

# ANNUAL REPORT 2020



## Leonard Transportation Center

California State University,  
San Bernardino

[WWW.CSUSB.EDU/LTC](http://WWW.CSUSB.EDU/LTC)

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## **A Note from the Executive Director**

It is with great pleasure, the staff at the Leonard Transportation Center (LTC) present the 2020 Annual Activities Report. How to describe 2020? The Washington Post asked their readers to do just that in one word. The responses included exhausting, surreal, relentless, and lost. We would also add in tragedy with the loss of life, but the year also brought new prospects as challenges and hardship brought innovation and discovery. The pandemic has significantly shifted our daily routines and it brought considerable changes to planned activities. Despite this, the LTC continued with its programming and continued to develop new initiatives to support the transportation sector in the Inland Empire.

We had two core convictions guiding us through the year. The first is to build upon our USDOT designation as an Innovation Center. The second comes from the words of our founder and benefactor William E. Leonard from a State Assembly Transportation Committee meeting in 1990 — "Through greater public and private investment in research and development lays the key to our future mobility while at the same time enhancing safety, energy conservation, and air quality."

The primary action we took this past year to move these convictions forward was to create partnerships. It seems odd to think that new partnerships could be developed during a global pandemic, but we were effectively able to do so as limitations, such as time constraints and travel, were eliminated. One of the new benefits from working remotely and using zoom has been the ability to reach many more people. At the end of 2020, we can honestly say we forged stronger relationships with regional stakeholders through our research, and educational and community programming.

With these new partnerships, we will continue to support community goals and local business development through our research and engagement; create and implement educational programming to engage new leaders in transportation; and promote technology advancements in the transportation sector. This work is based on a simple idea of working together to create a more sustainable and equitable future for the IE's transportation sector.

Positive change is our mantra as we move into the new year. The tragedies of 2020 must be remembered, so that we work together to create a better future for all residents in the Inland Empire.

*Dr. Kimberly Collins*

*Executive Director, Leonard Transportation Center, CSUSB*

*December 2020*

# Overview of 2020 Activities

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This year presented many new challenges due to the ongoing pandemic, but even with that, the LTC continued to grow its programming, activities, and research, establishing a growing presence within the community. We were able to create a proactive virtual setting while working remotely.

During 2020 we took on several new initiatives. This effort is building upon the LTC's Advisory Council work in February 2018, to establish a central framework to address strategic, operational, and tactical priorities in the region. These include four main areas of concentration as part of the strategic framework set in 2018.



## 1. **Research**

- Transportation Mobility Policy & Management
- Intelligent Transportation Systems & Transportation Cybersecurity

## 2. **Education & Workforce Development**

- Pathway to Logistics
- Transportation Leadership Planning and Performance Institute
- Teaching Transportation Case Studies
- Transportation Talks

## 3. **Community Outreach & Development**

- Regional Mobility Dialogue Series (RMDS)
- Social Media / Website / Print Communication

## 4. **Operations**

- William E. Leonard Memorial Transportation Internship
- Activity Highlights
- LTC Staff
- 2021 Expectations



# 2020 STRATEGIC INITIATIVES

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## RESEARCH

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As a multidisciplinary, transportation research center in the Inland Empire, it is the LTC's mission to support and enhance research that improves the quality of the system and life in the region. With this in mind, we have identified two specific research focus areas—Transportation Mobility Policy & Management, and Intelligent Transportation Systems & Transportation Cybersecurity. Within these categories, we have conducted a number of research programs in 2020.

### **Transportation Mobility Policy & Management**

The focus of this work is to set a broad agenda to understand the challenges and find possible solutions for enhanced transportation mobility policy and managing inland ports. From an economic perspective, the geographic location, transportation infrastructure, availability of land, and growing demand from e-commerce has made the IE an ideal region for goods movement and home ownership. From a transportation perspective, this growth in residents and logistics facilities has led to congestion, environmental pollution, and stress to public services, which all produce negative impacts to the future economic viability and livability of the region. Given these observations, the LTC is determined to continue to research solutions for system improvements that will lead to transportation sustainability, equity, and improved mobility.

### **Defining Sustainability and Equity in the Inland Empire's Transportation System: The LTC Student Research Challenge (SRC)**

A new and exciting program developed by the LTC this past year was the Student Research Challenge (SRC). The 2020-21 STRC engaged regional university students/upcoming leaders to measure the sustainability and equity in the transportation system. This program had five students, undergraduate and graduate students, and four faculty members from California State University, San Bernardino (CSUSB, Cal Poly Pomona (CPP), and University of California Riverside (UCR)).

