

# **Planning for Growth: Demographics, Employment, Housing, and Resources**

## **The Transportation – Land Use – Environment Connection**

UCLA Lake Arrowhead Conference Center

Lake Arrowhead, California

Sunday afternoon, October 14<sup>th</sup> through

Tuesday morning, October 16<sup>th</sup>, 2007

### ***Foreword***

This report is a summary of proceedings from a prominent policy and research symposium on **Planning for Growth: Demographics, Employment, Housing, and Resources** held October 2007 at the UCLA Conference Center in Lake Arrowhead, California.

UCLA Extension Public Policy Program convened the symposium, which was the seventeenth in an annual series created to address the importance of ***The Transportation, Land Use, and Environment Connection***. This year's topic focused on the implications of the significant population and employment growth projected for California and The West in the coming decades. Economic and demographic forces behind the expected growth were examined, focusing on the implications for land development, housing, travel and traffic, and energy and water consumption. An important objective was to balance diagnosis of problems with prescriptions for solutions.

The core of the program focused on the following topics:

- ◆ The future of local employment, trade, and travel in an increasingly global economy
- ◆ Understanding population growth amidst environmental constraints
- ◆ Planning for the travel needs of growing youth and aging populations
- ◆ Considering the impacts of immigrants on location and travel in California
- ◆ Forecasting and visioning the impacts of alternative futures of urban growth
- ◆ The future of water supply in growing, drought-prone regions
- ◆ Planning future power generation to accommodate growth
- ◆ Sustainable energy production, efficiency and conservation
- ◆ Housing markets in California and the West: Supply, demand, pricing and regulation
- ◆ Affordable, sustainable housing; green building techniques and codes
- ◆ Strategies for moving forward

Special recognition goes to the numerous governmental, business, environmental, and public interest groups (Appendix D) who offered considerable help and underwriting as sponsoring and cooperating agencies, and served as part of the Steering Committee.

I gratefully acknowledge the collaborative partnership between UCLA Extension and the UCLA Institute of Transportation Studies. The diligent and thought provoking contributions of co-chair Brian Taylor, Professor of Urban Planning, UCLA School of Public Affairs, and Director, UCLA Institute of Transportation Studies are invaluable.

Thanks are also due to two individuals who prepared this comprehensive proceedings report: Eric Morris and Mohja Rhoads, both affiliated as graduate students with the UCLA Institute of Transportation Studies.

It is the hope of the symposium organizers that this forum will contribute to ongoing policy dialogue and lead to the introduction of solutions through research and practice.

Catherine Showalter  
Director, UCLA Extension Public Policy Program

### ***Introduction***

**Planning for Growth: Demographics, Employment, Housing, and Resources**, the 2007 UCLA Lake Arrowhead Symposium, brought together scholars, researchers, practicing planners, nonprofit advocates and policymakers to discuss and debate the complex array of factors and forces shaping and being shaped by growth in California. Given the high levels of population and economic growth forecast for future decades, and the changing face of California's demographic makeup, issues like education, water, electricity, land use, housing and transportation are more pressing than ever before.

California is at a crossroads. While immigration promises to continue, most forecast population growth will be due to natural increase. The real estate market is softening, but prices keep home ownership out of the reach of most young residents. Market fluctuations notwithstanding, construction of new housing will place greater burdens on our water, transportation, electricity, and open space systems, with sobering environmental implications.

Economic growth will be needed to employ our growing population, but many burgeoning sectors of the economy, such as goods movement, will tax our infrastructure and our environment further still. In addition, California's aging population will squeeze the tax base just as new investment is required to meet the state's future needs.

In the past, California's leaders rose to face such challenges. But today many are concerned that the state's complex governance structure and a lack of effective political leadership will handicap efforts to address these issues energetically and successfully.

Conference presenters outlined these many trends and the problems they portend, emphasizing possible solutions to them. Speakers represented a gamut of organizations ranging from universities to nonprofits to industry associations to representatives of government at all levels. They examined problems at scales ranging from the global to the local, and from the perspectives of both the private and public sectors.

Although many of the problems are vexing, participants presented and debated many possible solutions, ranging from infill development, to marginal social cost pricing of public services, to

energy-efficient building standards. A common theme was the need for more effective coordination and collaboration between the state, regional, and local levels of government, as well as between government and the private sector.

This report summarizes the symposium's sessions. It is intended to serve as a reference for those who organized and attended the conference, but is also available for anyone interested in these important issues.

## *Symposium Proceedings*

**Sunday, October 14, 2007**

### **Welcome**

**Catherine Showalter**, Director, UCLA Extension, Public Policy Program  
**Cathy Sandeen**, Dean, UCLA Extension and Continuing Education

The opening session laid the foundation for the three-day symposium on growth and its effects on the transportation, land use and environment nexus. The program opened with a welcome from Catherine **Showalter**, who proceeded to introduce Cathy **Sandeen**. Sandeen welcomed the group to the beautiful surroundings of Lake Arrowhead, but pointed out that to get up the mountain, the group had to pass through the Inland Empire. The Riverside/San Bernardino counties are currently experiencing many of the problems the meeting would address, such as runaway growth and subprime mortgages.

Catherine Showalter then acknowledged the Steering Committee Members, thanked the multitude of sponsors and recognized the elected officials in attendance. After reviewing the Rules of Engagement for the symposium, Catherine introduced Brian Taylor.

### **Symposium Overview**

**Brian Taylor**, AICP, Professor of Urban Planning; Director, UCLA Institute of Transportation

Professor **Taylor** presented his thoughts on the Arrowhead symposium. Over the 17 years since its inception, the event and its content have been maturing. This year the traditional focus on the land use/transportation nexus had been broadly interpreted to include topics like demographics, employment, housing and resource use which were not traditionally considered part of the conference's purview. It was **Taylor's** hope that this year's proceedings would provide participants with a more holistic view of the issues facing policymakers and analysts who are shaping the growth in California and the West.

**Taylor** also hoped that the symposium would see other important syntheses as well:

- Research and practice
  - Foster a dialog between practitioners and academics
- Ideas and action
  - Filter into the practical realm of policymaking
- Private and public sector
  - Bridge the divide between government and the market

- Markets and regulation
  - Explore the appropriate balance between the roles played by government and markets in addressing the problems of the future
- Local and global
  - Include a multi-scalar approach, examining the global and local effects of growth, as well as the appropriate geographic scales at which action should be taken to ameliorate growth's ill-effects
- Development and conservation
  - Find the right balance between growth and development and the conservation of resources
- Transportation, Land Use, and the Environment
  - Link each of the topics considered back to Arrowhead's traditional focus on transportation, land use, and the environment and examine the role each had to play in shaping and responding to future growth.

**Taylor** outlined the specific program that had been designed to meet these goals:

First, the program would take a broad look at the global level, where changes in development and trade are shaping local issues.

Second, the program would explore the demographic and population changes in California-phenomena which are driving many of the other issues covered in the program.

Third, in order to understand the future issues facing California, the forum would proceed to study the current state of forecasting in such realms as land use and transportation. Although this has always been a difficult task, the recent development of new models promises to allow more precise estimates of future growth and thus to aid those who plan for California's future.

Fourth, the symposium would proceed to examine specific realms in which California's growth poses challenges for analysts and policy makers. The first of these was to be water politics and policy, with a focus on California's strained infrastructure and its impact on agriculture and urban growth alike. The second resource to be considered was electricity, both in terms of supply side constraints and the prospects for managing demand.

Fifth, the symposium would consider housing in several different dimensions. This would include housing's interaction with transportation and schools, as well as the current state of housing regulation and affordability of the housing market.

Sixth, having taken a broader look at big picture issues, the symposium would focus on the specific challenges facing three key California regions: the Silicon Valley, the Inland Empire, and the Central Valley.

The final presentation would draw conclusions from the symposium discussions and present ideas for future strategies: where do we go from here?

**Taylor** proceeded to offer a few of his thoughts on the issues to be covered. While California's growth rate may shrink in the future as population rises, the absolute growth in the state over the next decades looks to be large. Moreover, since 1950, vehicle miles traveled (VMT) has risen far faster than population, a trend which, should it continue, will pose great challenges.

Second, it should not be forgotten that California has considerable strengths as it seeks to accommodate new growth. By global standards, California's population density is still quite low, and the state is quite wealthy. The problems facing the state in accommodating growth are not economic; they are political in nature.

**Taylor** considered that two schools of thinking are common on this topic. Some believe that population, growth and employment will rise dramatically in the next decades, bringing congestion, high land costs, and pollution that will harm the area's quality of life. Others feel that public policy and congestion costs will deter new growth – bringing with it reduced quality of life in economic terms.

These ways of thinking illustrate our contradictory, circular attitudes about growth, which are helped by politicians and citizens alike.

This often contradictory thinking has led to confusion in the policy realm. **Taylor** asked the audience to consider three possible policy paths available to us:

1. A focus on expanding transit networks, through building transit-oriented development (TOD), the development of “streetcar suburbs” which focus growth along transit lines, a polycentric city with dense employment and recreational nodes, slow growth on fringe, high taxes on autos, and charging market rates for parking.
2. A focus on accommodating the auto, through methods like decentralization, balancing jobs and housing across the metro area, promoting mixed land uses, capping densities, building roads where warranted, using congestion pricing to manage traffic, and the integration of autos with pedestrian traffic.
3. A hybrid of the two strategies, the result of political compromise. But unfortunately, an attempt to split the difference between the two approaches often leads to working at cross purposes, with ad hoc funding and no clear model for the future. The result is chronically congested city centers, with huge buildings and seas of parking that have the worst characteristics of both strategies.

**Taylor** hoped that this symposium would enable participants to make reasoned policy judgments and craft coherent strategies that will allow us to avoid this fate in California and the West.

## SESSION 1

### GLOBAL ECONOMIC CHANGES, LOCAL EFFECTS: THE FUTURE OF LOCAL EMPLOYMENT, TRADE, AND TRAVEL IN AN INCREASINGLY GLOBAL ECONOMY

*Catherine Showalter (Moderator)*, Director, UCLA Extension Public Policy Program

#### Where Will the Leadership come from to Solve our Transportation Problems?

**Roger Stough**, Associate Dean for Research, Development, and External Relations, School of Public Policy, George Mason University

**Roger Stough** introduced his talk by highlighting some of the major issues American societies will encounter in the upcoming decades. He remarked that international markets will experience a change in economic policy due to the shifting competitiveness between developed and undeveloped economies as lower wage areas become increasingly competitive. Developed countries consequently will see a substitution of capital for labor. **Stough** also stressed that as China opens up and India continues to grow, international markets and policy will adjust accordingly.

Given this context, **Stough** asked, “For high wage countries, what is our responsibility? How will we compete?” The continuous innovation model claims that capital can replace labor to the point where labor no longer exists. Yet, even in these circumstances, the US might still not be able to compete with China and India. **Stough** remarked that the only competition model destined to work in the developed world is a model based on the production of continuously transforming high-end products. The advantage of this model is that low-cost, low-skill producers in the developing world cannot duplicate the products due to the fact that the product is constantly being altered. This means high wages and margins can be maintained in the developed world.

In order for the US to continue developing high-end products that cannot be reproduced, the country must drive entrepreneurship and innovation. This means the US must focus on education. And since regional development is thought to occur near college and university campuses, campus location is critical.

**Stough** then proposed two theses:

1. **World is Flat.** In **Stough’s** opinion this thesis is flimsy. It states that in a world of declining transport costs and electronic information flows, location no longer matters. The elements necessary for many types of production simply cannot occur everywhere, and thus many types of location-specific processes can take place only in advanced economies such as California.

2. **World is Spikey. Stough** is more sympathetic with the idea that the “world is spikey.” This theory takes into account the fact that agglomeration is necessary to create and sustain growth. Industrial agglomerations occur in some places but not others. Clusters of related firms are marked by high spill-over effects (like location-specific knowledge, infrastructure benefits and skilled workforces) which are enjoyed by all firms in the agglomeration. This enables urban areas that host clusters to expand economically and geographically.

### **Transportation Problems:**

**Stough** pointed out that the shifting geography produced by agglomerations engenders lifestyle and transportation changes. Agglomerations increase congestion in and between metropolitan regions. For example, Los Angeles and San Francisco exhibit severe levels of congestion both within the cities and between them. Rush hour peaks are starting earlier. They can start as early as 5:00 in the morning and end as late as 10:00 in the evening. Metropolitan areas can experience 12 to 14 hours of consistent traffic. **Stough** added that, simultaneously, most of our regions poorly control land use, and that institutions as well as individuals create problems for transportation planning. Responsibility has not yet been shifted to higher levels of government, and therefore plans do not get implemented. Intra-metropolitan governance has not been addressed, but will become critical in the future.

### **Potential Solutions:**

**Stough** stressed that leadership is the strongest solution to many of our regional problems. Leadership is needed to deal with broad, complex issues. This is true at all levels of governance, from federal to local, and includes non-profits as well.

**Stough** emphasized that formal strategies generally have nothing to do with success. Leadership is a function of contingencies as it generally grows from disturbances. It tends to start out very narrow, usually from a small group of people. This small group of people finds a vision and a strategy and uses them as a catalytic platform to enlist others. Tocqueville pointed out that in the US, these events often take place outside of formal government circles, an observation which is still true today. Organizations tend to take care of problems where government fails. Government then steps in and takes over. Sometimes, **Stough** pointed out, regions learn by example from other regions.

**Stough** believes that people with histories in their region tend to be the leaders of their region. Many corporations are transnational, and therefore they don't understand local context. Therefore, **Stough** suggests that leaders be developed from people who are attached to their region.

**Stough** ended his lecture calling for regions, corridors and states to be willing to take an innovative approach while capturing and motivating imagination.

### **DISCUSSION**



**Gloria Jeff** took Roger Stough's question of where leadership will come from literally. She stated that "All things are not equal. Iowa is not equal to Los Angeles or Beijing." She remarked that we have to look for solutions appropriate to the specific city. Leadership will be different due to the nature of the differences.

**Jeff** then commented on the nature of Los Angeles as a gateway region where its port is key. The Southern California region receives goods from around the world, which does not necessarily require high education labor.

Future leaders, **Jeff** pointed out, will need to have a risk-taking mentality while being conscious of the importance of making long-term decisions. Leaders must have the will not to worry whether change takes place on their watch and cannot be afraid of being pummeled by generations to come. There is a need for leaders to understand the linkage between infrastructure and the quality of life and they must understand that it is important not only to focus on people but also on goods-movement. Leaders will have to have a strong personality that motivates and deals with changing conditions, **Jeff** stressed.

**Jeff** asked Roger **Stough** about the definition of a megacity. **Stough** agreed with **Jeff** that this was an important question. He remarked that a megacity is defined by its labor force and economic structure. He continued by saying that there is a need for society to talk about mega-regions as there is opportunity for developing leadership models that address regional problems. As of now there are no existing management models on the scale of a megacity. One possible policy that may make sense to implement across a mega-region would be road pricing.

**Randall Lewis** remarked that, in the Southern California region, logistics in the Inland Empire is driving much of our activity today. The airport is also a key driver in many ways. A third important factor will be the impact of transportation on retail and housing. Our environments have dramatically changed due to transportation.

In addition, **Lewis** stated that the US as a whole is witnessing a demographic shift which many planners and city officials do not understand. Household composition is changing dramatically. Moreover, parking is becoming more and more key, while at the same time our system for managing it is becoming more and more antiquated.

**Lewis** also brought up the issue of the shrinking middle-class. He argued that our societies cannot survive with a class of very wealthy at the top and low-wage service workers on the bottom. He believes the US can create better competitiveness with education.

**Lewis** also addressed the leadership issue, asking, "How do you grow leadership? We don't want to wait for disturbances such as 9/11, floods and earthquakes." He warned that currently the US does little on proactive development of leadership.

**Scott Moore** discussed the goods movement renaissance in the rail industry. He remarked on the burgeoning discussion of the need for cleaner, more efficient movement of goods, and how this discussion will continue to be important in years to come. People, he remarked, consistently ask why rail can't do more to move goods. As of now, it is cheaper to move goods by truck, a more polluting mode. The economics of rail today does not work. In the future there will be an interesting dance between the private and public sectors on the rail issue. **Moore** asked how

society can invest in private sector rail to move goods and stated that the rail problem will need to be solved by strong leaders.

**Rachel Hiatt** commented that pricing policy is an example of where the Federal DOT has shown leadership. The Urban Partnership Program has enabled regions to create and scale up pricing programs. A whole set of regions has taken advantage of the program. **Roger Stough** replied that the leadership must come at the local level. With the Urban Partnership Program, some pricing programs were implemented, but some died because local governments killed them. He then remarked that the mayor of London had more to do with pricing than the federal government. Within the last year, though, local governments have begun to accept pricing strategies more. **Gloria Jeff** continued that in the first four years of the urban partnership program the federal government was giving money away and there were no applicants. Within the last two years, interest in this program has burgeoned as cities are trying to get funding before it is gone.

## SESSION 2

### EXPLORING THE LAND USE AND TRANSPORTATION IMPLICATIONS OF POPULATION GROWTH AND CHANGE IN CALIFORNIA AND THE WEST

**J.R. DeShazo (Moderator)**, Associate Professor; Director, The Ralph and Goldy Lewis Center, UCLA

The second session focused on global economic forces and trends that are shaping the location and travel decisions of firms and households. What will be the local effects of the ongoing global integration of capital, labor and products? Will the rapid growth of international trade and globalization continue, and what will their effects on California and the West be in the years ahead? And how will local planning and policies affect these trends?

**DeShazo** welcomed the participants, outlined the content of the session, and introduced Dowell Myers.

#### Understanding Population Growth Amidst Environmental Constraints: Who Will Be the New Residents, and Where Will They Live and Work?

**Dowell Myers**, Professor, Director of the Population Dynamics Research Group, University of Southern California

**Myers** observed that there are three major questions raised by California's current demography:

1. What is the realistic hope about our immigrant future?
2. What does it mean for Baby Boomers and voters today?
3. How can we rekindle a sense of common purpose?

To many, the demographic changes we are facing raise threats both politically and fiscally. However, they may mean opportunity for the public sector.

