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**Integrating Land Use and Transportation Planning: Metropolitan
Planning Organizations' Efforts and Challenges**

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Report

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Abstract

Integrating Land Use and Transportation Planning: Metropolitan Planning Organizations' Efforts and Challenges

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The University of Texas at Austin, 2010

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The role played by Metropolitan Planning Organizations in regional transportation planning across the United States is steadily growing, and with Congressional reauthorization looming, experts expect that role to further expand. Increasingly, MPOs are looking to land use and transportation planning integration as a logical step to address multiple pressing issues, including congestion and air quality.

This report investigates selected regional entities across the nation that are engaging in various efforts to influence land use in addition to transportation facilities. Such efforts are usually referred to as “sustainable development,” “smart growth,” or “livable communities.” Historical investigation, combined with a look at agency structure, politics, and regional growth inform the discussion. Stakeholder interviews

from each agency provide a unique perspective of challenges from professional staff themselves.

Several trends are identified in best practices. Comprehensive findings are developed in the context of institutions, politics, finances, and technology. Relationships with the state department of transportation, strong leadership and goal establishment, dedicated sources of funding, and innovation in activity center visualization, are found to be key trends in MPOs that are producing successful outcomes in their land use and transportation integration programs.

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Chapter One: Introduction

“The very difficulty itself, drawn from the extent of the country, is the strongest argument in favor of an energetic government; for any other can certainly never preserve the Union of so large an empire.” – Alexander Hamilton, Federalist No. 23 (1787)

While the practice of federalism in the United States has evolved in more than two centuries, the role of the Federal Government in urban affairs has historically been limited. States, and their subordinate entities, municipalities, have mostly retained sovereignty over the traditionally local issues of land use and transportation. However, recent decades have seen Washington gradually exert more control over the urban build out of regions via Metropolitan Planning Organizations (MPO).

Today, the critical nexus between land use and transportation planning is widely acknowledged. (Moore, 2007) Yet, institutional structures often prevent meaningful or even official coordination of these two critically linked planning activities. Towns and cities, with their police power bestowed by a state, wield land use authority, often in the form of zoning codes. On the other hand, state governments, via departments of transportation, have largely maintained control of the budgeting and planning of major mobility facilities. (Wolf, 2003)

TRENDS IN INTEGRATED PLANNING

A growing number of concerns have directed transportation planning organizations to seek land use solutions. The heyday of highway funding and construction has passed, and as the National Highway Trust Fund is in constant danger of

being depleted, federal and state funding for highway capacity expansion has waned. At the same time, the biggest metropolitan areas in the country have been required to engage in integrated air quality planning due to federal legislation. Non-attainment areas are forced to look at the integration between transportation and air quality.

Concurrently, advocates of sustainable development preach many benefits, including more affordable housing and transit for the economically stressed, energy savings resulting from more compact development, and increases in social and community cohesion fostered by more walkable neighborhoods. Recent concerns about energy security and scarcity have bolstered arguments for less sprawl and more energy-efficient transit solutions. And while baby boomer generation flocked to the suburbs, there is evidence that younger generations whom grew up in suburbia are now more attracted to urban life.

What makes a MPO successful in integrating land use and transportation? A study prepared for Congress by the University of Denver asked the question as an independent assessment of the planning process and organization of the Denver Metropolitan Planning Organization. For the comparison to Denver, the authors selected the MPOs in Dallas-Fort Worth, Phoenix, and Seattle. They also considered the advantages and disadvantages offered by metropolitan regions with multiple MPOs: Charlotte, Miami/Fort Lauderdale, and Tampa/St. Petersburg. The study involved interviews with several hundred individuals who participate in or observe the MPO process at all levels, including the public, transportation providers, staff, engineers, planners, and federal, state and local government officials. They also reviewed relevant documents published by those MPOs. The study identified the following “key characteristics of successful MPOs” (Univ. of Denver, 2000):

- Effective leadership;

- Staff competence and credibility;
- A true regional way of thinking;
- Public involvement;
- Cooperative and productive relationship with the state DOT;
- Streamlined, efficient processes; and
- Consideration of the interaction between transportation and land use.

This study looks to investigate challenges faced by MPOs when working towards the integration of land use and transportation planning. Such regional efforts have been underway across the nation for several decades, and other more traditionally suburban areas are now looking to promote the older, compact development paradigm as new urban living. From Livable Communities in Atlanta, to Transit Oriented Development in Dallas, Smart Growth in San Diego, and Centers in Austin, the concept is unchanged. Regions play much lip service to catchy rhetoric, but the national trend is unquestionably towards the promotion of planning integration. In each case investigated, four aspects of a planning organization's operation are analyzed; institutional, political, financial, and technical. These areas are wide-ranging in consequence and comprehensive in their coverage of the reality in which MPOs operate.

Chapter Two: MPO History and Background

The United States government recognizes more than 300 metropolitan areas. These areas are identified by the U.S. Census as “a core area containing a nucleus, together with adjacent communities having a high degree of economic and social integration with that core.” (Census, 2002) Transportation infrastructure and land-use authority forms the urban fabric. The vitality of metropolitan areas depends on the large-scale circulation of goods and people over transportation networks, although fragmented political authority in most areas makes it difficult to address regional transportation needs.

Local governments have traditionally exercised land use authority, while state governments have been charged with providing interregional transportation facilities. Throughout the past three decades, the federal government has worked to deal with this institutional disconnect by requiring states to establish Metropolitan Planning Organizations (MPOs), composed of local elected officials and state agency representatives to review and approve transportation investments in the metropolitan area. (Federal, 1962) However, MPOs have been historically ineffective in negotiating land use and transportation, which has largely contributed to the urban sprawl phenomenon. (Goldman, 2000)

Following World War II, planning for a new post-war America became a national pastime. Pent-up demand for housing and consumer goods led to an unprecedented peacetime economic boom, and the proliferation of the automobile allowed for 60 percent of all new housing in the late 1940s to be built in suburban areas. This explosive growth

of suburbs increased the complexity of regional-scale problems. As a result, the federal government expanded requirements for regional planning.

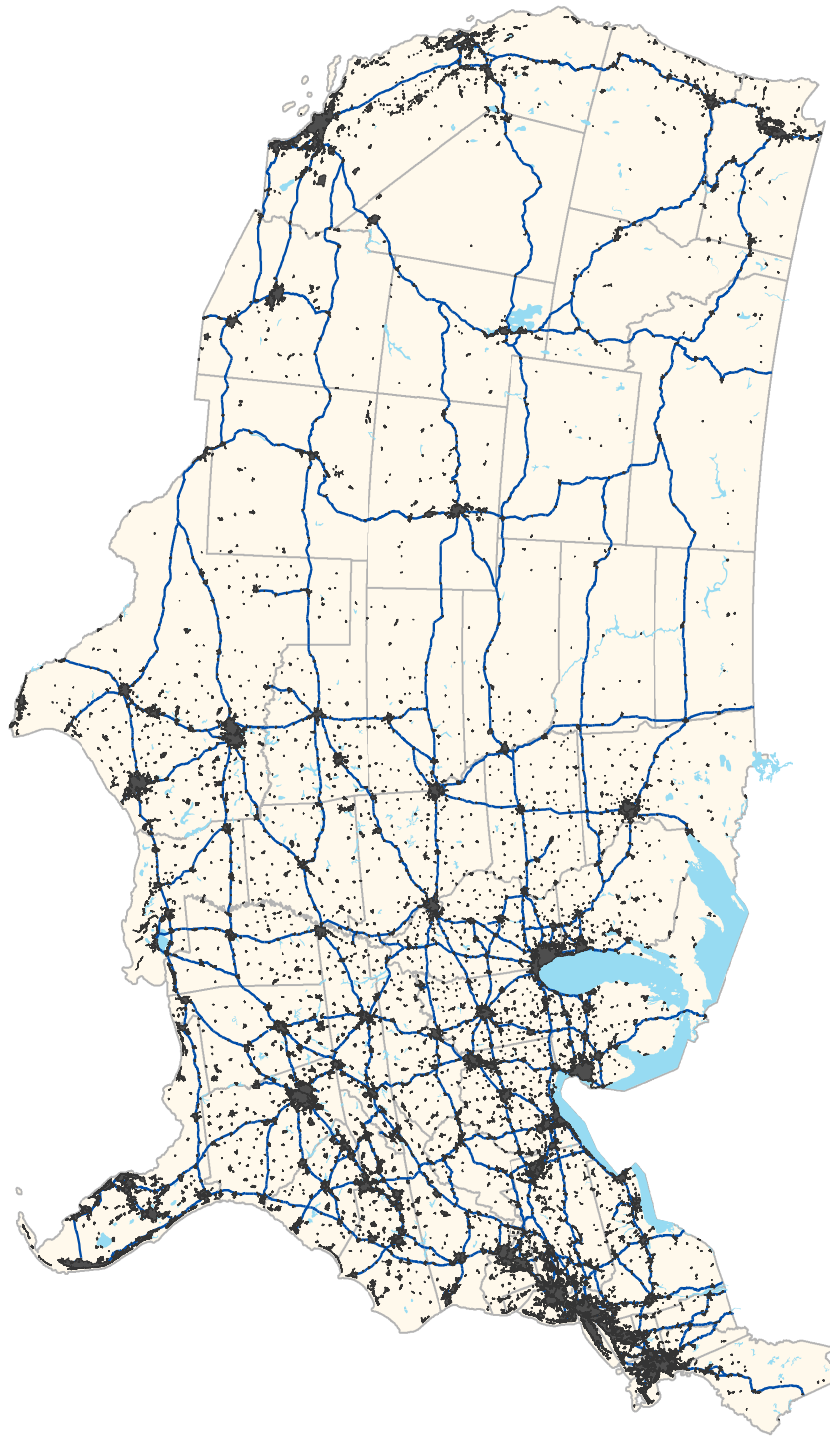


Figure 1: Urbanized area of the United States and the Interstate Highway System

The 1962 Federal-aid Highway Act emphasized a “3-C” approach to planning:

- Continuing – ensures sustained federal guidance
- Cooperative – incentivizes regional discussion and collaboration
- Comprehensive – expands the scope of planning in all areas

Congressional intent can be inferred from the “3-C” methodology. The federal government recognized the localized and organic nature of transportation facility development. In addition, the legislators realized the prominence of regional economies as the driving force of the national economy. But, they also understood that these regional economies were spread across many governmental jurisdictions and authorities. The 1962 act set up a framework for the prolonged channeling of federal dollars to local processes conducive to appropriate transportation facility development.