The students began with a review of the literature on sustainability and equity issues in the transportation sector. Through this review and with consultation of the faculty advisors and mentors, the students began



work on three sub-projects that explore different facets of sustainability and equity in transportation for the Inland Empire. First, a weighted scorecard for all the cities in the Inland Empire, which looks at different policies and programs in the region and sets a grade was developed. Second, a qualitative analysis of discussions with leaders and experts in transportation in the Inland Empire was conducted. Third, and last, an accessibility assessment using GIS mapping analyzes both the proximity and mobility for each census tract in the region to jobs, recreation, and health centers within a defined time frame. The team is projected to complete all of their work in March of 2021.

The Student Transportation Research Challenge will continue with a new topic and group each year. These topics will be selected to develop research and leadership skills, and provide insight and possible solutions to the region's transportation challenges.

### **Transportation Experts Speaker Panels**

As a part of the SRC, the LTC hosted a series of expert panels from across the community to discuss transportation sustainability and equity in the region. The panels were organized to provide input from regional logistics and transportation companies; public transit; federal, state, and local political leaders; environmental justice community-based organizations; and the transportation planning agencies.



These discussions provided a wide range of opinions and ideas, showing the complexity of the issues and possible solutions. The ideas generated from these panel discussions are included in the briefing by the SRC participants.

### **Intelligent Transportation Systems & Transportation Cybersecurity**

Our second area of research focuses on intelligent transportation systems (ITS) and transportation cybersecurity. With the implementation of new technologies in the transportation system, providing safeguards is critical. The LTC's research agenda for this broad issue is to identify and address cybersecurity challenges in the region's transportation infrastructure.

### **Mobile IoT System for Green Driving**

The Mobile IoT (Internet of Things) System for Green Driving analyzes driving behavior and

route selection that influence the energy consumption rate of a vehicle. Many studies have shown that a gradual, smooth acceleration and braking behavior leads to lower emission rates. The overall objective of this project is not only to educate drivers about green driving, but to also keep them motivated and engaged in these behaviors.

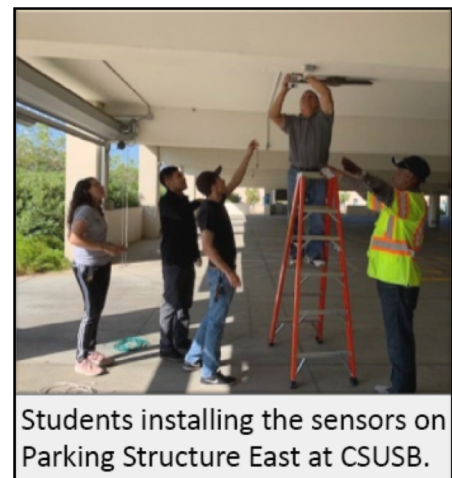
Specific outcomes of this work included the development of a mobile IoT system that features an accurate energy consumption model to track energy usage in daily trips, and a gamification design that allows users to promote their green driving skills through competitions. To address the need of estimating instantaneous fuel consumption, our team proposed two algorithms: 1) a Powertrain-Based Model for vehicles equipped with an OBD-II adaptor, and 2) a Vehicle Dynamics-Based Model which only requires a smartphone in the vehicle.

When sensor readings from the engine control unit are available (via an OBD-II adaptor to a smartphone), the Powertrain-Based Model estimates how much fuel is being injected into the engine in real-time. Researchers presented the design, implementation, and evaluation of two instantaneous fuel consumption models that use smartphones and OBD-II adapters. The system utilizes standard OBD-II commands and smartphone sensor readings, and thus is compatible with most of the passenger vehicles. The pilot study in Highland, CA, shows that the proposed models can accurately estimate instantaneous fuel consumption. In the future, we plan to explore further the use of emission simulators to calibrate the proposed algorithms. This can be achieved by calibrating emission models with the cumulative gas usage of a vehicle.

### **Building a Smart Campus: Parking Space Tracking**

Finding a parking spot on college campus can be frustrating, not to mention it may lead to traffic congestion, class delays, and accidents. While various smart parking systems have been developed to provide parking monitoring and guidance, the central problem is how to make the tradeoff between the cost, accuracy and reliability.

The LTC research team created a smart parking system on campus by integrating both sensor-based and camera-based methods. In summer 2019, we finished a pilot project that tracks the number of vehicles in one CSUSB campus parking structure using IoT sensors and computer vision technologies. It is a reliable yet low-cost system, thanks to the maturity of IoT technology and by leveraging existing surveillance cameras installed by the University Police Department. In addition to counting available parking space, the system disseminates the real-time parking



information to users via both web and mobile applications. Our study shows that the system can help to alleviate the frustration in finding a parking spot and reduce energy consumption by reducing circling vehicles.

