UCLA EXTENSION PUBLIC POLICY PROGRAM
Annual Symposium Series on
THE TRANSPORTATION, LAND USE, ENVIRONMENT CONNECTION

Finance: The Critical Link

October 19-21, 2003
UCLA Conference Center
Lake Arrowhead, California

SUMMARY OF PROCEEDINGS

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FOREWORD

This report is a summary of proceedings from a policy and research symposium on **Finance: The Critical Link** held October 2003 at UCLA's Conference Center at Lake Arrowhead.

UCLA Extension's Public Policy Program convened the symposium, which was the thirteenth in an annual series created to address the important connections between **Transportation, Land Use, and Environmental Quality**. Each year a special theme is selected for detailed examination of the interrelationships among these three areas. This year Finance was added as a critical component of the discussions. The challenges to public and private financing of transportation systems, land development, and environmental mitigation – in a period of withering resources – formed the backdrop of this year's program.

Specific issues addressed were:

Paying for infrastructure: implications for transportation systems and private land development;

- The fiscalization of land use and opportunities for reform;
- Transportation finance: constraints and needed changes;
- Fiscal politics: how do they influence land use, transportation, and environmental outcomes?
- What role do transportation investments play in shaping land development, and what are the fiscal impacts of alternative patterns of development?;
- Innovations in making land use and transportation investments work together;
- The environmental impacts of land use regulations and transportation finance policies, and ideas for improving environmental protections;
- Private sector views on location decisions, public regulation of land markets, Smart Growth, and fiscal incentives/disincentives;
- Goods movement: who should pay for it and how? And how is restructuring of the goods movement industry affecting land development patterns?

To ensure that the symposium was keyed to the needs of policymakers and practitioners, the program was developed with the considerable help of numerous co-sponsoring and cooperating agencies and organizations, which include governmental, business, environmental, and public interest groups. These organizations are all listed in Appendix D.

I gratefully acknowledge the collaborative partnership shared between UCLA Extension and the UCLA Institute of Transportation in convening this annual symposium series, including the invaluable contributions of my co-chair, Brian Taylor, Associate Professor of Urban Planning and Director of UCLA's Institute of Transportation Studies in the School of Public Policy & Social Research. Very special thanks, also, to the two individuals who prepared this comprehensive proceedings report: Amy Ford and Kevin Holliday, both affiliated with UCLA's Institute of Transportation Studies.

The hope of the symposium organizers is that the information and ideas that emerged from this symposium will contribute to ongoing policy dialogues, and will inspire applications to daily practices, political decisions, and research agendas.

This report is dedicated to Jim Ortner, who was a longtime member of the UCLA Lake Arrowhead Symposium Steering Committee, and contributor to every symposium. Jim was killed in a traffic collision in December 2003, shortly after this symposium. He was Manager of Transit Technical Services for the Orange County Transportation Authority, where he developed an alternative-fuels bus program, implemented electronic fare-box systems, and prepared analysis and policy on transportation and air quality. His work on transportation and the environment played a large role in improving public policies in Southern California.

Jim Ortner was an alumnus (Ph.D, 1978) of UCLA's Urban Planning Program. He taught Transportation and Environmental Issues in the Urban Planning Department, served as guest speaker in several other courses, and served as a strong mentor to many Urban Planning students.

Joanne Freilich, AICP

Director, UCLA Extension Public Policy Program

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I. INTRODUCTION

For over a decade, the UCLA Symposium on the Transportation – Land Use – Environment Connection has gathered a diverse array of policymakers and practitioners from both the public and private sectors, alongside policy researchers at the UCLA Lake Arrowhead Symposium Center. Convened each year by the UCLA Extension Public Policy Program, in collaboration with the UCLA Institute of Transportation Studies, and supported by over two dozen public and private agencies and organizations, the goal of the symposium is to examine and discuss the nexus between transportation and the urban and natural environments. This year the three-day event tackled the issue of ***Transportation Finance: The Critical Link***.

Transportation finance is an inherently political topic, and the presence of various levels of elected and public officials at the symposium fostered interesting and lively debates, as theoretically appealing ideas were viewed through the prism of political reality. For example, suggestions for altering the local sales tax structure to discourage retail and encourage housing development were favored by some, but generally elicited strong concern by elected officials in attendance, whose cities had been developed based on the current fiscal structure.

Taking place as it did during a time of economic downturn and political upheaval at the gubernatorial level in California, the symposium tended to focus on the widely perceived "crisis" in transportation finance; several attendees saw the crisis as an opportunity for dramatic change. That there is currently a crisis in transportation finance may be surprising to some. After all, tax revenues have been set aside specifically to support many transportation projects, yet we seem always to have more obligations than we have money for. If this is the case, what is the nature of this crisis? Defining the nature of the crisis became an important part of the symposium. Transportation finance is also a contentious issue; different factions saw the lack of funding in transportation mostly as a result of waste in government finance, while others felt that the current finance system was antiquated and not up to the challenge of our growing population and additional reliance on automobile travel.

Whether in a time of fiscal constraint or not, transportation finance is always an important topic, since the way in which we finance our transportation networks influences what is built and thus travel behavior itself. Finance is the critical link in transportation. In good times, finance is a quantifiable picture of the many trade-offs that are made in policy making: temporal, geographic, and opportunity costs. In bad times, those tradeoffs and choices become sharper.

The symposium produced discussions of considerable breadth and depth. This report summarizes the presentations and subsequent discussions as comprehensively and objectively as possible. Separate sections detail each of the nine presentation sessions. Each section begins with synopses of the speakers' presentations and concludes with a summary of the discussion that followed. This report is designed to serve as an account for interested individuals who did not attend the symposium, as well as a source of reference and review for participants.

Amy Ford and Kevin Holliday

II. SYMPOSIUM PROCEEDINGS

NOTE: *Please refer to the online version of this report for links to PowerPoint materials associated with several of the presentations made at the Symposium. The online version of this report can be accessed at uclaextension.edu/publicpolicy.*

Joanne Freilich opened the conference and reiterated the three principles of the annual Lake Arrowhead symposium series:

1. The overarching theme of the series is the connection between the fluid boundaries of transportation, land use, and environmental quality. Each year, the conference organizers choose a theme at the intersection of these topics. Past conference themes have included technology, pricing schemes, growth, and congestion, among others.

2. A hallmark of the symposium is the bringing together of policymakers, practitioners, and leading researchers. What comes from each symposium is new information and findings that serve as a springboard for new legislation, policy, and programs.

3. The series is purposely convened as an invitational retreat to encourage a sustained and interactive dialogue, away from everyday work and pressure. Audience members are not passive; interaction is encouraged and expected. The speakers set the table; the participants "attend the feast."

Freilich indicated that the goal of this year's look at finance was not just to look at the current budget crisis in California and around the nation, but rather to see finance and fiscal policy in the longer term, and in the wider context.

SYMPOSIUM OVERVIEW

Brian Taylor gave an overview of the symposium, noting that most people experience public finance indirectly. But Taylor argued that the public finance of transportation systems and the public regulation of land uses profoundly affect private investment decisions of developers, the location decisions of employers and residents, and travel patterns of people and goods. These links between public finance and regulation, and private decisions and behaviors, are the subject of the 2003 UCLA Lake Arrowhead Symposium.

Taylor discussed the severe fiscal crisis in California. A growing population and the rising obligations and commitments that accompany that growth have combined with instability in energy markets, dramatic declines in the technology sectors, and the broader national economic slowdown to produce record-breaking budget deficits. This crisis has been exacerbated by increasingly partisan intransigence over how best to close the yawning budget gap. Taylor suggested that there is strong political resistance to cutting programs and slashing spending, and strong political resistance to raising taxes and fees. The most visible repercussion of these crises is the extraordinary recall of the Governor, which continues to reverberate across the political landscape.

But Taylor argued that the constraints of fiscal crisis can also present opportunities for fundamental changes in the ways that we plan for and pay for public facilities and services, suggesting that most of the significant changes to surface in transportation policy and planning have occurred during times of fiscal crisis:

- The rise of motor fuels tax and a user-fee logic to transportation finance that lasted for almost three-quarters of a century arose during the highway-driven debt crisis in the years preceding and following the first world war.
- Congress adopted the Interstate Highway System in 1944. But it wasn't until highway user fees were significantly increased, a dozen years later, and the decision was made to deposit the revenues from these increased fees into a highway trust fund that the Interstate Highway System was moved off of the drawing board to transform travel (and life) in the U.S.
- The wholesale bankruptcy of a privately-owned and operated urban transit industry during the middle third of the twentieth century led to publicly owned and operated transit service and federal, state, and local subsidies of public transit. This fiscal crisis in transit also contributed to the rise of metropolitan planning organizations and to multi-modal state departments of transportation.
- And of course, a fiscal crisis of a different sort led to a political backlash against rising property taxes. The passage of Proposition 13 (which limited the amount of property tax revenue that the State of California could collect) has, for a quarter of a century, transformed local government finance, giving rise to fiscal zoning, contributing to local government dependence on state largess, and turning California toward an increasingly initiative-driven political state.

Despite a long history of fiscal politics shaping transportation and land use outcomes, Taylor argued that many people and policymakers tend to view the politics of public finance as somewhat separate from land use regulation, transportation policy, or environmental planning -- that it is a process where we figure out what we want to do, and then we figure out how to pay for it. In reality, Taylor argued, what we want to do is greatly influenced by whether we can pay for it. Programs, projects, and even statements of needs tend to be driven by available pots of funds. Further, what we need to do is also shaped by how we pay for things. This second point is a more subtle one, but important.

Taylor gave a simple example: A travel demand study may forecast a significant increase in travel over an already heavily used bridge. This forecast prompts proposals to construct a new parallel span to accommodate the growth in traffic, which, in turn, leads to efforts by local officials to secure funding for the new bridge. But the decision over whether or not to use tolls to help finance the new span will significantly influence the level of demand for the bridge. So this decision over how to fund the bridge influences the need for a new bridge.

Less hypothetically, Taylor continued, limitations on property taxes rates encourage cities to zone for land uses that tend to generate more in tax income than they consume in local services. Over time, this discourages production of affordable housing and encourages revenue-generating land uses like auto malls.

The lesson here, Taylor explained, and one of the themes of this symposium, is that we simply cannot opt out of thinking about pricing and price signals when discussing public finance. However, many – perhaps most – public officials are loath to talk about pricing, which they see variously as inequitable or as "social engineering." But, Taylor argued, *however* we decide to tax land and finance infrastructure sends price signals to consumers. And *however* we choose to levy fees on travel to pay for roads, terminals, and transit profoundly affects private investment decisions of developers, the location decisions of employers and residents, and travel patterns of people and goods. In other words, we simply cannot avoid talking about pricing.

Taylor suggested that the principal goal of the symposium was to focus on how finance both *shapes* and *is shaped by* the transportation – land use – environment connection.

We can begin by asking how we define *successful* public finance programs. Taylor proposed several criteria: They generate needed revenues. They maintain sufficient popular and political support. And they should also encourage efficiency, effectiveness, and equity in land development, transportation systems, and environmental management.

We can think about the *performance* of a public finance program both in terms of its political viability and its effect on what it funds. These are complex issues, and the waters here can get murky pretty quickly. In this symposium, Taylor argued for considering both private and public investments and both *direct, internal* and *indirect, external* costs.

Transportation finance, according to Taylor, involves significant private expenditures on vehicles, fares, fuel, insurance, etc., and substantial public expenditures on ways and terminals, plus some public expenditure on vehicles, fuel, etc. With respect to land, most – though not all – of the investment is private, but this private investment is publicly regulated and taxed. This public regulation and taxation of private investment directly affects public expenditures on infrastructure, schools, parks, safety, and so on.

Finally, the environment-finance connection may seem less obvious to some, but to Taylor it is very important. Environmental costs generated by private (and public) actions are often related to transportation and land use decisions. Combinations of regulation and pricing are employed to internalize what would otherwise be external costs. And, of course, environmental regulation and mitigation programs receive direct public (and private) funding as well.

Taylor concluded his introductory remarks with an overview of the symposium topics.

OVERVIEW OF SYMPOSIUM SESSIONS

Session 1, **Transportation and Land Use in the Broader Context of Public Finance**, examines how public finance and finance-driven public policies influence both the provision of transportation and other infrastructure, and the regulation of land development.

In Session 2, **The Anatomy of Transportation Finance**, discussion turns to the topic of transportation finance to ask four basic questions: How is the public finance of surface transportation currently structured? How did it get that way? What are the current, important challenges before us? And what can we do in the coming years to improve things?

In Session 3, **Working With, and Against, Fiscal Politics to Improve Land Use, Transportation, and Environmental Outcomes**, a panel of distinguished experts discuss how political debates over public finance shape both land development and transportation outcomes.

This panel also explores the environmental consequences of fiscal politics and ideas for improving the links between fiscal politics and policy and planning outcomes.

For several years now, land use – transportation linkages have received substantial attention from policymakers, planners, and researchers. But the role of finance in shaping transportation – land use linkages has received less attention. Session 4, **The Fiscal Impact of Alternative Forms of Development: What Has the Evidence Shown?**, explores research on the public and private costs of alternative forms of development, the effects of transportation investments on land values and development, and the effects of fiscal policies on development and travel in Europe.

In Session 5, **Making Land Use and Transportation Investments Work Together: Recent Innovations in Practice**, the symposium moves from research to practice with presentations on recent efforts to make land use and transportation investments work together. Specifically, the session focuses on using finance creatively to better link land development with public transit investments, and on the role of parking and parking revenues in revitalizing local commercial districts and neighborhoods.

Session 6, **Linking Land Regulation and Transportation Finance to Environmental Quality**, turns to financing environmental quality and measuring the environmental costs of transportation and land use systems. We also explore how environmental mitigation and project planning can be better integrated, and examine new developments in pricing transportation systems to reduce emissions and improve environmental quality.

In a shift from the symposium's typical focus on public sector actors and actions, Session 7, **Private Sector Views on Development, Land Use, and Transportation**, has a decidedly private sector flavor. In this roundtable session, land developers and other private sector actors offer their views on location decisions, public regulation of private land markets, growth management and Smart Growth, and the role of transportation investments and exactions on development decisions.

Session 8, **Moving the Economy: Who Should Pay for Goods Movement and How?**, looks at goods movement and the significant financial challenges to accommodating the staggering growth in surface freight. We look at the economic forces conspiring to increase goods movement, projected trends in goods movement, the implications of these trends for land development and warehousing, opportunities to use new technologies to track and price the movement of goods, and current goods movement planning and finance here in Southern California.

Finally, in Session 9, **The Political Challenges to Fiscal Reform: Improving the Transportation-Land Use-*Finance* Connection**, an exceptional group of practitioners considers what we have learned and what we should be doing to improve the transportation – land use – environment – *finance* connection.

SESSION 1: TRANSPORTATION AND LAND USE IN THE BROADER CONTEXT OF PUBLIC FINANCE

Joanne Freilich (Moderator), Director, UCLA Extension Public Policy Program
David Dowall, Professor of City and Regional Planning, University of California, Berkeley
Daniel Dornan, Vice President, AECOM Consult, Inc., Fairfax, VA
Elizabeth Deakin, Associate Professor of City and Regional Planning, University of California, Berkeley and Director, University of California Transportation Center

Paying for Infrastructure: Implications for Transportation Systems and Land Development

David Dowall outlined the historical status of infrastructure finance in the State of California. The three key areas of infrastructure he discussed were water, education, and transportation. Dowall, who has spent time researching overseas, was 'shocked' to learn that developing countries (such as India) increasingly have a more 'logical' system of infrastructure finance than California does. But like developing countries, California has witnessed exponential population growth in the past and its population is likely to continue to grow well into the future.

Dowall reported that state capital investment in infrastructure grew rapidly after WWII and peaked in real dollars around 1950, under Governors Earl Warren and Pat Brown, who had made serious commitments to infrastructure. Investment continued at a very high level per capita until the early 1970s, when per capita investment in infrastructure fell precipitously.

Despite continued population growth, Dowall explained, current levels of infrastructure investment are extremely low. This fall-off in public sector investment followed Proposition 13 (a 1978 referendum that limited the amount of property tax revenue that the State of California could collect). Dowall suggested that constitutional mandates have resulted in a great deal of 'forced spending' on entitlements such as K-12 education, severely limiting the pool of resources that the state can devote to infrastructure. In addition, the Reagan Administration's anti-public sector philosophical approach and the Brown Administration's "small is beautiful" approach resulted in decreased spending on infrastructure.

Dowall noted that while the weak "really soft" economy of the early 1990s was able to disguise the limitations of the established infrastructure due to reduced demand, the rapid growth in the second half of the decade exposed the weaknesses as infrastructure capacity began to show its limits. For example, there was little increase in the number of lane miles in California, despite a large increase in vehicle miles traveled (VMT). Unlike VMT, population growth and water capacity grew hand-in-hand until the 1970s – capacity then flat-lined, despite the increase in population.

Dowall listed several challenges to linking strategic and financial planning:

- Poor implementation of projects and programs
- Deferred maintenance
- Lack of multi-sectoral vision for planning
- Little interest in demand management

- Fewer user fees charged for services
- Unpredictable funding

Dowall then asked: Where are we headed? How can we get there? Where should payments come from, the local or state level?

Dowall advocated moving towards user fees to finance future infrastructure. Such fees or tariffs should be aligned with costs and benefits. Transportation could follow water sector in its pricing scheme. Fees for higher education, he suggested, should be means tested. Fees should cover the full "lifecycle cost" including maintenance. The social justice and equity concerns about fees are better addressed using income transfers rather than through infrastructure pricing.

In the future, Dowall said, infrastructure programs should be based on sound long-term financing plans, which would make funding more predictable and rebalance state and local financing responsibilities. Dowall reiterated the need to make greater use of user and beneficiary fees.

Dowall outlined his concluding points, stating that California should formulate a vision (like that of the 1950s and 1960s) and use it to plan infrastructure investments; introduce demand management; use fees to pay for existing and future infrastructure; make capital funding more predictable; introduce accountability to project delivery; and bring in lifecycle costing and management. Finally, he cautioned that reform will not come based solely on the merits of technical arguments.

Managing Infrastructure Assets: Implications of New Accounting Guidelines

Daniel Dornan's main subject was an "accounting breakthrough" for state and municipal governments from the Governmental Accounting Standards Board (GASB); the new breakthrough rule is known as GASB 34. Adopted in 1999, the new rule essentially requires governments to take an inventory of their infrastructure assets, evaluate them, report the information to the public and, more importantly, to bond rating agencies; Dornan saw transparency, performance-based accountability, risk management, and partnership involvement as important themes to transportation infrastructure, all of which could be helped in one way or another through GASB 34.

While officials may see this new accounting obligation as a burden, Dornan explained how tracking assets in the public sector in a manner similar to how the private sector has done so will be a boon to infrastructure investment. Simply put, he said, "what gets measured gets done." And, the new GASB 34 requirement will require governments to measure their infrastructure assets. In order to maintain high bond ratings, governments will need to show that their assets are being maintained or that there is adequate funding for replacement.

As a prelude to his discussion on GASB 34, Dornan described seven factors of the 'perfect storm' of infrastructure financing:

- Funding is not keeping up with needs because those needs were determined by engineers in the 1950s.

- There is a doubling-up of needs, involving both replacement of what already exists, as well as adding to it.
- Politicians do not want to be visible when raising taxes, but they still want exciting capital projects; at the same time, they do not want to maintain past projects.
- Reauthorization (of the main federal transportation funding bill) has been stalled and won't be until pushed forward until 2005.
- The public is cranky due to congestion.
- The financial community is wary of the infrastructure industry.
- Developers will stop just being cheerleaders, and will start getting into the game.

Dornan explained that GASB 34 ameliorates the situation by creating transparency and accountability. Prior to GASB 34, once an infrastructure project was built, it was immediately written-off and considered a sunk cost. Governments will typically defer maintenance due to budgetary pressures and the lack of financial incentive – after all, why maintain something when you can replace it with money that is matched 80/20 by the federal government? Old accounting rules, federal policies, and politicians with short time horizons (due to term limits) work in concert to create an incentive to over-build capital and defer maintenance; deferring maintenance in turn results in a need to replace the infrastructure more quickly than it really should be. Assuming that GASB 34 encourages states to invest more in maintaining infrastructure assets, Dornan claimed that cities could save about 75% by reducing replacement costs that occur every 25-30 years.

Dornan described two other ways to lower costs (performance/environmental streamlining and design/build) but dismissed them as marginal; the real dollars, he said, are in asset management.

In explaining how GASB 34 could lead to new revenue sources, Dornan considered ways to raise revenues:

- Direct user fees: Tolls, VMT fees
- Public Taxes on Special Assessment Districts (Dornan sees a huge opportunity if private placement bonds can be tied to the benefit from transportation infrastructure, much as the railroads did a century ago)
- Private sector funding: use partnerships with private companies.

Dornan explained that leveraging, accountability, risk management, and transparency are all ingredients to attracting the private sector, which truly is "the bank," providing up-front loans for infrastructure projects. But, to be able to leverage this potential funding, which requires interest payments, one must understand the return to the economy that transportation infrastructure will provide. Dornan stressed that the key was lifecycle management of infrastructure, and GASB 34 requires all state and local governments to report any infrastructure that they own. Dornan contrasted the current approach with the new, preservation approach. In the current scheme, depreciation is shown on a balance sheet with a decreasing value over time, becoming an unfunded liability. With the preservation approach, governments show that they are maintaining assets, thereby extending asset life and avoiding unfunded liabilities. This type of lifecycle management results in longer replacement cycles.

Dornan stressed that GASB has no power to make cities follow the new rules. However, bond rating firms are likely to lower the bond ratings of cities that do not comply – and lower ratings translate to higher borrowing costs. Dornan concluded by stating that GASB 34 is "the flood light on the emperor with no clothes," which will help to link transportation investment and land use.

The Fiscalization of Land Use: Effects on Development and Travel Patterns, and Opportunities for Reform

Elizabeth Deakin began her presentation with a definition of land use fiscalization: Municipal governments 'fiscalize' land use decisions when they aggressively pursue land uses which have a positive impact on revenues; use development fees to recover costs; and control development by linking it to the existence of infrastructure.

Deakin argued that public opinion has shifted from "growth is good" to "growth can be a problem." Moreover, she stated that governments should be careful when spending money on development. Deakin reported that the potential for new or increased congestion often garners the most vocal opposition to new development. The public will also be concerned about a general change of place and changes in the class or socioeconomic status of the area. Municipal officials attempt to create compromises, which will bring the needed revenues for sewers, parks, schools, taxes, etc., while simultaneously placating the public's concerns.

Another goal that municipal governments have for fiscal zoning is to maintain the physical, cultural, and socioeconomic characteristics of the area (by preventing low income housing, for example). In place of resource-depleting land uses such as low-income housing, governments seek revenue-generating uses – Deakin described an auto mall as municipal fiscal "heaven." She cautioned that not all states are the same; some states' tax policies do not create sales tax-seeking municipal governments.

