Complete streets familiarity appears to relate to both region of the country and presence or absence of a policy.

• Formal policy adoption is not necessarily translating into systemic implementation: many of those MPOs that have adopted policies have not implemented the nine key characteristics of a strong complete streets policy framework.

• Political support (or lack thereof) for complete streets makes a limited impact on complete streets implementation, while advocacy support generates more significant impacts.

• The key barriers to complete streets policy diffusion and implementation as determined by this survey are costs (whether real or perceived) and a lack of political will.

• Documents guiding infrastructure design and resources that facilitate and simplify innovation help to minimize resistance to changes to the status quo.

• MPO-level policy plays a particularly valuable role in metro areas that have widely divergent communities within the region and/or cross or abut state boundaries.

• MPOs are a crucial intermediary for the distribution and allocation of federal transportation funds, and can significantly influence local spending patterns and infrastructure outcomes by setting specific design criteria, prioritizing or requiring complete streets elements, or setting aside funds exclusively for active transportation projects.

• In Louisiana, the findings of this research were found by stakeholders to be consistent with how the complete streets policy process has unfolded in this state, where a statewide policy exists, but local and regional policy adoption has been limited and many key implementation measures remain unaddressed where those policies exist at all levels of government.

• This study helped guide discussion around the need for statewide advocacy and coalition-building in order to improve policy familiarity, support policy adoption, and advocate for specific actions to reinforce policy implementation, including addressing the need for sustainable funding mechanisms, in order to overcome the inertia which stymies policy innovation.
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1. Introduction

Over the last seventy-five years, street designs and the accompanying professional standards that guide their construction have developed to focus on the safe and efficient movement of cars and trucks through space (Handy and McCann 2011, Smith et al 2010). This exclusive focus on movement of autos and trucks through communities has resulted in an impressive network of auto-oriented roads across the country linking far flung destinations, but, almost counter-intuitively, has resulted in difficulty for pedestrians, bicyclists, and transit riders to reach closer neighborhood destinations without a car.

Over the last 10 years, the complete streets movement has gained momentum as a policy response to help address this systematic gap in street designs. The complete streets concept focuses on meeting the needs of all transportation users through the provision of multimodal accommodation. The goal, as Lynott et al 2010 argue, is to foster livable communities where residents of all ages and abilities can “get where they need to go, whether by car, public transportation, bicycle, wheelchair, or foot” (p. 3). This movement has gained traction across the country. Over 600 complete streets policies have been passed at the local, metropolitan planning organization, and state levels since 2005 (National Complete Streets Coalition 2014). In addition, the US DOT issued a complete streets policy statement in 2010 providing broad national guidance for all DOT-sponsored roadway projects.

Given the momentum and widespread dispersion of the complete streets concept across the nation, this study seeks to explore where, how, and why policies are being adopted and implemented among one subset of government entities—metropolitan planning organizations—which play a key role in distributing state and federal funds at the project level with important ramifications for active transportation policy and infrastructure outcomes.

1.1 Problem Statement

Given the growth of complete streets policies and the national commitment to complete streets outlined by US DOT, the extent to which the broad policy commitment is making a difference in the implementation of projects at the local and regional level is an important question. Complete streets policy diffusion has been rapid, but is uneven (Handy and McCann 2011, Cradock et al 2009), with this innovative approach still competing with the decades old auto-oriented design practices (Johnson and White 2010). The extent to which policy adoption is making a difference in the implementation of projects at the local and regional level is unclear (Lenhing 2011, Handy and McCann 2011). Tracking the
transition and understanding the opportunities and barriers to policy diffusion can help communities craft more appropriate strategies to meet the changing demands and expectations of the public.

This research project seeks to address this need through a national survey of the 385 metropolitan planning organizations (MPOs) around the country. MPOs represent a vital regional organization for the distribution of federal transportation funds and an important potential platform for sustainable transportation innovation diffusion (Smith et al 2010, Johnson and White 2010). Despite this potential importance, the role of MPOs in transportation planning innovation remains relatively understudied (Handy and McCann 2011). The need for the study of MPOs role will be even more important as a portion of bicycle and pedestrian funding is sub-allocated to MPOs through the Transportation Alternatives Program authorized by MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), signed into law to fund federal transportation programs in 2012.

1.2 Study Objectives

This research seeks to address five overarching questions:

1. To what extent are complete streets policies being adopted and implemented at MPO level?
2. What is the impact of local governmental and local advocacy support in relation to key complete streets policy indicators?
3. What are the key opportunities and barriers to complete streets adoption and implementation at the MPO level?
4. What is the impact of MAP-21 on complete streets adoption and implementation? Specifically, how is the sub-allocation of Transportation Alternatives funding impacting complete streets policies at the MPO level?
5. What lessons does the complete streets implementation analysis provide for broader questions of policy diffusion and innovation?

1.3 Approach

To answer these questions, the study team crafted targeted survey directed at the 385 MPOs across the nation. This survey builds on previous work by Lenhing (2011) and Handy and McCann (2011). Lenhing
Handy and McCann (2011) analyze MPO effectiveness in implementing bike/pedestrian projects. They analyze four factors associated with MPO bike/pedestrian implementation: state level, regional level, MPO level, and unique factors (Table 1). This study seeks to build understanding of the potential differences and similarities in the internal determinants and policy diffusion factors that are at play in MPO implementation of complete streets policies.

Table 1: Potential Factors Associated with Bike/Ped Implementation (Handy and McCann 2011)

<table>
<thead>
<tr>
<th>Level</th>
<th>Factor</th>
</tr>
</thead>
<tbody>
<tr>
<td>State</td>
<td>Sub-allocation</td>
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<tr>
<td></td>
<td>Transportation Enhancements (TE) match requirement¹</td>
</tr>
<tr>
<td></td>
<td>State funding for bike/ped</td>
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<td></td>
<td>State bike/ped plan</td>
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<td></td>
<td>State bike/ped staff</td>
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<tr>
<td></td>
<td>State bike/ped committee</td>
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<td></td>
<td>Complete streets policy</td>
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<tr>
<td>MPO</td>
<td>Policy on federal funding</td>
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<tr>
<td></td>
<td>Congestion Mitigation Air Quality (CMAQ) funds used for bike/ped</td>
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<tr>
<td></td>
<td>Regional funding sources</td>
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<td></td>
<td>Bike/ped plan</td>
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<td>Bike/ped coordinator</td>
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<td>Bike/ped committee</td>
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<td>Bike/ped in travel demand</td>
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<td></td>
<td>Bike/ped programming in 1991</td>
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<tr>
<td>Regional</td>
<td>Local Bike/ped support</td>
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<td>Local bike/ped plans</td>
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<td>Local bike/ped coordinators</td>
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<td>Local bike/ped committee</td>
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<td></td>
<td>Local complete streets policy</td>
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<tr>
<td></td>
<td>Advocates</td>
</tr>
<tr>
<td>Other</td>
<td>Unique conditions of local area</td>
</tr>
</tbody>
</table>

¹ This category of funding now falls under the Transportation Alternatives program
2. Literature Review

Additional relevant literature pertaining to Complete Streets policy implementation and active transportation infrastructure funding at the MPO level was gathered and analyzed in order to inform and guide the subsequent tasks of this research effort. As noted above, literature pertaining to complete streets policy and implementation is limited given the relatively recent development of the concept as a framework for promoting bicycle and pedestrian transportation. Specifically, literature discussing the role of the MPO in policy diffusion is underrepresented. Selected documents which were incorporated into the survey design for this research are briefly discussed in this section.

Several authors have provided comprehensive overviews of the concept of complete streets and advocating its various perceived benefits as a policy lens (e.g. Crites et al 2010; Laplante and McCann 2011; McCann and Rynne 2010; National Complete Streets Coalition 2014; Seskin and McCann 2012), though these tend to have limited insight into the mechanisms which lead to effective implementation of said policies. The particular impact of complete streets as a means to achieve more equitable, age-friendly communities is identified by Lehning (2012) and Lynott et al (2009). Additional bodies of research begin to explore regional transportation policy, decision-making, and funding strategies (e.g. Cradock et al 2009; Handy and McCann 2011; Handy et al 2009; Nelson et al 2004; Peckett and Lyons 2012), or look broadly at the processes of institutional culture change that lead to policy innovation (e.g. Johnson and White 2010; Jaynes et al 2012). This study aims to better understand the intersections among these topic areas by identifying lessons in the literature addressing best practices in complete streets policy development and implementation, strategies for funding active transportation, and the specific role of the MPO in promoting regional policy diffusion.

2.1 Best Practices in Policy Development and Implementation

Across the United States, priorities have begun to shift toward providing more equitable, sustainable, multi-modal transportation options for communities. According to Jaynes et. al. (2012), in which the authors conducted interviews with transportation stakeholders in seven American cities in order to explore the institutional changes over time that have resulted from federal transportation policy and funding, the following factors have contributed to this shift toward multimodal planning:
• The “urban renaissance” of cities emerging as desirable living locations
• Generation Y/Millennials’ preference for walkable, accessible neighborhoods
• Growth in awareness of environmental, economic and social impacts of transportation
• "Federal funding policies are now more flexible and encourage cities to make more sustainable choices about investments in transportation systems" (p.1) and new legislation encourages multi-modal planning and inter-agency cooperation.

Complete streets concepts have emerged as a key strategy for addressing these shifts. The National Complete Streets Coalition, which serves as the primary repository for complete streets policy resources, in conjunction with the American Planning Association Planning Advisory Service (McCann and Rynne 2010), has developed a comprehensive guide outlining in great detail how communities can use a complete streets approach to transition from traditional automobile planning to a more multimodal approach, what a complete street looks like, why the concept is useful and effective, and what elements an effective policy should include. More pertinent to this research, the guide also assesses the most significant obstacles to policy implementation, and attempts to measure the success of various approaches, providing practical examples of guidelines, policies, and checklists that various government agencies have successfully implemented.