**Myers** observed that we are coming off three decades of despair: the results of the Vietnam War and Watergate, the 1970s recessions, cultural fragmentation with the growth of the counter-culture, and, in California, the triple blows of the deep recession, social disruptions, and natural disasters between 1990 and 1994.

Now, two more difficult challenges loom: coping with a revival of immigration and the funding entitlements for the baby boomers, which may mean fiscal and economic disaster.

First, **Myers** considered the baby boomer situation. Our ratio of senior citizens to working age is set to skyrocket – and the situation is worst in the West. This will affect the funding for both Social Security and Medicare, as the skilled workforce and thus taxpayer base shrink in relation to the retiree population. Further, an aging population threatens crises in the housing market and in urban investment.

According to GAO simulations, America's budget deficit threatens to balloon, and with it federal interest payments. On present trends, all discretionary funding (for priorities like transportation and the environment) threatens to evaporate.

In this climate, many view immigrants as a burden – while others view them as a benefit. This largely breaks down along party lines, with conservatives increasingly viewing immigrants as the former, and liberals the latter.

Currently, the group bearing the heaviest tax burden while receiving a low share of benefits is disproportionately middle aged and white. There is some truth to the perception that Latinos are disproportionately “tax eaters,” taking more into the system than they take out. Even many liberals recognize this (though this sentiment is waning over time).

White, conservative voters display antipathy toward government programs from which Latinos will benefit. In time, the electoral calculus will change so that their antipathy toward these programs will be overcome. Demographic projections show that Whites will lose their majority in California by 2024, and will cease to constitute the majority of voters by 2031. By 2073, the majority of voters will be Latino.

However, given that this remains a long period of time, we need to show Whites what's in it for them.

Two possible stories about this situation can be told. The first is the story of despair. Immigration is out of control. In addition to draining our finances, immigrants stay segregated and do not assimilate. In this situation, it's every man, woman and child for themselves.

On the other hand, there is a story of hope. Immigration has reached a steady state. Immigrants are more settled and are surprisingly upwardly mobile.

Fortunately, the story of despair may have been true in 1990, but it is not the case today. Immigration has leveled off; it peaked in California in 1990. The state is now leveling off at 30%

foreign-born. More and more immigrants are settled (in California for more than 10 years), and the share of newcomers is down. As immigrants have been here longer, homeownership, education, and citizenship are all rising, and poverty rates are dropping. In fact, home buying by settled immigrants is what is driving up housing prices in California.

The key is to turn the demographic problem into a solution. The upward mobility displayed by immigrants is turning a liability into a benefit. We are seeing favorable returns on our investments on education of immigrants as they settle and move up the socioeconomic ladder. Moreover, settled immigrants will be necessary to buy the homes that Whites will be selling in the future (Whites are currently net sellers). Today's immigrants will fund the public programs of tomorrow, particularly retirement benefits.

In short, we need a rediscovery of common purpose. We need immigrants to get educated and prosper; this is an investment that will pay off in 10 or 20 years. And trends show that after despair about immigration we're now rediscovering hope and mutual support.

### **Planning for Travel Needs of Growing Youth and Aging Populations**

**Noreen McDonald**, Assistant Professor, Department of City and Regional Planning, University of North Carolina, Chapel Hill

**McDonald's** talk focused on the travel needs of children and older adults, and particularly the areas in which they have needs in common. Both may have limited access to automobiles, limiting their mobility and reducing their ability to conduct out of home activities. **McDonald** focused on policy initiatives to meet the needs of these mobility-challenged groups.

First, **McDonald** considered the similarities and differences between the groups, and where potential synergies lie. Children and older adults are similar in that they often have limited ability to drive. However, members of both groups have different needs for public space.

While members of both groups may be limited in their ability to drive, they use cars (often as passengers) almost as much as drivers. In large part, transit is often an inappropriate response for these groups' travel needs and should not be our focus.

The child population and especially the elderly population are set to grow rapidly by the year 2050. The traditional pyramid shape of the population distribution is squashing into a square. This process is intensified in California.

The fastest-growing group is the "old-old," the population over 80. This group has unique challenges, different from the population aged 65-80. Due to difficulties, the old-old have much lower levels of travel than other groups (2.5 trips per day compared to 4.4 for mature adults and 3.5 for children and seniors).

As stated previously, the auto is the dominant mode of travel for the old-old group; around 90% of trips are made by private auto. Many keep driving well past the age of 80.

Children's mobility needs are different. Children make frequent trips by school bus, and walking is an important mode (as it is for mature adults).

There is considerable uncertainty about seniors' future travel. In the future, seniors will probably continue to drive late into life. To a large extent, they will also be chauffeured.

The same will be increasingly true for children (who like being driven), particularly for the trip to school. This will be the cause of increasing congestion.

What are the potential solutions?

1. Move people closer to destinations
2. Offer alternative modes (limo-type instead of transit)
3. Promote alternative arrangements

Specific ideas might include the following.

**Senior Co-Housing:** Communal living arrangements where seniors share central sites, meals, services, and transportation resources. These sites can also build a strong sense of community. In the transportation realm, this could translate into shared rides and chauffeuring, particularly for seniors who don't like to ask for rides. Communal living has potential, though cities are slow to accommodate this form of living.

**Improved Urban Design:** This might improve transit oriented development (TODs) and walkable school programs. The latter could ease congestion related to the journey to school. It could turn streets in part into play spaces. This would appeal to children, but ironically it would work against the desires of many seniors, who don't like to navigate around playing children on the streets.

**Strengthened Community Organizations;** Seniors can form groups to negotiate for services necessary to age in place. These include visits from doctors, repairmen, and transportation providers. Such a cooperative has been formed in Beacon Hill in Boston. This is potentially a good idea, and foundations are studying its efficacy. The application of this concept to children is perhaps less promising, as children have less capacity for grassroots organization, though there are child chauffeuring services. Thus, most services for children will probably be left to the market.

**Formal Government Action:** This can include the provision of school buses and possibly paratransit services. The latter, however, is restricted and very expensive – \$14-\$30 per one-way trip. The promotion of ridesharing is perhaps a more attractive option.

**McDonald** concluded that there is room for innovative solutions to many of these problems. But questions remain such as: How to organize lower-income people? How can we have synergies between services for the young and the elderly? And what can governments most effectively do?

**Immigrants, Location and Travel in California: Do the Biggest Impacts Lie Ahead?**

**Evelyn Blumenberg**, Associate Professor of Urban Planning, UCLA

**Blumenberg** reported on her work on a project conducted jointly between UCLA, the University of California, Davis and the University of California, Berkeley, and funded by Caltrans. The purpose of the project was to study travel patterns of immigrants in California using analysis of public data, focus groups and interviews with the staffs of community-based organizations.

California is home to a large immigrant population. Immigrants make up a larger share of the state's population than is the case for the nation as a whole. Over twenty-five percent of the state's population is foreign-born. Twenty-five percent of immigrants to the US settle in California.

What are the implications of demographic diversity on travel and transportation planning in California? **Blumenberg** proceeded to present the results of her research, the trends it implies and the possible courses of action suggested.

First, **Blumenberg** outlined the challenges to the research. These included areas where there was little data and small numbers. The IPUMS microdata from the census, which consists of individual-level answers to the census long form, has lots of information and large sample-sizes but only has information on the commute trip. This helps to study employment but not other types of travel.

What did the study learn about the commutes of immigrants? First, immigrants carpool and take transit at approximately twice the rate of the native-born. However, over time, immigrants' travel patterns tend to become more like those of the general population, with rates of auto use increasing the longer that immigrants have been in the country. The chance of carpooling and using transit, though high for recent immigrants, drops as the number of years in the US rises. Immigrants in the US 20+ years have transit and carpooling levels close to (though slightly above) White natives.

Latino immigrants, particularly recent arrivals, have carpool and transit rates considerably higher than the White population. Asians' rates are somewhat above Whites, but much closer.

Immigrants are much more likely to carpool than to use transit. Moreover, recent immigrants were much more reliant on both transit and carpooling 25 years ago than today. Much of the decline in immigrants' transit and carpool rates is due to recent female immigrants driving more (male immigrants' rates of riding transit and carpooling are much lower and have remained constant).

Despite rising levels of auto ownership over time, immigrants carpool at higher levels than Whites. Often, this is due to the fact that immigrant families share a single vehicle. The autos per household ratio for immigrants is lower than the ratio for the general population.

Moreover, although it drops over time, immigrants' transit ridership level is higher than the ratio for the native-born (about twice the share of trips). Given this fact, it is not surprising to find that

immigrants make up a disproportionate share of transit riders; almost half of transit riders are immigrants.

What are the implications of these trends?

First, immigrants move rapidly to private autos over time: indeed, generally as quickly as finances permit. This has a large benefit, as employment outcomes are better for immigrants with access to private vehicles. The economic assimilation, that auto ownership helps foster, is good for the immigrants themselves and to society as a whole.

Second, as a result of immigrants' shift to auto ownership over time, and the recent slowdown in immigration, transit agencies will lose customers. Over the last 20 years, most of the growth in transit ridership is a result of rising numbers of immigrants, a trend that is slowing.

However, this does not mean that transit has no role to play in serving immigrants' needs. Transit is crucial for early immigrants, where it provides a transitional service for those unable to drive or those who cannot yet afford auto ownership.

What course of action should we pursue in the future?

1. We can improve transit access in cities that are immigrants' ports of entry. This will foster immigrants' economic assimilation and perhaps keep them out of autos longer.
2. We can plan for foreseeable changes in ridership as immigration stabilizes.
3. We can tailor transit service to immigrants' needs, to aid the immigrants and transit providers alike (although language issues did not come up as an important factor in the study).
4. We can develop at higher densities, which will make transit more attractive for immigrants and non-immigrants alike. Immigrants tend to live in dense areas, though there is no special immigrant/density interaction in determining travel patterns.
5. The vast majority of immigrants aspire to own cars. Given the evidence on the benefits of auto access for immigrants' employment outcomes, we can promote immigrants' auto ownership. This might include fostering their access to licensing and training. It may also include lifting vehicle asset restrictions for public programs in place in many states, like California.

The main problems with pursuing these courses of action are political. We have conflicted views of immigrants. Are they tax eaters? Or do they contribute more than they take out of the system? Do policies to slow immigration help with security and congestion? Do immigrants take jobs from citizens, or perform jobs that are important to our society and way of life? If it is the latter, should we help provide them with mobility that makes working easier?

## DISCUSSION

**Michael Fitts** of the Endangered Habitats League asked **Blumenberg** if her data on transportation patterns controlled for income. **Blumenberg** confirmed the analysis did control for income and education.

**Spreck Rosenkrans** of Environmental Defense asked how the proper level of subsidy for each transportation mode should be determined. **Blumenberg** answered that she is not qualified to answer. **Hasan Ikhata** responded that some feel the auto subsidy is too high, and that we're not subsidizing transit enough. Perhaps with the correct pricing, we would see different behavior.

**Sam Filler** of the Transportation and Land Use Collaborative of Southern California related his experience working on a LA city councilmember's staff where he worked to build a senior center in Griffith Park. They realized they had to serve future demand as the baby boomers aged. However, this meant more upscale services, like education and workout programs, need to be offered. He asked how we can build recreation centers to better serve those who walk to

**McDonald** opined that perhaps pricing is a long-run solution to transportation problems, and that it may ultimately affect land use patterns. But for now this path is difficult. One way to better serve walking seniors might be the construction of more attractive streets and the installation of better street furniture.

**Myers** pointed out that as baby boomers sell their homes, cities will need to compete to keep seniors through amenities like senior recreation centers. This will avoid vacancies and falling tax revenues.

**Norm King** of CSU San Bernardino asked whether the public has responsibility to pay for the travel of those who give up the car. Perhaps, but seniors who do so are saving lots of money, and perhaps should pay their share. **McDonald** related that on Beacon Hill, the seniors in the cooperative are paying for their own services. **Blumenberg** added that a very high percentage of seniors who give up driving will still get around by private auto. **McDonald** pointed out that social service workers are currently not allowed to drive clients, and should be allowed to do so.

**Gloria Jeff** pointed out that currently, most of the "old-old" who give up licenses are women. However this may change, since the baby boomers are 1<sup>st</sup> generation where men and women were licensed equally. Now women will be driving much longer.

**Steve Finnegan** of the Auto Club of Southern California asked about the effect of immigrants moving up to less transit-friendly areas. **Blumenberg** answered that the IPUMS microdata has poor geographic differentiation. They did control for density, however, and it operated as predicted. Density is related to higher use of transit. Moreover, the longer immigrants live here, the more they are likely to move to less dense areas.

**Jackie Barmack** of the San Bernardino Council of Governments pointed out that her area is not rich in transit. They are looking at electric vehicles that function as neighborhood circulators for seniors. **Blumenberg** added that there is a demand for vanpools in ethnic areas where fixed route transit is infeasible. Personal vehicles, even autos, are often used.



## SESSION 3

### VISIONING ALTERNATIVE GROWTH FUTURES: WHAT MAY LIE AHEAD?

**Norm King (Moderator)**, Director, Leonard Transportation Center, California State University San Bernardino

**Norm King** introduced the session by stating, “Our challenge is how to think conceptually about the advantages and disadvantages of both spatially dispersed growth and more concentrated development.” He continued by emphasizing that the challenge is in the many values and objectives which come into play. There exists no common denominator by which to judge and implement different approaches other than price.

Good planning, he remarked, is always defeated by bad prices. If we want smart growth we must have good prices and good prices include the cost of externalities. King asserted that the transportation, urban planning and environmental communities need to stop playing at the margins and confront dishonest price issues head on. “Because prices do not reflect the full cost of use and consumption,” **King** stated, “we inhibit the market from doing what it does well when prices are honest, and that is to produce new choices and substitute products to replace less efficient products and behavior.” The regular tools of government will not be sufficient without the use of market forces, he claimed.

**King** went on to discuss the deficiencies of smart growth policies. He mentioned that smart growth scenarios generally do not incorporate accurate costs and analysis, as externalities are usually not accounted for. Moreover, public spending is higher in denser, older areas, and this is a public cost. Yet the differentiation between public cost and private costs is generally not made.

Another problem is that congestion is more likely to occur in denser areas, and smart growth does not address this. Transit travel time is double that of auto travel, and this disparity in travel times should be translated into monetary prices. Yet this is largely ignored in the smart growth literature. Moreover, smart growth focuses only on commuting and more careful analysis of other travel (such as trans-continental trips) is not taken into consideration. King pointed out the importance of not singling out only one aspect of travelers’ transportation behavior. He asked, “Is not a 7,000 mile trip to Europe more wasteful?”

Contrary to common wisdom, infrastructure costs are generally higher for infill developments than for greenfield development in fringe areas; this cost should be accounted for correctly.

**King** also called upon the need for all of us to look at our own personal behavior. Growth, he claims, is a code-word for “someone else, not me.”

In sum, the fundamental issues societies face are how to mitigate externalities, and society is at a disadvantage if it is not paying correct attention to prices.

### How much Land? How much Housing? Forecasting the Impacts of Alternative Futures of Urban Growth in the US

**John Landis**, Crossways Professor of City and Regional Planning, University of Pennsylvania

## ***CALIFORNIA HOUSING: PAST, PRESENT, FUTURES***

### **PAST**

**John Landis** began by revisiting the 2001 California Department of Housing and Community Development report “Raising the Roof,” which looked at the housing needs for California over the next 20 years. He claimed that this report got a surprising number of issues right and also got some issues wrong.

The “Raising the Roof” forecast examined the demand and supply side of housing and asked if there is enough land to accommodate growth in California through the year 2020. The forecast predicted that 60% of new housing growth in the state will occur in Southern California. It also determined that California will have enough raw land to accommodate this growth, excluding the Los Angeles and Orange counties which would have to provide for the housing through infill. Due to stringent new environmental protection laws, counties such as San Diego, Santa Clara, and Alameda would have land issues increasing the need for infill in these areas as well.

The report foresaw that mortgage lending would remain plentiful for the foreseeable future, yet it did not predict rates would go down. “Raising the Roof” also believed that the higher levels of risk associated with land development in California would make it increasingly difficult for developers to find financing; this turned out to be wrong.

### **PRESENT**

**Landis** then asked how are we are doing seven years later. What has actually happened, and how else has “Raising the Roof” been contradicted?

He stated that no one foresaw low mortgage rates for years after the prediction, and that the low rates would mean that more Californians would be able to become homeowners. In 2006, about 7.1 million households in California became homeowners which increased from 6.5 million in 2000. Increasing homeownership resulted in a speculative construction boom in Sacramento and the Central Valley which will take four or five years to work off. Housing prices are still on the rise everywhere. Another, national, trend is that publicly-listed home-building companies continue to dominate the home building business and have increased their market share substantially.

Also, in the meantime, California voters approved two housing bond issues, Proposition 46 in 2002 and Proposition 1C in 2006. The combination of increasing housing demand along with builder interest created an energetic infill market which is currently quite substantial. The bond issues, as well as the invigorated infill housing market, pushed up annual starts from 148,000 in 2001 to 209,000 in 2005. All of the Councils of Governments and Metropolitan Planning Organizations approved expanding infill developments as the central element in their blueprint plans. For example, both the San Diego County Association of Governments (SANDAG) and the Southern California Association of Governments (SCAG) have blueprint plans which have embraced infill as core components.

**Landis** pointed out projections for the future (out to the year 2020) show fewer housing starts. The California Department of Finance's (DOF) population projection shows a substantial decline in non-Hispanic Whites from "Raise the Roof" projections. Also, slightly lower fertility rates and population forecasts were determined in the 2007 DOF projections.

Another big change will take place in the age distribution of California. The number of people aged 0 to 24 will be smaller than previously stated. The number of seniors and those in their 40s is projected to be the same. After adjusting for these changes, housing production needs in California should be around 150,000 per year, 175,000 maximum which is not as high as previously estimated.

Housing demand has become bifurcated, with immigrants on one end of the scale and equity-rich homeowners looking to upgrade on the other. This bifurcation shows no sign of abating.

As interest rates have been low, rising prices have enabled large public developers to pay high prices for raw land and infill sites. This has temporarily dealt with land supply problems. Moreover, while it hasn't gotten any easier to build in California, the financing has become easier to obtain.

