

5-1-2010

Meeting the Challenges of Urban Transportation, MTI Report-10-2969

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MEETING THE CHALLENGES OF URBAN TRANSPORTATION



MTI Report S-09-07



MINETA TRANSPORTATION INSTITUTE

The Norman Y. Mineta International Institute for Surface Transportation Policy Studies (MTI) was established by Congress as part of the Intermodal Surface Transportation Efficiency Act of 1991. Reauthorized in 1998, MTI was selected by the U.S. Department of Transportation through a competitive process in 2002 as a national “Center of Excellence.” The Institute is funded by Congress through the United States Department of Transportation’s Research and Innovative Technology Administration, the California Legislature through the Department of Transportation (Caltrans), and by private grants and donations.

The Institute receives oversight from an internationally respected Board of Trustees whose members represent all major surface transportation modes. MTI’s focus on policy and management resulted from a Board assessment of the industry’s unmet needs and led directly to the choice of the San José State University College of Business as the Institute’s home. The Board provides policy direction, assists with needs assessment, and connects the Institute and its programs with the international transportation community.

MTI’s transportation policy work is centered on three primary responsibilities:

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MTI works to provide policy-oriented research for all levels of government and the private sector to foster the development of optimum surface transportation systems. Research areas include: transportation security; planning and policy development; interrelationships among transportation, land use, and the environment; transportation finance; and collaborative labor-management relations. Certified Research Associates conduct the research. Certification requires an advanced degree, generally a Ph.D., a record of academic publications, and professional references. Research projects culminate in a peer-reviewed publication, available both in hardcopy and on TransWeb, the MTI website (<http://transweb.sjsu.edu>).

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The educational goal of the Institute is to provide graduate-level education to students seeking a career in the development and operation of surface transportation programs. MTI, through San José State University, offers an AACSB-accredited Master of Science in Transportation Management and a graduate Certificate in Transportation Management that serve to prepare the nation’s transportation managers for the 21st century. The master’s degree is the highest conferred by the California State University system. With the active assistance of the California Department

of Transportation, MTI delivers its classes over a state-of-the-art videoconference network throughout the state of California and via webcasting beyond, allowing working transportation professionals to pursue an advanced degree regardless of their location. To meet the needs of employers seeking a diverse workforce, MTI’s education program promotes enrollment to under-represented groups.

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MTI promotes the availability of completed research to professional organizations and journals and works to integrate the research findings into the graduate education program. In addition to publishing the studies, the Institute also sponsors symposia to disseminate research results to transportation professionals and encourages Research Associates to present their findings at conferences. The World in Motion, MTI’s quarterly newsletter, covers innovation in the Institute’s research and education programs. MTI’s extensive collection of transportation-related publications is integrated into San José State University’s world-class Martin Luther King, Jr. Library.

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MEETING THE CHALLENGES OF URBAN TRANSPORTATION

May 2010

a publication of the
Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219
Created by Congress in 1991

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. CA-MTI-10-2969	2. Government Accession No.	3. Recipients Catalog No.	
4. Title and Subtitle Meeting the Challenges of Urban Transportation		5. Report Date May 2010	
		6. Performing Organization Code	
7. Authors MTI		8. Performing Organization Report No. MTI Report 09-07	
9. Performing Organization Name and Address Mineta Transportation Institute College of Business San José State University San Jose, CA 95192-0219		10. Work Unit No.	
		11. Contract or Grant No. 2008-ST-061-TS0004	
12. Sponsoring Agency Name and Address <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> California Department of Transportation Sacramento, CA 94273-0001 </div> <div style="width: 45%;"> U.S. Department of Transportation Office of Research—MS42 Research & Special Programs Administration P.O. Box 942873 400 7th Street, SW Washington DC 20590-0001 </div> </div>		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code	
15. Supplementary Notes			
16. Abstract <p>This e-book is the edited proceedings of a SuperSession held during the American Society of Public Administration's (ASPA) 2010 conference, "Invigorating Public Service for Change," which was held in San José, CA, on April 9–13. The "Meeting the Challenges of Urban Transportation" panel included Mineta Transportation Institute (MTI) Executive Director Rod Diridon, Metropolitan Transportation Commission (MTC) CEO Steve Heminger, and Silicon Valley Leadership Group President and CEO Carl Guardino. The presentation was moderated by the Honorable Norman Y. Mineta, former Secretary of Transportation and founder of MTI. Topics included a look at the MTC's regional transportation plans, planned expansion of the Bay Area Rapid Transit System (BART), and an overview of the proposed California high-speed rail system. Presentations were followed by a question and answer session.</p>			
17. Key Words Finance; High speed trains; Transportation planning; Transportation policy; Urban transportation		18. Distribution Statement No restrictions. This document is available to the public through The National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classifi. (of this page) Unclassified	21. No. of Pages 48	22. Price \$15.00

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ACKNOWLEDGMENTS

The Mineta Transportation Institute (MTI) is proud to have been given the opportunity to participate in American Society for Public Administration's (ASPA) annual conference, which was held in San José, CA on April 9 through 13, 2010. MTI's contribution to the conference included sponsorship of a SuperSession titled "Meeting the Challenges of Urban Transportation." This e-book is an edited transcript of that presentation.

MTI thanks the conference's major sponsors for bringing this important event to our hometown and making it possible to share the message regarding transportation challenges facing our cities in the early 21st century. Those sponsors include: the Peter G. Peterson Foundation; Florida International University; Arizona State University's School of Public Affairs; Rutgers University-Newark School of Public Affairs & Administration; Texas A & M University's Bush School of Government and Public Service; University of San Francisco's School of Business and Professional Studies; Wiley-Blackwell, publisher of the *Public Administration Review*; and the University of Baltimore.

Thanks to Steven Heminger, CEO of the Metropolitan Transportation Commission (MTC) and to Carl Guardino, president and CEO of the Silicon Valley Leadership Group, for sharing the podium with MTI's Executive Director Rod Diridon. The Honorable Norman Y. Mineta is to be commended for his moderating abilities and thanked for his contributions during the question and answer session.

Also in attendance at the conference were MTI's Director of Communications and Special Projects Donna Maurillo and National Transportation Security Center of Excellence (NYSCOE) Deputy Director Dr. Frances Edwards.

For their work in producing this report, thanks to MTI staff, including Director of Communications and Special Projects Donna Maurillo, Student Publications Assistant Sahil Rahimi and Student Webmaster and Technical Assistant Ruchi Arya. Transcription services were provided by Meg Dastrup of Word Power Plus, with editing and publication production services by Catherine Frazier.

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FOREWORD

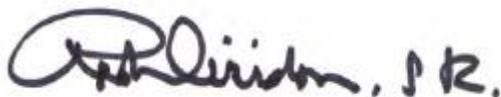
I am pleased to present this edited transcript from the American Society for Public Administration's (ASPA) conference SuperSession titled "Meeting the Challenges of Urban Transportation." This presentation was part of the proceedings of ASPA's annual conference, which was held in San José, CA on April 9–13, 2010. The conference theme was "Invigorating Public Service for Change"—no doubt an important and timely subject in the first decade of the 21st century. I was honored to share the podium for a panel discussion alongside Steve Heminger, CEO of the Metropolitan Transportation Commission (MTC) and Carl Guardino, president and CEO of the Silicon Valley Leadership Group. Our presentation was ably moderated by my dear friend and colleague, the Honorable Norman Y. Mineta.

ASPA's mission is to advocate for greater effectiveness in government. MTI is honored to have been able to share in ASPA's mission which dovetails our own mission of delivering the most up-to-date transportation policy research and leadership. To learn more about ASPA, please visit www.aspanet.org.

During our presentation, Mr. Heminger offered an overview of the MTC's recently adopted San Francisco Bay Area's regional transportation plan titled Transportation 2035. Mr. Guardino discussed the planned expansion of Bay Area Rapid Transit (BART) trains into San José and the Silicon Valley, and I shared a quick overview of California's planned high-speed rail system. After the presentations, session attendees from across the United States and Canada asked questions regarding transportation financing, transit-oriented development, and new rail technologies.

I want to thank ASPA for inviting MTI to participate in this important annual conference and for choosing the City of San José to host. I also want to thank MTI's Director of Communications Donna Maurillo for blogging from the conference. Thank you to our own Dr. Frances Edwards, deputy director, National Transportation Security Center of Excellence (NYSCOE) and San José State University's Frannie Long for being instrumental in bringing this conference to our area and for so ably assisting in its organization.

Sincerely,



Rod Diridon, Sr.
Executive Director, Mineta Transportation Institute

EXECUTIVE SUMMARY

This e-book is the edited proceedings of a SuperSession held during the American Society of Public Administration's (ASPA) 2010 conference, "Invigorating Public Service for Change," which was held in San José, CA, on April 9–13. The "Meeting the Challenges of Urban Transportation" panel included Mineta Transportation Institute (MTI) Executive Director Rod Diridon, Metropolitan Transportation Commission (MTC) CEO Steve Heminger, and Silicon Valley Leadership Group President and CEO Carl Guardino. The presentation was moderated by the Honorable Norman Y. Mineta, former secretary of transportation and founder of MTI.

Secretary Mineta introduced each panelist, each of whom spoke about transportation challenges facing the San Francisco Bay Area—challenges which are not unique to most municipal areas across the United States.

Leading off was the CEO of the Metropolitan Transportation Commission, Steve Heminger, who discussed the recently adopted regional transportation plan titled Transportation 2035. This plan addresses numerous specific transportation and transit needs facing the Bay Area, including the need to repair and rehabilitate the existing infrastructure, sustainability requirements for the transit systems in place, plans to reduce transit's effect on the environment, and how, what and where to expand and add service to promote the region's economic growth.

MTI's Executive Director Rod Diridon was up next, and he spoke about the proposed high-speed rail system for California. High-speed rail is already in place in Europe and Asia, and there are plans for a system in Mexico. His presentation included an overview of those systems already providing high-speed rail service in France, Germany, Spain, Italy, Japan, Taiwan and China, and the proposed route for the California system.

Silicon Valley Leadership Group President and CEO Carl Guardino talked about the 16.1-mile Bay Area Rapid Transit (BART) train expansion from Alameda County into downtown San José. The six new stations will ensure that nine out of ten residents in Santa Clara County will live within three miles of either a BART, Caltrain, or light rail station.

A question and answer period followed the formal presentations, with questions offered by public administrators from throughout the United States and Canada and answers and discussion provided by Secretary Mineta and the panelists.

INTRODUCTIONS

ASPA HOST

We are doing this portion of the program for SuperSessions, which are addressing the bigger issues facing public managers and public administrators today. This is a session on transportation. We couldn't have asked for a better group of people to join us and focus on those people who have been on the firing line at the highest levels of government, at all levels of government. I'm just personally pleased that we were able, with Dr. Frances Edwards' help, and others, to really bring this to you.

I want to start by recognizing our panel chair, Norm Mineta, who, I think, all of us know. In addition to being the panel chair, Norm is the honorary conference chair for our conference in San José this year. I just want to thank Norm for helping us with this conference, and I also want to thank Norm for building San José to be the wonderful city it is today. As someone said, "It's the largest city that people don't know about," and now that all of us are here, and see the wonderful development that's gone on, it's just a great model for a well-planned urban area. We're really pleased to be here, and I'm really pleased to introduce Norm, and I'm going to present him with a plaque. Whenever you say, "He needs no introduction," then you start making an introduction. But—just the highlights.

