

# TRB YOUNG MEMBERS COUNCIL

Sustainability and Resilience

## MEMBER SPOTLIGHT

QUARTER 1  
2024

Members featured this quarter:

**David Wasserman, AICP**

Alta Planning + Design

**Ran Tu, Ph.D.**

Southeast University

**Donner Kahl**

High Street Consulting Group



# David Wasserman, AICP

## Alta Planning + Design

### Biography

David Wasserman is an urban planner working at the intersection of urban informatics, 3D visualization, geospatial analytics, and visual storytelling. David seeks to develop digital representations of the world that create value across disciplines, scales, and time. His current areas of focus are enabling data-informed scenario planning, identifying how to align community goals to metrics to track progress towards them, incorporating civic data science into planning projects with web-delivery and computer vision derived data sets, and generating accessibility metrics that can identify the possible benefits of projects and who they go to.

What is your biggest takeaway for other young professionals in transportation sustainability, resilience, and/or society?

Investments in transportation are intergenerational vehicles of change, and the lens we bring to how we model, plan, and operate our mobility systems needs to change. Much of my writing with the American Planning Association (APA) emphasizes this idea that prediction is a mirror, and the framing of problems can often be just as important, if not more so, than any single solution. A few co-authors and I wrote an article along these lines with APA with respect to modeling.

Article: Models And the Questions We Ask. State of Transportation Planning 2022.  
[https://issuu.com/apatransport/docs/2022\\_sotp/s/16021621](https://issuu.com/apatransport/docs/2022_sotp/s/16021621)

What is a quote or motto that you live by?

At least a quote I think often about - paraphrased is: "Man is perishable, that may be, but let us struggle even though we perish, and if the nothing is to be our portion, let it not come to us as a just reward."

What do you see as the future of transportation within your area of focus?

I think the future of transportation will be heavily influenced by our increasing ability to create digital and actionable representations of our world. Not just what we can simulate in travel demand models, but a full tapestry of data specifications speaking to each other across disciplines, scales, and times.

What are your hobbies? What do you enjoy about them?

Every Friday I play a role-playing game called Pathfinder with a few friends. I enjoy the creativity and acting as a character very different than who I am day to day. One day, I want to 3D print some of the weird cities in the Inner Sea.



If you want to connect with David on **applications of civic data science, data specifications for streets, and 3D visualization in geospatial**, check out **empirical-urbanist.io**



# Ran Tu, Ph.D.

## Southeast University

### Biography

Dr. Ran Tu is an associate professor from the School of Transportation at Southeast University, China. She has a broad interest in the environmental impact of the transport system with a focus on decarbonization and electrification. She actively participates in national and regional strategic research on future transport development. In addition, she is the chief scientist of Green Distributor, an R&D startup company that provides decarbonization consultation for ride-hailing and urban delivery enterprises. Dr. Tu has published more than 50 peer-reviewed journal and conference articles. Since 2023, she has served as the editorial board member of Transportation Research Part D and the standing committee member of the Transportation Research Board Air Quality and GHG Mitigation Committee. She has been awarded the Young Talent of China Association for Science and Technology, Innovation and Entrepreneurship Talent of Jiangsu Province, the Best Paper Award in the Chinese Transportation Conference for Young Scholars, and the Best Dissertation Award of the Chinese Overseas Transportation Association. Dr. Tu obtained a Ph.D. from the University of Toronto in 2020, an M.S. degree from Virginia Tech in 2016, and a Bachelor's degree from Tongji University in 2014.

### What is a quote or motto that you live by?

Plan ahead and take action right away.

### What is transportation like where you grew up?

I grew up in a small town in Eastern China. When I was a child, the city scope was very limited, and the whole town could be passed through from north to south along just one street. There were few vehicles on the road, and no one owned a private vehicle at home. At that time, it was proud to have a bicycle, and it was fashionable to have an e-bike. The vast urbanization in the 2000s led to many condo constructions, street expansions, and an increase in car ownership. Congestion and conflicts between different types of vehicles have become a big issue in the city. That happened when I entered the university in Shanghai, where I opened my mind and realized the importance of public transit & sustainable transportation. I hope that what I am doing now can not only help metropolitans like Shanghai, but also places like my hometown at the edge of the urban development.

## Tell us about a project or achievement that makes you proud.

The project that I am proud of is about the service improvement of electric buses. China has set national strategies for bus electrification. In response to that, local governments provide subsidies for the construction of chargers and the replacement of electric buses in the fleet. However, such actions lead to a great waste of resources because the station construction does not follow planning rules, and the electrified buses are not equipped with durable batteries. The government has noticed this problem and started restricting the subsidies for electrification. However, this leads to another question: the increasing expenses of running electric buses. My project tries to optimize the assignment of existing resources and make alternative plans for the remaining resources that have not been allocated. The optimization includes bus fleet optimization, existing charging station utilization, and potential future charging station planning, and the scope focuses on the urban bus system. Our algorithm can reduce the total cost by 10%, and improve the usage efficiency of charging stations by 40%. This study has made a substantial contribution to real-world bus operations by solving one of the most urgent challenges in the system: how to use existing resources efficiently and plan wisely without wasting on initial investments. This study was funded by the Chinese Association of Science and Technology with the honor of Young Talent. The method was also adopted by the local administrative department in Haining City, a county-level city near Shanghai. Haining is a typical county-level city in Eastern China, with decreasing public transit ridership and an aging population. This study will provide insights into proper resource planning for more equitable public transit services.