In all, housing cost burdens have worsened. From 2000 to 2006, an increase of 1.1 million homeowners from 1.2 million to 2.3 million account for 35%+ of the additional cost burden. In sum, lower interest rates have been manifested in rising costs and debt burden.

## **FUTURE**

**Landis** then set out to answer several housing questions for the future. How many homes should be built? For whom? And where should they be built? He also set to address the infill options for California.

**Landis** defined infill sites as:

1. Sites that are vacant parcels with no significant structure
2. Sites that contain improved parcels in commercial, industrial, or multifamily zones for which the improvement value is less than the land value, and
3. Sites that include improved parcels in single family zoning for which the improvement value is less than 50% of the land value.

The constraints on infill are physical and financial, **Landis** stated. Through infill parcels, 20 years of housing can be accommodated in California. After accounting for the infill sites which are financially and/or politically infeasible to develop, California ends up with around a million and a half parcels with infill potential.

**Landis** continued to discuss the footprint of housing in California in the next 100 years. California's urban and suburban areas can accommodate lots of people. He then presented four maps of California, each exhibiting growth in urban and suburban areas from years 2000 to 2050. From these maps, it is evident that the shift in growth from 2000 to 2050 in urban and suburban areas is not that different and each population size within this time frame maintains

relatively the same footprint. The state has the potential to accommodate the new growth, but it is a question of how we do this.

**Landis** then raised the issue of environmental concerns. If Southern California becomes completely built out, he states, this will result in huge impacts on the natural environment. Southern California has already lost most of its farmland and there has also been a loss of prime habitat. Most threats to environmental quality in the state are in Southern California.

If we want to know where houses are going to go, **Landis** stated, we must look at jobs. Houses follow jobs. Many have mistakenly assumed that all that job growth is suburban. Job growth in California over the last ten years has been extremely balanced between core and fringe. In Southern California there has been a high level of balance between jobs in the core and fringe. In the future it will also be extremely balanced. In fact, Landis stated, the question is really about how we are going to organize the supply side of housing.

Landis proposed thinking about the future as a construction project. What are the housing products that we want to distribute around California? He introduced six residential projects:

1. Urban infill with mixed-use
2. Suburban infill with occasional mixed-use located on or near major arterials
3. On-place upgrading
4. Smart sprawl, 4 to 10 units per acre
5. Sprawl, 3 to 8 dwellings per acre and
6. New master planned communities

Landis ended his lecture by stating that the planning and policy tasks confronting the state involve figuring out where each of the six should go and figuring out how this will take place. The policy task will be to figure out incentives to make the alternative future a reality.

In each of these cases planners and policy makers need to put aside conventional smart growth wisdom and be strategic in thinking about the who, what, where and when. As planners, Landis remarked, we have to think about market opportunities, value and constraints if we are to succeed.

The market will mostly be young singles, families and empty nesters. These demographics are growing, but not as fast as the market for suburban infill. The value proposition for suburban infill is walkability to transit and racially and ethnically diverse communities.

We also want to think about how we can do smart sprawl. No one wants to downsize their home and large houses are the major preference. Decision makers must think about how to accommodate this demand. Most importantly, Landis asserted, “we need to look at what are the value propositions, what are the market opportunities and what types of policies and incentives are available to overcome constraints.”

## Visioning Alternative Futures in the Sacramento Region

**Mike McKeever**, Executive Director, Sacramento Area Council of Governments

In general, **Mike McKeever** commenced, when it comes to land use allocation and modeling, most regional planning agencies have been more in the forecasting business than the planning business. Moreover, planning agencies fall prey to mistakes by assuming that the past will repeat itself. There is a corollary on the transportation side, where the system is designed to promote the status quo and does little proactive planning.

However, recently more attention has been paid to changing this. The Sacramento Area Council of Governments (SACOG) has tried to push the envelope and become aggressive in some aspects. The board adopted a Regional Transportation Plan in 2002 and SACOG set out to update this plan. Aggressive efforts produced a renewed and more balanced blueprint plan for the Sacramento region. The plan introduced new regional programs and was the first attempt by SACOG to plan proactively. Despite this, the board was unhappy with the transportation and congestion components. The board then decided that SACOG needed to look at its region's land use patterns and look again at what was causing the demand for transportation. The new land use plan was adopted in 2004.

The new SACOG blueprint was centered around how to accommodate and manage growth. Its two main goals were to provide as much information as possible and to have as much of a democratic process as possible. SACOG discovered that people follow jobs, that housing follows people, and that there are economic benefits of providing housing to accommodate workers. One big surprise was that in the Sacramento region two-thirds of housing growth will be fueled by the 55 and over population.

McKeever stressed that housing decisions will last 100 years, so policy makers and planners need to look beyond the desires of those currently in the housing market. SACOG's blueprint helped policy makers understand that they are making decisions that will have effects for decades to come.

SACOG raised money to conduct a housing preferences survey and discovered that only a minority of the population was looking for a traditional product. In addition, many respondents had never seen the alternatives of good attached housing.

The blueprint for the plan that was adopted has the same number of jobs, people and houses as the base case, but the urbanized area shrinks by about 350 square miles. This means there is a lot more land available for endangered species, natural resource and farmland preservation. Through their updated land-use plan, including the provision of a more varied housing mix, SACOG did not encounter a scenario that is the same as the base case, which will produce more congestion, vehicle miles traveled and pollution. This may be because they are looking at finer-grained situations that incorporate well-integrated land use and transportation components. Using proactive planning, their conclusion was quite different from the current scenario.

**McKeever** noted that the SACOG results are close to the desires expressed in the regional poll. Growth was a big issue on the minds of people interviewed. Respondents were asked if growth is good or bad. Two thirds said growth was bad. During the course of the survey, respondents were also asked what they thought of various growth principles such as preservation of open space,

increased transportation choices, compact development, mixing of land uses, and quality of design. Every single variable fell in the positive-positive quadrant, indicating that respondents saw them as having a beneficial impact. Attitudes about growth became more favorable if respondents assumed the principles would be followed.

**McKeever** ended his discussion by stating that he has been in the planning business for three decades and has never seen a regional plan take off as Sacramento's has done. Governing entities in Sacramento are competing to see who can follow the plan the best and the "mostest."

## DISCUSSION

**Kathryn Phillips** of Environmental Defense was struck by the fact that **Mike McKeever** did not discuss goods movement, and asked if it was incorporated into SACOG's plan. **McKeever** responded that until a couple of years ago SACOG was behind on the subject. In the update, goods movement became an issue. Most of the goods movement in Sacramento deals with getting goods to market. To aid this, the smart growth plan does alleviate congestion. SACOG also looked at land use issues to judge their impact in the goods movement context, but the answer was a little more complicated. **McKeever** concluded that he does not necessarily believe that simply increasing goods movement is good economically.

**Michael Fitts** of the Endangered Habitats League asked what percentage of the local jurisdictions in the Sacramento region have adopted plans consistent with the growth visioning produced by SACOG. **Mike McKeever** stated that the major growth areas have gone through their own major updates. Lincoln is the fastest growing city and its general plan is consistent with the blueprint. The city of Sacramento's plan is more aggressive than SACOG's blueprint. Many places such as Placer County control growth but not through plans.

**Ty Schuiling** of SANBAG had a question for **John Landis** in reference to the maps. He asked **Landis** what was the basis for determining the trade off between greenfield development and concentrating more infill development in urban areas. **Landis** responded that although many do not like to think exurban development will happen, it really can. California will experience difficulties around 2030 when the region will start to run out of land and unless policies are put into place, infill will not happen and growth will spill out into the area.

**Andy Henderson** posed a question to **Mike McKeever** regarding his thoughts on the dispersion of jobs. **McKeever** stated that any big city has within its DNA to have huge downtown employment centers, and this was a growth scenario SACOG came up with. Over time the downtown Sacramento area will be job rich. On the other hand, it will not be feasible to locate all jobs in downtown Sacramento. Transit oriented development around job centers is a more appropriate, comprehensive solution. **John Landis** added that many activities, for example health services, like to cluster. Due to this tendency, certain industries and thus certain job types (like retail), will sprawl with a nodal tendency. He remarked that serving this structure with a transportation system will be difficult to achieve.

**Robin Blair** of the Los Angeles County MTA commented that no one had mentioned housing affordability. Blair asked how we can ensure that housing is affordable. \$700,000 condos, which TODs often produce, seem unsustainable, particularly since those who can afford these prices are

not taking transit. **John Landis** replied that there is no long-term political or social constituency that will make housing affordable. No one wants it nor will support it. Prices will not go down through market forces. Infill development also cannot take place without gentrification. Infill and densification must happen with subsidies in order to create affordable housing. **Mike McKeever**, on the other hand, is more optimistic about affordable housing. He believes we have to build enough housing to keep up with an increasing job supply. He believes affordable housing is a public good in that it shelters workers. **McKeever** stated that there is a shift in housing stock. For Sacramento the average price of new single family products is in the range of \$500,000 while the average price of attached products is around \$300,000. **McKeever** believes that the Sacramento region would be in a lot of trouble now if those attached products would not have been as aggressively brought into the market.

## SESSION 4

### THIRST FOR GROWTH: WATER POLITICS AND POLICY

**Elizabeth Deakin (Moderator)**, Director of the UC Transportation Research Center and Professor of City and Regional Planning, UC Berkeley

Water is a central, and perhaps *the* central, constraint on development in the West. Rain and snowfall vary greatly from place to place, agriculture is an enormous consumer of water, and many of the nation's largest and fastest-growing regions—Las Vegas, Los Angeles, Phoenix, and San Diego—are in warm, dry locales requiring increasing amounts of imported water. The ecological effects of these water transfers, the growing instability of the water supplies in the face of global climate change, and the increasing competition among regions and economic sectors suggest that water politics and planning will play an increasing role constraining and defining growth in the years ahead. This session discussed these critical issues and their implications for the future of California.

**Deakin** introduced the session's participants. The first was **Spreck Rosecranz**, Senior Economic Analyst for the Environmental Defense Fund, who has extensive experience working with aquatic ecosystems and water delivery systems. The second was **Tim Quinn**, Executive Director, Association of California Water Agencies (a state agency). **Quinn** is an economist who has a long history working with water markets. Scheduled speaker **John Wise** had to cancel due to health reasons.

**Rosecranz** introduced himself as a “Northern California Tree-Hugger Environmentalist Type,” but he doesn't begrudge Southern California the water it currently takes from the North. He sees the Environmental Defense Fund as an evenhanded organization with a market orientation, though it is not above advocating regulation where appropriate. He does place-based work and policy work, working on the Trinity River, the Delta, and Hetch Hetchy Yosemite Park.

Many believe we are currently facing a water crisis, due in part to the poor supply from the Colorado River. Often the problem is viewed as a “regulatory drought.”

In truth, it is a “distribution drought.” Eighty percent of our water goes to agriculture. This was set in place 100 years ago, when farms were water-inefficient and the nation depended on California produce. Much of this water could be transferred to our growing cities if we use better irrigation practices and, in some places, switch to less water-hungry crops. Some areas should be retired from agriculture altogether.

Why hasn’t this happened? Farmers in many cases could switch from flooding to drip agriculture. This would result in more water for cities and rivers. Water would not be used for uneconomic purposes, but farmers will only do this with economic incentives.

We can make progress toward this goal if we phrase the discussion in terms of conservation, not efficiency, and improve our water policies.

For example, in early September, a federal court ruled that pumping water out of the Delta must be cut back to save the Delta smelt. A few years ago Southern California was to get preferential access to this water, and now it must cut back and pay more for it.

Bond measures are being proposed to fund conservation and increase supply through dam building, but dam proponents are having trouble in the political process. Some oppose them on the grounds that dams are bad for the environment, but in truth some (though not all) dam proposals may have environmental benefits. Currently, a bond measure to fund three dams is stalled in the legislature, in part because the proposals didn’t specify how they’d be paid for, operated and used. Thus the new dam measure will not go on the February ballot. However, we will have chances in the future to push some dam funding measures.

**Rosekrans** believes the peripheral canal in the Delta will be built, but it is hard to see what its effects will be and how much water it will produce. In all, Northern California has no more water for Southern California without ruining the Delta. The Colorado is a possible source, but is drying up and another aqueduct will be needed to draw more water for Southern California. Some desalinization projects are being explored, but desalinization is expensive (particularly if done with solar and wind power) and has opposition; in all, it will require a lot of money.

**Quinn** agreed with virtually everything **Rosekrans** said. **Quinn** spends a great deal of time at the state capitol, and the current special session there is dead. But this is round 8 in a 15 rounder, and the legislature can still be brought to understand the importance of infrastructure and conservation to address our water problems.

There are currently very different views about the role new infrastructure might play. Many environmentalists and Democrats might say infrastructure has caused our current problems.



Many Republicans want to go back to the 1950s, the heyday of infrastructure building. But there is an enlightened center that tries to determine what sensible infrastructure should do.

(Incidentally, **Quinn** contradicted **Rosekrans** and maintained that the Delta is not a source of supply for Southern California but a means of conveyance).

In order to understand the infrastructure problem, we should use economic tools to inform policy. We should increase use-efficiency through policies which internalize externalities, like a Pigouvian tax. Another policy tool might be to change production technology, for example by using cleaner power sources for water production (i.e. by replacing coal with renewable sources of electricity supply).

**Quinn** illustrated the workings of the California system on the map, to show how use-efficiency and technology could interact to cope with the issues. The hub of the system is the Delta (mainly the Sacramento River, which is large and high-quality, but also the smaller lower-quality San Joaquin River). The Delta is a large, flat area that is below sea level. About 70% of the water that typically flows in to the Delta system flows out through the rivers; about one third (depending on how wet the year has been) goes primarily to the Bay Area. A small percentage goes to Southern California. A very small amount goes to farmers.

The Delta is a hub of our water system, but it has relatively little infrastructure. Over time, the land in the Delta, which was originally a marsh at sea level, is subsiding as a result of its having been turned into agricultural land.

One key factor in the Delta situation is the threat to the Delta smelt. The smelt is a small, threatened (soon to be declared endangered) fish which uses the Delta channels as a breeding ground. The case of the Delta smelt was in federal court, where the judge (Judge Wenger) has ruled that the state's use of the channels is currently illegal, and that the problem must be fixed.

In response to these problems, the Delta Vision process was commenced by the governor of California in 2006.

Another process to formulate solutions is the Bay Delta Conservation Plan. This is a very important process involving environmental organizations as well as water entities.

Currently, the Delta runs in the wrong direction, and must be pumped in a direction which endangers habitat. Three potential plans attempt to build infrastructure to rectify this situation, and offer various levels of species protection. The full peripheral canal would be the best option, and would not draw more water but change the Delta's conveyance so that the river would flow the right way. Also, improvements in the South Delta would help the situation, but there are questions about who will operate and govern them.

In any event, we are moving from a situation where we seek to maximize financial returns subject to environmental constraints to a situation in which we seek to maximize environmental

outcomes subject to economic constraints. In the end, we will need billions in smart infrastructure investments for smart growth.

## **DISCUSSION:**

**Deakin** asked for a more general overview of the water situation suitable for nonexperts.

**Quinn** said that each urban resident uses about 40 gallons of water per day, and that at this level of consumption the state's water supply could theoretically support one billion city dwellers. We have a huge amount of water, but the vast majority is used for agriculture.

**Deakin** asked what the situation would be like if water was priced right – how much efficiency could we get out of agriculture?

**Quinn** related that in February, 1986 he worked on the first big conference in water marketing. They saw that infrastructure construction would be insufficient, and came up with a plan for a water market. At the time, the agricultural districts hated the idea. Now, the large agricultural water districts are open to the representatives of Southern California because ways have been found to make water marketing work.

In the past, advocates of water markets calculated how much more economically productive water was when used in the cities. They then tried to explain to agriculture that their water would be put to best use if transferred to the urban areas. This approach got nowhere. The new approaches phrase things in terms of examining how water markets can improve and strengthen rural economies. This elicits far greater cooperation. As a result, today there is not a problem buying water for Southern California's needs. The bigger problem is lack of infrastructure to move the water from the Sacramento Valley to Southern California. Hence, we need to work on infrastructure, as well as use-efficiency.

**Deakin** asked about what is currently happening with agriculture, and pointed out that there will be great changes in the Sacramento Valley if water supply is reduced and crops must change.

**Robin Blair** from Los Angeles MTA asked if it is really true that Southern California urban users can keep taking their long showers as long as a big pipe can be built that bypasses the judge's ruling? **Quinn** answered by responding in strong terms that billions of dollars must be invested in water-efficiency in Southern California. But that alone will not solve the problem; it must be part of an integrated solution that includes water markets and infrastructure improvements in Northern California.

**Blair** questioned whether farmers are in fact willing to sell off their water rights. **Rosekranz** said that some farmers are coming along and others are not.

A participant asked whether farmers are more willing to rent water than sell it. **Quinn** said farmers are more willing to do short term deals rather than selling rights outright, but that this is

acceptable for the water agencies. He cited two examples of such deals that have been effective. Southern California doesn't need water every year, only one year out of every three or four. And as markets advance, farmers should be more willing to sign longer-term deals.

Another participant asked about the relative merits of surface vs. aquifer storage. **Spreck** says it's a question of religion, like the question of whether to build dams or not (we already have dams in almost all of the strategic places and are running out of new sites). As for aquifers, the groundwater aquifers have been largely evacuated, and from a cost-effectiveness standpoint it makes sense to put water back in to store it there. But some people like their water where they can see it.

**Quinn** says there are indeed "religions" on this issue. Some consider storage of key importance, others view conveyance as key. We need to get rid of the surface storage "religion," which the governor is trying to do. **Quinn** is a supporter of groundwater, but we are going to need both surface and groundwater storage, and need to get past religion. We also need the canal to balance environmental needs and water needs.

**Rosekrans** interjected that **Quinn** was mischaracterizing his position. There are good environmental reasons for and against the canal, but it will be built. As for surface storage, dams have always been bad for the environment, though he understands they are needed, and even beneficial, for water supply. He and his organization will evaluate dams on a case-by-case basis, and might support them as part of a deal, particularly if they don't damage the environment and are paid for by local people, not special interests using tax dollars.