He's served as the mayor of this great city, a member of Congress for a number of years, chairman of the key committees on transportation in the House of Representatives, and then, I think, two tours in the executive branch, right? And the most-recent and longest-lasting was the Secretary of Transportation for eight years under the—

NORMAN MINETA

Six and a half!

ASPA HOST

Six-and-a-half under the Bush administration. Norm shuttles back and forth between Washington and San José. He's a model of what all of us look to for leadership in the public sector, and we are just so pleased to be able to recognize Norm Mineta with this plaque, thanking him for his dedication to public service.

NORMAN MINETA

Thank you very much, and thanks to all of you for taking time from your own very busy schedules to be part of this annual meeting of the American Society *for* Public Administration. I've had the privilege over the years to be closely associated with public administrators at all levels, whether it's here at the local level, county, state, federal, and there is no

question that we are very fortunate to have a group of people who are dedicated in terms of their professionalism and who are willing to serve in a public-service capacity across the country.



Figure 1 The Honorable Norman Y. Mineta During Introductions

I started out as an insurance broker here in San José, and, being a community busybody, got into community activities, paired up with Rod Diridon, who was on the city council in Santa Clara when I was on the city council in San José. He then went on to the county commission, the county board of supervisors. I became mayor, and our paths have been pretty much parallel in terms of what we've done at the local level.

And so what you see here, in terms of a community that has grown, and when I was the mayor from '70 to '74, we grew from roughly 330,000 in population to 580,000. The question is, how do you grow gracefully, and make sure you have playgrounds, the regional parks, the fire stations? How to go from a secondary sewage treatment plant to tertiary. And we were fortunate, in 1972, to get a \$370 million bond issue passed on a 67 percent vote that allowed us to get the capital to be able to build the city and lay the structure for

something that we knew eventually would be a million in population.

Today, San José is 1,100,000 [people]. It's now the tenth-largest city in the United States, and yet it still has a very small-town flavor about it. And I think that's the beauty of San José, that it *is* a high-tech area in the fact that it's known as Silicon Valley, and yet, with its growth, still retains its flavor as "Small Town, USA."

Today we're going to be discussing something that all of us on the panel, and all of you, recognize as being very important to our own communities, and that's transportation. And as much as I've been involved in transportation, from being a member of the city council, and even as a community busybody, I've always thought of transportation as being important—as a foundation, not only in terms of what a community is like, but from an economic perspective, as well.

Having been secretary of commerce under President Clinton, and secretary of transportation under President Bush, and trying to be part of that drumbeat, trying to get that message out there about why the importance of transportation. It really fell on deaf ears. And until a tragedy occurs, whether it's an earthquake, or the bridge going down on I-95 West in Minneapolis, or [Hurricane] Katrina, or the tragedy of September 11th, no one takes notice about the fact that they now don't have transportation services readily available to them.

And yet the shelf life of that interest in transportation is maybe about a year and a half or two years. When the I-95 bridge went down in Minneapolis, Jim Oberstar said, "We need a 5-cent tax—a gasoline tax, in order to build bridges." He said that on a Friday. By Monday, he was already eating his words. *USA Today* had a survey, I think, maybe on the one-year anniversary of the bridge collapse, that asked, "Are you supportive of a 5-cent gasoline tax?" And everyone said, "No, not at all." I think it had maybe something like a 28 percent favorable rating for a 5-cent increase.

So, it's one of these things where the subject matter goes up as an interest matter, and then it just dies away when people get back into their habits, and it's really a shame. And yet this panel today has probably three of the foremost advocates of transportation across the country. You remember the transportation commission that was established, and our first speaker was a member of that panel, Steve Heminger.

Steve is the executive director of the Metropolitan Transportation Commission here in the San Francisco Bay Area. His predecessor was an individual by the name of Larry Dahms, and when I authored ISTEA (Intermodal Surface Transportation Efficiency Act) in 1991, and put in a requirement for regional planning organizations, I really used MTC as the model for what I wanted to see happening across the country in terms of a cog, or cogs; and I think, over the years, because what I wanted to do is to get that control away from federal and state down more into the localities, and so, through the regional planning bodies, we incorporated that into ISTEA.

Rod Diridon is the executive director of the Mineta Transportation Institute at San José State University. Again, this started out as a group to train people, not on how to be managers, but to deal with the public policy issues of transit. They succeeded in that area, and they've gone on to become the centers of excellence for security, for other areas, now going into high-speed rail. We're going to be able to benefit from Rod's experience.

And then our third panelist is a fellow by the name of Carl Guardino. Carl is the president and CEO of the Silicon Valley Leadership Group, and it has over 400 to 500 of the CEOs of the high-tech firms right here in Silicon Valley. What he is able to do is to coalesce that group to be supportive of public policy issues, whether it's in the transportation arena, tax (pauses)—maybe even stadiums, which becomes very controversial. But, in any event, wherever things good are going on here in Silicon Valley, Carl and the Silicon Valley Leadership Group is right on the point, leading the way. And so, with this excellent panel, we'll hear from each of them for 20 minutes or so, and then we'll open it up to Q&A from everybody.

ASPA HOST

I want to make one more announcement that I regret I didn't make, and that is to thank Rod Diridon and the Mineta Transportation Institute for supporting this conference. I want to make sure that we know that he and his contribution were instrumental for us being able to hold the wonderful reception we held at the San José Tech Museum. We've heard that our members were just really excited about that opportunity, and also the reception. So, Rod, I want to thank you very much for helping us out, and Mr. Mineta, as well. Thank you so much.

NORMAN MINETA

Well, the thanks really go to you and to Frannie Moore here at San José State, for the tremendous work in putting together all the details of what goes into a conference when you have, 700, 800 people assembling together. It just doesn't happen. It's got to be someone putting it together. So, Frannie, thank you very much for your effort.

ASPA HOST

Thank you. I appreciate it.

NORMAN MINETA

At this point, let me turn it over to our first speaker, Steve Heminger. Steve?

PANEL PRESENTATIONS

STEVE HEMINGER

Thank you, Norm. It is a real honor to be a member of this panel, three of my best friends in the field, three real leaders, and as you saw, we just had some just-in-time delivery on the PowerPoint, so I hope this holds together.

I'm here to talk about the regional perspective; the region here is called the San Francisco Bay Area, but that's really because the bay is named San Francisco Bay. From an economic and a transportation point of view, this is increasingly becoming the San José Bay Area, because the center of gravity has moved south in the region. A lot of the challenges that we face, I think, are typified by the community where you're having your conference today.



Figure 2 Metropolitan Transportation Commission CEO Steve Heminger

What I'd like to do is spin through some slides from our most recently adopted transportation plan for the region, called Transportation 2035, just to give you a sense of the challenges that we are facing. I think these are not unique to our region. Maybe accentuated in some ways, but what I'd like to draw for you is a picture of the basic challenge we face as a

region, as a metropolitan area. We are coping with aging pains and growing pains at the same time. For those of you of a certain age in the room, you'll probably know what I mean, as far as that goes!

The aging pains are caused by the fact that a lot of the stuff that we've built and get around on in the Bay Area is not so young any more. The state highway system was largely built in the '50s and '60s, and it's now showing its age. We're spending billions of dollars retrofitting our bridges for earthquakes. Even the BART system, which we're used to thinking of as sort of a new-fangled thing, is 40, 50 years old now in some segments, and is requiring major rehabilitation. So, as you can see on the slide, looking forward, we forecast that we'll be spending 80 percent of all the money we're going to see from any source just to take care of the system we've already built.

Even after we do that, we've got enormous unfunded shortfalls for transit capital, for local road maintenance, for state highway repair. We can literally spend every dime we see coming over the next two-and-a-half decades on maintaining the system, and still not spend enough. We're not going to do that because we do have an obligation to deal with the other half of the challenge, with the growing pains. I think, that is a sense of the challenge that faces us. Norm was our first chairman on the national commission that I served on—(we) are so frustrated at the inaction at the federal level, because the needs are so great.

Part of the aging pain that we confront in our region, though, is one very particular to the fact that we have a lot of transit service in the Bay Area. We are blessed by that. We are not so blessed by the institutional arrangement of that transit service, which is composed of some two dozen operators.

We actually had to delay adoption of our plan for a couple of months while we coped with that the fact that the state was busy shoveling money out of public transit into the general fund to deal with the budget shortfall in California. You can see that what they ended up doing, and what the economy ended up doing, because transit relies so much on sales tax revenue—significantly worsening the shortfalls that many of our systems face. You'll see, in fact, one of the worst in terms of a percentage of its budget is the Valley Transportation Authority right here in Silicon Valley. And the simple fact is, the Bay Area will not be a good place to live without a vibrant—in fact, without a growing—public transit network. We face very considerable challenges just taking care of the network that we've already built.

As a result, we have launched something we call the Transit Sustainability Project, because, unfortunately, we have a system right now that is not sustainable. A lot of it has to do with the very peculiar institutional arrangement we have in the region, but quite a bit of it [lack of sustainability] is faced by transit operators around the country who face the simple problem that their labor costs, primarily, are growing faster than their operating revenue, and that's not something you can sustain over the long term. So we are, I hope, finally going to confront in this region a number of authority challenges that we have been wrestling with, frankly, ever since Rod was a member and a chairman of our commission,

one of them being, in an era of shortage, we still have places where we have overlapping service. Can we continue to afford that? Can we continue to afford two dozen operators, when, very often, the efforts to try to coordinate that service frustrates riders and repels them instead of [attracting] them into the system?

Can we continue to accommodate so many inconsistent policies? One of my favorites is that you can be a youth on Muni, but you're a grownup on BART, and you should be one or the other, it seems to me, not both at the same time.

Though we squeeze more productivity out of our public transit networks, we will need additional revenue, and I think, very importantly, we will need more reliable and stable sources of revenue. When we have a boom-and-bust cycle, as we do in California, where, when the economy is good, sales tax revenue rises, and the state, generally speaking, will carry through on its obligations, and then transit operators beef up to take care of that reality. And then the bust comes, and the sales tax revenue falls, and the state starts shoveling money away from public transit. We've got a system that is just going to whip-saw us to death, and we simply need to find a way to secure more reliable sources of revenue, revenues that are, to some extent, counter-cyclical, so that we don't, during every recession, cut back service substantially, and then have to rev it back up later.

I want to talk also about the growing pains, because we *are* a growing region. We are not, frankly, growing as fast as some other places in California. The real growth challenge in our state is in the Central Valley, and I think Rod may talk a little bit about that in terms of the proposed high-speed rail network, and how it could cope with that growth. But we are still growing here, and we're going to have nearly two million more people by the time the horizon line of our plan ends, so going from seven to nine million.

Increasingly, those folks are not living here, though. In terms of the jobs that we forecast are growing, we have the unfortunate habit in the Bay Area of building jobs, but not houses; what that means is more and more people living on the periphery of the region, over the mountain passes in the Central Valley and the Santa Cruz Valley and the Sacramento Valley, and commuting in. Believe me, that is a ruinous growth pattern to try to serve with public transit. You will basically spend yourself bankrupt trying to do so.