## What is your biggest takeaway for other young professionals in transportation sustainability, resilience, and/or society?

The biggest takeaway from my work for other young professionals is: have a bigger image, and look beyond what you are focusing on. Transportation sustainability has a much broader definition, and it requires interdisciplinary collaboration, including transportation, environment, energy, sociology, and even cognitive psychology. Focusing on just one dimension can hardly reach the overall benefits, and the solution would be very limited with less applicability. This takeaway is derived from my daily work. I am a technical person leading a group of 5 graduate students with traffic engineering backgrounds. Our team members like to build sophisticated algorithms to find the optimum, but what about the next step? How should we explain the findings and apply the models? To avoid being trapped in just traffic, I always ask my students to read papers and reports outside modeling studies, such as policies, behavioral science, land use planning, and social equity. With multidisciplinary knowledge in mind, they can elaborate their mathematical models in the scope of the whole city system, and find appropriate applications for their models.



If you want to connect with Ran on **traffic-related air quality, sustainable city traffic, public transit services, or healthy cities**, send an email to [turancoolgal@seu.edu.cn](mailto:turancoolgal@seu.edu.cn)



# Donner Kahl

## High Street Consulting Group

### Biography

Donner Kahl is a consultant at High Street Consulting Group who is passionate about public service, dedicated to connecting communities to opportunity safely, sustainably, and equitably. With a B.S. in statistics and a M.S. in public policy, as well as experience in economic consulting and development, he brings both his expertise and passion to the task of improving transportation systems. Donner specializes in the space between qualitative and quantitative work, building models and articulating methodologies and results to audiences with varying depths of analytical knowledge. He applies his knowledge in various computer languages – R, SAS, and Python – and GIS applications to help industry leaders make data-informed decisions. Since joining High Street, he has developed a newfound interest for resilience work, recognizing its pivotal role in fostering the longevity of effective systems.

### What is a quote or motto that you live by?

Improve the lives of those around you.

### Why did you choose transportation as a career? What motivates you?

I shifted away from my career in economic consulting to have a more direct impact on advancing and benefiting society. Initially, I grappled with choosing a specific field because there are numerous impactful callings: addressing food insecurity, promoting affordable housing, creating economic opportunities, and championing sustainability. However, during the fall of my first semester at Carnegie Mellon's Heinz College, I had a pivotal conversation with my current mentor—a transportation planner/engineer.

Through our discussion, I began to recognize how transportation plays an often-underappreciated role in enhancing lives. It affects us in multifaceted ways, from daily commutes to broader urban planning. Furthermore, I began studying the exciting technological strides being made in electric and autonomous vehicles and their intersections with equity. The transportation community has welcomed me with open arms, reinforcing my conviction that I had made the right decision.



## What are your hobbies? What do you enjoy about them?

I enjoy attending short story events, much like NPR's "The Moth," because I feel more connected to the diversity of the human experience. The moments, emotions, and insights shared evoke awe through tales of resilience, elicit laughter or tears, and sometimes challenge me, pushing the boundaries of my comfort zones. People's stories encourage me to reflect on my own similar or dissimilar life experiences.

I also take the stage. When I prepare to step into the role of storyteller, I gain fresh perspectives and insights into my own life, uncovering meanings that might have remained unrecognized. I connect personal experiences across my life with themes and consider how tone and syntax can evoke laughter, fear, sorrow, or optimism. Storytelling provides me a deeper understanding of self and strengthens my connection with community.

## What is your biggest takeaway for other young professionals in transportation sustainability, resilience, and/or society?

Measuring the advancement of sustainability, resilience, and societal progress is an evolving field, especially at a community level. Passionate and dedicated transportation planners and engineers can be on the forefront of emerging research and practice.



If you want to connect with Donner on **environmental justice, community engagement, resilience, rural transit, economic development, EV and CAV, books, music, or travel**, send a LinkedIn message to <https://www.linkedin.com/in/donner-kahl/>



## Do you want to be featured in an upcoming YMC S&R member spotlight?

The spotlight features are developed through a self-nomination process. If you would like to be considered for a future spotlight, you can fill out the Google form here:

<https://forms.gle/A1E6xMgYaVWfBfkW8>

### Qualifications:

- 35 years or younger,
- Member or friend of a committee in the sustainability, resilience, and/or society sections of TRB (AME, AMR, AMS), and
- Not previously featured in the Member Spotlight.

If you have questions about the member spotlight, email Tia at [tiaboyd@usf.edu](mailto:tiaboyd@usf.edu).