Deakin reported the findings of a study of municipal governments by John Thomas that showed how widespread this "fiscal focus" is. Of the municipalities in the research:

- 42% did fiscal analysis of plans;
- 25% did fiscal analysis for projects;
- 66% used impact fees; and
- 33% used Adequate Public Facilities Ordinances.

Deakin explained that municipal governments use tools to evaluate the fiscal impacts, but they do not always get fiscalization right. For example, Montgomery County, Maryland, seeks out certain forms of development after researching how much revenue said developments will generate. Big box retail, for example, may appear on paper to be a good deal; however, the impact that new big boxes have on other businesses is not usually factored into the analysis. "Executive housing," i.e. high-value housing for upper class residents who do not have children in public schools, is also a popular land use, because it brings in high property taxes and uses few services.

Deakin suggests that implementing land use policies is significant. For example, developers hate conditional zoning, because it implies that every decision must go before the city council for approval. Deakin said that they prefer fees, which can easily be added to spreadsheets, and which they will know up front. Deakin mentioned that even if municipal governments would prefer to hold out for higher density, fiscal pressures are often too great to wait, when developers will build single family housing immediately. On the one hand, municipal fiscal problems/crises can lead to a development paying its way through mitigation or impact fees. However, fierce competition between localities for significant revenue-generating land uses, such as a Costco, can lead to low impact fees.

Deakin discussed some implication of residential location considerations: While many first time home buyers are burdened with long commutes, they are often rewarded with faster growth rates in their equity. That is, these “equity miners” seek housing on the urban fringe in an effort to generate a higher return on their capital despite a crippling commute. She also claimed that an increasing number of home buyers are unwilling to purchase the small starter homes or fixer-uppers, but rather prefer new, large homes from the very beginning of their home ownership experience.

Deakin explained that developers see Transit Oriented Development (TOD) and infill projects in general as too risky, primarily due to local government and community opposition. As a result, fiscal reform can help to make infill more attractive to developers but it will not be the cure all. Finally, Deakin reminded attendees that finance is not the only link, and that planners need to address social and cultural issues as well.

DISCUSSION

Joanne Freilich asked Dornan to talk more about GASB 34. Is it required, and what is the status? Dornan replied that the rule is viewed as a problem nationwide. Governmental entities were not pleased with the new GASB 34 rule, and threatened the Governmental Accounting Standards Board (GASB) with dissolution. However, most governments have attempted to comply with the rules ahead of the 2005 deadline. Dornan cautioned against “depreciation accounting” which may negatively impact bond ratings; he advocated instead for “preservation financing.”

Norm King, San Bernardino Associated Governments, stated that the Vehicle License Fee (the “car tax”) is important to local California cities. For funding transportation, developer fees do not necessarily make sense because they assume the same travel behavior from two different houses. What if one houses an elderly woman and the other houses teenagers? King found that it is hard to argue that big box development causes problems for housing; he suspects that it is poor zoning that has the effect. King wondered if the localities that are seeing big box are already housing rich, since most big box happens in the exurbs.

Citing examples from San Diego and Pittsburg, California, Deakin said that while a municipal government might, for example, zone a particular area for townhouses, it can subsequently be pressured to rezone for big box retail when a corporation expresses an interest in the site.

Richard Dixon, City of Lake Forest, agreed that there are some cases of big box retail displacing housing. However, he did not feel that localities force out non revenue-generating sources, citing his own city as an example. He did agree that cities consider the fiscal impacts of development.

Martin Wachs, University of California Berkeley, questioned the alleged vision in the 1960s in California which let to a great deal of investment, and then flat-lined. He asked, was there a clear vision? Or did we overspend, because of a lack of vision? Why were the high levels of investment right and today's lower levels wrong?

Dowall agreed that former California Governors Jerry Brown and Earl Warren might not have had a vision about *all* infrastructure spending. However, in the area of higher education, the vision was very clear and strong, with a three-tiered higher education system (University of California, California State University, and community colleges). In the area of water supply, there was not necessarily a vision for long-term stability, which may have lead to unsustainable development. Transportation, he said, may be more like water than higher education. The current political environment has not been conducive to bipartisan solutions, which necessarily prevents vision. Dowall also suggested that the new rift in California politics centers on a Coast / Inland divide rather than the North / South divide of yesteryear. New Jersey has lessons for California in terms of visioning, as do Utah and Minnesota. We need to look across sectors, he said, because too many people operate in silos.

Bev Perry, City of Brea and the Southern California Association of Governments, discussed the proposed sales tax / property tax swap, saying that cities shy away from such a proposal because they fear the state is just trying to take away sales tax since it already has property taxes. She also said that when discussing the fiscalization of land use, we have to look at the loss of manufacturing jobs, and the loss of the middle class. With the highest poverty rates in the country, the problem is not a lack of houses, but a lack of affordable housing. Perry wondered how to contend with this lower per capita income, when dealing with poverty costs that total $5 billion per year?

Deakin responded that California has gotten very dependent on fees, and there is a limit to how much more policymakers can push those fees. By contrast, California is low on property tax. She agreed with Perry's point on poverty in California, saying that there is really a "coastal state," which is rich, and everywhere else, which is not. The divide is very hard to talk about it, because a lot of people are just barely getting by.

James Corless, of the Surface Transportation Policy Project, questioned the validity of comparing the growth in lane miles to the growth in VMT. He suggested that the growth in VMT could be tempered using demand management. He was concerned that by focusing on lane miles, the numbers discounted efficiency.

Dowall lamented the lack of a better mobility measurement for transportation, because there are better metrics. However, he felt his statistics on higher education were a good illustration of a congestion problem. He emphasized that needed growth in that sector was lacking. Dowall stressed the importance of demand management to shift peak demand. Finally, he suggested that we squeeze more capacity out of existing systems; for example, many schools are not year-round and many professors do not even teach on Fridays!

Dornan had a final point for the assembled participants: While population measures tell us one thing, auto ownership is up and that generates more trips. What, he asked, does the boring topic of GASB have to do with anything? Answering his own question, he explained that it not only provides a tool to manage resources, but also allows private resources to be leveraged against public moneys. GASB provides a means to an end: leveraging private funding. For example, the Alameda Corridor in Los Angeles, Union Station in Washington, DC, and a railroad in Colorado are all projects that included private investment. Dornan wondered how many of the symposium attendees had gotten involved in true private-public partnerships (not just contracting) as part of a strategy to leverage funds on infrastructure projects.

SESSION 2: THE ANATOMY OF TRANSPORTATION FINANCE

Brian Taylor (Moderator), Associate Professor & Vice Chair of Urban Planning; Director, Institute of Transportation Studies, UCLA
Arthur Bauer, Principal, Arthur Bauer & Associates, Sacramento, California
Therese McMillan, Deputy Director of Policy, Metropolitan Transportation Commission (San Francisco Bay Area)
Martin Wachs, Roy W. Carlson Distinguished Professor in Civil and Environmental Engineering, Professor of City and Regional Planning, and Director, Institute of Transportation Studies, University of California Berkeley

Brian Taylor introduced the afternoon session, noting that he hoped that by the end of the session, all attendees would have a similar basic understanding of transportation finance. In contrast, the goal of the evening session was to answer two questions: “How did we get here?” and “What opportunities exist to move forward and make positive changes?

Shifting Sands: The Evolution of Surface Transportation Finance

The goal of **Arthur Bauer**’s presentation was to interpret the context in which transportation funding has evolved over time, and to discuss where it might be going. Bauer stressed that funding does not happen in isolation; transportation must compete with other public issues for funding and transportation policy must be made in compliance with constitutional guidelines.

Bauer’s history of transportation finance began one hundred years ago, prior to the Federal Reserve System, when the poll and property taxes were major sources of revenue. As the automobile began to come into its own, a series of bond issues in 1911, 1913, and 1915 set up ways of capturing property tax for transportation funding. Counties and the State of California tended to partner for transportation projects, but cost overruns still occurred, and the state began to be controlled by debt service.

By the 1920s, Bauer said, road financing was “out of control,” but because the benefits of highways could easily be assigned to the users, lawmakers found it easy to implement a two-cent gas tax. With the coming of the tax, the state was able to focus on other issues. But the relationship between the counties and the state was complicated, and the division of gas taxes no less so; this sharing of gas taxes between jurisdictions continues today. As the gas tax grew higher over time, portions were set aside for specific projects, such as city streets or highways.

Bauer's presentation turned next to World War II. He explained that during the war, spending on infrastructure, including roadways, was depleted. Once the war ended, however, the country and state wished to "get out of the muddle," ushering in a Golden Age of transportation that lasted into the early 1960s. During this time, the gas tax was raised to match costs and there was equity of allocation between counties and the state.

In 1962, Bauer declared, "urban California asserted itself" and mounted freeway revolts that resulted in freeway plans being removed from transportation planning documents. At the same time, the legislature was reapportioned due to population shifts. Historically, Northern California had been more populous and therefore received a majority of the transportation funding. But by 1970, Southern California had firmly eclipsed the northern half of the state in population, and legislators created a new paradigm for transportation funding to reflect the shift of people from north to south. Specifically, the money was split such that 60% went to the south and 40% to the north. With the approval of Proposition 13 (which limited the amount of property tax revenue that the State of California could collect) in 1978, total revenues to the state declined and the flush state budgets were history. By the mid-1990s, the state was left with a more complex, rule-laden system of financing.

Bauer summed up his presentation, stating that "transportation is not that special." A feature of the evolution of funding is incrementalism, and transportation objectives have become less important as funding policies are linked to secondary – and sometimes competing – objectives. Since constitutional decisions such as Proposition 13 and reapportionment had lead to the current situation, Bauer estimated that some sort of constitutional resolution might be the most appropriate means of rectifying the situation.

Where It Comes From and Where It Goes: The Current State of Transportation Finance

Therese McMillan's presentation was designed to be a basic primer in "Transportation 101" for all assembled. McMillan started by explaining that although federal dollars do not make up much of the financial profile of a given transportation budget, federal funding is highly visible and highly political, and therefore gets a great deal of attention. In the aggregate, talk of federal dollars is in the billions. Federal transportation dollars are distributed according to an arcane method; some states are donors and the others are donees. However, under current law, states are guaranteed to get 90.5% of what they generate in taxes. The rules create tension between urban (donee) and rural (donor) states.

McMillan explained that recently, California's $6.8 billion Transportation Congestion Relief Program (Prop. 42) under Governor Davis dedicated revenue generated from the sales tax collected on fuel to transportation. Proposition 42 was designed to prevent a transfer of money back into the general fund; but money could be transferred in a time of "crisis," such as the current predicament of the state. McMillan noted that the federal government is unlikely to make up for the lost transportation revenue due to its own current budgetary problems. While the Congress is willing to spend more, an increase in revenue (i.e., a tax increase) would be necessary but unlikely. Given the problems at the federal level, there has been an increased reliance on local funding, especially for maintenance – and that local funding is often in the form of sales taxes, an unreliable source.

McMillan concluded with three suggestions for changing the structure of transportation funding. First, she recommends indexing fuel taxes because transportation revenues are not keeping pace with costs. Second, she recommends against making funding decisions at the ballot box because it often results in unreliable sources of revenue, and it inhibits long-range transportation planning and implementation. McMillan also recommends lowering the voter threshold for special transportation taxes to a simple majority of the electorate. She advises maintaining and increasing funding flexibility, and also advocates having operating sources match capital sources. Finally, in the face of decreasing revenues and increased demand for infrastructure, McMillan recommends that decision-makers use innovative solutions, such as tolling and pricing mechanisms.

Reforming Surface Transportation Finance: Needs, Opportunities, and Constraints

Although **Martin Wachs**' talk focused on where transportation funding might come from in the future, he began with a historical look at the fuel tax, explaining how it has become a smaller source of transportation funding.

As the previous speakers had mentioned, the motor fuel tax has been very popular, and has enjoyed the support of a wide constituency, from truckers to auto clubs. Today, this user fee provides an important source of funding for public transit. But because these user fees are levied as a "cents per gallon" surcharge, they do not fluctuate with the price of fuel, and do not change with inflation. (This is in contrast to sales and income taxes, which are charged as a percentage, and therefore fluctuate as prices and incomes fluctuate.) Improved fuel economy means that even though people drive more these days, revenue is lower per mile of driving. Thus, Wachs concluded, revenue from fuel taxes has declined precipitously in relation to vehicle miles traveled. Further, Wachs explained, the California state fuel tax in 1957 was $0.06/gallon. Adjusting for inflation, that equals $0.325/gallon today; however, the current California state fuel tax is only $0.18/gallon. Wachs stated that California would have to triple its fuel tax to restore buying power per Vehicle Mile Traveled (VMT) to the1957 level; but, he concludes, this is probably not going to happen. In the absence of a higher fuel tax, what alternative revenue sources exist?

Wachs listed four criteria to keep in mind when evaluating alternative financing approaches: revenue production, equity (in all of its various manifestations, such as geographic equity, social equity, or even modal equity); political acceptability, and contribution to operational efficiency. Wachs reminded the group that the effects might differ in the short and long terms. Wachs examined three alternatives in turn.

The first option he considered was to reassert reliance on user fees via an increase in fuel taxes or a shift to more direct user fees such as tolls, congestion pricing, high occupancy/toll (HOT) lanes, or VMT fees. Raising the fuel tax has been popular in the past, and increases are small compared with market fluctuations. Changing this funding source is cheap and easy to administer; and it encourages increased fuel economy. While it is a regressive tax, he said, its regressivity is tempered by incidence.

One way of increasing the fuel tax is to index it to keep pace with changing prices overall. However, the fuel tax has been indexed dozens of times in other states and is often retracted. An important consideration is the basis of the index. If it is indexed against fuel prices, it will fluctuate wildly. The Consumer Price Index (CPI) is an easy choice, but the connection between fuel and CPI is not obvious. Two other bases are highway cost and expenditures; Wachs favors indexing the fuel tax to expenditures, but speculated that since it is a more honest index, it will be politically infeasible.

Wachs mentioned that a switch to alternative fuels would affect how the motor fuel tax acts as a revenue generator; thus, the changing context might favor a more direct user fee, such as tolls. He noted that in New York City, bridge tolls that fluctuate by time of day are approaching true congestion pricing. Tolls, however, are difficult to implement on existing toll-free roads because people feel that they have already paid for the system, and are being taxed twice for the same thing. High Occupancy/Toll lanes may be more politically acceptable since they are linked to a choice. Another type of direct user fee is a VMT charge, in which drivers are charged a unit price based on the time of day, particular facility, and particular class of vehicle. Global Positioning System based technology that would allow such a system is currently being perfected. Wachs sees VMT user fees as a very promising option for the longer term; he predicts they will be in place for cars within twenty or so years, and sooner for trucks.

A second option Wachs identified is to increase borrowing, which, in a sense, defers user fees to later generations of users. Borrowing tends to be used less in transportation projects than in other types of infrastructure programs. Wachs suggested that this option might actually prove to be more equitable than other funding options, especially for capital infrastructure projects, since the benefits accrue to later generations. With borrowing, interest can become a substantial operating cost, but this is often warranted when governments wish to "build it now and pay later."

The final option Wachs presented is to continue to rely on sales tax increases (via voter-approved measures) to fund transportation projects. In 2002, there were 44 separate ballot measures for transportation, 32 of which were local or regional in nature. Half of these passed; half failed. Many of those that passed in 2002 had failed in the past and had returned to the ballot in slightly changed form. These Local Option Transportation Taxes (LOTTs) require a majority or supermajority vote. On a county level, LOTTs can be popular because there is a widespread – although empirically unsupported – belief that counties can deliver projects more quickly than Caltrans.

LOTTs are a move away from user fees, because they are general fees: everyone pays, regardless of use. LOTTs often come to ballot with specific projects or categories of projects attached in a "pay to play" type of measure. Packaging together a series of projects can be inefficient on a system-wide basis, when voters must approve all projects or none. In addition, these projects may or may not be consistent with the Regional Transportation Plan (RTP); if the project is not consistent with the RTP, then the RTP is tweaked to be consistent with the project. Wachs questioned whether this is how planning should be done; while he accepts the role that local taxes play in financing transportation, he believes this is not the only way to get things done.

After considering each of these options, Wachs considered the outlook for the near and longer term. He sees a mixed strategy as the most likely; local measures are appropriate to fund local-serving facilities, but are not appropriate for major interstates, for example. Wachs predicts that local measures will be a major transitional financing mechanism, but emphasizes that they should not be the centerpiece of finance strategy. In addition, Wachs says that there simply is a limit to local financing capacity. With the passage of Proposition 13 (which limited the amount of property tax revenue that the State of California could collect), transportation must compete with other local needs.

Wachs sees an increasing role for tolls in transportation finance; tolls could be used to expand capacity or to construct toll roads. Specialized toll roads such as truck only lanes (financed by truck user fees), or High Occupancy/Toll lanes using electronic tolling are also in the future. Wachs sees the application of congestion pricing in particular locations (such as on New York City bridges) but growing gradually, and truck VMT charges. He predicts that the need for revenue will eventually dominate the reluctance to use toll mechanisms.

As for borrowing, Wachs sees it as appropriate for some uses, such as new capital expansions with a facility-specific focus. However, he finds it inappropriate for operating costs, rehabilitation, or maintenance.

In the interim, before a true transition to user fees, Wachs believes fuel tax increases and / or indexing to be appropriate, since their effectiveness is significant in the short term, but will weaken in the longer term. He predicted that fuel taxes will devolve to state or even regional levels, since national fuel taxes are not likely to grow as rapidly.

Wachs concluded his presentation with a look at the political considerations inherent in future transportation financing. A key consideration is that politicians may be more reluctant to raise new taxes than citizens are actually unwilling to have them; in other words, while taxes might be acceptable to citizens, politicians fear that their constituents will not trust them if they suggest a tax increase. Tolls are often seen as a way of paying twice for the same roads; but if ways of "taxing foreigners living abroad" can be implemented, such as charging fees to truckers, then taxes may become more important. Sales taxes raise issues of concentration of benefits and dispersion of costs, and vice versa. Finally, Wachs mentioned that privacy issues are inherent in some of the technology-based approaches, but he feels that these concerns are evaporating.

DISCUSSION

Hasan Ikhrata, Southern California Association of Governments, cautioned against referring to California as a donor state in a merely fiscal sense, pointing out that the entire nation benefits from the infrastructure that California must maintain to ship goods. Ikhrata thinks that it can be very difficult to convince politicians to think in the long term. McMillan agreed that term limits have affected politicians' ability to think in the long term, but remains convinced that conveying a simple, continuous message can educate decision makers to remember to "consider our children's future."

Richard Napier, San Mateo City / County Association of Governments, asked why lifecycle costs are not given more consideration in planning; he also asked why capital funding was so much easier to come by than operating costs. He was concerned that such financing structures result in the construction of systems whose operations cannot be funded. Wachs responded that contrary to the impression that capital funding is easy to come by, environmental considerations have limited the free flow of new capital. Moreover, road conditions have actually improved over the last few years even while capacity continues to fall short of demand.

Roger Gorham, U.S. Environmental Protection Agency, wondered if it made sense to characterize the fuel tax as a user fee, since it is used to increase capacity and acts more like an inter-generational transfer. Wachs seemed to agree, explaining that the fuel tax funding mechanism had been adopted in the 1920s as a second-best alternative to direct tolls on users, whose administrative and collection costs were prohibitive. At the time, policymakers thought that tolls would be adopted when collection and administration became more feasible. Wachs added that fuel taxes are only part of the array of taxes that politicians tend to consider; but fuel taxes are actually discriminatory because they act like a regressive tax that penalizes those in the lowest income groups.

Charles Mason, Surface Transportation Policy Project, explained that his agency was working on a special infrastructure tax to coordinate transportation and land uses. He asked the panelists about the equity issues that often arise when tolls are mentioned. Is it possible that tolls would prevent people from reaching job opportunities? McMillan responded to Mason's first point, explaining that the Metropolitan Transportation Commission is involved in developing a program to link transportation and land use, but that the issue of funding the program remains. Wachs addressed the equity question, asking in return whether our current system of financing through taxes is really equitable? Wachs emphasized that potential solutions cannot be viewed in isolation, but must be measured against the alternatives.

SESSION 3: WORKING WITH, AND AGAINST, FISCAL POLITICS TO IMPROVE LAND USE, TRANSPORTATION, AND ENVIRONMENTAL OUTCOMES

LeRoy Graymer (Moderator), Founding Director, UCLA Extension Public Policy Program
The Honorable Tom Torlakson, California State Senator
James de la Loza, Executive Officer, Regional Transportation Planning and Development, Los Angeles County Metropolitan Transportation Authority
Dan Beal, Manager of Public Policy and Programs, Automobile Club of Southern California
Julie Bornstein, Director, USC Keston Infrastructure Institute

LeRoy Graymer opened the evening's panel discussion session, stating that we need to talk about how we finance state and local governments in order to be able to talk about the transportation-land use connection. Graymer asked the panelists to respond to the following questions "as if there were a new governor coming in next month."

Question: **How would you restructure the finance system in such a way that it would enhance the transportation-land use connection?**

Tom Torlakson described the current state of affairs in California as fractured, fraught with budget problems, and saddled with high growth rates. He said we need to do better at managing this growth because by "stretching the infrastructure," we are costing ourselves a lot. Livable communities, which the governor-elect seems to favor, are the answer. Noting that University of California, Berkeley Professor John Landis predicts there will be 80 million Californians by

2080, Torlakson advocated a combination of financial incentives and sanctions to encourage these livable communities as part of Smart Growth.

Torlakson challenged the attendees to think about strategies for increasing investment in schools located in the urban centers. He also asked the attendees to consider formulating methods for justifying costs of infill and exposing the savings from the avoidance of more sprawl.

Torlakson suggested several options:

- Increasing the gas tax (or adding a per gallon fee). For example, increase the tax by three cents in the initial year, and three cents the second year.
- Lowering the threshold for approving taxes on transportation that is tied to Smart Growth.
- Taking 10% of the State Transportation Improvement Program and directing it to urban infill projects.
- Reforming infrastructure project delivery.
- Streamlining California Environmental Quality Act requirements for infill projects.

Bev Perry, City of Brea and the Southern California Association of Governments, professed a strong belief in the important connection between land use and transportation. She also wondered how policymakers could address transportation funding as a regional issue, yet allow land use to remain under local control.

Torlakson responded that “new” money, such as the $100 million approved in the recent bond referendum, provides an opportunity for the state to influence – but not control – local land use. For example, the state might offer funding for development to a municipality with the condition that the money not be used to subsidize big box retail. He stressed the need to speed up project delivery and develop a framework at the state level, providing cover for local officials on unpopular measures.

Julie Bornstein commented that in some cases, public desires are at odds with each other. For example, the public sees politicians as being in office too long and have therefore called for term limits. The public also wants projects that have a sort time to development. Term limits, in turn, make long-range development and planning difficult.