So what are we doing about this growth? Well, one thing we're doing, given the scarcity of revenue, is again, like in the transit side, we are looking to squeeze more productivity out of the system we've already built, and I don't think any credible observer can make the case that our freeway system here in the Bay Area or elsewhere is operating at peak efficiency.

One very simple thing we could do, that we *are* going to do, is something we call the Freeway Performance Initiative, which is essentially copying the idea that Silicon Valley has done so well, and putting meters on all the ramps, at all the freeway entrances in the Bay Area, getting as many tow trucks as we need. About half the congestion we face in

the peak hours in this region is not related to capacity. It's accidents, it's incidents, it's the kind of stuff that you can deal with, with fairly low-cost, quick-hitting strategies, but you need to do them, instead of every time you find a bit of congestion you say, "Well, let's build something to fix it." Well, there's a lot of congestion you don't need to build anything to fix.

Another thing we are doing in terms of trying to squeeze more efficiency out of our system is taking advantage of a very extensive high-occupancy vehicle lane network in our region, and, where we do have capacity, offering it to single-occupant commuters for a charge. The idea, [which] we call a regional express lane, or high-occupancy toll-lane network, is a way, we think, of confronting a couple of challenges at the same time. One challenge is we don't have a lot of room to build new lanes, so we need to take advantage of the lanes we have; and the second, we don't have a lot of new public money coming into the system, and the basic idea here is to rely on voluntary toll contributions. If someone wants to pay for a faster trip, and a lot of people in the Bay Area are what I would call "Type A" commuters, they absolutely, positively have to get there. I think we have a lot of people who would be willing to pay, and why not take their money, and invest it in building out this network, and running transit on it, to boot?

We also need to deal, though, with this growth challenge, because, as long as we continue to create jobs, but not houses to go with them, we're going to be sending more and more people out to the Central Valley for a quality of life that they cannot enjoy, and ultimately, we're going to harm the productivity of the businesses that Carl represents, because they don't want their workers spending two hours getting into the office every morning. So this challenge, I think, you can say in fairly straightforward terms: it's to build more housing in our region, to build the housing closer to where the jobs are, so that we *don't* have those long commutes, so that we *don't* have that kind of air pollution generated over that length of commute.

We have several programs that we've put together, focusing on bike transportation, focusing on low income. We especially need affordable housing in our region, not just housing *per se*, and something we call the Transportation for Livable Communities program, which is a way of revitalizing a lot of [the] wonderful infrastructure we have in our region that can match up to where the jobs are.

We also need to expand the network we have, and the basic decision we've made in the Bay Area is that we're going to expand primarily with public transit. I mentioned 80 percent of our money going to maintenance. Most of what's left is going to public transit expansion, and probably the flagship project in that program, as you can see here, that is close to \$20 billion in cost, is extending the BART system to the largest city in Northern California, which is the one you're sitting in today.

I'll let Rod talk a little bit more about high-speed rail, but I *do* think that this challenge of building a statewide high-speed rail network also matches the challenge we have in the Bay Area, which is that, in *my* view, at least, it doesn't make sense to build that network,

and continue to grow in the way we have. We need to build that network around a different pattern of growth, especially in the Central Valley, and I think that represents one of the key challenges facing us with the high-speed rail network. Another particular challenge here in the Bay Area is that the alignment for the network is going through the Caltrain alignment, which has been in service for passenger trains for over a hundred years, but it traverses a lot of back yards, and a lot of communities, and that will be a challenge, trying to knit that together. The same is true, to maybe a lesser extent, in the L.A.–Anaheim part of the corridor, so it's a challenge we will face up and down California.

So what does all this stuff do? We have done some evaluation of the various strategies that we are considering, and that we have adopted in our plan. As you can see in this slide, we think we can really make a dent in congestion levels, especially with the freeway operation strategy that I mentioned to you just a few minutes ago, making a difference for the next big challenge we face, which is climate change, and reducing carbon. Reducing carbon dioxide, in particular, is going to be a lot tougher.

You can see at the top of this chart the trend which is that those emissions get worse as we grow. You can see what CARB is planning to do, the Air Resources Board in Sacramento, which is significantly reduce those emissions, largely through technology: cleaner cars, cleaner fuel.

You can see what our plan does, which is very little, and that's primarily because of the fact that most of the money we're spending is on maintenance, and, you know, filling potholes doesn't make CO₂ worse, but it doesn't make it better, either. We need to get down to here, though, in terms of the challenge we face. And the last couple of slides I'll show you will talk about that challenge: How can we close that gap?

We, in fact, have a state law in California, Senate Bill 375, which requires us now, in our next round of plans, to forecast how we will meet a target that the Air Resources Board will set later this year; and, at this point, I can't tell you we know what the answer is. We *do* know that some of the potential answers are quite striking in terms of the change from current behavior, current trends. For example, increasing the fuel efficiency of vehicles to over 50 miles a gallon, increasing the market share for zero-emission vehicles to over 50 percent, reducing vehicles miles of travel through telecommuting and other strategies very substantially. That's the order of magnitude of change that we need to confront if we're going to meet these targets.

So let me finish with the unfinished business—quite a bit of it, unfortunately. One bit is a \$40 billion shortfall just to take care of the system that our parents and grandparents built. I think that's job one, and we're a long way from having job one done.

The second one is improving productivity, and I say here "transit," but I should expand that to the whole system. In an era of scarce resources, I'll borrow one of Carl's lines. You know, "We've run out of money. Now we'll have to start thinking." We don't have enough

money to confront all of these challenges, and we will rue the day when we don't take full advantage of every single dime we have by making sure we invest it well, and making sure we squeeze as much efficiency out of the systems we've already built.

A third is, I think we have reached the point of needing very thorough-going reform in the federal program. We are not making a lot of headway on that, and we can maybe confront that in your questions later on.

And the fourth I'll leave you with, because I think it's especially resonant where you sit, is that we are going to have to continue, and, in fact, probably do more, of helping ourselves, and innovating locally, and carrying more of the load, as our state and federal governments essentially disinvest in the system. I wish it were otherwise, but I think what we've seen in this region, especially from leaders, as you see on this panel, is that they don't wait around for somebody else to solve their problems. They grab the problem by the scruff of the neck and try to solve it themselves.

And I'll leave you with, I hope, a bit of an uplifting message, since I tend to have the effect of depressing people when I talk. Breakthroughs are possible as grim as it might look. It looked pretty grim many decades ago when we looked at cigarette consumption in the United States. It looked pretty grim when we started in California on complying with a recycling mandate, and we made dramatic progress in both of those fields.

And we just didn't do it voluntarily. We did it with strong governmental action. In the case of the recycling mandate, it was a standard that was imposed; but we also did it generationally, and I think, especially in terms of the climate challenge, if we maybe are falling a little bit short, I am confident that our kids are going to do a lot better. And one good measure of that is, if you try to light up a cigarette, or throw a Coke can in the garbage, your kids will get you right there, and not let you do it, and that is what gives me hope. The younger generation, I think, understands this challenge, is motivated to solve it, and I think we need to maybe learn a little bit from them, as we cope with that and other challenges we face. Thanks very much for your attention.

NORMAN MINETA

Thank you very much, Steve. I was looking at, then I was thinking of that "greenhouse gap." From where I was seated, looking, I looked at it as "greenhouse gasp!" We're going to have now a presentation from Rod Diridon. Rod is the executive director of an institute at San José State, but his whole life has really been on grassroots education, and the issue of trying to get grassroots participation in this whole issue of transportation, and this has evolved over the years to now high-speed rail. HSR seems to be sort of the buzzword, and Rod has been on the High-Speed Rail Authority here in California for a number of years. We'll hear now from Rod, in terms of how high-speed rail will play its role in the future. Rod?

ROD DIRIDON

Thank you, Norm. It's a pleasure to be with you, always, and with the other members of this panel. These are leaders that would be sought after to speak at any international conference in the world, and we're very pleased to have them here in San José today.



Figure 3 MTI's Executive Director Rod Diridon

I'm going to talk very fast, so you're going to have to listen quickly. This slide presentation is around 58 minutes in an academic setting, so it's going to be scoped down to about 15 minutes, but I want to lead into it in terms of a couple of vignettes.

I believe! I believe that there is going to be a high-speed train system for this nation, and let me tell you why. First, we know that our president campaigned on the policy of having a high-speed rail network for the nation, and we all kind of thought that was nice, and some of us were actually on his transportation policy advisory committee. And he campaigned on it. We thought it would go like campaign promises go, but when he got elected, the stimulus bill was in the process of negotiation. He sent Rahm Emanuel over to the conference committee, including the leaders of the Senate and the House, and he reminded them that the president wanted the bill cut by \$100 billion, but he wanted to add \$10 billion for high-speed rail, and there was a level of consternation that you could hear across the nation coming out of that committee about that time, but they did it. They cut the bill, and they added \$8 billion in the stimulus package for high-speed rail, a program that

had never been funded before at the national level.

Remember, that was *after* we in California voted \$9.95 billion for high-speed rail in Proposition 1A, and we always have to thank MTC for being a strong leader in support of Prop 1A back in November of 2008. So we have Prop 1A, \$10 billion, sitting in California. We have \$8 billion sitting at the national level, and the president brought leaders of the national high-speed rail program back to the White House, and we sat down. He and the secretary of transportation, the federal railroad administrator, and the vice president came in to give us a little talk. About 30 people there, about two-thirds of them were railroad union presidents, and about 150 news media around the perimeter of the room.

The federal railroad administrator got up there, and deputy administrator Karen Rae gave a good speech. The secretary of transportation, who was an old Congress member, a seatmate of Norm's, Secretary LaHood, did a wonderful job in presenting *his* vision.

Joe Biden is an orator of the first magnitude, and he told us that he was the best rail supporter in the world because he'd ridden rail to work every morning for 32 years.

And then the president got up, and I'll tell you, you'd have been proud. I don't care who you voted for. You'd have been proud of that young man. He stood up there. He's tall. He's got kind of a quiet look about him. He doesn't intimidate you with his eyes, like some people do. He's got sleepy eyes, and he looks right into your eyes with a friendly kind of a tone, and he had the prompters set up, but he didn't look at them.

And then he proceeded to tell us that he was really concerned about the future. Global warming was something that he felt challenged his children's children to have a decent life on earth, and he felt that the single most important thing that could be done, the single most important thing that could be done to combat global warming at this time in history, was to build a high-speed train system for the nation.

And then he did something that Ted Kennedy used to do when he would give convention speeches, where he'd ask a question. Then he answered with a couple of words. He'd ask another question and answer with the same two words, and then, pretty soon, you're all ready to charge.

Well, the president looked at down at us very thoughtfully. In a quiet voice, said, "France has had a high-speed train system since 1981, and France is in compliance with the Kyoto Accords." Then he kind of stepped back, looked sad, and he said, "And we do not," meaning we do not have a high-speed train system. He said, "Spain has a high-speed train system going 220 miles per hour every day between their metropolitan centers, and they're not experiencing the gravity, the downturn, that we're experiencing." He stepped back, and he looked down, and he said, "And we do not."