**Mark Nuaimi**, Mayor of Fontana, discussed his city's situation. It has a private water provider, a company which is out only to make money, not supply water. Rates are very high. Currently, Fontana is using reclaimed water to irrigate parks, but the water supplier is opposing it. Also, the PUC is not regulating the situation properly. We must be sure communities are not held hostage like this, and decisions should be based on cost-effective investment, not profit for ownership.

**Chris Cabaldon**, Mayor of West Sacramento, wondered where the transportation and land use connections are here. Aside from easements for infrastructure, are their land use issues raised? Will smart growth strategies have any impact on the water situation, as its backers claim it will on many other problems?

**Rosekranz** says the Environmental Defense Fund has taken the position that, down the road, a lot of water should be transferred from agriculture to the cities. Many in the agriculture and environmental communities oppose this, and support green belts and open space. A water shortage is even seen as a way to stop growth, maintain green belts and preserve open space. However, EDF believes land use is a land use issue, and that decisions about growth should be made on their own merits. EDF doesn't intend to use water as a weapon to slow growth and preserve green space.

**Quinn** underscored the importance of visioning the future, and that water must be considered as a crucial part of the overall land use plan.

**Deakin** brought up a more specific land use issue. Nine million acre-feet of water are currently going to urban uses, and 37 million to agriculture. But if population triples as the demographers indicate it might, and if global warming destroys 30-90% of the snowpack, will we need to conserve, and if so, how much can we actually conserve? Will zeroscape requirements, restrictions on irrigation, not growing vegetables, etc. make a difference? Have we reached the limits of conservation? What activities can continue the way they are?

**Quinn** agrees we need all policy tools on the table. Efficiency, land use, and infrastructure must be considered. Some will be more important than others. **Quinn** added that agriculture is not as profligate a waster of water as is depicted. Most excess water is eventually recycled and returned to the system. In the end, changes in production will be the only really meaningful way to cut agricultural water use.

**Ty Schuiling** of SANBAG commented that John Landis showed where much future growth in Southern California will be: the Antelope Valley, Victor Valley, Coachella Valley, etc. Is the water conveyance infrastructure sufficient to meet those needs given physical capacity? Also, these areas are currently supplied by groundwater, but is this being depleted? Is desalinization an option, given that they are at a high elevation and are far from the sea?

**Quinn** said that conveyance and transportation infrastructure doesn't worry him, but there are still daunting long-term tasks. The rights-of-way are owned, though it may be expensive. We are headed for water use-efficiency, local resource development, a healthy market in conserved water, and ocean desalinization measures.

**Hasan Ikhata** of SCAG said that MWD always reassures him that if enough resources can be found, they can provide the water to accommodate growth. But do we have the physical capacity to move it? **Quinn** said that with the Delta fixed, with some storage and conveyance investments, and with wet period storage and going to the market, for decades to come Southern California has a secure water supply. Beyond that, big question marks are raised.

**Brian Taylor** of UCLA says he feels that all of this is based around cheap water to agriculture. Is there some economic rationale behind this, or is this provided simply because agriculture is so well-entrenched? Why do farmers have cheap water to sell? **Rosekrans** says there are two sorts of subsidies. First, the Central Valley projects owe the Federal Government around a billion dollars for the construction of facilities. Second, many have historic rights to water they received basically for free. Some feel this cheap water is giving away a public resource, but Environmental Defense has chosen not to go to court any longer to challenge this practice. In many cases these rights to cheap water are unfair, however.

**Quinn** said unsubsidized water often costs less than subsidized. However, it is unfair that seniors get unlimited cheap water and the juniors get nothing. This leads to economic inefficiency, but it makes more sense to buy the water holders out than fight the silly allocation of rights (i.e. utilize the Coase Theorem).

**Michal Moore** of the University of Calgary stated that he's heard a lot of talk about prices but has heard little discussion about setting a real price or a market mechanism at all. Has there been any thought about having an auction for water rights, that would prompt agriculture to use water and plant crops appropriately?

**Rosekrans** said his organization likes the auction idea but hasn't yet proposed it in a serious way. There are places where market mechanisms like this have worked, for example in internal markets.

**Quinn** said the market in California is in an evolutionary phase. Twenty years ago there were virtually no market mechanisms; today, they are developing over time, including institutional mechanisms for markets in moving water. A formal statewide auction has not been considered, but similar things have been tried with moderate success.

**Moore** suggested that an auction could be for the existence of water, not just a supply of it, and that the state might want to retire access as well.

**Valerie Knepper** of the San Francisco Bay Area MTC asked why developers should not pay for the incremental costs of providing water to new housing. **Rosekrans** responded that this is a good idea, and the practice would improve local conservation efforts as electricity for pumping becomes more expensive.

**Mark Brucker**, a consultant, asked where the additional 22 acre-feet of water will come if we triple population, especially at more extreme climates. **Quinn** said there would simply have to be less consumption per person. **Rosekrans** added that tripling the population would require doubling the supply of water.

## SESSION 5

### POWERING GROWTH: ENVIRONMENTAL CONSTRAINTS ON ELECTRICAL POWER PRODUCTION IN THE YEARS AHEAD

**Dave Calkins (Moderator)**, Partner, Sierra Nevada Air Quality Group

This session focused on California's future energy needs and constraints and then examined strategies to meet the growing demand for energy in cleaner, sustainable and cost-effective ways. **Dave Calkins** introduced the session by stating that he believed Assembly Bill 32 would overlie much of what would be discussed. AB 32, which caps greenhouse gas emissions, is an important

piece of legislation that will greatly change the energy environment and mix in California. Whenever a future plan is developed or created, AB 32 will need to be considered.

**Calkins** then introduced the first speaker **Frank Wolak**.

### **On the Grid: Planning Future Power Generation to Accommodate Growth**

**Frank Wolak**, Professor of Economics, Stanford University

**Frank Wolak** set the stage for his presentation by discussing California's new energy policies, which are intended to provide more energy services while reducing fossil fuel use. AB 32 makes up a part of the new cadre of energy policies. Two primary mechanisms are at the heart of what is trying to be accomplished in California: Bolstering renewable energy and improving energy efficiency. If California's energy goals are achieved, **Wolak** remarked, California may not have to build a new fossil fuel power plant until the late twenty-teens.

**Wolak** then described the general problems with renewable energy: Intermittency and location specificity. Intermittency refers to the variation in the energy output throughout the day from a renewable resource. Solar and wind are also location specific – the energy must be transmitted effectively to the end user. On the energy efficiency side, **Wolak** asserts, there is a lot of potential that has not been tapped.

The big issues concerning renewable energy in California are:

1. Transmission
2. Metering and pricing of customers on the retail level
3. Investments in energy storage

#### **Transmission**

According to the renewable portfolio standard, by 2010, 20% of California's energy will be from renewable sources. Unfortunately, **Wolak** comments, California is not moving quickly to get to this level. The good news is that the Investor Owned Utilities (IOUs), such as PG&E and Southern California Edison are making progress in terms of future contracts with renewable energy providers. These contracts, though, depend on infrastructure development and investments, particularly for transmission.

Many in California envision wind comprising a large share of its energy resources. A major area where this will come from is the Tehachapi region, as there is estimated to be an additional 4,500 megawatts of wind capacity available there. Yet there is not enough transmission infrastructure right now to harness the wind capacity in Tehachapi and to get the energy to areas where people consume it. There are also significant land use issues associated with transmission.

California's energy market and processes are not well suited for transmission upgrades. The economics of upgrading transmission looks good in the sense that less than 10% of the energy cost is due to transmission. Therefore, customers will not see large fluctuations in costs when

transmission upgrades take place. Many of these transmission projects can actually increase the competition in the renewable energy wholesale market and increase the number of wholesale suppliers.

### **Managing Intermittency**

The other difficulty with electricity is that supply needs to equal demand at every point in time. This requires units to operate on “automatic generation control” which essentially can only be provided with fossil fuel units and nuclear units. Renewable resources cannot provide this service, so the management of intermittency is important. In terms of energy production, there is a lot of load swing throughout the day with renewables. Wind generally comes at night when it is not needed. Solar comes at the cooler times of the day. Therefore energy storage must play a large role if renewable energy is to substantially contribute to California’s energy needs. On the bright side, hydro power is an effective complement to intermittent resources.

The total number of megawatt hours consumed in a year divided by the total amount of megawatt hours produced in a year provides an average capacity utilization rate. For California this rate is 31,000 megawatts. If renewable energy could be appropriately stored, the state could produce 31,000 megawatt hours of electricity rather than the 50,000 megawatts it now must continuously run. In order to do this, consumption must be reduced at the times of peak demand. There is a lot of room to push the peaks down, and if we could, many old units next to load centers could be retired.

**Wolak** remarked, “If we could figure out a way to get people to not consume an additional 5,000 megawatts during key peak hours, we wouldn’t have to build and operate the extra power plants and create the extra greenhouse gases. How do we do that? Unfortunately I am an economist so you know the answer.” Fortunately, **Wolak** continued, there are many technologies out there that can help people reduce consumption.

**Wolak** encouragingly stated that the good news for California is that the necessary infrastructure to control consumption is coming in the form of hourly meters. Traditionally, the meters on the side of homes are continuous rotating meters that measure monthly consumption. The traditional meters cannot read whether electricity was consumed during peak hours or not.

Storage technologies can also be developed, although it is costly to store the electricity; due to losses in the storage process two megawatts must be produced to store one megawatt hour worth of electricity. What this means from an economist’s perspective is that price ratios across the hours of the day and days of the week or month are necessary to make the storage technology economic and encourage investment.

The big problem facing pricing and hourly meters is regulatory barriers. California policy as of now is based on the belief that consumers must be protected from volatile wholesale prices, since electricity is an essential commodity. But consumers today are already subject to volatile, short term prices. By shielding consumers from prices, current policy is not informing them to consume more when prices are low and consume less when they are high. Effectively what happens is that customers end up paying even more on average than they would with variable prices.

All of the California utilities are currently installing these meters but the remaining problem is getting past the regulatory barriers. How do we make real-time pricing politically acceptable? **Wolak** answered that people must see they will save money in order to take action. Electricity needs a really high price spike within an hour in order for people to respond. Decision makers need to find a way to design rates that reduce the need for the extra 5,000 megawatt hours at peak periods but that do not ruin the customer's quality of life. This is called critical peak pricing. It calculates a fixed rate per customer for all the hours of the year. IOUs will notify a customer when a critical day comes and on this day a customer will pay a very high price for electricity. If a customer chooses to consume less than their base on a critical day, they will be given a refund. This pricing scheme gives the customer something palatable.

**Wolak** referred to the experiment he has performed in Anaheim which showed that on critical peak days, there was a 13% average reduction in energy use. If this reduction were to be reflected statewide, demand would be substantially reduced.

**Wolak** summed up his presentation by reemphasizing the takeaways:

- Transmission work must be done if California is going to have a renewable future.
- Price volatility is a good thing as it will make price responsive to demand. This will help make energy storage viable.
- Customers themselves must manage the real-time price risk. If they don't want to manage it they have to pay.
- Giving people the free hedge that they are given now makes them pay more on average.
- Pricing will have to play a major role in handling intermittency.

## **Green Growth, Green Policy I: Innovative Efforts to Develop Sustainable Energy Production around the Globe**

**Debbie Cook**, Council Member, City of Huntington Beach

**Debbie Cook** remarked that Americans need to be hit over the head by a 2x4 repeatedly in order to understand the magnitude of energy use in the US and the impending crisis. The US has experienced several oil crises, and the Arab oil embargo brought America to its knees. Since then America has suffered energy amnesia as we continue to increase our consumption of oil.

**Cook** presented an overview of the energy trends around the world. Why does the world get it but not America, she asked? When Russia turned off the natural gas supply to Western Europe, a flurry of reports ensued critiquing Western Europe's energy dependence on Russia. Since then many changes have taken place attempting to reduce and mitigate this dependence.

Energy is driving much of the civil unrest around the world. In Myanmar petrol prices have doubled causing much strife. For the first time Iran has implemented fuel rationing. In the US this last summer, 1.2 million households could not pay their utility bills. The real cost of food has risen dramatically.

Another trend that we are seeing, **Cook** continued, is that many other nations are going away from the dollar for trading in oil as the dollar weakens.



**Cook** believes that it is very important to talk about the scale of the problem. Fossil fuels are valuable as their energy punch is huge. A gallon of gasoline has the same energy equivalence as 500 man hours working at an agricultural endeavor.

World electricity production and consumption has increased, but the share of renewables is meager. Forty percent of the world's electricity production is fueled by coal.

**Cook** then presented data on coal. Europe is paying 50% more for coal than they did a year ago. China is consuming vast amounts of coal, as this is used for 80% of their electricity generation. Coal accounts for 20% of the dry cargo segment of the world freight market. We are seeing dramatic increases in the price of coal.

Driven by the need to reduce their dependence upon Russia, Europe is taking the lead in the renewable area. China this year became a coal importer. In much of the world, investment has grown dramatically in the renewable arena; most of the oil companies have been investing heavily.

### **What now?**

**Cook** challenged audience members to think about what happens next. She emphasized that it will take a lot of people in the room to educate others. Because she is an elected official, she believes she comes with a lot of baggage. Many of her colleagues don't trust the data, or the position that she brings. On the other hand, staff members of COGs and other agencies have influence with elected officials.

**Cook** ended her presentation by calling on the need to at least prepare a plan B. What is the downside to preparing for this, she asks?

Visit Debbie Cook's Website at: <http://web.mac.com//energyinfo>

### **Green Growth, Green Policy II: Local Efforts to Increase Energy Efficiency and Conservation in the West**

**Walker Wells**, Program Director, Resource, Efficiencies and Sustainable Communities for the Urban Environment (RESCUE), Global Green USA

**Wells** emphasized that he would be talking about Green Building programs, not products. The topic of sustainability is an old idea, he stated. Much of our energy and pollution problems are connected to building. Buildings account for 65% of electricity consumption, 30% of greenhouse gas emissions, 30% of raw material use, 30% of landfill waste and 12% of potable water consumption.

There are 5 components to green building:

1. Site
2. Water efficiency
3. Energy

#### 4. Materials

#### 5. Indoor environmental quality

The basic approach of Green Building is to find smart, cost-effective things to do within each of the five categories, and then find ways to loop the components. **Wells** believes Green Building to be an integrated process. It has economic effects as it minimizes the use of resources, reduces the harmful effects on the environment, and creates healthier environments. Green Building can be thought of as a stool, with the economy, the environment and social equity as the three legs. Green Building is an inclusive concept that functions when these three components are working together.

How does the logic of Green Building work? Green Building should be put into the background of normal daily business. This will require a regulatory framework, since most builders will build green in order to comply with regulations. Indeed, most cities are trying to figure out how to develop green building programs. There are similarities between government programs and Global Green is trying to synthesize this process by creating a methodology for the development of green building programs.

For example, most cities have recycling, energy management and water conservation programs. A green building program can create a structure for bringing these elements together cohesively.

**Wells** then outlined the steps in Global Green's guide to developing Green Building programs:

Step 1: Establish a Baseline in Policy: Draw upon ordinances, general plan policies and existing programs. This enables a city to see what it already has to work with and what is missing.

Step 2: Analyze Building Trends: How many buildings does a city build? What is being built? This step should look at past trends as well as projected future growth. Does the city itself build any buildings? What does the private sector build?

Step 3: Review Existing Guidelines: Use existing guidelines or develop new ones. Take existing guidelines and move to implementation. There are LEED guidelines, the US Green Building Council guidelines, California Green Builder guidelines, and Enterprise Community Partners guidelines. All of these build on Energy Star. Use existing guidelines to streamline the process.

Step 4: Conduct Outreach: Fold ideas of stakeholders into the process. If you want to create a program in which people are interested in participating, outreach is needed. Create a Green Ribbon Committee.

Step 5: Establish a Framework: Identify priority sectors, determine phasing, set incentives and determine the administration. How does the program link with other activities in the city so that efforts are not duplicated? Should the program be voluntary or mandatory? There are a lot of things that cities can give away as incentives such as FARs, density standards, parking requirements.

Step 6: Implementation: Marketing, training of staff, adoption of guidelines.

**Wells** drew from examples in Pasadena, Irvine and West Hollywood. West Hollywood's Green Building program is groundbreaking. The guidelines are mandatory for any development over three units and for all new commercial developments.

What does all of it mean, **Wells** asks? Each green project's impact is relatively small. Individual projects are not the solution. The solution comes when there are a lot of middle-level green projects in the aggregate. These aggregate projects can then be compared to a power plant or something at that level. Few know how AB 32 will manifest itself, but cities know that soon they may be regulated. A proactive Green Building program is a good move for a city.

## DISCUSSION

**Michal Moore**, a Senior Fellow at the University of Calgary, stated that there is some data coming out of the National Center for Atmospheric research (NCAR) claiming that the upper level jet stream is shifting eastward. He asked: If there is a change that comes about subsequently diminishing the hydro supply, what happens to firming for renewables? **Frank Wolak** answered that there are plenty of storage possibilities besides hydro. The real factor is the expense of storage but he believes this is a problem that can be dealt with.

**Donald Shoup** from the University of California at Los Angeles commented that the session was inspiring. But, he pointed out, there were 38 incandescent bulbs burning in the conference room. He asked the panel what can be done to get individuals to behave in an energy-conserving manner. **Walker Wells** replied that **Shoup** had made a great point. He believes the question of how to change behavior is a difficult one. Education is not the answer and pricing is a more effective solution. The other strategy, he commented, is to change society's conception of what is normal. Society's sense of normal on waste management has changed. Smoking has also seen a shift in attitude. It used to be totally normal to smoke and that is no longer the case.

**Norm King** of CSU San Bernardino asked which cities or locations are doing the best job at providing information to their constituents regarding retrofitting. **Debbie Cook** responded that politicians act when people are interested and people are interested when media covers it. Air quality is always at the top of Southern Californians' interest. Politicians can follow this interest. She stated that the media must cover issues or else politicians will not follow. **Walker Wells** gave examples of two areas that are providing information to their constituents. Alameda County through the Alameda Waste Management Authority has been a leader in this sense. Santa Monica funds Global Green to run a resource center where people can come in and interface with the products.