The guidebook identifies the fundamental challenge of complete streets implementation as simply a widespread aversion to altering the status quo, ‘business as usual’ approach to transportation planning. The guide recognizes that even in places with adopted Complete Streets ordinances or policies, there have been problems with decision makers ignoring existing policy and problems with vague language within the actual policies. Key recommendations identified by the authors for addressing these and other issues associated with policy implementation include the development of formal plans to guide the implementation of adopted policy and the establishment of steering committees to determine the documents and processes that need to be created and/or updated to ensure a uniform implementation process (e.g., checklists, scoping forms, design manuals, community involvement processes, education campaigns, aligning traffic enforcement with policy goals) and balance the needs of all users. Relationships among jurisdictions are identified in this research as the most commonly cited barrier to multi-modal planning: "Conflicting goals and design standards can result in an abrupt character change along a roadway or a stalled project that never gets off the ground at all" (p.63), highlighting the challenge of integrating a complete streets approach across roadways and transportation networks that are controlled by multiple jurisdictions.
Effective staff training is identified as a universal need to ensure effective policy implementation. However, while there is a need for technical training among planners and engineers to serve the needs of all types of users, some warn that an emphasis on technical training "may create the impression that the design of such facilities requires specialized knowledge when this should be part of routine planning and design" (p. 53). Broader procedural training should be employed to building capacity among staff and ensuring that Complete Streets guidelines are taken into consideration at every step of design, construction or repair.

Performance measurement remains another challenge in assessing the success of complete streets policies through the implementation phase. McCann and Rynne recommend a combination of needs assessments, project rankings, impact assessments, and “before and after” project evaluations may be included in a successful policy or program evaluation in order to help determine whether goals will be or were achieved as a result of complete streets investment. Importantly, performance measures should be tied to tangible planning goals, and should aim to provide balanced assessment of the quality of service across all modes.

Jaynes et al (2012) highlight the need for extensive interagency and interdisciplinary collaboration in order to sustain meaningful policy change, and add that such collaboration is increasingly integral to successfully obtaining new federal funds. In addition, they argue that sustainable transportation policymakers must interact with the business community, in order to increase recognition of the role transportation plays in economic growth of a city. The authors furthermore recommend the use of pilot programs as a means to test innovative ideas prior to large scale implementation, and advise cities new to sustainable transportation projects and policy to start small, focus on outreach and education, and build a framework for consensus across agencies, jurisdictions, and with the public and business community that highlights "the transportation network as an essential part of a bundle of public goods that make living in a particular city attractive or unappealing" (p.7).

Meanwhile, Johnson and White (2010) examine the extent to which sustainability-oriented policy objectives influence municipal decisions in transportation infrastructure within the Kansas City Metropolitan Area, employing internal and external determinant models to explore the “diffusion of innovation theory,” or, “the process in which an innovation is communicated through certain channels over time among the members of a social system” (p.304), finding that the determinants of innovation include both external influences (e.g. federal and state regulation, actions of neighboring jurisdictions) and internal influences (community and organizational factors). However, they note, the diffusion of innovation does not always mean adoption of neighboring policies, but also the rejection of policies that
we have seen to be ineffective elsewhere. Importantly, Johnson and White found that familiarity with a policy does not make it a priority, while advocates (particularly bicycle advocates) were perceived as being an important influence in innovation. However, the most significant common response the authors found as a driver of adopting innovation was the imposition of mandates from a higher governmental body, while cost remains the default answer for why innovation is not readily adopted.

### 2.2 Active Transportation Funding Strategies

Integral to the implementation of complete streets policy is the identification of strategies and mechanisms by which to fund project construction. The allocation of funds to walking and biking infrastructure is known to vary widely from region to region, and is also significantly influenced by evolving federal transportation policy. Jaynes et al (2012) observe that although newer federal funding sources such as TIGER Grants and the Partnership for Sustainable Communities have affected the nature of transportation planning in the US, their affects have varied among different regions, depending largely on the presence or absence of visionary leadership and public expectations; changes in federal funding mechanisms alone clearly do not result in even diffusion of policy supporting walking and biking.

Handy et al (2009) explored the various factors that affect pedestrian and bicycling funding across metropolitan regions through in-depth case studies of policies and projects in Sacramento and Maryland. The authors used FHWA’s Fiscal Management Information System to analyze spending patterns by states and regions, analyzed available documents (plans, funding programs, adopted policies) and conducted interviews with key stakeholders. They assert that although federal funding has increased for non-motorized transportation in the last decade, there is no mandate to spend it at the local level, resulting in a wide variability of funded projects across the nation, and that overall, “clearly, the fraction of total federal transportation spending that goes to bicycle and pedestrian infrastructure is small. It remains a small portion even within the programs most often associated with such projects” (p.8). They did, however, identify the following factors which are likely to influence local spending patterns and allocation of federal funds:

- Criteria set at the MPO or state level (e.g. guiding design)
- Clear prioritization of walking and bicycling (e.g. states requiring local pedestrian and/or bicycle plans)
- Availability of local funding (often as a required match for federal funds—a major determinant of
whether local jurisdictions will apply for federal funds)

- Political leadership
- Poverty and education rates at the county level
- Sub-allocation increases the chances that funds will be used for bicycle and pedestrian projects

Handy et al conclude the following, in order to increase funding for bicycling and walking:

- More federal funds should be passed directly to MPOs, rather than routing it through state DOTs, thereby reducing the effect of differences in sub-allocation.
- Funding programs should be designed to achieve specific outcomes and develop outcome-oriented performance measures of success. Alternatively, encourage states and regions to create their own programs that tie funding more tightly to local planning goals.
- Provide more tools to state and local governments to help bicycle and pedestrian projects meet eligibility requirements such as demonstrated emissions reductions.
- Prohibit states from requiring more than the specified federal match. Note that while this strategy makes it easier for local governments to fund projects, it also potentially reduces the total number of projects leveraged by the federal funds.
- Introduce further requirements for institutionalizing non-motorized transportation planning in order to enhance the capacity of MPOs to meet their goals for bicycle and pedestrian mode share.
- Continue to emphasize public involvement in the planning process in order to ensure opportunities for local advocates to shed light on bicycle and pedestrian needs and work with planners to support improvements. Institutionalizing the involvement of health departments and other public agencies that support biking and walking for non-transportation reasons could also elevate the priority they are given.

Importantly, no literature was identified at the time of this research which evaluated the most recent federal transportation bill, MAP-21. Though at the time the survey was distributed, many agencies were still in the process of unpacking new MAP-21 guidance and developing state and regional procedures for use of the funds, part of the goal of this study is to begin to understand how changes to state and regional funding allocation and availability resulting from this legislation have impacted or are anticipated to impact walking and biking project outcomes.
2.3 Role of MPO in Policy Diffusion and Implementation

Handy et al (2009) note that while MPOs are a critical link in transportation decision-making, they are also somewhat constrained: “Metropolitan planning organizations help direct funding of a smaller portion of the funds, but are reliant on the decisions made by the cities and counties that are their members, and the projects that they submit. As a result, spending of federal transportation dollars within metropolitan areas on non-motorized projects varies widely” (p11). Moreover, “MPO boards are usually made up mostly of local government officials, and their role is often limited to facilitating the wishes of their constituents rather than collaborating to create a regional vision” (p.52).

Subsequent work by Handy and McCann (2011) analyzed similar issues in six metropolitan areas, specifically exploring the likelihood of an MPO directing funds to a bike and pedestrian projects, using spending on stand-alone projects as an indicator of commitment to bike and pedestrian investment and examining factors that could be connected to these spending patterns. They found that MPO-level plans and pedestrian/bicycle advisory committees positively affect bicycle and pedestrian project implementation outcomes, however, in some cases, these elements followed rather than preceded increased funding levels. They also found that local and regional capacity is often a critical constraint. Often, there is minimal assistance at the state level available to assist MPOs and local governments (federal guidance requires only one bicycle and pedestrian coordinator per state). However, requirements linking bike and pedestrian plans to funding access can serve to build local capacity. Finally, Handy and McCann remark that “both local government support and strong advocacy groups seem to be instrumental in establishing bike/ped projects as priorities of MPOs” (p.36).

An additional issue surrounding MPO decision-making pertinent to this study is addressed by Nelson et al (2004), who looked at how MPO composition can disproportionately favor suburban communities as most MPOs are not weighted based on population, at the expense of active transportation (particularly transit). This issue, along with many of those discussed above, was incorporated into the survey design with the goal of broadening our understanding of how the structure, organization, and institutional culture of MPOs relates to active transportation policy and spending.
3. Methodology

In order to address the identified gap in understanding of how rapid adoption of complete streets policy is impacting regional biking and walking outcomes, the research team surveyed MPOs across the country to help identify opportunities and barriers to policy implementation. In addition, limited additional research was conducted on three case study regions to explore in greater depth the findings revealed by the survey responses. Finally, preliminary results from this study were disseminated and discussed at a statewide event focused on complete streets policy and active transportation funding in order to advance the further diffusion and more effective implementation of complete streets policy concepts at the local, regional, and state levels in Louisiana.

3.1 National Survey

The data was obtained from a national electronic survey of all Metropolitan Planning Organizations (n=385). The survey consisted of approximately 30 questions, including both closed and open-ended questions (Appendix A). Many questions also provided the respondent an opportunity to explain an answer in narrative format. The survey instrument was designed to be savable so that, if necessary, respondents could collect necessary materials or check with colleagues and return to the in-progress survey where they left off.

The survey was established using Qualtrics survey software provided by the University of New Orleans. Survey invitations were distributed via email including information about the survey to respondents and a link to the survey to one staff member of each MPO. A database of MPO contacts was provided by Marc Howlett of the University of North Carolina at Chapel Hill, who developed it for a recent research effort also targeting MPOs. Howlett’s database was reviewed and updated to ensure that contacts listed were either pedestrian/bicycle program staff, lead transportation planners, or, particularly in the case of smaller MPOs, agency directors.

The research team drafted questions based on the literature review and consultation with MPO experts, including Smart Growth America, and the State Smart Transportation Initiative. Questions were designed to ascertain basic descriptive characteristics of the extent of policy adoption at the MPO level and, at a deeper level, the extent and potential reasons for full or limited implementation of key complete streets policy metrics (LaPlante and McCann 2011, Handy et al 2009, and Handy and McCann 2010). Draft survey questions were circulated with University of New Orleans and Texas State University
colleagues, as well as project monitor Dan Jatres of the New Orleans Regional Planning Commission, for feedback and to pre-test the instrument.