He said, "Japan's had a high-speed train since 1964. They've carried billions and billions

of riders without one fatality.” He looked down, and he said, “And we do not.”

And then he stepped up to the microphone, and he stood up really tall, and, in a big voice, he said, “But we’re America, and we’re gonna build a high-speed train system. It’s gonna be the best in the world, and we’re startin’ right now!” I’ll tell you, there were papers flying. Even the old, jaded news media were cheering and shouting, and I believe we’re going to build this.

Since that time, Congress has set aside another \$2.5 billion in the second stimulus package for high-speed rail. \$2.5 billion was approved in this year’s appropriations bill, and that’s expected over the next five years. Congress Member Jim Oberstar, chair of the House Transportation and Infrastructure Committee has put \$50 billion into the reauthorization bill, the Service Transportation and Authorization Act. We’re going to build this thing.

An absolutely opposite politician here in California called us two weeks after the president’s conference into the governor’s office in Sacramento, and he told us about how important it was that we have high-speed trains, and reminded us that he’s the one who walked up and down this state and reminded the people about the jobs and the environment just before prop 1A was up, and we only passed it by 52 percent—a two percent margin. Obviously, if Governor Schwarzenegger had not been out there stumping for us, we wouldn’t have passed that bill. That’s a fact.

And then he [Governor Schwarzenegger] looked down the table at us. He’s *not* quiet. He’s not tall and dignified. He’s just big. And he looked down the table at us, and he said, in a quiet voice, “Now are we going to have a ground-breaking during my last year in office?” And the chair of our board at that time was kind of a technocrat, and so he started by saying, “Well, we have to do this study, and that study.” And the governor put his hand up. He doesn’t have a hand. He has a big shovel, though. And he put his hand up, and we thought he was just asking us to be quiet. He brought it down on the table—boom! I’m not going to do it because of the computer, but the coffee cups danced all around the big conference table. In fact, we all kind of danced around the conference room. And then again, in a very quiet voice, not normal for Arnold, said very quietly, with a smile on his face, “Now are we going to have a ground-breaking during my last year in office?”

We’re going to have a ground breaking this year for high-speed rail. If I have to buy the shovel myself, we’re going to have a ground breaking, and I can tell you where it’s going to be. There are going to be several different elements of construction begin this year for high-speed rail in California.

Two absolutely opposite politicians. Two absolutely opposite coasts. Two very different philosophies of life. Two of the most charismatic political leaders in the world are going to build high-speed rail, and if we don’t support them, we’re nuts. It’s going to happen. And you have to believe. You have to take it back to where you’re going, and believe, ‘cause it’s going to happen.

Now let's talk about *how* it's going to happen. I'm going to go through this really quickly, so if you want to ask questions, please do so here.

This is what we're telling the president to go out with in the world, and negotiate a climate change treaty. This is a survey done by the University of Maryland. It was done by the United Nations. It was a scientific and reliable survey done in the countries of the world. It ranks those countries in terms of the people's response to, "How high a priority should addressing climate change for your government?" Not how high *is* it, but how high *should it be* for your government. It's a sense of attitude.

On the left-hand side, we see Mexico. "Goodness! Mexico is backward! How can that be?" Well, I'll tell you. Mexico is not backward any more. They're building a high-speed train system. They have a much stronger economy than we have, and they're very concerned about global warming.

Next, China, and it goes right on down. The United Kingdom. All over on the 9-out-of-10 category.

Coming down to this end of the scale, down around the 4 [out of] 10 category, scale, we have Iraq, way out there. Good to hang out with. Then we have the Palestinian Territory. Not a good group to hang out with. And you know which one is the lowest on the scale? The United States of America, at just about four. And then we tell our poor president to go out and develop a climate change treaty.

Well, he can't do it. No president is going to be able to do it until we change that. Until we, as leaders of our society, get out and tell the rest of the world that we are concerned about climate change, and we're ready to fix it. Another vignette.

I gave a speech in Hong Kong three years ago at the Asia Rail Congress, and the ministers of the various Pacific Rim countries were there. I gave a good speech. I thought it was okay. They clapped a lot at the end. Maybe they were just happy 'cause I was done. But this gentleman stood up in the back at the end, and he said, "How dare you come here!"; he was a minister of transportation for Pakistan. He says, "How dare you come here when the United States is four percent of the world's population, creating 30 percent of the world's greenhouse gases!" And it's true, and the world knows that. All I could say is, "You're right. I apologize. We did it wrong. Don't *you* do it wrong, and we're going to try to do better."

The world knows that we're the big polluter, and we're the big polluter because we're addicted to petroleum. It's because we drive cars. The rest of the world relies primarily on bicycles, mass transportation, and high-speed rail, and we've got to get there fast, or we're not going to be polluting—we're not going to be boycotting Iran. The rest of the world is going to be boycotting *us* because of our pollution characteristics.

Asia: Japan, 1964, high-speed trains. The distance of the high-speed train system in Japan

is about from Maine to Florida. They have it broken up into four different profit-making companies that are traded on the stock market in Japan. Each year, the stockholders get a dividend on their stock. Why can't we do that? That's their 220-mile-an-hour train, the 13th iteration of technology in Japan.

Korea has a fine high-speed train. The southern portion is under construction now. That's their old technology. Three hundred and fifty kilometers per hour, by the way, is 217 miles per hour, to give you a sense of the conversion. That's their 200-mile-an-hour train.

Taiwan: High-speed train at about 190 miles an hour. That's about the distance between San José and Los Angeles. That's their 200-mile-an-hour train.

China is going to eat our lunch, let me tell you! We're sittin' back and talking about not wanting to spend a dime for anything. China spent \$88 billion on high-speed rail last year, in one year. They've got a master plan now that turns that 210,000-kilometer system into a modern, electrically-powered transportation system in stages over the next several years. Ten thousand kilometers of that is going to be true high speed at 220 miles an hour. Another 11,000 kilometers is going to be 140-mile-an-hour freight and passenger, and they're going to be bound together in an economy that's going to be impossible to beat in the world, while we worry about spending a dime on filling a pothole.

That's China's high-speed-rail networks. They have 13 different construction projects going on right now. They bought that from Canada, bought that from Japan. They bought that from Germany, and they bought that from France, and they built that, and that's the best high-speed train technology now, probably in the world.

It operates at 227 miles per hour every day, and it is very efficient, very quiet, and up until now, they haven't been able to get into the international marketplace because they've been using all of their production to take care of their own demand in China. Now they're talking about doing some very interesting things, such as building our system in California, and taking it over as a franchise. It would be an interesting idea, being the first contract with a Communist country.

Let's go on over now to Europe: Spain, France, Germany, Italy, Holland, Belgium, England, and many more. Switzerland, Sweden, and so on. There's the map. It goes all the way from Moscow on the far east to Madrid on the far west, from Scotland and Sweden all the way down to Turkey. Rapidly expanding. You can see the iterations already built now. All of those lines are in operation now.

Spain has a very attractive system. That's their 220-mile-an-hour train, lower right-hand corner.

France is the poster child for high-speed technology. That's their old train of the 1980s. That's their newer train. That's the future. That's their 357-mile-per-hour test train. Three hundred and fifty-seven miles per hour. Steel wheel on rail. They take the technology off

of that train, once it's proven, and they put it on this. That's their 220-mile-an-hour train, which is very efficient, very quiet, and, obviously, pretty.

Germany has a fine, rapidly expanding system. By the way, Germany is the organization that's exporting maglev, and they have no maglev technology built in Germany. That might give you a sense of why nobody is buying maglev technology in the world now except the LIM (linear induction motor) system in China. The lower right-hand corner is the 220-mile-an-hour German train.

I'm Italian, so I'm very proud of the Italian system. I had the opportunity of riding the first through train in December from Rome to Milan. The track now in that area between Florence and Bologna is done, and we went through that area at 220 miles an hour, and I got to ride in the cab, and that was kind of a kick, going in and out of those tunnels at 220 miles an hour!

And the chair of the board of the now-privatized Italian system, privatized because it's making a profit, is the chair of Ferrari. So you know it's got to be fast and pretty—and he's repainted all the trains red, by the way.

We're going to have high-speed trains in Argentina and Mexico and Africa before the United States. Is there something wrong with that picture? That's the high-speed rail network in America. The less expensive ones. That [map] by the way, lacks two other corridors which have recently been designated, so [there are] 13 corridors now. The less expensive ones are called incremental upgrades. That's where you take the freight tracks and you improve them so that you can run at higher speeds, and then you run the high-speed trains in among the freight trains, and you can make 110, 120 miles an hour safely, and it's a lot better than what we have now.

The true high-speed technology is California, Florida, Texas, the Northeast Corridor, and now the corridor from Chicago to St. Louis. [Those] will be 200-mile-an-hour corridors, and they're much more expensive. Those are completely grade-separated, separate from any other right-of-way. No other trains on the track, and chain link fence protected. They are sound wall protected, and they're like the trains you see in most other countries in the world.

\$81 billion would have created a high-speed train system in 2007. Those are 2007 dollars. I won't compare that to wars or bailouts to banks or other kinds of things, but \$81 billion would have put us into the family of high-speed-train countries. That's the map. You can see the blue lines, or the incremental-upgrade lines. Those are 120-, 140-mile-an-hour systems. The green lines are the 200- and 200-mile-an-hour-plus systems. That's California, Texas, Florida, and the Northeast, and now this line has been designated. I'm sure it had nothing to do with the fact that the president is from Chicago. I'm sure it was based purely on merit; but whatever case, we're going to have another true high-speed corridor there.

That gives you a look at that Chicago system. That's 11 states that are served by high-speed technology that will feed into Chicago, which is terminal gridlock right now, in terms of day-to-day transport.

The High-Speed Rail Authority in California was created in 1996 by a Democratic legislature, signed by a Republican governor, five appointees by the governor and two by the Senate and two by the Assembly. I am very proud to have been appointed by two different governors now.

We've spent about \$200 million on the studies so far. We do have a certified program level environmental clearance in 2008, and we're working on what's called the project level environmental clearance, which is the device upon which you develop your bids.

The starter line will be from San Francisco to San José, down to Gilroy, under the mountains of Pacheco Pass in tunnels, to Anaheim, down the Central Valley that Steve mentioned as being a very rapidly-growing area, and serving the Central Valley on down to Fresno, Bakersfield, up through the high desert to Palmdale, down into the canyon, and to Burbank Airport, then on into Union Station, and on to Anaheim. That is a \$42 billion sentence, and it's easier to say than it is to finance, I'll tell ya!

Roughly carry \$55 million per year, and that's a bid projection, \$2.4 billion gross, and that gross up and down, depending on how much we plan on charging, but roughly \$1.1 billion, about 40, 45 percent net, after all operating and maintenance on that gross.

The funding will come a little bit more than 50 percent from the federal government, 20 percent from you folks in the State of California, and about 20, 25 percent from the private industry. That's private investments. It will be amortized by that net after O&M each year. Two to \$3 billion from local governments that are going to build their own stations. That's the ultimate system, and it's going to be a few years away. Let's skip on.

Steel wheel on rail. I mentioned maglev has not worked very well, and I'll answer a question about that if you'd like.

We're going to double in population by the year 2050, 2060, so we have to figure out a way to get people around the state more efficiently, and without creating pollution, and high-speed rail is the device that all of the studies have indicated will do that job least expensively, and with the least amount of pollution.