Christopher Cabaldon, City of West Sacramento and the Sacramento Area Council of Governments, wondered if the benefits of Smart Growth could be internalized in the same way that we have discussed internalizing costs. For example, he asked whether there were ways to change the tax structure to foster Smart Growth.

Torlakson responded that while the car tax was likely to be undone by the new governor, there was also the chance that the public would undo the changes via initiative. Torlakson expressed distaste for the current car tax’s “trigger system,” which creates uncertainty in local funding. He suggested swapping out income tax dollars for car taxes, which might encourage cities to attract high wage jobs. He questioned the political viability of a sales / property tax swap because municipal governments had already “banked their futures” on the current formula.

Bornstein reported that there are a number of different proposals aimed at swapping out sales tax for income tax. For example, cities could be rewarded for having jobs and housing in the same city. Bornstein felt that it was important to correct the misconception that government gets money from sources other than taxes. In California, we have consistently lowered taxes, yet have increased services, and more money – from taxes – is simply needed to pay for those services. She argued for more money in the system, and for the distribution of sales taxes on a per capita basis to avoid fiscalization of land use.

Eric Bruvold, San Diego Regional Economic Development Corporation, asked what the incentives would be for suburban voters to support infill projects in the inner city. In other words, is it possible to get suburban support (and money) for infrastructure?

Torlakson joked that Governor-elect Schwarzenegger could sell anything to anyone; but more seriously, he felt that such a solution could be sold as being better for future generations. For example, infill infrastructure creates options for more people to live close to work, and allows people to purchase a home. Torlakson noted that the State constitution must be amended to make such solutions happen. As for new sources of income, while some think that a Republican governor would never raise taxes, history shows that in California, gas tax increases have more often been under Republican governors. Torlakson suggested that increasing the gas tax during the typical dip in prices in October and November might be more palatable to the public. He also said that targeting taxes more appropriately was a solution; for example, instead of raising the car tax and hurting low-income people disproportionately, taxes could be raised on the wealthy.

James de la Loza, Los Angeles County Metropolitan Transportation Authority, asserted that changing land use by shifting people into the core is the only way to make a transportation system work. He added that, to get the Governor's attention, you must talk about the Ports of Los Angeles and Long Beach and explain that if port expansion is to be viable, the Long Beach Freeway (I-710) must be improved.

Graymer suggested that improvements to the Long Beach Freeway (I-710) can be framed using the lens of safety. He also said that the governor-elect had campaigned on the notion of improving "the engine" of California's economy. The Long Beach Freeway (I-710) is a big part of that engine, and improvements to it could have large positive impacts on the economy. Graymer asked what opportunity the politicians in the audience saw for connecting such ideas?

Bev Perry, for one, agreed that improving the Long Beach Freeway (I-710) was important and said that the Southern California Association of Governments was ready to make it happen. Graymer reported that the trucking industry is prepared to invest in improvements via fees or taxes if they can see a positive impact on their costs from those investments.

Norm King, San Bernardino Associated Governments, explained that for each car that MetroLink (Southern California's commuter rail service) moves off the road, two trucks take its place. Reforming goods movement is more important than moving people from cars to trains, because no matter how smart we are with our transportation planning, we are becoming overwhelmed with business growth. King also felt that even if a large investment is made in Smart Growth today, there will be a thirty-year time lag before it makes an impact.

Dan Beal, Automobile Club of Southern California, reported a deep anger and lack of faith on the part of the public regarding the state's finances and the stewardship of those finances. He illustrated this point by explaining that the Transportation Congestion Relief Program, funded by Proposition 42 (which guaranteed that sales taxes collected on the sale of motor fuels would be diverted to transportation projects), has been raided so deeply by the legislature that it is essentially gone. As a result, the state highway account has been loaned out, transportation money is vanishing, and voters are reluctant to "put more in the barrel, if it just going to leak out the bottom." While voters might not know explicitly about these "leaks," they know it intuitively, and they will not support an increase in the gas tax, or congestion pricing, or user fees, without being able to trust that the money will actually be spent on transportation.

Bornstein reiterated that term limits had created a conflict due to long-term problems being looked at by short-term officials. To resolve this conflict and to provide a 'permanent' source of funding for long-term problems, like education or health care, voters pass constitutional requirements on general funds. But such initiatives result in too much money being allocated even before the budget process begins, which further erodes the voters' trust; yet the legislature has fewer and fewer choices. Beal added that Proposition 53 (which called for setting aside 3% of the general fund for infrastructure projects) was yet another legislation that earmarked funding.

Torlakson stated that he was against Proposition 53 because this type of measure is what led to the budget crisis in the first place. Torlakson convinced Republican contractors to vote against Proposition 53 by explaining that California needed to commit that money to education instead, knowing that many people want the chance for their child to attend a University of California school. People recognize such trade-offs.

Dan Dornan, AECOM Consulting, Inc., commented that Governor Gilmore of Virginia had won his office by promising to eliminate the gas tax; but this popular measure had led to fiscal problems. (Dornan joked that if you are going to go bankrupt, do it in a big way.) Policy makers need to be fiscally responsible, but also realize that when public policy is going to affect private assets, you need to bring in as many stakeholders as you can "so that everyone is going to go down with you if you go down." In California, with Governor Schwarzenegger in charge, the expectations are so low, that whatever he does will be judged a success; the benefit is that the state has the opportunity to be creative and innovative.

Michal Moore, National Renewable Energy Laboratory, explained that cities started pushing for big box retail, auto malls, and so on, when property tax revenue started going to the state. Cities were forced to engage in this type of retail development instead of community development. Moore questioned whether continuing to parcel out revenue from the state level was appropriate, and called instead for a model of regional government, based on fiscal responsibility, which would go beyond parochial local governments. Torlakson agreed that reform has to come at a regional level, using incentives and sanctions, but stressed that the leadership had to be constructed such that it existed as a jury of peers who will not fight over sub-regional issues.

De la Loza wondered exactly what is it about big box retail that we do not like: is it the traffic, the parking, the land use, or something else? De la Loza thinks that the answer might be land value, but that we need to look at this from the local perspective, not from the state level. As areas become more dense, there will be more contraction, and what to do with this contraction should not be legislated; local entities should decide what form they want, and then look at transit. De la Loza advocated for continued support of Senate Bill 45 (which permits California's 43 regional transportation planning agencies to make many of the decisions regarding when and where local transportation projects get funded), and advised that Los Angeles weather the crisis by using local dollars for future Transportation Congestion Relief Program money.

Torlakson argued that 5% of the State Transportation Improvement Program should be under local control; with incentives, local cities will increase density in exchange for a check.

Mike McCoy, University of California, Davis, said that the jury is still out on Senate Bill 45. On the one hand, the bill has been a good thing because it solved political problems, and McCoy himself likes working with local governments on transportation – he would like to see more regional policies. At the same time, however, there may be too many Metropolitan Planning Organizations; with extraordinary growth, such as that happening in the San Joaquin Valley, getting all parties involved to agree can be a monumental task. In this rural case, planning has been hindered by Senate Bill 45; it has had more success in big, urban counties like Los Angeles.

Don Breazeale, Don Breazeale and Associates, was somewhat disturbed by the discussion, asking that we stop debating and that somebody take charge! He feels that wealthier areas are willing to help out in poorer areas, but they need leaders to be a unifying force and come up with solutions. In response, Sen. Torlakson was optimistic that the new Governor would step up and take charge, because he has a mandate. Perry argued that Metropolitan Planning Organizations (MPOs) are doing things, and *have* stepped up to plate. She is an idealist and believes in a regional approach, yet knows that MPOs govern people who like to take matters into their own hands, so change will take time and has to come from the bottom up. While we need to know what the priorities are from the state, she said, there are things that cities, counties, and regional governments need to do as well, because top-down is not going to work. As an MPO, the Southern California Association of Governments says to cities, "This is not mandated, but if you make small, incremental changes to your plans that make sense, you will actually benefit." When asked what, in terms of finance, would help local governments do exactly that, Perry replied (to applause from other locally elected officials present) that the state needs to stay out of local coffers.

Dan Beal said that leaders need followers, and now it is too easy for small groups to block things. Few politicians have the will to take an unpopular stance, such as Sheila Kuehl did on the Ventura Freeway (U.S.101) issue, and since there is no organized way to speak for the beneficiaries, it becomes easier for people to oppose things.

Kathryn Phillips, Center for Energy Efficiency & Renewable Technology, said that while congestion is talked about most, air quality is really more important. Her advice to the Governor would be that each problem has multiple layers that can be addressed multiple times. Right now, we can do something about diesel trucks, and later we can address larger land use issues. At this time, we need to put responsibility on the polluter, and that does not necessarily mean via taxes; we just need to tell the industry to do its job.

Jennifer Mayer, Federal Highway Administration, wanted to follow up on the issue of public perception of where the money comes from. She wondered whether the new Governor could be convinced that money does not come out of a hat, and, if so, could he convince the voters of the same? Bornstein commented that much of what caused the change in gubernatorial administration is common sense that we all learned and try to pass on to our children: "You get what you pay for," and "there is no free lunch." Public bodies seem to have forgotten these lessons, but as people in the public sector, it is our job to educate voters about the connection between taxes and services. Bornstein cited the examples of seat belts and smoking as successful public education programs that had had an effect in a relatively short amount of time.

Katherine Perez, Southern California Transportation and Land Use Coalition, felt that the new governor's campaign promises not to raise taxes will be broken, noting that Ronald Regan raised taxes despite campaign promises not to do so. She explained that, like Reagan, *candidate* Schwarzenegger had not understood the budget, but that *Governor* Schwarzenegger will. She also felt that there was no way out of the budget crisis without increasing revenue, because "the math simply does not add up."

Brian Taylor advocated for broad discussions on the initiative process in general, because too many measures have passed guaranteeing a slice of the general fund for particular programs, essentially making the legislature insignificant.

Torlakson expressed an interest in finding common ground with the new governor. He also felt that there is a potential need for structural reform. Specifically, California may need to rethink the fact that two-thirds of the budget is constitutionally obligated. Big budgetary swings create big swings in trust for and against government, and he thought that while an audit of the budget, sought by the governor-elect, might not reveal $8 billion in waste, it very likely might reveal some, and the public could be involved in that process. Finally, he felt that too many state commissions were loaded with sinecures and some of this excess should be abolished.

Therese McMillan, Metropolitan Transportation Commission (San Francisco Bay Area), wondered if we had given reforms enough time to work yet. For example, the impact from Senate Bill 45 is just showing up in approved funding, even though the bill was approved in 1997. Yet, transportation funding is fundamentally broken, and "if the cookie is too small, shouldn't we get a larger cookie?" Bornstein agreed that the transportation pie has to get bigger. But in Sacramento during budget time, every special interest looks not to get cut, while no one advocates for more taxes; they just ask that everyone else's programs be cut.

Hasan Ikhrata, Southern California Association of Governments, thought that it might not be necessary to raise taxes right away; find inefficiencies first, and once the fat is cut, only then should we increase taxes. Ikhrata referenced Norm King's earlier point that we think that the connection between transportation and land use is important, but how can we make that linkage matter right now?

Richard Dixon, City of Lake Forest, was angry about Governor Schwarzenegger's handling of the Vehicle License Fee when he first took office; namely Schwarzenegger repealed an automatic increase of the fee by executive order. The unpopular fee is collected by the state and then a portion is redistributed to city governments. Dixon said that instead of permanently lowering the fee the legislature and former Governor Wilson structured it such that, when the state was flush with cash, the trigger function would lower the tax replacing the city-bound revenue from the fee with general fund revenue. When the general fund is not in surplus, the tax increases to insure a consistent flow to the municipalities. Dixon felt that Schwarzenegger's "solution" to the public's disdain for the automatically triggered increase in the Vehicle License Fee takes money from localities. He said the state should have found other ways to resolve their crisis. Sacramento should have to balance their budget with their own dollars, and not steal money from local governments.

Tom Plenys, Coalition for Clean Air, felt that there was not enough talk about environmental quality. In the South Coast Air Basin, air quality is actually getting worse, and billions of dollars in federal highway funds are at risk. He asked whether there are any creative land-use fiscalization policies that can help with this.

Bornstein explained that there is no single solution for air quality attainment – the problem is so big that we have to have several angles to come at it, such as enacting policies that reduce trips, or bring jobs and retail closer to homes. As for inefficiencies of government, Bornstein simply does not think that the dollars are there, reiterating that taxes have been cut, and "the pie is smaller." She feels that we already have audits and whistle blowers, and a new audit is just tinkering around the edges; more revenue is needed!

De la Loza rhetorically asked why we should have to deal with the land use issue now? Should we build more highways? How many people are you going to fit in a county? Where are you going to put them? If you can take the politics out of issues, such as the Long Beach Freeway (I-710), you realize that the public sector cannot fund solutions without the help of the private sector. You also have to look at quality of life: air quality issues are much broader than just local, since 70% of air pollution comes from ships.

Beal believed that in focusing on cars, we are not addressing the more significant sources of air quality problems. Cars produce only a small fraction of air pollution, and new technologies will have personal automobiles so clean that their emissions will be insignificant. We should instead be focusing on ships, off-road vehicles, etc. which are still heavy polluters. He also thought that while a majority of people profess a desire to live in the suburbs, a significant portion are willing to try other things, such as infill development, but they simply do not have the option. We need to have more successful models that work.

Torlakson stated that the Governor-elect will need to show some action on "fraud" and inefficiency in order to fulfill his campaign promise; the public will be ready to fund more if they feel that perceived fraud is eliminated. He reiterated that the state should create incentives for local government to encourage higher densities; however, incentives may only go so far and local control may operate at the detriment of the environment.

As the session ended, Graymer thanked the panel, and challenged all symposium attendees to think about what suggestions they would make to the incoming governor.

SESSION 4: THE FISCAL LINK BETWEEN LAND USE AND TRANSPORTATION: ASSESSING RESEARCH FROM HOME AND ABROAD

Randall Crane (Moderator), Professor of Urban Planning, UCLA School of Public Policy and Social Research
Robert Burchell, Distinguished Professor and Co-Director, Center for Urban Policy Research, Rutgers University
Robert Cervero, Professor of City & Regional Planning, University of California, Berkeley
John Pucher, Professor of Urban Planning & Policy Development, Bloustein School of Planning and Public Policy, Rutgers University

The Fiscal Impacts of Alternative Forms of Development: What Has the Evidence Shown?

Robert Burchell's presentation concerned alternative development forms, looking first at how alternative development uses resources, and then translating the cost of those resources into dollar figures. Burchell has found that the dollar figure ends up being important enough to talk about because, while we often have to talk about raising taxes, there is also the possibility of finding savings through alternative development.

Burchell stated that, currently, an outdated prairie mentality mires development in the U.S.:

- Land use decisions are generally left to the profit-maximizing market;
- Property owners expect little interference from government;
- Land is always inexpensive at the edge;
- The single-family home continues to be revered, primarily because of an expected wealth transfer;
- Land use (zoning) continues to be a local issue because voters do not trust politicians.

Burchell contended that Americans are still in love with the automobile, noting that vehicle ownership rates generally do not vary across incomes (except at the extremes). There is no fiscal incentive for anyone to move closer to the center, because the cost of fuel and auto ownership in general is relatively low. The percentage of Americans living in a detached single family home has grown every year; those houses are getting larger even as the average household shrinks.

Burchell looked at geographic growth trends: Eighty per cent of U.S. growth is in the South and West. Burchell expects that historical growth rates will continue and there will be as many as 325 million Americans in the next 25 years. Most (2/3) of the growth will continue to be in the South and West; the vast majority (90%) of it will be outside the center city.

Having a job, owning a home that is increasing in value, having quality education, and experiencing low crime rates and low taxes are the key quality of life measures, each of which is tied to continued growth. Therefore, quality of life and growth are inextricably linked. Residential land uses pay about 25% of the cost of the public services they consume, compared to non-residential land uses, which pay two to five times the amount they consume in public services. Burchell explained that a typical house actually costs governments $5,000, because a house consumes $5,000 more in services than it pays in taxes. Municipalities, reluctant to raise taxes on residents, seek non-residential tax dollar supplements (e.g. hotel taxes, sales taxes, etc.) to make up for the loss. They also cut costs by avoiding maintenance on infrastructure.

Burchell explained that most growth is sprawl; i.e. it is low density, lacks clusters, is characterized by leapfrog development, is resource consumptive, is automobile-dependent, and continues outward from the edge. Sprawl “works” because it gives us what we want: unlimited use of the automobile. It actually provides relief from inner suburban and urban congestion, reduces suburb-to-suburb travel times, provides physical distance from urban problems, and guarantees increasing property values and good public services, at relatively low cost. Of the 3100 counties in the U.S., fewer than 25% (610) are sprawling, a mere 8% (260) are fully developed, and of the remainder there is no, little, or even negative growth. Burchell suggested that areas like the heartland and rust belt are not sprawling simply because there is little economic growth there.

Burchell advocated for growth boundaries around economic areas to curb sprawl and pull growth back to the center. However, he cautioned that such limits may only work in about 60% of the sprawling counties, because there is too much growth in the South to be able to use the classic Northeast / Midwest definitions of centralized development.

Burchell defined Smart Growth as controlling outward movement, revitalizing central cites, using innovative designs, approaching use of land and natural resources conservatively, and reorienting cities toward a transportation modal choice. If just 25% of the expected growth could occur in the center and another 25% could occur closer in, governments could reap huge infrastructure savings even if the other half were typical sprawl. Local governments are already efficient, therefore there are no inefficient programs to cut in order to pay for sprawl.

Burchell concluded that Smart Growth is likely due to the sensibility of the approach, limited opposition, and the inflow of immigrants and retirees into the central cities.

The Role of Transportation Investment in Shaping Land Development

Robert Cervero argued that accessibility is the primary driver for development; moreover, quality access is in finite supply. While conventional wisdom believes that “location, location, location” are the three most important things in development, Cervero claimed that “access, access, access” were actually the key drivers.

Cervero explained five truths in land use development:

1. From a regional standpoint, transportation investments are redistributive. Large investment may create some income growth for the region, but most related growth is simply drawn near the new facility from another area in the same region. Cervero stated that there was little evidence that companies move into a region as a result of transportation investments. In studies on regions with beltways, researchers found that trips, unsurprisingly, were diverted from the center. In other words, beltways facilitated suburb-to-suburb travel. However, both cities with and those without beltways find that the drain on central city retail is the same.

2. In order for a change in land use to occur, growth must exist. Many cities have developed light rail with the hopes of changing land use, but the change never materialized due to a lack of

growth. Conversely, high growth in an area enables more drastic land use changes. In Northern Virginia, for example, high growth rates and the Washington, DC Metro system allowed for significant changes in land use. Arlington County developed retail, commercial, and residential uses (that is, both origins and destinations) around new Metro stations, thus creating highly efficient use of the transit systems by balancing the flows of riders – the buses and trains are full in both directions. Now, Arlington County has a large share of its tax base on a relatively small footprint. Transit is an excellent way to prevent sprawl, but only if there is growth. At the same time, even a small amount of growth can use transit: For example, Jersey City, NJ, is not in a big growth corridor, but it channeled the growth that it experienced along the new Hudson-Bergen light rail line.

3. Accessibility is largely a function of travel time. For ridership of transit facilities, both the timing of the opening (in relation to the business cycle), and existing congestion levels matter. San Jose opened its first light rail line during a recession, with little congestion on its freeways. By 2000, the city expanded its network and began to see increased ridership due to the larger system and greater freeway congestion.

In suburban areas, new freeways may enhance growth, but land management is important to preserve the investment. Initially after building new roads, users experience benefits; however, those benefits erode as the land use changes as a result of the new facility. In Akron, Ohio, there was no relationship between growth centers and major road investment. In that case, transportation facilities followed growth rather than led it.

4. Given growth, cities must proactively plan Smart Growth around new transit facilities. San Diego's first light rail corridor (Tijuana to Downtown San Diego) was a ridership success, but a lack of proactive planning meant no land use change or growth. Having learned a lesson, when the line was extended to Mission Valley, San Diego did not necessarily try to minimize right-of-way acquisition costs, but rather sited the facility such that development opportunities were maximized.

5. The Finance Connection: "Value Capture" makes sense in theory, but it is difficult in practice. Increased value from transportation improvement happens indirectly through property tax intake, more directly through joint development, and most directly through benefit assessment. The Washington, DC metro area has done a good job of capturing increased value by leasing air rights over Metro stations, while Los Angeles' Red Line provides an example of leveraging benefit assessments.

Cervero concluded that transportation investments, under the right conditions, are potentially powerful tools to shape growth. Governments can and should participate in the value added through transportation infrastructure.

Using Public Finance Tools to Shape Land Development and Travel Patterns in Europe

John Pucher contended that modal choice differences between the U.S. and Europe (& Canada) can be explained primarily based on the disparate fiscal policies, rather than on cultural differences. He cited anecdotal evidence, noting that his car-loving American students walk, bike and / or take public transportation while studying in Europe, and, conversely, European public transit users buy a car as soon as they step off the plane. Simply put, it is too expensive to drive in Europe, and too cheap not to do so in the U.S.

Pucher explained that the U.S. has more cars per capita, and we drive those cars more than anyone else on Earth. Therefore, Americans walk less, take the bus less, bike less – these eco-friendly modes make up less than 10% of trips. In Europe, driving is an expensive proposition as a result of much higher taxes on autos and fuel, as well as a restricted, high-priced parking supply. Even getting a driver's license is significantly more expensive: in addition to costly mandatory lessons, the tests are infinitely more challenging. London even charges congestion tolls, which dramatically reduced traffic and improved the speed of the buses. Pucher also explained that while expenditures on public transit are not higher in Europe than in the U.S., public transit systems have experienced a longer trend of public support in Europe, and have been able to build and plan accordingly.

Pucher argued that public policies, and not culture, have led to more compact, monocentric cities in Europe and Canada. To be sure, he said, sprawl is occurring in Europe, but at a lower scale; moreover, the density of new development at the edge may be lower than at the center, but it is still not as low as edge development in the U.S.

For example, Germany had strict zoning laws and much of its land is 'off limits' to developers. Therefore, high German land prices increase pressure towards higher densities. Land use plans are consistent at all levels of government: local, regional, state, and federal levels. Additionally, German transportation plans are directly paralleled with the land use plans. Any development must be consistent with regional plans. All taxes are shared vertically along different levels of government, and horizontally – thus reducing the fiscalization of land use typical in the U.S. Tax revenues are channeled to dense urban areas, because they provide regional services. Localities do not pay for schools. Finally, unlike in the U.S., German homeowner subsidies are for low-income people only.

Barring a major crisis, Pucher conceded that a sudden and extreme intervention to make public land use and transportation policies similar to Europe would not happen in the U.S. Rather than manage demand for land and automobile use, current policy seeks for a greater supply, i.e. new frontiers and more roads. Pucher concluded by reminding the audience that European methods work, but he does not see any political will to implement them in the U.S.