The Housing and Urban Development Act of 1965 continued this trend by informing the composition of MPOs. In order to receive HUD grants related to comprehensive planning, regional organizations would need to be composed of local elected officials. The proliferation of regional councils and commissions was a result of this legislative adjustment. The 1960s saw the development of regional programs across the nation, and as the interstate system was built out, these organizations developed their technical planning processes.

These new intergovernmental bodies, such as Councils of Government (COG), took a tentative approach to planning. They often lacked implementation authority and were limited to working on issues where consensus could be reached-- notably in transportation infrastructure, environmental planning and economic development.

The Highway Act of 1973 dedicated a portion of each state’s funding from the Highway Trust Fund for new MPOs to be established or designated in each urbanized area with more than 50,000 residents. Consequently, Congress gave federal officials the

financing as well as the legal mandate to transform the assortment of regional bodies across the country into effective planning agencies. Many saw this institutional rearranging as a means to counter the dominant influence of state transportation departments pushing road projects. (Goldman, 2000)

Every few years, the legislation which enables MPOs is reauthorized by Congress. While these regional agencies provided sound technical advice to local officials in the past, they often only met minimum federal requirements and took a back seat to traditional interests and power regimes. Following the initial highway acts of the 1950s-1970s, the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) represented a paradigm shift and boom for MPOs. ISTEA gave MPOs additional funding, enhanced their power related to project selection, and provided a new mandate for regional planning initiatives. Department of transportation officials of the various states, for the first time, were required to consult with local representatives on MPO Policy Boards.

The 1998 Transportation Equity Act for the 21st Century (TEA-21) and 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) have built upon utilizing MPOs as regional forces promoting multimodal transportation networks. Congress is expected to pass a new reauthorization bill in 2010. But even amidst the possibility of great change, MPOs must continue to produce their long-range regional transportation planning products, namely the Long Range Transportation Plan (updated every five years and looks ahead 25 years) and the Transportation Improvement Program (short-term capital programming).

STRUCTURES AND POLICIES

The analysis of Metropolitan Planning Organizations is difficult, given their varying geographies and institutional arrangements. Many MPOs have been designated as existing regional planning commissions or councils of governments. Other states have created MPOs that function on independently over other regional organizations. Some MPOs manage their own funding, while many utilize municipalities, states, counties, or COGs as fiscal agents. Several MPOs also act as transit authorities, and some oversee the management of air and seaports.

Lawmakers intended for MPOs to be organic, flexible entities that adapt to local conditions in order to best facilitate the regional allocation of federal resources. Outside of the strict guidelines associated with the formal federal planning process, MPOs are free to operate under the guidance of their respective transportation policy boards. The result is MPOs that are as diverse as the metropolitan areas they serve.

While ISTEA was groundbreaking in its identification of 16 planning factors as a framework for MPOs to operate within, TEA-21 of 1998 streamlined the concept and established seven transportation planning factors that still organize MPO function to some extent:

- Economic vitality
- Safety and security
- Accessibility and mobility
- Quality of life
- Integration and connectivity
- System management and operation
- Preservation of existing systems

Uniformity in land use and transportation plans was one of the factors dropped from the 1991 list, although TEA-21 did feature a program designed to promote land use and transportation integration.

Pursuant to meeting the objectives of the federal planning process, MPOs are primarily responsible for the Long Range Plan (LRP) and Transportation Improvement Program (TIP). In the past, plans often consisted of state and local “wish lists” of projects. However, Long Range Plans must now be fiscally constrained, which requires demonstration of available revenues over a 25-year period. Transportation Improvement Programs are capital improvement budgets by design, outlining the obligation of funds for projects over a shorter 4-year period.

Recent authorization legislation does not focus on land use, although it is addressed. Federal law does not specifically require any sort of linkage between local land use plans and regional transportation investments. MPO policy boards represent the interests of localities performing land use regulation. Under this arrangement, local elected officials are not required to think at a more regional level, although such cooperation is essential for any MPO to reach its potential. It is assumed that transportation plans will take local land use plans into account. More recently, the Livable Communities Initiative between the USDOT, EPA, and HUD, represents a federal policy goal of more integration between local land use and transportation planning and project implementation.

MPOs are unique in their breadth of contact with local and state organizations. Prior to 1991, the relationship between MPOs and State Departments of Transportation was dominated by the state agencies. However, the passage of ISTEA required enhanced cooperation between the entities, with more power placed behind the decisions made by Metropolitan Planning Organizations. Yet, some states have seen the Governor and DOT

dominate MPO positions of an executive nature, and others have gone as far as to delegate veto authority to the state DOT.

In some metropolitan areas multiple MPOs coexist, each working towards a plan for a sub-region. Economic mega regions that have bounded across state boundaries are partly to blame. Established relationships with state DOTs explain the division of Philadelphia and New York into several regional planning organizations each. (Goldman, 2000) A similar situation is seen at the county level, where cities such as Charlotte are divided into multiple MPOs administered by counties as opposed to a single regional entity. There is a possibility for cooperation between these MPOs, but more often competition for federal and state funds is the result.

Coordinated relationships with state environmental agencies are complex, yet fractured. Non-attainment of the National Ambient Air Quality Standards (NAAQS) triggers stricter requirements for many state and regional agencies. Often the air quality agency establishes transportation emission budgets that are handed off to the MPO, which then plans facilities within the budget. The agencies communicate mostly by commenting on each other's work—representation of an air quality agency on a MPO board is rare. However, at lower technical levels, such as Technical Advisory Committees (TAC), cooperation is more common but not the majority occurrence.

Transit agencies, with revenues often directly derived from various taxation authorities, have historically received capital directly from Washington. But since the passage of ISTEA, transit planners have become more involved with MPOs. Some of the largest MPOs also run their respective transit agency, such as the Metropolitan Transportation Commission in San Francisco. Many other regions see transit planning which runs parallel to the other modal planning work done by MPOs.

As an aggregate, MPOs have exerted little influence over regional land use patterns. (Wolf, 2000) Reasons for a lack of land use control range from the various uncoordinated jurisdictional interests competing for projects to a lack of zoning authority in unincorporated areas in some states. Transportation Policy Boards are composed of the very local interests that are often motivated against regional thought processes. Often, regional project selection becomes an exercise in local officials trading votes for local project support. In the end, the interests of each local jurisdiction are served, whether or not any sort of regional vision links those interests.

In 2004 the Association of Metropolitan Planning Organizations selected five notable transportation and land use integration practices. (Wilbur, 2004) These five MPO initiatives operated within similar frameworks of planning integration, and feature three primary goals:

- Increase Awareness and Understanding
- Support Community Based Initiatives
- Capitalize on Opportunities

The five best-practice organizations all realize the importance of functioning within the realities of a MPO's abilities, as well as the requirement that goals related to land use and transportation integration are reflected in the long range plan and other policy documents.

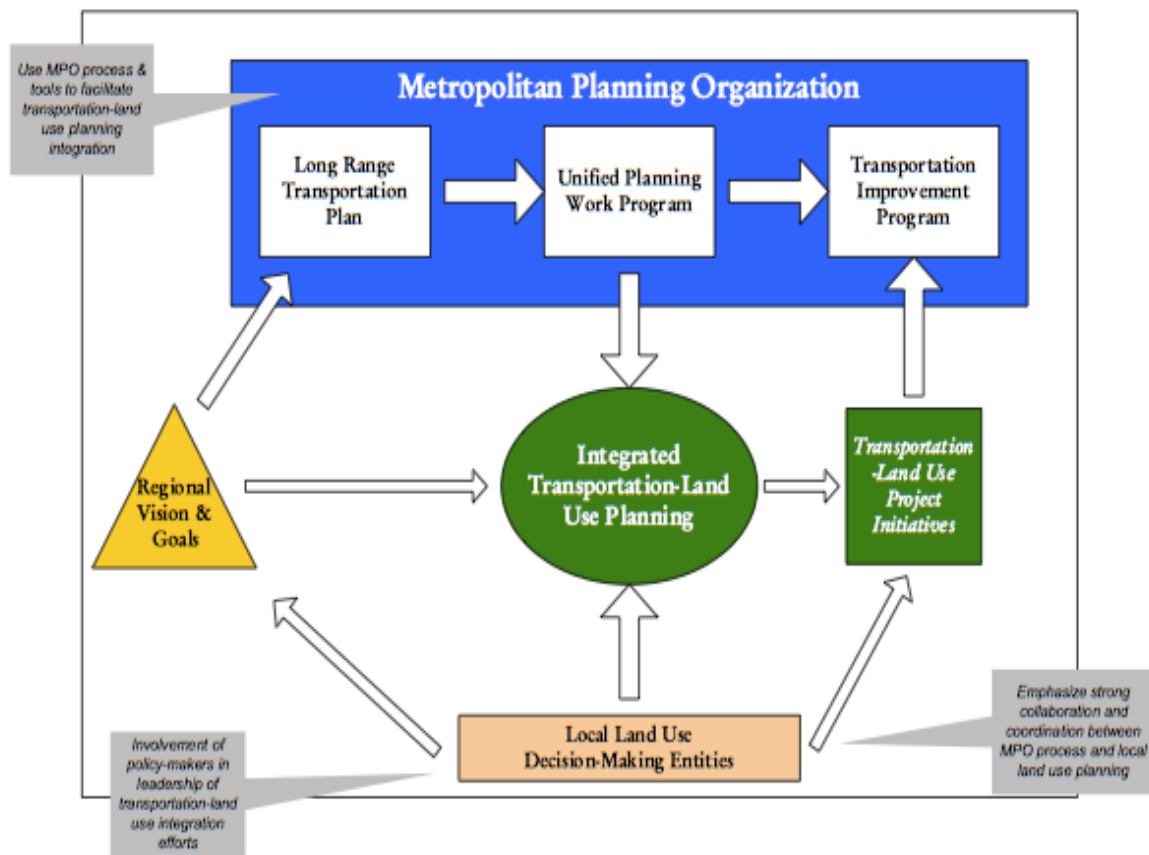


Figure 2: An integrated land use and transportation planning model (Wilbur, 2004)

Chapter Three: An Analytical Framework and Method

POLICY ANALYSIS

This report aims to offer a model for regional policy analysis. The four aspects of examination represent areas where all regional entities attempting to integrate land use and transportation planning are often challenged. The model is applicable to any metropolitan area or region.

