



STRATEGIC ACTION PLAN: A FRAMEWORK FOR  
RESEARCH, PRIORITY INITIATIVES, AND  
COLLABORATION  
MAY 2018



WILLIAM AND BARBARA LEONARD TRANSPORTATION CENTER  
CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO

## **Who We Are**

The William and Barbara Leonard Transportation Center (LTC) at California State University, San Bernardino (CSUSB) was established a decade ago to provide the transportation community of Southern California's Inland Empire with an unbiased, non-profit organization that would facilitate collaboration, more informed decisions, and enhanced transportation performance for the region. During the last two years, the LTC has been refocusing its mission and developing new programming, under the direction of Dr. Kimberly Collins, the LTC's new Executive Director, members of the LTC's Advisory Council, and support from the CSUSB community.

The LTC is a research and educational support affiliate at CSUSB. Through this role, it is building multidisciplinary programs focused on transportation management, public policy, and technology. The goal is to work across the CSUSB campus with faculty from Logistics/Supply Chain Management, Computer Science and Engineering, Public Administration, Nursing, Sociology, as well as others. Faculty working on transportation issues from sister universities from the disciplines of Environmental Sciences, Planning, and Civil Engineering are connected to the LTC through a Memorandum of Understanding signed by the leaders of the CSUSB, CalPoly Pomona, and University of California, Riverside. By collaborating with a multitude of departments, the right experts will be engaged to research the challenges and solutions to the many transportation issues impacting the Inland Empire. Our vision is to work collaboratively to assist residents, businesses, government and nonprofit agencies, and international partners to work together on improving sustainability and life in the Inland Empire.

On January 11, 2017 the US Department of Transportation (USDOT) announced that the LTC was among 18 universities throughout the United States to be designated as a Center for Innovation in the USDOT's *Beyond Traffic 2045* strategic plan. This plan is the most extensive assessment of current and future conditions of the U.S. transportation system (U.S. Department of Transportation, 2017). In addition, the report discusses how trends shaping our transportation system requires changes in policy, new pathways to planning, and greater coordination between all levels of government. This includes working closely with the private and nonprofit sectors. As a designated Innovation Center, the Leonard Transportation Center is committed to contributing to these goals through its programming of research, education, and community engagement.

## **How This Action Plan Came Together**

The LTC's Advisory Council met for a day and a half in February 2018 for a working retreat to develop this strategic action plan. The ideas and action items were based upon the strategic plans of CSUSB, the Jack H. Brown College of Business and Public Administration, and the original 2006 LTC plan. These strategic planning documents were used as reference and to make sure that this action plan was allied to the fundamental principles discussed.

Providing learning experiences that promote student success is CSUSB's and Jack H. Brown College first goal. The Leonard Transportation Center creates an opportunity for students to do so by engaging in a number of projects, for example our Regional Mobility Dialogue Series, working with faculty on projects, and increasing the transportation educational programs. The LTC provides students with experiences that will help them become active and ethical members of the workforce.

The second goal within these plans is to promote faculty and staff success. The LTC is working to address this goal through facilitating research, providing community forums for engagement and discussion, and promoting the mission of the CSUSB and JHBC to the community through interaction with stakeholders and distribution of research.

The third goal is related to resource sustainability and expansion. The LTC action plan is directly linked to this goal through our fundraising business plan. The fourth goal of community engagement and partnerships will be specifically addressed through the work of the faculty fellows and student research projects, education certificates, work with members of the advisory council, and community engagement programming.

In the original LTC strategic plan, the theme was *Decision-Making and Management of Transportation Systems*. It was the Center's goal in 2006 "to provide local, state, and federal transportation providers with increased capability to produce improved transportation decisions and with the information and research resources to better manage transportation systems (including transit) and transportation investments." The current action plan is continuing with this goal with a clear focus on the issues that are impacting the region because of its status as an Inland Port.

To begin the process, the council members conducted a gap analysis to determine areas of improvement for the LTC. After careful consideration, a set of recommended actions were proposed. From here, a number of common themes and ideas were presented and then narrowed down into four core areas. For a full review of the retreat, please refer to the minutes found in Appendix A. The final deliverables and deadlines from this planning process are provided in Appendix B.

### **Strategic Areas**

This action plan has been developed as a leadership tool for setting the 2018 organizational direction of the LTC. Its purpose is to provide direction and outline measurable goals for LTC's staff and advisory council members. The following are the strategic areas agreed upon by those who attended the retreat. Within these areas, a number of projects and activities with timelines and team members were devised.