Run time: San José to L.A., two hours and nine minutes. It doesn't matter if it's foggy. It doesn't matter if there is a backup in the flight patterns. It doesn't matter if the air traffic controller's kid is on the microphone. Two hours and nine minutes, and the average tardy time for the Japanese railroad system last year was six seconds, and they were unhappy with that. They're looking at four seconds for this coming year. So that will give you an idea of the reliability that we expect to bid and obtain through competitive effort.

About \$55 per direction was the original calculation. We may charge more than that, but it's about half the price of an airline ticket right now.

Let me go back to something, because it's important. This is localized. You're national, but Silicon Valley, when we're at full employment, has a terrible shortage of housing. I think Steve mentioned that a moment ago. We're forcing people to live over the hill in the Central Valley, and we're seeing them beginning to sprawl out. Well, we don't want urban sprawl. Urban sprawl is impossible to serve in terms of government. You public administrators know that, and so, right now, we have people coming in from Fresno. I had to drive there a few weeks ago. It took two-and-a-half hours and I was speeding the whole time. Two-and-a-half hours one way, driving a car on a very dangerous road, burning \$3.40 a gallon gasoline, and it took two-and-a-half hours.

Fresno to San José, 51 minutes. Fifty-one minutes, and you're riding in a very comfortable train. You can read your book. You can do work for your employer. You can sleep. It completely changes your lifestyle. Because Carl's people are so progressive, many of our employers subsidize transit tickets and it becomes a completely different way of doing business.

So it's safe, quicker, lower passenger costs, better capacity for the future. There's the comparison. If we did it the old way, where we had highways and airports every time we wanted to expand, it would cost \$100 billion to meet the requirements for mid-century. If we do it with a high-speed train system, then it would cost \$40 billion. That's the comparison. And the high-speed train system will be adequate for 2100, because, to add capacity to a train system, you add trains. You don't rebuild the train system. To add capacity to an airport and a highway system, you have to build more airports and highways, and we don't have any more dirt to build on for those kinds of things.

Twenty-two million barrels of petroleum per year that's saved by building a high-speed train system. Eighteen billion more pounds of CO₂ would be released into the air if we built the highway system. And remember last year? Two years ago, actually. Last year, it came down to 37,000 people killed. Two years ago, we had 43,000 people killed on our freeways in one year. Hundreds of thousands maimed. Millions of dollars in property damage. Not one person killed on the French or the Japanese high-speed train system, the two oldest high-speed train systems ever, and billions and billions of riders.

A hundred and sixty thousand (160,000) construction-related jobs, 450,000 permanent jobs. Thirty-two thousand engineering and management jobs. Now any time you can keep a member of ASPA off of welfare, it's a good thing!

That's what's going to happen. This is Anaheim. They're building that station, which has more floor space than Grand Central Station in New York. They're going to build it with the money that's obtained from the tax-increment increase of a property around it. They're clearing out the old land uses. Private industry is infilling with about \$4.5 billion worth of construction. Think of the tax increase for that community that's not going to take up any

more land. It's going to be in the downtown area, causing infill, which helps us all operate more effectively.

Let's look at the relatively small town of Fresno. They're going to build the station with their tax-increment increase. They're going to clear out the old warehouses. They're going to infill with high-value, higher-density residential/commercial uses. And that's about \$2 billion worth of property tax increase inside of Fresno. And that's a relatively small community. They're going to have rich schools. They're going to have very wealthy libraries and police and fire because of that infill development.

We have 120 different consulting [firms] working on the project now. They're working on corridors as well as technology. Those are the corridors. We've broken it down into nine different corridors. Each one will be a separate contract for design/build. And then we'll have an overall contract for operations, maintenance, and financing, so it's going to be an EBOMF contract, the first one in the United States. That's where we stand on those contracts. We'll go back to them if you want to. And that's the contact information. I'll look forward to questions.

NORMAN MINETA

Okay. Carl, you're on!

CARL GUARDINO

Well, here is the good news. As our hosts know, I have a hard stop at eleven, so you get my best in nine minutes! And I am thrilled to be on any panel with the three distinguished gentlemen that are here today. So thank you very much for having me.

I was asked to speak on a topic about the region that you are in today, and the regional system known as BART, Bay Area Rapid Transit, and it is coming soon to San José and Silicon Valley.

As Secretary Mineta mentioned, I have the pleasure of working for an organization that's 32 years old, founded by David Packard, co-founder of Hewlett-Packard, and if I have any message today, it's galvanizing *your* private-sector partners to make sure that we advance our public-sector objectives. In fact, that's why David Packard formed the Silicon Valley Leadership Group. When he created the organization 32 years ago, and the media asked him [about its goals and objectives], this was his response. "Our job as CEOs is not to sit on the sidelines and either cheer or jeer. Our job is to get into the game and move the ball forward."

How many of you are from outside of Silicon Valley or California? Most of you. Well, let me give you a sense, then, of where you are. Silicon Valley, as we and others define it,

is roughly 2.4 million people, one million jobs, more than 40 percent of those jobs in high tech, biotech, or related industry clusters. Regrettably, right now, we have about an 11.9 percent unemployment rate, but the strength? We have 7,000 high-tech companies, 2,400 biotech companies, in all clusters of the high-tech and biotech economies.

And there are six core reasons why Silicon Valley is bullish about the future, and they are talent, technology, temperament, training, treasure, and don't forget temperature. You're not getting it today, but 300 sunny days a year isn't a bad place to locate a business or a family. I hope you're impressed. I stayed up late last night thinking of six "t" words to put together for you. I'm only going to go over one that is so key to our success, and that is the diversity of our workforce.

In fact, our talent, our access to skilled labor, 53 percent of the engineers fueling Silicon Valley's economy are foreign-born. Fifty percent of our CEOs and founders of companies today in the innovation economy are foreign-born, and 50 percent of our U.S. college professors teaching advanced technical subjects are also foreign-born. It is the strength of Silicon Valley's economy.

The examples abound, but think of Sergey Brin of Google, Andy Grove of Intel, Jerry Yang of Yahoo!, and you quickly see our strengths.

We also have some incredible challenges. When we asked CEOs, as we will release next week in our Seventh Annual Business Climate survey, "What are the challenges to doing business here in this region?" The top five: you see housing as the number-one challenge. When we asked the same CEOs, "What are the challenges that *you* hear from your workers?", housing again tops that chart. Look at the third challenge identified. It is the flip side of that same coin, and it's traffic- and transportation-related issues. When we asked, "What can the state be doing to improve the situation?", of course education is the bedrock of Silicon Valley's success, and then issues like research and development, and there you see it pop up, transportation, and housing, and then higher education. So that you can see these issues around mobility and quality of life are key. And that's, again, why employers in this region, and, hopefully, in your regions, are moving on issues around mobility.

I was asked again to focus on for a few minutes our efforts to bring that regional system to the heart of Silicon Valley, and to the tenth-largest city in the United States, San José, and that was the campaign, most recently in 2008, to extend and connect BART. What is that?

The BART system is 104 miles today. It carries about 370,000 daily passenger trips, with a fare-box return—Steve will correct me if I'm wrong—of about 61 percent. This extension to San José and Silicon Valley is 16.1 miles, with weekday passenger ridership of about 100,000 a day, and to link, so that we have rapid rail around the Bay, with the yellow line, which is Caltrain, which runs up the peninsula from [the] rural community of Gilroy all the

way to San Francisco. The current blue line that you see is the 104-mile BART system.

So this rail link around the Bay connects to Caltrain, to Diridon Station, which is only a couple of blocks from here, and the Santa Clara station, where we'll have a people mover to [Mineta] San José International Airport, and, of course, it connects to high-speed rail at the Diridon Station.

What you see here are the six stations that are going to be on that 16.1-mile extension running in Silicon Valley. But what excites us as employers is this: more than nine out of ten residents in Santa Clara County, the heart of Silicon Valley, will live within three miles of either a BART, Caltrain, or light rail station. Eight out of ten will live within two miles of a BART, Caltrain, or light rail station, all integrated together.

So what are we doing locally to make that vision a reality? In the year 2000, in the height of a boom, with leadership from people like Secretary Mineta and Rod Diridon, we worked together, public and private, and we passed a 30-year half-cent sales tax, imposing on ourselves a tax that provides 61 percent of the capital construction costs for that extension. We followed that up in the worst economic downturn in the history of Silicon Valley, where our voters once again put their wallets where their words are, and passed another sales tax, a one-eighth of one-cent sales for 30 years, to fund the ongoing operation and maintenance of that system we built. That is local commitment.

At the state level, we have been able to authorize and now appropriate most of \$760 million to fund the capital construction. Combined with local, that's an 80 percent share. Congress usually asks for 20 percent state and local to get an 80 percent federal match. We have flipped that on its head.

And then the federal side: we're making wonderful progress. We've just recently received a positive medium rating in the federal new starts process. We're on track to receive a federal funding commitment one full year ahead of schedule, and we need to ensure BART is included in the next federal transportation reauthorization bill. And with that, we'll be able to sing that song that Dionne Warwick made possible, that if no one else does, BART knows its way to San José.

For the record, I did that in six minutes! Thank you very much!

QUESTIONS AND ANSWERS

NORMAN MINETA

Carl, thank you very much. Let's open it up to questions and answers.

ROD DIRIDON

Norm, before Carl goes, could I say something?

Without Carl, and what was the Manufacturing Group at that time, now changed their name to the Leadership Group, we would not have a transportation system in the Santa Clara Valley. Their leadership year after year after year on these very difficult two-thirds-vote-requirement tax measures has been the difference between being another backward little community, and emerging as one the great communities of the world. And we need to know that of Carl, because it was his leadership and the Silicon Valley Leadership Group that did it.

CARL GUARDINO

Rod, feel free to talk longer if you'd like.

NORMAN MINETA

Okay, let's go ahead and open it up to Q&A, and if you would give us your name and your profession and where you're from...Yes, sir?

JACK UNDERHILL

I'm Jack Underhill. I'm a Berkeley graduate, I might add. Fifty-five years ago, but I'm from Washington DC; I've been in Northern Virginia for 50 years now. Worked for the federal government. My question is, when I was at the Kennedy School at Harvard, John Kaine was talking about this mismatch between jobs and housing for the low-income people. To what extent does that (unintelligible)? Is this still a critical issue? And I just wonder if our experts could comment on that.

NORMAN MINETA

Steve?

STEVE HEMINGER

Yeah, I think it still is a big deal. In fact, it's such a big deal here in the Bay Area that we are

inaugurating a program which I think is the first in the country, where we will be devoting some of our resources to capitalizing [an] affordable housing fund near transit. You know, we're all used to the phrase, I guess, "transit-oriented development," TOD, but I'm afraid that too often what we're building next to transit, number one, has a lot of free parking in it, which means you're sort of giving people the incentive to drive, when they're right next door to rail; and, secondly, a lot of skews toward the upper end of the income scale, and we know from repeated surveys, from life experience, that a lot of the folks who rely on public transit are folks who don't have a lot of money. They don't want or aren't able to afford a car, and so one clear need we think we need to meet is the need for affordable housing near public transit.

