REGIONAL IMPLEMENTATION OF ACCESS MANAGEMENT

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ABSTRACT

The Maricopa Association of Governments (MAG) conducted a survey of Metropolitan Planning Organizations (MPOs) to assess the implementation of access management at the regional level. The intent of the survey was to determine if access management was being implemented at the regional level; what had been implemented; and how implementation was achieved. Survey responses were divided into three categories: all respondents, respondents serving a population of one million or more (population subset), and respondents serving 25 or more member agencies (agency subset). The subsets were based on characteristics shared with the MAG. Survey responses were analyzed to determine if MPOs had adopted access management plans and policies; used access management in corridor plans; and/or allocated funding to access management activities. Analysis on the population and agency subsets were conducted to determine if population or the number of member agencies served affected the implementation of access management at the regional level. Additional analysis was conducted to determine if any statistically significant correlations occurred between access management activities and funding. This paper presents the research findings and subsequent analysis.

INTRODUCTION

According to National Cooperative Highway Research Program (NCHRP) Report 548, "successful access management requires effective cross-functional management, cooperation, and coordination among different units of government and decision-making at the system level" *(1)*. Since the 1962, federal law has required Metropolitan Planning Organizations to apply continuing, cooperative, and comprehensive planning processes for transportation plans and programs *(2)*. In filling the requirement, Metropolitan Planning Organizations (MPOs), Councils of Governments (COGs), and Regional Planning Commissions or Councils (RPCs) can achieve the regional implementation of access management through coordinated efforts due to their organizational structure, function, and purpose.

In 2003, the Association of Metropolitan Planning Organizations (AMPO), in conjunction with the Center for Urban Transportation Research (CUTR), conducted a survey on the regional access management activities of MPOs. The goal of the research was to determine "access management principles and techniques [applied by MPOs] in their transportation planning activities" *(3)*. The results of the survey were used to assist researchers with the development a guidebook on including access management in transportation planning. The guidebook, NCHRP Report 548, outlined planning activities that could be conducted at the local, regional, and state levels to implement access management successfully. According to the report, MPOs can facilitate the implementation of access management at the regional level by:

- Establishing an owner for access management within the MPO;
- Integrating access management principles, benefits, and techniques into the public and stakeholder involvement processes;
- Establishing staffing, training, and technical assistance plan(s) for access management support;
- Including specific policy statements related to access management in the Long-Range (Regional) Transportation Plan;
- Promoting access management strategies as a complement to traditional approaches for increasing transportation capacity;
- Developing mechanisms to support the selection of projects that incorporate access management strategies and principles;
- Programming stand-alone access management projects, such as the acquisition of access rights in high-priority locations or incorporating medians on multilane arterials;
- Preparing an access management plan as a component of an area-wide or corridor plan;
- Establishing a regional access classification system or plan; and,
- Coordinating transportation and land use on corridor and area-wide activities.

According to the Transportation Research Board's *Access Management Manual*, MPOs and other regional planning agencies can support access management through conducting special studies, training and technical assistance, public outreach, planning and programming activities and through improved intergovernmental coordination in access management. From a fiscal perspective, MPOs can support access management by funding activities and studies through the Unified Planning Work Program (UPWP). In the UPWP, the MPO may allocate planning funds towards a dedicated staff person, educational materials training opportunities, corridor and area planning studies, and model guidelines and ordinances *(1)*.

MAG Access Management Survey

The Maricopa Association of Governments (MAG), the MPO for the Phoenix-Mesa Urbanized Area, began an access management initiative in 2008. One of the first steps was a state of the practice assessment to determine current access management policies and practices in the region. The intent of the report was to determine a baseline of regional access management efforts and to aid MAG Staff with the development of an appropriate methodology to assist member agencies in achieving the benefits of effective access management.

To assess regional practices and policies, MAG Staff developed a survey to determine general plan policies, land development regulations, and other materials adopted by MAG Member Agencies at the local level. An electronic survey was sent to 29 agencies, which included 25 cities/towns, the county, and three Indian Communities. The survey response rate was 48%. However, many responses were incomplete or left empty entirely. Although not required, some respondents provided feedback on the survey. Comments received included:

- "Define 'Code' better;"
- "Mixing transportation with planning issues;"
- "Not likely [transportation staff] will know about lot split regulations, lot width-to-depth ratios, minor subdivisions;" and,
- "What is a flag lot?"

The incomplete surveys and comments indicated to MAG Staff that a reassessment of the initiative's framework was needed. Before establishing a new or revised methodology, MAG Staff sought input from peer organizations on how to implement an effective access management program at the regional level.