DISCUSSION

Roger Gorham, U.S. Environmental Protection Agency, wondered whether congestion levels are redistributive. Is there a breaking point, he asked, where transportation investments will actually induce growth, or people will go elsewhere? Cervero answered that he still thinks that investment is mostly redistributive. But, the idea that some places might get that growth if transportation is improved intuitively makes sense. Statistically, the effect seems only to be distributive, but failure to invest might make people leave, Atlanta being a good example. Transportation is an input, but data is not rich enough to determine the exact effect. Gorham next asked if growth was, in fact, a prerequisite for land use change. Cervero reiterated his belief that new transportation investments do not lead to growth. He cited light rails investments in Buffalo, New York and St. Louis, Missouri, as evidence.

Bev Perry, City of Brea and the Southern California Association of Governments, was surprised at the high percentage of people who walk in Europe, and wondered if there was any link between travel behavior and health? Burchell cited Europeans' longer life expectancies as evidence that Europeans are healthier. He noted that increasing walking as a share of all trips in the U.S. may save money on health care, but he cautioned that walking can be very dangerous here compared to Europe.

Therese McMillan, Metropolitan Transportation Commission (San Francisco Bay Area), suggested that Smart Growth strategies might be different for different regions, and the success of those strategies depends on certain conditions. However, she asked if there is a potential for national policy. Burchell responded that, by 2020, 40% of U.S. households will be over 65. These changing demographics should mean that more households will look for homes with easy access to transit and walkable destinations. Current immigration trends imply migration to central cities as well, providing demand for transportation. But, if we are going to make use of mass transit, it has to go to places at a reasonable speed with few stops. Creating a central, national policy may prove difficult to implement in a place like Las Vegas, as it would just further the sprawl of Clark County.

Cervero believes there is a role for the federal government to set a climate for Smart Growth, and new starts and joint development policies are in the right direction, but the primary initiative needs to come from the state level. Because there can be too much competition at the local level for limited resources, especially taxes, states need to come up with collaborative decisions for entire economic regions. The anachronistic boundaries for metropolitan planning organizations may not match where growth is happening; for example in the Bay Area, much of the growth is occurring in the Southern Central Valley, but it is not part of the nine-county planning group. Pucher added that every level of government is important: while the federal level sets the climate, the state is more involved in implementing changes, and the actual implementation is at the local level. He pointed out that demographic shifts are extremely important. With the aging of our population, it is striking to note that in Germany, over 50% of trips by older people are walking trips; in the U.S., that figure is 5%.

Greg Greenwood, California Resources Agency, asked if new Smart Growth housing is likely to be as good an investment as single-family housing has been, since the home is still proving to be a primary source of wealth transfer for many Americans, especially those trying to move into the middle class. **Dan Dornan**, AECOM Consulting, Inc., offered that the value of housing is driven by planning, policy, economics, finance, and culture. The traditional American sentiment that "my house is my castle" may prove too difficult to change, and Smart Growth will fail if this cultural issue is not addressed.

Jennifer Mayer, Federal Highway Administration, decried the negative American perception of transit and asked what can be done to change that perception. Burchell agreed that there is a poor perception of transit, saying that in Europe, everyone takes transit, but that in the U.S. 62% of transit riders are either poor or minority. Improving the door-to-door speed is the key to improving ridership, and perception will follow. Quality improvements are not necessarily expensive; Los Angeles' Rapid Bus program provides a good example. Better information will help, but the primary goal should be to improve speed, which may prove difficult in polycentric areas. Rail, for some reason, continues to enjoy a better image.

SESSION 5: MAKING LAND USE AND TRANSPORTATION INVESTMENTS WORK TOGETHER: RECENT INNOVATIONS IN PRACTICE

Martin Wachs (Moderator), Professor of City & Regional Planning and Civil and Environmental Engineering; Director, Institute of Transportation Studies, University of California, Berkeley
Will Fleissig, Principal and Co-Founder, Continuum Partners LLC, Denver, Colorado; Senior Advisor, University of Colorado Real Estate Center, Boulder, Colorado
Donald Shoup, Professor of Urban Planning, UCLA School of Public Policy and Social Research
James Corless, National Field Director, Surface Transportation Policy Project

Martin Wachs opened Session 5 with a story about the Los Angeles transit system. When the system was being planned in 1924, policymakers realized that the key to success of the system was the financing, and they did not think it was right to use general funds to finance the system. Instead, they suggested allowing private developers to build around transit stations on agency-owned land, and the rent would finance the system. But, given the anti-socialist sentiment in the U.S., the government's proposal was defeated in a ballot measure. Wachs concluded that linking land use and transportation investments is nothing new!

Using Finance Creatively to Better Integrate Public Transit and Land Development: Assessing Recent Efforts

Before he began his presentation, **Will Fleissig** rallied the audience to attention, warning attendees against treating the symposium like a group therapy session. The legislature, he said, will continue to make poor policy decisions; California will have to go on a fiscal diet, and so on. But cities and counties must stop waiting for state and federal governments to direct policy; he called for action at the local level. Fleissig presented projects that his company was developing in Colorado, which are the Smart Growth projects that everyone at the symposium wishes to develop. Fleissig asks, "Given that we have (re)entered an era of limited federal and state resources to support urban infrastructure, how can local governments and private developers work together to fund necessary transportation improvements that will sustain the anticipated growth in jobs and housing?"

Fleissig's presentation began with some background on development mega-trends. Wall Street investors pool funds together and dictate strict guidelines for investment, making the finance of mixed-use developments difficult. However, this investment hesitancy is countered by trends in growth, community desire, demographics (especially new immigrants and more elderly) and communities' increased civic ambitions. Those trends are creating multiple dispersed centers in metropolitan regions, a geographic segregation of old and new housing, and continued traffic congestion causing reduced environmental quality.

Planning mega-trends include reduced planning time horizons, and the increased presence of NIMBYs and neighborhood organizations, resulting in impact analyses being used as planning. All the while, old zoning begets auto dominated development and a plethora of special reviews; at the same time, there is an expanding need to fund critical infrastructure, such as open space, parks, schools, and workforce housing and transportation. Fleissig sees a choice: disconnected growth versus leveraged growth.

Communities are aware of the difference between custom-made development like that of Boulder, Colorado, and formulaic development, which is easy and cheap to build. Fleissig highlighted the difference between design-based codes and magic marker planning, which he likened to "blobs of zones versus 'what's it really going to look like?'" Finally, while developers used to think in the short-term, a new key to development is a model of long-term asset appreciation that fits nicely into the Smart Growth movement.

Given all of these conditions, Fleissig listed several premises that are the foundations for Continuum Partners' development scenarios:

- State and federal funding for infrastructure will become severely reduced, restricted and competitive.
- Action will be with local jurisdictions that create a collective vision, phased plans and new zoning.
- Leveraged growth communities will concentrate private dollars into catalytic development projects, and invest the resulting public dollars in linked public facilities, such as parks, schools, transit service, and others.
- In areas that are projected to grow, those jurisdictions that create development districts proximate to increased mobility will become favored by the marketplace.
- Creating walkable, multi-modal places that confer distinctive identity on their communities will also create greater long-term value for private investors.
- Leveraged growth areas will attract new equity capital from pension funds, foundations, and individuals seeking continuous, long-term returns with lower risk.
- However, the huge costs of transit-related improvements cannot be supported solely by garnering new revenues from increased development located near transit stations, and thus emerging regional development corridors can be financed that link improved transit, road, bus, and parking facilities tied to urban open lands and mixed-density development.

Fleissig demonstrated evidence for these premises in a series of case studies of development projects that Continuum Partners had put together in various towns around Denver, Colorado. Through working on these projects, Continuum Partners has learned to translate its mission statement into practice by developing mixed-use projects in city districts, suburban refill, and emerging town center markets. The result for Continuum is decreased market risk, accelerated absorption, and increased rents over time, and a 12% return on assets, with ongoing appreciation. Continuum found that qualities of progressive development, such as great walkable streets, urban design, and transit and pedestrian connections translated into profitable long-term ownership and higher rents in their projects. Some projects have included adaptable design and green building products. Fundamental to developing the projects at all were communities with clear planning goals, strong staff and committed elected leadership.

Turning Small Change into Big Changes: Using Parking Revenues to Revitalize Commercial Districts and Neighborhoods

Donald Shoup's presentation about leveraging private dollars for public benefits focused on parking. Shoup argued that auto travel is unusual in that it requires enormous terminal capacity, in the form of parking spaces, which are rarely mentioned. Moreover, drivers rarely pay for this terminal capacity because it is free 99% of the time. Cars are parked 95% of the time, and Shoup thinks that cities can find revenue under those parked cars.

Since drivers do not pay for their parking, Shoup explained, the cost of parking has been shifted from the realm of the car into the cost of everything else; everyone but the motorist pays for parking. At first, the developer pays for it, but then after that, everyone else does – when we shop, or eat at a restaurant, we pay indirectly, because a small share of every transaction pays for parking. Shoup explained that drivers pay somewhere between one and four percent of the total cost of parking. The rest is hidden in the cost of everything else. In 2002, the total subsidy for off-street parking was $135-$386 billion. (Shoup mentioned that the U.S.' military budget was $349 billion that same year.) This subsidy equates to $.05-$.15/mile, which is larger than other types of subsidies.

One result of ubiquitous free parking is that drivers have a huge incentive to cruise around looking for free parking; most of this free parking is at the curb. Shoup proposes that cities can solve their urban problems by charging for curb parking, and presented the case of Old Pasadena as evidence.

In 1978, Old Pasadena was the 'skid row' section of town. Redevelopment took down some historic buildings and replaced them with modern buildings. But, Shoup explained, residents rejected the tear down-clear-rebuild approach the city was pursuing. The area was made a historic district but no significant move-in of business occurred, due to lack of parking.

The city wanted parking meters, but the Business Improvement District initially was against installing meters; so the city took the unusual step of agreeing to turn the revenues over to the district. The Business Improvement District took the money and reinvested it back into the neighborhood. The meters generated turnover in the street parking, shifting employees off the street; this, in turn, created spaces for customers to park, which had been unavailable under the free parking system.

Once the meters were installed, dramatic changes occurred in Old Pasadena. Shoup asked, what did the meters pay for? The revenue paid for new street trees, conversions of bleak alleys into landscaped walkways, and most importantly allowed the city to issue bonds to pay for the construction off-street parking garages. (Additionally, the revenues paid for supplemental services like extra security and frequent sidewalk cleaning.) With the off-street garages in place, Pasadena began an innovative program allowing business to buy their way out of onerous minimum parking requirements. Freed from the burden of having to provide off-street parking, businesses rushed into Old Town.

The result of the improvements, paid for by meter revenue, is a dramatically attractive retail area, full of restaurants, bars, shops and movie theaters – it is a destination for consumers all over Southern California.

Shoup presented some lessons from the Old Pasadena metering program:

- Cities should return parking meter revenue *to the districts that produce it*.
- With such an incentive, merchants will insist on charging market prices for curb parking.
- Meter revenues can greatly improve the public infrastructure of older areas.
- The ground beneath our wheels is valuable, even at modest prices. Old Pasadena earns $50 per front foot, per year from meter revenues.

Shoup explained that old business districts are like shopping malls without the free parking – individual business cannot provide all the required free parking, but the *district* can charge for the curb parking and reinvest the revenue on improvements to the district. Shoup reiterated that the key to success of Pasadena's meter revenue program was returning meter revenue to the business improvement district and *not* to the general fund. Doing so convinced the merchants that such a program would be in their interest and led them to support the project.

James Corless was asked to provide additional commentary on Session 5**.** In his presentation, Corless highlighted some of the themes that had emerged from the presentations thus far. He noted that an important theme of the symposium was that the public is increasingly skeptical of any revenue generation that doesn't get plowed back into direct benefits that they can see. He also identified some crucial links in the Transportation and Land Use connection:

- Transportation authorities will never have authority over land use, but they do hold the purse strings for transportation projects.
- If cities are doing the kinds of things that progressive policymakers approve of, such as high-density development, what better reward/incentive for them than transportation money?
- Incentive programs need to grow, with positive rewards for local governments to do progressive things.

By rewarding Smart Growth with transportation dollars, he said, government can reverse the fiscalization of land use. The next step is to extend incentives to rural areas for acquiring and maintaining greenbelts; that is, keep development off the highways and attract it to transit.

Corless rhetorically asked the attendees, "Where is the most popular place to drive to in the U.S.?" His answer was "A free parking space," of course. Charging for parking can be like a High Occupancy/Toll lanes lanes, in that it can be a crucial test of whether the public will vote to raise fees if they see benefits. He asked what has to be there as an underlying community to make people willing to pay to come there and pay to park? With all of the changes that the meter money wrought, Pasadena was suddenly seen as a worthwhile destination. On the other hand, the San Jose Redevelopment Agency was convinced that charging for parking would discourage visitors. He also wondered whether there is a way to use technology to make paying for parking easier, and charge variable prices?

In Fleissig's presentation, Corless found that a key question is whether we are really providing housing choice today. While 60% might want a single-family house, what about the other 40%? Corless expressed a need for transit agencies to think like businesses and partner with businesses and developers. Transit agencies are sitting on major assets whose value is not being captured. Why not reconsider the old strategy of buying land, building transportation to it, and then reselling it at a higher price – like streetcar systems in early 20th century?

Corless finds that the deck is stacked against infill. But the key to more infill, more Smart Growth, and more livable communities is in *measuring the economic benefits*, thus creating an incentive to realize those benefits. Can we find ways to lower the risk for developers to build Transit Oriented Development? Corless asked the audience to consider the next steps to implementing all these concepts and beginning truly to capture their value.

DISCUSSION

In the question and answer session that followed, there was clear excitement about Pasadena's parking revenue concept, and Will Fleissig's experiences in Colorado. The audiences wondered how to balance funding burdens and expenditures temporally, geographically, and by source.

Richard Dixon, City of Lake Forest, applauded the Old Pasadena program and success; he wondered if such a program would be transferable to an industrial area within Lake Forest that experiences parking problems. And, Brian Taylor, of UCLA, asked how to change attitudes towards charging for parking, and whether setting the actual price for parking districts was a contentious issue.

Shoup explained that charging for parking will work anywhere there is a shortage, but specified that the new revenue should be used to improve the district it is generated in. The key to implementing the program and setting the prices is to generate support; this is done by returning the revenue to the business district or neighborhood that generates it. In an industrial area, parking meters might not be the appropriate technology, because the goal in that case is to allow people to buy as much time as they need for a workday, instead of motivating parking turnover. Cities can use new technology to address limitations of old style meters. Will Fleissig mentioned that in his Belmar, Colorado, development, they are using solar powered parking meters for curb parking, and are setting prices to maintain an 85% vacancy rate.

Dixon also responded to the "MPO's purse strings" concept that James Corless had mentioned, asking how to work on new projects or create incentives when most funding is project-specific. Dixon also asked how Metropolitan Planning Organizations (MPOs) could ensure that transportation systems are functioning throughout a region, and not just in certain areas. Corless agreed that many projects are set in stone, tying up funding, and that long-range plans are project-driven, but discretionary funding remains even as overall funding shrinks. He agreed that regional planning, and neither incentives nor politics, must emphasize functionality throughout the sub-regions.

Elaine Clegg, of Idaho Smart Growth, asked whether Fleissig's projects managed to meet demand for single-family home ownership. Fleissig had found demand for a range of options: a third of the people would trade-off a yard for a village atmosphere, one-third wanted a cul-desac, and the remaining third were in the middle. Demographics shape demand and in his developments there is a mix of housing, but plenty of opportunity for home ownership. Clegg also asked how municipalities can put in transit while anticipating new development, and Fleissig introduced the concept of "development-oriented transit" where the local cities' development goals drive where transit will go, and not the other way around. Phillips mentioned that when Old Pasadena's revitalization project began, no one planned for transit (although with the opening of the Gold Line light rail in July 2003, that has changed). She called it Transit Orientated Development in reverse.

Christopher Cabaldon, City of West Sacramento and the Sacramento Area Council of Governments, identified three challenges to financing: the temporal issue, wherein we have very few contingency measures; the geographic issue, in that the benefits of Smart Growth and preservation of open space are broader than the single location that promotes them; and the incidence, which explains that we cannot capture everything by taxing property and benefit assessments. He asked whether it made sense to scale up to the regional level, to make sure that both costs and benefits were being measured on a regional level. Fleissig offered that the local leadership has to drive the continuity and fix in place a set of values that hold over time, regardless of who is in office – such things as high density in transit corridors, for example. Fleissig reiterated that leadership can be initiated at the local level; local officials can get creative, and determine their own strategies – they do not have to wait for state and federal governmental levels to make things happen. Citing the examples of intergovernmental agreements between cities near the Minneapolis, Boulder, and Brea areas, Fleissig explained that, in the absence of planning coming from the Metropolitan Planning Organizations (MPOs), sub-regional coordination will begin to happen as cities get together and decide how to create a sense of place and bring in transit projects.

In summing up the session, Marty Wachs noted that in learning how these larger abstract concepts had been concretely put in place, all had been given reason to be optimistic about evolving development trends.

SESSION 6: LINKING LAND USE REGULATION AND TRANSPORTATION FINANCE TO ENVIRONMENTAL QUALITY

Joanne Freilich (Moderator), Director, UCLA Extension Public Policy Program
Kenneth Button, Professor of Public Policy, George Mason University
Jennifer Dill, Assistant Professor of Urban Studies and Planning, Portland State University
Jay Norvell, Acting Chief, Division of Mass Transportation, California Department of Transportation

Measuring and Pricing Environmental Externalities in Land Use and Transportation Systems

Kenneth Button sought to tie concepts of pricing and measuring to finance, the theme of the symposium. Unlike in the U.S., where transportation levies are typically used for transportation projects, European governments often divert funds from transportation fees and taxes into their general funds. The distinction is significant, because it indicates that Europeans recognize the externalities inherent in transportation. However, there are many problems with evaluating environmental externalities. Chiefly, there it is a tendency for micro level data to be extrapolated to a macro level.

Unlike the pollution produced by electricity generation, road vehicle pollution emissions have a diversity of impacts. The sources are mobile and vary at different stages of cycle; with automobiles, for example, disparate pollutants are generated from a cold start, a hot soak, or a running engine. That pollutants and effects change depending on driving conditions or type of driving (cruising, accelerating, etc.) means that evaluating the impact is challenging.

Button briefly compared pricing approaches and command-and-control approaches to environmental effects. He found that the advantage of pricing solutions lay in pricing's efficient use of resources; its efficiency in meeting a target; its conformation with other allocation systems; its consistency with other sectors; its transparency; and its ability to generate revenues for compensation.

Button presented the two typical methods for pricing in transportation.

- Market based: Determine price using supply and demand; costs of externalities are not considered.
- To achieve given target: Government sets a target for reducing a pollutant and then a price is determined to meet that target; costs of externalities are figured into the equation.

Button foresaw several possible results from purely market-based pricing solutions:

- No direct revenue to authorities (except windfall gain if properties were initially sold)
- Potential loss of other revenues (e.g., the gas tax) as travel behavior changes
- Potential gain in other revenues (e.g., property taxes) due to land use changes
- Lower public outlays on infrastructure (fewer road costs and lower transit subsidies)

Market pricing, however, ignores environmental externalities, and Button further concluded that market-based pricing would not work for California because those who suffer from the externalities are not the ones who would benefit from internalizing the costs; in addition, this type of pricing does not produce revenue for the state.

Button dedicated the remainder of his presentation to the issue of target-based, or "administrative" pricing. He gave several examples of administratively established pricing solutions, such as the 3% annual rise in fuel taxes in the UK, or the tax differential given to hybrid cars in the U.S. Determining the price required to achieve a given target requires a lot of research, with first an assessment of environmental effects, then a valuation of those effects. Pricing can be set with a "welfare approach," based on certainty, or a 'risk approach,' based on uncertainty. Prices might end up being too high or too low due to potential pitfalls, such as the differences between stated and revealed preferences.

Button expressed skepticism that revenues collected would be significant. The reason that revenues would be less than expected is that people will change their behavior more dramatically than forecast; for example, the congestion charge in London produced lower revenues than originally predicted. Other revenues may also decrease as travel behavior changes, i.e. if people shop less, sales tax revenues will decline. However, other revenues may increase: properties close to popular destinations may dramatically rise in value, thus creating a windfall in property taxes. Some problems, such as noise, are very local and short in duration. Who should collect those fees? Local issues might be best resolved by locals, but this will surely create fights amongst localities.

Button asked whether pricing really produces desirable outcomes. An increase in fuel prices in the United Kingdom led to a reduction in driving. Also in the U.K., differential landing fees at airports helped to curtail noise in the nearby neighborhoods. Back in the U.S., Button mentioned that a policy of giving a tax break for the purchase of a hybrid car enhanced hybrid cars' desirability.

Button concluded his presentation with several observations. First, he said, current policies have yet to adequately address current environmental issues. Second, adopting a pricing scheme is not simple, and the barriers are not limited to political will; setting the prices and creating markets are very difficult. Third, the fiscal implications of environmental charges are almost impossible to predict, and is more art than science. Fourth, any strategy must be extremely simple, with clear links between policy objectives and policy levers. Finally, Button reminded participants that the primary objective of any scheme should be improving the environment; revenues are only a secondary objective.

Transportation Pricing as an Air Quality Management Tool: Case Studies of Recent Practice

Jennifer Dill explained that her presentation would focus on the different financial signals that might be linked to different levels of pollution. Should we be pricing more, she asked, or subsidizing more?

Dill explained that transportation is a large source of air pollution. In California, only 5% of the vehicles are heavy duty, yet they account for 40% of the nitrogen oxide (NO_x). Sources vary by locale; for example, Long Beach contends with pollution from ships idling at the port. In the U.S., people are keeping their automobiles longer, which means that older polluting vehicles are on the road longer. Pollution varies by many factors: overall amount of driving, speed, idling, acceleration, time of day, time of year, etc. At the same time, vehicle emissions standards are getting better.

According to Dill, some pricing policies exist. Two common programs are vehicle-scrapping incentives and clean-vehicle subsidies. Accelerated vehicle retirement programs seek to buy older, heavy polluting cars and then junk them. In the U.S., such programs usually just give participants cash, but in Europe, participants usually receive some sort of a credit for replacement to spur domestic car production. Dill provided two examples of U.S. vehicle scrapping programs, one in San Francisco, and the other in Southern California. San Francisco runs a large vehicle replacement program. The program, funded by a vehicle registration surcharge, pays $500 for automobiles from 1981 or older. San Francisco has scrapped 15,700 vehicles. The Gateway Cities region of Southern California operates a heavy-duty commercial vehicle replacement program. It replaces pre-1984 trucks with post-1994 trucks; this represents a large subsidy for replacement. The program has targeted 3,000 trucks but only 86 have been replaced so far due to a shortage of funds.