Inputs to the model include the products of MPOs, long range transportation plans and transportation improvement programs, which enumerate policies and priorities driving facility funding. In addition, these plans often identify centers or corridors where transportation investments are meant to encourage higher levels of development. Other data needed are the population densities of regions over time, which are provided by the decennial United States Census.

Policies in regions can be compared to the progression of population density in the area. Once linkages are identified, classification of regions is conducted through the lenses of institutional frameworks, regional politics, financing, and technical issues. A look at spatial outcomes based on population data offers support across the entire framework. By identifying what works with regard to influencing land use, this report identifies national best practices for MPOs seeking to integrate land use and transportation planning. In addition, by recognizing the various challenges faced by MPOs in the aforementioned lenses, this report is a valuable resource for any regional agency looking to become more effective.

A thorough policy analysis becomes a powerful tool for establishing correlation between MPO actions and on the ground results in the urban fabric. Programs that aim to integrate transportation and land use will be studied. Regions will be investigated in terms of plans for activity centers and major transportation corridors. Proper activity centers and corridors are manifestations of land use and transportation integration, and as such, can provide feedback to MPO policy attempting to influence land use. Bringing together MPO policy and land use outcomes leads to the classification of Metropolitan Planning Organizations' policy effectiveness.

Evaluating both MPO policy and the spatial extent of regional growth is essential in determining the effectiveness of programs. All MPOs are bound to produce products similar in structure at a minimum, such as the LRP and TIP. However, MPOs differentiate themselves through their own initiatives beyond the minimum federal planning requirements. Each region is unique in its political and economic situation, physical geography, and popular attitudes towards development. Looking at both policy and urban outcomes attempts to measure the success or failure of various planning integration initiatives.

As Metropolitan Planning Organizations are primarily charged with the development of transportation plans and capital programs, these deliverables are essential to the understanding of regional priorities. The Long Range Transportation Plan and Transportation Improvement Program together speak as the policies of a MPO. The LRP is now required to be fiscally constrained, but still embodies the goals of policy when compared to the TIP, which ties money directly to current projects. The implementation of projects is often done piecemeal, through periodic amendments to the TIP. The two documents are intended to work together, providing a seamless continuum from long-range goals and short-term project selection. While TIP project selection features some

checks against the LRP, such as a requirement that TIP projects or federal stimulus projects be in the LRP, the process often becomes political. Like other operating aspects of the policy boards, when the local nature of representation works against regional thinking, short-term political pressures work against the implementation of a long-range vision.

MPO plans and capital programs are the foundations of policy. Analyses of these documents reveal the priorities of a MPO. Each reason faces a different political calculus through which certain policies are articulated. Therefore policies affecting land use, such as areas targeted for priority investment, which are suitable for analysis against urban form outcomes, are best determined on a case-by-case basis for each region. In most cases, policies with some sort of spatial extent can be evaluated. If not, major projects can be sited and analyzed as an alternative. The idea is to link land use policy to urban density outcomes. Activity centers or priority investment zones are great options, but the location of major mobility projects can also act as spatial determinants of MPO policy towards land use and prioritization of available funding.

SPATIAL ANALYSIS

Spatial analysis is based on population density change over time. Of course, there are many factors that effect urban outcomes. However, studies have found a high correlation between urban growth and population density. One study concluded that of 12 variables, the following most affected urban growth (Zhiyong, 2007):

- Population density
- Distances to the nearest urban clusters
- Activity centers and roads

- High/low density urban uses

Population density had the strongest correlation coefficient, but all of these highlighted variables are enforced by the metric of population density. The presence of clusters, urban uses, and activity centers are captured by changes in population density.

Lack of population density is a major determinant in fueling urban growth. By measuring population density against spatial policies, differences will remain identifiable, even against a backdrop of low fringe density. It can be seen whether chosen activity center areas are increasing in density or are above average density over time. Explosive growth in fringe areas not identified as growth centers illustrates a disconnect between planned investment and urban outcomes.

Population density data is available from a variety of sources, most often the United States Census Bureau. However, regional sources sometimes provide data more recent than the decennial census. The model can be adapted for each region. Geographies also play a large role in spatial analysis. For some regions, census tract geography could be available. Zip code geography may be the best data to use in another region. The key is to obtain population density data at a geography that can provide enough resolution to determine changes at about a neighborhood level at least. Census block data would be ideal, but is most recently available for the year 2000.

Analysis basically involves checking recent regional growth against areas of supposed spatial emphasis for MPOs. Deriving conclusions from such an analysis proves difficult, given the many variables involved in the land market and the multitude of institutional actors involved in the development of a region. But by the observation of general trends, the efficacy of policy can be gleamed.

STAKEHOLDER INTERVIEW

In order to gain the unique perspective enjoyed by those working daily within planning organizations, interviews were conducted with staff from selected agencies. Method of communication was primarily by telephone, although some interactions were in person or over electronic mail.

Staff directly managing or working towards the implementation of identified land use and transportation integration programs were chosen as candidates for interview. Initial contact often led to the scheduling of a more formalized discussion, during which prewritten questions were asked. Program managers, transportation planners, and principal planners offered extensive insight into challenges faced by organizations as well as innovations they had developed.

Questions were based on the four contexts of analysis, institutional, political, financial, and technical. There is a line of questioning, with earlier questions sometimes leading into further questions:

- What is your most significant program integrating land use and transportation planning?
 - When did this idea come about, and was the program initially accepted politically?
 - Did the institutional arrangement or structure of your MPO affect the outcome of the program?
 - Has funding the program been a problem? Any innovations in financing? Political resistance to funding? Have grant awards been competitive?

- How are effects of changes in land use modeled? Do models keep track of greenhouse gas emissions or vehicle miles traveled?
 - Do regional residents easily visualize alternative development scenarios? Is there technological assistance?
- Can you think of any challenges you have encountered while implementing these programs? Has anything held progress back?
- What else can be done to integrate land use and transportation decision-making?

Often, discussion moved between multiple discussion points, and there was always plenty to discuss. MPOs are quite complex in their manifestations, and by interviewing professional staff, their exclusive view of the process from the point where they make order from chaos becomes invaluable.

Chapter Four: Case Study

CASE #1: ATLANTA REGIONAL COMMISSION

The ARC has grown from a hodgepodge of planning agencies working together in an effort to ever expand the City of Atlanta into a sophisticated planning organization now working to increase livability and limit further unchecked expansion of the region. But the legacy of a suburban nation and the single family-housing dream remain huge players in the area's continued development.

History

Multicounty planning with public support first came about in Atlanta's DeKalb and Fulton counties circa 1947, the first such effort in the United States. (Bullard, 2000) But it was not until 1971 that the Georgia State Assembly responded to federal pressures regarding transportation planning and environmental regulation by creating the Atlanta Regional Commission. The ARC took the place of four smaller organizations with overlapping missions and jurisdiction.

As a regional facilitator, the commission was more refined in its mandate and more established in general. The 1960s saw great change locally and nationally. Atlanta's population exploded with an increase of 47 percent between the 1950 and 1960 census. (Census, 1962) Federal laws of the era included the Highway Act, Civil Rights Act, Historic Preservation Act, Metropolitan Development Act, Intergovernmental Cooperation Act, National Environmental Policy Act, Clean Air Act, and Clean Water Act. MPOs were placed at the nexus of a multitude of governmental entities, local, state,

and federal. In addition to having an established regional legitimacy to state and local stakeholders due to the nature of federal funding, the MPO allowed for a confluence of transportation and environmental planning-- primarily air quality planning. (Degrove, 1993)

The ARC was large and complex for its time, and its products evolved from grandiose propaganda of land development interests to comprehensive planning documents, with many facets of urbanization considered at the regional scale. Significant products included the 1952 *Up... Ahead* plan, which was inspired by the Garden City and London's Greenbelt. The plan, which looked to limit regional growth, featured seemingly progressive limits on population and land use in the two county area. (Henderson, 2004) An update in 1954, *Now... For Tomorrow*, buckled to the realities of endless developable land, as the demand for housing combined with available space deemed rapid growth the preferred de facto policy, not to be constrained by planning documents.

However, both plans envisioned a hub and spoke style freeway system and eventual rail transit system acting in parallel to the highways. Even though the ARC itself had little delegated authority in the local and state entities that eventually implemented the freeway and transit network, the original ideas propagated on a regional scale by the commission are largely realized today. The transit authority, MARTA, grew from the work of ARC's predecessor (ARC, 2010), and the MPO itself grew through state and federal initiatives from the Metropolitan Planning Commission to the Atlanta Regional Metropolitan Planning Commission to the current ARC.

