

## METRANS: The Center of the Transportation Universe



*Genevieve Giuliano (METRANS Director), Photo © John Livzey, 2019*

Some things are inevitable. And if the 20-year-old METRANS Transportation Center did not already exist, it would have to be invented. Dedicated to fostering and disseminating independent, high-quality transportation research, and training the next generation of transportation professionals, the METRANS center's location is as instrumental to its inception as its mission.

“We’re almost a child of the fact that Southern California is such a transportation hub. It’s an amazing transportation laboratory. It gives us a tremendous edge, because if you really want to study transportation challenges, this is the place to be,” explains METRANS director Genevieve Giuliano. “If you want to study congestion, we’ve got that. If you want to study what ports do in a metropolitan area, we’ve got that. If you want to study a huge airport and its multifaceted impact, we’ve got that. If you want to study the effort to completely restructure a metropolitan area around rail transit, we have that, too. We’re definitely in the best place to do the type of research that we do. And that’s no accident.”

“When we first started the center, we decided that we would specialize in two things: public transportation and freight. We purposely chose those two because they were so important to Southern California. And even in 1998, there was a great deal going on with the public transportation system. Of course, the ports were in their very rapid period of growth. There was a lot going on and we felt that we had to establish our credentials in Southern California first. So, we did a great deal of work on the things that were very important to the region.” Home to two-thirds of California’s population, Southern California is the most congested metropolitan area in the US. The region is also a center for international trade, containing the largest container port complex in the US (Port of Los Angeles/Long Beach) and the seventh largest air freight center (LAX), which is also the nation’s second busiest passenger airport.



Southern California also serves as a burgeoning public transportation center and its highways and freeways are world renowned. Inarguably, Southern California hosts a complex, robust, multi-faceted transportation system that rivals many small countries. That confluence of transportation modes and scale are exactly what director Giuliano believes helps separate METRANS from other transportation

centers at the outset. But that's not the only thing that helped METRANS develop into a world-class institution.

"METRANS started as a consortium of the University of Southern California (USC) and California State University Long Beach (CSULB), with a sprinkling of people at both universities that decided we needed a transportation center. That partnership has flourished for 20 years. Today, I honestly don't know of any other multi-university transportation center or research center that has had such a long lifetime and such a successful collaboration. Ordinarily, you don't think that a private research university would have an effective partnership with a state college that really emphasizes undergraduate education. But it turns out for us that it creates the whole package. At USC, we have the PhDs and graduate students and very strong research capabilities. At CSULB, we have more applied research capabilities and a great deal of expertise in professional programs, training, and workforce development. When you put all of that together, you create a center that does just about everything."

Established in 1998, through funding from the Transportation Equity Act for the 21st Century (TEA-21), METRANS was the first university transportation center in Southern California. Larger than many university research centers—particularly multidisciplinary, transportation-focused centers—METRANS has more than 80 associated faculty. According to the METRANS website, researchers focus on three main areas: integrated management of freight and passenger systems, sustainable and efficient urban freight transportation, and the mobility of urban populations. But the partnership of USC and CSULB—a combined student body of more than 65,000—also offers "a full spectrum of education and training, from PhD to undergraduate and including professional training and certificate programs."

Director Giuliano adds that one key difference helped METRANS start down a different path than most transportation research centers. "We are a very different model than most other major transportation centers. Every other large transportation center is housed in a school of engineering. We're not. We're headquartered in the (USC) Price School of Public Policy. And we are far more interdisciplinary than just about every other center. We draw from public policy, planning, economics, social sciences, many fields of engineering, and computer science. We have a very broad approach and we do a lot of partnered research across disciplines."

Director Giuliano adds that the broad base serves as a perfect platform for expansion.

"Though USC and CSULB will always be our core, we're now a consortium of many different universities through the different major programs we have. For example, we have an international center that includes universities in New York, France, and South Korea. We lead the Pacific Southwest Region Center, which includes UC Davis, UCLA, UC Irvine, Northern Arizona University, Pima College (Arizona), and the University of Hawaii, in addition to CSULB. We also have the Southwest Transportation Workforce Center, housed at CSULB and directed by Tom O'Brien; it represents eight southwestern states. When you put all of that together, you've got lots of partners in all kinds of places doing all kinds of interesting things. Starting from our little tiny faculty operation, we now have a large, multi-faculty operation that's reaching around the world."

But METRANS also has another important partner, one that has been there almost since its inception.

"One of the early architects of METRANS was (USC professor) Jim Moore, who is also a WTS-LA board member. He's been very active in WTS-LA for a long time. In the early days, he was the major connector, but he fostered that relationship and helped it grow into a real partnership. From the beginning, we've sent our students to WTS-LA activities. In more recent years, Vicki Deguzman, one of our associate directors, has really taken the lead in connecting students to WTS, and our students are there for every WTS-LA program. They also compete for, and lots of times win, scholarships from WTS-LA. And they benefit tremendously from the extraordinary networking that goes on within WTS-LA. In fact, our relationship with WTS-LA has proven so beneficial that we're using our position to reach out to other chapters and to encourage our university partners to do the same. We are now also connected to WTS-Orange County and we're thinking about expanding our relationship with WTS chapters outside of California. WTS is an outstanding professional organization. And it's a really good place for master's

students in transportation to connect to professional jobs. So, we're looking around for where WTS is a good fit with our partners."

But director Giuliano also makes two more important points about METRANS and its unique relationship to WTS-LA.

"We're a partner (silver) of WTS-LA. That's a signal that we really appreciate what WTS-LA does for our students. In particular, we're spending more time and paying much more attention to professional development. Vicki is developing brilliant ideas for us to work together. But it's not a one-way street. METRANS has a lot to offer WTS-LA members, too. For example, we have a series called, 'Lunch with Practitioners,' where people speak about their work and how they got there. Twice a year, we host something called, 'Industry Outlook,' a program geared toward the professional community, like WTS-LA members. And that program attracts some of the most important players in the transportation industry.

"In addition, we're the focal point for transportation in academia. There is a tremendous opportunity for WTS-LA members to join us for events and to gain as much from our partnership as our students do. Also, many faculty like to have guest speakers and WTS-LA is an extraordinary pool for faculty to draw on. We encourage WTS-LA members to join us and take advantage of the networking that METRANS can bring to them."

If METRANS didn't exist, it would have to be invented. But METRANS became such a success for very specific reasons. Yes, it certainly benefits from being at the heart of one of the largest transportation hubs in the world. But it also benefits from caring academics and professionals, like director Giuliano, who have the vision and the determination to make it exceptional. True to form, though, she wants to ensure that proper credit is given where it is due.

"We would not be where we are without all of the people that have spent their time on METRANS. In particular, we've had people that have worked from the beginning. For example, my colleagues in engineering, Maged Dessouky, Randy Hall, Petros Ioannou, and Jim Moore, were all critically important in the development of the center, along with a number of people at Cal State Long Beach, most importantly Marianne Venieris Gastelum, former METRANS associate director at Long Beach, and Tom O'Brien our current associate director. While it's easy to focus on the director, METRANS was always a collaborative effort, and it always will be."