

Issue 3

Contemporary Conversations: Leader's Voices in Transportation



Contemporary Conversation: Leader's Voices in Transportation

Editors

Paul Sena, Jr.

Ahmed S. Burgos Nagi

Kimberly Collins, Ph.D.

Raffi Der Wartanian, Ph.D.

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Introduction

About These Series

The Contemporary Conversation (CCs) Series is a compilation of voices from experts in the transportation sector, focusing on specific topics and divided into their relevant subtopics. These pieces are taken from the Regional Mobility Dialogue Series, a series of conversations made from Dialogues organized by the Leonard Transportation Center (LTC). These Dialogues include a diverse panel of experts, from researchers and PhD professors, to key players/stakeholders in the transportation sector.

The purpose of the CCs is to provide the reader with an overview of the transportation issues faced in the Inland Empire and California. It is to do so by including a wide variety of perspectives which bring about a further understanding of the issues faced and their respective solutions proposed. The topics discussed can vary from housing, sustainability, fiscal policy, among others.

About This Issue

Amidst the Pandemic, experts gather to discuss the impacts the pandemic has on the Inland Empire. The discussion focuses on emerging jobs, disruptions in transit, and increased collaborative innovation to navigate the economic crisis. Community experts also discuss the ever-evolving transportation industry. The need for collaboration ensures sustainability for the future. In all, these themes depict both opportunities and challenges that are shaping the future of transportation leadership.

This Contemporary Conversation is organized into three topics:

- **UCR Interviews:** This section provides informational interviews by the student research team; these interviews were done to understand the specific challenges that the Inland Empire faces along with possible solutions to issues regarding navigating a post-pandemic world and the arising issues that the future leaders in the transportation industry
- **Evolving Leadership:** This section provides a general overview of the current transportation workforce. It encompasses demographics, worker skill sets, and the impending issues regarding the disruption of technology.
- **Post-Pandemic Impact:** With the fallout of a post-Pandemic world, a group of experts discuss the newly evolving landscape of the transportation industry while also emphasizing the importance of new ways of approaching problems, highlighting the importance of cooperation and innovation to navigate the post-pandemic world all while ensuring sustainability within the Inland Empire.

Voices and Opinions (UCR)

Interviewers

Ronald Loveridge, PhD., Director, UCR Center for Sustainable Suburban Development, Former Mayor City of Riverside

Student Research Team:

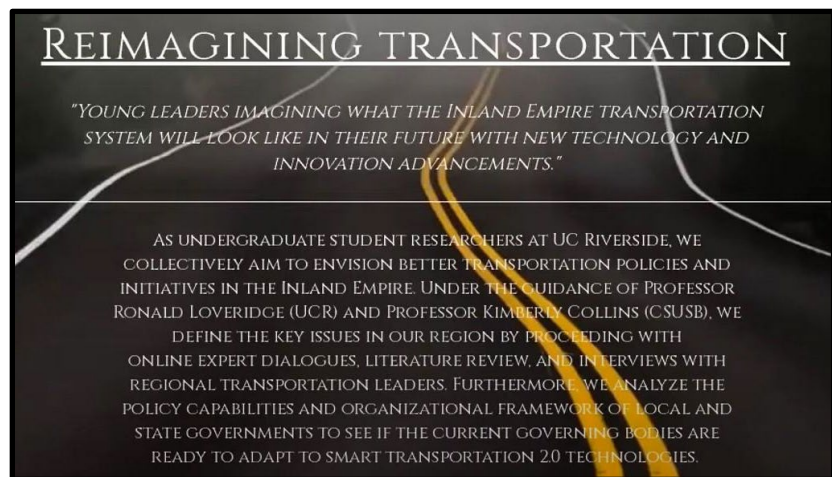
Melissa Sagun, 4th year Political Science Major, Minor in Public Policy, UCR

Ronald Duarte, 4th year Political Science Major, UCR

Jennifer Valle, 4th year Political Science Major, UCR

Natalie Zoma, 4th year Political Science Major, Emphasis in Public Service, UCR

Dr. Loveridge started his conversation by sharing some of his personal experience in the field of transportation, both as a professor and former Mayor of Riverside. He then explained his role in leading the group of student researchers presenting at the Dialogue series 2020. He explained that over a 10-week quarter, four UCR students (whose names are shown above) met him twice weekly, completed book reviews, and literature reviews, to then collectively complete 21 interviews with transportation industry experts. Once they were done with the interviews, they created a website so they could lay down their recommendations for transportation in the future based on their research, they argued that the website was designed as an “opportunity to inform with simplicity” and with “lasting value” so that these issues are looked at even beyond the timeline of the project.



Research

Experts including Jim Madaffer, Hasan Ikhata, Kjeld Linsted, David Pickeral, and many more were interviewed, and they all agreed that technology and smart infrastructure should be used. However, there are several problems in the Inland Empire that prevent, impede, or worsen transportation-related issues. These include outdated or nonexistent technology, a lack of room in

the budget for new ideas to flourish, and red tape and current regulations, which are being implemented by people in positions of power who either do not fully understand the problems or are enforcing the wrong laws and regulations entirely. In the final portion of the discussion, the students shared their thoughts on what the Inland Empire needed, each highlighting the importance of a renewed emphasis on innovation and technology as well as the necessity of accurate information for politicians to make the right decisions.

In a few brief words, each student researcher then shared their opinions and recommendations: "Reliability, accessibility, and frequency" were Melissa's three main points. "As we move forward in transportation planning, it is critical that we begin to think outside the box by using innovative and smart technology," she shared her remark from the website. We're restricting our ability to develop better infrastructure for our expanding population by continuing to build additional roads and freeways. Confirming the opinions I received from my expert interviews, I think that accessibility, dependability, and regularity should be the three main focuses of Inland Empire transportation in the future. We need to make significant investments in the construction of commuter railroads, light rails, and subways in order to increase the frequency of the public transit system.

In order to address these issues, we can create a fixed, electrified light-rail infrastructure system akin to the Bay Area's BART system. This will also increase the system's dependability and convenience. In order to create more job possibilities, we need to encourage firms to relocate to the Inland Empire in order to improve accessibility. We

must get our bearings on this issue since the disparity between housing and employment has made it difficult for locals to commute to Los Angeles and Orange County, leading to serious transportation problems. These policy innovations will be expensive to develop and take time, but I think our regional transportation authorities should make the necessary investments and do things correctly the first time. The phrases "ambition, envision, believe, and create" were crucial for Jennifer. She informed the group that she felt a particular connection to this topic because she lives in the Inland Empire and has firsthand experience with its transportation challenges. She shared that a recurring theme in her interviews was the various ways that transportation affects lives daily. Finally, Natalie shared with the group her three essential words: "affordability, accessibility, and flexibility." This was partly because she thinks that social mobility and transportation go hand in hand.

MAIN TAKEAWAYS

Younger people today, such as millennials and Gen Z, no longer view the car as a necessary expense of a source of personal freedom. It is now the opposite, where not owning a house or a car is seen more as a path to greater flexibility, choice, and personal autonomy.

Working families now spend more on transport than housing because they travel further to find cheaper houses. They are now spending around 20% of their income on transport.