A pilot system has been deployed at the Parking Structure East. The project was supported by the Information Technology Services (in particular, Academic Technologies & Innovation and Information Security & Emerging Technologies), and the Office of Student Research. In March 2020 (winter 2020 quarter), as the COVID-19 crisis was unfolding, the vehicle count was directly impacted, but the team has done analysis on the data and will begin presenting to conferences in 2021.



## **EDUCATION AND WORKFORCE DEVELOPMENT**

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### **Inland Empire Pathway to Logistics**

The mission of the Inland Empire Pathway to Logistics initiative is to prepare students residing in the two-county region of San Bernardino/Riverside for managerial and professional positions in the logistics industry. Logistics is a leading industry in the Inland Empire with over 20,000 facilities employing more than 100,000 residents according to the Bureau of Labor Statistics May 2019 estimates.

While the logistics sector has created significant employment in warehouse and low-skilled occupations, industry partners indicate that a high percentage of managerial and professional positions are difficult to fill. The goal of the IE Pathways to Logistics Initiative is to create awareness of these positions and prepare young people to enter the profession. The Inland Empire suffers from high levels of poverty, low paying jobs, and low college attainment rates. This has been a persistent problem that has contributed to high rates of poverty, especially among Black, Hispanic and women workers in need of good paying jobs.

An additional challenge is the perception of logistics as only low-paid warehouse jobs. Therefore, a significant portion of this program will educate parents, students, and other community stakeholders about the highly paid managerial and professional opportunities available in the industry.

The vision of the IE Logistics Pathway is to prepare local students for careers in the 21<sup>st</sup> century logistic industry through continued investment, expertise, and supply of resources. Achieving this vision will equalize opportunities for young people, especially those who are Black, Hispanic and/or women, by providing greater access to high paying positions in one of the most important industries in the Inland Empire – Logistics/Global Business. The Leonard Transportation Center and the Information and Decision Sciences Department at CSUSB have been leading the development of a tactical plan for the Pathway by engaging community partners and creating synergy to build upon activities occurring across the region. Our team vision is “Be the National Center of Excellence for Business Management and Global Logistics”. A steering committee and three tactical teams are working on curriculum, outreach, and industry engagement.

### **Current Status**

In 2021, the first cohort of students to complete the Amazon Logistics Pathway program will graduate from Cajon High School. These students will have successfully completed instruction in information and decision technology, management systems, and business leadership, preparing them for immediate employment in the logistics sector and/or matriculation to

logistics programs at community colleges and 4-year institutions. There are 123 students currently in the Cajon High School program: 15 seniors, 44 juniors and 64 sophomores.

### **Diversity and Equity**

Our program specifically addresses diversity and equity in the logistics fields by exposing high school and community college students to mentors and role models who are Black, Hispanic and/or women in managerial and professional positions. Current Pathway students at Cajon High School are extremely diverse with:

- 62 students identifying as Hispanic/Latino
- 23 White
- 22 African American/Black
- 12 Native American/American Indian
- 2 Filipino/Pacific Islander
- 2 Asian
- 47 females/76 males



Cajon High School and Amazon Pathway to Logistics Official Opening

In order to provide these students with guidance, mentoring, and connections to industry, we have hired a CSUSB MBA graduate students in Supply Chain Management to launch the Pathway Ambassadors Program by spring 2021. This portion of our program will recruit and train university students to work with other students engaged in the Pathway. The Pathway Ambassadors will mentor and tutor high school students for greater success in dual-enrollment courses

offered at the high schools; give special lectures and support the CTE teachers in the high school classrooms; engage and answer questions of parents and students at community outreach events; engage with industry representatives at regional events and at CSUSB hiring fairs/sponsored activities; and work with high school and community college counselors to create additional synergies between the educational partners. Special attention will be paid to those who have been underrepresented in the industry.

### **Results from Increasing College Going Rates**

The level of education one obtains, directly relates to their annual salary. A key goal of this program is to move people out of poverty. As the following table shows, if we are able to encourage more high school students to enter into a four-year degree program, we will be moving them into higher paying positions.