The survey was built using online Qualtrics software, allowing for an intuitive and customizable respondent interface. A pre-survey postcard announcing the survey was mailed to all MPO contacts in the database approximately one week prior to the survey opening date in May 2014.

The postcard was followed up by an email invitation to participate. Sixty-eight responses were received during the originally scheduled survey period of May 21st – June 4th. A reminder postcard extending the deadline for response to June 25th and including a URL to access the survey was mailed in early June to encourage additional responses, and two additional reminder emails were distributed. An additional 86 raw responses were submitted, for a total of 154 respondents.

The target survey response rate was 35-40%. A final response rate of 36% was reached. Survey results were anonymous, however, respondents IP addressed were recorded in order to establish geographic representation from all major regions of the country and, as necessary, conduct targeted outreach to states or regions from which few responses had been received. In addition, survey respondents were asked to identify their general region and size of their metropolitan area in order to ensure broad representation of various MPO contexts.

3.2 Regional Case Studies

Based on the survey results, three case study regions were selected for additional investigation and evaluation based on the following criteria:

1. An example of a major metropolitan area where significant steps have been taken toward implementing a comprehensive complete streets approach
2. An example of a small to mid-size region where significant steps have been taken toward implementing a comprehensive complete streets approach
3. An example of a region where opportunity to adopt a complete streets approach has been identified, but little to no policy activity or implementation has taken place to date.

For each of these regions, pertinent publicly available documents were reviewed, and telephone and/or email interviews were conducted with key stakeholders (e.g. local government and MPO staff, advocates) in order to better understand opportunities, barriers, and best practices for regional
Complete Streets implementation. Specifically, the following list of questions was utilized as a loose guide for these discussions:

1. Overall, what is the current state of complete streets and/or active transportation policy in the region?
2. What of the “complete streets checklist” elements have been advanced, when, and who drove those changes?
3. What have been the barriers to advancing a complete streets approach at the regional level?
4. Messaging: has the phrase “complete streets” been found to be an effective policy tool? Are there other effort to promote bike/ped that are using other approaches and/or messaging with similar goals (e.g. focusing on sustainability or safety messaging)? Has there been any pushback to the “complete streets” concept?
5. How has state level and/or local policy activity impacted MPO efforts, or lack thereof?
6. What are the next steps for this region?
7. What would be the one thing that most needs to change in order to more effectively adopt/implement a complete streets approach, or to take it to the next level?
8. How has MAP-21 impacted how funding is allocated for non-motorized transportation? Is it easier or harder than under previous federal transportation legislation to fund complete streets-related projects?

3.3 Louisiana Bike/Walk Summit Event

In partnership with New Orleans bicycle advocacy organization Bike Easy, UNOTI hosted and produced an event bringing together stakeholders (including but not limited to advocates, planners, public health professionals, etc) from around Louisiana to learn about and discuss means of implementing and funding complete streets policies at the local and regional level based in part on the results of the research conducted as part of the UNO study “Evaluation Of Complete Streets Policy Implementation By Metropolitan Planning Organizations.” Bike Easy was engaged as a subcontractor in order to coordinate this event, including venue logistics, developing an invitation list and event agenda, and identifying event speakers and facilitators. The goals of this event were as follows:

1. To host an event bringing together a diverse group of stakeholders interested in advancing the concept of complete streets.
2. To provide a forum for the presentation of findings from the Complete Streets and MPOs survey
3. To use the research findings as a tool for discussing the current state of the practice in Louisiana and to identify needed actions to advance complete streets policy diffusion and implementation.

The planning phase for this event consisted of working with advocates, universities, planning professionals, and facilitators over a period of four months to develop the summit agenda, with the purpose of establishing a broad coalition of statewide partners and advocates that seek to learn from one another and collaborate to move walking and bicycling forward with a shared and actionable policy agenda serving people of all ages and abilities in Louisiana. The summit was to serve as an opportunity to create a shared statewide policy agenda to collaboratively move walking and bicycling forward with specific actions to achieve success, strengthen and broaden partnerships across the state and share resources via a coordinated network.

Bike Easy enlisted professional organizational consultant Jeremy Grandstaff of S & G Endeavors, Ltd in order to guide the event. Grandstaff has extensive experience with strategic planning and event facilitation, including years of experience with active transportation organizations including the Alliance for Biking and Walking, America Walks, Bike East Bay, and several others. In coordination with Grandstaff, Bike Easy organized an event planning team representing various stakeholder groups and organizations, including UNOTI, AARP, the Tulane Prevention Research Center, Louisiana Public Health Institute, Bike Baton Rouge, Bike Lafayette, and the Center for Planning Excellence to guide the development of the event agenda. This team met several times via conference call in the month leading up to the summit to discuss and plan the event.

Meanwhile, Bike Easy secured a venue for the event at the Josef Sternberg Memorial Conference Room in the Shaw Center for the Arts in Baton Rouge, which was generously provided by the Center for Planning Excellence. The event was scheduled to coordinate with the Louisiana Smart Growth Summit to encourage maximum statewide engagement. The event planning team developed a list of stakeholders to invite to attend, including community groups, faith-based representatives, bicycle and pedestrian advocates, public health professionals, and transportation planners and researchers. Invitations were distributed via email to this list, and attendees were encouraged to register through Eventbrite. After an initial, targeted outreach effort to solicit participants, the event was announced to the general public and promoted via partner organization newsletters and social media to allow any interested groups or citizens to participate.
4. Findings

This chapter summarizes selected findings of the MPO survey, as well as key lessons learned from case study evaluations and outcomes of the Louisiana Bike/Walk Summit event. Questions targeted basic descriptive characteristics of policy implementation and extent, as well as potential reasons for full or limited implementation of key complete streets policy metrics. Survey results were compiled and analyzed using SPSS, a software package used for statistical analysis. The survey yielded a wealth of data for analysis; descriptive statistical findings and selected highlighted relationships are discussed below. Additional opportunities for statistical analysis of relationships within the dataset exist and may be utilized in future analysis efforts beyond the scope of this report.

4.1 Survey Results

In all, 139 of the 385 MPOs substantially completed the survey (response rate 36%). Of these, 48% represented small metropolitan areas (less than 200,000 people), 31% represented medium metro areas (with populations from 200,000 to one million), and 21% represented large regions of 1 million or more (Table 2). Responding agencies were distributed widely across the country. The largest share of respondents (44%) came from the South region of the United States (as defined by the U.S. Census Bureau), followed by the Midwest (25%). The West and Northeast regions of the country made up a relatively small proportion of the respondents at 16% and 15% respectively (Table 3).

<table>
<thead>
<tr>
<th></th>
<th>Number of MPOs</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small: Less than 200,000 people</td>
<td>67</td>
<td>48.2%</td>
</tr>
<tr>
<td>Medium: 200,000 to 999,999 people</td>
<td>43</td>
<td>30.9%</td>
</tr>
<tr>
<td>Large: Greater than 1,000,000 people</td>
<td>29</td>
<td>20.9%</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

2 All percentages provided reflect responses from all 139 responding MPOs except where otherwise indicated
Table 3: Survey Respondents by MPO Region

<table>
<thead>
<tr>
<th>MPO Region</th>
<th>Respondent Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northeast</td>
<td>14.80%</td>
</tr>
<tr>
<td>South</td>
<td>44.40%</td>
</tr>
<tr>
<td>Midwest</td>
<td>25.40%</td>
</tr>
<tr>
<td>West</td>
<td>15.50%</td>
</tr>
</tbody>
</table>

Notably, the majority of MPOs across the country are small, with only a handful of full time staff. This was reflected in the survey response, with the largest share (49.6%) of the respondents representing MPOs with four or fewer full time staff. While larger MPOs have much more capacity for specialized planning and programming and a greater capacity for development and implementation of innovative policy, the responses of small MPOs allow important insights into the challenges of policy innovation and implementation for organizations with inherently less capacity (Table 4). However, the majority of respondents (67%) did indicate that their MPO had some form of bicycle and pedestrian program in operation (Table 5).

Table 4: Survey Respondents by Number of MPO Full-Time Equivalent (FTE) Staff

<table>
<thead>
<tr>
<th>MPO FTE</th>
<th>Percentage of Responding MPOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or Fewer</td>
<td>49.6%</td>
</tr>
<tr>
<td>5 to 19</td>
<td>35.3%</td>
</tr>
<tr>
<td>20 to More</td>
<td>15.1%</td>
</tr>
</tbody>
</table>

Note: Total responses: n=119

Table 5: Presence of MPO Bike/Pedestrian Program

<table>
<thead>
<tr>
<th>MPO Bike/Pedestrian Program</th>
<th>Respondent Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>66.93%</td>
</tr>
<tr>
<td>No</td>
<td>33.07%</td>
</tr>
</tbody>
</table>

Overall, three key themes emerged from the survey analysis. First, while 77% of MPO respondents were very familiar with complete streets concepts (Table 6), this familiarity was not translating into broad adoption of complete streets policies. Only 18% of responding MPOs reported that they had formally adopted a complete streets policy (Table 7). Notably, clear regional differences exist in both familiarity with and adoption of a complete streets approach, with the highest rates of conceptual familiarity were reported in the Northeast region of the United States, and lowest lowest in
the South region. Conversely, rates of MPO-level policy adoption were lowest in the Northeast among survey respondents (11%), and highest in the South and Midwest regions (20% and 21% respectively).