1 in 3 Americans are obese. The current generation is expected to live a shorter life than its predecessor. Clear correlations between how walkable a region is and the obesity of its residents.

Urban beautification programs, such as the famous "Five B's" of the eighties-bricks, banners, bandstands, bollards and berms.

"WE MUST UNDERSTAND THAT THE WALKABLE CITY IS NOT JUST A NICE, IDEALISTIC NOTION. RATHER, IT IS A SIMPLE, PRACTICAL-MINDED SOLUTION TO A HOST OF COMPLEX PROBLEMS THAT WE FACE AS A SOCIETY. PROBLEMS THAT DAILY UNDERMINE OUR NATION'S ECONOMIC COMPETITIVENESS, PUBLIC WELFARE, AND ENVIRONMENTAL SUSTAINABILITY." -JEFF SPECK

Leaders interviewed

Jim Madaffer: Politician, Veteran, CEO of Madaffer Enterprises

IDEAS AND INNOVATIONS:

“Automation adds more efficiency to more cars on the road. In 20 years or sooner it will be illegal to drive on the freeway if your car is not a fully automated vehicle. One way we can lower congestion is to put housing near transit-centric areas to incentivize the use of public transit.”

BARRIERS TO IMPROVEMENT:

“California has not been friendly for testing autonomous vehicles, and we could probably see more innovations if we get out of the way. There are also environmental regulations, cost of land, cost of construction, local government opposition, and there will be those who don’t want to spend money on improving our infrastructure.”

Hasan Ikhata: Executive Director of San Diego Association of Governments

POLICY RECOMMENDATIONS:

“Well, we need more density. We need a different land use. For the last five decades, Southern California (including the Inland Empire) has been reliant on the car. We shouldn't continue building out, we should build up. We need to build the infrastructure needed to attract jobs, so we can have a better job and housing balance.”

CLOSING STATEMENTS:

“Regional leaders have to make sure there is access to transportation for all income categories and all people. You have to invest in transportation so it's accessible to everyone. Every single resident, regardless of what mode of transportation they take, need to feel like they can get from point A to B easily. We need to price the system right so all people have equal access.”

Kome Ajise: Executive Director of SoCal Association of Governments

POLICY RECOMMENDATIONS:

“On a larger scale, I think regional rail systems that connects the Inland Empire to job centers are important. The main option most people have is the freeway system... Being able to have regional rail that’s comfortable in terms of timing and convenience, if not more efficient, is important. We need to get more capacity on Metrolink and ultimately electrify the rail system so it becomes a zero-carbon type of footprint for the region.”

CLOSING STATEMENTS:

“We have to match mobility with accessibility. That is the powerful force of social change- making sure that everybody has the same level of access to jobs, services, and recreation.”

From the perspectives of experts in the transportation industry, we will explore various issues and their recommendations for improving the transportation sector in the Inland Empire. We will then shift our focus to a new panel of experts who will discuss the evolving nature of the industry, future developments, and how to prepare for them.

A Vision for SoCal's Transportation Industry

In the section below, stakeholders from the community will discuss how transportation leadership is evolving in the 21st century. They will share their expertise in both public and private sector leadership, highlighting the important characteristics that will shape the future. With the rapidly evolving landscape of the transportation industry, there is a need for effective and efficient leadership. Leaders should adopt futuristic and transformative ideas for the transportation sector by building trust, cultivating diverse perspectives, and fostering collaboration. Beyond immediate operational considerations, much attention was directed towards the crucial role of workforce development, especially in conjunction with new technological advancements. Together, these themes combine to form a comprehensive depiction of the multidimensional challenges and opportunities that define modern and future leadership in transportation.

Data-Driven Leadership for Better Transit Solutions

Fran Inman, Chair of the California Transportation and Senior Vice President, Majestic Realty

Among many approaches to building rapport and trust amongst leaders, one simple tactic Inman believes is useful is sitting around the table and sharing a meal with one another. Inman shared her experiences, stating that “there is something magical about sitting around a round table, sharing a meal. When we first started doing this with the Staples Center I had to go out and of course I had no



clue about workforce development. I had to figure that out. I went around LA and talked to all these silo organizations. With all due respect to my nonprofit sector partners, they can be really territorial too, everyone is in survival mode and they weren't talking to each other and I brought everyone together.” Finding natural ways for peers and fellow leaders to collaborate, work together, and build trust can make significant differences in how teams are able to meet goals together. A successful leader must be able to work with diverse minds. Leadership is a skill that needs to be harnessed and leaders at all levels should be dynamic and able to cater to both a variety of situations and a range of personalities. Inman is very passionate about transportation – both

moving goods and moving people. “You know for one thing in leadership if you can’t be passionate about what you are doing, don’t do that, find something that you are passionate about because I don’t think you will succeed,” said Inman.

Networking is another important aspect of being a successful leader, both of which are about forming professional relationships. These connections leave touchpoints for leaders to use in the future. Inman’s transportation journey began with a company on a one-off project. She initially started in the hospitality industry and discovered she loved to build things. “I think this is a great time to be in transportation,” said Inman, “because we have a lot of problems to solve.” In an industry where the dynamics are changing so quickly, leaders have to be able to find solutions to unexpected problems as they arise. Inman continued, “I think that if you look at where we have been to where we are going, I can only imagine... we are going to have to figure out what our world is going to look like.”

Inman believes that it is critical for leaders and governments to work together to get it done. With this anecdote, Inman shared the benefits of cultivating teams with diverse strengths in order to solve complex problems in transportation, many of which have not even been realized yet and will continue to reveal themselves with ongoing transit developments and further evolution. In the transportation

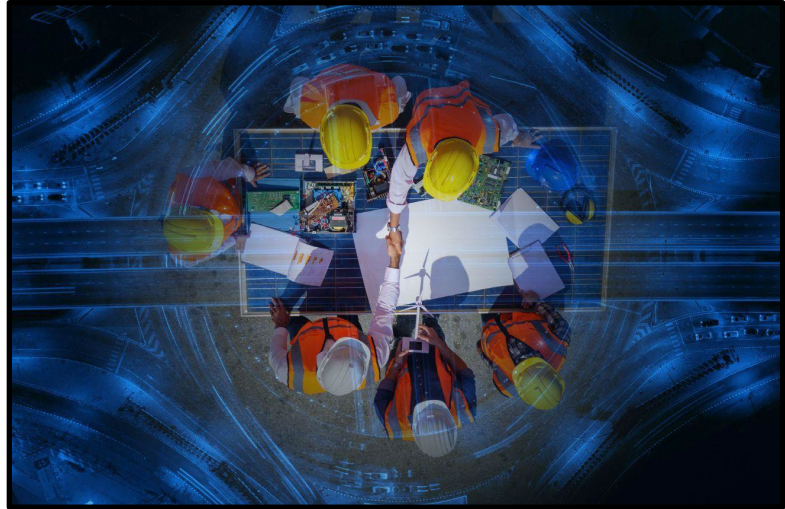


space, Inman says that funds have been forthcoming. “In terms of transportation, clearly these last few years at the CTC have been like no other. We have been blessed to have money and we can really get some projects out the door.” Case in point, Inman mentioned that the CTC had to ensure that the infrastructure is in good repair and that capacity demands were kept up with. With more available funding, much more can be done to address these infrastructure needs but it requires a good leader to see such large projects through. She also notes that getting projects done in the public sector is very different than in the private sector. With the private sector, “it is a much straighter line on how we do on these major projects.”