### Average Annual Median Wages for Inland Empire Logistics Jobs by Level of Education, 2019

Level of Education	IE Average Annual Median Wages (2019)	Salary Spread from High School	Salary Spread from AA
High School Degree	\$39,187	\$0	(\$3,710)
AA Degree	\$42,897	\$3,710	\$0
Bachelors' Degree	\$70,552	\$31,365	\$27,655

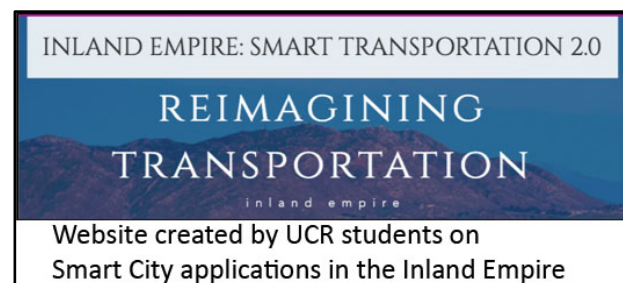
Source: Author's Calculations from EDD/LMID Occupational Employment Statistics Survey, 2019 Wages, U.S. Department of Labor Occupational Information Network (O\*NET)

An annual salary of \$70,552 is \$21,402 more than the estimated living wage needed for a family of 4 in San Bernardino County (\$49,150) and \$20,307 for a family of 4 in Riverside County (\$50,245) (WestEd.org). The possibilities in changing lives are tremendous looking at these numbers – encouraging us to work harder to make it happen.

### Smart Cities 2.0 - UCR Student Collaboration

A special project focused on Smart City applications in the IE occurred in spring 2020 with a collaboration between University of California, Riverside's Department of Political Science and the Center for Sustainable Suburban Development and the LTC. Under the guidance of Professor Ronald Loveridge

(UCR) and Professor Kimberly Collins (CSUSB), four political science student researchers looked at the possibilities of a Smart Transportation Future in the IE. They defined the key issues in the region through a review of pertinent literature, and interviews with regional transportation leaders. This work was presented at the August Transportation Dialogue "Smart Cities 2.0 - Reimagining Transportation" and the full analysis link can be found on the LTC's website.



## Transportation Leadership, Planning and Performance Institute (TLPPi)

The Transportation Leadership, Planning and Performance Institute provides a comprehensive overview of transportation planning, performance, and leadership. The course has 26 modules and a capstone project. It covers an array of topics that are beneficial to individuals interested in learning about the future of transportation planning and technology such as strategic planning and leadership. The TLPPi provides vital skills and applied information to entry-



level/mid-level transportation planners working in California. Skills acquired can be applicable beyond transportation, and professionals can learn about how they can improve leadership skills, work with performance indicators, and update their knowledge in transportation planning.

In 2020, two cohorts of Caltrans employees completed the program. Our next steps will

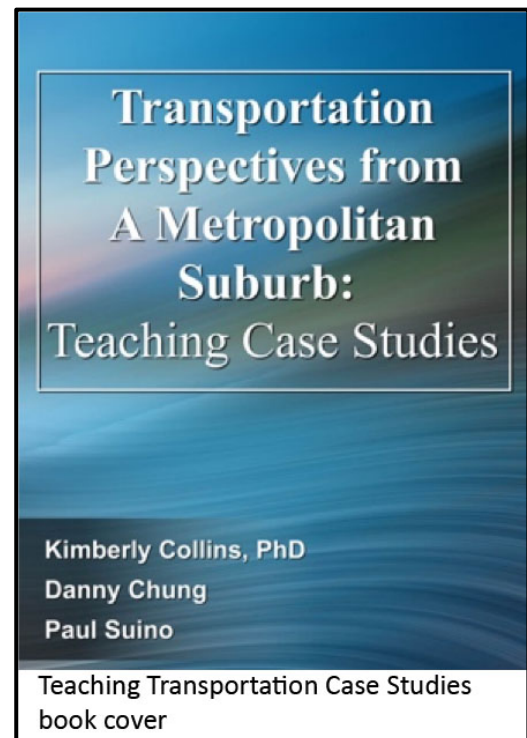
be to update current content, and revise the institute to include the topic of transportation equity. We hope to roll out the new version of the TLPPi in the fall of 2021.

## Teaching Transportation Case Studies

From the wealth of information generated from the 2018 and 2019 Transportation Dialogues, the LTC developed a book of Transportation Case Studies for use in the classroom. This work is to be published in 2021 on the Amazon Marketplace for purchase. As part of this initiative, we are developing an LTC Press.

## Transportation Talks

Related to the case studies developed from the Transportation Dialogues, we also developed a series of short video presentations from the expert presentations for use in the classroom or other special engagements. These presentations have a wealth of information and insight into transportation issues impacting this region and can be found on our website.



## COMMUNITY OUTREACH & DEVELOPMENT

### Regional Mobility Dialogue Series (RMDS)

In the last three years, the LTC has organized and hosted 18 Regional Mobility Dialogues (RMDS). The series aims to bring together various stakeholders from the public and private sector as well as a diversity of community members to discuss relevant issues that are impacting mobility in the Inland Empire. Mobility is a major concern for the work to enhance the region's quality of life and economic growth.