- Research
- Education
- Community Engagement
- Operations

## **Research**

Research is a vital part of the center's operations. As a university center, one of the greatest impacts we can have in the IE community is through high quality, academic research. The LTC is the only multidisciplinary, transportation research center located in the Inland Empire. There are programs and faculty in the region's universities, and the University of California, Riverside has Ce-CERT, which focuses on environmental technology and research, but the LTC is the only university logistics and transportation center. From this position, the LTC is looking to support and enhance the current research activities in the region. Two specific areas of research were identified by the Advisory Council at the retreat.

The first is a broader agenda of understanding the challenges to and possible solutions for enhanced transportation mobility in suburban, inland ports. Corporate and consumer demand for imported goods is continuously increasing due to the expansion of international trade. From an economic perspective, rapid industrial growth, and convenient access to freeways, airports, and rail lines have made the Inland Empire an ideal location for industrial facilities. These manufacturing and industrial facilities include, warehouses, rail yards, and distribution centers. This has led to elevated traffic congestion, complicated environmental standards, and has the ability to impact the future economic viability of the region. With this being said, the LTC's location sets us apart from other UTC's because the Inland Empire is an optimal location to build upon transportation research to help solve mobility issues.

The second focal point will be in transportation cybersecurity infrastructure. With the implementation of new technologies as part of the transportation infrastructure, safeguarding the security of the system is critical. This research agenda will identify current needs and scope out a larger research project and implementation plan with the ultimate goal of addressing possible cybersecurity challenges in the region's transportation infrastructure.

As part of this research agenda, the LTC is working to develop a faculty fellows program over the next year to integrate the work of experts and researchers across the CSUSB campus. The key components of this program will be to effectively engage faculty and students in research, collaborative projects, and community outreach.

Strategic Issues	Steps to Achievement	2018 Outcomes
Inland Port Transportation Mobility Challenges	<p>Actively search and apply for possible RPFs released by local, state, and national agencies.</p> <p>Develop an outreach plan to engage regional stakeholders and inform them of the capabilities of the LTC and its associated researchers.</p>	The LTC will have conducted three studies related to mobility challenges and solutions in the Inland Empire
Cybersecurity Transportation Infrastructure	<p>Work with the WRCOG to develop a review of the current cybersecurity infrastructure in the region.</p> <p>Obtain input from the Advisory Council on the research and implementation plan.</p> <p>Work with regional stakeholders and identified funders to support the full study and implementation.</p>	<p>The LTC will have conducted a review of the current status of the system and provided a research framework for addressing the issue.</p> <p>Funders and other stakeholders will be identified and contacted.</p>
Faculty Fellows Program	<p>Develop the structure and goals of the program.</p> <p>Identify and outreach to faculty from CSUSB, UCR and CPP to develop a list of research interests and topics.</p> <p>Include faculty fellows as part of the outreach materials.</p>	The LTC will have put together a group of university faculty from CPP, UCR, and CSUSB that are interested in working on the two key research areas.

**Education and Workforce Development**

Education and workforce development are two critically important components of the LTC’s program. It is well known that a change in the workforce is occurring throughout the United States as baby boomers hit retirement age and millennials are on the brink of becoming the largest adult generation (U.S. Census Bureau, 2017). There is a need for highly skilled transportation professionals in all fields, including transportation logistics, administration and management of both public and private entities, planning, and engineering. As a response to this need, the Leonard Transportation Center has a number of initiatives. This includes providing opportunities and educating CSUSB and other regional university students; developing a transportation pathway that will attract and provide educational opportunities for the region’s

young people; and providing certificate programs to train and educate professionals already in the field.

Programs for CSUSB students include participation in the Regional Dialogue series, offering direct research assistant positions, and working with faculty across campus to fund work with students in their disciplines. The goal is to engage and provide opportunities with as many students and faculty as possible across the campus and at CSUSB's sister institutions of UC Riverside and Cal Poly Pomona.

