



Urban Mobility & Equity Center a Tier 1 UTC

at Morgan State University ♦ Dr. Z. Andrew Farkas, Director
presentation to:

First Annual National Mobility Summit
of University Transportation Centers
April 12, 2018 ♦ Washington, DC



* “Many urban residents experience spatial mismatch and immobility between affordable housing and jobs; they contend with poor and unreliable access to economic opportunity. Thirty-one percent of Baltimore City households do not own an automobile. Baltimore is in the top ten of cities with zero-car households ... MSU research revealed that low-income urban neighborhoods had low accessibility to suburban activity centers with employment opportunities. A recent review of access in Baltimore ... concluded that not much has changed. Conditions are similar in other large cities.”



Morgan State University in Baltimore, MD, an HBCU, has about 8000 students.

Morgan is Maryland's Urban Public Doctoral Granting University.

- * Freshmen enrollments in Maryland have declined since 2009, but minority student component has increased
- * At Morgan State 62% of students receive Pell Grants and 81% receive federal loans.

University has Schools of Engineering and Architecture and Planning.

- * In 2013 of all doctoral engineers graduated in Maryland, 3% were African-American.
- * On baccalaureate level 15% were African-American
- * Morgan State graduated most of them.

Morgan's Transportation Center has been a member of USDOT University Transportation Centers Program since inception.

- * 1988-1992 Penn State (Region 3) Consortium
- * 1992-2013 Earmarked National Center
- * 2013-2015 Penn State (R-3) and Virginia Tech (CVI-UTC) Consortia
- * 2014-2018 University of Maryland (UMD NTC) and University of Virginia (R-3) Consortia
- * 2016-2022 Tier 1 UMEC consisting of MSU (lead), University of Maryland and Virginia Tech

- * UMEC provides financial and in-kind support for research by faculty and students in Transportation, Civil Engineering, and City and Regional Planning.
- * UMEC assists Maryland Department of Transportation by recruiting students for graduate annual internship and undergraduate summer internships.

- * 10-20 graduate students annually
- * 5-10 undergraduate students each summer



- * UMEC operates a Summer Transportation Institute for high school students and a Middle School Summer Transportation Initiative for four weeks. Both STEM enrichment programs expose students to transportation modes, concepts, facilities and careers.

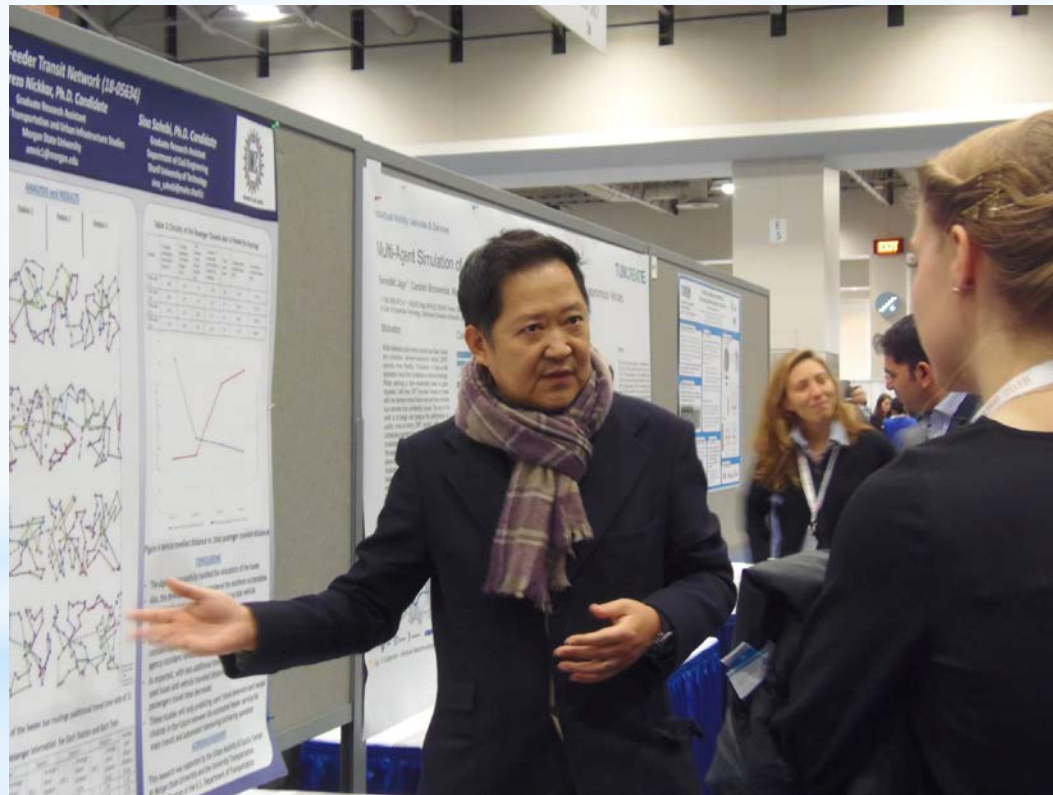
- * 35 students each summer

- * UMEC operates a two-week Teacher Transportation Institute for STEM teachers and shows them how STEM applies to transportation. Teachers earn continuing education credits.

- * 5-10 STEM teachers per year



* Selected Research Projects



- * Innovative Methods for Delivering Fresh Foods to Underserved Populations (Collaborative Project)
- * Developing a Connected Vehicle Transit Signal Priority System (Collaborative Project)
- * Developing and Testing an ECO-Cooperative Adaptive Cruise Control System for Buses (Collaborative Project)
- * Optimization of Emergency Traffic Patrols (ETP) Operations (Collaborative Project)
- * Dynamic Vehicle Routing with Route Guidance for Urban Pickup and Delivery (Core Project)
- * Optimized Development Of Urban Transportation Networks (Core Project)
- * Understanding Access to Grocery Stores in Food Deserts in Baltimore City (Core Project)
- * Optimizing Small-Sized Automated Transit Operations and Its Applications (Core Project)
- * Development of Multimodal Traffic Signal Control (Core Project)

* For more information, please go to:
<http://www.morgan.edu/umec>

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