As a result of the COVID-19 and stay-at-home orders, the Dialogues were moved to a virtual format with the use of Zoom as the medium. This shift resulted in a higher average attendance rate and the quality was not impacted. Participants still engaged in lively conversations around the issues presented by the invited experts.

The 2020 series was sponsored at the platinum level by HNTB, San Bernardino International Airport (SBD) and San Bernardino Valley College. The silver level sponsors included Global Leadership Alliance (GLA), Foothill Transit, HDR, Lane Construction, PPM Group, Inc. and Exp. Due to the success of the series and the ongoing support of our sponsors, we are pleased to introduce the 2021 LTC Regional Mobility Dialogue Series. This series will also be held via an online medium unless stated otherwise. A review of the topics covered in the Dialogue Series as well as the highlights from each Dialogue can be found on the LTC website.

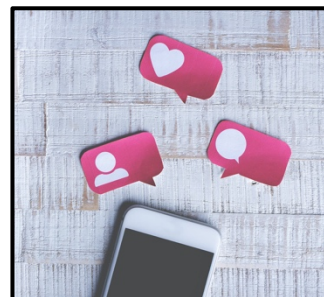
Date	Dialogue Topic	Number of Attendees
Feb, 18, 2020	Drone Development in the Transportation Sector	29
Apr 21, 2020	A New Vision for the Inland Empire's Transportation Infrastructure: Responding to Change and Crisis	84
Jun 23, 2020	Getting Ready for Electric Commercial Fleets: A Panel of Experts Gives Us Their Vision	79
Aug 25, 2020	Smart Cities 2.0: Reimagining Transportation	48
Oct 20, 2020	Achieving Equity and Social Justice in Transportation	47
Dec 15, 2020	Transportation Entrepreneurs – Looking Towards the Future	32
<b>2020</b>	<b>Total Unique Attendees</b>	<b>211</b>



## Web Presence

### Social Media

During the past year, the center has maintained its online presence through its social media mediums. Growth can be seen across all platforms, namely LinkedIn, Facebook, Twitter, Instagram and YouTube. These platforms allow the LTC to disseminate information about present and past events.



Additionally, these mediums serve as an invitation to the community, and both educate and discuss relevant issues pertaining to the transportation, mobility, supply chain and logistics sector.

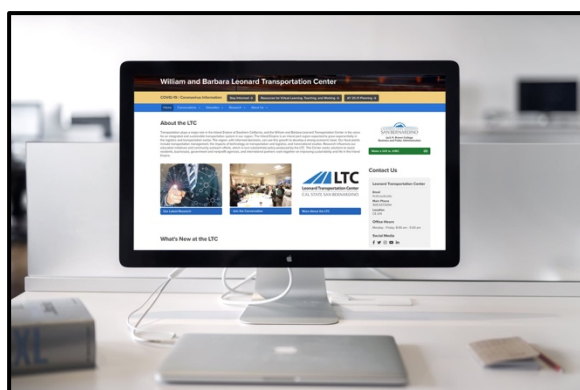
Platform	Net Followers Gained in 2020
LinkedIn	107%
Facebook	15%
Twitter	54%
Instagram	68%

### YouTube

The highlight videos from the 2020 Regional Mobility Dialogue Series were uploaded to the LTC's YouTube account. Additionally, we began to develop short excerpts—30 to 60 seconds—that highlighted moments of significance from Dialogue's experts. These excerpts were shared across all social media platforms and were able to extend the reach and create awareness of the series.

### Website

The goal of the LTC website is to communicate the current activities we are working, while also serving as a repository of information. Over the past year, staff has provided a number of updates to the style, format, and content. The website was reformatted and updated, and current projects were added to the homepage. The goal is to facilitate navigation and content to improve access to the information on the site.



## OPERATIONS

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### **William E. Leonard Memorial Transportation Internship**

In 2019, the William E. Leonard Memorial Endowed Scholarship was renamed the William E. Leonard Memorial Transportation Internship. This internship supports a paid position at the LTC for a CSUSB student. Supporting students in their personal goals of getting a higher education was important to William and Barbara Leonard. This internship assists in meeting this goal.

The center had its second student intern this year, Danny Chung. Danny is currently a graduate student working towards his MBA (Masters of Business Administration), with a dual concentration in cybersecurity and global supply chain management. He also has a vested interest in the Inland Empire and is currently an advisor to the board of directors at the Distribution Management Association (DMA) of Southern California. He is a dedicated worker and we are pleased to have him be a part of the team.