Table 6: Complete Streets Familiarity and Region

<table>
<thead>
<tr>
<th>Familiarity of Complete Streets</th>
<th>Northeast</th>
<th>South</th>
<th>Midwest</th>
<th>West</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Familiar</td>
<td>95%</td>
<td>65%</td>
<td>85%</td>
<td>81%</td>
<td>77%</td>
</tr>
<tr>
<td>Somewhat Familiar</td>
<td>5%</td>
<td>33%</td>
<td>15%</td>
<td>19%</td>
<td>22%</td>
</tr>
<tr>
<td>Not familiar at all</td>
<td>0%</td>
<td>2%</td>
<td>0%</td>
<td>0%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Differences in policy adoption prevalence were also observed among regions of varying population sizes. In large MPOs, with a service area greater than 1 million, the largest share of complete streets policies were reported at 26% (Table 8), with declining adoption rates for medium-sized regions (20%), and small regions (14%), suggesting a possible relationship between MPO size (and therefore staff capacity) and innovative policy adoption.

Table 7: Regions and Presence of Complete Streets Policy

<table>
<thead>
<tr>
<th>Four major regions</th>
<th>Northeast</th>
<th>South</th>
<th>Midwest</th>
<th>West</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does have a CS policy</td>
<td>no</td>
<td>89%</td>
<td>80%</td>
<td>79%</td>
<td>82%</td>
</tr>
<tr>
<td></td>
<td>yes</td>
<td>11%</td>
<td>20%</td>
<td>21%</td>
<td>14%</td>
</tr>
<tr>
<td>Total Responses</td>
<td>19</td>
<td>60</td>
<td>33</td>
<td>21</td>
<td>133</td>
</tr>
</tbody>
</table>

Differences in policy adoption prevalence were also observed among regions of varying population sizes. In large MPOs, with a service area greater than 1 million, the largest share of complete streets policies were reported at 26% (Table 8), with declining adoption rates for medium-sized regions (20%), and small regions (14%), suggesting a possible relationship between MPO size (and therefore staff capacity) and innovative policy adoption.

Table 8: MPO Service Area and Presence of Complete Streets Policy

<table>
<thead>
<tr>
<th>Small: Less than 200,000 people</th>
<th>Medium: 200,000 to 999,999 people</th>
<th>Large: Greater than 1,000,000 people</th>
<th>Total Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does have a CS policy no</td>
<td>86%</td>
<td>80%</td>
<td>74%</td>
</tr>
<tr>
<td>yes</td>
<td>14%</td>
<td>20%</td>
<td>26%</td>
</tr>
<tr>
<td>Total Responses</td>
<td>64</td>
<td>41</td>
<td>27</td>
</tr>
</tbody>
</table>

Among respondents in both regions with and without regional policies, 38% indicated that there are no local complete streets policies in their regions (Table 9), while 41% observed that less than a quarter of the local communities they represent have adopted policies. Approximately 12% of responding regions indicated that local policy adoption was widespread, with greater than 50% of communities covered by a local complete streets policy.
Table 9: Estimated Percent of Local Communities with CS Policies

<table>
<thead>
<tr>
<th>Percentage of Local Communities with CS Policies</th>
<th>MPO Respondent Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>38.39%</td>
</tr>
<tr>
<td>1-25%</td>
<td>41.07%</td>
</tr>
<tr>
<td>26-50%</td>
<td>8.93%</td>
</tr>
<tr>
<td>51-75%</td>
<td>3.57%</td>
</tr>
<tr>
<td>76-100%</td>
<td>8.04%</td>
</tr>
</tbody>
</table>

Nationally, while over 600 complete streets policies have been adopted at various levels of government, only 5.56% of regional planning organizations (including MPOs) were found to have adopted complete streets policies as of 2013 (Table 10) (Smart Growth America/National Complete Streets Coalition 2014). This finding suggests that this survey was more likely to be completed by representatives of MPOs in jurisdictions that have adopted policies than in those that have not yet done so, and additional research may be needed to better understand why complete streets concepts have failed to take hold in non-responding regions. An even smaller share of municipalities (2.47%) have adopted policies, indicating that although hundreds of policies exist, the complete streets concept has actually only been formally embraced by a small percentage of jurisdictions overall. Notably, more than half all states have adopted some form of complete streets policy, indicating at least nominal top-down support for policy diffusion.

Table 10: Complete Streets Policies by Jurisdiction

<table>
<thead>
<tr>
<th>Agency</th>
<th>Number of CS Policies 2013*</th>
<th>Unit of Government Total</th>
<th>Percentage with CS Policies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Municipality</td>
<td>482</td>
<td>19,492</td>
<td>2.47%</td>
</tr>
<tr>
<td>County</td>
<td>48</td>
<td>3,141</td>
<td>1.53%</td>
</tr>
<tr>
<td>Regional Planning Organization</td>
<td>51</td>
<td>918</td>
<td>5.56%</td>
</tr>
<tr>
<td>State</td>
<td>27</td>
<td>50</td>
<td>54.00%</td>
</tr>
<tr>
<td>Federal</td>
<td>0</td>
<td>1</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>608</td>
<td>23,602</td>
<td>2.58%</td>
</tr>
</tbody>
</table>

*Source: Smart Growth America / National Complete Streets Coalition -- The Best Complete Streets Policies of 2013-
Among MPOs who had adopted policies, we sought to examine whether public health and improved street connectivity were explicitly identified as policy goals. The majority of responding regions observed that both goals were present in their policies, with a slightly higher percentage (59%) reporting street connectivity as a goal than improved public health (55%) (Table 11).

<table>
<thead>
<tr>
<th>Complete Streets Policy Goals</th>
<th>Yes</th>
<th>No/Don't Know</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved Public Health</td>
<td>55.10%</td>
<td>44.90%</td>
</tr>
<tr>
<td>Improved Street Connectivity</td>
<td>59.18%</td>
<td>40.82%</td>
</tr>
</tbody>
</table>

The most common barrier reported by MPOs to policy adoption (among both those with and without existing policies) was cost (cited by 80% of respondents). The next most common response was lack of political will (cited by 48% of respondents) (Table 12).

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Percent of Respondents Reporting Barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>80.33%</td>
</tr>
<tr>
<td>Lack of political will</td>
<td>48.33%</td>
</tr>
<tr>
<td>Lack of local capacity</td>
<td>26.67%</td>
</tr>
<tr>
<td>Current project funding process or structure</td>
<td>26.67%</td>
</tr>
<tr>
<td>Outdated engineering and design manuals or policies</td>
<td>22.50%</td>
</tr>
<tr>
<td>Organizational culture</td>
<td>18.33%</td>
</tr>
<tr>
<td>Lack of public interest</td>
<td>15.83%</td>
</tr>
<tr>
<td>Anticipated project complication or delay</td>
<td>14.17%</td>
</tr>
<tr>
<td>Differences in policy interpretation</td>
<td>10.00%</td>
</tr>
</tbody>
</table>

Importantly, we found that agencies that had formally adopted complete streets policies were not systematically implementing the policies. We tracked nine key characteristics of successful complete streets policy implementation drawn from the literature cited above. We found limited diffusion of these key characteristics. Bicycle plan adoption was the only characteristic to be broadly implemented by complete streets-adopting agencies (cited by 57% of agencies that implemented a complete streets policy and 67% of all responding MPOs [Table 13]).
In total, only 5% of all responding MPOs reported adopting 6 or more of the key complete streets measures identified (Table 14). Notably, however, MPOs with adopted policies had also adopted, on average, more of those measures (3.3) than those MPOs who had not adopted policies (2.3 measures adopted). In both cases, it is clear that policy adoption has not, thus far, resulted in comprehensive implementation of these key steps toward a more walking and bicycling-friendly built environment, nor are there very many regions implementing these measures absent a formalized complete streets policy.

Table 13: Complete Streets Familiarity and Key Measures Taken—All Responding Agencies

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Familiar or familiar</td>
<td>51.52%</td>
<td>39.39%</td>
<td>34.09%</td>
<td>25.56%</td>
<td>25.00%</td>
<td>22.56%</td>
<td>19.20%</td>
<td>9.02%</td>
<td>1.50%</td>
</tr>
<tr>
<td>Somewhat or Not Familiar</td>
<td>15.91%</td>
<td>14.39%</td>
<td>6.82%</td>
<td>4.51%</td>
<td>3.79%</td>
<td>4.51%</td>
<td>0.00%</td>
<td>0.00%</td>
<td>0.00%</td>
</tr>
<tr>
<td>Total % Adopted</td>
<td>67.42%</td>
<td>53.79%</td>
<td>40.91%</td>
<td>30.08%</td>
<td>28.79%</td>
<td>27.07%</td>
<td>19.20%</td>
<td>9.02%</td>
<td>1.50%</td>
</tr>
</tbody>
</table>

Table 14: Number of Key Complete Streets Measures Taken

<table>
<thead>
<tr>
<th>Number of CS Measures Taken</th>
<th>Percentage of MPOs</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-2</td>
<td>42%</td>
</tr>
<tr>
<td>3-5</td>
<td>52%</td>
</tr>
<tr>
<td>6 or more</td>
<td>5%</td>
</tr>
</tbody>
</table>

We also sought to understand how political support from key groups might help to create a supportive environment for policy adoption and implementation, asking respondents to rank the level of support from 1 to 10 (where ten is the greatest level of support) by various groups. Overall, MPO directors and staff were found to most strongly support complete streets policy concepts among governmental entities (although this likely reflect self-selection bias of the MPO directors and staff who participated in the survey), while local departments of public works and state elected officials were found to have the weakest support (Table 15). Among advocacy groups, all were reported as allies of
complete streets, with pedestrian and bicycle advocacy groups identified as the strongest champions for policy adoption and implementation.