**Mark Nuaimi**, the Mayor of Fontana, stated that as a result of AB32 the City of Fontana will likely have to import energy. He continued that many point to what Europe is doing in terms of energy, yet nuclear does not figure into the equation. **Frank Wolak** answered that the US is a major nuclear producer. The main issue is that fossil fuels are still too cheap. A problem with nuclear power is that the decommissioning costs are burdensome, something which France has yet to deal with. The bigger issue is whether the US gets serious about global warming and decides to make coal more expensive. **Debbie Cook** commented that the biggest challenge with nuclear power is the risk. In order to meet the energy demand in the US, two nuclear power

plants would have to be built every week for the next 30 years. Nuclear power plants only last 30 years so there would be a constant cycle.

## SESSION 6

### HOUSING MARKETS IN CALIFORNIA AND THE WEST: SUPPLY, DEMAND AND PRICES

**Ty Schuiling (Moderator)**, Director of Planning/Programming, San Bernardino Association of Governments

While the long ramp-up in housing prices in Western cities has been a boon to millions of homeowners, fewer and fewer families can afford homes and high housing costs deter employers. This session considered the role of housing in shaping growth by looking at the future of housing markets, the role of regulation in affecting housing prices, the effects of school quality on housing choices, and projections of where housing will be needed and where it is likely to be built in the coming decades.

**Schuiling** observed that affordability is a difficult issue, even in the Inland Empire area, long considered the bastion of affordability. Since 1990, the population in the SCAG region (the Los Angeles metro area) has risen from 14.6 million to 18.3 million, while only 768,000 new housing units have been built. This is a ratio of five new residents for each unit. Vacancy rates have dropped from the high single digits in 1990 to the low single digits now. Persons per household has increased from 2.9 to nearly 3.3 today. State mandates have attempted to address the affordability question, but with limited success; in some cases they have exacerbated the problem. Only 10-20 percent of the region's households can afford the median priced home, compared to 50% nationwide. To meet the demand identified in SCAGs long-range forecast, housing construction has to rise from the past pace of 48,000 units per year to 72,000 units per year for the next 28 years.

Land availability is a problem, particularly on the suburban fringe. Competition for land in the Los Angeles region's fringe areas is intense, particularly given the increasing demand for space to accommodate trade infrastructure and facilities (warehouses, etc.).

Finally, **Schuiling** pointed out that general plans currently may not match residential demand. The 55-and-over age cohort is the one that is rapidly growing; will the new housing that is built match this group's preferences, tastes and resources?

#### **The Markets for Housing and Trends in Housing Production: What's Ahead?**

**Steve Cauley**, Director of Research, Richard S. Ziman Center, University of California, Los Angeles' Anderson School of Management

**Cauley** observed that first, many things we are talking about are blowing against the wind. Second, extrapolations of past data and trends, such as are made by SCAG, are often questionable, and may not reflect the economic forces that will shape future demand.

Demography is the most important factor shaping the demand for housing. SCAG forecasts a large growth in population, particularly in the Inland Empire. Most agree with the general direction of these numbers. But **Cauley** disagrees with their projection of 30% growth in Southern California by 2030. There will be growth, but there will be feedback effects that limit it. California is not as desirable as it used to be. Housing costs are too high, which will shift the demand curve.

Also, **Cauley** is bearish on the Southern California economy. He feels it will trail the national economy over the next 30 years. The reason is that Southern California is a high cost place to live and do business. Cauley illustrated using the cost of electricity (Southern California's price is 140% of the national rate); this is a big factor in the cost of doing business. Moreover, California's state and local tax burden is high (12<sup>th</sup> in the nation). Also, labor is expensive here.

The high cost of doing business will, in the future, translate into fewer jobs, meaning less demand for housing. Moreover, the ethnic composition of the labor force is shifting, as 70-80% of the population growth will be Hispanic (largely immigrants), a group which has traditionally had lower levels of education and income. Fewer of these newcomers will be able to afford single family dwellings. Los Angeles is becoming more like a Latin American city, with a small, highly-educated, wealthy elite, and a large population of poorly-educated, low-income people who will never be able to afford a single-family home.

There will also be an increase in the shares of under 20s and over 65s in the population. This means a smaller group paying taxes, and a larger share demanding services. To keep pace with this, California tax rates will rise, further making the state an unappealing place.

California will keep its fine weather, but on the whole it will become less desirable. Therefore, estimates of need for new housing are much too high.

We will have a large increase in demand for apartments. But supply is not keeping pace. At present, it doesn't pay to build new apartments; rents are too low. The only construction is at the high end of the market, which is not where the future demand will lie. In order to elicit the construction needed, we will need to see rent increases and low vacancy rates in the future. However, for now it is currently hard to raise rents since people are paying a high fraction of their income already, and apartment residents' income is unlikely to grow as fast as the economy. Currently, people (especially immigrants) are coping by doubling up in homes and apartments. Also, we are seeing surprising rates of outmigration.

**Cauley** is not a believer in Smart Growth. He feels we need to move jobs and housing to where land is cheap, to stem the big rises in housing prices.

Even without a recession, **Cauley** foresees a 15 percent drop in home prices ahead. However, this will not be enough to change the big picture. Home prices have risen due to interest rates, hedging and moving product before there is demand for it.

In California, **Cauley** believes homeownership rates are much too high. Also, he feels markets respond well to situations like this, and thus that as prices rise, there will be a short lag, then people will start building housing. **Cauley** feels this will be in areas like the Inland Empire, where land is cheap, and that we should encourage this. We won't win by blowing against the wind.

## The Role of Regulation in Affecting Housing Supply and Prices: Part of the Problem, Part of the Solution, or Both?

**Marlon Boarnet**, Professor, Planning Policy and Design, University of California at Irvine

**Boarnet** opened by stating his belief that generally, markets work. But what if the regulatory system isn't working? New research says land use regulations raise home prices. This is not to say that regulations don't have many benefits; a large body of research shows they do. But our current land use regulation has been on autopilot, in many cases for decades, without us reviewing the social purpose of many of our regulations. Are some land use regulations doing something harmful? And what are the benefits?

In 1970, California real estate prices were similar to those in much of the nation. They have skyrocketed compared to the rest of the US through 2006, and are now over twice as high. Forty years ago those in the working class could buy homes, even in the beach communities. This is no longer the case.

Part of the problem is that we have not built enough housing supply. We experienced a shortage of 290,000 permits, or 6% of what was needed to keep up with population growth in the period from 1980-2006.

This is a structural and not a cyclical problem, and it is statewide. All California counties, even the affordable ones (the Inland Empire, High Desert, Sacramento) have shot ahead of the national average in terms of housing costs. This is troubling given that housing is a very important means of wealth creation for most Americans.

Is this a policy problem? Just because the poor can't afford Newport Beach might not mean policy intervention is necessary. However, **Boarnet** believes there are two important issues. First, land use is a huge part of the American economy (19% of GDP). It is also one of our most regulated sectors, a fact which is overlooked.

This regulation may be part of the problem, which may be overlooked because it is local policy. Research (such as that by Glaeser et al.) finds there is a "regulatory tax" in California (though not most places in the nation) which is interfering with the market's ability to provide supply to respond to demand. Housing prices in California are far above construction costs (there is a 30-50 percent gap). There is other evidence for this as well.

Another Glaeser et al. paper found evidence that places with an elaborate regulatory structure prevent supply from catching up with demand shocks in the housing market.

There seem to be two types of places – those where demand increases lead to more supply, and those where it leads to higher costs. Boarnet believes this evidence will lead to an emerging deregulation consensus, based on two types of thinkers. The first are neoclassical economic thinkers, who generally always want to deregulate. The other might be a coalition of progressive planners. Levine has argued that regulations have prevented the market from providing alternative housing types like TOD and New Urbanist development. However, these criticisms of regulation may be naïve, because they may overlook many of the factors that got us into the regulation business. There are good reasons to regulate.

There are three viewpoints in favor of regulation. The first is a functional planning viewpoint. Another is an economic viewpoint – we regulate to manage externalities. The final viewpoint is normative and aesthetic; this arises from architecture and is not very democratic.

The externality argument is overrated as a justification; there are better ways to manage this. However, the coordination and city building aspects have been underrated. They allow the creation of places that would not otherwise exist without the participation of some public entity. One example might be the Irvine business complex, where the city has created a huge jobs center. Now housing is following. This transformation would not have happened without city coordination.

There are lower order and higher order planning functions. The lower order are economic in nature – managing common resource externalities. These are often seen as the be-all and end-all justification for regulation. The higher order is managing a complex coordinating process, which requires a public agency. However, now we are too focused on air, coastal, and water issues – the common resource externalities. At the same time we have ignored higher order planning. In many cases, cities are blocking these higher order functions.

How to revamp planning? First, we should reduce the scale of land use regulation. Cities may often be too large to manage complex choices in the marketplace. They may also have difficulty matching preferences to wide variations in urban form, as Tiebout might suggest. Areas of 10,000 - 20,000 persons are probably the largest scale at which these functions can be managed.

Second, we need to restrict the ability of municipalities to promote the lower order planning functions over the higher. For example, neighboring jurisdictions should not be allowed to sue to block developments due to traffic impacts under CEQA. Municipalities should be allowed to regulate within their borders, but neighboring jurisdictions should not be able to block development.

Third, we should have higher order caretaking of the common resource pool, with strong ability to provide this pool and regulation of externalities.

Would this really work? Perhaps not. But now, for all the right intentions, we have backed into a regulatory situation in California which is interfering with the city building function. We need to rethink the fundamental level of land use regulation.

### **School Quality and Housing Choices: What are the Links?**

**Ariel Bierbaum**, Program Manager, Center for Cities and Schools, University of California, Berkeley

**Bierbaum** introduced herself and her organization. The Center for Cities and Schools at UCB focuses on housing and the built environment, intergovernmental collaboration, and broader stakeholder participation in public planning. They do this through education, research, and collaborative practice. They attempt to teach planners about education, and educators about planning. The Center's goal is to "position high-quality education as a critical component for broader city and metropolitan policy-making" and to invigorate and revitalize both schools and neighborhoods.

**Bierbaum's** talk was on school quality and housing choice. First, the way these factors interact must be determined. How do schools matter? To an extent, education and housing present a chicken-and-egg question. Second, what is to be done? There is a policy vacuum at this nexus.

First, what is the relationship between education and housing policy-making and practice? Schools are at the center of real estate decision-making in America. However, people have only imperfect information on the choice of housing and schools. They have a narrow view of school quality, mostly based on test scores. They often have racist and classist misperceptions. As an unintended consequence, low-income communities get hurt.

As the adage says, people don't buy houses, they buy school districts. Schools are one of the top factors in choosing a home. People (especially in the middle and upper-income brackets) are willing to pay a price premium for good schools: for example, 2.5% in home price for every 5% rise in test scores.

Moreover, there is forced mobility due to the lack of affordable quality housing near good schools; it is forcing people (especially public-sector employees) to live far from where they work.

There are three other negative, unintended consequences of the relationship between schools and home choice. First, we are experiencing racial and economic (re)segregation. In this situation, the highest-need students have fewest resources. We need to find creative ways (including housing policy) to integrate school populations.

Second, we have a situation of "school sprawl." Good schools are being sited in exurban areas, which is driving housing development there. There is a strong movement among architects and builders to green school facilities, but there are many problems over where to site them. Schools often require new roads and new sewers, so there are broader planning impacts.

Third, there are impacts on students and families. Residential and school mobility hurts student performance. Schools find it hard to track students. Teacher mobility is also hard to cope with.

Why is this happening? There are three main tensions. First, there is the silo governance structure. School and municipal governments were initially separated to protect schools from local politics. But school boards themselves are now very politicized. There are often huge bureaucracies with many systems of accountability. Cities, states, and schools often don't want to work together.

Another problem is that schools and governments work on different timeframes; schools are on an academic calendar, while governments are not. Schools are also often driven by crisis management.

Finally, there are competing regulations. Schools often have a minimum acreage standard, making it difficult for cities to site them outside of exurban areas.

What can be done? HOPE VI (which funds demolishing large housing projects for smaller, mixed-income projects) has been reauthorized, and for the first time recipients must work to improve local schools. Some innovative public private partnerships have taken place.



Two good programs are underway in Illinois and Massachusetts. They essentially compensate schools financially to build affordable multifamily housing nearby.

In the Bay Area, the Center is working with the Association of Bay Area Governments to try to get schools on the agenda. This would include promoting cross-governmental collaboration to have infill developers take their impact on schools into consideration. Also, the Center is providing support to inner-Bay Area cities to cope with the nexus of affordable housing and education.

In summary, there is much work to be done and many questions, particularly as we consider the demographic issues outlined in the symposium. What will success look like, and what institutions and systems will be needed for that success? Schools are key to successful planning – and planners should be involved in the collaborative process.

### **Making Housing More Affordable to More People**

**Victoria Basolo**, Associate Professor, Planning, Policy and Design, University of California Irvine

**Basolo** opened by asking: why do we care about affordable housing? The answer: it is interconnected with many things. It is part of a web of interrelationships that includes jobs, transportation and the environment. Affordable housing brings economic stability and social equality. It is central to regional health.

Multifamily housing became expensive to develop after the 1986 changes in the federal tax code, and far less has been built over time. Raising rents is thus not the only way to spur the construction of more multifamily housing; affordable multifamily housing can be spurred through government policies, particularly subsidies.

While multifamily construction has lagged, single-family construction has surged ahead. Prices in California tanked in the early 90s, then surged until recently, but at this point they have leveled off and will drop for sure. Nobody knows what the foreclosure situation will be, much less its effects.

Housing goes through cycles, and is also very sensitive to policy. Even a single change will make a big difference.

Building of single family homes will now drop, and there will be a shortage of units across the state. This will be felt most acutely in the Los Angeles, San Diego and San Francisco Bay Area markets. The shortage will be particularly serious for the lower-income group. Affordable housing will have a serious shortfall.

We need to look not only at the overall market, but at the market segments. These break down into what are called quality submarkets, which are aligned with income. The bottom of the income ladder will need subsidies, since only 25% of households can afford the median priced home. The market is segmented and we have to address this.

Why is there a shortage? There are a number of possible reasons. First, the entitlement process delays production, and exactions increase costs. This is confirmed by research; one study shows that in Contra Costa County, a “hot” market, developers pass 100% of those fees on, adding \$20,000 - \$30,000 to the cost of a home (although only 25% of the fees are passed along in a slow market). Another study found exactions and entitlements add over \$24,000 to the cost of a home and over \$15,000 to an apartment.

A second claim is that there are high costs due to other regulations, including CEQA and growth management. CEQA lawsuits are rare, so CEQA’s effects are hard to study. However, anecdotal studies show CEQA does raise costs. Another claim is that prices have risen due to the huge increase in growth control ballot measures in California. Studies of the urban growth boundary (UGB) in Portland are mixed on whether this practice has raised prices there. However, it is likely that UGBs will raise costs unless densities in the city rise.

Claim three is that there is little open urban land left to develop. However, **John Landis** estimates there are 24 million acres of developable land in the state. The idea that we are “built-out” is in the mind; land uses change and redevelop over time.

Claim four is the idea that thanks to Prop 13 we have the fiscalization of land use; residential is not developed because it is a fiscal loser for cities. It is thought that a home must cost \$550,000 to pay for itself. But this is untrue; these are figures used by cities to justify exactions. In fact, housing might not be as big of a tax loser as is commonly thought. In fact a median priced house is a net positive for cities, though not as much as industrial and commercial.

Claim five is that cities don’t want affordable housing because of economic interests or social biases. A national study showed that cities do compete against each other for economic benefits. Cities are much more likely to spend their own money on economic development than affordable housing and are much more likely to spend on homeownership programs over aid to renters.

Evidence shows poor people do better when not concentrated in poor neighborhoods. **Basolo** studied voucher programs for low-income individuals in Orange County and found that voucher recipients still tend to concentrate in poor areas, despite efforts to de-concentrate them by the housing authority.

What are the existing responses? The first has been to do nothing besides comply with existing state and federal law. The second has been to adopt new programs (regulatory or funding). Two ballot measures for affordable housing have been passed in California (Prop 46 and Prop 1C), but these are drops in the bucket. Third, states can create new planning laws and amend existing ones. Regulation can make a difference here. For example, we could create “mixed income zones,” that eliminate zoning for single vs. multifamily. We can streamline planning processing for mixed income development. We can seek state laws that allow the substitution of redevelopment set-aside dollars for development fees for mixed-income developments (i.e. transfer money to the general fund). We could create local housing trust funds. We could also create housing land trusts (through nonprofits) that could buy land when prices are low and set it aside for low-income housing in perpetuity.

We need to change state law to counteract the fiscalization of land use, and favor mixed uses and TODs. We also need to reform local governance to create effective regional plans, with a stronger linkage of housing and jobs.

We need a trade and transfer system for multifamily housing in general plans, so that localities can pay other jurisdictions to build their share of multifamily homes.

We need a permanent source of funding for affordable housing, so programs don't grow and die quickly and lose institutional memory.

We also need simplified general plans that are more stringent but are simpler and require less tweaking in order to give developers more certainty.

Finally, we need better research.

## DISCUSSION

**Art Madrid**, of the San Diego Association of Governments asked how many on the panel have attended planning commission or city council meetings on development projects. And what was their reaction?

**Boarnet** responded that it's quite a thing to observe (laughter). **Basolo** says that as a staff member, you just duck.

**Madrid** answered that this is why housing is so expensive in California.

**Paul Zimmerman** of the Southern California Association of Non-Profit Housing stated that **Basolo** offered excellent policy ideas but not a political solution. How can we get her prescriptions through the political process, lest NIMBYism derail them?

**Mark Nuaimi**, Mayor of Fontana, stated that his community wants to become mixed income. Up until now it has been a dumping ground for affordable housing. Partly as a result, Fontana suffers from crime, overcrowding of schools, and a low economic base due to a lack of retail. The community wants lower densities and larger lots – it wants *unaffordable*, high-end housing. But housing law does not give it credit for its base of low-end housing, and it is required to build affordable housing. The low economic base is not caused by developer fees – waiving them will not bring high-end housing. Nor has better freeway access (the 210 extension) helped, except to raise land values. How do they suppress land values so that land can turn over so development can take place?