The transportation/logistics pathway is a new initiative under development that will focus on working with and providing opportunities for students in middle and high school. The goal is to attract them to professional careers in transportation and logistics. This pathway program will be designed to build from the investment made by Amazon Corporation into Cajon High School. The primary goals are to provide quality employees to a growing regional industry and increase business activity, and prepare local residents for opportunities to compete for higher paying jobs in the logistics and transportation industry. A secondary goal is to improve the overall education rates in the region. According to the U.S. Census Bureau, only 19.3 percent of the population in San Bernardino County has a bachelor's degree or higher. In Riverside, the numbers are a bit better with 21.2 percent with a bachelor's or better, but this far lower than the state average of 32 percent. The Inland Empire educational rates are also lower than the surrounding counties of Los Angeles (30.8 percent), Orange (38.4 percent), and San Diego (36.5 percent) (U.S. Census Bureau, American Fact Finder, 2017). This reduces the region's competitiveness for top paying employers, harming economic development. It is also a contributor to the traffic congestion in the region as individuals have to commute out of the Inland Empire to neighboring counties for work.

Turning to workforce development, the LTC currently has two certificate programs in different stages of planning. The first is the Transportation Leadership, Planning, and Performance Institute (TLPPPI), a fully online transportation certificate with 26 modules and a capstone project. The purpose of the TLPPPI is to provide entry-level and mid-level planners with the skills and applied information needed to work in the complex arena of California transportation leadership, planning, and performance. As this program was developed through grant funding provided by Caltrans through the UC Berkeley UTC, 100 Caltrans employees have a scholarship to complete this certificate. Ten Caltrans planners have already taken the course. We are currently working with the second cohort of 20 Caltrans employees and plan to host a third cohort in late summer and fall of 2018.

The second certificate, currently under development, is dedicated to transportation governance and technology. This program is designed to teach professionals working in transportation agencies to better understand management and decision making, and processes behind information technology. The goal is to bridge communication between individuals working in the field of information technology and program management. Next steps include conducting a marketing plan for both certificates in the summer of 2018; open the TLPPPI for community

enrollment through the College of Extended Learning (CEL) in the fall of 2018; and finalize the certificate in transportation technology and management to begin offerings in 2019 through CEL.

Strategic Issues	Steps to Achievement	2018 Outcomes
Programs for CSUSB students and sister universities	Invite students to attend the Dialogues  Hire student workers for LTC projects  Hire faculty/student teams to complete LTC projects	5 students will attend the Dialogues  10 students will work directly at the LTC  5 students work on LTC related projects
Logistics and Transportation Pathway	Develop briefing paper and plan  Conduct network analysis of stakeholders  Develop action plan  Write proposal for funding	Project team will be on board  Project will have commenced and working with a variety of the stakeholders in the region
TLPPI	Conduct marketing study  Incorporate program into CEL  Continue Caltrans cohorts  Begin paid cohorts	45 Caltrans employees will have enrolled in the TLPPI  10 paid registrants will be enrolled
Governance and Technology Certificate	Conduct marketing plan  Apply for outside funding to complete development of syllabi and program	By summer 2019, this certificate will be part of the CEL curriculum and will be in the process of recruiting and marketing. Start date for the first cohort will be winter.

## Community Engagement and Education

Working with and educating the community is another key imperative for the LTC. The end users of the transportation infrastructure system clearly impact the system through their choices and individual decisions. Public transit and other means of transportation can be built out, but if it is not used by the consumer, it is not sustainable. As is evident from the current struggle of public transit throughout southern California, much more needs to be done to engage the end user. If the state and the region are going to meet environmental climate change goals; improve the traffic conditions; support economic growth; and work to improve local quality of life, transportation decision makers need to be engaged with community members. The LTC role in this process will be to hold community conversations around major transportation issues and provide information to help individuals be part of the process to improve the quality of life in the Inland Empire.

The first of these initiatives is the Regional Mobility Dialogue Series, planned through a collaborative partnership between the LTC and HNTB, Inc. In 2018, six events have been planned, with participation from local leaders and experts from government and industry sharing their perspectives on timely transportation topics. These series also provide time for the attendees to interact with the speakers answering questions in groups to move the dialogue forward. From these discussions, the proceedings and speaker's highlights are produced and published on the LTC website. The list of events for 2018 include:

- February 20, 2018- Topic 1: Opportunities and Trade-offs in Transportation: Maintaining the Region's Competitiveness and Quality of Life
- March 20, 2018- Topic 2: Can Congestion Pricing Improve Mobility?
- May 22, 2018- Topic 3: Can Technology Save Us?
- July 31, 2018- Topic 4: Autonomous and Connected Vehicles – Will They Make Things Better or Worse?
- September 11, 2018- Topic 5: Transit and Rail- Are They the Answer?
- November 13, 2018- Topic 6: The Future of Transportation Funding – Gas Tax, Per Mile Fees and Other Ideas

Future goals are to offer two of these sessions in Palm Desert in winter 2018/19 and to continue with the series in 2019.