Table 15: Perceived Political Support for Complete Streets Policies

<table>
<thead>
<tr>
<th>Key Policy Actors</th>
<th>Estimated Level of Support Mean (1-10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycle Advocacy Groups</td>
<td>9.3</td>
</tr>
<tr>
<td>Pedestrian Advocacy Groups</td>
<td>9.21</td>
</tr>
<tr>
<td>MPO Director</td>
<td>8.94</td>
</tr>
<tr>
<td>MPO Staff</td>
<td>8.92</td>
</tr>
<tr>
<td>Smart-Growth Advocacy Groups</td>
<td>8.92</td>
</tr>
<tr>
<td>Public Health Organizations</td>
<td>8.52</td>
</tr>
<tr>
<td>Age-Friendly Groups</td>
<td>7.95</td>
</tr>
<tr>
<td>Transit Advocacy Groups</td>
<td>7.9</td>
</tr>
<tr>
<td>FHWA</td>
<td>7.81</td>
</tr>
<tr>
<td>Local Planning Departments</td>
<td>7.59</td>
</tr>
<tr>
<td>State DOT</td>
<td>6.7</td>
</tr>
<tr>
<td>Local Elected Officials</td>
<td>6.04</td>
</tr>
<tr>
<td>Local Department of Public Works</td>
<td>5.99</td>
</tr>
<tr>
<td>State Elected Officials</td>
<td>5.69</td>
</tr>
</tbody>
</table>

From these findings, we created both a local governmental support index based on levels of support indicated for key local transportation organizations and an advocacy support index based on levels of support indicated for key complete streets advocacy coalitions. Hypothesizing that agencies are more likely to adopt and/or implement complete streets policies when there is strong government/advocacy support, the authors ran separate Analysis of Variance models using the local governmental support index and the advocacy support index as predictors for the key complete streets policy implementation characteristics discussed above. Preliminary testing identified moderate (.277), statistically significant correlation between the strength of advocacy networks and number of complete streets measures taken, but did not find a relationship with government networks. Linear regression for advocacy networks and the number of complete streets measures was significant with R2 of .076.

However, the limited findings of this analytic exercise revealed a need to refine these models and explore these potential relationships in greater depth, including analysis of the groups that may oppose complete streets measures, outside of the current scope of this study.

Finally, this survey sought to explore the relationship between the federal Transportation
Alternatives Program (TAP) and complete streets implementation. Overall, the majority (59%) of respondents reported that greater than 75% of Transportation Alternatives funding in their region is being dedicated to non-motorized transportation projects (Table 16), with the highest incidence of large proportions of TA funding for such projects (75% or respondents) reported in the Northeast region, and the lowest in the South region (48% of respondents indicating that 75% or more of TA funding is being allocated to non-motorized projects) (Table 17). No clear relationship between the percentage of TAP funding being spent on non-motorized projects emerged specifically among MPOs that have adopted a complete streets policy, indicating that additional mechanisms are needed to ensure that resources are dedicated so that adopted policies can be effectively implemented (Table 18).

Table 16: Estimated Percentage of Transportation Alternatives (TAP) Funding for Non-motorized Projects (NMT)

<table>
<thead>
<tr>
<th>Estimated Percent of TAP going for NMT</th>
<th>Frequency Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 25%</td>
<td>32%</td>
</tr>
<tr>
<td>25 - 50%</td>
<td>4%</td>
</tr>
<tr>
<td>50 - 75%</td>
<td>4%</td>
</tr>
<tr>
<td>75 - 100%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Table 17: Transportation Alternatives Non-motorized Funding and Region

<table>
<thead>
<tr>
<th>% TAP NMT Funding</th>
<th>Northeast</th>
<th>South</th>
<th>Midwest</th>
<th>West</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 25%</td>
<td>25%</td>
<td>43%</td>
<td>19%</td>
<td>33%</td>
<td>32%</td>
</tr>
<tr>
<td>25 - 50%</td>
<td>0%</td>
<td>5%</td>
<td>4%</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>50 - 75%</td>
<td>0%</td>
<td>5%</td>
<td>8%</td>
<td>0%</td>
<td>4%</td>
</tr>
<tr>
<td>75 - 100%</td>
<td>75%</td>
<td>48%</td>
<td>69%</td>
<td>60%</td>
<td>59%</td>
</tr>
</tbody>
</table>

Table 18: Complete Streets Policy and Transportation Alternatives Non-motorized Funding

<table>
<thead>
<tr>
<th>CS Policy</th>
<th>Estimated % of TAP Going to Non-motorized Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 - 25%</td>
</tr>
<tr>
<td>No</td>
<td>90%</td>
</tr>
<tr>
<td>Yes</td>
<td>10%</td>
</tr>
<tr>
<td>Total Number</td>
<td>30</td>
</tr>
</tbody>
</table>
4.2 Case Study Summaries

Based on the survey results, three metro regions were identified for further evaluation, in order to gain a more nuanced understanding of why and how a complete streets approach has gained traction and significant steps toward implementation have been made at the regional level in some areas, but not in others. Two of the selected illustrative case studies (Memphis, TN; and Biloxi, MS) are in the South region of the United States, while Columbia, MO is in the Census’ Midwest region. These three selections representing one large metropolitan area, and two medium sized metropolitan areas.

For each, we evaluated various documents pertaining to complete streets policy and/or the key elements of implementation discussed above, including ordinances, resolutions, internal policies or executive orders, official planning documents, and design manuals or guides. In addition, survey responses were reviewed and knowledgeable stakeholders were contacted via phone or email to discuss these findings in greater detail and provide additional contextual information.

Case Study 1: Memphis, Tennessee

In recent years, the City of Memphis has become well-known for its commitment to creating livable communities and a more multimodal transportation network. Though much of this activity has been driven by policy and leadership at the local level, the Memphis Urban Area Metropolitan Planning Organization (MUAMPO), responsible for the transportation policy development, planning, and programming for the Memphis region, including Shelby County, Tennessee and Desoto County, Mississippi, as well as portions of Fayette County, Tennessee, and Marshall County, Mississippi) plays a key role in supporting these efforts through the diffusion of federal funds and integrating planning and policy across county and state lines. The Memphis Urban Area MPO serves a population of over 1.2 million people, and has two staff members dedicated principally to pedestrian and bicycle planning. Complete streets policy has been led in this region by activity in the City of Memphis.

In 2013, the city’s mayor, A C Wharton, became the first mayor in Tennessee to issue a complete streets executive order requiring a public right-of-way to accommodate all users. Although the MPO has not adopted a formal complete streets policy, it has taken action on eight of the nine key measures discussed above that support multi-modal transportation policy implementation (all except for adoption of NACTO design guidelines) and elements of a complete streets approach have been integrated into other agency policy documents and plans. For example, the MPO adopted an updated Regional Bicycle
and Pedestrian Plan in late 2014, which guides the region’s non-motorized investment and intends to improve the safety, connectivity, accessibility, and modal share of bicycling and walking throughout the region. Additionally, the Direction 2040: Long Range Transportation Plan (LRTP) specifically outlines the transportation improvements needed for active modes, a project evaluation matrix to guide selection and planning that recognizes contribution to a higher probability of biking, walking, or transit use, and a section dedicated to discussion of complete streets concepts, including typical cross sections and access management strategies. MUAMPO’s Long Range Transportation Plan (LRTP) classifies streets into categories and provides these streets with specific, complete streets-friendly design guidelines. These recommendations heavily emphasize the evaluation and creation of bicycle/pedestrian facilities and transit elements.

In addition, the Community Development Council of Greater Memphis, through its Livable Memphis program and in partnership with the Mid-South Complete Streets Coalition, has created a Complete Streets Project Delivery Manual that serves as a guide to roadway design in compliance with the City of Memphis’ complete streets policy. This guide has also been made available to all municipalities in the region, and was designed to include street typologies that would be useful for all sizes of communities in the greater Memphis area. In combination with the MPO’s planning documents, this provides an effective set of tools with which to implement complete streets. The region’s considerable progress toward a multimodal, complete streets-oriented planning approach, prior to the adoption of a formal MPO-level complete streets policy, suggests that while complete streets policy adoption has in some areas been used to launch efforts to increase agency attention to walking and bicycling, it may not be the most important component in an overall effort to modify the organization’s decision-making culture: specific changes to plans, manuals, and processes that improve multimodality may precede the adoption of an explicit statement embracing the complete streets concept. On the other hand, local jurisdictions outside of the City of Memphis are not necessarily subject to any explicit, mandated design standards for complete streets. Adoption of a formal MPO policy may be useful as a mechanism by which to drive local policy compliance and ensure that complete streets efforts are coordinated across the region.

Stakeholders report effective cooperation among levels of government in the region, including the City of Memphis, MUAMPO, and the Tennessee Department of Transportation (TDOT), all of whom are explicitly working on implementation of strategies promoting smart growth and/or multimodal

3 http://www.memphismo.org/plans/long-range-plan-lrtp
4 http://www.midsouthgreenprint.org/complete-streets/#
approaches that include accommodation of non-motorized road users. However, it should be noted that despite widespread embrace of active transportation and complete streets ideas, the effectiveness of these activities at increasing rates of walking and bicycling is limited so far: in 2014, though the City of Memphis ranked 13th out of 52 large US cities for its per capita spending on pedestrian and bicycle infrastructure, its (combined) bicycling and walking mode share ranked near the bottom at 46th, and pedestrian/bicyclist fatality rates ranked 48th, indicating that there is considerable opportunity for improvement in both modal split and safety outcomes.\(^5\)

Notably, though, the Memphis area’s commitment to livable communities and multimodal transportation is still quite new: the city’s first marked bicycle facility only appeared in 2010. Pedestrian accommodation and accessibility were poor in many areas of the region, and transit service was limited. This fact highlights the impact of strong local elected leadership in leading change; Memphis’ Mayor Wharton’s efforts at the municipal level have generated regional and state-level momentum for sustainable transportation policy as well. In May 2012, *Bicycling* magazine named Memphis as the nation’s “most improved” city for bicycling.\(^6\) On the other hand, Mayor Wharton’s efforts were backed by a coalition of supportive stakeholders from across the region, including the 150+ partners who formed the Memphis and Shelby County Complete Streets Coalition. This coalition included critical support from the Memphis Area Association of Realtors and the Urban Land Institute, who helped provide outreach and training around complete streets policy, effectively increasing communities’ capacity to effectively serve non-motorized road users.