**Cauley** responded that when it comes to land values they are blowing against the wind, given growing population, etc. Increasing demand will drive prices up. Moreover, reducing the price of land will not benefit anybody in the community.

**Basolo** commented that the statement about politics is a “cheap comment.” In truth, the tweaks in general plan law *are* having an effect over time. If local politics aren't going to change, it will be done (though more inefficiently) at the state level. There are many bills that have been

proposed. What she is suggesting is that regions get together and negotiate among the jurisdictions to trade affordable housing quotas.

**Christopher Cabaldon**, Mayor of West Sacramento, complained that CEQA is not about place-making and complete communities. Instead, you must have public hearings about traffic and densities. People always want lower densities, because we are not speaking to people's values – what do you want your community to look like? Planning decisions should respond to this, not to 5000 regulatory questions that become the language of the debate.

**Diane Forte** from Environment Now asked how we can get data on revenue lost to the state due to the fact that REITS can transfer the value of assets through stock without triggering the Prop 13 permitted increase in the valuation of the property.

**Basolo** said it's not just REITS -- families can pass down real estate in the same way. She thinks you have to look at every parcel in the state. Conventional wisdom is that only 1/3 of properties are still under Prop 13, but no one really knows. Thus it is impossible to make this calculation.

**Sam Filler** from the Transportation Land Use Collaborative said he did research for the LA Chamber of Commerce that showed Prop 13 caused a decrease in affordable housing, with more retail instead. There was an inversion of the tax burden onto commercial property owners from homeowners.

**Basolo** showed how her numbers confirmed this, but the burden is moving back onto the homeowners now (as new purchases are not covered under Prop 13) and commercial revenues have leveled off due to market saturation.

**Linda Budge**, Vice-Mayor of Rancho Cordova, stated that her community had lots of low income housing, including many renters, placed there by Sacramento County before her city incorporated. After the local navigation school closed, many low-class tenants moved in. There are also problems with local schools. Magnet elementary schools placed there have caused terrible traffic jams and they are so large that it is difficult to plan context-specific neighborhood schools.

A question was asked about what we are trying to achieve with allowing cities to trade affordable housing mandates. Why are we concentrating it in poor communities far from jobs? Why not mandate affordable housing in Newport Beach, offering subsidies and relief from zoning? Would that get them built? And shouldn't the poor have the same access to the beach as the wealthy?

**Basolo** says that under the idea she proposed at some point it would be cheaper for cities to build their own affordable housing than pay other communities to take it.

## SESSION 7

### PLANNING FOR AFFORDABLE, SUSTAINABLE HOUSING

**Catherine Showalter (Moderator)**, Director, UCLA Extension Public Policy Program

This session built on the previous one by examining housing development on a regional, local and developer scale. It reported on (i) the California State Regional Housing Needs Assessment, (ii) local green building techniques and codes, and (iii) a developer's perspective on meeting the future's rising housing demand.

**Catherine Showalter** introduced Linda Wheaton.

### **Intergovernmental Planning for Housing**

**Linda Wheaton**, Assistant Deputy Director, Housing Policy Division, Department of Housing & Community Development, State of California

**Linda Wheaton's** presentation addressed California's Regional Housing Needs Assessment (RHNA). She briefly listed some of the agencies that play a role in RHNA, such as the State Department of Housing and Community Development, Caltrans, the metropolitan planning organizations, local agency formation commissions, and councils of government. RHNA most directly affects cities, counties, and a growing number of public interest groups.

The RHNA process has no application beyond the update of local housing elements, except in the context of redevelopment agencies' lower and middle income housing funds. RHNA is basically a process of planning for short term residential development capacity that looks 7-8 years into the future.

The housing element process is a controversial one and is a constant subject of legislative amendment, **Wheaton** continued. In this year's California legislative session alone there were three amendments. RHNA is a constant subject of legislative amendment because it is such a cross-cutting process, dealing with density and affordability as well as demographic and ethnic change. There is a misunderstanding that RHNA mandates building requirements. **Wheaton** assured the group that RHNA is a planning provision for residential development capacity that does not mandate construction but "sets the table."

RHNA originated in the 1970s and is currently in the fourth cycle of updates. Statutory objectives were recently revisited and agreed upon when the law was last amended in 2004 by AB 2158. Some new principles from AB 2158 are cross-cutting, such as its coverage of jobs/housing balance. The most unique feature resulting from AB 2158 was the requirement to balance disproportionate household income distributions when considering the placement of lower-income housing. Lower-income housing must be more equally shared among jurisdictions. RHNA groups housing into four income levels, then allocates housing need among all cities and counties with the adjustment for lower income household concentration per AB 2158. How RHNA gets implemented remains at the discretion of local government.

Regional transportation planning has come to play a role in RHNA, in that the federal transportation funds are used to incentivize development patterns. This responds to the key notion that incentives be made available for affordable housing.

Regional blueprint planning apart from RHNA has evolved in this context. There are a number of objectives for blueprints but these mean different things in different contexts. Regional blueprint planning has been important in bringing the vision element to regional planning and has evolved as a more integrated form of planning.

Regional blueprint planning has been brought to bear to foster the engagement of the community with planning in a broader context. Part of this has been due to new experimentation in transportation planning, in particular with scenario planning and the use of such tools as GIS to better engage constituents.

**Wheaton** went on to discuss the points of comparison between regional blueprint planning and RHNA and why they are mutually supportive. Objectives of infill and higher-density development would not succeed without regulatory tools such as RHNA.

Regional blueprint planning is still in its infancy. The regional housing needs process is statewide and every city and county has responsibility for meeting the housing needs for all Californians. Allowances for transfer of these needs are circumscribed in the law.

In contrast, regional blueprint plans are created in all of the multi-county COGS. These have involved various stakeholders. What a blueprint means in SANDAG is different from that of SCAG or ABAG. Regional blueprint planning must be examined in reference to this context.

The focus of blueprints has been longer-term whereas RHNA has more short-term goals. RHNA is top down in that it is based on state law. By contrast, blueprints are contingent on local buy-in. The bottom line, **Wheaton** stated, is that MPOs do not have land-use control but they do have some control over transportation funding.

**Wheaton** ended by discussing the challenges to RHNA and blueprint planning. The first challenge, she remarked, is actual zoning. The commitment to implement zoning has been taking longer and longer and state resources are limited; this amounts to a redirecting of resources. Developers and cities have to deal with lengthy entitlement processes and there are increasing conflicts with air quality regulation and new requirements for flood control bills. CEQA mitigation is very auto-oriented, and this is a big challenge. More resolution in an integrated environment is needed.

## **Green Building Techniques and Codes: What are the Trends, What have been the Effects?**

**Brian Gitt**, Executive Director, Build it Green

**Gitt** began by saying that what he loves about green building is that it is personal. Green building brings environmental issues into the personal realm. It increases the quality of life for the people that live in the homes and work in the buildings.

The key components of green building are health drivers, cost of homeownership, cost of utilities, and durability of materials. Green Buildings can be described as healthy, energy- and resource-efficient buildings.

**Gitt** then listed the fundamentals of Green Building:

1. **Community design and planning.** The best land use practices come when people don't have to sit in their cars, **Gitt** attested. It is a quality of life issue beyond a resource issue. Green building does not just end at the walls of the house; it includes the landscape and the community around it.

2. **Energy.** Green building looks first at energy efficiency then at renewable energy.
3. **Water.** “Water is going to be one of the most critical challenges that we face in California in order for our economy to flourish,” **Gitt** stated. Looking at water efficiency and conservation is critical. The amount of energy needed to pump and treat water is huge, and many energy efficiency issues can be addressed through water.
4. **Indoor air quality.** Air quality issues bring green building into the home. It becomes about protecting children and the quality of life.
5. **Resource conservation.** Green building utilizes materials that are rapidly renewable.

**Gitt** remarked that by taking these five elements and wrapping them together, a tangible definition of Green Building that has credibility in the marketplace can be developed.

Two to three years ago, Build it Green was begging local governments to draft green building policies. There were some takers, yet there was nothing compared to the enthusiasm seen today. Much activity was incited by AB 32 and when climate change started to hit front page news. There are several Green Building drivers now:

1. **Climate change:** It is front and center in the news today, driving policy makers and increasing consumer awareness. Cities are becoming competitive as well. Every city wants to be the greenest city in the world. There is a convergence of media and policy makers.
2. **State level:** Three bills worked their way through the California Senate and Assembly to mandate green building this year. The Governor just vetoed these bills and although this may seem like a backward step, in reality, these bills politically jumpstarted a process. A year and a half ago Build it Green could not get a state agency to adopt a set of voluntary green building guidelines. After AB 32 and the media coverage, all of a sudden state agencies want to implement these practices.

There are three areas that contribute to climate change: industry, the built environment and transportation. Nationally the built environment has a much bigger impact on carbon emissions than industry and transportation. In California, because of a heavy reliance on natural gas, CO2 emissions are a little more balanced by sector. But California still has huge CO2 impacts because of the built environment. Now that there is this mandate, how is California going to react?

Local governments are developing policies and programs quickly -- perhaps too quickly -- because initiatives are not always thought through or worded correctly, or because not enough time and emphasis are allocated to certain areas.

Currently there is much private sector engagement. The National Association of Homebuilders stated that 2007 was a tipping point year for green building. More mainstream builders are incorporating green building techniques than not.

Build it Green prides itself on being in the center by working with the public/non-profit sector and private sector equally. Its goal is to help engender market transformation. In order for market transformation to take place, all levels of society must be engaged. Policy is an important element for incentivizing the private sector, but if the private sector is engaged and if they can make money building green, it will go forward much faster than it would if mandated by any bureaucracy.

At the present time, Build it Green is packing LEED classes. **Gitt** remarked that it has been amazing to see the shift of engagement and investment on the part of the private sector. Citigroup has committed \$50 billion towards green building efforts, Bank of America \$20 billion, and Wells Fargo \$1 billion. These companies are not necessarily doing this because it is the right thing to do; they are doing this because they are making money.

Unfortunately there is truly a cleansing going on in the housing market right now. Fortunately for green building it has been a good thing. Two years ago green building did not matter because people were lining up to buy homes. Now the housing climate has changed and builders need a competitive advantage. Building green has become a key way to differentiate a builder's product and many builders have begun working with Build it Green.

In examining green building trends one can see private sector engagement from large builders down to small builders which is encouraging as this has to happen now. **Gitt** emphasized that "although environmental issues are not acutely affecting us now, they will be in the future and so we must act today so that we don't lose ground."

### **The Future of Housing in California: A Developer's Perspective**

**Andrew Henderson**, Vice President and General Counsel, Building Industry Association (BIA) of Southern California

**Andrew Henderson** opened by announcing that he is happy to talk about the future of housing from a developer's perspective, but he warned the audience that he is not a developer per se. On the planning side, he remarked, the housing process is pretty broken in California. **Henderson** stated that so far in the conference there has been discussion of CEQA's impediment to good planning, as it focuses far too much on individual projects and far too little on regional planning. The results are random outcomes based on local politics. A lot of things go through that shouldn't, a lot of good things that should go through don't, and there is a lot of waste in the process in terms of time and cost.

**Henderson** asserted that some sort of CEQA relief is needed. A key reform would be to look at things such as cumulative impacts, alternatives analysis, and growth inducing impacts in the aggregate not on a project level. This would take regional analysis out of CEQA and make it a more localized process. In order to do this, a more robust planning process is needed. CEQA relief can only be obtained if the project is in a locale that has a qualified programmatic plan. The clincher results from the fact that the general plans have to be non-amendable for some amount of time. There are very few resources put into general plans and plans can be amended the next day which would nullify the relief. If the process was non-amendable for some time perhaps all of the constituents would take the process seriously.

Water is key in the planning process. Developers are required to guarantee a 20 to 30 year water supply, which is approved by the water district. Because of what is going on in the Delta, water can only be guaranteed for 15 years. This poses a very serious problem. Decision makers need to expedite the peripheral canal so that California does not get into a critical situation.

Water quality will change how housing is developed within Southern California. This refers to the storm water impacts on housing. This issue has been on the back burner yet now it is going to a whole new level. The state regulators are doing some amazing things with regards to storm



water regulation. One of them is hydro modification. Hydro-mod is not related to construction activities or low-impact activities but refers to the fact that when something is built it should not have any downstream effect on the water course from which the storm water goes. That downstream effect is called hydro modification. Building inevitably creates impervious surfaces that speed up the flow of the water running off the property and the fact that the velocity of the water is faster has a modifying effect downstream. Now there are regulations that inhibit hydro-modification. This will create major challenges for sitting property and there will be a tremendous amount of money and engineering dedicated to this issue.

From **Henderson's** standpoint the challenge with air quality is not green building. Green building is coming full force, he admits. The only question is if it's done through state regulation or by city. Patchwork city-by-city green building regulations create problems. There must be room for innovation, **Henderson** maintained. The LEED people are very close to saying publicly that they are opposed to LEED being mandated by government. They want LEED to be the brass ring of leadership. If LEED becomes mandated and if green building enthusiasts want to raise the bar, they have to go through political hurdles. "My advice to builders," **Henderson** remarked, "is get really green really quickly." **Henderson** also referenced livinghomes.net in Santa Monica for examples of interesting modular building which he believes will become increasingly important.

**Henderson** then discussed his opinions on climate change. Many people in the housing industry who are conservative don't want to believe it will happen. His view is that whether or not it is going to happen, climate change has to be dealt with because global warming has attracted political attention. Society must look at the profound implications of the way it builds and where it builds. Governments are going to need eminent domain power to foster redevelopment. Greenfield will still be done but with global warming it will be different, clustered.

For affordability, **Henderson** stated that he has no answers although he does believe that inclusionary zoning is not the way to go. Inclusionary zoning means that one half of one percent of the population is subsidizing one tenth of one percent of the population. The way to ramp up affordable housing is to ramp up supply, making land and policies available.

**Henderson** ended on a note about global warming. Worldwide the volume of oil burned is equivalent to the volume of the conference room every three seconds, he asserted. In terms of BTU usage, Americans burn the equivalent of 11 wooden matches every second of their lives. This is a tremendous usage of energy and oil. Global warming is happening, he stressed, it is a reality and there are serious equity questions resulting in serious challenges for California.

## **DISCUSSION:**

**Christopher Cabaldon**, the Mayor of West Sacramento, remarked that West Sacramento has a pending ordinance that would make LEED a requirement. The extent to which West Sacramento creates a master plan is based on assumptions of past usage. To the extent that Green Building is voluntary, planners cannot adjust the infrastructure programs because they can't be sure if it will be done. As a result, West Sacramento can't adjust its impact fees, and folks who are building green get no benefit in addition to not being able to drive the market more generally. He states that he is not sure whether the US Green Building Council should be dictating to those in local

communities who want to set high standards. It makes a lot of sense to think at least about a regulatory floor.

**Andrew Henderson** responded that there is a kind of regulatory floor now in place, Title 24 of the building code. He stated that there is a part of him that believes planning should be locally focused and therefore the locality should be able to set a standard. Builders, however, are a little confused as to what is going on from city to city, but his advice to builders is to get ahead of the curve to avoid the confusion. **Brian Gitt** also responded to **Cabaldon's** comment by saying that he is not opposed to local governments having standards; he just doesn't think they should be attached to LEED. It is important, he continued, to not put forth mandates unless local resources and support are in place. The costs associated with LEED are not appropriate for some local jurisdictions.

**Richard Napier** of San Mateo commented that he believes many cities want to create housing but there is a need for some flexibility. The county level is a good place for the effort to start and he asked what other forms of flexibility is available. **Linda Wheaton** replied that the notion of trading on affordable housing has been controversial and discussed for a long time. There is the provision of transfer in RHNA. However, it has been implemented in few places. Napa County is one of the few examples. Wherever affordable housing trading has occurred, it has taken years. Other than providing for a process, there is a lot more effort today encouraging the collaboration early on so that the jurisdictions have housing certainty.

**Kathryn Phillips** of Environmental Defense commented that she does a lot of work in the San Joaquin Valley. Some liken the Valley to the Appalachian area in terms of poverty. Poor air and water quality have greatly affected this area. She wonders what alternatives to land use regulations the panel would recommend that would simultaneously protect the public and allow for affordable housing. Without the current kinds of regulations, residents of the San Joaquin Valley will continue to be exposed to detrimental air and water quality, yet these types of regulations also endanger affordable housing. **Andrew Henderson** responded that the balance between regulation and housing is challenging. Housing must be built around freeways, so the best way to deal with air quality is through the fleet. If you change the fleet, he remarked, a lot of air concerns will go away. On the water side there should be a balance; regulators should balance the housing needs against the hydro-mod concerns. The way they are heading now is zero hydro mod. **Brian Gitt** dovetailed with **Henderson's** comments by remarking that in the absence of regulation, incentives are needed. If decision makers create the right incentives, builders will incorporate change in their development efforts.

**Samuel Filler**, with the Land Use and Transportation Collaborative, posed a question to the panel: what would it mean to have a regional standard of sustainability? **Andrew Henderson** replied that he thinks the trend will be for the green building issue to become regional but it must be looked at one region at a time since regions are different. He doesn't think it makes sense for LEED to create a regional standard.

**Asha Weinstein Agrawal**, from San Jose State University, had a question about green building. She has a sense that what people get excited about is not siting buildings so that people have transportation access, but so they can have bamboo floors and solar panels. Are things such as transportation getting lost or are builders aware of this, she asked. **Brian Gitt** said that the great thing about green building is that it is an umbrella that draws people in. From his perspective it

does not matter what the excitement surrounding it is but that as many people as possible enter the tent. Getting people into the tent is more important than what they are focused on because once they are in the tent they can become interested in other factors. **Andrew Henderson** continued that the closer one gets to the interior, the closer one gets to the builder. It is easier to start with bamboo floors in comparison to the other things being discussed. **Valerie Knepper** with the Metropolitan Transportation Commission commented that there is a green neighborhood process that is being developed to address this question.