And the good news is that we're used to getting leveraged by just about everybody who walks in our door. In this case, we're going to leverage somebody else, because this idea was presented to us by several foundations here in the Bay Area, and they have pledged that they will match our money 3 to 1. So we're putting \$10 million down, and they've told us they'll come up with \$30 [million]. And our 10 [million dollars] is conditional on getting their 30 [million dollars], and with that \$40 million, we'll have a revolving fund that developers can access, use to build housing, use to secure sites, and then, once they finish the projects, replenish the fund, and it can keep on going. So that's one strategy that we have reached for here in the Bay Area, because I think, for too long, we've looked at transportation and housing as two separate fields, and sure, they're related, but you know, we'll do one, and then we'll do the other, and I think what we've reached in terms of an insight here is that we can't do that any longer.

NORMAN MINETA

I remember one of the things that Rod did was to put in a daycare center at a transit stop, and so people would be able to drop their child off at the daycare center, get on the light rail, go on to work. Where a lot of daycare centers are maybe closing down by five o'clock, six o'clock, this daycare center was having extended hours, so they'd still be able to get back, and not have the pressure of having to leave work by four-thirty, five o'clock, to pick up their child. So, again, this contributed to the whole viability of where they lived, and where they worked.

ROD DIRIDON

No. That's a good example of how you attract people to live in an area around a train station. You have to create the amenities, and you have to have reduced prices.

One of the things that the high-speed train authority has required is that all of the 26 different stations have to be in downtown city cores. We don't have any greenfield construction for stations. They're all in downtown, the old downtowns that originally were built around the old stations back in the 1800s in California. Those areas are typically old warehouse districts now, and by putting a high-speed train in those areas, [it becomes] very valuable land. It helps the cities dramatically, and then we're asking—we can't require—those

cities to infill, as is Fresno, with high-density housing and commercial uses, to allow the people to infill as against sprawl, as we double our population.



Figure 4 Steve Heminger and Rod Diridon Await Questions

NORMAN MINETA

Yes, sir?

DAVE LAPLIECE

Dave Lapliece. I've worked for Department of Public Works for J. B. Forjan. I'd just point out I was PMI class of 2000, special programs.

NORMAN MINETA

Terrific!

DAVE LAPLIECE

Lived in Silicon Valley, '74 to '76, working as a semiconductor [sic], and I get the (unintelligible) traffic in the Hampton Roads area. It's far, far worse than it used to be, just like it's worse—much worse—in the San José area, based on what I remember from 35 years ago.

My question is, and you mentioned you'd say something about maglev. They've got a maglev test track there. It's never really flown. What's the deal?

NORMAN MINETA

I think part of the problem with maglev is that the costs of construction really kept a lot of programs from starting. As an example, we have the one in Pittsburgh and then we have the Baltimore-Washington DC maglev program, which has never been funded. And I think the Chinese, in that Shanghai-Pudong area, still claim to have the only commercial maglev. But that is what? A 17-mile system.

ROD DIRIDON

Thirty-two kilometers.

NORMAN MINETA

And it takes about probably three miles to get up to speed, and then they're using the rest of the system to brake to a halt in the Pudong area, or they'd be in the bay somewhere. And the problem, I think, on that one is it's still very costly to ride. It's more like a Disney entertainment rather than real transportation, and the whole construction cost per mile, plus the operational costs, have never really gotten maglev off the ground.

When I was running a company for Lockheed Martin, we started with the Pittsburgh system, and that was just going to be a very short parking to a downtown area, and we ended finally selling the magnets and everything to General Atomics in San Diego, and never got very much further than that.

I think the Old Dominion University had the program there in Hampton Roads—

ROD DIRIDON

It never completed.

NORMAN MINETA

Never got off the ground. Rod, you were going to add something.

ROD DIRIDON

Well, we did a lot of research on this as we were making the decision as to what rolling-stock technology we would acquire through the High-Speed Rail Authority. In fact, we spent a couple million dollars on the analysis. And two things have really made it clear. The Pudong system in Shanghai came in at almost three times the construction budget, and it's operating at over four times the projected operating costs. In addition to that, they had two trains, one going in each direction, and one of the train's battery pack overheated about two years ago. It burnt up. Burnt the whole train up, and burnt a section of track up,

which is a couple hundred million dollars to repair the track, and they can't replace the train now because the manufacturer for high-speed technology [was] Transrapid [International] in Germany.

It had a test track in Bremen. Norm and I have both ridden that test track. It's quite an exciting ride! About a year and a half ago, they took a group of dignitaries out on a test run, went around a turn at 150 miles an hour, and hit a maintenance vehicle. It killed everybody on the train and on the maintenance vehicle, and tore up the track, and ruined their test train. Transrapid is now in bankruptcy. The German government has had to pick up the pieces of the legal requirements. They're determining whether they're going to rebuild the track and build another test train now. Right now, there's no manufacturer for high-speed technology. So we're not going to get into that.

NORMAN MINETA

Yes sir, way in the back.

JAMES THURMAN

James Thurman, University of Houston. I was wondering, Steve, you had mentioned two dozen operators in the Bay Area, and Houston has metro, and they're established as separate rail districts around. There may be some separate bus lines. It looks like you're good at copycat, with so many operators. But how do you get that to self-organize? How do you get to where they can work together, and you don't overlap?

STEVE HEMINGER

Well, there are two basic strategies. One is, you try to merge them together, and believe me, that's not a lot of fun, because every agency has its own board and its own lawyer and its own accountant, and you know, everyone wants to keep their job.

What we have tended to do instead is a workaround. So instead of trying to put the institutions together, how about trying to put the service together so that the rider doesn't know what he or she is on? We've got a single ticket now in the Bay Area. We call it Translink. We're going to rename it Clipper, just because we've been working on it so long, it's harder to name; but this is a smart card that you can use on any of the systems.

We have, probably, the most advanced traveler information system in the country called 511, which not only gives you information on all the transit systems, but allows you to plan your trip on transit. Allows you to know real-time when the trains are going to come. That's the kind of strategy we think you need, so that you can try to get past the institutional stuff, which is very difficult to deal with. You know, if we were starting over, we would not have two dozen systems, but we've got 'em, and trying to get the toothpaste back in the tube is a pretty difficult challenge. So our preferred strategy has been to run around that problem,

and keep the rider in mind as much as possible.



Figure 5 SuperSession Attendees

NORMAN MINETA

Yes, sir?

MIKE HASSAN

My name is Mike Hassan from The Port Authority of New York & New Jersey, and I'd like to thank the secretary for all the help you've given us over the years, including your building a pass station at the World Trade Center.

NORMAN MINETA

We lost one of the world's great transit leaders in the New York Port Authority.

MIKE HASSAN

My question goes to the matter of cost to construct. You had the financing tools that we used to have through the variable-rate-debt market dried up, which cost us a considerable amount of money in terms of financing, and the other costs in construction [relate] to soft costs, some people call them, dealing with EIS, environmental impact statements costs, procurement costs, and all the things around those costs that don't go to the actual construction. And I'm not saying that we should give up our standards on those things, necessarily, but it's about how to make that process more effective so we can reduce the soft costs, which can amount to 40 percent of the total construction, in many cases. And

so my question to the panel is, Is there anything being contemplated in the new ISTEAs legislation and all that helps streamline the soft-cost matters as well as providing new financing vehicles, since the vertical debt market has dried up for municipalities?

NORMAN MINETA

Steve?

STEVE HEMINGER

Well, let me take a crack at the financing piece of that, and let me first thank you for getting those tunnels going, because, for a long time, we had the largest public works project in the country, rebuilding the east span of the Bay Bridge, and now you have it, so you can get all the reporters' calls instead of us!

I'll tell you, a very significant development in the stimulus legislation that the Congress enacted last year is the so-called "Build America" bonds, and for those of you not familiar with it, it essentially allows states and municipalities to issue taxable debt. We traditionally issue tax-exempt debt, and that's very attractive to investors, because they don't have to pay tax on the interest. But, with taxable debt, you reach a much larger market. A lot of sovereign-wealth funds, pension funds, never pay taxes anyway, so they never paid attention to the tax-exempt market.

And what the Congress did to recognize the difference in the yields of those two instruments is they pay a subsidy to the issuer of the taxable debt—and, in fact, the subsidy is so sweet, Congress is about to change it, because the program expires at the end of this calendar year, and they are likely to renew the program, but at a lower subsidy, and so we administer the toll revenue in the Bay Area, and our \$6 billion in debt on that revenue stream, and are about to go to \$9 billion by the end of the year, and we want to hit this market while we can. We sold over a billion dollars' worth of toll-backed debt last November, and when you calculate the gross rate we paid on the interest, and then deduct the subsidy that we received from Uncle Sam, the all-in cost of that debt was a little over four percent for 40-year debt. I mean it's a phenomenal market, and it's rapidly expanding.

That is a place where I think Congress maybe did us a little bit of an unintentional favor, but the favor is really paying dividends for not only issuers like us, but states around the country. California has issued a ton of these Build America bonds, and it's really been a success of the stimulus bill.

NORMAN MINETA

I remember at one point, I had asked Bill Lockyer, the treasurer of the State of California, how much in bonds the State of California was going to be able to sell. Then, when the Build America bonds came in with that 30 percent subsidy, man! The market went just like

this!

There was a question way in the back here. Yes, sir, go ahead.

CHELBY JANN

Chelbay Jann. I'm a professor at San Francisco State University. In a prior life, I was a civil engineer, and got the contract (unintelligible) by ISTEA, so I want to thank you, as well, Mr. Secretary. My question is the about NIMBYs, and the presentations that we've heard are fantastic. They highlighted why it makes sense, in terms of efficiency, and in terms of the environment, in terms of labor, every way. But I think it's the political aspects, especially the sub-local, the local and sub-local (unintelligible) politics that really, you know, place barriers to these kinds of projects. Could you talk about the NIMBYs and how to address it, and promote this kind of project?

NORMAN MINETA

Let's have Rod Diridon answer that question! He went through this whole issue of the high-speed train from San José up to San Francisco, and all the communities and the individuals with their \$5 million homes.

ROD DIRIDON

Well, and Norm, you remember the same thing, when we worked on the little light-rail system in San José. The same concerns popped up.

Somebody asked a moment ago about relief from the environmental requirements, the environmental study requirements. I strongly recommend that we not do that, because it's those environmental study requirements that allow you to work *through* the NIMBY issue. If you do NEPA properly, and you don't skip any steps, and you don't skip the hearing requirements, and you do all of the outreach that you're required to do, and you convince all but the hard-core of the very few NIMBYs that you're doing the right thing, if you're doing the right thing, they'll be convinced.

You isolate the NIMBYs to the point where everybody in the community realizes it's just the people along the tracks, or in a certain location, that are still opposing it. And then you have to do the right thing, and you have to vote what's best for the total population, and it may not be good for that one little neighborhood. And then you need to do the best you can for them—better sound walls, better security procedures so that they can't get out on the tracks; buy their homes at full market value if you have to take a home here and there. But follow NEPA. If you do it very, very carefully, then, at the end, NIMBYs can't stop you. They can bring a legal action against you; but if you've followed the law, you're suit-proof, and building.