Although a favorable policy environment exists at all levels of government for effective implementation of complete streets policy (in 2012, Tennessee DOT partnered with Smart Growth America to develop a guide to “removing barriers to smarter transportation investments” which focuses heavily on multimodal accommodation), funding remains a major challenge. At the regional level, the lack of an official policy means that projects can still be approved without any complete streets elements, highlighting a potential weakness if future agency staff or elected officials are less supportive of the current administration’s efforts to promote active transportation. The rapid infrastructure developments over the last four years (mostly within the city of Memphis) have occurred incrementally and opportunistically, piggybacking on projects where new non-motorized facilities could be constructed at little to no additional cost. Local implementation has been largely contingent on securing competitive funding, and no regional policy exists to allocate a specific percentage of federal pass-

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\(^6\) http://www.smartgrowthamerica.org/documents/cs/resources/cs-brief-memphis.pdf
through funds to active transportation projects. In 2012, the City of Memphis received a $15,000 NAR Smart Growth grant to assist in the funding of the community-led Broad Avenue project. In the same year, Memphis received a TIGER IV grant of $14.9 million from USDOT to create a multi-modal connector from Memphis, TN, to West Memphis, Arkansas. This project also relied on a mix of public and private funding from Tennessee and Arkansas (Smart Growth America, 2014). The city also received a grant from the U.S. Environmental Protect Agency to hold a Complete Streets implementation workshop with Smart Growth America (Smart Growth America, 2014). However, as of August of 2012, TDOT had nine times more projects in its work plan than it had funding available for.

Key Findings: Memphis

- The City of Memphis has led efforts to promote and implement a complete streets approach, though the MPO actively and demonstrably supports the policy. Following adoption of the local complete streets executive order, the MPO completed and adopted its first bike/pedestrian plan, and the state DOT instigated work on improving state transportation planning including a focus on non-motorized transportation. However, the MPO lacks a formal policy of their own, indicating that support is not fully institutionalized, particularly for areas within the region outside of the City of Memphis’ jurisdiction.

- The MPO has not officially adopted a policy, though it has taken almost all of the key steps toward supporting complete streets concepts, resulting in rapid and notable on-the-ground infrastructure change. This suggests that adoption of a policy needn’t come first; a formal policy could help solidify institutional change, but has not been seen as essential to date. Rather, the focus has been on developing resources (design guides, regional plan, etc) which support coordinated regional complete streets implementation at the project level. On the other hand, the lack of a formal policy could prove to be a liability; momentum could flag with future changes in leadership. Full, formal institutionalization of complete streets— with clear links to resource allocation— could leverage the current enthusiasm for multimodal infrastructure and ensure coordinated, long-term success.

- Formal regional policy could help diffuse concepts more consistently to other local jurisdictions within the multi-state metropolitan region, which so far has been limited.

- Rapid change has been observed during the last five years, but progress is likely to become increasingly incremental due to budget constraints. The state DOT has been proactive about
“smart spending” to reprioritize projects, reduce overall costs, and maximize return on investment while emphasizing modes of transport alternate to the automobile.

- Broad coalition-building—with strong support from the business and development community—helped provide political support for Mayor Wharton’s championing of complete streets; local advocates supported the policy through high-visibility demonstration projects.
- The region’s biggest barrier will continue to be funding for consistent implementation; it’s not yet clear how MAP-21 has made it easier or more difficult to fund non-motorized projects or how the MPO is institutionalizing active transportation funding as a priority.

**Case Study 2: Columbia, Missouri**

The metropolitan area of Columbia, Missouri, population 221,374, represents a relatively small region that has made significant efforts toward institutionalizing active transportation and provides an instructive model for integrating and implementing complete streets policy at multiple levels of government.

In 2004, the City of Columbia put forth and passed the first Complete Street policy in the state of Missouri. In 2011, the state legislature passed a concurrent resolution in support of complete streets policies at all levels of government, urging policy adoption at the municipal, county, regional, and state agency level. Today, Missouri is recognized for having some of the best Complete Street models in the nation. Currently four Missouri MPO’s have adopted Complete Streets Policies as a vital element of their long-range transportation planning documents, including CATSO, the Columbia Area Transportation Study Organization, which serves as the region’s MPO. CATSO was the first Missouri MPO to develop a Complete Streets Policy, adopted as a main component of their long-range comprehensive plan in 2014.

Columbia’s MPO is small, with limited staff capacity, and no dedicated full-time pedestrian/bicycle coordinator. However, at the time of the policy’s adoption, it had already taken several significant steps in support of complete streets policy, including rewriting agency policies and procedures to serve all modes, integrating multimodal data collection, establishing a citizen advisory committee for active transportation, and adoption of a pedestrian and bicycle plan (as major components of the region’s long range transportation plan). Notably, Columbia was also a participant in the FHWA Nonmotorized Transportation Pilot Program (NTPP), which provided more than $25M in grant

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funds for pedestrian and bicycle infrastructure and non-motorized programs from August 2005 through December 2013. As a result of this infusion of funds, Columbia was able to rapidly grow its network of bicycle facilities—previously limited to several off-road trails—by spurring growth of an on-road system (over 70 miles completed during the program period) with coordinated connections to the trail network as well as to key community activity centers. The pilot program also provided a platform for ongoing discussions between advocates and formal government agencies, as well as funding for formal planning activities (including the GetAbout Columbia program which brought together a citizen board and city staff to focus on design, education, and active transportation promotion), catalyzing broad changes in the city’s approach to transportation infrastructure. 

Organized advocacy support for complete streets concepts was essential in advancing policy diffusion at the local, regional, and state levels in the Columbia region. Advocates in Columbia cite two influential advocacy groups (Pednet Coalition and Boone County Smart Growth Coalition), several informed and supportive city council members, and two Smart Growth-oriented regional and city planning documents, as key to building momentum for complete streets. At the state level, the Missouri Bicycle and Pedestrian Federation has actively supported policy diffusion across the state, including the Columbia region. Conversely, the city’s mayor (at the time interviews were conducted in late 2014) and the Missouri Department of Transportation (MoDOT) have been identified as somewhat less enthusiastic despite the agency’s stated support of local and regional policy adoption, which stakeholders identify as a potential barrier to effective implementation of complete streets concepts. At this time, CATSO’s complete streets policy is not binding; local jurisdictions outside of the City of Columbia within the region may select project design alternatives that lack complete streets accommodation; the MPO’s policy encourages but does not compel routine accommodation for non-motorized users.

In addition, dwindling availability of federal funds—and thus, the region’s ability to build on its recent progress and continue to implement its plans— is identified as a looming challenge, as many of the smart growth planning initiatives and complete streets projects implemented in the region over recent years have been achieved largely through allocation of federal funds and competitive grants, most notably, its $25M NTPP grant. Other funding for active living projects has included city sales tax and grant money awarded from private foundations (e.g. Robert Wood Johnson Foundation). A statewide ballot measure proposed in 2014 which would have generated funding for MoDOT that would

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have ended a constitutional ban on spending state roads funds for projects other than roads and bridges, including multimodal projects, was defeated. However, the City of Columbia also receives funds from a five-year renewable sales tax for improvements to its pedestrian infrastructure, which can be leveraged for ongoing complete streets implementation (Leadership for Healthy Communities, 2014).

Key Findings: Columbia

- Pilot program grant funds served as critical catalyst for development of active transportation networks, particularly on-street bicycle facilities. In addition to the infrastructure, this program spurred dialogue between community and government agencies, and resulted in innovative, well-coordinated planning efforts to guide complete streets implementation beyond the life of the grant.
- Close coordination of multiple government entities and advocates within a small region has led to a cohesive regional vision with broad agency and community support.
- Effective provision of transit is a weakness due to relatively small size and small budget; complete streets policy has been of limited utility in generating support for transit improvements.
- Public health is a stated priority of complete streets policy in this region, and this link has been identified as important for building grassroots and non-profit advocacy support, as well as a potentially critical source of funding for project implementation.
- Local policy came first, followed by state policy encouraging diffusion. Regional policy came last, and only after a number of intermediary implementation measures were already underway, suggesting once again that formalized policy adoption may be more useful as a tool to solidify progress and incremental changes, rather than as a “jumping off point” for sweeping policy change.
- Policy diffusion is very widespread in Missouri generally (25 policies in 2014)—more than half of population lives within an MPO that has an adopted policy, and many municipalities have adopted local policies.
- MPO policies can be critical to bike/ped funding allocation: MoDOT funding comes through MPOs, and though a state resolution in support of complete streets exists, MoDOT is not a strong supporter of complete streets so it is up to MPOs to ensure implementation.
• Development of a stand-alone MPO policy (rather than implicit or integrated into LRTP) has been identified as important for providing clarity of vision within the organization and among participating local jurisdictions.

**Case Study 3: Gulf Regional Planning Commission, Mississippi**

Battered by Hurricane Katrina in 2005, the Gulf Coast of Mississippi (including the urbanized areas of Gulfport/Biloxi and Pascagoula) has experienced nearly a decade of recovery and transformation. The devastation caused in coastal communities in this region presented an important opportunity to evaluate transportation priorities and advance policies to promote more sustainable, livable communities. However, complete streets policies and implementation measures have been seemingly slow to take hold in this region, despite strong familiarity with the concept among staff members at the Gulf Regional Planning Commission (GRPC) which serves the region.

Although stand-alone pedestrian and bicycle plans have not been developed, non-motorized modes of transportation are included as a key component of the region’s 2035 Long Range Regional Plan, adopted in 2011, and the region has a staffed pedestrian and bicycle program. The GRPC reports having provided training for staff about complete streets concepts, and is in the process of developing an MPO-level policy to formalize the inclusion of complete streets elements for all federally-funded transportation projects in the region. The draft policy specifically cites economic and public health rationales for promoting walking and bicycling, and states a commitment to encouraging local compliance with the policy through a project selection process that awards points to and prioritizes applications that accommodate all users and guarantees a 10% pedestrian and bicycle project set aside of Surface Transportation Plan fund—in addition to funds available through the competitive programs within the Transportation Alternatives (TAP) program—representing a significant commitment to and capacity for policy implementation.³

A project design review committee is to be established that includes diverse stakeholders, including advocates. GRPC has also worked to promote narrower minimum lane sizes in order to create additional right of way for non-motorized modes. These elements, in particular requiring local agencies to meet complete streets policy objectives in order to access federal funding through the MPO, if

adopted, could provide the region with an effective mechanism to ensure coordinated implementation of complete streets projects in the region. The MPO currently provides guidelines to the development of complete streets in its Surface Transportation Improvement Program Handbook, and plans to provide guidance to local governments on developing their own complete streets policies. Local jurisdictions which have made progress toward a complete streets approach include Biloxi, which has adopted a downtown revitalization strategy that explicitly references complete streets and addresses the development of inclusive, multi-modal transportation networks, as well as Long Beach, which has adopted an ordinance addressing the construction and maintenance of sidewalks in order to encourage walking. Finally, in 2010, Pascagoula adopted what remains the only complete streets policy in the region to date.