Structure

The composition of the ARC board is quite interesting, but what is really striking is the historically unique role the organization played in a regional conversation about the future. There had long been such a regional forum on growth and development, but as the ARC came about in the 1970s, the organization has been able to subtly enact a loose vision for the area. Through informal partnerships and formal relationships related to state-level planning, local ordinances, and federal funding, the ARC as an institution has been well positioned to interface across all manifestations of governance towards a somewhat-controlled explosion into the hinterland.

Since the 1940s, the burden of regional governance has fallen on an additional 8 county governments. 68 municipalities currently operate in the Atlanta Regional Commission. Board composition is composed of county level officials, city level officials, the Georgia Department of Community Affairs, Atlanta's Mayor and a single council member, and 15 private citizens from each of the superregional districts—elected by the 23 public officials. (ARC, 2010) The City of Atlanta has diminished representation in relation to its share of regional population. While this is a common phenomenon in regional entities attempting to bring outlying jurisdictions into the fold, this occurrence is also a result of the very growth of the region. Some smaller communities are able to obtain one vote on the policy board, which exceeds a pure population allotment.

Policy

Policy has allowed for general regional growth. Plans for area freeways and transit were largely realized, and low-density development encompasses the Atlanta city

center. ARC plans and capital programming fulfilled the trends of suburban expansion. Like the population boom of the 1950s, Atlanta again grew at an incredible rate during the 1990s. However, at this time expansion was the geographic consumption of green fields, rapid development leapfrogging any chances of sensible planning for modes besides the automobile.

But beginning with the 2025 Long Range Plan, the ARC began to put policies in place that have aimed to readdress growth priorities. In preparation for the 2025 LRP, the ARC convened a Land Use Task Force to evaluate and modify regional development policy in 1998. The results of that effort resonate throughout the commission's products to this day. (French, 2002) A Joint Land Use Strategy was agreed to by the GRTA and ARC, bringing together the land development and transportation entities. The strategy established 8 policy implementation mechanisms:

- The Land Use Coordinating Committee
- The Livable Centers Initiative
- Community Choices
- Developments of Regional Impact
- DCA/Comprehensive Plan Certification
- Area Plan Review
- Performance Monitoring
- Reporting RDP Coordination

The area's first Regional Development Plan was passed in October 1999, referencing the Livable Communities Initiative (LCI). Furthermore, when the 2025 Regional Transportation Plan was approved in 2000, LCI became fully funded and was placed in the Transportation Improvement Program. Thinking that incentives for local jurisdictions were needed to promote revaluation of traditional development schemes,

designers of LCI brought about a practical link between land use and transportation, and local communities have taken advantage.

LCI grants funnel regional dollars to activity center type areas where studies are conducted towards innovation in transportation and land use integration. Commuter rail stations also qualify for LCI status. Construction dollars for specific projects have also been awarded in previous years. The ARC awards grants on a competitive basis. Local communities were initially provided incentive to produce innovative plans and studies, and now even compete for facility funding related to the type of projects that were not common in past years.

LCI has been well supported by the local jurisdictions, and many are hoping to see results that go against the trends of the 1990s. (Wilbur, 2004) But as that growth paradigm, fueled by half a century of local and regional actions, made Atlanta the fastest growing urban area in world history, the question asked of LCI becomes, “Is it too little too late?”

Regional Growth

Growth in the Atlanta region from 2000 to 2009 shows that the momentum of sprawl inducing policies of previous decades remains strong. Even with new programs aimed at limiting sprawl, the phenomenon has largely continued over the course of the last decade. However, there have been some successes, relative to past decades. As opposed to a shotgun pattern that characterized the rapid development and more than doubling in size of Atlanta in the past 20 years, recent growth is more focused and with purpose.

This sort of controlled sprawl is targeted in areas of high mobility, the urban core where transit and freeways converge, and along the outer spoke highways. The continued growth along outer highways is especially interesting, given the often-detrimental traffic congestion that has become common along these commuting paths. It seems that the market response continues to favor highway proximity.

CASE #2: SAN DIEGO ASSOCIATION OF GOVERNMENTS

SANDAG has functioned as one of the oldest regional entities in the nation. From the start, heavy emphasis on research in addition to public-private partnerships have produced innovative products. A half-cent sales tax in the region has become a critical funding source and enabler of projects while other areas have scrambled for funds. A regional economic strategy last decade led to innovative thinking in recent plans, incentives for smart growth, and specialized tools for the general public as well as local technical staff to join in the regional vision.

History

Local governments came together in 1966 through a joint powers agreement to form a Comprehensive Planning Organization (CPO), which operated as a department in the Sand Diego county government. However, by 1972 the agency had been given more responsibilities related to transportation, airport land use, and grant management. (SANDAG, 2010) In addition, the CPO was made independent that year, again via joint powers agreement.

Three years later, the CPO had adopted the first regional transportation plan for the San Diego area, just as cities across the nation were engaging in expansive highway construction. By 1980, responsibilities continued to pile on, including regional criminal justice as well as housing needs analysis. The CPO also was renamed to the current San Diego Association of Governments (SANDAG) that year.

The 1980s were a time of growth for the agency, as it was poised to capitalize on the vast scope of work being conducted. SourcePoint was launched as a subsidiary

tasked with promoting customizable research products developed by SANDAG. Transportation authority was enhanced when California designated the agency as a Regional Transportation Commission.

1987 and 1988 saw the commencement of a chain of events that has led to the dominant paradigm of SANDAG's regional planning today, more than 20 years later. County voters approved Proposition A, a local half-cent sales tax dedicated to transportation projects. The initial 20-year TransNet program produced approximately \$3.3 billion between 1988 and 2008. SANDAG, which administers TransNet capital, distributed the money in equal thirds among transit, highway, and local road projects. (SANDAG, 2010) One million dollars was annually earmarked for bicycle facilities. The program also funded seven innovative Walkable Community Demonstration Projects, establishing it as a true multimodal force in the region. More than two thirds of voters voted to extend the tax an additional 40 years in 2004. \$14 billion in revenue is expected by 2048.

So while 1987 set the course for serious transportation funding across the region, voters in the following year approved an advisory measure recommending the development of a Regional Planning and Growth Management Board. By 1989 SANDAG had been designated as such. Land use and transportation related responsibilities increased with the designation of SANDAG in waste management, congestion management, and tolling authority.

An official regional growth plan was not adopted until 2004, but the beginning of such an effort was apparent in 1994 when the first Regional Economic Prosperity Strategy was released. The document established the region's economic strengths, weaknesses, challenges, and opportunities by benchmarking selected performance measures against 24 similar regions as well as state and national trends. The 2000 Long

Range Plan specifically identified sprawl reduction as a goal in addition to limiting traffic congestion. (SANDAG, 2010)

This decade the agency has updated its regional growth and transportation plans, extended its major auxiliary funding source, and aggressively competed for state and federal dollars. A system of managed or express lanes has been implemented on regional highways recently.

Structure

Although SANDAG is very much a regional entity, it includes a single county government. 18 municipalities within the county vie for influence, and ultimately funding preference for local projects. Board composition consists of local mayors and councilmembers in concert with county officials. A wide range of officials serve on the board as advisory members. Entities represented in this way include neighboring Imperial County, the port, the Department of Defense (whose military presence in the region is large), the transit authorities, and even Mexico.

Policy work is broken down amongst committees, which report to the Board of Directors. Committees are grouped around border issues; the environment, land use and growth, public safety, and transportation. Public Safety only features one committee, while 15 committees tackle transportation policy. Some are established groups responsible for policy recommendations and review, and others are of an ad hoc nature to support specific situations.

Policy

The Regional Comprehensive plan and Long Range Transportation Plan function jointly as a policy framework. A number of programs, incentives, and other regional efforts operate within that context. The vision is centered around the notion of “Smart Growth,” compact and sustainable development at and along key transportation centers and corridors. Programs include:

- Regional Housing Program
- Sustainable Communities Strategy
- Smart Growth Concept
- TransNet Smart Growth Incentive Program
- 2005 Pilot Smart Growth Incentive Program
- Smart Growth Design Guidelines
- Community-Based Outreach Mini-Grant Program
- Smart Growth Visualization Tools
- Smart Growth Trip Generation and Parking Study
- Regional Bicycle Plan, Planning and Designing for Pedestrians
- Connections between Public Health, Land Use, Transportation Research

There are a number of implementation strategies; some set up as economic incentives while others provide technical assistance and guidance to local jurisdictions. A third type of implementation strategy focuses on community outreach and the general public.

The recent Senate Bill 375 requires California regions to incorporate a Sustainable Communities Strategy (SCS) into their operations. The strategy must demonstrate how land use development patterns and transportation improvements will work together to reduce greenhouse gas emissions, including transportation demand and

system management policies. The upcoming 2050 LRP will include this new requirement.

Regional Growth

The San Diego area is bounded on three sides by natural features that limit endless urban expansion. Inland growth of the late twentieth century has slowed—although the region’s population will grow by a million people by 2030, the rate of growth is slowing.

Over the next 15 to 20 years, SANDAG projects that most cities will fully develop under their current plans. Between 2020 and 2030, the majority of the growth in housing occurs in just two areas: within the central areas of the City of San Diego, and in the very low density unincorporated areas well outside of incorporated city boundaries. This suggests that compact urban infill development will be joining the traditional single family housing expansion.

CASE #3: NORTH TEXAS COUNCIL OF GOVERNMENTS

Texas law is unsupportive of land use planning efforts, even outside of incorporated city limits. However, the unique nature of Dallas' proximity to Fort Worth accelerated the evolution of NCTCOG. Local jurisdictions were eager to volunteer in the regional effort, and before long NCTCOG had inherited a laundry list of regional responsibility, including transportation planning. Designation as being in non-attainment of air quality standards, the need for true regional highway connectivity in the massive metroplex, and the build out of commuter rail in addition to light rail transit has been guided by the agency. Notably, TOD planning has allowed for local governments to capture additional value generated by the pairing of appropriate land uses and alternative transportation.