### **Activity Highlights**

In addition to our priority strategic initiatives, the LTC staff participated in numerous virtual community engagement activities during 2020. These included expert speaker panels and attendance at conferences; engaging in stakeholder meetings; working with university colleagues; and collaborating with several local community colleges and high schools. These activities were invaluable in the development of strong and reliable partnerships and promoted current and future strategic initiatives for the center.



Key staff members met the demands of a very rigorous monthly schedule.

<b>2020 LTC Activities (By Month)</b>			
<b>Month</b>	<b>Activity</b>	<b>Participants</b>	<b>Comments</b>
<b>January</b>	On Sustainability Conference Attendance and Presentation	Executive Director	
	Ontario Business Council's Vision 2020	Staff	
<b>February</b>	DMA Economic Outlook	Staff	
	Webinar: It's Time to Modernize Supply Chain Design	Staff	
	First Dialogue Series of 2020 – Drone Development in the Transportation Sector	All staff, students, council members, public and private sector stakeholders, community members	Community engagement, informational opportunity for community members and transportation experts
	California Steel Mill Tour	All staff	
	Basemap Tracc Training	All staff, CSUSB faculty, public and private sector stakeholders, community members	
<b>March</b>	Advisory Council Meeting	All staff, executive director, students, faculty, council members	
	Conversation on the Port of LA and the	Executive Director	

	Environment convened by UCR		
	Webinar: The Coronavirus Impact on Global Supply Chains	Staff	
	Webinar: Weathering the COVID-19 Storm: Managing your Manufacturing & Supply Chain	Staff	
<b>April</b>	Webinar: Navigating Through Volatility – Navigating Global Supply Chains	Staff	
	Webinar: COVID-19 Impact on SCM & Logistics	Staff	
	Webinar: COVID-19 & Port Operations	Staff	
	Webinar: Dealership Success with Shared Mobility	Staff	
	Now working remotely, we switched the Dialogues over to a virtual format, second Dialogue Series – A New Vision for the Inland Empire's Transportation Infrastructure: Responding to Change and Crisis	All staff, students, council members, public and private sector stakeholders, community members	Community engagement, informational opportunity for community members and transportation experts

	Webinar: Doubling Down on Supply Chain Digital Capabilities	Staff	
	The ACM/IEEE International Conference on Internet of Things Design	Associate Director	Virtually present paper on the Smart Parking project
	NSF RAPID proposal on Online Teaching Evaluation	Associate Director	Collaborative proposal with Cal Poly Pomona
<b>May</b>	Webinar: How Location Intelligence Drives Supply Network Resilience and Recovery ESRI - The Science of Where	Staff	
	Webinar: Competition with Suppliers	Staff	
	Webinar: SCM Live – Inventory Management: One is the Loneliest Number or is it?	Staff	
<b>June</b>	Advisory Council Meeting	All staff, students, faculty, council members	
	Transportation Data for Equity - UC Davis conference	Executive Director	
	Webinar: Panel Discussion – Manufacturing Goes Back	Staff	



	Third virtual Dialogue Series – Getting Ready for Electric Commercial Fleets: A Panel of Experts Gives Us Their Vision	All staff, students, council members, public and private sector stakeholders, community members	Community engagement, informational opportunity for community members and transportation experts
	Webinar: Shamrock Foods – Navigating Through Volatility	Staff	
<b>July</b>	Webinar: IEEP Southern California Ecommerce and Logistics Summit (Sessions 1 & 2)	Staff	
	Expert Panels: Political Leaders Transit Leaders Transportation & Planning Agency Leaders Industry Leaders	All staff, students, council members, public and private sector stakeholders, community members	
	Move LA Zoomposium: LA's Boulevards of Equity and Opportunity	Executive Director	
	Webinar: Supply Chain Optimization – On the Road to Recovery	Staff	
<b>August</b>	Webinar: IEEP Southern California Ecommerce and Logistics Summit (Sessions 1 & 2)	Staff	
	Webinar: The Circular Economy and the	Staff	