Mississippi’s active transportation advocacy organization, Bike Walk Mississippi, has supported efforts to advance complete streets policy, and has been engaged with GRPC in the development of the draft policy. However, stakeholders report that not all local agencies or elected officials are enthusiastic about the proposed policy, nor are state-level officials or the Mississippi Department of Transportation (MDOT). A lack of political will, along with cost considerations and engineering manuals that do not reflect complete streets design concepts are cited as the primary barriers to complete streets implementation to date, and which could hinder the adoption and implementation of GRPC’s proposed policy. Although this region appears to have been relatively slow to advance complete streets, GRPC seems to have learned from implementation challenges identified elsewhere and has embedded implementation tools directly into the proposed policy if successfully adopted.

**Key Findings: Gulfport-Biloxi**

- Complete streets policy lags behind compared to other two study regions; few policies exist at any level of government, and key measures of complete streets implementation are largely lacking.

- Here, the proposed complete streets policy at the MPO level, currently under review, is seen as being a major step forward which will facilitate transformative change by providing tools for local policy diffusion (e.g. guidebooks and outreach), incentive-based enforcement (prioritization of policy-compliant project applications), and funding (a mandatory, region-specific 10% set aside of STP funds for pedestrian and bicycle projects)
Local and regional stakeholders expect minimal state agency support of their efforts, and express that many local jurisdictions have failed to embrace complete streets, making the MPO’s efforts especially critical.

4.3 Louisiana Walk/Bike Summit Summary

The Louisiana Bike-Walk Summit was held on November 10th, 2014, from 9am to 4:30 pm. It attracted over 30 participants from the bike and walk community, including bike advocacy organizations from Lafayette, Shreveport, Monroe, Baton Rouge, and New Orleans, as well as people with a background in urban planning, and public health. Several participants had physical disabilities, including wheelchair use and vision impairment.

The event planning team welcomed everyone to the summit, and all participants introduced themselves and explained why they wanted to participate in the summit. The venue was set up to encourage summit participants to actively engage with each other by being seated in small, diverse groups. The event was kicked-off with a presentation of UNO’s work on the Metropolitan Planning Organization Complete Streets Survey by Dr. Billy Fields, Assistant Professor of Political Science from the Texas State University, who discussed the research team’s approach to data collection, provided an overview of survey results, and discussed their implications for Louisiana communities in advancing active transportation policy implementation. Following Dr. Fields, Jennifer Ruley, PE an Active Transportation Engineer from the Louisiana Public Health Institute, presented information regarding a guide for federal funding opportunities for biking and walking. Following the presentations, Jeremy Grandstaff facilitated a panel discussion of the research, and how that information could be used to identify opportunities and guide the rest of the event’s activities and support active transportation in Louisiana.

Next, each small group participated in an activity geared towards gaining a better understanding of commonalities and differences of participants and their goals in attending this event. After a shared lunch, and further networking, the afternoon sessions focused on defining participants’ approach to creating a state-wide “walk, bike, and roll” agenda, by extracting key themes from group discussion, and developing action plans. Using an interactive, collaborative, “Open Space technology” approach, the group added, shared and moved forward in our collaboration to develop a statewide action plan to advance biking and walking across the state.
This event successfully involved a diverse group of individuals and organizations interested in advancing biking and walking from across the state, while providing an effective opportunity to present UNO research about complete streets policy to a highly engaged audience with the capacity to integrate the research into their professional and advocacy activities and advance a more inclusive, equitable, sustainable statewide approach to transportation planning and policy in the state.

In particular, the group focused on the need to expand the “complete streets” concept and the name of the summit to more explicitly include “walking, biking, and rolling,” including wheelchair users, stroller users, etc. Focusing on accessibility was a key theme of the discussion, to ensure that all user groups were included.

The discussion partly focused on the need to create a statewide coalition actively working toward advancing these goals, with a particular focus on equity and diversity within the messaging and participants of that state wide coalition. In addition, the group identified the need for continued and expanded data collection to support policy implementation and evaluation, outreach and education to build community and political support for active transportation and recreation, and to develop a legislative agenda, including efforts to expand funding opportunities for walking, biking, and rolling.

Finally, this event provided an opportunity for diverse stakeholders to strengthen and broaden partnerships across the state, to share resources (i.e. education and experiences) via a coordinated network, and to create a shared statewide policy agenda to collaboratively move walking and bicycling. Following the event, the planning team met to debrief and discuss long-term outcomes stemming from this summit. The planning team, led by Bike Easy and Grandstaff, agreed to continue to meet periodically to develop a comprehensive action plan for developing a statewide coalition in 2015, advancing a policy and/or legislative agenda, and identifying further research needs based on the information presented and discussed throughout the course of the event.
5. Conclusions

The key intentions of this survey were to describe the scope of complete streets policy adoption and implementation at the MPO level, to describe key barriers and opportunities to complete streets adoption and implementation among regional agencies, and to analyze the impact of local governmental and local advocacy support in relation to key complete streets policy indicators. This section summarizes selected conclusions drawn from this research and identifies policy implications and avenues for future research based on this exploratory study.

Despite the rapid rise in popularity of the complete streets movement over the last decade, actual formal policy diffusion has been limited to less than 3% of all relevant local, regional, and state entities. A larger share of MPO survey respondents (18%) indicated that their agencies had adopted a policy, and the degree of familiarity with the concept among all respondents was high, with 77% of responding MPOs indicating that they are very familiar with complete streets concepts. Regions with policies in place were even more likely to report strong familiarity with the complete streets approach. We found that the region of the country also appears to impact familiarity with complete streets. Importantly, however, formal policy adoption is not necessarily translating into systemic implementation: many of those MPOs that have adopted policies have not implemented the key characteristics of a strong complete streets policy framework. However, opportunities exist to help build more supportive coalitions to enhance complete streets implementation and sustain meaningful policy change. Successful complete streets policies—like any policy innovation—require coalition building and engagement within and across governmental departments, and with other key stakeholders. Familiarity with the policy is not enough to ensure its adoption, and adoption of a policy does not guarantee its full and effective implementation.

This study tracked nine key characteristics of complete streets implementation, finding that bicycle plan adoption is the only characteristic to have been broadly implemented by agencies that have adopted complete streets policies (67% of responding agencies). It also quantified levels of support for complete streets policy among key government actors and advocacy groups, and found that political support (or lack thereof) for complete streets makes a limited impact on complete streets implementation, while advocacy support generates more significant impacts, although these findings require additional refinement and review before any clear conclusions may be drawn.

The key barriers to complete streets policy which affect both policy diffusion and the slow, uneven, or incomplete implementation of adopted policy which has been observed across the country (Fields and
As determined by this survey are costs (whether real or perceived) and a lack of political will. Bureaucratic inertia makes any sweeping reforms to institutional processes difficult to achieve; the fundamental challenge of complete streets implementation is identified as simply resistance to change. The policy itself can be a critical implementation barrier: vague language and a lack of specificity around implementation actions which must be taken (e.g. development of formal implementation plans, establishment of steering committees) allow decision makers to ignore policy documents and avoid needed updates to documents or processes.

This research also suggests that strong local leadership can significantly influence MPO efforts and that desired outcomes for active transportation can be achieved without a formal policy, as has been the case in regions like Memphis. Documents guiding infrastructure design are key: adjusting agency manuals to incorporate complete streets principals is a crucial step to implementation. Providing resources that facilitate and simplify innovation helps to minimize resistance to changes to the status quo. On the other hand, institutionalization of the changes that result in such outcomes can be solidified by formal policy adoption. In other words, while adopting a specific complete streets policy at the MPO level may not be the most immediate need of communities seeking to promote active transportation, it is an important eventual step to compound and reinforce incremental changes.

A key role of the MPO, however, is to facilitate coordinated planning across jurisdictions. MPO-level policy plays a particularly valuable role in metro areas that have widely divergent communities within the region and/or cross or abut state boundaries. MPOs may need to provide guidance on and establish design standards for a wider range of street types and community contexts.

Finally, MPOs are a crucial intermediary for the distribution and allocation of federal transportation funds, particularly in the MAP-21 era, which increases the latitude MPOs have in distributing these funds. MPO-level policy concerning active transportation can significantly influence local spending patterns and infrastructure outcomes by setting specific design criteria, prioritizing or requiring complete streets elements, or setting aside funds exclusively for active transportation projects. Adoption of complete streets policy can, as in the case of the proposed Gulf Coast Regional Commission policy, be used to explicitly identify these mechanisms of implementation. However, policies that provide clear funding mechanisms are the exception rather than the norm, and spending of federal transportation dollars within metropolitan areas on non-motorized projects varies widely, even among organizations with policy in place. Particularly in regions where MPOs are leading innovation (as opposed to communities in states with strong commitment to complete streets or where local policies
have proliferated organically), development of policies that have ‘teeth’ and are tied directly to funding streams can help ensure uniform implementation.
6. Policy Implications, Recommendations, and Future Research

As MPOs (and other governmental entities) slowly shift toward a multi-modal, complete streets approach, a more concerted focus on how to effectively diffuse the full suite of key complete streets policy actions—in addition to the policy itself—appears to be a key area of future research and advocacy attention. Overall, policy adoption at the MPO level has been limited, and integration of associated implementation measures has been weak, despite widespread familiarity with the complete streets movement. This study begins to explore regional differences in how familiarity develops and which factors—particularly local governmental and advocacy support— influence policy adoption and implementation steps taken. Coalition-building—including both government stakeholders and outside advocates— appears to be a key step in support of successful regional policy implementation.