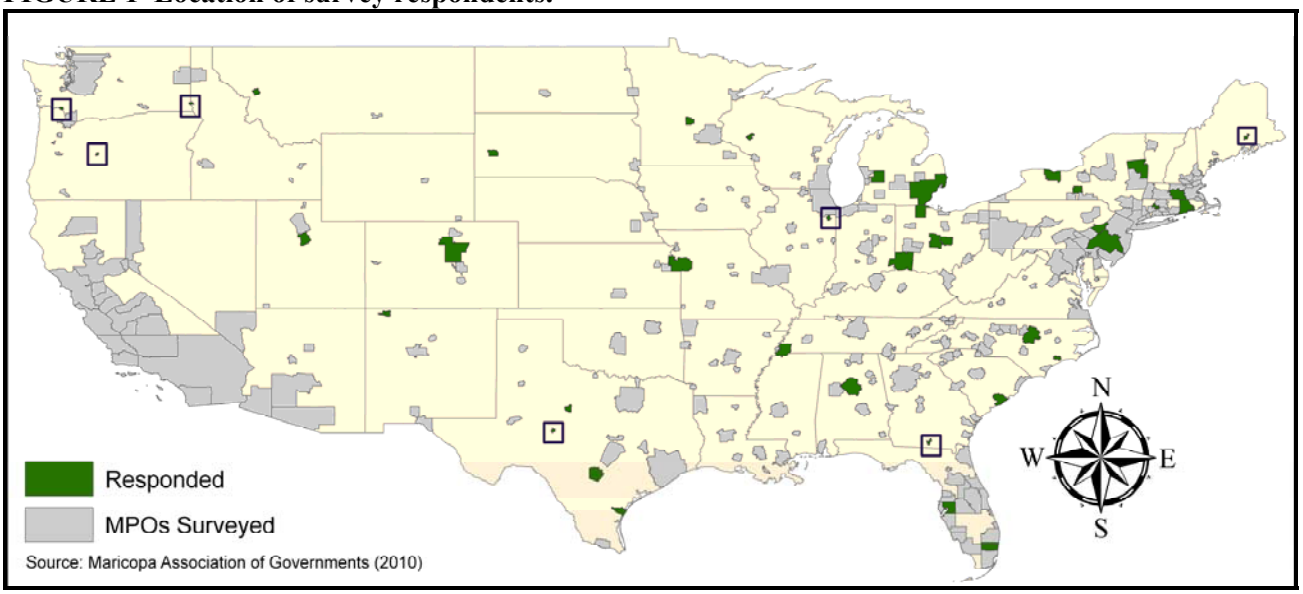
REGIONAL IMPLEMENTATION OF ACCESS MANAGEMENT SURVEY

To gather the input from peer organizations, MAG Staff developed a short, web-based survey. MAG Staff disseminated an email announcement to MPOs, COGs, and RPCs in 50 states and the District of Columbia. The primary goal of the survey was to answer three broad questions:

- Is access management being implemented at the regional level?
- What has been implemented at the regional level (i.e. standards, policies)?
- How was it implemented?

In total, 42 individuals from 41 peer organizations responded to the survey. The geographic locations could be determined for 40 of the 41 respondents. States with the highest response rates included Texas, Ohio, and New York (4, 4, and 3 respondents respectively). Figure 1 displays the geographic distribution of survey respondents. (In the Figure, squares have been placed around responding MPOs serving the smallest geographic areas.) A list of respondents by State is provided in Table 1.

FIGURE 1 Location of survey respondents.



Duplicate responses were received from one organization. To address the duplication, staff reviewed responses from both individuals and omitted conflicting answers from the subsequent analysis. After data cleansing, the survey response rate was 41 or 12.5%.