History

In Texas, the Regional Planning Act of 1965¹² authorized the creation of regional councils. (NCTCOG, 2010) Counties in the Dallas-Fort Worth area came together as volunteers to form Texas' first Council of Governments in 1966. The stated purpose of the legislation was to assist local governments in planning for common needs, cooperating for mutual benefit, and coordinating for sound regional development.

At the time of NCTCOG's inception, there were 110 member governments and 10 counties participating. Transportation planning for the Dallas-Fort Worth area began at the agency in December, 1969, under the newly created Transportation Department. In 1971, the state legislature designated the regional councils as the appropriate planning

organizations to provide review and comment on applications for federal assistance. Councils of governments were also given the authority to review any state grants having an areawide impact.

The State Department of Highways and Public Transportation (SDHPT), now known as the Texas Department of Transportation (TXDOT), under the guidance of the Federal Aid Highway Act of 1973, initiated the statewide structuring of policy committees of elected officials that would direct MPOs. In 1974, the COG was designated the Metropolitan Planning Organization for the region. *The Total Transportation Plan for the North Central Texas Region for 1990* was the first regional transportation plan for the area, published that year. The Dallas Area Rapid Transit (DART) and the Fort Worth Transportation Authority (FTWA) were established by 1983.

The Dallas-Fort Worth region was designated as a moderate nonattainment area for exceeding federal emission standards of the pollutant ozone following the signing of the Clean Air Act Amendments of 1990 (CAAA) into law. The same year, the MPO adopted a long-range transportation plan (LRP), *Mobility 2010: The Regional Transportation Plan for North Central Texas*. In response to ISTEA, the agency prepared an update, known as the *Mobility 2010 Plan Update*, which took force in October 1993. (NCTCOG, 2010)

Mobility 2020: The Metropolitan Transportation Plan was adopted in 1996. Highlights included the introduction of quality of life considerations aimed at integrating transportation systems into communities and minimizing their negative impacts. This can be seen as one of the first efforts in the smart growth arena. Plans are required to be updated every three years in air quality non-attainment areas, which led to *Mobility 2025* being adopted in early 2000. Incorporating the concepts introduced in TEA21, the plan

formalized sustainable development policies and the link between land use and transportation system performance.

Structure

NCTCOG is a voluntary association of 229 members, including 16 counties, 162 cities, 23 independent school districts, and 28 special districts. A General Assembly consists of those aforementioned members that each has one voting representative. The General Assembly annually elects an 11-member Executive Board, comprised of nine locally elected officials in addition to two regional citizens. (NCTCOG, 2010) The Executive Board is charged with overseeing the administrative funds granted to the MPO.

The Regional Transportation Council (RTC) was established in the bylaws to address regional transportation planning policy and activities, to provide guidance for multimodal transportation planning and to assure coordination among transportation modes, local government entities, and planning activities. The jurisdiction of the RTC, and subsequently the MPO, is smaller than that of NCTCOG. Transportation planning was recently expanded to include 12 of the 16 area counties.

The RTC is composed of forty members, and is the single policy group for regional transportation decisions. Thirty-five members are elected city and county officials; the other five are appointed and include two TxDOT District Engineers, two transportation authority representatives, and the representative of the North Texas Tollway Authority. Individual local governing bodies select their representatives to the RTC.

NCTCOG has more than 35 committees, including policy development, technical advisory, and study committees, with more than 800 members collectively. Their

recommendations are considered for adoption by NCTCOG's Executive Board and, ultimately, for implementation by local governments.

Four technical committees support the regional planning process. Their membership includes staff from local entities, and representatives from the private sector industries related to transportation. The technical committees include:

- Surface Transportation Technical Committee
- Travel Demand Management/Congestion Management System Committee
- Air Transportation Technical Advisory Committee
- Intermodal Freight/Transportation Task Force

Policy

Mobility 2030: The Metropolitan Transportation Plan for the Dallas-Fort Worth Area, 2009 Amendments, continues the tradition of emphasizing sustainable development as the region's strategic approach to transportation planning, programming, and construction. Sustainable development in this case aims to leverage the land use/transportation relationship to improve mobility, enhance air quality, support economic growth, and ensure the financial stability of the transportation system.

Four types of sustainable development are enumerated in the plan:

- Strategic Urban Development
- Integrated Land Use Planning/Urban Design
- Transit-Oriented Development
- Access Management

Centers of Development Excellence were called for and established in the early part of the decade to bring together experts in the private and public sector. Since 2003,

Celebrating Leadership in Development Excellence awards have recognized projects, developments, and private or public programs that exemplify the region's Ten Principles of Development Excellence.

Emphasis is placed on incentives for compact, transit-oriented development. The Sustainable Development Funding Program encourages public/private partnerships in real estate that address system capacity, air quality, mixed land use, or rail transit accessibility. Projects are prioritized according to predetermined areas of interest, and regional transportation funds are directly allocated to sustainable types of projects through this program. Additionally, TOD Implementation Group Projects are placed in a special category of funding intended to analyze, market, and implement transit-oriented development. The TOD Implementation Group incorporates a blend of, land banking, planning, and infrastructure efforts in order to comprehensively integrate land use and transportation on the ground in areas open to such progress.

NCTCOG engages in several initiatives designed to support sustainable development. Sophisticated Demographic Sensitivity Analyses are conducted to understand market demand in areas proposed for transit. In addition, bicycle and pedestrian routes are considered in concert. Coordinating such activities allows for a savings in right-of-way acquisition and builds support for cooperation in other matters related to land use.

Regional Growth

The Dallas/Fort Worth region has been booming in population for decades, and with a seemingly endless supply of rolling land surrounding the area, growth is continuing. The DFW-Arlington Metropolitan Statistical Area (MSA) was one of the

fastest growing areas in the United States during the 1990s, listed as the fifth largest MSA in the country and a growth rate of more than double that of the larger urban areas. Outlying exurbs, such as Plano, have also ranked among the fastest growing places in the nation in the last decade.

Rapid growth is projected to continue in the region through the year 2030. At that time, the DFW area is expected to have nearly 8.5 million residents supporting over five million jobs, with areas considered as developed in 1999 receiving a majority of the population and employment growth. Considerable sprawl has grown the region to its logical extent, and bounding expansion of the past is slowing.

CASE #4: CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION

CAMPO, once a purely institutional construct, has grown beyond its state department of transportation support role. Following a legacy of regional highways and controversial tolled highways, the small agency is working to build regional consensus around a new plan based on Activity Centers and transportation corridors. The MPO has provisionally allocated a significant portion of future funding to projects that support the centers concept of compact development and access to multiple transportation modes.

History

The Capital Area Metropolitan Planning Organization (CAMPO) was established in 1973 as the Austin Transportation Study (ATS). ATS operated under a Joint Powers Agreement between the associated county governments and local jurisdictions, in addition to designation by the Governor. (CAMPO, 2010) Early ATS plans envisioned a network of limited-access highways throughout greater Austin. Expanded right-of-way can be seen on Riverside Drive, which was planned to be a highway. In addition, an outer loop of highways was initially planned. Only a fragment of the planned network was completed, as new construction was challenged along sensitive environmental zones.

Historically, CAMPO had a very close working relationship with the Texas Department of Transportation. In several areas, TxDOT supplemented the efforts of ATS. By the mid 2000s, the plan in force was *Mobility 2025*, and TxDOT and CAMPO worked with the Central Texas Regional Mobility Authority (CTRMA) to propose an extensive network of tolled highway facilities. (CAMPO, 2010) RMAs are creatures of the state, legislated to expand mobility options through innovative financing schemes.

Although the toll roads have been built, with one in particular performing beyond projected revenue, there was significant public backlash to the plan, which many claimed was a back room deal with little public participation or support. There was substantial controversy in 2004, when a new overpass on a free highway was earmarked as a toll facility.

The toll plan largely passed, but the controversial overpass was removed from tolling. Several board members were politically targeted by the public, some unseated by eventual challengers, based on their vote on the toll plan. Even as state resources dry up, the legislature has refused to allow local areas to raise revenue through local taxes.

A vote for an extensive light-rail network failed by less than one percent in 2000. By 2004, Capital Metro Transit Authority had obtained voter approval of an alternate commuter rail system, mostly built on existing freight rail to keep costs down. The 32-mile Red Line recently began limited service, despite a couple years of delays due to inconsistencies in federal safety regulations related to freight track. In the meantime, Capital Metro has spent through more than \$200 million in reserves, and is now in a poor position to see area rail transit forward.

As CAMPO adopts its *People, Planning, and Preparing for the Future Your 2035 Regional Transportation Plan*, the agency must juggle a history of highway and state DOT domination, transit mismanagement, and general disapproval by the public. The CAMPO *Mobility 2030* document was a pipe dream of sorts, listing large numbers of regional highway and rail projects in vain, as revenue assumptions turned out to be much less than thought. The Transportation Improvement Program loaded up with about a half billion dollars in approved projects. Annual funding streams for certain types of projects which once provided around \$20 million suddenly were lessened to about a fifth of that amount in one year. TxDOT acknowledged that CAMPO indeed was entitled to the

funding, but had put substantial limitations on when the funding could be spent. It will be at least several years before the state-funding situation is stabilized.

With state funding now heavily constrained, many 1990s sprawl-era facilities remain on the budget as the MPO looks to turn towards more progressive notions of compact development and smart growth. In particular, planners hope that promoting compact development in concert with local governments can influence vehicle miles traveled as well as greenhouse gas emissions.