In Louisiana, the findings of this research were found by stakeholders to be consistent with how the complete streets policy process has unfolded in this state, where a statewide policy exists, but local and regional policy adoption has been limited and many key implementation measures remain unaddressed where those policies exist at all levels of government. This study helped guide discussion around the need for statewide advocacy and coalition-building in order to improve policy familiarity, support policy adoption, and advocate for specific actions to reinforce policy implementation, including addressing the need for sustainable funding mechanisms, in order to overcome the inertia which stymies policy innovation.

For complete streets, as well as any other potential policy approach which challenges the status quo, this study highlights the importance of building the implementation measures—as well as the resources needed to achieve them—directly into the policy if possible. In reality, it is clear that these pieces are usually achieved incrementally, whether due to reasons of political expediency, budgetary constraint, or simply limited capacity. In some cases, the formal policy may be a final piece to consolidate a series of progressive changes. However, whether policy is adopted toward the beginning of a process of institutional change or toward the end, it is beneficial to clearly articulate the mechanisms, responsible parties, and funding streams which shall serve its implementation.

How MPOs allocate funding is key: the power of federal pass-through fund distribution to affect transformative change is currently unrealized in most areas. Changes in federal funding mechanisms alone have not resulted in even diffusion of policy supporting active transportation. Pilot programs, whether federally, state, or locally funded, can be effectively used to test innovative ideas prior to large-scale rollout, however, long-term, relatively stable formula allocations (e.g. a certain percentage of
major transportation funding streams, above and beyond the small share typically allocated to competitive Transportation Alternatives-type program) will enable phased, coordinated, and ultimately more efficient infrastructure construction.

This research suggests that local and regional political and advocacy networks are a key determinant of policy outcomes, although additional research is needed to explore these relationships in greater detail, as well as to better understand how to build, strengthen, and diversify such coalitions. In addition, this study did not evaluate the directionality of policy diffusion, i.e., whether local, regional, or state-level policy adoption is the more significant driver of changes to the built environment, institutional change, and/or resource allocation. Finally, as more and more communities embrace a complete streets policy approach, additional research is needed to confidently evaluate how some of the specific changes relating to the policy intervention (e.g., changes to minimum lane width requirements, local planning mandates, and MPO board composition structures) impact implementation outcomes.

Ultimately, demonstrating how the development of a safe, attractive, multimodal transportation network serving the needs of all users supports and protects the resilience and economic competitiveness of a region is key to stimulating and compounding the difficult process of culture change within a government agency. Of course, MPOs are driven by their board members, consisting largely of local officials; therefore, the key to supporting policy change and implementation ultimately lies with those officials’ constituents: advocates and grass-roots coalitions, in alliance with the business and development community, can form the basis of broad coalitions with a powerful capacity to affect such change.

While complete streets policy adoption is an important policy issue, implementation appears to be lacking in MPOs across the U.S. More concerted focus on broadly diffusing the full suite of key complete streets policy actions appears to be a key area of future research and advocacy attention.
7. References


Appendix: Complete Streets and Transportation Funding Survey for MPOs

Thank you for your participation in this national survey on complete streets policy and transportation funding decision-making at the MPO level. We would like to learn about your organization’s experience with complete streets policies and the use of federal Transportation Alternatives and TIGER funding. The survey begins with questions about complete streets policies and the Transportation Alternatives (TA) program. This is followed by a short set of questions on your experience with the TIGER program as part of the American Reinvestment Act (ARRA - "the Stimulus"). All survey responses are anonymous. The entire survey is designed to take approximately 15 minutes. Again, thank you for your time.

A bit about your organization....

1. In what region of the country is your MPO? (select one)
   - Northeast--New England (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont)
   - Northeast--Middle Atlantic (New Jersey, New York, Pennsylvania)
   - Midwest--East North Central (Indiana, Illinois, Michigan, Ohio, Wisconsin)
   - Midwest--West North Central (Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota)
   - South--South Atlantic (Delaware, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia)
   - South--East South Central (Alabama, Kentucky, Mississippi, Tennessee)
   - South--West South Central (Arkansas, Louisiana, Oklahoma, Texas, District of Columbia)
   - West--Mountain (Arizona, Colorado, Idaho, New Mexico, Montana, Nevada, Utah, Wyoming)
   - West--Pacific (Alaska, California, Hawaii, Oregon, Washington)

2. What size of urbanized area does your MPO serve? (select one)
   - Small: Less than 200,000 people
   - Medium: 200,000 to 999,999 people
   - Large: Greater than 1,000,000 people
3. How many full-time staff does your MPO employ?

**Section 1: Complete Streets**

Questions in this section focus on your region’s efforts to adopt and implement a Complete Streets policy (if applicable).

4. How familiar are you with the concept of "complete streets" policy?
   - Very Familiar
   - Somewhat Familiar
   - Not familiar at all

5. What measures has your agency taken in support of complete streets policies or policies that support multi-modal transportation? (select all that apply)
   - Rewritten agency policies and procedures to serve all modes
   - Rewritten design guidelines to serve all modes
   - Formally adopted NACTO design guidelines
   - Developed a Complete Streets checklist and/or implemented performance metrics
   - Provided training to develop staff skills based around complete streets policy implementation
   - Adopted a data collection policy to include users and modes over time
   - Established a citizen advisory committee for complete streets, multi-modal, active transportation, etc
   - Adopted a bicycle plan
   - Adopted a pedestrian plan
   - Other (Please specify)

6. Has your MPO adopted a complete streets policy?
   - Yes
   - No
   - I Don't Know/Other

7. What are the major objectives of your MPO's complete streets policy? [open-ended, shown only if “yes” in Q6]
8. Is improved street connectivity an explicit goal of the policy? (shown only if “yes” in Q6)
   - Yes
   - No
   - Don't Know

9. Is encouraging physical activity or promoting public health an explicit goal of the policy? (shown only if “yes” in Q6)
   - Yes
   - No
   - Don't Know

10. Is land use context a factor in selecting appropriate design treatments? (shown only if “yes” in Q6)
    - Yes
    - No
    - Don't know

11. Does your MPO's complete streets policy apply to: (select all that apply) (shown only if “yes” in Q6)
    - New construction projects
    - Rehabilitation projects
    - Overlay projects

12. What project phases are subject to your MPO's complete streets policy? (select all that apply) (shown only if “yes” in Q6)
    - Planning
    - Project Selection
    - Design
    - Construction
    - Maintenance and Operations
    - Other
13. Are there any exceptions to the policy? (shown only if “yes” in Q6)
   - No
   - Yes (Please Specify)

14. Are other agencies working on road projects in your jurisdiction required to follow the MPO's complete streets policy? (shown only if “yes” in Q6)
   - No
   - Yes (Please describe)
   - Don't Know/Other

15. Has your MPO established a bicycle/pedestrian program?
   - Yes
   - No

16. How many full-time equivalent (FTE) employees does the bicycle/pedestrian program support? (If yes to Q15)
17. Approximately what percentage of local communities within your MPO have adopted complete streets policies?
   - 0%
   - 1-25%
   - 26-50%
   - 51-75%
   - 76-100%
   - Don't Know

18. Has your state adopted a Complete Streets policy?
   - Yes
   - No
   - Don't Know
19. Please indicate the levels of support for complete streets initiatives among the following groups, agencies, administrators, or leaders within your region where 1 = does not support at all or impedes complete streets and 10 = supports a great deal

- MPO director
- MPO staff
- Local elected officials
- Local department of public works
- Local planning departments
- Bicycle advocacy groups
- Pedestrian advocacy groups
- Transit advocacy groups
- AARP/Age-friendly advocates
- Smart growth advocates
- Public health organizations
- Other advocacy groups or coalitions (Please specify)
- State DOT
- State elected officials
- FHWA
- Other (Please Specify)

20. What barriers exist that may prevent the implementation of complete streets initiatives in your jurisdiction? (Select up to three top barriers)

- Cost (perceived or actual)
- Lack of local capacity
- Anticipated project complication or delay
- Outdated engineering and design manuals or policies
- Lack of political will
- Lack of public interest
- Differences in policy interpretation
- Current project funding process or structure
- Organizational culture
21. Does your MPO apply a minimum lane width standard for local, collector, and/or arterial roadways?
   - Yes
   - No
   - Don't Know

22. If known, what is the minimum lane width standard for... (leave blank if unknown)

<table>
<thead>
<tr>
<th></th>
<th>Minimum Lane Width (Ft)</th>
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<tbody>
<tr>
<td></td>
<td>Urban</td>
</tr>
<tr>
<td>Arterial Streets</td>
<td></td>
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<tr>
<td>Collector Streets</td>
<td></td>
</tr>
<tr>
<td>Local Streets</td>
<td></td>
</tr>
</tbody>
</table>

23. Is your MPO's minimum lane width standard state-mandated?
   - Yes
   - No
   - Don't Know

24. Has your MPO's standard minimum lane width decreased over time?
   - Yes (Please explain)
   - No
   - Don't Know

25. Is a bicycle and/or pedestrian plan required of local jurisdictions in order to receive state funds for complete streets/multi-modal projects?
   - Yes
   - No
   - Don't Know

26. Describe the composition of your MPO board
• The composition of the MPO board is weighted by jurisdiction population, with larger jurisdictions receiving a larger number of board seats
• Each jurisdiction within the MPO has equal representation on the board
• Other (Please Specify)

Section 2: Transportation Alternatives

Questions in this section focus on how Transportation Alternatives funding is being allocated in your region and state.

27. Does your MPO receive sub-allocated Transportation Alternatives (TA) funding?
   • Yes
   • No
   • Don't Know

28. Please estimate the total percentage of Transportation Alternatives funding that is going toward non-motorized transportation in your region:
   • 0 - 25%
   • 25 - 50%
   • 50 - 75%
   • 75 - 100%
   • Don't Know

29. What percentage of local funding is required as a match for TA funds?

30. Do projects need to be identified in a local or regional plan in order to pursue TA funds?
   • Yes
   • No
   • Don't Know

31. Are there maximum funding caps for sub-allocated funds?
   • Yes (please describe)
   • No
   • Don't Know