A challenge that leaders face is equity, which involves fairness and equality in the distribution of public resources across groups. Inman states, “When money comes into the equation, it brings out maybe not the best in everybody. I have said at the commission, we all got along together when we were poor, but we are working through all of that. I think the other challenge is that the needs are huge. The good news is we got some new funding; the bad news is every program had a five-to-ten-to-one oversubscription, so there is no way. We talked our partners into agreeing on some

prioritization and how we will work through this, but it is tough to be patient. It's tough when you're stuck in gridlock. We have challenges in every corner of this state, so hopefully we are doing our best to try and be equitable and make sure that no one gets left behind."

In the transportation industry, recent and relevant data are crucial. Inman states that the data published by government agencies is usually not current and is beginning to lag farther and farther behind so problems as they are actively presenting are not being solved. "The good old US Bureau of Transportation standards publishes their commodity flows twice every two years, and it takes them two years to publish it?"



Inman also calls for a need to use technology to propel both transportation and society forward. Leaders must be open to new ideas and plan ahead. Inman explains that "the better we can do to weave in that technology component, clearly whether it's the goods movement, we have got huge volumes coming our way. We have historically made that an afterthought and that's not good for all of us. Planning early and planning often. Just to the leadership, if there is an open window, step through it. That backpack full of knowledge, just put that down".

Fran Inman focused on how cooperation to innovation affects one another along with how equity and disproportionate resources puts organizations and leaders at odds. Our next speaker, B.J. Patterson, will look at the leadership within the industry and how innovation affects the industry.

Pioneering Leadership in Logistics and Transportation

B.J. Patterson, CEO, Pacific Mountain Logistics

Patterson discussed the significance the transportation industry has on daily lives as well as the economy as a whole, which is arguably more than many other industries currently operating. "I love this industry and I say all the time that I don't think any industry impacts the daily economy and quality of life more than we do. I tell people all the time who say that they hate trucks, let's go a week without a truck and see what happens. The economy would collapse, and we would all perish because we wouldn't have any food or God forbid, we wouldn't have our Starbucks coffee."

Change in the transportation industry is happening at a meteoric rate and Patterson understands this very well. "I say that after almost 30 years now of doing this, it is changing so quickly, it is at light speed. I mean the changes that are happening daily, it is not even a weekly thing, or monthly,

or annually. I think you know, much like what Frank said about this backpack of what we did yesterday, you know it just doesn't work," said Patterson. He also adds that, with change, a leader must be able to be agile and flexible, stating that "from a leadership perspective it is all about flexibility and nimbleness and the ability to change quickly and rapidly."

For example, consumers want fast shipping for little to no cost. As consumers demand more, leaders must find a way to innovate and meet new customer needs as the industry evolves. One of these ways is technology.

Five years ago, there was no Uber, Lyft, or Uber Freight. All these other types of, I call them collaborative transportation solutions, they are not your typical, 'Hey, let's hire Bob's Trucking Company to move it from point A to Point Z.' It's looking at what is available, 'Hey, I got a guy available that is three blocks away and he can take the load.' It's the technology, the mobile technology, the connective tissue of the system."



Patterson added that the old transport systems are just not flexible and nimble enough. The old systems, which are filled with regulations and barriers, are going to hinder progress. There is a need for new systems for leaders to be able to successfully connect. Connectivity and ease of use play an important role in developing new and effective systems. "That is what we talk about a lot, how do we connect availability to need? I need to move this load from here



to there, I need to move this person from here to there. I think that is what Uber did. Uber did two things. One, they were very good about connecting need to availability. And, on top of that, ease of use. You know I read an article the other day that said Uber and Lyft have done more to reduce drunk driving than all of MADD programs in the last 20 years. You know what? Because it is very easy. You know no one wants to call a cab. No one wants to figure that out, but you know Uber is

a press of a button,” said Patterson. Patterson added that this same concept can be applied to freight and transportation. To compare, Patterson stated “we can move people very easily with this system. How do we move freight? Now there comes more complications with that, whether it is tariffs or legalities and the bureaucracy that goes to that, but I think that is where we need leadership. How do we disentangle all those things to make this availability and need to meet in a seamless, easy way?” The important question is to explore how we “marry up” availability to need in a sped-up process.

Patterson stated part of being a leader is adapting to changes and regulations. “Those who adapt to it will survive, those who don’t, won’t. I tend to try and be a survivor, so you just have to adapt. I mean you may not like it, but at the end of the day you have to adapt. Adapt and overcome. We have to figure out how to adapt using the regulations that we have got... we need young leadership behind the scenes,” Patterson said.



Another area in which Patterson is an advocate is workforce development. He is chair of the youth committee and vice chair of the executive committee at the San Bernardino Workforce Development Board. Patterson believes that career readiness is crucial in preparing young people to learn about and eventually be involved in the logistics and transportation industries. “From a leadership perspective, one of the biggest things we need is this: how do we teach the young people today the needs to get into this industry? Transportation and logistics need the young people. We need the youth because we old guys at some point want to retire, we want to take our golf cart and go home. But we need the youth in this industry, and we need their leadership because they see things from a very different perspective than we do,” said Patterson.

Patterson believes that there is a need to connect with young people early, such as when they are in elementary school, to start educating them about a career in transportation and logistics. He asked, “How do we get them to understand?” and added, “Because the workforce of tomorrow doesn’t look very different from the workforce of today. Again, if you get back to availability and need, we have to look at it very differently. We have to educate these kids very early on that this is the industry to be in because let me tell you something, retail may go away, but logistics is not going anywhere.”

A metaphor that Patterson used was that the warehouse is the new mall. E-commerce has boomed significantly over the past decade and will continue to grow. “E-commerce is not going anywhere,

it is growing. I can remember ten years ago someone told me e-commerce would never be more than ten percent of the economy. I was at a conference and it was someone I thought was smart, telling me it will never be more than ten percent of the economy hands down, retail is social. Well apparently, people get pretty social at their computer with a wine glass in their hand and they don't need to go to the mall," said Patterson.

Patterson explained that "leadership is the ability to think. Thinking outside the box doesn't quite get you there, it is being able to think about a completely new reality. Having the mindset of, I need to figure out something that I don't even know what it is I need to figure out." Patterson added that, as a leader, his job is to mentor people and get them to start thinking about how to work through the issues.



Someone asked Patterson if he hires someone for their experience or their "smarts," Patterson replied, "I take smarts over experience every day because I think experience sometimes trips you up. One of our best employees was a manager at a Five Guys Burger establishment. She is smart as a whip and we brought her in and boom, she is thinking of things we never thought of." Patterson further added, "One of the things to do is invite people in from different industries, they have completely different perspectives because they see things for what they are and not what they should be. I think that is a trap that leader's fall into all the time." Bringing in people with different perspectives will allow leaders and industries to think differently and debate. Infusing industries with people who agree with leadership without fail stifles growth and innovation in both the short and long term. Patterson closed by stating that "leadership in my mind is having the courage to invite opposing views. The courage to look outside what you think is normal, the courage to throw everything you know to the side and say we have to start from a clean slate. If we were starting right from the beginning, what would it look like? Forget about cost, forget about all those things, first off what should it look like? The young leaders coming up, that is what they have to do, start with a clean slate and say we are starting over today. What would it look like?"