Dill then explained some pricing programs. Registration fees typically vary for cleaner vehicles; but in general, registration fees are very low relative to the cost of automobile ownership so any "discount" is not likely to steer people to cleaner vehicles. Moreover, some states (such as Oregon) charge *high* registration fees for hybrid cars to make up for the lower amount of fuel taxes that these cars generate. Other pecuniary incentives, such as free parking for electric vehicles, are also common. The Swiss take an opposite approach and levy heavy tolls on goods vehicles, based on emissions.

Dill concluded her presentation by asking why pricing is not common in the U.S. She explained that governments may not have the necessary authority to implement pricing schemes; authority for pricing schemes generally does not rest with air quality agencies. In addition, she found that political will is typically very low. Even good governments can make pricing mistakes, she said: Portland's new ticket-based parking meters do not encourage users to park once and walk from store to store; instead, people can park more than once on the same meter fare. Finally, she finds that success comes only incrementally, because we do not have existing programs that we can tweak; and financing systems are established for objectives other than environmental quality.

New Developments in Incorporating Environmental Mitigation into Project Planning and Finance

Jay Norvell introduced his presentation by listing several barriers to incorporating environmental mitigation into project planning:

- Uncoordinated planning, rather than coordinated planning.
- Long time frames for big projects: Big projects take a long time from planning to implementation, and cannot be done before political leaders are termed out. Therefore, if politicians will not be there to cut the ribbon, they may feel as if they should not bother negotiating a compromise.
- The perception that the longer the community holds up a project, the larger the compensation from Caltrans. (The opposite is usually true, since Caltrans would rather pay costs up front.)

Norvell said that to overcome these barriers, Caltrans is taking a more collaborative, multi-agency approach to new projects, and it has formed a tri-agency partnership at the state level, which includes Cal/EPA and the Resources Agency. Its goal is to "front-load" environmental mitigation as much as possible in order not only to save money, but also to provide a more comprehensive approach to mitigation that involves multiple related projects instead of individual projects. This represents a shift in Caltrans thinking as environmental considerations were not an important consideration in the past. Caltrans now strives to involve the public early in the planning process.

By taking a corridor approach to planning, rather than an outlook based on specific projects, Norvell explained, Caltrans has an easier time developing less environmentally intrusive solutions. Change to the agency's internal processes allows for environmental considerations to be raised at each stage of planning, helping to reduce costly mitigation at the end of project.

Caltrans has developed regional alliances with various counties in the state to improve its relationship at the local level and to simplify the process for developing alternatives to environmentally problematic projects. For example, it has been involved with the Riverside County Integrated Project, the Merced County Partnership for Integrated Planning, and the San Diego Comprehensive Plan.

DISCUSSION

Richard Napier, San Mateo City / County Association of Governments, noted that we hear a lot about air quality, and there are similar types of studies on water quality. He explained that the state applies a lot of requirements, but thinks that because the regulations come from the federal level, these requirements do not constitute an unfunded mandate. He wondered whether there were studies on the effect of the transportation system on water quality.

Button replied that the aviation sector certainly applied: runways and airports have a great impact on water, and are good examples of the potential of pricing, by adding fees to de-icing fluid, tires, fuel, etc. Seaports are another example, and pricing is applied in the form of fines. Ad-hoc sorts of measures like this can be considered pricing schemes.

Joanne Freilich, UCLA Extension Public Policy Program, asked whether pricing seemed too difficult to implement effectively. Dill expressed optimism that pricing could be implemented. While she did not think that people, in general, would want to pay more, they *would* think that others who pollute more should pay more. Testing increased prices on certain days would be a good first step to implementing a successful program. Also, she suggested that revenue-neutral programs would be more palatable to the public.

Norm King, San Bernardino Associated Governments, suggested a mix of fees and subsidies, such as charges for negative externalities and credits for positive externalities, because the political system prefers credits to taxes. A problem with this is that credits do not go through the same level of analysis that fees do, and King wondered whether "bribing" people to do the right thing was really the right way to go, rather than holding people financially responsible for the effects. King would prefer to implement some sort of pricing program, even on a small scale, rather than wait forever to make the exactly right price. Button agreed that supply-side credits would be more politically feasible; however, he wondered who pays for the subsidies.

Dave Calkins, Sierra Nevada Air Quality Group, described a program in the Sacramento area that budgeted $70 million to reduce nitrogen oxide (NO_x) pollution by three tons per day through the purchase of old, heavy-duty trucks. He added that because scrapping programs are voluntary, they are more effective than mandatory programs are. He wondered whether there were any mandatory scrapping programs. Dill did not know of any mandatory programs and suspected that vintage car collector groups would be highly organized to oppose any such programs; Calkins suggested exempting such groups from mandatory requirements.

Joe Kellejian, City of Solano Beach and the San Diego Association of Governments, explained that his organization runs a vehicle buy-back program to buy cars from model year 1985 and earlier. The buy-back program, he said, is the most effective way of reducing pollution; it needs more advertising and public education. So far there have been no problems with antique car collectors. Dill agreed that there were more vehicles out there eligible for the program and that varying the money offered based on income would be effective to increase participation.

Huasha Liu, Southern California Association of Governments, reminded the attendees that even “clean” fuels still pollute, add to congestion, and mean a revenue shortfall from existing gas taxes. Dill agreed, and explained that the State of Oregon is considering Vehicle Miles Traveled (VMT) fees as replacement for gas taxes and to address the problem of congestion.

Kathryn Phillips, Center for Energy Efficiency and Renewable Technology, illustrated why she feels pricing measures are not used more frequently with an experience that the Energy Commission and Air Resources Board had had. Phillips described a situation in Sacramento in which analysts had prepared a report that contained an appendix about pricing options, even though it was not thought of as truly politically feasible. A lobbyist for the car companies came across this report and misrepresented the appendix’ purpose to the state legislature, saying that greenhouse gases were going to be controlled by pricing measures. She noted that oil companies fund a group called “Taxpayers Against Hidden Taxes,” and any time pricing measures are proposed, this group opposes it.

Asha Weinstein, San Jose State University, argued for tying revenue generation and behavior change together, because raising revenue influences behavior, whether intentional or not. Pricing can have a positive impact not only on transportation, but on environmental quality, social equity, etc. as well. These other impacts can be used to build a broader coalition of groups in favor of pricing.

James Ortner, Orange County Transportation Authority, added that Michael W. Cameron, of the Environmental Defense Fund, wrote a paper in 1994 titled “Efficiency and Fairness on the Road: Strategies for Unsnarling Traffic in Southern California,” which addresses the issue of how pricing can improve social equity.

Greg Greenwood, California Resources Agency, asked, “How can we build coalitions for pricing?” His suggestion is to create private property rights in transportation, using the radio spectrum privatization as a model. However, he worried that consumers may feel as if they are worse off. Button explained that if property rights are allocated to everyone, they will trade and an optimal outcome will be achieved. The problem is that the government will not get any revenue; his case-in-point was lead trading. Initially, the government limited the amount of lead, and companies traded amongst themselves. He added that if externalities exist and are priced correctly, then pricing them will produce a net benefit. Button also stated that the acronyms and language used by transportation planners form a barrier to increasing public participation.

Douglas Kolozsvari, San Mateo County Transportation Authority, praised Caltrans’ efforts in recognizing that the California Environmental Quality Act (CEQA) has cumulative impacts, because it is much easier to bring in mitigation at the beginning than later in the process. He noted, however, that federal agencies seem to be under-funded and experience high turnover, which slows down projects even more. He wondered whether there was a way to get the federal agencies to turn projects over more quickly to local / state agencies, and get permits issued more quickly. Norvell answered that he would like to see such delegation, and that the Transportation Equity Act for the 21st Century provides some opportunities for Federal Highway Administration funding to be passed on more quickly. However, California has not yet met federal standards for these funding opportunities; California needs to get more defined deliverables from the resource agencies in return for a transfer of resources.

SESSION 7: PRIVATE SECTOR VIEWS ON DEVELOPMENT, LAND USE, AND TRANSPORTATION: A ROUNDTABLE

Susan Kamei (Moderator), Executive Director, Urban Land Institute, Los Angeles District Council
Mitchell Menzer, Partner, Project Development and Real Estate Group, O'Melveny & Myers, LLP, Los Angeles, California
H. Pike Oliver, Principal, The Presidio Group & INTERRA, Sacramento, California
Bob Santos, President, Lennar Communities Southern California Division

Monday evening's program was a plenary discussion, with input from private developers on putting Smart Growth-type policies to work in the real world, and wider discussion among the assembled symposium participants.

Susan Kamei introduced the session by clarifying the role and mission of the Urban Land Institute (ULI). ULI is often thought of as a builder or developer organization, but it is a research and education institute whose mission is to provide leadership in the responsible use of land to benefit the total environment. ULI performs its mission through publication, workshops, conferences, forums, and through membership participation in land use issues. ULI is neither a lobbying group nor an advocacy group, but rather an institute to bring parties together. Kamei spoke about the solutions that had emerged from growth-visioning exercises such as ULI's Reality Check and the Southern California's Asscociation of Government's Compass events; faced with population growth of six million people, Southern California will clearly undergo both significant infill and significant fringe development.

Kamei began the plenary discussion by asking **Pike Oliver** and **Bob Santos** what a developer does when confronted with the trends and demographics that emerge from growth-visioning focus groups such as Southern California Compass. Oliver responded that developers need to become intermediaries in the process to determine what sort of development will emerge, taking into consideration what people want, what backers are willing to finance, the regulatory framework, land and the environment, existing infrastructure. The skill and the role of the developer lay in pulling those concepts together into a produce. Santos elaborated that developers used to be product-oriented, but are becoming more consumer-oriented. They need to know where the consumers are, and how they can fill consumers' needs.

Kamei asked whether consumers are really being presented with the kind of housing choices that they could be. Oliver responded that developers are trying to do that. Surveys show that infill / transit oriented developments are favored only by a minority of people, but it is a significant minority. For developers, then, the demand is there, but regulatory hurdles still exist. **Mitchell Menzer** added that real estate development is a highly regulated environment, joking that prescription drugs are approved more easily than a small development will be. The political process of discretionary approval becomes a significant factor in whether the real estate industry can meet the niche demands that are out there, because every project is subject to approval. While California is experiencing a severe housing shortage, there are structural difficulties in producing more housing. Menzer elaborated that even if low-density housing remains the top consumer preference, even that may not be approved these days.

Kamei asked Santos how his company, Lennar, assembles market information to come up with offerings. Santos replied that to be customer-oriented, you have to do research: Lennar requires every member of senior management to go out once a year and interview a customer at home to find out what the customer likes or why he / she did not purchase in the communities that Lennar produces. Lennar does a lot of data-mining to figure out market demand. In San Diego, for example, Lennar builds everything from exclusive country club housing to high rises downtown; there are various market segments demanding those different types of housing.

Hasan Ikhrata, Southern California Association of Governments, asked the developers whether they agreed that they were *not* supplying enough affordable housing. Menzer agreed, but he explained that if a home costs $400,000, twenty-five percent of that cost is due to infrastructure costs. Ikhrata asked whether Menzer was saying a $400,000 home is “affordable.” Oliver clarified that in many communities, it is difficult to produce a product priced lower than that; this is especially true in coastal communities. Moreover, California is growing at 500,000 people per year but only 100,000 to 150,000 units of new housing are built; thus there is a large unmet demand causing prices to increase. Oliver explained that his company deals with the top twenty to thirty percent of the market, and the rest of the market is dealing with resale housing. The lower twenty to thirty percent of the market is priced out.

Christopher Cabaldon, City of West Sacramento and the Sacramento Area Council of Governments, asked whether there were lessons to be learned from the evolution of Southern California development? He specifically mentioned the fact that infill and greenfield developers do not mix; if they do, you get “mules.” Santos added that infill is usually too small scale for greenfield developers to get involved in; they need large parcels. Developers have a difficult time building affordable housing because you need a lot of space for market-rate housing to offset the loss. Kamei asked whether lenders were becoming more tolerant of financing infill, and Menzer affirmed that lenders have advanced rapidly along the learning curve. As to whether it is easier to produce infill development or greenfield development, Menzer said, the two cannot even be compared because conditions are so much more favorable to doing projects on the periphery; where Ontario, California, has its arms wide open to development, San Pedro, California, is locked down. Other factors include the difficulty of assembling land in the center due to multiple owners, and the many competing issues that are faced in an urban environment. Menzer explained that to level the playing field between infill and greenfield development, the rules must be simplified.

When asked what her experience had been, **Bev Perry**, City of Brea and the Southern California Association of Governments, asked what it costs developers to go through the protracted approval process, and whether there was any merit in trying to make people understand how it benefits them to have housing come into their communities. Oliver responded that the approval process can be tremendously expensive; in a recent project, it cost his company $7 million over eight years to process the environmental studies for a 300-home project. If cities can present a clear path, they will find a lot of developers interested in producing any level of housing that they wish, including affordable housing. Santos explained further that even if the developer can afford the approval process, but they know there will be a lot of community opposition, they will cut their losses and go to a community where there is interest and vision.

Perry added that through grants from the state housing authority, the Southern California Association of Governments (SCAG) was studying the jobs-housing imbalance between Orange County and Riverside, and had hit the point where cities were asking "what's in it for us?" Santos agreed that the Riverside-Orange County imbalance was a tough problem, but that it was evolving. Orange County was once thought of only as a bedroom community like Riverside is today; and, just as Orange County began to attract jobs in the 1980s and 1990s, Riverside is starting to see an increase in jobs today.

Kathryn Perez, Southern California Transportation and Land Use Coalition, said that no matter what surveys and figures may say, the public perceives Smart Growth simply as development and opposes it. Oliver agreed that what seems smart to one person seems dumb to the person living right next door to it; he proposed educating people and mobilizing constituencies to advocate *for* Smart Growth developments. Santos agreed, explaining that the best chance to fight NIMBYism lies in public-private partnerships that advocate for Smart Growth and prevent the few who oppose such proposals from controlling the process. Menzer added that Smart Growth is great for communities that have figured out what they want to be when they grow up and have active visioning, as opposed to those that take a "passive-aggressive" approach to growth; it takes leadership to help develop that vision. Santos explained that developers were also learning to go for the low-hanging fruit: when Smart Growth is proposed for a development in the middle of a residential area, there is bound to be opposition, but when it is proposed for an industrial site, there is support.

LeRoy Graymer, UCLA Extension Public Policy Program, asked whether it was realistic for developers to support infill projects. Menzer offered that not all infill projects are created equal; for example, an infill project in downtown Los Angeles would not require a lot of infrastructure. Santos agreed that adaptive re-use was an example of a less expensive type of infill, but explained that successful infill requires a certain amount of scale to give a developer enough incentive to make the development attractive enough to pay for itself. Oliver mentioned that the California Environmental Quality Act (CEQA) requires developers to improve infrastructure to an extent that they do not get credit for. For example, water flows do not come in small increments, so developers often must improve beyond the water requirements for their own development.

Therese McMillan, Metropolitan Transportation Commission (San Francisco Bay Area), asked about transit improvements: how can a transportation agency build a multi-million dollar transit project if developers are not looking that far ahead? A jobs-housing-infrastructure connection cannot be constructed within a five-year period. Santos countered that, in fact, developers are looking ahead to paradigm shifts. For example, urbanity is coming to Orange County, whether they want it or not. Santos' company looked for areas that might be receptive to Transit Oriented Development (TOD) or transit adaptability and are targeting those types of developments today. Menzer said developers need to become serious about investing in land use development with transit agencies. In Los Angeles, the Metropolitan Transportation Authority (MTA) built the Red

Line and left land use development to the City of Los Angeles, with a mix of success and failure. In the future, as a condition to building a rail line, the agencies like the MTA should include land use as part of its plans.

Gill Hicks, Gill V. Hicks and Associates, wondered whether Transit Oriented Development (TOD) was a real trend – is it catching on, and will it make a difference? Menzer thought that it was catching on, but that it wouldn't be enough to meet population growth in Southern California. Oliver agreed that it was catching on, but said there is only a certain amount of fixed guideway transit that is going to happen; at the same time, we need to build consensus around making transit a priority. For example, increasing density from 4 people per acre to 12 per acre results in residential development that supports bus transit; but the environmental impact analysis gives no credit for such positive effects of increased density. As a result, developers have no incentive to increase density. **Will Fleissig**, of Continuum Partners, explained that it comes down to risk-reward: his company believes it can be worth it to risk an entitlement, because buyers will pay more for walkability. If you can make through the entitlement process, you "win out." He asked what the other developers prioritized in their risk-reward analyses. Santos explained that developers typically seek the high-volume products (i.e. greenfield development), versus low-volume products (i.e. infill development). To the extent that infill development occurs, it is usually done by small builders. The problem with infill is that if it takes several years to get approval, then it is a disaster from a financial point of view. However, the time horizon may be changing. Large developers need to look inward because greenfields are in shorter supply and there is much consolidation in the industry.

Steve Sanders, Sustainable Communities Working Group, asked if time is money, and the process in California is very protracted, to what extent do growth projections match what actually has happened? He explained that there seems to be a disjunction between planning and actual need: while citizens and officials are focused on the general plan, developers are working elsewhere. A citizen may start to think that the general plan is a sham! Santos thought this was a perceptive comment, since that very thing happened in Orange County. When Santos went to Anaheim and told them that his research predicted a demand for dense development, the city started looking to make changes. However, another (unnamed) city said that it wanted single-family homes, period, despite Santos' prediction of TOD feasibility. General plans are the result of a tortured process to set land uses, and are open to having people come in and help them change it. Menzer explained that he did not think that the general plan is the right tool for growing particular districts; general plans try too hard to be all things to all people. Oliver feels that we are spending too much on environmental impact analysis, and not enough on planning.

Susan De Santis, IBI Group in Irvine, asked what kind of scale was required to make a development worth financing. Santos said a rule of thumb is that thirty to forty acres is required for a master-planned development; while infill is a much smaller scale, a community cannot be created from one building. Menzer added that thirty to forty acres was hard to come by in urban settings. Oliver agreed that assembling urban land can be challenging; however, it can be done.

Mike McCoy, UC Davis Information Center for the Environment, stated that while the environmental review process was developed to protect ecological resources, it had an appalling record. McCoy felt that agencies responsible for environmental review had failed at being planning agencies, and that it was difficult to figure out what their priorities were. McCoy likened planning in many agencies to cooking by taking out ingredients that don't taste good, instead of putting in things that are good; such agencies try to make a good environment by taking out projects they don't want, instead of committing to things that they do want.

Menzer had an optimistic reply, explaining that a collection of leaders of environmental, social equity, and other groups had come up with a very broad agreement about what constitutes good growth in Southern California. While they kept it simple, they also put together incentives and regulatory reforms that would promote good development. Menzer found there to be a real willingness to talk about easing California Environmental Quality Act (CEQA) regulations regarding infill development and implementing CEQA in a meaningful way. The result would be that a county could do long-term comprehensive planning, and comprehensive CEQA analysis, and then let that growth take place without further CEQA updating. Menzer reminded the audience that there are a lot of state-level laws that prevent locals from being able to plan.

Ron Roberts, City of Temecula and Riverside County Transportation Commission, felt that this had been the best session of the symposium so far, and that it was good to get a handle on what the problems are. Roberts mentioned that the Riverside General Plan was an example of a great plan that did not pan out in reality. One problem, he found, was that much of Riverside County is unincorporated and didn't have to go by the dictates of the City plan. He felt that it would have been good for more locally elected officials to be at the symposium to hear these words from the experts.

Stan Hoffman, Stanley R. Hoffman Associates, Inc., said he often hears that "housing doesn't pay its way" even though some types of housing can. He asked the developers what kind of legislation they would like to see that would permit more high-density, residential infill, to get away from this belief about housing not paying its way? Santos was emphatic about the need for tort reform in construction defect litigation and legislation about deposits on condominiums. He explained that the private sector is unable to provide much affordable housing because every "attached" project that is built could be sued at the end of the ten-year statute of limitations, when the homeowners' association (not the developer) becomes responsible for any necessary repairs. Santos told the group that as a result insurance companies refused to insure condominium construction. He also explained that California law does not allow developers to keep much of the deposit if people do not buy; in California, developers can keep only 5%, but developers in most other states are allowed to keep a higher percentage of the deposits.

Menzer believes that housing will follow electricity and the budget as the next crisis for California and that there will be political ramifications. If it is to be worth their while for cities to entitle housing, then the state needs to provide incentives for local governments, to make up the difference if housing doesn't pay its way, and to help mitigate opposition.

Oliver wondered whether the new governor, with his political capital, would address housing, since no governor since Jerry Brown had tried to solve the housing issue. Oliver believes that several things are required to make state-level politicians address housing: first, forge a coalition between minority groups, builders, and planners to work against the teachers union to get a voucher system in place. Oliver explained that although this may be outside the normal purview of planners, it is a key to opening up demand. Second, get people from regional planning agencies to examine all the projects in those areas in terms of regional impact. Finally, he suggested that CEQA be focused on the natural environment and kept out of the urban environment.

SESSION 8: MOVING THE ECONOMY: WHO SHOULD PAY FOR GOODS MOVEMENT AND HOW?

Norm King (Moderator), Executive Director, San Bernardino Associated Governments
Peter F. Swan, Assistant Professor of Supply Chain Management, Smeal College of Business, Pennsylvania State University
Hasan Ikhrata, Director of Planning and Policy, Southern California Association of Governments

Norm King began his overview of the session with a question: “Who should pay for goods movement?” He explained that discussing goods movement is important because it has a substantial impact on transportation, and on urban form. The main issue with the current system for moving goods is the extraordinary number of un-priced externalities. However, in contrast to personal transportation, pricing these externalities of goods movement may be more acceptable to the goods movement industry. The way that we talk about financing goods movement may provide a window on how we will talk about transportation finance in general. Finally, goods movement may be the first place where we see advanced implementation of transportation demand management in such ways as axle fees.

King stated that roughly 50% of the goods that pass through the Ports of Los Angeles and Long Beach are not consumed in Southern California. The Inland Empire (the urbanized, inland areas east of Los Angeles, in San Bernardino and Riverside counties) has a small share of the total Southern California population, but it bears a substantial share of the externalities of the goods shipped in the region. King claimed that the unmitigated impact of goods movement is the single most important barrier to improving urban life, and likened the goods movement through the Inland Empire to a sewer pipe that not only stinks but also leaks. With increased congestion comes the need for more capacity, and King pointed to forecasts of a substantial increase in train traffic to move goods.

King described the main impacts of goods movement:

- Maintenance of the highway system: the national average shows that trucks pay for only 50% of the maintenance costs of the highway system. But those numbers belie the issue in Southern California, where marginal costs are more important.
- Congestion and capacity: tremendous costs are generated by congestion and will increase due to goods movement unless they are mitigated. To give a sense of the potential problem, King presented some numbers for rail: a few years ago, there were roughly a thousand 5000-foot trains per *week*; a twenty-year projection shows there will be a thousand 8000-foot trains per *day*. For trucks, the concern is freeway capacity, and the price tag is massive if the solution is to separate trucks from mixed flow.
- Public safety
- Air quality: goods movement (trucks, ships, trains, planes, etc.) accounts for roughly 50% of our air quality problem. Pollution is generated even when the goods are not moving; for example, some diesel trucks sit and idle for half of their engine time, which can be up

to 10 hours per day. The U.S. has been slow to regulate diesel engines, ratcheting down requirements on personal automobiles, for example, meaning that diesel becomes an increasing proportion of the problem. In addition, 40% of roadway fuel is diesel.