The high-speed-train system is an example of that. The people in the State of California have voted for it. It's mandated now in the constitution of the State of California. Funding

set aside. You can't afford to allow a couple of hundred homes along the tracks in a wealthy area of the state to stop the project, but you still have to do it the best way you can in that area.

NORMAN MINETA

Yes, sir?

JEREMY PLANT

Hi. I'm Jeremy Plant from Pennsylvania State University. I'd like to add a little Northeastern perspective to the whole thing. Kind of a two-part question, I think, probably, to Secretary Mineta.

First of all, what's the future of Amtrak? I live in Harrisburg. Our high-speed rail, both to Philadelphia and then to New York, is basically run by Amtrak. Amtrak clearly has had problems. Amtrak has some particular constraints that are different from what you gentlemen are gonna have here in California. Well, that's one part of it.

The second part is, how can you talk to me, as a Northeasterner, and say there's some equity in this, when I see a paltry amount going [to my region]. We're being penalized essentially for having an existing high-speed rail system, which is really not a very good one. The same thing in the interstate-highway program, where, you know, states like New York and Pennsylvania had put together toll roads. I'm not saying I'm advocating them. I'm just saying, in terms of popular opinion, I think there was a lot of deflation in Harrisburg when we looked at the awards for high-speed rail, and said, "You guys are gonna get three grade crossings in Lancaster County removed, and California is going to get a big chunk of the action." So if that makes any sense, it's kind of a two-part question.

NORMAN MINETA

Next question? Let's start with the first one about Amtrak. There's no question that there is a great deal more interest in Amtrak and its future, and I think right now we have, in Joe Boardman, [Amtrak's] new president, or he's been president now for about a year and a half, two years. We really have a combination of Joe Boardman bringing a professional staff, the members of the board of Amtrak, and getting a lineup of the stars and the moons and the planets so that we're going to see Amtrak, not as a high-speed rail system, but as a higher-speed rail system.

Now I know that in this last stimulus amount, that they were hoping that there would be a critical mass of monies being put into high-speed rail, but I think, in *this* instance, with California, Texas, and Florida probably being on the higher ready-to-go scale, as it related to high-speed rail, and then a number of other communities where they wanted to encourage higher-speed rail, that we ended up with three and a half million, five million, eight million, ten million, in different systems, rather than a large amount of money, except

for California and Florida, I think, which were the two states that got the most money, because they were closer to getting to the kickoff point, and I think they didn't want to discourage other areas, and so the department decided, and the administration decided, to parcel it out, to get higher speeds into these areas.

It is significant to be able to go from 50 miles an hour to 75 miles an hour, and so when you think about most of these places, where Amtrak is not running on its own rail, it's running on freight rail's rail. Freight rail only maintains their stuff at 79 miles an hour. So when you want to get to 130 miles an hour, Amtrak has to pay the difference between 79 miles an hour and the 130.

When I was transportation secretary, I was suspicious that the freight rails were dumping a lot of the costs on Amtrak, and we had GAO do a study of it. It turned out it was only maybe about a one-and-a-half, two-percent difference. So it really wasn't [dumping costs]. You know, that is really just a question of accounting in terms of where the dollars were going, and it was pretty fair about where we were absorbing the monies in terms of maintenance costs, but it is significant in terms of going from 79 to 130 mph. To do 79 miles per hour may cost this much; but to get up to 130, maybe this much more. So it is very costly in terms of the amount that Amtrak has to pay out in order to get it up to 130, 140 miles per hour.

But I think what we're going to end up with is not a national system of higher-speed rail, but segments of the country where you will have higher speed. And I think that's what DOT is trying to get at, at the present time. Yes, sir. Way in the back.

DANA PIPKINS

Hi. I'm Dana Pipkins from Los Angeles. I just flew up this morning.

NORMAN MINETA

You didn't take the train up?

DANA PIPKINS

If I'd wanted to, I had to leave on Saturday.

But my question goes to, I guess, policies and pricing. There's been the congestion pricing discussions, and I guess they actually do it in London, and whatever happened in New York, you know, with Bloomberg and Albany.

But I was thinking about pricing, 'cause it costs me \$80 to fill up my car in a month, and I can go anywhere I want. But my cousin, I had to buy him a bus pass, 'cause he was unemployed, in between jobs. It cost \$62. And I go, "What?!" Why would someone buy a bus pass and ride the bus if they didn't have to? Because that just seems like, for a few

more dollars, you get a car and you drive everywhere.

And then I guess when you think about parking downtown. I can go to downtown LA, I can park at LA Live, which is the new movie theater, and all the restaurants and all that. Five bucks. It's like I feel like I'm encouraged to drive everywhere, because it's cheap. So what are some of the policies on a national level, even on a state level, local level, where you can make people think, if the gas pump's \$3, [have] people say, "Oh, you know, I've got to combine these trips now. I can't just roam all over the city." So what are the things to make people actually think about the trips they're taking, or force them to change their direction in how they [think]?

STEVE HEMINGER

Look. I think you're putting your finger right on it. You know, in our community, in our profession, we spend a lot of time arguing about which mode is better. "We oughta build roads and not rail," or "We oughta build rail and not roads," and the fact is, that neither of them [is] as effective as two other strategies. One is getting the land use connection right, and the second is charging more for driving.

The best thing that ever happened to public transit in this country was \$4.50 gasoline, and when the prices get back up in that territory again, and higher, as they are inevitably going to, I think the *big* challenge is for transit to be ready for that windfall of riders.

We just raised tolls in the Bay Area, and as of July 1st, the tolls on all the bridges, most of which have very spotty amounts of congestion, will go to \$5 all day. On the Bay Bridge, which has some of the worst congestion in the country, it's going to be \$6 in the peak, and \$4 in the off-peak, and I think, until motorists start seeing those signals, that traveling in the peak is more expensive, not only to other drivers, but to the environment, to accidents and the like, until they start seeing those signals, I think our public transit systems are going to be underutilized. We do need to pull more people into public transit by making it more efficient, making it more attractive; but we also need to push them, as well. I think, unless we have the right price on the road system, public transit is fighting a real uphill battle.

NORMAN MINETA

And, Steve, as a follow-up on that, if I don't want to pay the six bucks, do I have an alternative? Can I get on a Golden Gate bus to ride from Marin down into San Francisco?

STEVE HEMINGER

Very good point. I don't think you can out and put higher prices on the system and not give people alternatives, 'cause that's just gonna make 'em mad. In our case, if you *can* travel at the off-peak, you have a lower toll, and you'd be surprised how many people are out there going to doctors' appointments in peak, and they just shouldn't be, and I think if there's a lower toll in the off-peak, that kind of thing will change. [Using] the Bay Bridge

as an example, and that's why we're starting there, it's got very good BART service, very good bus service, very good ferry service. You've got a lot of different ways to get through that corridor besides driving your car, and I think that's where pricing can really work. That's why it's worked so well in London, because they've got phenomenal public transit service there. So you need both.

NORMAN MINETA

In Beijing, the further you drive into the center of Beijing, the higher the cost of parking, and everything goes up. That's what was so amazing to me, when [New York] Mayor Bloomberg comes up with his plan for Manhattan. The city council in New York is what? Maybe 140 people or so? And they endorsed the plan with all the different boroughs, even though Manhattan is where the prices were going to be increasing. And then, as you've alluded, one person in the general assembly of the state of New York killed that whole plan. One individual. I was just really frustrated by having something like that happen. Yes, m'am?

FEMALE PARTICIPANT

I moved here two years ago from the North Central Texas area, and into the Berkeley area, and that has been a huge culture change for me! It's a very welcome one, I'll say, but especially from a car/driving perspective, to the point that now I'm a pedestrian so often. I noticed this morning, I almost went on the "WALK" sign, because I find myself walking so much, because it's so pedestrian-friendly up there, and they do discourage cars. They've closed off more streets. So until the rest of the country adopts those same [kinds] of pedestrian-friendly [measures], we don't have mean streets, you know, elsewhere, we're not going to be able to bridge that gap between people wanting to drive places as opposed to walk. It's so much simpler and stress-free to walk.

NORMAN MINETA

And yet that's so dependent on the density of the population.

ROD DIRIDON

And education level.

NORMAN MINETA

And, you know, the density of the population of, let's say, the Berkeley-Oakland area versus North Central Texas may be quite a bit different.

STEVE HEMINGER

And, Norm, it gets back to your question to me. If we pose this to the public, and, I think

in the political environment, as, “You need to give up your car. Everyone needs to take transit,” you’re going to lose that argument. What we’re really talking about is, “Do you have to use your car for every single trip you make?” And if more of your trips can be made by walking, or biking, or transit a couple times a week, that’s, I think, the kind of choice discussion we need to have, because when you do it, and I use transit most every day, to go to work, and whenever I drive, I can feel the old road rage building up. I mean it’s not healthy for you. Transit is so much more relaxing, just for starters.

NORMAN MINETA

And what are there? There are the type A people, type B, type C, and road rage. Yes, sir?

MALE ATTENDEE

Incentivizing is something that governments can do at all levels, particularly the federal government, to encourage us to give up our cars, and it might be (unintelligible). You work for local government. I can get all but two miles from [work], and the road hasn’t been built yet. It’s a two-lane six-foot ditch on the East Side. I tried to drive it one time. It would be healthier for me, and better for the environment. I’d give up (unintelligible) my cars, for sure. But the incentives aren’t there. It’s push instead of pull, and we could incentivize it, and that’s a role that government can play very well. I haven’t heard any talk about incentivizing. I’ve heard a lot of talk about how we can push the system, or how we’re having difficulty pushing the system.

NORMAN MINETA

Well, right now, with Chairman Oberstar and Earl Blumenauer from Oregon, you’ve got the strongest bike advocates, and they really have built in two of the new STAA, a great deal of incentives for bike paths and bike lanes and integration of bicycles as part of the whole transportation plan. Steve?

STEVE HEMINGER

Well, and I think the good news, if you can believe the forecasts, and it’s hard *not* to, is that the price of gasoline is going to rise, but we’re having a heck of a hard time trying to put a tax on it; but the market is going to bring it up all by itself. If you’ve been to China and seen the level of motorization that’s going on there, India right behind it, and the resource itself being finite, you just have to believe that the price will rise over time. I think the game is coming to the alternative modes, because driving is simply going to become more expensive in terms of fuel.

MIKE BROWN

I'm Mike Brown from Canada. Just hearing some of the discussion, one of the things that I thought was interesting is in Canada, *and* in the U.S., we've had massive bailouts to some of the biggest auto makers in North America. I guess the one question I *do* have to admit is—I recognize that transit is very important, and plays a *huge* role. It's going to *have* to play a huge role. But is there any contradiction in the sense that we want to keep these high-paying manufacturing jobs in the auto sector, and then you're encouraging people not to use the cars, not buy cars, you know. Use transit as an alternative method. Is there any contradiction there, given the massive amounts of investments that both countries have placed into their auto sectors, where the governments are running skyrocketing debts to preserve these industries despite all the competition outside of the North American continent? That's just one of the things. I was listening to all this and going, "Well, what about the auto workers? What about all these people whose bread and butter is dependent on the sales of cars?"