Patterson emphasized the importance of new leaders in the transportation industry. Our next speaker, Yvonne Lopez-Diaz, will further add onto the previous speakers points and will delve into developing workforce skills and preparing for a changing landscape.

Transforming Transportation Workforce: Strategies for the Future

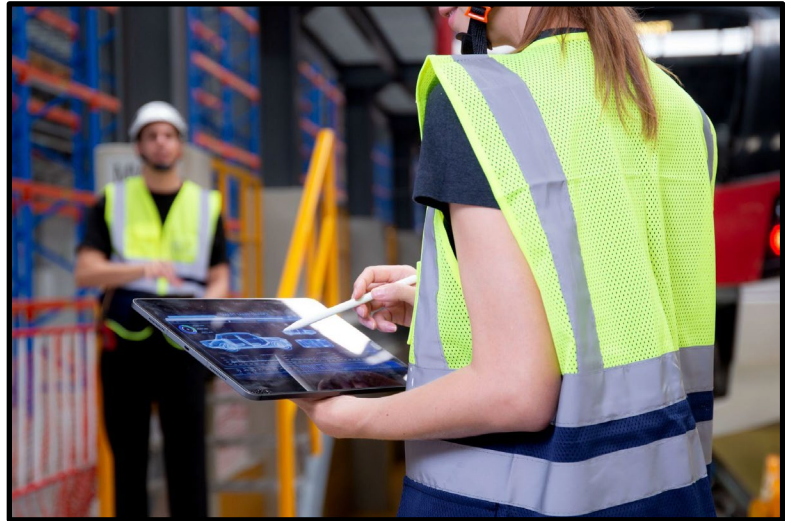
Yvonne Lopez-Diaz, Vice President, Director of Human Resources, HNTB Corporation

Yvonne Lopez-Diaz is the Human Resources Director for the Central and Western Regions at HNTB Corporation. Lopez-Diaz has been with HNTB for nearly two decades. “I enjoy what I do in my role at HNTB. I spend a lot of time focusing on how we prepare our organization for the future relative to our number one asset that we have, which is our people,” said Lopez-Diaz. Yvonne spends most of her time focusing on organizational strategy, helping leaders plan for the next five years, and supporting clients such as airports, departments of transportation, and transportation agencies.



The question is what do we need to be doing now to develop the transportation workforce for the future? How do we repurpose the staff that we have today? “We’ve got a lot of wonderful workers out there that don’t have the skills that we are going to need in the future; especially as it relates to the advent of autonomous and automated vehicles that are coming very fast.” Add to this, 40-50 percent of the current workforce in the country is part of the baby boomer generation and will be retiring. All of the institutional knowledge will be gone. Industry, working with educational and public sector partners, needs to deliberately develop their workforce so it is prepared for the fast-approaching future demands. “Engineers will have to engineer differently. Planners will have to plan differently. Construction personnel will have to construct differently, a lot of things will change with the technology,” said Lopez-Diaz. For example, planners are working currently on expanding our roads, but transportation patterns are changing as we see with the millennial generation who own fewer cars. The younger generation prefers public transportation if they can take it, so road expansion may not be the right idea moving forward. This is just one example of how the working environment will change for planners moving forward. Another example can be found in transportation agencies. Engineers and planners will have to construct and design street lanes to accommodate automated vehicles along with vehicles driven by people. These changes are bringing about the need for unique approaches to workforce development.

Additional examples of jobs that will change are taxi drivers, IT professionals, cybersecurity professionals, and land developers. Taxi driver jobs are changing with the use of transportation network companies. IT professionals will be in high demand as more data analysts will be needed to manage big data, and new technologies are integrated into our transportation systems to help us make better decisions and move more efficiently. With new connected technologies, there are increased cybersecurity threats, and a demand for cybersecurity professionals. Land developers will need to rethink what communities look like and the use of space will change. “So, the whole ecosystem of trucking, transit, and transport. That whole logistics element, that ecosystem will require a new set of skills, so we have to work with each other to ensure that we are developing the workforce of the future.”



She continued by highlighting a couple of important areas where the future workforce will need to be better prepared. Companies are going to need individuals who have a technologically competent skill set in engineering, information technology, architecture, planning, critical thinking, and collaboration. “I think it’s important for us to look at our organization and determine that what we need are individuals who are confident and situationally adaptable. They can change and they can go with the flow of change,” said Lopez-Diaz. The future of transportation will need innovative thinkers, so that companies can bring to their clients that innovative technology. Soft skills are also important. Leaders will need employees who have self-awareness and know where their strengths and areas of opportunity are. “At HNTB, one of our core cultural elements is what we call the leadership characteristics. This is what we look for in all of our people,” said Lopez-Diaz. She concluded her talk by stressing the importance of focusing on how we attract talent as we think about the jobs of the future. Employers



will not be able to simply recruit the way they have always recruited. They have to think of innovative ways to attract talent. Solving the workforce shortage today will require a diversity and inclusion focus on how we will solve our issues. The advancements of technology will send more people behind computers. Recruiters will have to be more deliberate about communication and engaging with each other. It is vital that companies invest in upscaling their workers. “Partnering with educational organizations, to help develop curriculum. Engaging the workforce to be excited about transportation. Most of our young professionals that we need in the future don’t think about transportation as a societal need.” This is something we need to focus on as partners.

Shifting focus from understanding the changing nature of the transportation industry to understanding the impact of a post-pandemic world for the Inland empire, ranging from social issues, economic issues to also focus on how the pandemic and post-pandemic continues to affect the industry in different ways.

Rebuilding With a New Perspective

In the midst of the Covid-19 Pandemic, a group of experts convened to discuss perspectives on the social and economic landscape of the Inland Empire. Each speaker discusses the complex effects on many industries, ranging from the emergence of new jobs to the interruptions experienced by the transit sector. There is a need for more cooperation and innovation as the Inland Empire navigates the economic crisis in order to overcome the obstacles and clear the path for a sustainable future in the post-Covid 19 environment.

A Vision from Uncertainty to Recovery

Paul Granillo, President & CEO, Inland Empire Economic Partnership (IEEP)

To describe the present status of our situation with the COVID-19 pandemic, Paul Granillo started off by quoting Eeyore, "Well, it could be worse. I don't know how, but it could be," a comical reference, but Granillo stressed the seriousness of the economic crisis at hand and proposed to find solutions moving forward. Granillo showed that between March 2019 to March 2020, the distribution and transportation sector was the number one job creator in the Inland Empire.

However, at the other end of the spectrum, the eating and drinking, education, and manufacturing sectors experienced the most job losses.

Granillo noted that a significant spike in April's unemployment numbers is expected. Consumers will think differently on how they access their money and how to spend their money going into this crisis and these attitudes on spending will define how long the recession will last and what the recovery would look like.