TABLE 1 Respondent Breakdown By State

STATE	NUMBER OF ORGANIZATIONS SURVEYED	RESPONDENTS		STATE	NUMBER OF ORGANIZATIONS SURVEYED	RESPONDENTS	
		#	%			#	%
Alabama	9	1	0.3%	Montana	2	1	0.3%
Alaska	2	0	0.0%	Nebraska	2	0	0.0%
Arizona	6	0	0.0%	Nevada	4	0	0.0%
Arkansas	7	0	0.0%	New Hampshire	4	0	0.0%
California	17	0	0.0%	New Jersey	2	0	0.0%
Colorado	5	1	0.3%	New Mexico	4	1	0.3%
Connecticut	8	1	0.3%	New York	12	3	0.9%
Delaware	2	0	0.0%	North Carolina	16	2	0.6%
District of Columbia	1	0	0.0%	North Dakota	3	0	0.0%
Florida	21	2	0.6%	Ohio	13	4	1.2%
Georgia	10	1	0.3%	Oklahoma	2	0	0.0%
Hawaii	1	0	0.0%	Oregon	6	1	0.3%
Idaho	3	0	0.0%	Pennsylvania	13	1	0.3%
Illinois	10	0	0.0%	Rhode Island	1	1	0.3%
Indiana	11	2	0.6%	South Carolina	7	1	0.3%
Iowa	8	0	0.0%	South Dakota	2	1	0.3%
Kansas	3	0	0.0%	Tennessee	11	1	0.3%
Kentucky	2	0	0.0%	Texas	17	4	1.2%
Louisiana	7	0	0.0%	Utah	4	2	0.6%
Maine	4	1	0.3%	Vermont	1	0	0.0%
Maryland	3	0	0.0%	Virginia	6	0	0.0%
Massachusetts	9	1	0.3%	Washington	11	2	0.6%
Michigan	9	2	0.6%	West Virginia	3	0	0.0%
Minnesota	4	1	0.3%	Wisconsin	9	1	0.3%
Mississippi	2	0	0.0%	Wyoming	2	0	0.0%
Missouri	7	1	0.3%				

NOTE: Metropolitan Statistical Areas (MSA) may cross State lines. To avoid duplications, responses were attributed to the State that housed the larger geographic portion on the MSA.

Three open-ended questions were included in the survey. For each question, respondents were asked to elaborate if the respondent answered “yes” or “other” to the previous question. Answers provided by the respondents are listed below and grouped by related answers. (In some instances, responses were edited for grammar and spelling errors. However, editing was minimized to ensure the respondent’s intent was not altered.)

Before analyzing the data, responses were divided into three categories: all respondents, respondents serving a population of one million or more (population subset), and respondents serving 25 or more member agencies (agency subset). The subsets were based on characteristics shared with the Maricopa Association of Governments, which serves a population of approximately four million people and over 25 member agencies. Analysis on the population and agency subsets were conducted to determine if population or the number of member agencies served affected the implementation of access management at the regional level.

Thirteen respondents were included in the population and agency subsets. However, respondents for the subsets were not identical. In three cases, respondents reported serving a population of over one million and less than 10 member agencies. Similarly, one respondent reported serving 50 or more member agencies and a population of less than one million. Almost half of respondents (43.9%) served less than 10 member agencies. In contrast, 14.6% of respondents served 25 to 49 member agencies and 17.1% served 50 member agencies or more.

The population size served by organizations varied. Most respondents worked for organizations serving a population of 100,000 to 249,999 (34.1%) or a population of one million or more (31.7%). Only one respondent reported serving a population between 250,000 and 499,999. Almost half of respondents (43.9%) reported that their organization served between one and nine member agencies. Several reported serving between 10 and 24 member agencies (24.4%) or between 25 and 49 agencies (14.6%). Over 68% of respondents reported serving less than 25 member agencies. A breakdown of respondents by population and number of agencies served is provided in Table 2.

TABLE 2 Population And Number Of Agencies Served By Respondents

POPULATION SERVED	RESPONSES	%	AGENCIES SERVED	RESPONSES	%
Less than 100,000	6	14.6%	1-9	18	43.9%
100,000 -249,999	14	34.1%	10-24	10	24.4%
250,000 - 499,999	1	2.4%	25-49	6	14.6%
500,000 -999,999	7	17.1%	50-100	3	7.3%
1 million or more	13	31.7%	101 or more	4	9.8%
TOTAL	41	100.0%	TOTAL	41	100.0%

Adopted Access Management Plans And Policies

The implementation of access management can be achieved through guidelines, plans, policies, standards, regulations, and/or practices. The methodologies may appear similar between the various approaches; however, the weight of law and consistent application vary based on the methodology implemented. For instance, regulations adopted at the state or local level have the full weight of law. In contrast, practices may be applied inconsistently based on an individual's familiarity with access management principles or exposure to political will and external forces.

Access management may be addressed through guidelines, which do not require specific legislative authority, but which lack the mandatory status and enforceability of regulations *(4)*. At the regional level, organizations may adopt policies, regulations, and/or guidelines. However, the implementation and enforcement rests with the local jurisdictions because MPOs lack legal enforcement powers. To determine what had been implemented at the regional level, survey respondents were asked if their organization had adopted:

- Access management guidelines/regulations/standards;
- A region-wide functional classification system;
- Long-range transportation plan goals/objectives that addressed access management;
- Programming guidelines that included access management guidelines/standards; and/or,
- A regional access management system/plan.