STEVEN HEMINGER

Personally, I don't think there's a complete contradiction. There's maybe a little cog in the distance here, but the fact is, the United States is going from 300 million people to 450 million by 2050. We're going to have tremendous growth, and transit and bikes are not going to capture that huge growth in the market all by themselves. There will be more driving. What we need from future driving is a lot less emissions, a lot less safety impacts, and the like. So I *do* think it's still in our nations' interest to have a strong automotive industry.

Now I also think that what is going to come, and Rod could probably talk about this, is we need to build rail industry in this country, so that we're not buying all these high-speed trains from somebody else, and creating jobs over in Europe or in Asia. We need to build that industry here. We just lost the last auto plant in California, in the city of Fremont, which is up toward Oakland on the East Bay side, and I can't think of a better use for that plant than to start churning out high-speed rail trains for California and elsewhere in the country.

ROD DIRIDON

What I'm seeing, and you saw it when you were secretary, and certainly, you see it, Steve, is a general avoidance of capital expenditure, and that's impacting highways even more severely than it's impacting transit, because the highway systems are now, I think are 50, 60 years old. They haven't been maintained properly. They're falling apart. And so your first dollar has to go into maintaining your current asset, which means—and we don't have the second dollar—we're not going to have a huge expansion of our highway systems, and, as people begin to recognize that gridlock is a way of life, then transit systems are going to become more attractive, even regardless of the financial incentives, and so I see a hope in the future for mass transportation.

Now Steve mentioned the need to convert our industrial capacity from automobiles. Not

“converting,” because we’ll still be selling automobiles. I think families are going to own an automobile. Even though both breadwinners may use mass transportation, they’re still going to have a car. So the automobile industry isn’t going to go away. We’re just probably going to use them less, and it’s probably going to pollute less, like electric cars and the Prius, and so on.

But I think what’s going to happen is that we’re going to see a return to new [kinds] of rail systems. [These] 13 different rail-corridor [systems] now that the president is absolutely, fanatically supportive of, will create a new industry for America. We’re going to have thousands of train sets required, and those train sets are each going to cost hundreds of millions of dollars, and those are good jobs. Those are going to be not dissimilar to UAW jobs now. Probably even a little more technical, and so I see us going through a hollow right now in our industrial activities, but I think we’re going to come out of that hollow like gangbusters into a new era of prosperity. We’re not going to be the world leader any more in terms of the economy of the world. China is going to have that mantle before you know it. But we’re going to continue to thrive.

NORMAN MINETA

One last question. I think, Cathy, you were—

FEMALE ATTENDEE

Well, sort of a tie-up with that Amtrak question, which is that conceptual models always look fantastic, because you never have real problems in [them]; but we, right now, in fact, I mean we have 16 trains a day from Sacramento to San Francisco, and, of course, as you know, that’s not in the first round of high-speed rail. It’s a later point. And meanwhile, Amtrak has a station of multimodal transit at Richmond, where all these people get off the train, and get onto BART, and I’ve been riding that for five years, and people are out there in the wind, in the rain, in the weather, and the [freight] trains are going by at 79 miles an hour. Amtrak finally built a little tiny hut to be a place where people get out of the wind and rain and all, and it’s never opened. We look at the reality of how we treat people who are *willing* to be transit-oriented, and we just don’t see how that’s translating into this conceptual model. It seems a little bit blue-sky to the people who actually are involved in that world. And I think that’s your highest-level customer. Those are the people going from the state capitol to the PUC and back and forth, and all the professors from the universities. So it’s not people that you would normally treat as badly as you would expect.

ROD DIRIDON

You know, Norm said something earlier that I’d like to reinforce, and that is that Amtrak was a good idea when it was started 30 years ago, or whatever it was, quite some time ago, and it’s never been funded properly, whether it wasn’t funded properly because we didn’t have the money, or because the airlines were afraid of them, or whatever, but it was never funded properly, and, in the not-too-distant past, they were funded terribly, and the result was that Amtrak as an organization became nonfunctional. The trains don’t run on schedule in part because the (unintelligible comments) freight railroads won’t give it priority over the freight trains, but also because they just don’t have the staff. They don’t

have the ability to pay for the upgrades on the systems. Norm praised Joe Boardman. Joe was Norm's federal railroad administrator. Norm hired him. He's good. I think Joe is going to grab Amtrak by the scruff of the neck and pull it into the 21st century, and there's a possibility of being successful. Amtrak will be a bidder on all of these different high-speed rail lines that you saw on the map.

NORMAN MINETA

All right. Thank you very much, everybody, for your participation. Steve and Rod, thank you very much.

ABBREVIATIONS AND ACRONYMS

ASPA	American Society for Public Administration
BART	Bay Area Rapid Transit
BATA	Bay Area Toll Authority
CARB	California Air Resources Board
EIS	Environmental impact statement
FAA	Federal Aviation Administration
GAO	Government Accounting Office
HSR	High-speed rail
ISTEA	Intermodal Surface Transportation Efficiency Act
MTC	Metropolitan Transportation Commission
MTI	Mineta Transportation Institute
NEPA	National Environmental Policy Act (of 1969)
NIMBY	Not in my backyard
SAFE	Service Authority for Freeways and Expressways
STAA	Surface Transportation Assistance Act (of 1982)
TSA	Transportation Security Administration

ABOUT THE SPEAKERS

ROD DIRIDON, SR.

Rod Diridon, Sr., executive director of the Mineta Transportation Institute, is called the “father” of modern transit service in Silicon Valley. He worked his way through college as a brakeman and fireman on the railroad receiving a B.S. in accounting and M.S.B.A. in statistics from San José State University.

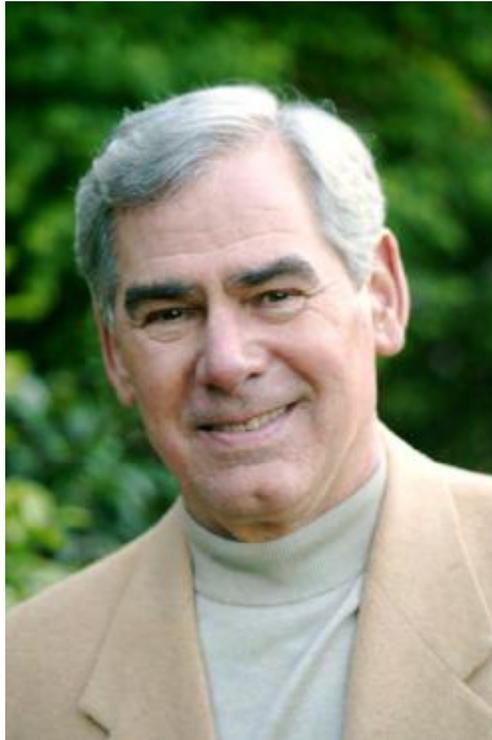


Figure 6 Rod Diridon

His political career began in 1971 as the youngest person ever elected to the Saratoga City Council. He retired in 1995 after completing 20 years and six terms as chair of both the Santa Clara County Board of Supervisors and Transit Board. He is the only person to have chaired the San Francisco Bay Area’s three regional governments: the Metropolitan Transportation Commission, the Bay Area Air Quality Management District, and the Association of Bay Area Governments. In 1992 he convened the “Bay Vision 20/20 Commission” to merge those regional bodies.

Rod has chaired over one hundred international, national, state and local programs, most related to transit and the environment. He is frequently asked to provide legislative testimony and has provided sustainability keynotes, especially for high speed rail, in over 50 U.S. cities and for international conferences in over a dozen countries. He was appointed in 2001 and reappointed in 2006, by Governors Davis and Schwarzenegger respectively, to the California High Speed Rail Authority Board of which he is chair emeritus. Rod now chairs APTA’s High Speed and Intercity Rail Committee and National High Speed Rail Corridors’ Coalition.

CARL GUARDINO

Carl Guardino is the president and CEO of the Silicon Valley Leadership Group, a public policy trade association that represents more than 300 of Silicon Valley's most respected companies.

In February 2007, Governor Arnold Schwarzenegger appointed Guardino to a four-year term on the California Transportation Commission. He also serves on numerous other boards and is actively involved in a wide range of community organizations and projects.

Guardino has been the chief executive of the Leadership Group since 1997. He previously served as a vice president with the organization between 1991 and 1995.

Guardino is an advocate for a number of important issues, especially in the areas of transportation and housing. He is a Distinguished Alumnus of San José State University.



Figure 7 Carl Guardino

STEVE HEMINGER

Steve Heminger is executive director of the Metropolitan Transportation Commission (MTC). MTC is the regional transportation planning and finance agency for the nine-county San Francisco Bay Area. It allocates more than \$1 billion per year in funding for the operation, maintenance and expansion of the Bay Area's surface transportation network.

Since 1998, MTC has served as the Bay Area Toll Authority (BATA) responsible for administering all toll revenue from the seven state-owned bridges MTC also functions as the region's Service Authority for Freeways and Expressways (SAFE) and operates a fleet of 80 tow trucks and 2,600 roadside call boxes to assist motorists in trouble. It also manages the TransLink® universal fare card program for public transit and the popular 511 traveler information telephone number and web site.

Mr. Heminger is a member of the Board of Trustees for the Mineta Transportation Institute and the Board of Directors for the Association of Metropolitan Planning Organizations and International Bridge, Tunnel and Turnpike Association.

He received his B.A. from Georgetown University and his M.A. from the University of Chicago.

THE HONORABLE NORMAN Y. MINETA

The Honorable Norman Y. Mineta founded the Mineta Transportation Institute at San José State University. He is an internationally recognized expert in transportation policy, with many distinguished accomplishments in transportation and business.

Secretary Mineta was the 14th United States Secretary of Transportation, serving under President George W. Bush from 2001–2006. During his tenure, Secretary Mineta was responsible for the United States Department of Transportation's \$61.6 billion annual budget and nearly 60,000 employees.

Following the terrorist attacks on the World Trade Center and the Pentagon on September 11, 2001, Secretary Mineta responded decisively, halting all air traffic in the U.S. and possibly preventing further casualties. He oversaw the Coast Guard response that included developing the Sea Marshal Program, maritime safety and security teams, and expanding the number and mission of Coast Guard port security units. He also guided the creation of the Transportation Security Administration (TSA).

Secretary Mineta also was U.S. Secretary of Commerce under President Bill Clinton, becoming the first Asian American to serve in the Cabinet.

From 1975–1995, he represented California's Silicon Valley in the U.S. House of Representatives. He also co-founded the Congressional Asian Pacific American Caucus and served as its first chair. Secretary Mineta is a former Ranking Democratic Member of the U.S. House of Representatives Committee on Public Works and Transportation, serving for more than 20 years. During his Congressional career, the Secretary championed investment increases for transportation infrastructure and was a key author of the landmark Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991. This shifted decisions on highway and mass transit planning to state and local governments, led to major upsurges in mass transit ridership, and provided environmentally friendly transportation elements such as pedestrian and bicycle paths. He also oversaw the airline industry's deregulation in the 1980s and pressed for more funding for the Federal Aviation Administration (FAA).

A native of San José, Secretary Mineta first served in elected office as a member of the San José City Council from 1967–1971 and as mayor from 1971–1974, becoming the first Asian American mayor of a major U.S. city.



Figure 8 The Honorable Norman Y. Mineta

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Hon. Norman Y. Mineta

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