**Paul Zimmerman** with the Southern California Association of Non-Profit Housing, stated that as a housing advocate he has been going about promoting density bonuses as well as parking bonuses, yet he thinks he will run into problems if everyone runs down the same road. He believes that more incentives need to be found or created, or else problems will ensue. **Brian Gitt** replied that builders will build whatever people want. Green building is not at that point where it is old enough to stand on its own and have consumer demand overwhelm the builders. He agreed that more incentives are needed, but that density and parking bonuses are start up incentives and early adopter strategies. There are a host of incentives out there but it takes time to educate consumers. **Andrew Henderson** followed by noting that builders like incentives; he thinks incentives are the way to go. He believes that affordable housing can be achieved through density. **Linda Wheaton** cautioned that it has been the law since the 1980s for density bonuses and parking standards to be provided when the threshold of affordable housing is built. Local government should not be providing these incentives for other things in lieu of affordable housing.

## SESSION 8

### PLANNING FOR (AND COPING WITH) GROWTH

**Trixie Johnson (Moderator)**, Research Director, Mineta Transportation Institute

This session examines how the economic, demographic, water, energy and housing growth challenges may be dealt with in (i) the Silicon Valley, a large, mature, and still growing region, (ii) the Inland Empire, a large and rapidly growing region, and (iii) the San Joaquin Valley, a rapidly growing region.

**Trixie Johnson** introduced the session by talking about the importance of jobs. Jobs, she stated, are a large determinant of where people choose to live and it is the income received from jobs that ultimately provides taxes for services. The jobs, she continues, bring traffic and housing problems, and place stresses on natural resources. She introduced the first speaker **Carl Guardino**.

#### **The Future of High-Tech Employment in an Increasingly Expensive and Congested Silicon Valley**

**Carl Guardino**, President and CEO, Silicon Valley Leadership Group

**Guardino** began with a quick snapshot of Silicon Valley's demographics. The Silicon Valley, an already built-up area, is expected to have 2.9 million people by 2010 and grow by another

300,000 by 2020. Currently there are 1.2 million jobs; by 2020 the valley is expected to have 1.4 million jobs. Given this setting, **Guardino** moved on to talk about the four key ingredients the Silicon Valley Leadership Group embraces when planning: reaching out, responding, reinventing, and reinvesting.

**Outreach.** The Silicon Valley Leadership Group first reaches out to its members. To place it in perspective the combined revenue of these respondents exceeds 1 trillion dollars. **Guardino** himself meets with one-half of the CEOs each year. He asks one question: “As an employer, what are the key issues that allow you to be competitive?” For 9 years running the top issue for these companies is homes that workers can live in. The second is transportation and the third is education. The next phase in the outreach is a survey for respondents. The most recent survey confirmed that the number one issue was housing; number two was transportation; and number three was a combination of health care and education.

**Guardino** shared with the audience that for the first time the Silicon Valley Leadership Group would underwrite an independent, statistically valid survey of the Silicon Valley. He stressed the importance of real data otherwise planners float from anecdote to anecdote.

**Response.** In the area of housing, the Silicon Valley Leadership Group formed a non-profit housing trust. Through a public opinion survey, the Group discovered that a housing trust was a viable way to deal with the housing crisis, but that respondents did not want to pay another cent in taxes. Contributions would have to be voluntary. With a group of lenders and builders, the Leadership Group devised a model showing that with \$20 million as seed money, \$200 million could be leveraged to help 4,800 families including those in need of affordable housing, first time homeowners and the homeless. Twenty-four months later they had been able to raise \$20.6 million dollars in voluntary contributions (even during a period when the economy was down). In the five years since the trust has been capitalized, it has raised \$26 million which has leveraged \$1.22 billion. The trust has helped 6,453 families all because the group reached out and found the need.

**Reinvention.** Many in the Silicon Valley see the region as a capital of renewable energy. The Silicon Valley has a history of peak innovations in areas such as defense, hardware, personal computers, and the internet. Many wonder what the next wave of innovation will be. It looks like the Silicon Valley is becoming a solar valley. The alignment and passion are there to face a serious issue; this should lead to innovative products. There are more than 100 solar companies located in the Silicon Valley.

**Reinvestment.** The Silicon Valley Leadership Group emphasizes not only individual and community perspectives but a global one as well. Last year it produced a 10 point renewable energy action plan for Silicon Valley and this coming year it is hoping to challenge the other top tech regions to join in and show the Valley what they are doing. The Leadership Group is doing this because it believes regions respond best to competition and a challenge.

For the Bay Area, 50% of greenhouse gas emissions are due to transportation. The Leadership Group is working with auto makers and others to increase usage of plug-in hybrids, and has promoted a celebrity Bike to Work Day. The group also advocates for high-speed rail and BART. **Guardino** is most excited about the Group’s solar tech initiative; it wants to grow solar

production to levels found in Germany and Japan. The Group anticipates 25,000 potential jobs in the Silicon Valley relating to solar energy.

**Guardino** ended by reiterating the importance of renewal and refocusing, which is what everyone in the audience is doing at the Lake Arrowhead symposium. He closed with a comment regarding Helen Keller. At the end of Helen Keller's lecture series a man asked her if there was anything worse that could have happened to her than losing her sight. She replied, "Yes, I could have lost my vision."

## **Planning for Logistics-Based Employment Growth in the Inland Empire**

**John Husing**, Principal, Economics and Politics, Inc.

**John Husing** welcomed the audience to the Inland Empire. **Husing** said his remarks would focus on the logistics industry, which is simultaneously one of the great economic engines developing in Southern California *and* the biggest environmental challenge.

He discussed the region's economy. The Inland Empire is composed of 4.1 million people, more than 24 of the 50 states. It is forecast to house 2 million more between 2000 and 2020.

An area like this, or any edge area of any metropolitan area, grows up in three stages. These three stages always have to do with dirt.

Stage one is always the same. A developer builds houses where no one wants to live. Populations move there because of the value. In the beginning everyone commutes and the jobs/housing balance is zero. Service jobs grow to serve the population but this is only half of what is needed.

Stage two happens a decade later where another group of developers need dirt -- but this time it is for tilt-up facilities for manufacturing, logistics and industrial-type jobs. Land pricing and availability push these industries there. The jobs/housing situation begins to equalize because the jobs are not a bad fit for the people who moved there earlier.

In stage three, housing becomes expensive and goes beyond the reach of the well-educated younger people in the area. Suddenly they can't afford the lifestyle they want and then they start to migrate. That makes the area competitive only for the top end of the economy.

The Inland Empire has gone through all of these stages in its west end. There is a jobs/housing surplus in the Ontario and Rancho Cucamonga areas, and Corona is just now getting into this last stage. The Victor Valley is experiencing the first round. **Husing** suggested that there has been a misnomer about the role of freeways. Freeways have nothing to do with commuting. The price of land and the ability of people to acquire a middle class house they can afford has everything to do with it. If freeways are built people will move out to some weird place, he commented; if freeways aren't built they will find another way to get to work.

The economy in the Inland region is a very rapid job producer. From 2005 to 2006, 48,150 jobs were added, which were needed because of the population migration. Jobs will grow another 660,000 by 2020. Part of this mix has to be blue collar jobs. In San Bernardino, 52.1% of the population has not had one college class. In Riverside it is 50.9% and in Southern California

45%. There is a part of the economy that must be accounted for in economic development. This is why the goods movement industry has become crucial to the jobs/housing balance in the Inland Empire.

When looking at industrial land use, the Inland Empire is absorbing buildings with 20 million square feet of space year after year. The vacancy rate is well below 8% so the market is incredibly tight for industrial space.

Most of the products coming into Los Angeles and Long Beach come from Asia. The products get put into containers and go to the docks where they travel across the ocean to Southern California's ports. Some of them go on trains and directly out of the area. A good deal of it travels on the freeways. Between rail and truck traffic, a tremendous amount of particulate matter is released which has many repercussions for air quality pollutant levels.

The Los Angeles and Long Beach ports are triple New York and New Jersey in terms of cargo movement. The scary part for the transportation side, **Husing** remarked, is that within 20-40 years, capacity at the Long Beach Port will be maxed. This means that there will be much more truck movement.

Air cargo is also expected to increase dramatically and LAX is almost at capacity. As a result, Inland Empire airports will experience a rise in goods movement traffic.

### **Issue #1 AIR QUALITY**

Diesel and internal combustion engines must be improved to solve air quality issues, **Husing** stated. Right now technologies are not ready to do this. Another problem is the use of emergency rooms by poor families to get health services. The region must figure out how to deal with the health issue in terms of pollutants and congestion and also how to provide upward mobility jobs that pay middle incomes so that people can obtain good health care.

### **Issue #2 FREEWAY INFRASTRUCTUE**

How is the region going to deal with 42.5 million containers, when as of now the freeways have convoys on the inside lanes prohibiting cars from exiting, **Husing** asked. The 710 freeway is the scariest place on the planet earth, he commented. Dedicated truck lanes must be provided. The problem with this is the political difficulty.

The other solution is in rail movement. Here the problem is that the rail folks don't make a ton of money moving cargo for short hauls, **Husing** noted. They make a profit when they move stuff over the Rockies. A different system in rail is needed. He remarked that high speed electrified rail is the solution many are dreaming of, but there is no adequate strategy to get it built and financed at this time.

Intermodal rail yards are another piece of the problem. Currently there is only one intermodal rail yard owned by Burlington Northern Santa Fe (BNSF) but it is at capacity. BNSF is looking at building another one at Victorville for the future.

Grade separation is crucial, **Husing** continued. The Alameda Corridor has been built and is operational but the question remaining is how to pay for all of the other grade separations needed.

When dealing with logistics and big facilities, land planning is crucial to keep activities separated, **Husing** remarked. Architecture is also a crucial issue. “What you have to think about is that if someone wants to build a certain sized building, how can it be divided into different components so that it can be flexible?”

In summary, **Husing** stated that the Southern California region faces enormous challenges. “We need blue collar jobs that pay well and we have air and land impact problems. You must solve these two issues simultaneously.”

### **Preparing for an Increasingly Urbanized San Joaquin Valley**

**Barbara Patrick**, Special Projects Coordinator, Great Valley Center

**Barbara Patrick** thanked the two preceding speakers for setting the stage for much of what she would be talking about. She then presented a satellite image of the great valley of California. The great valley consists of two valleys. The San Joaquin Valley (SJV) is the lower portion of the great valley. It extends from Redding to Bakersfield, is 450 miles long and 50 miles wide and has enormous challenges, she stated. The San Joaquin Valley used to be a rural area but is growing enormously.

In the SJV there are eight agriculturally-based counties, 62 cities and 3.3 million people. It contains one major waterway and one air basin. Interstate 5 and Highway 99 are the major roadways that pass through the SJV and the bulk of the people live around Highway 99. The SJV is home to the highest rate of population increase in California. Through 2030, the growth rate is supposed to be 65% higher than the rest of the state. Likewise, the California Department of Housing expects the Valley’s population to increase 104% between now and 2040.

“Our challenges are many,” **Patrick** remarked. The SJV Air Basin ranks number two behind the South Coast Air Basin in number of federal ozone standard exceedances. Many of the SJV residents are below the poverty level and local jurisdictions must balance competing interests; the necessity of jobs for their residents on the one hand and the desire for their residents to live in healthy communities on the other.

One of the most important things about the SJV is that it is the breadbasket of the world providing much of the food and fiber for the nation and the world. Seven of the 8 counties rank among the top 10 counties in terms of producing the most agriculture in CA.

The SJV’s communities tend to be unique and distinct. The communities have been striving as they grow to maintain their distinct characteristics and preserve the Midwestern values that characterize the population. Residents who have lived in the SJV for a while are very conservative, independent and distrustful of regionalism.

The Air District was formed in the early 1990s in response to legislation that was going to force the Valley into having one form of regional government. There was great distrust of it, but leaders in each of the regions and counties formed the District. It has been very successful and most people are now more trusting of regional government, while still cautious when it comes to regional discussion.

Interestingly, the SJV communities have learned that if they don't get together and create a unified voice, then those who represent the Valley in Sacramento have no chance of helping. Politicians such as the Governor are focusing on the Valley because they are realizing that the region can tilt the political balance one way or the other. The San Joaquin Valley Partnership, created by Governor Schwarzenegger, has 32 representatives, two from each county, eight from members of the administration, and several representatives from school districts, etc. This organization has developed 10 working groups on issues such as air quality, water supply, education and economic development. The purpose of the working groups is to spearhead a regional effort to lift up the Valley and have it be economically viable.

The SJV has a blueprint process but it is configured differently than other regions. Eight separate counties proceed with their own local process, the results of which are then fed to the Blueprint Regional Advisory Committee, which is tasked to develop overarching concerns and a regional overlay.

"I don't want you to get the impression that the people in the Valley are not engaged because there are not liberals," **Patrick** warned, "Our people are engaged and becoming increasingly engaged." She stressed that everyone in the SJV agrees that they don't want the Valley to become like Los Angeles. The constituency wants better planning and a cleaner environment, which is encouraging elected officials to do the right thing.

Mark Twain said that "whiskey is for drinkin' and water is for fightin' over," **Patrick** said. This is the main discussion in the SJV. "People also say if you scratch a farmer you get a developer. We must make sure that farmers are successful," she emphasized. When water allotments are cut back 40% it causes a grave threat to the farmer's success. The SJV believes strongly that in order to take care of the farmers the peripheral canal must be built.

The logistics industry is a mixed blessing with air quality problems, **Patrick** believes. Moreover, the SJV has lacked political clout when dealing with this issue. When the state came up with its Goods Movement Action Plan there was almost nothing about the SJV, despite the fact that the SJV has more truck miles than the South Coast Basin. But state politicians did not feel it was important that the SJV receive funds for goods movement.

**Patrick** ended with a comment about high speed rail. She believes it is likely to be a growth producer to the SJV. Many would rather own a cheap home with a back yard in the SJV than live closer to urban areas. High speed rail would have an enormous growth impact on the SJV.

## DISCUSSION

**John Husing** had a comment about the SJV. Kern County is now starting to feel the pressure of Los Angeles. He expects that the northern part of the SJV is also receiving pressure from the Bay



Area. This is about cheap dirt, he exclaimed. There is an enormous pressure on the SJV's agricultural land, and the power of the economy is very difficult to stand up to.

**Norm King** with CSU San Bernardino stated that he would beg to disagree with **Carl Guardino** that interstate rail should come to the state. Based on the value of minimizing externalities, interstate rail will be too costly and not produce enough benefits. He then directed a question to **John Husing**. Thirty million dollars plus or minus ten are needed to solve the problems **Husing** discussed. **King** asked **Husing** what is his best guess to fund this. **Husing** answered that \$40 million is more likely needed to fix the traffic and pollution problems which can only be done if it becomes in the interest of companies to pay more to move their products faster. The problems must be solved through a user-based fee system. The Southern California ports themselves think that a \$24 per container fee lasting 5 years will be able to clean up the fleet dramatically. The cash flow would allow a bond issue to be amortized, producing around \$1.6 billion – enough up-front cash to replace the entire fleet. This is the type of problem-solving the region needs, **Husing** maintained, otherwise there will only be gridlock.

**Carl Guardino** joked that **Norm King** did a hit and run with his high speed rail comment and he would like the opportunity to retaliate. **Guardino** stated that California currently does not have the infrastructure requirements needed at its airports, and equivalent transportation systems are more costly than what high speed rail would be. The air quality and greenhouse gas reductions would be significant enough with high speed rail.

**Nidia Bautista**, Coalition for Clean Air, asked if Southern California should bear the burden of transporting the goods for all of the Wal-Marts in Maine. Southern California residents are internalizing the effects of this goods movement reality. There are two premature deaths a week, which is worse than traffic accidents. As planners and visionaries we need to be looking at this issue. Who is benefiting and at what cost? To that end we should be talking about cleaning up the system right now, she stressed. We can't all move out.

## SESSION 9

### STRATEGIES FOR MOVING FORWARD: WHAT SHOULD BE DONE? CAN IT BE DONE? IF SO, HOW AND BY WHOM?

**Brian Taylor (Moderator)**, AICP, Professor of Urban Planning; Director, UCLA Institute of Transportation

This session closed the symposium, as three speakers representing state, regional and local jurisdictions reflected on the prior sessions and reached into the future with ideas for potential actions. The participants were: **Joan Sollenberger**, Division Chief, Transportation Planning, California Department of Transportation; **Hasan Ikhrata**, Director, Planning and Policy, Southern California Association of Governments; and **Christopher Cabaldon**, Mayor of West Sacramento and past chair of the Sacramento Area Council of Governments Board.

**Taylor** introduced the panel, and asked them to consider the salient themes of the symposium and present ideas for moving forward. One key theme might be “ambivalence” – our mixed feelings about growth (can't live with it, can't live without it). Is it an opportunity, a threat, or

both? Another theme is how to reap growth's economic benefits while minimizing and managing its environmental externalities. A third theme is the balance between the well-being of existing residents versus newcomers to an area. A fourth concerns the rights and obligations of those who hold existing claims on the environment (such as water rights) with those who may be newer to an area; should the latter have all the responsibility for conservation, or should the responsibility be shared? A fifth involves growth spillovers over political boundaries – who is responsible?

**Joan Sollenberger** spoke first. She observed that the issues discussed at the symposium are integrated, complex, and converging. “We can't just look at single issues,” she remarked.

The numbers indicate California will continue to grow, and the growth will be tremendous in relation to other parts of the country. We need to take that into account to maintain our quality of life, our economic vitality and our environment.

The makeup of the population is changing. Our over-65 population will balloon from 3.5 million to 8.5 million by 2030. The under-18 population will grow quickly as well. Hispanics will become a majority in California by 2042.

It is difficult to deal with these major issues, but it is an opportunity as well. We need to integrate our discussions better and come up with comprehensive solutions and investments. Unfortunately, though, the funding for those investments is low, so we need a compelling vision that embraces multiple issues.

“Where will the leadership come from?” **Sollenberger** asked. Leadership is sorely needed at the state, regional, local, and private levels. For example, the 20 year vision plan recently conducted for the Governor of California concluded that we need over \$240 billion alone to address our transportation issues by 2030, and we currently only have \$60-70 billion.

This dilemma calls for different scales of planning across the state to promote the economy, the environment, and social equity. With a strong economy, we can afford to do the other two. The state bond funds are coming, but they are just a down payment; it is a 10 year plan only.

At all levels, we need to think green. This is currently beginning; governments at all levels are competing on how to think the greenest and we need more of this type of thinking

Thought must also be given to the state's overall future housing need- not just over 7 years (as mandated by the Regional Housing Needs Assessment (RHNA) but over a 20-plus year period.