Most respondents indicated their organization had not adopted guidelines/regulations/standards (78%), programming guidelines that included access management (75.6%), or a regional access management plan (97.6%). However, the majority had adopted a regional functional classification system (75.6%) or goals/objectives in the MPOs' Long-Range (Regional) Transportation Plan (73.2%). The responses corroborated the AMPO survey, which indicated that 64% of respondents had addressed access management in their MPO's Long-Range Transportation Plan *(3)*.

Over one-third (44.4%) of organizations reporting the adoption of access management guidelines/regulations/standards served between 10 and 24 member agencies. In terms of population, over one-third (44.4%) of the organizations serving a population between 100,000 and 249,999 had adopted guidelines/regulations/standards while only two organizations serving a population of one million or more reported adopting guidelines/regulations/standards. A summation of responses by category is provided in Table 3.

TABLE 3 Adopted Access Management Guidelines, Plans, Policies, and Standards

HAS YOUR AGENCY ADOPTED …	ALL RESPONDENTS				POPULATION SUBSET				AGENCY SUBSET			
	YES#	NO#	YES%	NO%	YES#	NO#	YES%	NO%	YES#	NO#	YES%	NO%
Access Management Guidelines, Regulations, or Standards	9	32	22.0%	78.0%	2	11	15.4%	84.6%	3	10	23.1%	76.9%
A Region-wide Functional Classification System	31	10	75.6%	24.4%	10	3	76.9%	23.1%	12	1	92.3%	7.7%
Long-Range Transportation Plan Goals/Objectives	30	11	73.2%	26.8%	9	4	69.2%	30.8%	11	1	84.6%	7.7%
Programming Guidelines that include Access Management	10	31	24.4%	75.6%	4	9	30.8%	69.2%	5	8	38.5%	61.5%
Regional Access Management System/Plan	1	40	2.4%	97.6%	0	13	0.0%	100.0%	0	13	0.0%	100.0%
Other	16	25	39.0%	61.0%	4	9	30.8%	69.2%	5	8	38.5%	61.5%

Two-thirds (66.6%) of the organizations serving between one and nine member agencies reported the adoption of a regional functional classification system. Similarly, 70% of organizations serving between 10 and 24 member agencies and 100% serving between 25 and 100 member agencies reported adopting a regional functional classification system. With regards to population, 76.9% of MPOs serving one million or more and 71.4% of MPOs serving a population between 100,000 and 249,999 reported adopting a regional functional classification system.

One survey respondent reported adopting a regional access management system/plan. However, none from the population or agency subsets had adopted a regional access management system/plan. Of the population subset, 76.9% reported adopting a region-wide functional classification system and 69.2% reported adopting Long-Range (Regional) Transportation Plan goals/objectives pertaining to access management. Similarly, the agency subset reported adopting a region-wide functional classification system (92.3%) or Long-Range (Regional) Transportation Plan goals/objectives (84.6%).

Respondents were asked to specify what "other" access management-related items, if any, had been adopted by their organization. Five respondents reported adopting corridor or area access management plans. Three organizations reported that their organization had adopted or were in the process of adopting guidelines, ordinances, or standards. Specific answers provided by respondents are categorized and listed below.

CORRIDOR/AREA ACCESS MANAGEMENT PLANS (5):

- "Area access management plans"
- "Corridor management plans that include Access Mgt."
- "Plan/study is underway"
- "Access management plan for a region of our area."
- "We conduct corridor/area access studies and make physical and policy recommendations appropriate to the specific circumstances"

ENCOURAGE/FOLLOW OTHER AGENCY PLANS (4):

- "The Colorado DOT has a state access management code that applies to all state highways. We encourage locals governments to follow similar practices."
- "SCDOT has an access management policy too"
- "The MPO has not separately adopted access management guidelines but has supported development of standards by agencies with implementing authority"
- "Each jurisdiction has adopted their own access management standards"

ADOPTED OTHER ORDINANCES/STANDARDS/GUIDELINES (3):

- "Currently working towards adoption of local AM ordinances"
- "Getting ready to adopt access management guidelines"
- "Adopted in Municipal Engineering Manual"

MISCELLANEOUS (3):

- "Project Prioritization Program We have a regionally adopted complete streets policy that includes access management principles"
- "County wide development regulations"
- "Long-Range Transportation Plan"

Use of Access Management In Corridor Plans

Next, respondents were asked to indicate how frequently access management was incorporated into corridor plans conducted by the MPO. Available responses were "in every plan," "most of the time," "sometimes," "rarely," and "never." The majority of respondents (55%) reported incorporating access management at least "most of the time" whereas 35% reported including access management in corridor plans "sometimes." Only 10% reported "never" or "rarely" incorporating access management into corridor plans, and one respondent abstained from answering. The use of access management in corridor plans reported by respondents is listed in Table 4.