King explained that in goods movement, there is a vast mismatch between who benefits and who pays. Economic benefits, such as jobs, are highly concentrated at the ports, while the impacts are dispersed around the state. In addition, cities like Los Angeles and Long Beach have a tremendous financial incentive to divert the revenues generated by their ports into their general funds rather than to mitigate the impacts of said ports in other municipalities. Unfortunately, King noted, Inland Empire residents suffer so that consumers in Iowa can buy unbelievably inexpensive televisions. He asked, Why are they so cheap? Answering his own question, he said that they are cheap because the consumer fails to pay the full cost of getting that TV from China to Iowa.

The conventional wisdom, King said, is that if Southern California were to institute a pricing policy on goods movement, and began to charge goods movers for the externalities, traffic would shift to other West Coast ports. King explained this is not necessarily true, primarily because there are so many consumers in Southern California – many of a shipper's goods would have to pass though Los Angeles or Long Beach anyway. (However, King hoped to attach impact fees uniformly to all ports.) But, he pointed out, if this is true, that is, if by imposing pricing fees on the Los Angeles and Long Beach ports, traffic moves elsewhere, then goods movement in Southern California is dependent on subjecting the Inland Empire to uncompensated externalities – thus the ports are not generating enough benefits to outweigh the costs.

King reminded the assembled group that sales taxes pay for transportation improvements, but trucks do not pay sales tax. Therefore, taxing local residents to pay for increased capacity to ship inexpensive televisions to Iowa is intrinsically unfair. He suggested that the federal government should help mitigate the problems. For example, some portion of the $25 billion customs tax should come to the local area.

Private decisions, King said, have a massive impact on transportation systems. For example, retailers may decide that they will only accept deliveries at a certain time, which in turn dictates when truckers are on the road and thus the optimum time to unload ships. Unfortunately, the government cannot directly control these private decisions. Conversely, the Alameda Corridor is a good example of public-private partnership. However, the eastward extension of the Alameda Corridor will prove to be much more difficult; King advocated a container tax to pay for most to the improvement.

King closed his opening remarks with a series of questions: What is the right mix of trucks and rail? Should highway funds be used for multimodal facilities? Even if we can plan and pay for separate truck lanes, do we have a political system that can reconcile the public good with the few who will be severely impacted?

The Restructuring of Freight Logistics: Implications for New Technologies, Land Use, and Infrastructure Finance

Peter Swan's intention was to answer two questions: "How did we get to where we are?" and "Where we are going?" Nationally, goods movement will double by 2020, while in Southern California, it will probably quadruple in that same time, but Swan shifted the focus from Southern California to the U.S. in general.

Basic economic principles and trends are behind what is going on today. Prior to deregulation, the principle was to provide stability and good quality service, with the knowledge that prices would be higher than they could otherwise be. Since deregulation, the policy has become that transportation should always have the cheapest price, and the reason for this development is that by providing the lowest possible cost to shippers, economic development is enhanced. There were some costs to do that, however, and unfortunately there has been little or no guidance from the federal government on modal development.

Prior to deregulation, logistics costs accounted for about 20% of GNP; but since deregulation, it has decreased to a 10% of GNP, resulting in a tremendous savings to producers. In goods movement, "Lardner's Law" states that as the price of transportation *declines*, the distance to which you can ship *grows*, so if the cost of transportation falls by 50%, the distance doubles, and therefore the area to which goods can be sold quadruples. Swan explained that inexpensive transportation can really improve the economy. In real dollars, rail costs are down 25%, and trucking costs have fallen even more.

Swan argued that tax policy has a direct impact on goods movement; for example, currently there are no taxes on internet sales, which has led to increased shipping and more delivery trucks on the streets. The U.S. has lowered most import duties from 15% to 2%, thus creating a boom in imported goods. Swan also indicated that changes in technology and new methods for doing business have a noticeable impact on goods movement. For example, Dell computers and the "just-in-time / agile manufacturing" concept is a perfect example of how innovation can affect goods movement. Thanks to technology, business has less uncertainty in demand. These technological innovations all boil down to less costly inventory and small quantities of input being delivered to manufacturers more frequently.

While changes like just-in-time manufacturing changed the demand for goods movement, shippers have implemented containerization to cut labor costs at ports, which in turn have cut the costs of goods movement. As a result, shipments travel longer distances, mostly because of imports. The U.S. has also seen an increase in Vehicle Miles Traveled (VMT) attributed to goods movement: Smaller shipments, due to internet sales or just-in-time manufacturing, means smaller, more frequent deliveries and therefore higher VMT.

Transportation carriers have high fixed costs and low marginal costs; such a situation creates a tremendous incentive to price transportation below true costs. Marginal pricing that is far lower than average costs is the most serious issue for rail carriers. Transportation economics works in such a way that it creates sub-optimal decisions: Rail companies compete with each other so much that Swan cannot say how much impact trucks are having on rail.

Compounding this problem in the trucking industry is sub-contracting: trucks have a constant downward pressure on prices due to the vast number of sub-contractors, who are prevented by law from organizing. The independent truckers compete with each other for business, and many also "cheat" on the number of hours they are allowed to ship. The result is that trucking wages have dropped precipitously. Thus, no matter what the mode, profit margins in the goods movement business are razor thin, and given the return of large budget deficits, the federal government seems unable to come up with large amounts of new transportation money. Since fuel taxes are not paying for new construction, the economist would ask, "Where is the money for new infrastructure?"

Swan then switched focus to pressures from the supply chain to point out its effects on goods movement financing. Today, larger containers means that 25% more can be shipped per container. However, international containers remain relatively smaller, so shippers have built warehouses in the Inland Empire where these 20 or 40-foot international containers are unloaded and re-loaded into 53-foot domestic containers. This unloading/reloading work, known as "transloading," is performed by non-union labor.

Lifecycle differences between rail and truck are also having an effect. Trucking equipment cycles are approximately 15-20 years; but rail equipment cycles are closer to 40 years. Currently the rail freight industry is standardized on 40 and 53-foot containers, but if there is change in container size, trucks will be able to more readily adapt on account of their shorter equipment cycle. In addition, all the equipment that the rail industry has just invested in would become obsolete.

This background information demonstrates that we have undervalued transportation costs. As a result, producers, suppliers, and retailers are given the incentive to use cheaper land, less capital, and *more* transportation. Swan stated that government policy has retarded inter-modal coordination. But, logistics is a system, and we make decisions to minimize total cost. He noted that without the expected increase in general demand, less new transportation capacity would be needed. However, since goods movement is artificially cheap, firms will use transportations as a substitute for high local labor or land costs.

What can we do about the transportation policy that led to this undervaluation, dictating that transportation should be as cheap as possible? And, how can we change things, especially given that there will likely be more movement of manufacturing off-shore, and thus increased goods movement? Where will the infrastructure come from? What are the implications of the North American Free Trade Agreement (NAFTA), which will increase goods movement between the U.S., Mexico and Canada?

Who, Swan asked, is going to pay for new infrastructure? The railroads are cash-poor right now, with the eastern rail lines having taken on a lot of debt in purchasing Conrail; as for western rail, the federal government has been told that investing in rail infrastructure for the long-term is a bad idea. In addition, the government can't build capacity fast enough.

Swan advocated the use of global positioning satellites to "smart toll," thus preventing truckers from avoiding shiny new conventional toll roads by using parallel free routes. Swan mentioned that Virginia is in a similar "pass though" region for goods movement as Southern California, in that most of the truck traffic there is not originating or terminating in the state. In Virginia, a discussion was started on a separate toll road for through-truck traffic, but the idea was dropped after truckers vowed to fight.

Swan concluded by stating that transportation costs and congestion will increase and reliability will necessarily decrease. He challenged the group whether we should take steps now to prevent the coming meltdown.

Case Study: Financing Regional Goods Movement Projects in Southern California

Hasan Ikhrata reported that despite the vast of amount of wealth in Southern California, the region has a relatively low per capita income. Indicative of this fact, he said, is that about one in five children in this region live in poverty. Reiterating King's earlier comments, he stated that Southern California suffers the costs of international trade, without compensation.

Freight volume in Southern California will grow significantly, by at least 50,000 to 100,000 trucks. Ikhrata explained that that figure is on top of the excessive number of trucks already operating in the region. Assuming that money was not an issue, he asked how we can build more capacity over the objection of local residents (aka NIMBYs). Residents want better air, free flowing traffic, private automobiles, single-family homes, and so on, but, Ikhrata said, they have no intention of paying for any of it. Ikhrata then described proposals that the Southern California Association of Governments (SCAG) is working on with the trucking and rail industries to help alleviate the current and future problems.

For trucking, SCAG proposes using a 56¢ per mile toll to finance dedicated truck lanes. The new facility would be two lanes along Interstates 710, 60, and 15 from the Ports of Los Angeles and Long Beach to Las Vegas, Nevada. The current estimated cost of the dedicated truck lanes is $16 billion. The trucking industry is not necessarily against a toll; however, the facility would need a demonstrable positive impact on productivity, i.e. greater than the 56¢ per mile cost. Ikhrata noted that getting the trucks off mixed-use freeways would have big benefits both to truckers and drivers.

In rail, SCAG is proposing an increase in rail capacity as well. Currently, there is an average 13-minute delay for freight trains and virtually no delay for commuter trains. Forecasts, however, predict a 3-hour delay for freight and 45-minute delay for commuters. To alleviate these delays, Southern California must increase rail capacity and reduce crossings, and mitigate the impacts. The freight rail industry is reluctant to pay for capacity improvements that primarily benefit passengers. Unlike the trucking industry, there is zero support for any type of toll. Moreover, even if capacity improved in Southern California, what about the bottlenecks farther east? However, the rail industry is willing to keep talking, because they are aware of the potential shift to trucking if things do not improve.

Transloading, the act of trucking goods from the ports to warehouses and then to trains, will continue to grow dramatically, and every transloading activity creates four truck trips (including deadheading trips). Therefore, improvements for trucks and rails are crucial. Without improvements, Ikhrata reported that a dramatic fall in average speed is certain. Even with spending public and private money, congestion will increase; however, Ikhrata noted that as some have pointed out, congestion is a sign of prosperity, albeit an annoying one. Truck and rail capacity enhancement projects will create local jobs.

Ikhrata described four revolutions in California politics:

- Proposition 13 – severely limiting the amount of property tax the state can collect
- Term limits – legislators are limited in their ability to continue to run for the same office
- San Fernando Valley seccession – a move to divide the City of Los Angeles into two separate parts
- The recall of a sitting governor

Ikhrata noted that these revolutions show that people are frustrated; they don't want their taxes disappearing up to Sacramento or over to Washington, D.C. Ikhrata described of a shift in voters in their willingness to support new (or renewed) transportation taxes. Specifically, voters are leery of writing a blank check; they want a list of projects to which they can hold politicians accountable.

Ikhrata believes that the future is in user fees, and, like Norm King, he thinks that the goods movement industry is a good place to start. We have still other options besides taxes to finance projects: we should be leveraging public-private projects. As professionals, he said, we should not be discouraged because change is possible.

DISCUSSION

Don Breazeale, Don Breazeale and Associates, clarified that ocean carriers had decided not to absorb some fees that they had absorbed for years. Transloading, which is "scary," resulted from a group of six of the top ten importers deciding to ship things differently, which ultimately created four new truck moves for each container. Breazeale applauded the plans presented by Ikhrata, but had some additional suggestions: there were operational issues that could address the problem, such as by loading and discharging vessels by modality (truck or rail) and using an appointment system to streamline. He argued for the creation of an inland freight center and for running trains in off-peak hours to the new center. This would help reduce trucks on the Long Beach Freeway (I-710). But Norm King reiterated that decisions made by private companies can have a huge impact and that a lack of governmental control of said decisions makes long-term decisions and projects difficult.

Ty Schuling, San Bernardino Associated Governments, found the similarities between Transit Oriented Development (TOD) and goods movement striking, given the land use decisions that result. He stated that land use changes are tied to mega projects, like the proposed truck-only lanes. He mentioned how decisions are based on the land uses today, and not on the land uses in the future. For example, Ontario, California views the transloading warehouses as a temporary use that will convert to a more employment-intensive use in the future. Somehow, he said, the Inland Empire cities' longer term land uses should be factored into the planning. After all, why build truck lanes to the transloading warehouses that are not going to be there in the long term? Ikhrata agreed that future land use planning was not factored into the projects, and said that was more political than technical, because talk of re-zoning and redevelopment has to happen, but the Southern California Association of Governments (SCAG) has no power to rezone or enforce land uses on cities. Ikhrata advocated that regional plans be linked to cities' general plans – especially when new facilities will impact development.

Roger Gorham, U.S. Environmental Protection Agency, noted that in the last 20 years the government has shifted from a "predict and provide" philosophy, to a "predict and do something about it" philosophy in passenger travel. However, in freight, no one ever discusses demand, only increases in supply. Gorham liked the truck and rail expansion plans presented by Ikhrata, but he felt that the agency (SCAG) should look at both passengers and freight. Specifically, should passengers pay a toll just like freight, since they will benefit from the separation too? And, will the new facilities simply create induced demand for passenger travel? Ikhrata agreed that passengers would benefit from having fewer trucks on the road, but said that capturing those benefits would be difficult because they are not directly using the facility; therefore, they should not pay. He also explained that while induced demand is factored into models, nothing much is done about it because SCAG does not really have a good idea of how to handle it. Ikhrata noted that today, the Long Beach freeway (I-710) is really almost exclusively used by trucks. Swan suggested engaging more with shippers and freight carriers; he had found them quite helpful.

Stan Hoffman, Stanley R. Hoffman Associates, Inc., expressed support for coordination with cities' general plans, but noted that the system as a whole should also be considered. For example, San Bernardino is considering building a new inter-modal facility at the old Norton Air Force base. Bringing rail to the base would require too many grade crossings, with a total expense of $115 million. While this is well outside the price range for the City of San Bernardino, it might not be too great for a general plan.

Jon Haveman, of the Public Policy Institute of California, stated that there is currently too much traffic in the Inland Empire. While Ikhrata's proposal seems to be an excellent way to address the congestion, how do we know that the $20 billion plan is as good as widening the Panama Canal, for example, and shipping everything via the East Coast? Is this proposal the best alternative? Ikhrata stated that he did not know how this plan compares to widening the Panama Canal, but he thought that widening the Panama Canal will not really help. He also reminded the group that even without further growth in cargo, current levels overburden existing facilities. King noted that widening the Panama Canal would also require upgrading all of the Eastern ports, adding that no single solution is as simple as it might seem.

SESSION 9: THE POLITICAL CHALLENGES TO FISCAL REFORM: IMPROVING THE TRANSPORTATION–LAND USE–ENVIRONMENT–*FINANCE* CONNECTION

Brian Taylor (Moderator)
Gary Gallegos, Executive Director, San Diego Association of Governments
Pete Hathaway, Deputy Executive Director, Planning and Project Delivery, Sacramento Area Council of Governments
Ronald Kirby, Director of Transportation Planning, Metropolitan Washington Council of Governments
Ron Loveridge, Mayor, City of Riverside, California

Brian Taylor introduced the final session of the symposium, presenting the panel with two key questions, and then asking the assembled symposium participants to add to the panelists' comments.

Question 1: **What ideas, themes, or problems that were raised in the symposium did you identify as particularly salient?**

Gary Gallegos stated that out of crisis comes opportunity, and asked each of the attendees to consider how to turn this particular crisis into an opportunity. He identified several particular areas that require our attention:

- Failure to link strategic planning with capital planning;
- Erosion of firewalls;
- Changing nature of transportation financing;
- Need for fiscal reform; and
- Distrust of politicians.

Gallegos was pleased to see that the private sector is looking at Smart Growth.

Pete Hathaway reported that transportation policy has taken a "time out" despite the fact that the population growth in California does not really permit that luxury; after all, we cannot afford to have transportation keep up with growth in travel if that travel is free. He finds that government needs to learn lessons in getting to yes; while the private sector is not going to pay most of the cost of our transportation system, we need to harness the private sector to promote efficiency. Hathaway identified several other ideas to follow up on:

- Regional transportation corridors;
- Developers want to cooperate with governmental ideas, but they need quicker action from government to be able to do so;
- Public-private partnerships; and
- A need to bring everyone into the tent as stakeholders.

Ron Kirby found that even though the discussion at the symposium had focused on Southern California, he could take many lessons back home to Washington, D.C. Such things as Transit Oriented Development (TOD) and dealing with congestion are big issues there as well. The 83 stations in the Washington, D.C., Area Metro system provide lessons in the experience of TOD; with varying levels of development, there is everything from the good, to the bad, to the ugly.

Kirby illustrated his point, stating that Arlington's Crystal City corridor, for example, is often mentioned as a success story of concentrated development along a rail line. Kirby cautioned that Arlington has some special features that may not be universally applicable: Arlington is a land-locked inner county; board members are all at-large (and thus cannot be picked off one-by-one through NIMBY resistance) and do not have term limits. This board is composed mainly of Democrats, and is of one mind in that sense. Kirby mentioned that that this corridor benefited from excellent highway access as well as transit access. Finally, he indicated that this corridor had been completely redeveloped, with not a single brick left unchanged. Arlington had taken a very long-range, comprehensive approach, and had provided strong financial incentives.

Other areas along the Metro system have had less success, and Kirby finds that political make-up has something to do with it. In addition, Metro owned relatively little land around the stations – certainly not enough to assemble the 30-40 acres that the private developers were talking about – so the local government was very important in assembling those parcels. Stations at the end of the lines face tremendous pressure for large parking lots: Smart Growth people are against such massive parking, while Metro sees parking as essential to getting people on the line. Some stations are still run-down, with no plans for development in the next 25 years. But when a new station was recently built, it was amazing to see how quickly things could get done when all the lights were green! Finally, Kirby had no doubt that to tackle congestion in any meaningful way in urban areas, we have to go to pricing solutions; he's certain that D.C. is heading in that direction.

Ron Loveridge thought the presentation from Ikhrata demonstrated the best proposal that the Southern California Association of Governments has done in 25 years; more importantly, Loveridge thought that the UCLA Transportation-Land Use-Environment Symposium is an excellent forum for such proposals.

Loveridge said that every time he attends a conference, someone asks what are the three to four proposals that should be brought back to the constituency. At Lake Arrowhead, he had identified the following top ideas:

- Donald Shoup's parking meter solution.
- Looking more aggressively at Transit Oriented Development (TOD) around Metrolink stops.
- Paying more attention to using buses in TOD. Loveridge would like to see buses used as a different form of transportation than they have been in the past.
- Finally, Loveridge said the University of California (UC) system is one of the greatest public university systems in the world, yet there is too much distance between its research and the policy problems in the state. Loveridge would like to call on the new UC President to make bridging that distance a priority.

Taylor asked for comments from the audience. In response, **Julie Bornstein** said that one of the recurring themes has been switching thinking to a more systematic analysis, such as "how are transportation and land use linked?" Bornstein stated that these need to be thought of as a single system. She also wondered what the panel of speakers predicts about the potential for systemic reform of the State of California finances. Taylor added that David Dowall's presentation had demonstrated the fundamental change in public sector involvement from the 1950s up to today.

Loveridge responded that he has been working in California for a long time, and while there has always been talk of a systemic approach, it's not happening. He thought that perhaps a regional approach should be taken instead, and Gallegos agreed. Gallegos illustrated that when he worked at Caltrans, he did look at the system, but it was the *Caltrans* system. For Gallegos, it has been good to work at the San Diego Council of Governments, taking a regional approach instead, because, although everyone is trying to do a good job, we all tend to have tunnel vision. In terms of increased funding, Gallegos thinks that Californians will eventually be willing to pay more, but not until those who spend it can demonstrate that they are doing a good job with the money. He echoed his earlier thought, saying that currently there is distrust as to whether elected officials will do good things with the money once it is given to them. Hathaway agreed, saying that although planning and programs have tended to be performed in silos, that is gradually breaking down, and we are seeing more joint spending on transportation and Smart Growth development. Still, the planning silos remain somewhat isolated and we need to break that down.

Lewison Lem, California State Automobile Association, had a feeling of optimism about the future based on success at AAA in working with counties and transportation authorities to renew sales tax measures and thereby allocate money to needed projects. Lem stated that in the coming year, half a dozen counties will be putting something on the ballot, and AAA will be there to help them. For example, in the Bay Area, there's the possibility of a regional sales tax for regional transit.

Catherine Showalter, RIDES for Bay Area Commuters, Inc., re-introduced an earlier thought that the use of acronyms enhances the distrust that the regular citizen feels towards planning. She also asserted that good programs exist that are not perceived as such by the average citizen because the connection with their own values is not obvious. An example, Showalter said, is vehicle scrapping programs. People do not realize that with vehicle scrapping programs, a great deal of effort is made to recycle the scrap metal produced. If citizens knew this, they too could see the connection between transportation and the environment.

Enid Joffe, Clean Fuel Connection, Inc., found that a lot of the discussion had been overly focused on local issues. While she was fascinated with the discussion about local versus regional control, and found that the right people were in the room, there are still contradictions in the where we are going. Specifically, the solutions are often too big (i.e. regional), yet the funding is channeled to cities. Additionally, she lamented that land use control is unlikely to shift from cities to Metropolitan Planning Organizations.

Will Fleissig, Continuum Partners, was of the opinion that what often keeps things from moving forward are the rules or impediments that exist. Fleissig advocated for getting to the point where governmental bodies would have a clause saying "if it's Transit Oriented Development (TOD), then the rules are out, and everything's negotiable." Taylor asked him whether the rules themselves were acting as roadblocks, or was it that certain parties would use these rules for their own interests? Fleissig said that it *can* be manipulative parties, but that much of the process itself is simply cumbersome; if each governmental body could fashion an enabling piece in their general plan to say that TOD is negotiable *de facto*, it would get rid of these impediments.

Stan Hoffman, Stanley R. Hoffman Associates, Inc., had found the session on goods movement to be the most striking. Having an understanding about the connection between rail, trucking, and automobiles and how this ties to federal deregulation, the tax system, and how it is all paid for led him to believe that the public will have to be equally informed, perhaps using the initiative process, as to how their taxes and fees are tied to projects.

Christopher Cabaldon, City of West Sacramento and the Sacramento Area Council of Governments, found there to be a time gap between what was being said at the symposium and what was happening in current events: the recall of Governor Davis, for example, is an expression of public sentiment. Cabaldon asserted the need to integrate political science into these forums, in order to have a more enlightened discussion about engaging the public.