Our economic health requires better state support for regional coordination and cooperation. The state should provide better data when demanded. Integrated and comprehensive planning is needed (this is being tested at the pilot level). The state is also researching a state integrated model that looks at transportation, land use and the economy, to help regions and the state look at alternate outcomes.

At the regional level, the state is opening up grants to Metropolitan Planning Organizations (MPOs) and regional transportation planning agencies for regional blueprint planning funding. This will allow the realization of many goals, like promoting efficient land use patterns, job-housing connections, mobility, housing, agriculture, tourism, resource efficiency, and goods movement to name a few.

Our general plans must become more robust at the local level, and the state must support this enhancement.

**Ikhata** opened by stating he has heard much doom and gloom at the conference – and some hope. “As for the former, we’ve heard we’ll be heavily immigrant, old, and poor. That people will leave the state, that we’ll face recession, that immigrants will take services, that people won’t be able to afford housing. That Smart Growth is not the solution, and that we face terrible transportation and environmental problems,” **Ikhata** continued.

**Ikhata**, however, chose to look at the hope. California is a great state, with great weather. It has high GDP – the 10<sup>th</sup> largest in the world. We do have housing, transportation and environmental challenges, but in terms of congestion we are better than any major urban area in the world and we are trying to clean up the air. Moreover, Smart Growth will work if we do it right.

**Ikhata** wanted to leave the group with two messages. First: bad pricing kills good planning. If things are not priced right, no matter how good the plan, its goals will not be achieved. Currently, we are conscious of the costs when we turn on the electricity, but not the cost of the congestion externalities we will impose when we get in our cars. Fuel taxes in the US are too low (36 cents a gallon); in Europe, where taxes are much higher, people drive less. Unless we price things right, we cannot have a good plan to fight these challenges.

**Ikhata** stated he gets disappointed when he hears about the plan to build the High-Speed Rail system connecting Northern and Southern California. What are the costs and benefits? This generation won’t pay for the subsidies needed to construct it – future generations will. The users should pay for it – it should be priced right.

As for goods movement, SCAG commissioned a study showing that charging fees would not drive traffic away from the ports. People ship through here because we have the infrastructure and a big market to support the trade.

For trucks and trains, even 2007 engines are not clean enough; why not electrify them? The technology is there (Amtrak has done it in the Northeast), but in the West we do not have the political will and leadership (especially due to the Interstate Commerce Clause). We need that political will and leadership to take unpopular programs to the taxpayers.

As for the bond issue, it is a good start. But it is far too small and is being distributed based on politics, not performance. And again, we are spending what future generations will pay for. Why not let users pay for congestion, pollution and the facilities? The same is true with High-Speed Rail.

There is hope, but we must price things right so that planners and professionals can carry through the right plans. We must have political will to accommodate growth. Do we currently have it? No. Will we get it? **Ikhata** hopes so.

**Cabaldon** spoke next. He focused on strategies and solutions at the local level, and on the interactions between the state and local jurisdictions.

He pointed out that there are two ways to prevent growth. The first is for an area to become unaffordable, and the second is for an area to become unattractive. But neither are events any of us want to see occur.

He has heard at this symposium that California is a mess because we're too green, too brown and too grey – that our environmental standards are too high for growth, that our immigrant population has low education levels, and that our population is aging and unproductive.

**Cabaldon** doesn't agree with this; California has been all those things for quite awhile without damaging our prosperity.

There is a real value, for example, from immigrants; they are buttressing our transit system. We should be thankful we have them to use as a basis for expanding choice to riders. But immigration is a wakeup call. We in this room don't represent the demographics of the future. We need to take into account that people's values outside of the room might differ from ours; we need to have some humility about our projections for what our future might look like.

**Cabaldon** stated he thought there are linkages which have not been addressed at the symposium, for example, between land use and issues like water, energy, and goods movement. But this is not particular to this conference. In fact, sometimes it is best to not focus on the linkages and attempt to expand our solution set too broadly, coming up with a broad, overarching plan that we then must wait for a charismatic leader to implement (and since this won't happen we will end up doing nothing at all). Sometimes it's best to look at the issues separately to get some action.

There are some places where land use is extremely important, such as the delta and the geography and place relationship of schools. Children no longer go to neighborhood schools as frequently, so the link between neighborhoods' economic achievement and school quality may be weakening.

**Cabaldon** is a Blueprint advocate – we have our best opportunity for real change on the transportation-land use linkage. Blueprints can change public values and politically mobilize the promotion of Smart Growth. Progress is not happening because of the models *per se*, but because the blueprint process creates a new decision-making structure. Now all branches of government and towns are competing to do green, smart growth.

Green building has lots of opportunities, if it is incorporated into planning and made possible for smaller builders. The whole community should benefit.

**Cabaldon** believes our state approach on affordable housing is failing. Before we rush to copy or intensify our approach, we need to examine the system. In all, we have heard no answers on this question. Land economists believe that reducing fees and costs to developers will reduce prices yet this will not work on a case-by-case basis unless the price across the whole market falls. Changes in impact fees have grown, but not nearly as much as market prices, so they are not the real problem – they are more a reflection of rising costs than the driver.

Our system of mandates and controls are not working; we add regulations when we find they're not working and just add more and more of them, to little effect. Though it stops the worst actors, the state's control approach de incentivizes local officials to do anything, because it simply becomes about compliance, taking away local freedom and initiative. RHNA creates incentives for bad action because local communities can't make anything work.

As for CEQA, there are actually few lawsuits arising from it, but the threat of lawsuits is a major factor. In **Cabaldon**'s opinion, CEQA is too harsh on infill development and not harsh enough on greenfield. Also, why should areas' local decisions on issues like traffic and noise become state issues? That is not what CEQA was intended to do, but that has been the outcome.

Finally, **Cabaldon** addressed the bond issue. These funds need to be aligned with local blueprints, but instead, the state is taking over issues like goods movement. Regions and localities should be included; the current practice is antidemocratic.

**Taylor** opened the discussion by asking the panelists to discuss the changing attitudes about growth in the state over time. In the 1950s through the 1970s, growth was perceived as desirable and our optimism brought about highways, universities, environmental laws, etc. At that time, we looked forward to growth and thought it would bring about equity.

At a similar Arrowhead retreat in 2000, participants were more pessimistic. There were huge unmet needs in transportation, but we didn't have the funds for proper investment. We lacked the ability to internalize growing externalities, environmental and otherwise. We had tough challenges in affordable housing. Finally, we lacked the leadership to take the dramatic actions needed to meet these challenges.

Seven years later, we have made some incremental improvements. We have made transportation investments, though not nearly at the level we said was needed. We have seen some rise in housing output. Yet congestion has still grown worse and house prices have risen. We know we have to deal with these in the coming years. We have more optimism now than the group did seven years ago, but do we have the leadership to take these problems on with the bold types of initiatives we did in the past? How much of our problem is a leadership issue? What is the role for leadership here?

**Ikhmeta** said that the things we talked about in 2000 are coming true. Leadership is an issue. Even if we had the funds, we have no institution that can solve our current problems. We are too fragmented. SCAG and the MPOs have no implementation power, there are a few county transportation commissions, and the local cities fiercely guard their prerogatives. Localism may be important in the American political system, but without the right mechanisms in place, without the right institutions in the right place, without the right powers and the right money, we cannot do the right thing. The right institutional framework must be in place soon, and that will require leaders.

**Sollenberger** feels she is seeing something different in California than she did seven years ago. We are seeing that places can take things in their own hands and make for a better future. SACOG is leading the way on this, extending into different issues (like goods movement).

Our state is so complex and fragmented it is impossible to deal with its problems at the state scale. The crisis is quietly building, but there is change in the collaboration and discussion that is going on. A lot of the regions have a blueprint, but they may not be alternate-scenario based. **Sollenberger** challenged the assertion that all the logistic jobs have to go to the cheap land warehousing in the Inland Empire solely for job creation. At the state level, yes, Los Angeles needs more housing and the Inland Empire needs more jobs, but what we are doing is reacting to a wave that has been coming in a regressive model. Is there a different possible future where we

would still create the jobs that we need and get better environmental, economic and equity results? Do we really need to absorb all of those containers and all of that traffic? Coming up with alternatives is an opportunity.

Another opportunity is the use of performance measures and better data, like the *California Regional Progress Report*, to bring issues into focus, foster competition and create dialog between regions. Better information and tools give grounds for optimism.

**Cabaldon** said that in the good old days it worked for the good old boys, but we've discovered that what we thought was effective, isn't. It's not a decision-making model that works over the long run. There's a lot of complexity and dynamism in the democratic decision-making process today; it's not possible for four guys to get in a car in 1960 and develop the architecture of the state university system. This is not a model that's desirable today.

**Cabaldon** says he's not pessimistic. There are a number of things taking place that have potential payoffs. Among them are the bond issue and the SACOG blueprint. The latter happened because planners at SACOG showed leadership, working with the elected officials and bringing them along in the process.

**Mark Nuaimi**, the Mayor of Fontana, had a number of observations about the proceedings. He commented that he has seen housing precede jobs in his area, not vice versa. Also, he feels that if the group were polled, we wouldn't agree on what the problem is. Some would say the problem is that we're growing and we need to address the challenges of congestion, pollution and employment, while others would say growth is the problem. Also, there has been no discussion at the forum about state unions, who are intransigent in blocking innovative projects like design-builds and public-private partnerships. The paranoia about eminent domain wasn't addressed; the public's fear about its potential abuse is unwarranted. Finally, we must consider the impacts of CEQA and NEPA, which delay important projects for long periods and ultimately don't even change their design.

**Mark Brucker**, a consultant, said he's thrilled that the state is talking about performance standards. He has found many state projects don't come close to adhering to these standards. In Silicon Valley, transit has been hurt by focusing too heavily on rail.

He also agrees that we need to focus on pricing. USDOT is now pushing this. Will the state do more?

**Sollenberger** said that the blueprint grants can enhance public engagement, so that the public can decide on the ultimate future more effectively. The blueprint can get the public involved early and speed up projects. Caltrans is not setting the performance measures; the regions themselves are coming up with them and monitoring them.

As for congestion pricing, it is being aggressively explored around the state. A top-down approach won't work; we need regional context specificity. It is part of the solution, though not the only solution.

**James Rojas** of the Latino Urban Forum complained that, while growth is very physical, planners aren't trained in the physical realm. In Los Angeles, they are dealing with archaic 1940s-era zoning ordinances. Planners don't understand about accommodating growth in cities,

therefore when growth goes into cities it is very chaotic and as a result, nobody wants growth. Universities should start teaching planners good urban form, so that when things are built they will really fit into the communities. We need to understand physical form and place-making, because this is the only control we have as planners.

**Cabaldon** said that more and more, all roads lead back to the state. For example, zoning is a local choice, but RHNA restricts reducing multifamily zoning. There are so many state requirements, whether it's water or housing, and they are disconnected from each other. Planners are straitjacketed by the state.

**Linda Budge**, of Rancho Cordova, agreed that we need more involvement from local elected officials. The decision-making process must evolve ground up and involve people at all levels, from local to county to region to state. Change must start at the local level. Strong neighborhoods must be grown. People must take responsibility for their own actions. This is happening with global warming – the public is getting engaged. This must happen in planning.

The state departments must cooperate with this in positive ways. Also, jurisdictions must work with local universities and *vice versa*, to take the good ideas universities generate out to the local elected officials and the private sector.

**Sollenberger** responded to the two previous speakers by saying that in the performance reports there are the three “Ps”: Place, Prosperity and People. These goals tie in with the three “Es”.

**John Kaliski** of Cambridge Systematics pointed out that Florida, where he's been working, has many of the same problems in terms of rapid growth and states trying to create regional problem solving. Central Florida wants to change its growth patterns, but localities say they can't do it with the current state structure. His questions: Are there good models in place for implementing blueprints at the state and local government levels? and How can we get state agencies to coordinate?

**Sollenberger** says that along with the regional Blueprint grants, the state holds events which try to get state agencies, nonprofits, and builders engaged in dialog. Everybody's learning from each other through these events. The state is asking how it can assist with local initiatives. The state is looking at how it can learn from the regions so that it can better harmonize its policies.

Also, Florida has an excellent data collection system, which California currently is trying to catch up to.

**Ikhata** said the Blueprint process has worked well in Southern California. The issue remains as to how the housing needs assessment must be done under RHNA. In the six county SCAG region, mean housing prices vary widely, and all the affordable housing ends up getting concentrated in the Inland Empire. Elected officials are suspicious because one region gets hurt when another is protected. Also, the Blueprint process is a voluntary program, and cities need incentives to participate.

**Cabaldon** said the Blueprint is most important for the way it has changed decision-making and culture, more than its actual outcomes on the ground. Seeing that it has worked well, the state is now tempted to put the process into law. But this is dangerous because the web of trust and vision the process has created can be hurt by forced compliance with state mandates and

regulations. State involvement is still important for coordination though; we need the right level of participation.

A participant asked about the air quality management plan. **Ikhmeta** said we currently have a plan with many black boxes. We have ambitious targets, but little explanation for how to achieve them. The Blueprint process may be good for air, but we should not think that all transportation investments will be good for air quality -- some will even actually hurt it. Technology is where we're going to improve air quality. Capacity increases may be necessary, but we should not pretend that they are the solution for air quality problems.

**Cabaldon** feels the Blueprint should not be made an enforceable document – that would turn it into something like RHNA. Only the policy outcomes should be enforceable.

**Sollenberger** stated that she thinks regions may go above and beyond what the state mandates if they try. We need to look at the cross-impacts of all of our decisions – how they affect each area of planning. Also, she agreed that making the Blueprints mandatory would harm the trust-building aspect of the exercise.

**Ikhmeta**, however, pointed out that we need drastic action on air quality; we can't wait for voluntary action to work if people are dying from pollution. **Cabaldon**, however, said he felt we must determine the correct level of government at which regulation should be mandated. It is good to adopt drop-dead targets, but the path to get there should not necessarily be highly elaborated by the state. The local level is where the innovation happens.

**Micahel Fitts** from the Endangered Habitats League commented that we need to find some way to monitor implementation at the local levels. Also, what's facing us? It's a funding crisis. To price things right, we'll have to get people to pay for what they currently get for free, and that will be tough. A VMT fee and higher gas taxes are needed. Unlike in the past, these things are finally being discussed by policymakers. But can they be sold to the public at the local level?

**Ikhmeta** said that in order to implement pricing, elected officials will have to stand up.

**Mark Brucker**, a consultant, observed that California is more energy-efficient because of state action – this can be tremendously effective. Also, in the early 1970s we said we'd have clean air, but the air is still dirty despite lots of progress. This shows that simply holding jurisdictions to a standard without specifying the steps to be taken is not always effective. We need more performance standards on transportation.

**Cabaldon** says that the above assumes the CARB or EPA, for example, know what steps need to be done to achieve results. Because a system is not working doesn't necessarily mean that what is needed is interference from a higher level of government.

**Amber Crabbe** from the San Francisco County Transportation Authority reports she often finds difficulty in funding good projects. She said that not only do we have to get people to pay for things that they haven't paid for in the past, we need to get people to be willing to give up things they've seen as entitlements in the past. Otherwise, we are only getting band-aids (like the bond measure) and pushing off crises into the future. We may be doing more harm than good by making the public think we're solving the problems.



**Ikhata** agrees that band-aids won't work. We must raise enough money and must start right now. Bonds only push things off.

The final comment came from **Ariel Bierbaum** from the Center for Cities and Schools. She felt that at least we're asking the right questions, considering linkages. For example, we are right to ask about education; to pay off the bonds we must educate future generations. We must ask questions about school facilities, curriculum, and pedagogy, as well as consider how schools fit in with land use planning.

**Taylor** thanked the panel and brought the symposium to a close.

## Conclusion

The 17<sup>th</sup> annual *Transportation, Land Use and Environment Connection* symposium examined California's future growth and its implications. Most projections are for significant increases in population and employment over the next several decades. This year's symposium considered the implications of these expected changes for transportation, the environment, housing, water, electricity, and land development.

California will continue to undergo demographic shifts in the coming years, as the population rises, the number of immigrants expands and older generations retire. This has sobering implications for the tax base and will require the expansion of many services. Moreover, shifting patterns of global trade promise to expand California's logistics industry, which will cause environmental and transportation difficulties even as it creates jobs.

California's resources and infrastructure are already under strain, and even more intense pressure will be placed on them in the future. Meeting future demand for services like water and electricity will in many cases require heavy spending and may cause harmful environmental byproducts. The transportation system is already overburdened, resulting in huge amounts of lost time and severe emissions problems; this problem threatens to grow more severe as immigrant populations graduate to private autos.

Maintaining housing affordability is crucial given the rise in the low-income population forecast for the coming years. New construction will be required in order to offer decent housing choices to middle and low income families, but the demand for fresh land for development will endanger open space and habitat, as well as cause problems like storm water runoff. A difficult balance between meeting the demand for affordable homes and ensuring healthy and diverse communities will have to be managed, and this involves difficult political coordination.

Although California faces tough challenges in the upcoming years, speakers and participants of the symposium engaged in useful dialogue and offered insightful solutions. Ensuring good education for current and future generations will become increasingly vital in order to compete in the shifting global economy. Housing supply can be increased through infill, land use incentives, and judicious regulatory reform; green building offers solutions to not only meet rising housing demand but to curb harmful greenhouse gas emissions and resource demands. Renewable energy has the potential to meet much of California's energy demand, provided intermittency management and more appropriate real-time pricing can be achieved. Water markets have the potential to allocate this precious resource more efficiently.

Spearheading solutions to manage these changes must come from strong leadership, and better systems for regional planning must be developed. The more California can be efficient, the more it can be competitive with the world.

In summary, California's projected growth could prove a liability, as it will place pressure on many scarce resources and has the potential to substantially increase already harmful levels of pollution. But California's projected growth could also be a benefit if dealt with strategically; the state's vibrant urban areas could continue to be havens for individuals of all ages, educational backgrounds and ethnicities. Growth and diversity should be embraced, provided that we can ensure that California's communities are simultaneously prosperous and healthy places to live.