TABLE 4 Use Of Access Management In Corridor Plans

FREQUENCY	RESPONSES	%
In Every Plan	7	17.5%
Most of the Time	15	37.5%
Sometimes	14	35.0%
Rarely	1	2.5%
Never	3	7.5%
TOTAL	40	100.0%

From the population subset, 69.3% reported including access management in corridor plans at least most of the time. However, 15.4% from the population subset reported "never" or "rarely" including access management in corridor plans. In contrast, none of the respondents from the agency subset reported "never" or "rarely" using access management in corridor plans. Agency subset respondents indicated use "in every plan" (15.4%), "most of the time" (46.2%), or "sometimes" (30.8%).

Programming And Prioritization

MPOs lack the ability to enforce or regulate access management. However, MPOs can encourage local access management efforts through the "power of the purse." MPOs may develop programming and prioritization guidelines that directly fund projects that manage access or that apply access management techniques in the project design and implementation process *(1)*. MPOs also may allocate funds to project categories that support access management techniques. These project categories may include

projects that emphasize safety, congestion mitigation, or transportation enhancements. In addition, MPOs may fund the acquisition of access rights at the state and local level.

Respondents were asked if access management was applied to the prioritization and project selection process in the organization. Two respondents did not answer. Of the remaining 39 respondents, 65.9% indicated the organization did not apply access management to project selection and prioritization while 29.3% reported applying access management in the process. Over half (53.8%) from the population subset reported applying access management in the project selection and prioritization process. Similarly, almost half (46.2%) of the agency subset reported applying access management while 38.5% did not. Two organizations from the agency subset did not answer.

Respondents that applied access management in the project selection and programming process reported using two primary methods. The first method was allocating points during the selection/prioritization process. The second method was to include a project in the Congestion Mitigation Process (CMP). The detailed answers provided by respondents are categorized and listed below.

GIVE POINTS DURING PROGRAMMING PROCESS (6):

- "We have been actively promoting access management throughout the region for over 30 years, and the concepts are well understood by our member agencies. TIP projects receive points for safety, capacity, and Level of Service improvements, all of which are integrally related to improved access management."
- "The application of access management treatments in the proper context increases the score for highway reconstruction and traffic flow improvement proposals."
- "A small yes. DRCOG's TIP process works on a point system. Roadway projects can score 2 points (out of 100 total) for implementing raised, depressed or barrier medians and for consolidating accesses (driveways, side streets)."
- "Up to 3 points for access mgmt improvements"
- "Making better use of existing roadways is prioritized over new construction"
- "A number of our highest-priority TIP projects are to retrofit existing facilities with medians/driveway restrictions to restrict turning movements. Safety is the primary goal and a high priority of our TIP prioritization process."

USING A CONGESTION MITIGATION PROGRAM/PROCESS (3):

- "As a potential congestion mitigation measure in our CMP"
- "For capacity adding projects it is a congestion management strategy"
- "It is one of several considerations used to assess how well a project will address a corridor's congested conditions. Projects receive points for including congestion management strategies and additional points based on the number of driveways that are eliminated."

INCLUSION IN THE REGIONAL/LONG-RANGE TRANSPORTATION PLAN (1):

- "Through the Plan Transportation 2030"

MISCELLANEOUS (3):

- "Access management was a consideration in our recent support of transit expansion within our study area and inter-city transit service between two neighboring metropolitan areas."
- "Some projects have access management improvements specified in the TIP as part of technical review and final approval."
- "It is a minor consideration mentioned under a factor related to TSM-type improvements"

Funding Access Management Activities

To facilitate successful access management, MPOs may allocate funding to specific activities or types of projects. Activities that support access management include education and training programs, technical assistance on policy development and site plan reviews, and model ordinances and guidelines *(4)*. Survey respondents were asked to indicate if their organization funded:

- Access management education and outreach materials;
- Training on access management for elected officials and/or local agency staff;

- The acquisition of access rights;
- Retrofits and access management upgrades; and/or,
- Other access management activities.

More than one-third of respondents (41.5%) reported their organization did not fund access management activities. According to the responses received, funding for access management activities was allocated towards training elected officials and/or agency staff or towards funding retrofits and upgrades (26.8% each). Approximately, 22% of respondents reported funding access management education and outreach materials.