	Internal Corporate Ecosystem		
	Fourth virtual Dialogue Series – Smart Cities 2.0 - Reimagining Transportation	All staff, students, council members, public and private sector stakeholders, community members	Community engagement, informational opportunity for community members and transportation experts
	Webinar: Creating a Culture of Inclusion	Staff	
<b>September</b>	DMA Webinar: Economic Forecast	Staff	
	Webinar: IEEP Southern California Ecommerce and Logistics Summit – Discussion with Wayne Nastri	Staff	
	Mobility 21	All staff	
<b>October</b>	Fifth virtual Dialogue Series – Achieving Equity and Social Justice in Transportation	All staff, students, council members, public and private sector stakeholders, community members	Community engagement, informational opportunity for community members and transportation experts
	Advisory Council Meeting	All staff, students, faculty, council members	
	ESRI Training for Research Challenge Students	All staff, students, faculty	
	Pathway to Logistics – All Team Meeting	All staff, students, council members, public and private	

		sector stakeholders, community members	
	Presentation of the Pathway to the GIA Data Group	Executive Director	
	Presentation of the Pathway to the Regional Industry Advisory Group	Executive Director	
	Presented in the Supply Chain Management Webinar Week to students at Mount San Antonio College (Mt. SAC).	Staff	
<b>November</b>	Webinar: ASCM Data Cultures: A Lay of the Land Ahead	Staff	
	Pathway to Logistics Virtual Presentation at Cajon H.S. by DMA Speaker, Derek Dokter of Mt. SAC	All staff, students, faculty	
	Pathway to Logistics Virtual Presentation at Cajon H.S. by DMA Speaker, Joel Walker of Link International	All staff, students, faculty	
	NSF IUSE proposal on Transportation Engineering Education	Associate Director	Collaborative proposal with Cal Poly Pomona, Rensselaer Polytechnic Institute and Old Dominion University.

<b>December</b>	Advisory Council Meeting	All staff, students, faculty, council members	
	Sixth virtual Dialogue Series - Transportation Entrepreneurs – Looking towards the future	All staff, students, council members, public and private sector stakeholders, community members	Community engagement, informational opportunity for community members and transportation experts
	Expert Panel: Environmental Justice Leaders	All staff, students, council members, public and private sector stakeholders, community members	
	Webinar: ITS Security – Cybersecurity – What you need to know	Staff	
	Webinar: Autonomous Robots in Warehouses	Staff	

## LTC COMMITTEE REPRESENTATION

Title	Representative
SCAQMD AB 617 Steering Committee for SB/Muscoy	LTC Staff
Regional Work Based Learning Oversight Committee	Kimberly Collins, LTC Staff
Business Engagement Alignment Team, One Future CV	Kimberly Collins, LTC Staff
Distribution Management Association (DMA) of Southern California	Kimberly Collins/Danny Chung
Inland Southern California Climate Collaborative	Kimberly Collins
IEGO Logistics Center of Excellence Core Team	Kimberly Collins
SCAG/SBCTA Technical Advisory Group	Kimberly Collins
California/Baja California Border Master Transportation Plan - Visionaries Panel	Kimberly Collins
Association of Borderland Scholars, Board of Directors	Kimberly Collins
Good Neighbor Environmental Board	Kimberly Collins



<b>Redlands Park and Recreation Commission / Friends of Prospect Park</b>	<b>Kimberly Collins</b>
<b>Association for Supply Chain Management (ASCM/APICS)</b>	<b>Danny Chung</b>
<b>Institute for Supply Management (ISM)</b>	<b>Danny Chung</b>
<b>Intelligent Transportation Society of California (ITSCA)</b>	<b>Danny Chung</b>
<b>The Cyber Intelligence and Security Organization (CISO) at California State University, San Bernardino</b>	<b>Danny Chung</b>
<b>ACM/IEEE International Conference on Internet of Things Design and Implementation (IoTDI)</b>	<b>Yunfei Hou</b>
<b>IEEE Global Engineering Education Conference</b>	<b>Yunfei Hou</b>
<b>South Big Data Hub, Data Science Education &amp; Workforce Working Group</b>	<b>Yunfei Hou</b>
<b>Central Coast Data Science Partnership</b>	<b>Yunfei Hou</b>

## 2020 ADVISORY COUNCIL MEMBERS

<b>Member</b>	<b>Affiliation</b>
Kome Ajise	Executive Director, Southern California Association of Governments (SCAG)
Doran J. Barnes / Josh Landis	Executive Director, Foothill Transit / Planning Manager, Foothill Transit
Matthew Barth, Ph.D. / Nicole Cleary, Ph.D.	Professor of Electrical and Computer Engineering, Director / Deputy Director, CE-CERT, University of California, Riverside (UCR)
Rick Bishop / Christopher Gray	Executive Director, Western Riverside Council of Governments / Director of Transportation, Western Riverside Council of Governments (WRCOG)
Michael Beauchamp / Ray Desselle	District Director, Caltrans District 8 / Deputy District Director of Planning, Caltrans District 8
Mike Burrows	Executive Director, San Bernardino Airport Authority
Garry Cohoe, Council Chair	Senior Vice President, Advanced Civil Technologies
Kimberly Collins, Ph.D.	Executive Director, Leonard Transportation Center (LTC); Professor of Public Administration, Jack H. Brown College of Business and Public Administration, CSUSB
Carrie Gilbreth	Senior Partner, Westbound Communications
Paul Granillo / Jason Cordova	President and CEO, Inland Empire Economic Partnership (IEEP)
Yunfei Hou, Ph.D.	Associate Director, Leonard Transportation Center (LTC); Assistant Professor Computer Science & Engineering, CSUSB