Structure

CAMPO is governed by a Transportation Policy Board, which now has 23 voting members. Board composition was once somewhat weighted towards state officials, but restructuring has left control with local interests. There are now 5 counties represented, and several dozen local communities. Small cities recently had representation, but restructuring has left those additional appointments to the counties. In addition to the counties, local governments, and core city Austin, TxDOT and Capital Metro also have one vote on the board.

The Technical Advisory Committee (TAC) is tasked to handle planning work for the board, in conjunction with the CAMPO professional staff, and make recommendations to the board. In addition to the TAC, the board has created many committees over the years on an ad-hoc basis to address specific issues and situations. There is an Executive Committee of the policy board, but it is utilized often.

It is important to note that unlike some of the agencies investigated in the proceeding case studies, CAMPO is solely a MPO. The Capital Area Council of

Governments (CAPCOG) is a separate entity that deals with every other type of regional funding source and statutory requirement, besides transportation.

Policy

CAMPO policy has long enabled highway expansion and more recently, the build out of a toll road system. The de facto policy has been the projects placed in the Transportation Improvement Program, as opposed to the contents of the Long Range Transportation Plan. A review of the regional TIP indicates a heavy historical preference for roads, specifically highways.

Lacking in authority over land use, CAMPO is working to promote its regional vision. Local governments control their own land use and development permitting, so CAMPO considers local buy-in as essential. Unlike other agencies, which are able to lean on their land use authorities, CAMPO must summon soft power to build a regional consensus that is actually implemented.

In order to promote the new types of mobility facilities desired by the region, the newest plan for the year 2035 is experimenting with some new policy tools. The most significant policies are intended to act as economic incentives. For instance, projects that fall within an activity center or projects that connect multiple activity centers receive priority in selection for funding. Additionally, larger portions of available funds have been dedicated to bicycle and pedestrian projects than in the past.

Regional Growth

Population and employment growth in Austin's five-county region has historically been strong, and CAMPO anticipates those trends will continue at a more

moderate pace than the extraordinary growth of the last quarter-century. However, with a robust and nationally competitive economy, regional population and employment is still projected to more than double by 2035. Infrastructure, in particular our transportation system, will be tasked with accommodating the needs of over three million residents at that time.

The doubling of population and employment will translate into increased potential demand on the region's transportation facilities, but the actual impact of this demand will depend on a variety of factors including what types of destinations and travel modes the regional community desires. Recent growth has been accommodated as single-family housing along the fringes of urban areas within the region. In the last 25 years, rural land has been converted at a rate that doubles population growth. This low-density development pattern will continue to require expanding systems of infrastructure to serve it, and inhibits the maturation of the public transit network, which thrives with density. With major employment centers centrally in the region, there are limited opportunities for workers to live and work in one area.

Longer commute distances create additional demand on the transportation network. The relationship between land-use and transportation planning is key to shaping future demand. Regionally, infill mixed-use development and emerging transit-oriented developments demonstrate trends in urban design divergent from the largely sprawl inducing and automotive-scale development of the latter half of the twentieth century.

Chapter Five: Best Practice Policy Analysis and Findings

Utilizing the four aspects of institution, politics, finance, and technology, best practices in land use and transportation planning are evaluated. Speaking with staff from each agency provided unique perspectives on program management. Selected interview comments served as background for further analysis and findings.

INSTITUTIONAL

Metropolitan Planning Organizations are positioned at the crossroads of governance, quasi-federal in nature but local and regional in operation. Their effectiveness is directly related to their ability to forge relationships with local jurisdictions, state agencies, and federal regulators. Cooperation with local governments and transit or toll authorities is a necessity, as MPOs often do not ultimately implement transportation facilities. Buy-in from local partners on a regional scale is a challenge, given the conflicting priorities and desires of various entities.

These relationships are not explicitly required by law, but are the key to successful regional visioning and governance in a political system geared towards the nation, states, and municipalities. In fact, going beyond minimum requirements and working outside of the box to enhance regional land use and transportation planning is often required.

Staff at the Atlanta Regional Commission mentioned a fortunate occurrence involving timing between state and federal processes. (LeBeau, 2010) Even though the ARC is designated as both the regional land use agency by the State of Georgia and the

regional transportation agency in compliance with federal requirements, these planning functions are essentially structurally and institutionally separated. In years past, transportation plans and land use plans have been developed years apart. So while being designated as a land use agency is certainly a benefit not all MPOs enjoy, small issues such as timing can determine if the benefits of agency consolidation are realized.

However in the most recent cycle, state officials saw an opportunity to schedule the ARC land use planning process early relative to other Georgia land use plans, which put the land use process in synchronization with the federally-mandated transportation planning process. Staff indicated that this adjustment had been a great advantage, as staff was able to better coordinate activities and share important information between the two efforts. (LeBeau, 2010)

A good relationship with the state department of transportation is essential in order for a MPO to accomplish its goals. NCTCOG staff often cited a close relationship with the Texas Department of Transportation as allowing for more rapid development of technical processes, data visualization, and may have helped the region acquire more than its fair share of federal stimulus funds for major mobility projects recently. (Faucher, 2010) There also appears to be an apparent advantage in the MPO also operating transit, which is intuitive given the benefits of consolidating transportation planning and operations function.

Georgia and California have taken extra steps to facilitate the coordination of land use and transportation. Through a state-level department dealing with land use and a required sustainable communities strategy, the states take different approaches to encouraging planning integration. California's SB 375 requires demonstration of planning integration in terms of a specific goal: greenhouse gas reduction. Georgia's

Department of Community Affairs pushes regional entities to vision land use on a large scale.

CAMPO offers an interesting look back to when land use integration programs are just getting underway at an agency. (Dargevics, 2010) At this MPO, more than others, soft power is needed in order to have regional influence. Staff agreed to as much, and pointed out that all they can do is prioritize funding based on criteria supportive of activity centers. In Austin, the MPO and COG are separate entities, which most likely leads to a decrease in efficiency. NCTCOG's effort to provide regulations for unincorporated county areas are a best practice for any state which has limited land use authority outside of cities.

POLITICAL

Staff from all three agencies indicated that incentive grants tied to smart growth development have been resounding successes. Local governments are simply strapped for cash when it comes to transportation projects, and will compete for additional sources. Such grant programs have gone a long way towards securing the before mentioned buy-in from local jurisdictions, which is essential to regional visioning becoming regional implementation.

The recent proliferation of federal funding for transportation improvements has enhanced the role and standing of MPOs. Staff reported increased interest in plan compliance for local projects, as a way of ensuring that as many projects as possible are eligible for future federal funding beyond the standard surface transportation programs, such as the American Reinvestment and Recovery Act.

However, the ARC reported a challenge related to more funding sources being pursued for more projects. Clearing federal requirements can take years in some cases, and since grant incentive programs often derive their funding from standard federal mobility streams, smart growth development projects are tied to those same federal standards. Local governments sometimes need to have their expectations managed regarding this delay in implementation. San Diego does not face this limitation with its TransNet grant incentive, as it is derived from a local sales tax initiative.

LCI has been heralded as a best-practice solution for MPOs attempting to get a grasp on integrating land use and transportation planning. And even though direct impacts on development densities are still lacking in these early years of the program, it is clear that the benefits of LCI are beyond simple project selection and operate on a long-term basis. The ARC has been noted for its ability to bring stakeholders together for a regional discussion for more than half a century. The most promising attributes of the LCI exist within this framework of regional coherence.

By offering assistance to local governments in terms of grants for planning activity centers, in addition to creating healthy competition in terms of projects, the ARC is working to frame the regional conversation around more compact and sustainable growth. The LCI might seem ineffectual against the more powerful forces of the last half-century. However, policy analysis offers the true effectiveness of the program, which is slowly working to create a shared vision for the Atlanta region.

Additionally, the ARC reported that while the LCI program was encouraging mixed-use development in designated activity centers, residential build out was lagging behind office and commercial. While local governments were eager to plan mobility projects supportive of more compact development, brining developers away from their

market-driven sprawl model as well as encouraging local governments to adopt more modern zoning ordinances has been a challenge.

SANDAG, NCTCOG, and the ARC had broad political support for their land use initiatives from the inception of those programs, while CAMPO is struggling to get its own land use program going. This could be partially due to the fact that the three aforementioned agencies are in air quality non-attainment zones, and Austin is not of yet. Being in air quality non-attainment and having bad traffic congestion, as Dallas, Atlanta, and San Diego have been known for, pushes transportation to the forefront of area politics. I predict that Austin is currently undergoing a similar transition, where traffic congestion is becoming infamously bad, and air quality regulation is looming. In this climate, political support for activity centers is increasing.

SANDAG staff brought up an interesting point about the availability of implementation tools versus the usage of tools. (Gregor, 2010) There must be political buy-in across the region as well as outreach by the MPO to ensure that the intended technical staff and the general public utilize innovative tools. The tools being put together by SANDAG go a long way to alleviating political tensions or misconceptions about smart growth.

FINANCIAL

San Diego's half-cent sales tax, TransNet, has been a resounding success. By capturing a substantial funding source beyond formula MPO funding, the region has been able to implement regional-scale projects that enhance mobility. The public has seen the results, and a supermajority approved a 40-year extension of the program. In today's political climate, which is seemingly hostile to taxation and large-scale government

actions, such a move by voters demonstrates that citizens will stand behind spending when the results are tangible and transparent.

NCTCOG staff noted that public private partnerships have been partly responsible for the flourishing Dallas Area Rapid Transit ridership, through areas designated and built up as compact transit-oriented developments. (Faucher, 2010) By footing the bill for initial market valuations and impact studies, the regional agency demonstrated the value that can be captured when transit planning is linked with proper land development. NCTCOG provides technical assistance to its member jurisdictions throughout the entire process, from federal codes, requirements, and funding sources to site-specific market analysis, code, infrastructure, and incentives audits. Beyond that, the agency is able to offer guidance in implementation and community outreach via charrette planning and promotional events or services. By acting as an all-encompassing clearinghouse for understaffed local entities, the agency leverages the sophistication of its planning operation to bring about results in areas historically underserved by professional urban planning. The City of Dallas has stepped up its efforts as well; coordinating with TOD-area plans the establishment of Tax Increment Financing zones or Public Improvement Districts that further leverage the new development to help finance streetscape and other projects in a TOD.