All (100%) of the respondents from the agency subset indicated funding at least one access management related activity. The agency subset also reported funding education and outreach materials and training for elected officials and/or agency staff (53.8% each). The population subset reported similar funding attributes as the agency subset. In the population subset, respondents reported funding education and outreach materials and training for elected officials and/or agency staff (46.2%). The population and agency subsets both reported a 30.8% funding frequency for retrofits and access management upgrades.

Table 5 details the funding reported by activities type and respondent category. Six respondents reported funding "other" access management activities that were not listed in the survey. Two respondents from the population subset and four from the agency subset reported funding "other" access management activities.

TABLE 5 Funding Of Access Management Activities By Respondent Type

ORGANIZATION ALLOCATES FUNDING TOWARDS …	ALL RESPONDENTS				POPULATION SUBSET				AGENCY SUBSET			
	YES#	NO#	YES%	NO%	YES#	NO#	YES%	NO%	YES#	NO#	YES%	NO%
Education and Outreach	9	32	22.0%	78.0%	6	7	46.2%	53.8%	7	6	53.8%	46.2%
Training Elected Officials and/or Local Agency Staff	11	30	26.8%	73.2%	6	7	46.2%	53.8%	7	6	53.8%	46.2%
Acquisition of Access Rights	4	37	9.8%	90.2%	2	11	15.4%	84.6%	3	10	23.1%	76.9%
Retrofits and Access Management Upgrades	11	30	26.8%	73.2%	4	9	30.8%	69.2%	4	9	30.8%	69.2%
Other	6	35	14.6%	85.4%	2	11	15.4%	84.6%	4	9	30.8%	69.2%
None	17	24	41.5%	58.5%	3	10	23.1%	76.9%	0	13	0.0%	100.0%

Metropolitan Planning Organizations are not afforded the legal authority to acquire access rights to property. The acquisition of access rights may be conducted at the state and local level dependent on the legal authority in a given circumstance. However, MPOs can facilitate the acquisition of access rights by allocating funding to state and local agencies.

Overall, fewer than 10% of respondents reported allocating funds for the acquisition of access rights. From the population subset, only 15.4% reported funding the acquisition of access rights. Meanwhile, 23.1% from the agency subset reported funding the acquisition of access rights.

Land Use Coordination

"Transportation and land use problems are interdependent and require coordinated solutions" *(5)*. Decisions regarding land use are made at the local level, although in some instances, the State may enact laws or policies that affect local land use planning. In Arizona, land use planning is addressed in Arizona Revised Statute §9-461 *(6)*. Under the statute, land use planning is delegated to cities and towns while land use planning for unincorporated areas is delegated to the respective County.

Metropolitan Planning Organizations, as regional entities, may facilitate the coordination of land use planning between local governments. Respondents were asked if their organization assisted in the

coordination of land use and transportation. Over 80% of respondents reported coordinating land use and transportation activities. One respondent abstained from the question, and 17.1% stated their organization did not coordinate land use and transportation.

In the agency subset, 76.9% reported coordinating land use and transportation while 15.4% did not. One respondent from the agency subset abstained from answering. Likewise, 84.6% from the population subset coordinated land use and transportation while 15.4% did not. There were no abstentions in the population subset.

Respondents were asked to indicate how their organization coordinated land use and transportation. Nine respondents reported the coordination of land use and transportation through the development of the Long-Range (Regional) Transportation Plan. Six respondents reported including land use in the development of corridor and transportation studies or assisting member agencies with the development of local land use plans. Four respondents coordinated land use and transportation through land development, zoning, and/or other plan reviews conducted by MPO Staff.

In addition, four respondents reported direct coordination with the local land use planning agency. In three of the four of those instances, the respondents reported the MPO being housed in or part of the local planning department or agency. Two respondents explained that the coordination of transportation and land use was required under State law. Detailed information provided by respondents regarding the coordination of transportation and land use are categorized and provided below.