Businesses in the leisure, hospitality and restaurant sectors rely on people partaking in activities in close quarters, but social distancing requirements will have a great impact on how these businesses can realistically operate. Most small businesses surveyed claimed that they have about 2 weeks to a month to survive under current pandemic mandates and dining room closures. The first round of

Optimistic Scenario

- Still a temporary effect on supply and demand side, but no lasting effect: Coachella Festival takes place in October and is sold out; UCLA and USC have in-person classes in the fall
- Small national recession in 2020:Q2 and 2020:Q3 but recovery in 2021
- Focus on Structural Problems

the Payroll Protection Plan (PPP) dried up very quickly. Although there will be another round of stimulus money, many bankers have claimed that it is not enough.

Granillo then discussed what a worst-case pessimistic scenario would look like, stating “I've heard if we can't recover or have to go back into shelter in place because we can't get the virus under control that the worst-case scenario is, we won't see a recovery until 2024.” Optimistically, if the Coachella Festival takes place and is sold out in October and many of the schools are back to in person

classes in the fall, there should be faster recovery – closer to a V-shaped recovery. This would mean that there will be a small national recession in 2020 Q2 and 2020 Q3 but a recovery in 2021.

However, many people from the federal and state level believe that the Coachella Festival, NFL season and other major gatherings will not take place in 2020. Other things such as car ownership, and how we utilize transportation and transit will have to be redefined. Granillo stated that there is value in observing what a recovery looks like for other nations – such as China, Singapore, and South Korea. Additionally, we must look at how these countries use transportation and transit and how they have been affected by COVID-19. “There are going to be new protocols that need to be put in place for us to gather, for us to go out and shop and eat, but also for how we drive, fly, and use modes of transit. I guess my bottom line here is it is a difficult situation. It is not going to be normal. It will be a new normal, we don't have all the answers, we can't tell how long, but we also have to begin to work together on solutions,” said Granillo. He also drew analogies to the great depression and post-world war events in comparison to the current social and economic crisis brought on by COVID-19. And lastly, he quoted Dr. Collins by saying, “Out of those difficult situations come new opportunities and new ideas and many times things to be for the better.”

Paul Granillo looked over at the impacts of the pandemic and how it has affected the transportation industry and the jobs. Our next speaker, Alan Wapner, will continue to go over the effect of the pandemic within our community.

Pessimistic Scenario

- California: Effect on Leisure and Hospitality, Manufacturing, Retail Trade, Wholesale Trade, Transportation and Warehouse
 - Calculations from 145 direct weekly flights from China to California, another 70 from Korea
 - Chinese Tourist Spending 2019: \$4 Billion
 - California Recession starts in 2020:Q3
- Inland Empire: Effect on Logistics
 - Decline of Import Containers by 20%: effect on employment within a year: 6% reduction
 - Inland Empire Recession starts in 2020:Q2
- Strong Fiscal Stimulus Needed – Monetary Policy Insufficient (liquidity trap)

Covid-19 Challenges in Aviation

Alan Wapner, Ontario Council Member & President of the Ontario International Airport Authority

Alan Wapner continued the topic of recovery and the pandemic's effect on the region. To begin, Wapner explained how "these are trying times and they are having an impact at every level of government." Wapner has sat on many regional transit organization boards and was SCAG's immediate former president. The recent COVID-19 pandemic has caused many disruptions in the transit industry.

Wapner was concerned greatly for both the riders of public transit, as well as the employees in public transit. Wapner stated, "I'm really concerned about the conductors and the folks who do fair enforcement as their personal contact. What we did is we backed off of any fare enforcement within the Metrolink system just to avoid that one-on-one contact." Regarding safety measurements put in place for both employees and riders, Omnitrans also is now requiring rear boarding only for all riders in an attempt to reduce the contact employees have with riders.

Several industries have already been affected negatively since COVID-19 began spreading. "What we have taken a heavy hit on is our hospitality industry," Wapner added. "We have the Toyota Arena, we have our convention center, and all the hotels depend on those to generate activity." With the amount of people traveling at an all-time low due to the pandemic, the City of



Ontario is seeing a dip in the amount of taxes that are being collected. The Ontario International Airport is also negatively affected due to COVID-19. "Everything was going great and then now you probably heard we are down 95% at our airport," Wapner explained. Fortunately, the Ontario International Airport is one of the largest exporters in the United States, so they are not as greatly affected as other industries in Southern California.

Even if the pandemic were to suddenly stop and people began traveling again, some industries within the Inland Empire would need time to operate normally again. Wapner explained this by adding, "If we solve this today and everyone went out and started doing their thing, we still wouldn't see any results in most of these industries that I talked about for at least a year or two. Conventions, concerts, sporting events are all planned a year or two years in advance, so it is going to take us that long to build it up which means the whole hospitality industry is going to be on

low.” Once the COVID-19 pandemic is controlled, industries will not be able to bounce back quickly. “There is no on-off switch,” Wapner concluded.

Although there are protests against the stay-at-home orders around America, there are not many in the Inland Empire. “Of course, the fear of many is that we are going to allow people out of their homes prematurely. That may cause another problem with the virus,” Wapner explained. Currently people appear to be growing weary of staying at home and want to be able to do as they please again. Governments, however, are attempting to reduce the number



of infections by issuing stay-at-home orders but are met with local resistance, which can prolong the severity of COVID-19 infections and, subsequently, the recovery of industries most affected by COVID-19. Concluding his presentation, he recommended that residents of the Inland Empire take the advice and information from scientists and professionals. He says, “So again, all we can do is take all the information that our technicians, professionals, and scientists provide us and then based on that and other information we have, try to make the best policy decisions that we can.”

Overall, our expert speakers believe that we will have to prepare and adjust for a new normal post COVID-19. Even though the industry is facing difficult situations, with those hardships come new opportunities for improvement. Looking at the regenerative design Dr. Flagstad’s students discussed, we must keep in mind the current state of crisis gives us the opportunity to imagine a new structure and create a more sustainable system moving forward.

Alan Wapner focused on how the pandemic affects and is affecting everyday lives of everyone living in the Inland Empire including the state of several industries that are suffering because of the pandemic. The next speaker, Steve Fox, will be focusing on the recovery and the role of public transportation amidst the pandemic.

Transit Challenges in the New Normal

Steve Fox, Transit & Rail Planner, SCAG

Steve Fox began his presentation by providing some facts on the jurisdiction of the Southern California Association of Governments (SCAG) region, which includes 191 cities in 6 counties, 19.1 million residents, and accounts for 48.1% of the state’s population. SCAG accounts for a GDP of \$1.2 trillion which makes the region the 15th largest economy in the world.