LeRoy Graymer, UCLA Extension Public Policy Program, asked whether there is something structural that we should be talking about in finances; as the state strives to get more stable financing, the local level becomes less stable. He wondered whether it was time to talk about changes to the distribution of tax revenues in California.

Asha Weinstein, San Jose State University, said that we tend to think that we have too many projects, too many needs, and not enough money, leading us to conclude that we need to reduce demand. Weinstein wondered if better needs analysis might allow us to focus on how much we actually need, and, more importantly, on how to prioritize our needs. With such a process in place, we could think not only across our sectors of transportation, but also about ways to help the whole system, not just one individual sector.

Jay Etta Hecker, U.S. Government Accounting Office, expressed frustration at the absence of more federal government representatives at the symposium; specifically, Hecker thought that more federal representatives could help provide examples about federal programs. Taylor remarked that there had been greater federal participation at the symposium in the past, and that budget cuts affected how many federal representatives could participate this year.

Jeff Brown, Senate Office of Research, brought up the current effort to "systematize" goods movement issues in the "gateway cities" portion of Los Angeles County. Half a million jobs are related to trade in Southern California, and if the failure to build efficiency into the system continues, the economic opportunity of the state will suffer. Brown suggested using the next federal transportation funding bill reauthorization as an opportunity to "get freight on the screen." Figures show that, nationally, freight capacity will reach its limit in 5-7 years, which provides an opportunity to leverage the numbers and show the impact that freight has on every single congressional district in the nation. In addition, the private sector, which seems willing to pay a fee if it can see the positive effects that will follow, must be involved.

Question 2: **From where you sit professionally, what, in the next year, will be the most important thing you deal with in terms of the transportation-land use connection? What should we be working toward to address in a longer time frame? And, when deciding between short-term and longer-term goals, how can we produce solutions before the meltdowns happen?**

Gallegos' short-term outlook included several priorities. First, the current funding crisis in transportation is going to affect every citizen, since local sales tax measures are sun setting, and the threshold of supermajority is so high to get new measures passed. The result is that while we started a lot of transportation projects in the good times, we now have to look at what to cut. At the same time, this is an opportunity to look at *how* we fund transportation: does it make sense to fund projects on a year-by-year bases if they take a decade to construct? Second, Gallegos finds it unhealthy to staff up Caltrans only to lay people off, and then go through the cycle again. It is unhealthy for the industry and unhealthy for the contracting industry. The crisis provides an opportunity to rethink how we deal with transportation.

Hathaway finds some logic to using sales taxes to fund transportation, since sales taxes are linked to economic growth, but he does not like the complete disconnect between payment and use. In this period of political uncertainty in Sacramento, Hathaway would like to reassert the power of the user fee. In addition, he would like to see the gas tax split up; a portion would be set aside for maintenance and operation of the system, and would be indexed in some way. The remainder should be given to the Legislature to distribute. Such a system would free up Proposition 42 (the measure that dedicated sales tax revenue from fuel sales to Transportation Congestion Relief Projects) revenues for capital projects, and would help restore public faith that Proposition 42 dollars are being used as they were originally intended. In the longer term, Hathaway said, we need to replace fuel-based fees for transportation funding, because forecasts show that a great deal of such funding will be eliminated via increased use of hybrid vehicles; he favors Global Positioning System (GPS)-based fees as a replacement.

In terms of improving air quality, Hathaway suggested an older car buyback program to eliminate gross polluters. He also likes Donald Shoup's ideas about charging for parking and thus leveraging the time the car is parked; Hathaway would extend this to charging employers higher property tax for parking spaces.

Kirby explained that, in general, today's transportation goals are quite different from those that existed when the basic transportation funding programs were started. As a result, we have to rethink the funding programs entirely, from top to bottom. Kirby illustrated his point by talking about a recent bill in Virginia that linked sales tax to certain projects. The bill was defeated both by groups opposed to taxes in general and by those who did not like some of the projects, and Kirby thinks that Virginia will not be using sales tax to fund transportation in the future. Kirby agrees that it is time to put the gas tax toward rehabilitation and maintenance, and time to separate how we fund maintenance from how we fund new projects. He likes the idea of a separate tolled system as a safety valve; he finds that varying tools by time of day is just a new way of doing business, and is what we will have to do. For the longer term, Kirby agreed that we should get away from fuel taxes, and instead levy a fee per vehicle mile traveled, which could be tied to maintenance.

Loveridge thought that California's gubernatorial recall had provided both increased expectations for change, but also a sort of invitation to think differently. He was not sure where such a situation will take us, but is glad that it is there. He applauded the Riverside County Integrated Project, which included a transportation urban mitigation fee (all cities in the western part of the county would impose a $6000 fee on all single-family, multi-family, office, and retail units), and a "multi-species" fee to permit the county to buy 153,000 acres – all of which was possible due to vision and the perceived need.

Loveridge mentioned that cities are often seen as villains, but they are really rational creatures trying to maximize the rules. He also stressed the importance of regions. He finished by saying that these ideas that we hear today may not be on the street, and we need to educate the public in order to leverage the fact that there is a great tie between public policy and public opinion.

Therese McMillan, Metropolitan Transportation Commission (San Francisco Bay Area), was struck that although there seems to be a consensus on pricing, the message often gets complicated. For example, we like user fees, but when we try to provide incentives toward other social goals, such as not charging fuel taxes for hybrid cars, we confuse things.

Gallegos stressed that along with reforming how things are financed, we have to reform how we deliver projects. Currently, he said, it takes way too long to accomplish large, sweeping transportation projects. However, San Diego built in large or "wow" projects in their proposal for a new sales tax; the projects are designed to impress the users and cause even the opponents to say "wow, that really worked!" Gallegos said that instead of being problem chasers, we need to deliver projects faster and better.

Joe Kellejian, City of Solano Beach and the San Diego Association of Governments, pushed the regional approach, commenting that when coalitions of two counties get together, and then go back to Washington, D.C., with a comprehensive plan rather than piecemeal projects, it's easier to get money. He gave the I-15 corridor as an example.

Norm King, San Bernardino Associated Governments, said that although we at the local and regional levels talk about all these solutions, the state and federal-level administrations are not even close to talking about them. But perhaps we have a chance to get that dialogue started.

LeeAnn Garcia, Southern California Association of Governments, thinks that the non-profit arena provides the link to getting the public involved by taking academic concepts and making them understandable for the general public. She applauded developer Will Fleissig, who went to the public to see where to place Transit Oriented Developments.

Stephan Finnegan, Automobile Club of Southern California, stated that planners must strive to gain the public's trust. There must be a link in the public's mind between what they are going to pay and what they will actually get.

Kathryn Perez, Southern California Transportation and Land Use Coalition, added to Finnegan's comment, saying that her husband, Rick Cole, was mayor of Pasadena during the metering project. Her husband was proud of three things: 1) the plan to improve Old Pasadena; 2) getting the meters in; and 3) not being blamed for the meters! The important lesson to take from that experience is that you need to have early deliverables to show to people when doing these fee-based programs. She added that the non-profit sector is behind these progressive plans.

Hathaway added that when considering how to involve the public in planning, to remember that the public is craving livable communities. He had been trying to connect planners, the public, and elected officials through workshops explaining Smart Growth. He has found interesting responses, which reinforce the importance of his workshops.

Taylor wrapped up the session and the symposium, thanking the panelists and the audience and stating that he was filled up with ideas!

III. CONCLUSIONS

This year's symposium focused on the complex, multifaceted topic of transportation finance, asking what is the current situation, what are our successes, and what are our failures? Some presentations looked to the past to better understand how financing mechanisms had influenced where we are today. Together, speakers and attendees discussed possibilities for more progressive transportation financing scenarios and brainstormed about the means and methods of bringing such scenarios to fruition.

For some parts of the country, the failure of our current transportation finance system to keep pace with population and travel growth will only become increasingly evident to the public and policymakers. Perhaps not surprisingly, the attendees saw the current transportation finance system as fraught with problems. The disconnect between how and by whom transportation projects are financed versus how and by whom they are actually used results in a confusing and inequitable system of cross-subsidization. Efforts to finance transportation projects tend to focus on the initial capital costs, and are less concerned with operating and maintenance costs. Finally, there was a general consensus that transportation in the United States is under-priced, making transport artificially inexpensive for everyone and everything; thus, transportation becomes an effective substitute for other non-subsidized inputs in both consumption and production.

Presenters and attendees identified multiple causes of the current situation of crisis in transportation finance: term limits for politicians; past financing methods that do not match current needs; a preoccupation with capital, which precludes consideration for maintenance; and varying levels of regulations and incentives from federal, state, and local levels, which sometimes lead to competing outcomes. Recent trends in transportation finance include referenda for sales taxes that include specific, salacious, and sellable projects that may not be consistent with municipal or regional general plans.

Despite the current fiscal crisis, there was optimism about the potential for change. There was a general consensus about the need to create financial incentives to fund on-going maintenance of transportation facilities rather that just continuing to subsidize new or replacement capital projects, and general agreement that user fees should become a more important means of financing transportation – from higher gas taxes to a more direct form of user fee, such as charges on vehicle miles traveled. Attendees expressed optimism about Smart Growth principles as an alternative to sprawl and as a means of channeling the trend of fiscalization of land use toward more progressive planning goals. Finally, regional-scale planning was seen as a must by those who expressed views on the topic.

Solutions to the transportation finance crisis that were discussed included leveraging a combination of subsidies and direct user fees to influence behavior and increase revenue; making governments quantify and capture the value-added of public transit investments; and moving toward increased leveraging of private dollars, from parking meter revenues to developer investment in housing projects. Linking the new fees with positive, meaningful, and measurable effects, and emphasizing the impact on future generations, were both seen as a means of selling these ideas outside the transportation community. In addition, attendees saw a need to establish clear connections between policy objectives and policy levers.

In conclusion, transportation finance influences – and is influenced by – travel behavior, public and private investment, and multiple layers of policy, and in turn has major connections to both land use policy and environmental impacts.

APPENDIX A:

SYMPOSIUM PROGRAM

FINANCE: THE CRITICAL LINK **THE TRANSPORTATION/LAND USE/ENVIRONMENT CONNECTION**

October 19-21, 2003 ***UCLA Conference Center at Lake Arrowhead*** 850 Willow Creek Road Lake Arrowhead, California

SUNDAY AFTERNOON, OCTOBER 19, 2003

2:00 pm **SYMPOSIUM OVERVIEW**

Brian D. Taylor, Associate Professor of Urban Planning and Director, Institute of Transportation Studies, UCLA School of Public Policy and Social Research

2:30 pm **TRANSPORTATION AND LAND USE IN THE BROADER CONTEXT OF PUBLIC FINANCE**

This session lays the groundwork for the sessions to follow by examining how public finance and finance-driven public policies influence both the provision of infrastructure (including transportation) and the regulation of land development. Collectively, the presentations look to the future, identifying challenges, opportunities, and policies affecting land use and infrastructure.

***Moderator: Joanne Freilich**, UCLA Extension Public Policy Program*

Paying for Infrastructure: Implication for Transportation Systems and Land Development

David Dowall, Professor of City and Regional Planning, UC Berkeley

Managing Infrastructure Assets: Implications of New Accounting Guidelines

Daniel Dornan, Vice President, AECOM Consult, Inc., Fairfax, VA

The Fiscalization of Land Use: Effects on Development and Travel Patterns, and Opportunities for Reform

Elizabeth Deakin, Associate Professor of City and Regional Planning, UC Berkeley and Director, University of California Transportation Center

4:00 pm Break

4:15 pm **THE ANATOMY OF TRANSPORTATION FINANCE**

The finance of surface transportation has evolved into a complex web of both private investments and public expenditures by all levels of government. This session gives a detailed overview of this finance system, highlights important turning points in its development, and explores the potential for improving the stability, effectiveness, and equity of surface transportation finance in the coming years.

Moderator: Brian Taylor*, UCLA*

Shifting Sands: The Evolution of Surface Transportation Finance

Arthur Bauer, Principal, Arthur Bauer & Associates, Sacramento, CA

Where it Comes From and Where It Goes: The Current State of Transportation Finance

Therese McMillan, Deputy Director of Policy, Metropolitan Transportation Commission, San Francisco

Reforming Surface Transportation Finance: Needs, Opportunities and Constraints

Martin Wachs, Roy W. Carlson Distinguished Professor in Civil and Environmental Engineering, Professor of City and Regional Planning, and Director, Institute of Transportation Studies, UC Berkeley

5:45 pm **Check-in and Opening Reception**

6:30 pm **Dinner**

SUNDAY EVENING, OCTOBER 19, 2003

8:00 pm **WORKING WITH, AND AGAINST, FISCAL POLITICS TO IMPROVE LAND USE, TRANSPORTATION, AND ENVIRONMENTAL OUTCOMES**

How do political debates over public finance influence land use and transportation decision-making? What are the environmental consequences? Given the realities of political bargaining, how can we make decisions that result in sounder outcomes? These questions are addressed in a roundtable discussion among public and private sector policy leaders.

Moderator: LeRoy Graymer, *Founding Director Emeritus, UCLA Extension Public Policy Program*

Dan Beal, Manager of Public Policy and Programs, Automobile Club of Southern California

Julie Bornstein, Director, USC Keston Infrastructure Institute

The Honorable Tom Torlakson, California State Senator

Discussion Among All Participants

9:30 pm **Informal Reception and Continued Discussion**

<u>MONDAY MORNING, OCTOBER 20, 2003</u>

7:30 am Breakfast

8:45 am **THE FISCAL LINK BETWEEN LAND USE AND TRANSPORTATION: ASSESSING RESEARCH FROM HOME AND ABROAD**

Research on land use-transportation relationships includes a growing body of work on the role of finance in shaping both land development and travel behavior. This topic is examined from three perspectives: evaluations of the public and private costs of alternative forms of development; the effects of transportation investments on land development; and the effects of fiscal policies on development and travel in Europe.

Moderator: Randall Crane, *Professor of Urban Planning, UCLA School of Public Policy and Social Research*

The Fiscal Impacts of Alternative Forms of Development: What Has the Evidence Shown?

***Robert Burchell*,** Distinguished Professor and Co-Director, Center for Urban Policy and Research, Rutgers University

The Role of Transportation Investments in Shaping Land Development

***Robert Cervero*,** Professor of City and Regional Planning, UC Berkeley

Using Public Finance Tools to Shape Land Development and Travel Patterns in Europe

***John Pucher*,** Professor of Urban Planning and Policy Development, Bloustein School of Planning and Public Policy, Rutgers University

Discussion Among All Participants

10:15 am **Break**

10:30 am **MAKING LAND USE AND TRANSPORTATION INVESTMENTS WORK TOGETHER: RECENT INNOVATIONS IN PRACTICE**

This session focuses on recent efforts to make land use and transportation investments work together better. The first presentation examines efforts to use finance creatively to better link land development with public transit investments. The second presentation examines the role that parking and parking revenues can play in revitalizing local commercial districts and neighborhoods.

Moderator: Martin Wachs

Using Finance Creatively to Better Integrate Public Transit and Land Development: Assessing Recent Efforts

Will Fleissig, Principal and Co-Founder, Continuum Partners LLC, Denver, CO; Senior Advisor, University of Colorado Real Estate Center, Boulder, CO

Turning Small Change into Big Changes: Using Parking Revenues to Revitalize Commercial Districts and Neighborhoods

Donald Shoup, Professor of Urban Planning, UCLA School of Public Policy and Social Research

Commentary:
James Corless, National Field Director, Surface Transportation Policy Project

Discussion Among All Participants

12:00 pm **Lunch**

MONDAY AFTERNOON, OCTOBER 20, 2003

1:30 pm **LINKING LAND REGULATION AND TRANSPORTATION FINANCE TO ENVIRONMENTAL QUALITY**

The regulation of land development and pricing of travel shape the use of land, the consumption of other natural resources, and the production of pollution. Can paying more attention to the land and transportation price signals significantly improve environmental quality? This session examines the latest work on the links between land and transportation finance and environmental quality.

Moderator: Joanne Freilich

Measuring and Pricing Environmental Externalities in Land Use and Transportation Systems

Kenneth Button, Professor of Public Policy, George Mason University

Transportation Pricing as an Air Quality Management Tool: Case Studies of Recent Practice

Jennifer Dill, Assistant Professor of Urban Studies and Planning, Portland State University

New Developments in Incorporating Environmental Mitigation into Project Planning and Finance

Jay Norvell, Acting Chief, Division of Mass Transportation, California Department of Transportation

Discussion Among All Participants

3:00 pm **Free Time**

5:30 pm **Reception**

6:30 pm **Dinner**

MONDAY EVENING, OCTOBER 20, 2003

8:00 pm **PRIVATE SECTOR VIEWS ON DEVELOPMENT, LAND USE, AND TRANSPORTATION: A ROUNDTABLE**

Public policy is often promulgated on a limited, or even faulty, understanding of how private land development decisions are made. In this session, land developers and other private sector actors offer their views on location decisions, public regulation of private land markets, growth management and smart growth, and the role of transportation investments and exactions on development decisions. Panelists also discuss infrastructure finance issues, especially in the transportation realm.

Moderator: Susan Kamei, Executive Director, Urban Land Institute Los Angeles District Council

Mitchell Menzer, Partner, Project Development and Real Estate Group, O'Melveny & Myers, LLP, Los Angeles, CA

H. Pike Oliver, Principal, The Presidio Group & INTERRA, Sacramento, CA

Bob Santos, President, Lennar Communities Southern California Division

9:30 pm **Informal Reception/Discussion**

TUESDAY MORNING, OCTOBER 21, 2003

7:45 am **Breakfast**

8:45 am **MOVING THE ECONOMY: WHO SHOULD PAY FOR GOODS MOVEMENT AND HOW?**

Growth in the surface movement of goods – by truck and by rail- is outpacing growth in personal travel. Yet, the role of pricing and taxation in shaping the movement of goods, and the land use impacts of a growing and restructuring freight industry have received little attention from analysts and policymakers. This session examines trends in the movement of goods, the implications of these trends for both transportation infrastructure and land development, and opportunities to use pricing to finance freight infrastructure.

Moderator: Norm King, Executive Director, San Bernardino Associated Governments

The Restructuring of Freight Logistics: Implications for New Technologies, Land Use, and Infrastructure Finance

Peter F. Swan, Assistant Professor of Supply Chain Management, Smeal College of Business, Pennsylvania State University

Case Study: Financing Regional Goods Movement Projects in Southern California

Hasan Ikhrata, Director of Planning and Policy, Southern California Association of Governments

Discussion Among All Participants

10:15 am **Break**

10:30 am **THE POLITICAL CHALLENGES TO FISCAL REFORM: IMPROVING THE TRANSPORTATION – LAND USE – ENVIRONMENT – *FINANCE* CONNECTION**

Four senior practitioners offer their closing thoughts on how to improve the transportation – land use – environment – finance connection, and what implications they see if current patterns of growth, travel, and finance do not change. Participants are then invited to discuss the political challenges to – and opportunities for – fiscal reform.

Moderator: Brian Taylor, *UCLA*

Gary Gallegos, Executive Director, San Diego Association of Governments

Pete Hathaway, Deputy Executive Director, Planning and Project Delivery, Sacramento Area Council of Governments

Ronal Kirby, Director of Transportation Planning, Metropolitan Washington Council of Governments

Ron Loveridge, Mayor, City of Riverside, CA

Discussion Among All Participants

12:00 pm **Concluding Lunch**
Steering Committee Meeting

APPENDIX B:

SPEAKER BIOGRAPHIES

Arthur Bauer is the Principal of Arthur Bauer & Associates in Sacramento. He has over 30 years of experience in the field of transportation. His consulting activities focus on the development of financial strategies, transportation policy analysis, system planning, institutional analysis and organizational analysis. He assists both private and public clients with issues that are at the nexus of transportation policy, finance, and program management. Prior to establishing his consulting firm in 1981, Mr. Bauer served ten years as the transportation policy specialist with the California Senate Office of Research. He was responsible for drafting legislation that established the Transportation Development Act, the California Intercity Rail Passenger Program, and the San Diego Metropolitan Transit Development Board. He was staff to the Assembly Transportation Committee (1968-1970) where he drafted legislation creating the Metropolitan Transportation Commission for the nine county San Francisco Bay Region, and legislation regulating aircraft noise emissions from California airports. In addition, Mr. Bauer served as the transportation consultant to the San Diego Government Efficiency Commission in 2001. He is currently engaged in projects with Caltrans, the Southern California Association of Governments, the Riverside County Transportation Commission, Omnitrans, and the Humboldt County Association of Governments. Mr. Bauer also served eight years on the Board of Directors for the Sacramento Regional Transit District from 1981 to 1988.

Dan Beal is Manager of Public Policy and Programs for the Automobile Club of Southern California. He is responsible for policy development, issue and legislative analysis, transportation policy advocacy, government agency liaison, automotive research, safety and education programs, and other areas. Prior to joining the Auto Club in 1996, Mr. Beal was the Director of Transportation for the Community Redevelopment Agency of the City of Los Angeles. He was also a Legislative Analyst for the Los Angeles City Council for twenty years, with extensive policy experience in transportation and other municipal concerns.

Julie Bornstein is the founding Director of the USC Keston Institute for Infrastructure. Ms. Bornstein brought a career in affordable housing, law, and government to the Keston Institute. She served as Director of the California Department of Housing and Community Development as an appointee of Governor Gray Davis. She previously served as the Chief of Staff and Chief Deputy State Controller to Controller Kathleen Connell and was a member of the California State Assembly, serving as Chair of the Democratic Caucus. Prior to her election to the Assembly, Ms. Bornstein served as an elected Trustee of the Desert Community College District, serving as its President in 1991. She has also held several positions in the California Democratic Party at the national, state and local levels and managed a number of political campaigns. Professionally Ms. Bornstein is trained as a lawyer and has been a member of the California Political Attorneys Association and taught Legislation and Local Government Law at the McGeorge School of Law of the University of the Pacific.

Robert W. Burchell is a Distinguished Professor at Rutgers University and Co-Director of the University's Center for Urban Policy Research. He is the author of 25 books and more than 50 articles on fiscal impact analysis, land use development and regulation, and housing policy. Dr. Burchell co-authored the Development Impact Assessment Handbook for the Urban Land Institute. Other major publications include The Fiscal Impact Handbook, The New Practitioner's Guide to Fiscal Impact Analysis, The Adaptive Reuse Handbook, and the Environmental Impact Handbook. Professor Burchell has served as principal investigator on more than $2 million in research spanning a 25 year career at Rutgers. He has conducted "costs of sprawl" studies for the state of New Jersey, the state of Maryland, the Lexington (KY) Metropolitan Area, the Delaware Estuary, the Southeast Michigan Council of Governments, and the South Carolina Advisory Commission on Intergovernmental Relations. Dr. Burchell's continuing work in the areas of development patterns and infrastructure costs includes research sponsored by the National Academy of Sciences and the Transportation Research Board. Other recent projects include studies of regional mobility and mortgage-lending practices for the U.S. Department of HUD, several studies on housing policy for Fannie Mae, and multiple analyses of transportation policy for the U.S. DOT. He is a Fellow of the Lincoln Institute of Land Policy in Cambridge, Massachusetts, and a trustee of the housing research group at the Federal National Mortgage Association (Fannie Mae) in Washington, D.C.