Dedicated funding sources that are detached from federal regulation expedite the implementation of projects. Everywhere, local communities are strapped for cash and are very receptive to competing for grants, even with strings attached. Funding sources are varied, from regional tolls in Dallas to federal dollars in Atlanta and Austin, and local sales tax in San Diego.

TECHNICAL

Integrating land use and transportation planning requires the redevelopment of computer modeling practices, which were initially based on a simplistic four-step trip generation procedure. ARC mentioned an interesting technical approach supporting planning integration, the modeling of build out scenarios in LCI grant areas. These models are advanced, and include land use and demographic considerations. And the results have been promising; models indicate a reduction in vehicle miles traveled and greenhouse gas emissions under LCI build out scenarios.

SANDAG engages in a smart growth visualization program that directly makes the case for sustainable development to local officials and the general public. (Gregor, 2010) It is recognized that before and after visualizations of proposed streetscape improvements and real estate development in an area are highly effective tools. By seeing the positive aesthetic, environmental, and social benefits of compact, sustainable smart growth developments, individuals besides urban planning professionals get a sense of improvements that might not have even seemed possible before. The SANDAG program has expanded to include 3 dimensional flyover models and a depository of smart growth development imagery, classified according to development intensity.

The sophisticated economic and market analysis offered by NCTCOG in TOD areas is a technical challenge not often undertaken by MPOs. However, by offering such an analysis of land use and density changes, more information is available for developers and local governments. In addition, the agency long range planning effort operates under about six unique demographic assumptions, with some scenarios specifically configured to optimal TOD and sustainable development outcomes. By building flexibility into the demographic and employment forecasting, public resistance to nontraditional forms of development can be diffused. This practice also helps to prevent polarization between

more basic “trend” and “activity centers” scenarios. NCTCOG’s operating assumption is that infill and additional compact development around transit is assured, leaving a question of magnitude for regional citizens to ponder.

CAMPO will have to update its modeling practice before it can realize the benefits of its fledgling land use programs.

FINDINGS AND BEST PRACTICES

The ARC, NCTCOG, and SANDAG are national leaders in land use and transportation planning integration. CAMPO is starting its own similar program. The entities have innovated in a number of different areas to bridge the gap between the institutional, political, financial, and technical limitations of the traditional regional planning process:

- Strong relationships with state DOT and local governments
- Political leadership setting air quality and VMT goals
- Dedicated funding for smart growth incentive programs
- Project visualizations that educate, and modeling true to land use impacts

Each entity has reached the same conclusion that successful MPOs must be regional leaders, champions of a greater vision, help to those governments not able to keep up with the demands of new planning methods, and a forum that all area jurisdictions can feel comfortable participating in, whether they agree with proposed actions or not. The efficacy of a MPO is at its core the confidence that local entities, which hold most of the final power, have in the regional discussion. If the MPO can provide a setting in which local leaders can actually think of their region in the greater sense, it is well on its way to implementing a sustainable vision.

What are MPOs doing to ensure the success of their land use and transportation programs? Based on the findings of this report, they are forming close relationships with state departments of transportation and local land use authorities. This is allowing for the synchronization of planning processes and communication about priorities.

MPOs are finding innovative ways to fund smart growth. Grants for sustainable development are being paid for through local taxes, regional tolls, and federal dollars. The important take-away across the agencies is that funding is being separately earmarked for compact development. Having a separate funding source goes a long way towards ensuring a future for land use grant programs. It also lets local governments know that this type of sustainable development is a long-term goal of the region, and they can go ahead and adjust their organizations accordingly for that reality, which is the type of change these types of incentive programs are designed to promote. There is impact beyond just the projects or planning studies awarded.

Successful MPOs are providing the tools for their local governments to prosper. Small towns simply do not have professional staff to do the type of work that is sometimes required for proper planning integration. By acting as a clearinghouse for smaller governments, the regional agency becomes an empowering force for the area. The agency is the economic consultant, the air quality planner, and library of design best practices. Granted, this function is easier to take on when a regional agency is expansive in its reach and responsibilities.

Appendix: Selected Comments

ATLANTA REGIONAL COMMISSION INTERVIEW

Robert LeBeau

Livable Cities Initiative Program Manager

Good afternoon. Thank you for taking the time to talk with me about your work at the ARC. Again, I am a graduate student at the University of Texas at Austin as well as an aspiring planner at our Capital Area MPO here in Austin. Out of everything the ARC does, what is the most significant program integrating land use and transportation planning?

RL: That would have to be the Livable Cities Initiative, although we do have a number of programs related to land use and transportation—not to mention that we are a land use agency in addition to a MPO.

Great, then you must be the person to talk to. Can you elaborate on the land use piece of ARC?

RL: We are the Regional Development Center for the Atlanta region under state law. We engage in a long-range regional land use planning process. However, there is not as strict of enforcement as you might see somewhere like Florida. Our land use scheme for the region is more of a guideline for local governments to look towards. That is why the LCI program is so successful, because it ties dollars to desired outcomes.

Could you give me an idea of the program's history—and was there broad political support from the beginning?

RL: Well, the program has been around since 1999. Local governments have been very supportive of the program due to the competition for funds. They are looking for funding, and this program provides an opportunity. So, no our board did not oppose the initiative. In fact, an additional \$150 million in funding for the program was recently allocated in our newest transportation plan.

That is a significant amount of funding. And I read that this funding comes from the standard federal sources for MPO's for planning and projects?

RL: Yes, around \$500 million total thus far for projects. But we also have \$13 million reserved for our market studies. The board set that up in the beginning, up to one million per year. We found that it was important to provide support for governments that might not be able to conduct complex studies on their own. The \$500 million is priority funding for LCI projects, all of which are identified through the awarded LCI studies.

And then your long-range plan is able to immediately reflect LCI projects that have been placed in the TIP, which seems to be a financial strength.

RL: Yes, it has been great to have this steady source towards livable communities.

I would imagine that while the ARC is both a land use and transportation agency that communicates internally quite well, it must be interesting still dealing with the regulatory features of the two planning processes separately.

RL: *It's funny you say that because this time around is the first time we have had our land use planning process happen concurrently with our transportation planning process.*

And was that just luck or did someone actually figure this out?

RL: *In the past they overlapped and were on different cycles. Recently someone with the state realized that if the ARC optioned to have their land use plan done during the second period outlined by the state, it would line up with the federally required transportation planning process. So, there was a little luck involved, but they figured it out also.*

Doing them both together must be great. How does the planning process technically tie into the LCI program?

RL: *We do modeling of the build out for any LCI project. It is similar to our Envision6 model, but more advanced and suited to land use modeling. Outputs include vehicle miles traveled and greenhouse gas emissions. Every LCI project awarded thus far has modeled reductions in both VMT and emissions, which was a stated goal of the program.*

Congratulations, that is an impressive accomplishment. Can you think of any other challenges or successes that jump out in your experience with the program?

RL: Well, one big problem is the delay from project selection to shovels moving. Local governments don't always understand that there is still a federal process tied to this money, even for a local LCI project.

Ah, so that is a bit of a drawback to using the standard federal funding.

RL: Another thing is that we haven't been able to always achieve our targets for residential development. We get enough commercial and office, but not housing.

The developer's are still tied to the market and more single family/sprawl tendencies?

RL: A little, but it also the housing demand itself. People are still using their cars, but it is slowly changing. We do need more housing in these areas, though.

Well, this is all very interesting. Thank you again for letting me speak with you. You have a great program, and I can see why it is nationally recognized.

SAN DIEGO ASSOCIATION OF GOVERNMENTS INTERVIEW

Carolina Gregor

Senior Regional Planner

Good morning. Thank you for taking the time to talk with me about your work at SANDAG. As I mentioned in my e-mail, I am a graduate student at the University of Texas at Austin as well as an aspiring planner at our Capital Area MPO here in Austin.

Out of everything your agency works on, what is the most significant program integrating land use and transportation planning?

CG: *Well, we have several tools that work with smart growth, but the most effectual is the TransNet incentive, which uses funding to encourage coordinated regional planning to bring transit service, housing and employment together in smart growth development. Other tools we work with are the Regional Comprehensive Plan and the Smart Growth Concept Map.*

When did this idea come about, and was the program initially accepted politically?

CG: *As you can see on our website, the program was developed based on the 2005 SANDAG Pilot Smart Growth Incentive Program. The Smart Growth Incentive Program will award two percent of the annual TransNet revenues, approximately \$4.8 million in FY 2009, for the next 40 years to local governments through a competitive grant program to support projects that will help better coordinate transportation and land use in the San Diego region. The projects funded under this program serve as models for how modest investments in infrastructure and planning can make smart growth an asset to communities around the region. These investments should help attract private developers to build projects that, with the support of the TransNet-funded projects, create great places in the San Diego region. We have been lucky to have citizens in our region that understand the importance of transportation funding, and having the TransNet funds has been key to this program. Political support has been there since the before the incentive program began—the TransNet tax was initially passed in the late 1980s.*

And I would imagine that these funds are not as tied up regulation-wise, as say the federal funding to the MPO.

CG: Yes, this is a local sales tax. We wear a few hats, but our Regional Comprehensive Plan works to connect our transportation and land use plans. But beyond that, we must guide infrastructure investments by providing incentives and collaboration.