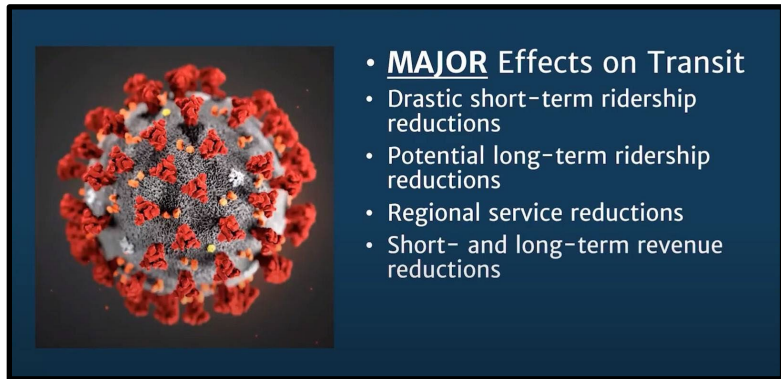
Fox went on to discuss the primary roles and responsibilities of SCAG. Some of these included developing:

- A long-range Regional Transportation Plan (RTP) with a Sustainable Communities Strategy (SCS) to meet greenhouse gas (GHG) reduction targets.
- A short-range Transportation Improvement Program.
- A long-term Regional Growth Forecast.
- The Regional Housing Needs Assessment (RHNA).

Additionally, SCAG serves as a regional data and information center.

Connect SoCal

The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy has been named “Connect SoCal.” As a federal requirement, this plan is a long-term vision and investment framework that is updated every four years in order to maintain eligibility for federal funding. As part of the state requirement, Connect SoCal must meet SB 375 on air quality requirements to address emissions and GHG reductions that result from transportation projects that the counties in the SCAG region builds and implements.



Connect SoCal also coordinates the region’s projects and facilitates regional and local competitiveness for funding. Additionally, it integrates transportation investments and land use strategies and allows any federally funded or regionally significant projects to maintain their eligibility for federal funding.


As part of a very large investment in transit and rail, Connect SoCal allocates \$66.8B in transit and \$53.3B in passenger rail capital projects. Transit funding is directed towards the development of traditional bus, bus rapid transit (BRT) services like San Bernardino County Omnitrans SBX rapid bus line, and express bus services. Additionally, the Redlands Rail Arrow Service, a rail transit service, is currently under construction with allocated passenger rail funds. This service will run between downtown San Bernardino and Redlands. There is also the development of the West Valley Connector Phases One and Two, which is a San Bernardino Country project, as well as the San Bernardino County Transportation Authority which is a future BRT service bus rapid transit service that generally follow line 61 along Holt Blvd from Pomona to Ontario International Airport and going up to the Rancho Cucamonga Metrolink Station. Other funded projects include the Ontario International Airport Rail Access Project, Large Metro Rail expansion in Los Angeles

County, OC Streetcar in Orange County, Metrolink SCORE Program, California High-Speed Rail, XpressWest from San Bernardino County to Las Vegas.

COVID-19, Public Transit, Safety and Mitigation.

With the COVID-19 pandemic, increased teleworking, safety and health concerns, short-term transit ridership has drastically decreased with potential for long-term ridership declines as well. As of April 15, 2020, ridership in the SCAG region has dropped anywhere from 65% to 95% where Metrolink is down 85%, Amtrak Pacific Surfliner down 95%, and Omnitrans down 70%.

Safety and Mitigation



- Rear-door boarding
- No fare payment
- Front of bus closed off
- Stepped-up cleaning and sanitizing
- Passengers required to wear masks
- “Front line” transit employees threatened and sickened


This also translates to major decreases in both short-term and long-term revenue. There have been up to 50% cuts in service, massive drop in fare revenue, and significant reductions in current and long-term sales tax proceeds. “The most pessimistic of scenarios – there will be huge reductions in the sales tax proceeds from transit agencies for capital projects and for operations and maintenance,” explained Fox.

When the CARES Act passed, it included \$25 billion dollars for public transit agencies across the country which would provide short-term relief for transit agencies. However, long-term revenue and funding options may continue to be impacted as the pandemic continues.

Several safety mitigations measures have been put into effect

in public transit systems to combat the spread of COVID-19 for those who have continued ridership. These include rear-door boarding, no fare payment, increased sanitizing and cleaning efforts, mask requirements for passengers and the front door are closed out of concern for the safety and health of the bus and train operators.

Ridership – As of 4/15/20



- Ridership in SCAG region down 65% to 95%
- Metrolink down 85%
- Amtrak Pacific Surfliner down 95%
- Omnitrans down 70%
- Potential long-term decreases
 - Increased teleworking
 - Safety and health concerns
 - Recent regional and national trends

Source: California Transit Association

Path Forward and Recovery

Fox added, “Public transit is an essential service. There are very large numbers of people and workers and students and all other residents who are dependent on transit to get around and they are going to need to go back on transit”.

There are also transportation industry technology and mobility options that are competing with public transit under the best of circumstances and disrupting revenue, such as transportation network companies (TNCs), namely Uber and Lyft. SCAG has also partnered with UCLA on a study that found lower-income households have been buying cars at a higher rate – which has considerably lowered the number

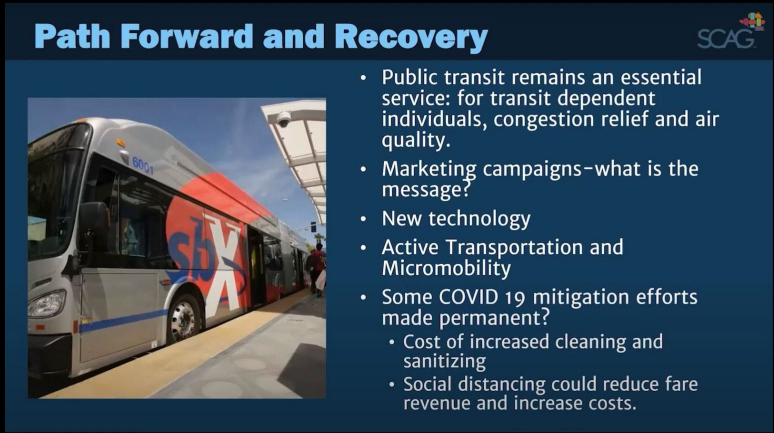
of zero car households. These factors have impacted ridership in recent years and will likely play a significant role in the ability for public transit to recover post-pandemic.

Steve Fox focused on the recovery and the state of the transportation industry amidst the pandemic. The next speaker, Beth Falstad, will look at sustainability and environmental impact through student presentations.

Regenerative Practices After the Crisis

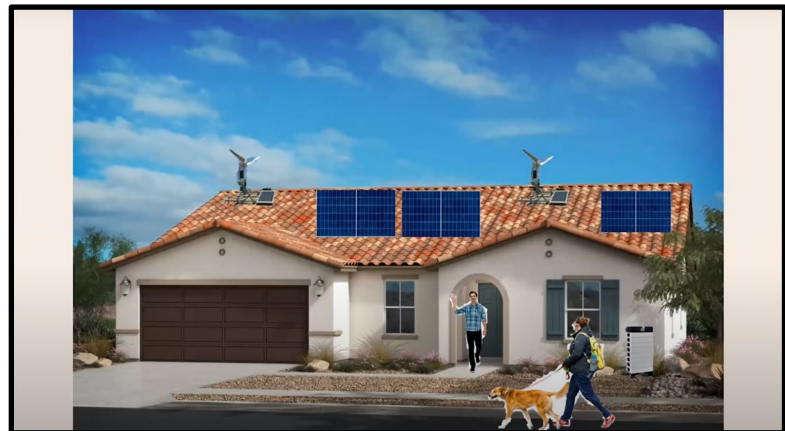
Beth Ann Falstad, Ph.D., Lecturer, Regenerative Studies, California State Polytechnic University