Xudong Jia, Ph.D., P.E.	Professor and Chair of Civil Engineering, California State Polytechnic University, Pomona (CPP)
William “Bill” R. Leonard	Leonard Family representative; Capitol Commission volunteer; State Legislator 1978-2002; Board of Equalization 2003-2010, Secretary State and Consumer Services 2010
Frank Lin, Ph.D.	Professor, Information and Decision Sciences, CSUSB
Erin Rogers	Interim CEO, OmniTrans
Lawrence C. Rose, Ph.D.	Dean of the Jack H. Brown College of Business and Public Administration, CSUSB
Liza Wilson	Leonard Family Representative; Account Executive, Sanofi Genzyme

## LTC STAFF

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### **Kimberly Collins, PhD**

Dr. Collins is the Executive Director of the Barbara and William Leonard Transportation Center and Professor in the Public Administration Department. Her current research focuses on social equity, sustainability, networks, and democracy in search of developing 21<sup>st</sup> century institutions to respond to the future. She currently is a Professor of Public Administration; serves on the Good Neighbor Environmental Board (a U.S. EPA Presidential Advisory Commission) in 2018; and is the North American Regional Editor for the Journal of Borderlands Studies.

### **Yunfei Hou, PhD**

Dr. Hou is the Associate Director of the Leonard Transportation Center, and Assistant Professor, School of Computer Science and Engineering. He received his Ph.D. from Department of Computer Science and Engineering, University of Buffalo, SUNY in 2016. His current research interests include applications in transportation cyber-physical systems, and data and information analysis for transportation engineering. Recent projects span areas such as intersection management with connected vehicle technologies, electric taxi-sharing and taxi fleet dispatch, and on-road infotainment services.

### **Kathleen Ramirez**

Ms. Ramirez holds a Bachelor's in communication with an emphasis on Media Studies, from California State University, San Bernardino. She started working for the Leonard Transportation Center in 2016, and was recently hired on as the centers Administrative Support Coordinator. Her interests include broadcast journalism and human organization.

### **Danny Chung**

Mr. Chung is a graduate assistant at Leonard Transportation Center. Currently an MBA graduate student with a dual concentration in cybersecurity and global supply chain management at California State University, San Bernardino. He has a strong interest in supply chain, logistics, transportation, cyber security, personal finance, financial markets, and intelligent transportation systems. Mr. Chung also has a vested interest in the Inland Empire and is currently an advisor to the board of directors at the Distribution Management Association (DMA) of Southern California.

**Miguel Georgie**

Currently a graduate student working on his MBA with a focus in global supply chain management at CSUSB Jack H. Brown school of Business and Public Administration. He is currently applying his skills, and education to completing his MBA program, while growing his network in the business, and logistics sector. He is avidly looking to grow his skills, talents, and experience in the logistics and supply chain. His interests include international affairs, microeconomics, and public policy.

**Paulina Mendoza**

Student assistant at the LTC for the Pathway to Logistics. Currently an undergraduate student working to earn a B.A in English with a focus on English Literature. She hopes to continue on to graduate school to earn a Master of Library and Information Sciences with an interest to pursue a career in the public library system.



## 2021 EXPECTATIONS

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In the coming year, we will expect to continue our program expansion and to plan new initiatives to respond to the region's system. The following is a brief preview of our plans but much is more to come.

The 2021 Regional Mobility Dialogue Series will remain in a virtual format and

we have already planned several exciting topics. The second student research challenge project will focus on the IE's transit system using Big Data and Policy solutions. This research project will provide hands on experience for our students in big data analytics and provide tremendous opportunities to improve the transit system and move toward a system based in Mobility as a Service (MaaS). The goal of the LTC 2021 Student Research Challenge is to explore these opportunities, from the day-to-day operation of the transit system to the long-term strategic planning of the region's transportation. A third focus will be to build out the Pathway to Logistics initiative, focusing specifically on the student Ambassadors Program, industry engagement, and program expansion.

We encourage you to visit our website frequently as we are constantly updating and providing new information, and hope to see you at one of our Regional Mobility Dialogues soon.