Strategic Issues	Steps to Achievement	2018 Outcomes
Regional Mobility Dialogue Series 2018/2019	Finalize 2018 program by summer  Begin development of 2019 program in summer 2018  Identify additional sponsors	Community input, hearing from 200 individuals  6 proceedings and speaker highlights video created and published on website  Outreach to Inland Empire community publicizing LTC work  2 dialogues held at PDC and 6 at CSUSB  2 new sponsors will be identified and committed to the Dialogues
Develop student engagement plan	Work with Advisory Council in summer and fall to develop action plan.	Action plan developed and implemented

### Operations

As the LTC continues to grow and mature as an organization, it needs to maintain its programs through strong operational strategy and an engaged advisory council. With that being said, a strategic goal is to have the advisory council members further engaged this coming year. This will entail developing an outreach program to the council, seeking their buy-in and specific support the LTC’s activities. Additionally, to streamline the operations of the advisory council, a set of guiding policies and procedures will be established. This work will be designed to better insure the success of the LTC with a clear understanding of expectations from everyone.

Keeping track of projects is critical to the successful completion of our goals. LTC staff will focus on solidifying funding, branding, and public outreach. This will be done through the programs offered by the LTC as detailed above.

Strategic Issues	Steps to Achievement	2018 Outcomes
Advisory Council Mapping and Recruitment	Recruit from groups not already represented on council	Have an agreed upon membership
Advisory Council Members Personal Input Plan	Present to members and receive feedback in June  Conduct individual outreach as needed to obtain commitment	All members have committed, resources and actions for the success of the LTC
Organization Policies and Procedures for the LTC Advisory Council	Present to Advisory Council in June  Revise over summer  Finalize during fall	A set of policies and procedures will be approved and in operation
Identify funding sources to support the activities of the LTC	Work with CSUSB development and the advisory council to find additional supporters of the LTC	5 possible funders will be identified and contacted

## **Appendix A**

### **LEONARD TRANSPORTATION CENTER**

#### **Retreat Meeting Minutes February 16-17, 2018**

##### **Members Present:**

Dr. Kimberly Collins, Lawrence Rose, Dr. Jake Zhu, Dr. Frank Lin, Dr. Claudia Davis, Mr. Doran Barnes, Mr. Tom Davis, Mr. Khalil Saba, Mr. Garry Cohoe, Mrs. Carrie Gilbreth, Mr. John Bulinski, Mr. Christopher Gray, Mrs. Dorota Huizinga, Mrs. Julie Nichols, Mr. Samuel Shaw, Mr. Rudy Morales, Mr. Nerik Orozco, Ms. Kathleen Ramirez

##### **Members Absent:**

Mr. Matthew Barth, Mr. Rick Bishop, Mr. Mike Burrows, Mr. Paul Granillo, Dr. Yunfei Hou, Mr. Hasan Ikhata, Dr. Xudong Jia, Mr. Steve PonTell, Mayor Deborah Robertson, Dr. Xinkai Wu, Dr. Jun Wang, Mrs. Liza Wilson

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A working retreat for the Leonard Transportation Center advisory council was held at the Lake Arrowhead Spa and Resort on February 16-17, 2018. During the retreat council members worked together collaboratively identifying opportunities and issues related to carrying forward initiatives, and to ascertain practical steps forward for the center.

##### **Agenda**

Items addressed:

- LTC Needs Assessment
- Solidifying LTC's Goals
- Current Program Review
- Working to Achieve the Goals
- Action Items

##### **Summary**

The Following is a summary of the major decisions made, decisions agreed upon and action items distributed to board members.

Council members conducted a gap analysis to determine what areas the center should focus on. There were a number of common themes and ideas, which were then broken down into

four action items, solidifying the LTC's goals: Research, Education, Community Engagement, and Operations.

The council then went over current program review and addressed how to put goals into action. The retreat members agreed that it is in the best interest if the Leonard Transportation Center, that the council be considered an advisory council and that a set of guiding principles and procedures should be outlined.