With the reduction of commuters on freeways since the onset of COVID-19, the Inland Empire and Southern California have experienced a massive reduction in vehicle emissions and pollution. Beth Ann Falstad, a lecturer for regenerative studies at Cal Poly Pomona says that, “we are in a pivotal moment and we have the opportunity to imagine a new



Path Forward and Recovery SCAG

- Public transit remains an essential service: for transit dependent individuals, congestion relief and air quality.
- Marketing campaigns—what is the message?
- New technology
- Active Transportation and Micromobility
- Some COVID 19 mitigation efforts made permanent?
 - Cost of increased cleaning and sanitizing
 - Social distancing could reduce fare revenue and increase costs.



structure in our lives.” With the reduction of emissions and pollution, as well as the stay-at-home orders given, residents are now able to appreciate the environment much more than they previously were able to. Falstad adds, “If we want to see the continued reduction in pollution and this connection that many of us have the pleasure in experiencing increased attention to the ones we love and things that bring us joy, how can we retain some of that as things come back to a new normal. More people will be working from home, leaving more time to interact with and enjoy their local environments.”

Falstad also brought several students in her regenerative design class to the Dialogue, each of which explained different regenerative design practices focusing on water, energy, waste, shelter, food, and people. According to Falstad, “Regenerative design is the means to living sustainably within the Earth’s ability to regenerate itself.” These practices reduce the impact that humans have on the environment and attempt to bring a more sustainable system of how people live every day.

Starting the student presentations, Melissa and Tran focused on regenerative practices regarding water. In their example, the students chose Wrightwood as a test city. Here, they chose to implement fog water collection, rainwater collection, as well as snow water harvesting. Students carried out their experiments and studied how the various approaches worked. Fog and rainwater were collected and stored in tanks



In the snow harvesting approach, artificial ponds were created by creating a trench and placing a plastic tarp over the trench. The snow was collected and made into snowballs. These snowballs were then rolled to the plastic-covered trenches. Eventually, these snowballs will melt. Water from the pond can be used for irrigation as needed.

The next student group, which included Tori and others, focused on regenerative energy. For their example they focused on Palm Springs, where they implemented solar panels, wind turbines, and geothermal energy. The groups showed how these systems do not need to be intrusive in the daily lives of the residents and how every home can be fitted with this technology.

In desert environments such as the Salton Sea and Palm Springs, there is a significant potential for energy to be harvested – both solar and wind energy are well suited for the region.

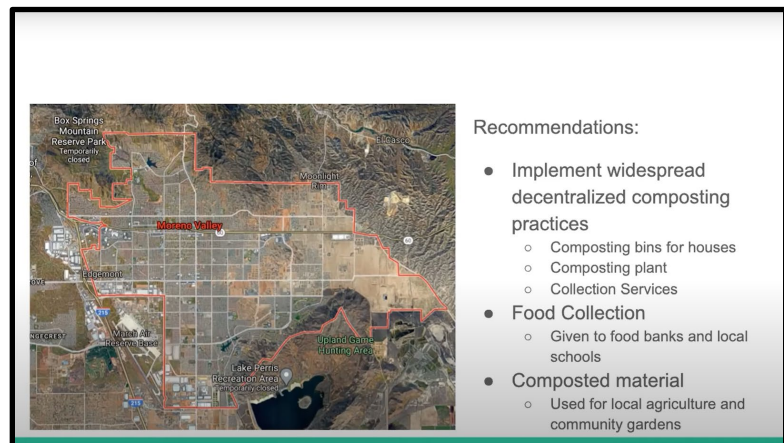
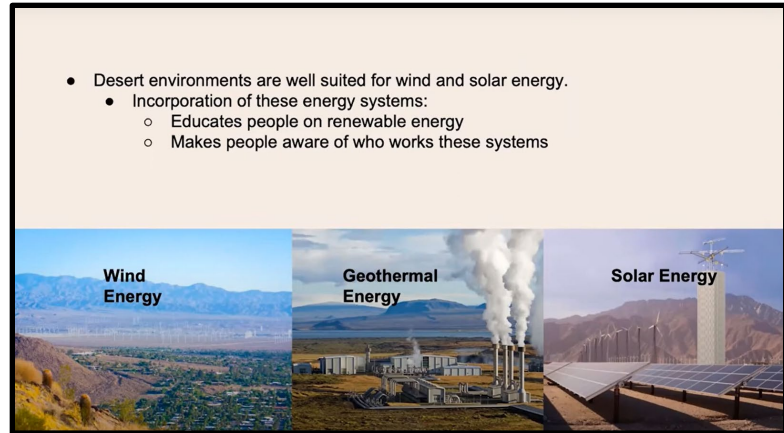
Sophia and Raymond focused on waste management. They proposed an expansion of the current composting system in Moreno Valley. This expansion would form “a cyclical, decentralized

process that is community-based and supports the community to be involved at all levels, whether that be small businesses, homeowners, government officials, and other agricultural needs.” There are many benefits from this approach. Food waste is reduced which would also reduce landfill usage.

Food waste instead be collected, compiled, and composted. The compost can be distributed to local agriculture and community gardens. Additionally, this approach is economically beneficial as it creates jobs, reduces the cost of waste disposal, and brings the community together.

The next group focused mainly on housing initiatives and mixed-use development. Rosalinda and her group chose Ontario and Rancho Cucamonga as an example. To achieve their vision, they proposed, “transitioning from toxic heating oils to power HVAC systems to natural gasses and renewable energy.” They also proposed mixed-use housing where residential housing was located at the top of buildings and retail spaces, as well as workplaces, at the bottom of the buildings. This would reduce the amount of commuting that is needed for people to get to their jobs and back home and further reduce emissions.

The next group discussed regenerative food practices that can be implemented in the Inland Empire. For some families within the Inland Empire, the accessibility of fresh food is very limited. This group proposed that fixing the “convoluted supply chain” of food would impact many by creating a cyclical relationship between communities, food producers, and restaurants. This model is adaptable to each city and could include local farms and composting centers. This approach solves the issue many people seeking fresh food need to travel far to find it. In doing so, this system reduces waste, increases community relationships, and incentivizes business models that are sustainable.



The last group examined various community concepts such as little libraries, repair cafes, swap shops and public participation hubs. These innovative ideas promote reuse and repair rather than throwing items into the garbage and eventually to the landfill. For example, people can bring electrical appliances, clothes, toys, bicycles, appliances, furniture, crockery, and many other items to be repaired or modified by skilled volunteer community members for free. While little libraries allow the community to donate a book (and can take a book if they wish).