REGIONAL/LONG-RANGE TRANSPORTATION PLAN (9):

- "We are in the process of updating our Year 2035 LRTP utilizing consultant services and land use is a major consideration regarding that update."
- "Our LRTP includes policy considerations for land use as part of larger regional sustainability goals. We are also in the process of developing more integrated land use and transportation plans at the corridor and activity-center level within our region."
- "All UPWP-funded corridor and area (e.g., neighborhood, village, etc.) studies must include a land use component to receive funding. In addition, the LRTP includes generalized land use recommendations that should be considered by municipalities in the region."
- "As an RPC, our long range plan (Metro Vision) jointly addresses land use and transportation."
- "It is integrated into our transportation and regional plans."
- "Long Range Transportation Plan"
- "Through long range plan and as contributor to comprehensive plans"
- "Through our long range plan (scenario planning)"
- "Through LRTP, TIP and project development coordination"

STUDIES/PLANS (6):

- "Through Livability Planning Studies"
- "All transportation studies include land use analyses"
- "Our corridor planning efforts include recommendations for land use and transportation."
- "Fund Future Land Use Plans for the various jurisdictions"
- "Drafting municipal comp. plans, region wide land use plan, LU-transportation. corridor plans, LRTP ranking criteria includes LU, emphasizing nodal development to support transit network"
- "We develop many of the comprehensive plans for local governments. Most of these have a detailed transportation component that includes access management principles. We also develop the regulatory tools i.e. zoning and subdivision regulations to support the comprehensive plans."

DEVELOPMENT/ZONING/PLANNING REVIEWS (4):

- "Cooperates in development policy recommendations and development review activities with the primary implementation/enforcement agency, the City of Abilene"
- "Planning and Zoning review updates"
- "Land development reviews, zoning and subdivision ordinance reviews and development, comprehensive planning, Long Range Transportation Plan"

- "Provide comments on developments that potentially impact the regional transportation network; indicate when MPO policies/standards apply to new developments"

HOUSED IN/COORDINATE WITH LAND USE PLANNING AGENCY (4):

- "We are also the County Planning Department."
- "Part of the joint City/County Office of Planning and Grants"
- "The MPO staff is housed within the County's Land Use Planning Agency"
- "Through the local city planning process"

EDUCATION (2):

- "Primarily through education of elected officials, planners"
- "Technical assistance, mapping, education"

STATE LAW REQUIREMENT (2):

- "Comprehensive Land Use Act (RI General Law)"
- "The Oregon Transportation Planning Rule (TPR) requires coordination of land use and transportation. We assist our member agencies with their efforts to meet the requirements of the TPR (through corridor plans, comp plan updates, land use changes, area plans, etc)."

MISCELLANEOUS (5):

- "We try ..."
- "Through road classification, regulations"
- "Through TAC"
- "Planning assistance"
- "We developed and adopted a Regional Strategic Policy Plan, which was specifically designed to integrate transportation and land use policies and practices, along with other policies aimed at coordinating regional growth and development."

Relationship Between Activities And Funding

After reviewing the initial results, MAG Staff conducted analysis to determine correlations between access management activities and funding reported by respondents. Bivarate analysis was conducted to determine the Pearson correlation and the two-tailed statistical significance at the 95 percent confidence level. As with the previous analysis, correlations were tested for all respondents as well as the population and agency subsets. The analysis indicated several statistically significant correlations. However, the correlations varied at times between the three groups.

According to the analysis, correlations occurred between funding education/outreach materials and training of elected officials and/or local agency staff. The correlation between education and training was found for all respondents ($p=0.000$ and Pearson=0.743), the population subset ($p=0.009$ and Pearson=0.690), and the agency subset ($p=0.009$ and Pearson=0.690).

Another correlation for each group was determined between funding the acquisition of access rights and funding retrofits and access management upgrades. The correlation between access right acquisition and retrofits/upgrades was $p=0.000$ (Pearson=0.541) for all respondents, $p=0.001$ (Pearson=0.822) for the agency subset, and $p=0.027$ (Pearson=0.632) for the population subset. The funding of education and training and the funding of access rights and retrofits were the only correlations that occurred in all respondents and both subsets.

A strong statistically significant correlation occurred for all respondents between funding education/outreach and the application of access management in the prioritization/project selection process ($p=0.000$ and Pearson=0.743). However, the correlation was not statistically significant for the population or agency subsets. A slightly weaker correlation existed for all respondents between funding training for elected officials and/or local agency staff and the prioritization/project selection process ($p=0.045$ and Pearson=0.323). Again, the correlation was not statistically significant for the population or agency subsets.

Another statistically significant correlation existed for all respondents between the adoption of access management goals/objectives in the MPO's Long-Range Transportation Plan and the adoption of access

management guidelines/regulations/standards (p=0.028 and Pearson=0.344). The correlation did not exist in the population and agency subsets.

For the population subset, the strongest correlation occurred between the adoption of a regional functional classification system and the adoption of access management goals/objectives in the MPO's Long-Range Transportation Plan (p=0.001 and Pearson=0.822). A similar correlation was determined in the agency subset (p=0.011 and Pearson=0.677). However, the correlation was not statistically significant for all respondents.