### **Action Items Decided On**

From this working session the board members decided on four areas of focus, research, education, community engagement, and operations. It was then decided that each person was designated with jobs to facilitate each area of interest.

- **Research:** LTC will establish a group of experts to work on two areas. The first area will be cyber transportation infrastructure, the second will be future of mobility issues in suburban inland ports (Contact Ontario Airport).
  - Team members involved: Garry Cohoe, Carrie Gilbreth, Chris Gray, Dorota Huizinga
  
- **Education:** For education, workforce development, such as the Transportation Leadership, Performance, and Planning Institute (TLPPi) will be a key component to the centers success. Also, early engagement sustainability is another important component. The council developed a pipeline plan where students will be engaged as early as high school, and then guided to a potential future career in transportation logistics. Council members will conduct inventory of logistics programs and decide on what model to use for pipeline.
  - Team members involved: Garry Cohoe, Carrie Gilbreth, Jake Zhu, Frank Lin, Tom Davis
  
- **Community Engagement:** LTC is hosting Regional Mobility Dialogue Series to address the numerous regional projects and initiatives designed to improve mobility. Purpose is to inform community and get them involved in more of these issues.
  - Team members involved: Khalil Saba, Julie Nichols, John Bulinski, Garry Cohoe, Doran Barnes

- **General Operations:** Council members will work together to determine a set of guiding principles and procedures. A mapping strategy will be put forward to identify the different industries represented within our advisory council.

- Team members involved: Claudia Davis, Larry Rose

- **Other decisions made:**

- It was agreed upon that Garry Cohoe be named Chair of the LTC advisory council.
- It was determined that over the next few years, the focus of the technology lab will move more away from truck driving simulation, and more towards application software development.
- Next advisory council meeting will be on June 8, 2018

## Appendix B

Focus Areas	Research	Education	Other
1. The Future of Transportation Mobility in Suburban Areas and Inland Ports	<p>Local Assistance</p> <ul style="list-style-type: none"> <li>a. Rialto</li> <li>b. Ontario Airport</li> </ul> <p><b>Team Members:</b> Carrie, Garry</p> <p>Deliverables: Outreach Networks by March 31</p> <hr/> <p>Logistics/Transportation Education Pathway/ Pipeline</p> <ul style="list-style-type: none"> <li>a. Inventory of Current Programs</li> </ul> <p><b>Team Member:</b> Carrie</p> <p>Deliverables: Inventory by March 31</p> <ul style="list-style-type: none"> <li>b. Draft &amp; Collaborative/ Education Model</li> </ul> <p>Team Member Carrie, Jake, Frank, Garry, College of Ed. Rep.</p> <p>Deliverables: Draft Model by 6/8/18</p>	<p>Student Engagement</p> <hr/> <p>Workforce Development</p> <ul style="list-style-type: none"> <li>a. TLPPi</li> </ul> <p>Deliverables: Program delivered to general public by summer 2018</p> <ul style="list-style-type: none"> <li>b. Governance &amp; Technology Certificate</li> </ul> <p>Deliverables: TBD</p> <hr/> <p>Community Engagement</p> <ul style="list-style-type: none"> <li>a. Dialogue Series</li> </ul> <p><b>Team Members:</b> John, Khalil, Garry, Doran</p> <p>Deliverables: Finalize 2017 program by 6/8/18. Begin development of 2019 program in Summer 2018</p>	<p>Faculty Fellow Program</p> <p><b>Team Members:</b> Claudia, Larry, Dorota</p> <p>Deliverables: Summer 2018</p>
2. Cyber Security and Transportation (Emerging Topic)	<p>Local Assistance</p> <ul style="list-style-type: none"> <li>a. WRCOG</li> </ul> <p><b>Team Members:</b> Chris</p> <p>Deliverables: Draft White Paper by 6/8/18</p>	<p>Student Engagement</p>	<p>Faculty Fellow Program</p>
3. General Operations			<p>Advisory Council</p> <ul style="list-style-type: none"> <li>a. Individual Action Plans</li> </ul> <p><b>Team Member:</b> Larry</p> <ul style="list-style-type: none"> <li>b. Guiding Principles &amp; Procedures</li> </ul> <p><b>Team Member:</b> Claudia</p> <ul style="list-style-type: none"> <li>c. Mapping</li> </ul>

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**\*All teams will be staffed by LTC**