Kenneth Button is Professor of Public Policy and Director of the Center for Transportation Policy, Operations and Logistics, as well as Director of the Areospace Policy Research Center at George Mason University's School of Public Policy. From 1994 to 1996 he advised the Secretary General of the Organisation for Economic Cooperation and Development, Paris where he headed work on international aviation policy. He was at that time on leave from being concurrently Professor of Applied Economics and Transport at Loughborough University, UK and VSB Visiting Professor of Transport and the Environment at the Tinbergen Institute, Amsterdam. He was also at the time Director of the Centre for Research in Economics and Finance at Loughborough University. He was the Special Advisor to the UK House of Common Transport Committee between 1993 and 1994. In 1990 he was full-time consultant to the OECD Environmental Directorate. Prior to that he directed the Center for Applied Economics and Finance at Loughborough University. He has held visiting posts at the University of British Columbia, the University of California at Berkeley, and the University of Forli. He has published, or has in press, 80 books, over 400 papers in leading academic journals, and forecasting software. He is editor of the academic journals Transportation Research D: Transport and the Environment and the Journal of Air Transport Management, and is on the editorial boards of nine other journals.

Robert Cervero, Professor of City and Regional Planning, University of California, Berkeley, has authored five books and numerous articles on transport policy and planning and urban development topics. He is currently evaluating carsharing, transit joint development, and bus rapid transit programs in the U.S. and abroad. He is a frequent consultant and advisor to government at all levels as well as private sector interests. Professor Cervero is also active internationally, currently working on a waterfront redevelopment project in Fortaleza, Brazil and regional development in Bogotá, Colombia. He is a Fellow with the Urban Land Institute, an Associate and regular instructor for the World Bank Institute, serves on several editorial boards, and chairs the national advisory committee of the Active Living Policy and Environmental Studies Program.

James Corless is the California Director for the non-profit Surface Transportation Policy Project (STPP). His responsibilities include statewide transportation policy, legislative advocacy, and generating media coverage that supports balanced transportation initiatives. He has led several legislative campaigns in California since 1998, including the Safe Routes to School bills of 1999 and 2001, a bill to fund growth planning efforts at the regional level throughout California, and several measures to reduce the vote threshold for sales tax measures that include a mix of transportation, open space and affordable housing. Mr. Corless has played key roles in STPP's efforts to renew the federal surface transportation law known as "ISTEA" in the mid-1990s as well as the reauthorization of TEA-21 over the last twelve months.

Elizabeth Deakin is an Associate Professor of City and Regional Planning and a faculty affiliate of the Urban Design and Energy and Resources programs at UC Berkeley. She is Director of the muti-campus University of California Transportation Center, which maintains an active program of basic and applied research, and which publishes and distributes ACCESS magazine widely within the academic, professional, and governmental communities. Her recent work has focused on policy design and implementation in land use and transportation. She also recently chaired the advisory board on transportation environmental research, established by the National Academy of Sciences in response to a mandate in TEA-21.

James de la Loza serves as Executive Officer for Countywide Planning and Development for the Los Angeles County Metropolitan Transportation Authority (MTA). He was appointed to this position in 1996. In this position, he is responsible for all multi-modal transportation planning and funding programming at the LACMTA. This includes public transportation, highway/carpool program, urban rail expansion, arterial street and signal synchronization, and $3 billion in federal, state and local funds programming. His responsibilities also include the MTA Joint Development program, which is responsible for the development of mixed-use developments currently totaling over $1.5 billion. Additionally, Mr. de la Loza has served on many advisory boards including UCLA's Lewis Center For Regional Policy Studies, the University of Southern California's Architectural Guild, and the 1010 Development/Housing Corporation. He is currently participating in an international program that is assisting developing countries implement Bus Rapid Transit Programs in coordination with the World Resources Council. Before assuming his position, he served as Deputy Executive Officer for Project Management and Implementation for MTA including urban rail, highway and transit projects. Prior to that he served as project manager for the Pasadena Light Rail (LRT) project, Eastside Rail Extension and the Exposition LRT Branch Extension.

Jennifer Dill is an Assistant Professor at Portland State University where she teaches courses in transportation policy and planning. Her research interests focus on transportation and environmental planning, travel behavior, air quality, and transportation-land use interactions. She has conducted extensive research on travel behavior and older vehicles, evaluating the air quality impacts of voluntary accelerated vehicle retirement programs. Prior to entering academia, she worked as an environmental and transportation planner for the Bay Area Air Quality Management District in San Francisco and the U.S. EPA Region IX Air Division. She has published articles on transportation demand management, regional air quality planning, bicycle commuting, vehicle retirement programs, the equity impacts of vehicle license fees, and the introduction of new vehicle fuels.

Daniel L. Dornan, P.E. is a Vice President with AECOM Consult, Inc., a management consulting firm serving transportation agencies across all modes. AECOM is the former transportation management consulting practice of KPMG Peat Marwick. He has 27 years of experience in providing resource management advice to state and local infrastructure agencies, including state and local departments of transportation; toll, transit, and port authorities; and local public works departments. Dornan's expertise includes strategic planning, innovative finance and contracting, asset management, organizational transformation, business process improvement, performance auditing and measurement, and change management. During his career, Dornan has worked with KPMG Peat Marwick, Booz-Allen & Hamilton, PricewaterhouseCoopers, and Infrastructure Management Group. His focus has been on the application of business best practices to the field of transportation. He is a member of the Transportation Research Board's Strategic Management Committee, Asset Management Task Force, and Design-Build Task Force. He is also National Membership Chairman of the Transportation Research Forum.

David Dowall is Professor of City and Regional Planning, and recent past Chair of the Academic Senate at the University of California, Berkeley. Dr. Dowall joined the faculty in 1976, and teaches graduate courses on urban economics, economic development and infrastructure planning and finance. Dr. Dowall has been a Visiting Scholar at the World Bank and Visiting Professor at Harvard University and the Land Reform Training Institute in Taiwan. He has extensive consulting experience nationally and globally on urban land management and infrastructure management, finance and reform. Presently he is a World Bank consultant to the Governments of Brazil and Mexico and a Senior Advisor to the Minister of State of the Kingdom of Saudi Arabia, as well as a Visiting Scholar at the Public Policy Institute of California. Dr. Dowall is a current and past member of many boards of directors and advisory panels and has extensive service with many scholarly journals and Professional Organizations. He is author of over 25 books and monographs and many more scholarly articles.

William Fleissig is a developer, urban designer and architect who has devoted his career in both the public and private sectors to creating vibrant, mixed-use communities. Mr. Fleissig co-founded Continuum Partners LLC in 1997 with a mission "to build human habitats of extraordinary character and enduring value." Based in Denver, Continuum develops transit-based, mixed-use buildings and town centers for long-term investment, working in partnership with local communities and citizen groups. He is responsible for coordinating the firm's planning, design and entitlement activities on all projects. Previously, Fleissig served as the Director of Community Design, Planning and Development for the City of Boulder, CO; as managing partner of Equity Community Builders in San Francisco and Denver focusing on mixed-income and transit-based housing; and as the Director of Downtown Planning and Development for Mayor Federico Pena in Denver coordinating the city's initiatives for the downtown. Prior to his tenure in Denver, he was President of CITYWEST urban designers in San Francisco and Los Angeles, and a project manager for Moshe Safdie, Architects and Planners in Boston. He is an advisor to the University of Colorado Real Estate Center, and has held research fellowships at the Lincoln Institute for Land Policy in Cambridge and the Institute for Urban Design in New York. He is the principal author of the Smart Scorecard for Development Projects, funded by the Congress for New Urbanism and the U.S. EPA.

Joanne Freilich (SYMPOSIUM CO-CHAIR) is Director of the Public Policy Program at UCLA Extension, Division of Continuing Education, where she develops and implements conferences, research symposia, seminars, and courses for policy leaders and professionals in such areas as land use, governance, transportation policy, economic development, environmental quality, housing policy, mediation, and public infrastructure finance. She has convened over 350 programs at UCLA since 1989. During her tenure she has co-chaired the annual Arrowhead policy/research symposium series examining the connections between transportation, land use and environmental quality. Freilich also specializes in the training and education of international groups in public policy and has worked with delegations from China, Taiwan, Thailand, and the Hubert H. Humphrey International Fulbright Program. For its overall programming, the Public Policy Program was awarded the Statewide Education Project Award in 1996 by the California Chapter of the American Planning Association. Freilich previously served as a principal planner with the Southern California Association of Governments where she specialized in environmental compliance for regional plans, air and water quality, transportation, and land use planning. She serves on the Executive Board of the California Planning Roundtable, and is a member of the American Institute of Certified Planners (AICP).

Gary Gallegos is the Executive Director of SANDAG (San Diego Association of Governments). SANDAG is the regional Council of Governments and the Metropolitan Planning Organization for the San Diego region. As the Executive Director, he also serves as the Chief Executive Officer of the San Diego County Regional Transportation Commission, the Regional Growth Management Review Board, and the Congestion Management Agency. He is CEO of SourcePoint, the non-profit public benefit corporation chartered by SANDAG. Previously he held the position of District Director for Caltrans District 11. In this capacity he represented the State of California on binational transportation issues and served on various Committees. He is recognized as a leader in the areas of transportation and binational cooperation.

LeRoy Graymer is Founding Director Emeritus of the Public Policy Program at UCLA Extension, which he established in 1979. The program addresses public policy issues of state, national and international importance through numerous conferences, seminars, workshops, and facilitation activities. Graymer was formerly Associate Dean of the Graduate School of Public Policy at the University of California, Berkeley, and Vice President and Professor of Political Science at California State University, Dominguez Hills. Recent work includes a special research project for the Hewlett Foundation on California governance reform options.

Pete Hathaway is the Deputy Executive Director for the Sacramento Area Council of Governments, since 2001. He develops policy for regional planning activities covering transportation, the environment, land use, and housing. Hathaway oversees preparation of regional transportation plans, programming of funds for implementation, and regional forecasting and analysis. Prior to joining SACOG, he was Chief Deputy Director at the California Transportation Commission where he prepared policy analyses for the commission for various issues in the State Highway Program and oversaw the implementation of a five-year $9 billion State Transportation Improvement Program, during 1985-2001. Hathaway also worked at the Governor's Office of Planning and Research, working on state policy in transportation, energy conservation and public education. Seven years total were working with Caltrans in the Director's Office, on environmental review, statewide and regional planning, and engineering. He also spent time with the Metropolitan Planning Organization in San Diego, as well as 2 years on a task force developing a State Transportation Policy Plan.

Hasan Ikhrata is the Director of Planning and Policy at the Southern California Association of Governments. He has 17 years of experience in the area of transportation planning in the Southern California Region, both in private and public sectors. Prior to joining SCAG in 1994, Mr. Ikhrata worked for the Los Angeles County Metropolitan Transportation Authority and the South Coast Air Quality Management District as senior staff responsible for managing transportation as well as air quality related projects.

Susan Kamei is Executive Director of ULI Los Angeles, a district council of the Urban Land Institute. Kamei oversees the initiatives and programs for the 1,500 ULI members in the greater Los Angeles metropolitan area. Prior to joining ULI in 1999, Ms. Kamei was Executive Officer of the University of Southern California Lusk Center for Real Estate; Adjunct Associate Professor in the USC School of Policy, Planning, and Development; and Associate Director of the USC Master of Real Estate Development Program. She previously served as regional counsel for Mobil Land Development Corp. and practiced corporate law with Paul, Hastings, Janofsky & Walker LLP.

Norm King has served since 1996 as Executive Director of San Bernardino Associated Governments (SANBAG)/San Bernardino County Transportation Commission and the three additional SANBAG related authorities. He was a City Manager for 20 years serving the cities of Claremont, Palm Springs and Moreno Valley.

He also served on the staff of the U.S. Conference of Mayors and the National League of Cities in Washington, D.C. Mr. King has been the President of the International City/County Management Association (ICMA) and the City Manager's Department of the League of California Cities. He is past Moderator of the California Self-Help Counties Coalition and is a Fellow of the National Academy of Public Administration. He serves on the Board of Directors of the ICMA Retirement Corporation, a financial service firm providing deferred compensation programs to 800,000 local and state public employees throughout the country. Mr. King's articles on the management and economics of local government have appeared in several professional journals and books. He is considered a leading proponent of "demand management" and "market-based" public policies.

Ronald F. Kirby is Director of Transportation Planning at the Metropolitan Washington Council of Governments (COG). He is responsible for supervising the continuing transportation planning process for the Metropolitan Washington Region, including updating of the region's long-range transportation plan, preparation of a six-year program of short-range transportation projects, operation of a regional ride-sharing program, and ongoing monitoring of travel patters and transportation system performance in the region. The transportation planning program at COG is closely coordinated with the transportation planning activities of the state and local governments through the Transportation Planning Board, the Metropolitan Planning Organization for the region, and its technical committees and subcommittees. Prior to joining Washington COG in 1987, Mr. Kirby directed the transportation program at the Urban Institute, a non-profit policy research organization in Washington, D.C.

Ronald Loveridge has served as Riverside's mayor since 1994. Prior to his tenure as Mayor, he was elected to the Riverside City Council where he served from 1979 to 1994. Mayor Loveridge has served on the board of the South Coast Air Quality Management District, and is a regional councilmember of the Southern California Association of Governments. The recipient of many community awards, Mayor Loveridge has been honored by organizations such as the American Planning Association, the California Preservation Foundation, the United Way and Youth Service Center. He is President of the League of California Cities, where he has been actively involved in leadership positions since the early 1990s. He is recognized as a devoted community leader and generous public servant. From 1964-1994 he was a professor of political science at UC Riverside.

Therese W. McMillan is Deputy Director of Policy at the Metropolitan Transportation Commission in the San Francisco Bay Area. Therese began working for the Metropolitan Transportation Commission (MTC) in January 1984. The MTC is the federal and state designated regional transportation planning agency for the nine-county San Francisco Bay Area. The Commission's jurisdiction covers nine counties and 101 municipalities, home to seven million people and almost four million jobs. The region's transportation network includes 1,400 miles of highway, 19,600 miles of local streets, 23 public transit agencies, and eight toll bridges, seven of which MTC oversees as the Bay Area Toll Authority. McMillan was appointed to her current role as Deputy Director-Policy in 2001, and oversees MTC's departments responsible for strategic financial planning and MTC's management of federal, state and regional fund sources for transit, highways, roadways and other modes; state and federal legislative advocacy and public affairs and community outreach; planning, including the long range plan and air quality related issues; and agency finance and budget. Prior to her current position, she was MTC's Manager of Funding and Externals Affairs. She is a member of the Transportation Research Board's Committee on Metropolitan Policy, Planning and Processes. She has served on numerous statewide task forces and working groups addressing various transportation planning and funding issues.

Mitch Menzer, JD, is a partner in the law firm of O'Melveny & Myers and is a member of the firm's Project Development and Real Estate practice group. Mr. Menzer primarily represents investors in commercial real estate transactions, including the formation of joint ventures to develop real estate, purchase and sale transactions, financings and land use and entitlement issues. He is a member of the Los Angeles City Planning Commission. He was appointed to the City Planning Commission in 2000 and served as president during 2002 and 2003. He is a member of the Executive Committee of the Urban Land Institute – Los Angeles District Council and the Executive Committee of the USC Lusk Center for Real Estate. Mr. Menzer recently served on the ULI California Smart Growth Steering Committee which recommended changes to state policies in order to promote smart growth in California. He is also a member of the board of the California Center for Land Recycling and the California Advisory Board of the Trust for Public Land.

Jay Norvell is Acting Chief of the Division of Mass Transportation of the California Department of Transportation. Norvell is a 24 year veteran of the Department, having served in the local District offices of the Department in southern and central California. Prior to his current assignment, he had a staff of over 200 environmental specialists doing project environmental work in Central California and in the mid-1990's he was Planning Division Chief in the Department's Stockton office. He has also served in the Department's Director's office on Air Quality issues and has had special assignments working on regional and statewide planning and environmental issues.

H. Pike Oliver is a principal of The Presidio Group, a San Francisco-based firm that pursues residential land development in joint venture with AEW Capital Management of Boston. He is also associated with INTERRA, an advisory services group that consults on development strategies in the U.S. and abroad. Oliver is an active member of the Urban Land Institute and serves on the board of the Center for Natural Lands Management. Prior to his current ventures, he worked for several land development and home building firms, including The Irvine Company. Earlier, Oliver worked in the public sector and helped draft the 1978 Urban Strategy for California, while at the Governor's Office of Planning and Research, an early attempt at a state level smart growth policy. He also was employed at the California Department of Finance, the New York City Housing and Development Administration, and the Contra Costa County Planning Department in the San Francisco Bay Area.

John Pucher is a professor in the Bloustein School of Planning and Public Policy at Rutgers University (New Brunswick, New Jersey). Pucher has conducted research on a wide range of topics in transport economics and finance, including numerous projects he has directed for the U.S. DOT, the Canadian government, and various European ministries of transport. In 1996 Macmillan Press (UK) published The Urban Transport Crisis in Europe and North America, which summarizes Pucher's comparative research on transport systems, travel behavior, and public policies. Currently, his research focuses on walking and bicycling, and in particular, how American cities could learn from European policies to improve the safety, convenience, and feasibility of these non-motorized modes in the U.S. Pucher is co-principal investigator of a project for the Robert Wood Johnson Foundation that examines the need for Americans to increase their walking and cycling for daily transportation as the best way to ensure adequate levels of physical exercise and enhance overall public health.

Bob Santos is President of Lennar Communities, Southern California, a division of Lennar Homes. Lennar, a national real estate company listed on the New York Stock Exchange (NYSE:LEN), is one of the largest homebuilders in the U.S. and the second largest homebuilder in California. Lennar Communities acquires, plans, entitles, develops, markets, sells and manages community development and mixed-use programs supplying homesites and other building sites to Lennar entities and guest builders. His division is currently operating out of three office locations and developing communities in five California counties. Lennar Communities is currently in the process of acquiring the Newhall Land & Farming Company. Formerly, Santos held the position of Vice President, Land Development with The Irvine Company. He also was President/Chief Operating Officer for EastLake Development Company in San Diego, where he directed the development program for one of San Diego's premier communities, the 3,200 acre, 10,000 home EastLake Planned Community. Santos has received some of the industry's most prestigious awards for planning, marketing and implementation, including national project of the year honors from the National Association of Homebuilders and the Urban Land Institute. Santos is past president of the Building Industry Association (BIA) of San Diego County, past Chairman of the Construction Industry Federation, and has served on the Board of Directors of the California BIA.

Donald Shoup is Professor of Urban Planning at UCLA. He has served as Director of the Institute of Transportation Studies and Chair of the Department of Urban Planning at UCLA. For many years he has conducted research on how free parking affects transportation and land use. He has published over thirty articles, book chapters, and monographs on parking. He has also published op-ed pieces on parking in the New York Times, Washington Post, and Los Angeles Times. He has testified about parking before Congress and the California Legislature, and his research has resulted in both federal and state legislation, including California's parking cash-out law. Perhaps due to a lack of competition, he seems to have become the world's foremost academic authority on parking and its effects on transportation, cities, the economy, and the environment. His recent research has focused on employee and university transit passes (ECO-Passes).

Peter F. Swan began his career in the railroad industry. His experience encompasses operations management, marketing and information systems. Since leaving the railroad industry, Dr. Swan has focused research on issues of productivity, operations, and transportation markets. Dr. Swan chairs the Transportation Research Board's Freight Transportation Economics and Regulation Committee. His current work includes looking at how deregulation has affected the market for rail freight traffic and looking at the relationship between contracting and large vehicle safety. He currently serves as an Assistant Professor of Supply Chain Management at the Smeal College of Business, The Pennsylvania State University.

Brian D. Taylor (SYMPOSIUM CO-CHAIR) is an Associate Professor of Urban Planning and Director of the Institute of Transportation Studies at UCLA. He is also Vice-Chair of the Urban Planning Department. His research centers on both transportation finance and travel demographics. He has examined the politics of transportation finance, including the influence of finance on the development of metropolitan freeway systems and the effect of public transit subsidy programs on both system performance and social equity. His research on the demographics of travel behavior has emphasized access-deprived populations, including women, racial-ethnic minorities, the disabled, and the poor. His work in this area has also explored the relationships between transportation and urban form, with a focus on commuting and employment access for low-wage workers. Professor Taylor teaches courses in transportation policy and planning and research design. Prior to coming to UCLA in 1994, he was an Assistant Professor in the Department of City and Regional Planning at the University of North Carolina at Chapel Hill, and before that a Transportation Analyst with the Metropolitan Transportation Commission.

Senator Tom Torlakson's political career began on the Antioch City Council in 1978. Two years later he was elected to the Contra Costa County Board of Supervisors. As a local leader, Torlakson led the effort to lower the Willow Pass Grade, widen Highway 4 and bring BART to East County. He was one of the main authors of Measure C, which guaranteed funding for multiple transportation projects in Contra Costa County. To establish a more positive business climate, Torlakson initiated the Contra Costa Economic Summit and countywide Strategy on Economic Vitality. He also led in the development of the now the voter-approved Contra Costa County General Plan to provide a balance for economic growth, environmental safeguards, agricultural land protection and housing. During his subsequent two terms in the State Assembly, Torlakson became a leader in education and public safety while fighting for a balance between jobs and affordable housing and transportation improvements as Assembly Transportation Committee Chair. As State Senator, he has continued to tackle transportation and housing issues. He chairs the Select Committee on Bay Area Infrastructure and chairs the Senate Local Government Committee. Several statewide groups -- including the California Chapter of the American Planning Association, the California Association of Local Agency Formation Commissions and the California Independent Public Employees Legislative Council -- have recognized Torlakson as their "Legislator of the Year" for his outstanding work. He has also been recognized by several statewide organizations for his leadership on affordable housing issues.

Martin Wachs is Director of the Institute of Transportation Studies at the University of California, Berkeley, where he is also the Roy W. Carlson Distinguished Professor of Civil & Environmental Engineering, and Professor of City & Regional Planning. He earlier spent 25 years at UCLA, where he served three terms as chairman of the Department of Urban Planning. Professor Wachs is the author of 150 articles and four books on subjects related to relationships between transportation, land use, and air quality, transportation needs of the elderly, techniques for the evaluation of transportation systems, and the use of performance measurement in transportation planning. His research also addresses issues of equity in transportation policy, problems of crime in public transit systems, and the response of transportation systems to natural disasters including earthquakes. His most recent work focuses on transportation finance in relation to planning and policy. Professor Wachs has served on the Executive Committee of the Transportation Research Board for nine years and was the TRB Chairman during the Year 2000.

APPENDIX C:

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