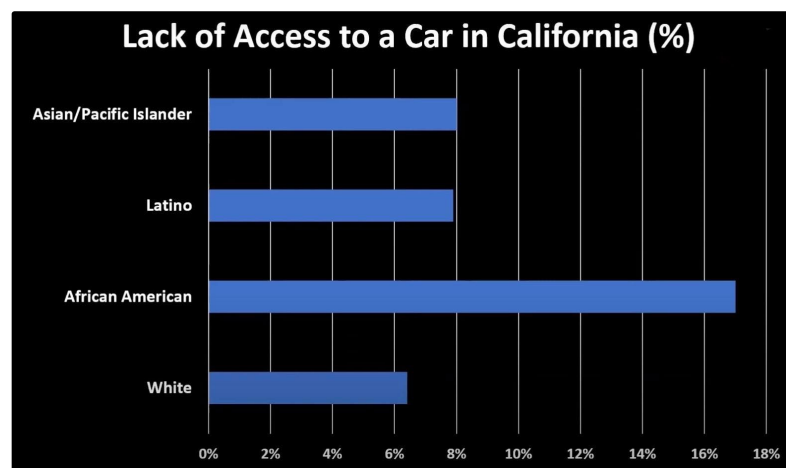
Regardless of the social distance and the new behaviors that are being implemented, including wearing masks in public and keeping a distance, the need to connect with our community and each other is not going away. It is the students and Dr. Falstad's hope is that our local communities can adapt some version of these models because of their flexibility to their unique circumstances.

In the last section we focused on the environmental impact of the pandemic in the Inland Empire. The next speaker will delve into a myriad of problems in the Inland Empire along with considerations that might help or mitigate the current issues we find.

Reimagining Transportation

Joe Lyou, PhD., President and CEO of Coalition for Clean Air, Commissioner at the California Transport Commission

Dr. Lyou explained that, “we all recognize that the history of transportation and inequality is not good, that you know communities of color, especially always seem to come out on the losing end of decisions to widen roads and build freeways and cut public transit services and as this graph shows that that people of color in California, when compared to whites are far more dependent upon public transit because of their lack of access to vehicles. When we talk about inequality and transit, it's important to pay attention to transportation related sources that also disproportionately have an impact on people of color and low-income Californians and to appreciate this disparity, you have to understand the problems with exposure to diesel exhaust.”



He then told the group that “scientists found that in California, exposure to fine diesel particulate matter from heavy duty on road vehicles is 49% higher on average for African Americans when compared with whites. And if you look at income, the same is true. You find the same problem in that 20% bracket here. The lower income level, you're exposed to 33% more diesel PM 2.5 from

on road sources compared to the highest 20% income bracket.” He explained that this exposure is linked to significant negative health outcomes, which are affecting individuals of color at a higher rate due to their exposure.

Dr. Lyou emphasized the magnitude of the issue by saying that transportation in the Inland Empire has a cost and the “State of California has estimated that those costs are to the tune of 2000 premature deaths each year and an average of 20 billion dollars of annual economic impact as public health related costs and so those costs are not trivial.” He stressed that the student presentations were accurate in identifying some of the needs moving forward, such as vision, creativity, and affordability. But one question that must also be considered is, “should we face the reality that congestion is to some extent inevitable and that we have to be realistic about it and the challenges?” He stressed that technology and innovation can help increase efficiency in the system but other issues in society must also be addressed for transportation innovation to take hold such as working on homelessness.

TABLE G-2: Statewide Health Effects and Valuation (2013 \$) Associated with Freight Emissions Contributing to PM2.5—Midpoint Projections

PM2.5 and NOx	2012	2030	2050
Mortality	2,200	980	1,100
Hospitalizations*	330	150	160
ER Visits†	950	420	450
Valuation (billions)	\$20	\$9	\$10

* Includes respiratory and cardiovascular hospitalizations.

† Includes asthma and cardiovascular emergency room visits.

Conclusion

The discussions held among experts and community stakeholders provide valuable insights into the present and future landscape of the Inland Empire, especially amid the complexities brought about by the Covid-19 Pandemic. The collective call for increased cooperation and innovation signifies a shared commitment to overcoming obstacles and steering towards a sustainable future.

The exploration of transportation leadership underscores the need for effective and efficient strategies, emphasizing trust-building, diverse perspectives, and collaborative efforts. As the Inland Empire navigates these challenges, the amalgamation of these themes forms a roadmap for addressing multidimensional problems and embracing opportunities that will shape the modern and future leadership in transportation.

From this Contemporary Conversation (CC) we can have the following three takeaways:

1. The new technologies soon might not be as new

From the UCR interviews we can say that as of 2023 we are in a transition and adaptation period in California. The technologies that we deem as new as of now, like the autonomous vehicle or the electric one, more than being the future they will eventually become the normal present, so yes, one of the things we can say is that California is preparing for a major making what we consider the future, our normal present.

2. Leadership needs to be developed along with collaboration

Probably historically it is not a secret that yes, leadership is in fact always needed. But I guess what we are trying to take form out of our second dialogue is that more now than ever leadership needs to be developed in the younger generations, and it needs to grow in a collaborative environment where instead of seeing companies within the same niche as competitors, perhaps they are more like partners.

3. There is an opportunity in Covid-19 to rebuild

After Covid and its impacts in our society, businesses, and government, there is the time to rebuild. If we can conclude something from our last section of the CC, we can say that this is now the time that we can take what we have learned so far, and in the process of rebuilding our social structures as they normally were, we take those previous lessons in consideration to not fall into the same mistakes.

About Leonard Transportation Center

The Leonard Transportation Center (LTC) at California State University, San Bernardino opened in 2006 with a focus on regional transportation needs. The vision of Bill and Barbara Leonard was to create a center that focuses on the unique transportation opportunities and challenges the Inland Empire faces. Today, the LTC is working to expand its research and student engagement programs. Focal points include transportation management and governance issues, development of new technologies, and transnational studies. Their vision is to work collaboratively to seek solutions to assist residents, businesses, government and nonprofit agencies, and international partners to work together on improving sustainability and quality of life in the Inland Empire. For more information, visit www.csusb.edu/ltc

About HNTB

HNTB Corporation is an employee-owned infrastructure solutions firm serving public and private owners and contractors. HNTB's work in California dates back to its founding in 1914. Today, HNTB continues to grow in size and service offerings to clients in California from seven office locations, currently employing more than 350 full-time professionals. With more than a century of service, HNTB understands the life cycle of infrastructure and addresses clients' most complex technical, financial and operational challenges. Professionals nationwide deliver a full range of infrastructure-related services, including award-winning planning, design, program management and construction management. For more information, visit www.hntb.com

About San Bernardino International Airport

Conveniently located in the heart of the Inland Empire, close to major freeways and just 60 miles from Los Angeles, San Bernardino (SBD) International Airport is strategically positioned to meet growing aviation activity, including cargo, business aviation, general aviation, and commercial airlines by providing competitive rates for aviation companies and local businesses looking to stretch their wings and expand their horizons. With extensive stretches of pristine runway and acres of prime land available for aviation development, SBD International Airport is ready to help our community and region reach new destinations.

About San Bernardino Valley College

San Bernardino Valley College will become the college of choice for students in the Inland Empire and will be regarded as the alma mater of successful, lifelong learners. We will build our reputation on the quality of our programs and services and on the safety, comfort, and beauty of our campus. We will hold both our students and ourselves to high standards of achievement and will expect all members of the college community to function as informed, responsible, and active members of society. For more information, visit www.valleycollege

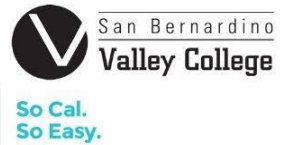


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