A correlation between the adoption of programming guidelines and the funding the acquisition of access rights also was determined in the population subset (p=0.019 and Pearson=0.640). The correlation was not found to be statistically significant for the agency subset or all respondents.

During the analysis, inverse correlations were determined in some instances. The funding for training elected officials and/or local agency staff and retrofits/upgrades was found to be statistically significant in the population subset (p=0.04 and Pearson -.598). A similar inverse correlation occurred in the agency subset (p=0.006 and Pearson=-0.720). A statistically significant correlation (or inverse correlation) was not determined for all respondents. For the agency subset, a statistically significant inverse correlation also was determined between funding training and the acquisition of access rights (p=0.033 and Pearson=-.592). However, the relationship was not statistically significant for all respondents or the population subset.

CONCLUSIONS

Metropolitan Planning Organizations (MPOs) are in a unique position to foster access management at the regional level. The implementation at the regional level requires coordination between MPO Staff and Member Agencies. The purpose of the regional implementation of access management survey was to answer three questions: (1) Is access management being implemented at the regional level, (2) What has been implemented at the regional level (i.e. standards, policies), and (3) How was it implemented?

Analysis indicated that access management was being implemented at the regional level to varying degrees. Formal implementation by MPOs occurred through the adoption of regional functional classification systems or Long-Range (Regional) Transportation Plan goals and objectives while informal implementation frequently occurred through incorporating access management into corridor studies and plans.

Decades of research has demonstrated the benefits of access management. Despite this, most MPOs had not adopted a regional access management plan, access management guidelines/regulations/standards, or programming guidelines that included access management. The formal adoption of regional access management plans was rare. MPOs that did adopt Long-Range (Regional) Transportation Plan goals and objectives pertaining to access management were more likely to adopt access management guidelines/regulations/standards than other MPOs.

Most MPOs did not apply access management to the prioritization and project selection process. MPOs that did apply access management in the programming process were more likely to fund educational and outreach materials or the training of elected officials and/or local agency staff.

More than one-third of MPOs do not fund any access management related activities. If MPOs funded access management activities, funding was allocated towards training elected officials and/or local agency staff, retrofits and access management upgrades, or education and outreach materials, in most cases. Funding the acquisition of access rights was the least likely activity to occur. MPOs that did fund the acquisition of access rights were very likely to fund retrofit and access management upgrade activities.

Successful access management requires the coordination of land use and transportation activities. The majority of MPOs coordinated land use and transportation on some level. Most incorporated land use in the development and adoption of the Long-Range (Regional) Transportation Plan. Many incorporated land use the process through the development of corridor studies and plans or local land use plans. Others coordinated transportation and land use through land development and zoning plan reviews.

Conclusion From Peer MPOs

Additional analysis was conducted to determine how MPOs that shared characteristics with the Maricopa Association of Governments (MAG) had implemented access management at the regional level. MPOs with shared characteristics were grouped by MPOs serving a population of 1,000,000 or more or MPOs serving 25 member agencies or more.

The majority of MPOs that served a population of 1,000,000 or more and an overwhelming majority MPOs that served 25 member agencies or more had adopted regional functional classification systems and access management Long-Range (Regional) Transportation Plan goals/objectives. However, MPOs serving 25 or more member agencies were more likely to implement access management programming guidelines or access management guidelines/regulations/standards than MPOs serving a population of 1,000,000 or more. MPOs that shared characteristics with MAG that adopted Long-Range (Regional) Transportation Plan goals/objectives were significantly more likely to adopt regional functional classification systems.

Although most MPOs did not apply access management to the prioritization and project selection, more than half of MPOs serving 1,000,000 or more and almost half serving 25 member agencies or more did apply access management in the programming. MPOs serving a population of 1,000,000 or more were more likely to fund the acquisition of access rights although a similar relationship could not be established for MPOs serving 25 or more member agencies. The MPOs using access management in the programming process typically allocated points during the selection process or include access management related project in the MPOs Congestion Mitigation Process.

An overwhelming number of MPOs serving 25 member agencies or more reported allocated funding towards access management activities. Most of those MPOs allocated funding toward education/outreach and training for elected officials and/or local agency staff. Several MPOs that shared characteristics with MAG also funded the acquisition of access rights and retrofit and access management upgrade projects. In addition, The majority of MPOs sharing characteristics with MAG coordinated transportation and land use. However, MPOs serving a population of 1,000,000 or more were more likely to coordinate transportation and land use than MPOs serving 25 member agencies or more.

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