I am fascinated by your visualization tools and program. It seems to be an innovative form of outreach, and we have learned in our Architecture-based urban planning program that streetscape and smart growth visuals go a long way towards letting citizens understand proposed development. Have local governments taken advantage of these visuals?

CG: The visuals have been a huge success. The characteristics of smart growth, compact mixed-use development, decent urban design and walkability, multimodal travel options and different housing types, and protected open space, are not always easily seen by non-planners. We got the firm UrbanAdvantage to do our visuals, and while they are a bit expensive, the response has been great. They have gone a long way at public meetings, and generally relieve tensions. Visualization tools can help illustrate how communities can be transformed by smart growth development and transit-friendly design. The goals of the simulations are to provide ideas for discussion in local communities, showcase different levels of smart growth in the place types identified on the Smart Growth Concept Map, and generate greater support for smart growth in the San Diego region.

Great. Have there been any challenges affecting these programs? Has being a single county helped?

CG: *Being one county has some advantages, but we still run into the issues most MPOs run into as far as rural vs. urban, and other conflicts of representation among our local jurisdictions. One of our challenges is that we have many tools available, but it is still up to the region to use the tools. We have a great smart growth photo library, 3 dimensional simulations of proposed activity centers, web-based maps for local neighborhoods, and design guidelines for local professional staff. Our modeling also accounts for alternative growth demographics. We put it all out there, but the challenge is outreach and making sure that these great tools are getting used.*

Well, I would imagine that they are being used—this is some great stuff that you just don't see anywhere.

CG: *Yes, you are right, and from what we can tell these tools are being utilized somewhat.*

Anything else you would like to add?

CG: *It is worth mentioning that a new California law, SB 375, requires that MPOs prepare a Sustainable Communities Strategy as a new element of their long range plans, along with the traditional policy, action, and financial requirements. The strategy must demonstrate how the development patterns and the transportation network, policies, and programs can work together to achieve the greenhouse gas emission reduction targets for*

cars and light trucks that will be established by the California Air Resources Board, if there is a feasible way to do so. If a MPO cannot meet the targets through the strategy, then the region is required to develop an Alternative Planning Strategy that demonstrates how the emission reduction targets could be achieved.

So, you are getting a pretty strong push from the state to work together on land use and transportation.

CG: *Yes, that is fair to say. The end results are what line up across land use, transportation, energy, water, food—we need to reduce our greenhouse gas emissions and vehicle miles traveled. And that is why we are prioritizing smart growth.*

Thank you for your time, I know you must be quite busy.

NORTH CENTRAL TEXAS COUNCIL OF GOVERNMENTS INTERVIEW

Staron Faucher

Transportation Planner II

Good afternoon. Thank you for taking the time to talk with me about your work at NCTCOG. I am a graduate student at the University of Texas at Austin as well as an aspiring planner at our Capital Area MPO here in Austin. Out of everything NCTCOG works on, what is the most significant program integrating land use and transportation planning?

SF: *Our sustainable development grant is the most important. We want to create pedestrian level areas, where people can get out of their cars. It is hard to walk in most of the region, so we are looking more towards mixed-use communities instead of what the developers traditionally pushed.*

Single-family homes?

SF: *Yes, and neighborhood street grids that don't necessarily connect. Development patterns have led our transportation investments in the past.*

When did this idea come about, and was the program initially accepted politically? Did the institutional arrangement or structure of your MPO affect the outcome of the program?

SF: *Sustainable communities came about in 2001. It has been a competitive program, with local communities going after the funds and the politicians supporting our efforts. Funding was originally based on federal congestion management and air quality dollars in addition to the standard federal project dollars channeled through TxDOT. But updates to the program have altered the funding source. We now use a combination of local dollars and regional toll revenue to fund the grants. It has been a challenge to juggle the different funding sources.*

You seem to have several programs addressing land use and transportation.

SF: *Yes, in addition to the grant we have an award, Centers for Development Excellence. That is where we have 10 principles or policies that we want to see in places around the region. The awards are meant to put a spotlight on developments that are setting an example for the region. There is also a development excellence search engine that we are working on. Technical staff or the public can search through comprehensive plans, TOD-area plans, form-based codes or smart codes, and subdivision regulations to see how other communities have implemented sustainable development.*

It all relates back to sustainable development.

SF: *We recognize four categories of sustainable development. You can see them on the website. Strategic urban development, integrated planning and urban design, TOD, and multimodal access. This is our strategy for land use and transportation, and yes it comes back to sustainable development every time. Our TOD implementation program is very popular. This is where cities bring good ideas to us and then we run with it. We go ahead and commission the market study, audit local policies and incentives, set up the public meetings and charette. Then at the end we hand it back off the community and they are ready to fund and implement.*

Your local governments must appreciate that—and of course you all are doing very well at developing TODs and capturing value.

SF: *And our Alternative Futures Demographic Scenarios take these new development concepts and plug them back into our modeling and long range planning process. We also develop air quality and vehicle miles traveled data as a result of these scenarios.*

What would you say is an interesting challenge or situation you have been in when implementing these programs?

SF: *Well, being from Texas, you know that our counties do not have land use authority outside of incorporated areas. We have worked with Ellis County to develop subdivision regulations as well as new ordinances to serve as a model for other areas in the region where traditional zoning and local controls might not be available.*

Wow, that is really innovative. It really sounds like local governments are embracing these programs.

SF: *They are. But there have been challenges. Working with locals to get multimodal access has been trouble at times. But access is a big part of our sustainable communities strategy and projects need to be multimodal in design. Another problem has been the funding mix. It would be nice if less funding was earmarked for highways and there was more of a focus on infill development. That is what the grants are meant to encourage, but we need more of a systemic change in our structure and funding to completely break away from the way things were done for years.*

Indeed. Is there anything else we needed to go back to?

SF: *Our sustainable development grants—I forgot to mention that they are not just for projects. In our most recent call for projects, there were 72 infrastructure projects and 28 planning projects.*

Planning projects, like the TOD implementation assistance?

SF: *Yes, similar to that, but this is an additional source. \$3 million max per year, but as you know you can commission a lot of planning studies for 3 million dollars. I wanted to also mention that we have a close relationship with TxDOT, which has certainly helped speed some processes up.*

Yes, you can get a lot of planning for a few million. And that is a good point about TxDOT, thanks. Well, I know how challenging it can be for a MPO to attempt to create a regional vision. I applaud your efforts—you offer quite a bit to your local governments in terms of technical assistance, reference, and visioning. Thank you again.

CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION INTERVIEW

Daniel Dargevics

Transportation Improvement Program Manager

Hello—thank you for taking the time to speak with me about CAMPO and land use. What is the most important program CAMPO is working on that integrates land use and transportation planning?

DD: *Well, up until now we haven't done much of land use and transportation integration. We haven't quite hit air quality non-attainment yet, and until recently have been somewhat rural. Our regional freeway network just recently has been built out, as*

toll roads though. Business as usual, even earlier this decade, supported all of those factors.

But CAMPO's current planning effort looks to get into land use, yes?

DD: That's right. Our 2035 Long Range Plan is working off of alternative scenarios for the first time. One scenario, called "trend," continues the sprawl and freeway development we have seen. The other scenario, called "centers," establishes activity centers throughout the region, where transportation facilities should be prioritized and development intensified. We have demographic targets for these areas in housing and employment. But, we don't have anyway of enforcing the land use component.

It seems that a big part of what a successful MPO does is create a regional vision, even if the structural authority isn't there.

DD: We do work with the locals all the time. Our board has preliminarily approved setting aside a significant portion of future federal funding for transportation projects that support centers. This funding is our only way to influence projects or development in the area. Projects, because governments are directly competing for project funding in our TIP, but also development because we can make local land use plans and developer activity criteria that are evaluated when transportation funds are awarded.

So how did this change of heart come about, and is there political support?

DD: It has been a slow process. Earlier this decade we had a regional visioning process, Envision Central Texas, which was not run by CAMPO. However, the result of

Envision Central Texas fed into our Regional Growth Concept, which was developed in 2007. That Regional Growth Concept then was adapted into the Centers concept for the long-range plan. Political support is mixed, and while the board is mostly behind the Centers concept, the policies of the past loom large. Our Transportation Improvement Program is still loaded up with huge projects from the 1990s and beyond. We will not be able to really get these Centers projects going until the TIP is cleaned up and the board takes some decisive action with the upcoming plan adoption.

It is fascinating to see the process develop, what CAMPO is going through now is most likely similar to what NCTCOG went through a few years back. So financially, there is still uncertainty. And we know about the institutional challenges as far as being in Texas, what about modeling and technical issues?

DD: *We are updating our modeling methodology, but for this plan it is still not activity-based. It is still the traditional four-step model for trip generation. One of our big initiatives right now is getting our model updated with activity and land use decisions, and air quality outputs.*

And how will projects be prioritized with the new plan?

DD: *The board still has to finalize all of that, the Centers concept and direction itself, the dedicated funding for such a concept, and any prioritization criteria. I imagine we will do it like we do our standard Transportation Improvement Program project selection, with scoring based on criteria such as being within a center or connecting two centers. It is an exciting time here because we are moving in a new direction. It is a big*

ship that has to be turned slowly, but we are turning it. It is up to our policy board leadership to approve actions that signal a clean break from the earlier policy paradigm. Funding is the big problem now with TxDOT being broke, and some people are worried that our board won't give enough funding to our new Centers concept.

And that would undermine the plan?

DD: *It could. As you know, the plan is only as good as its implementation. For instance, our 2030 plan identified twice as many projects as what can actually be constructed. One of our board members likened our new plan to an "I want a pony" plan, meaning we want our cake and we want to eat it.*

That is interesting—other MPOs I have looked at have already had the political and financial support for these types of initiatives, but you have to start somewhere.

DD: *Yeah, the ship doesn't turn on a dime here. All eyes are on our policy board at this point.*

I'm sure. Thanks again, Dan.

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