Our Transportation Center: Beyond 60 Years

Hani S. Mahmassani

Presentation to the BAC
April 21, 2016
Strategic Vision: A Refresher

- Pre-eminent think-tank and laboratory in the world for cutting-edge research that matters on a global scale.
- Provide the premier educational program in transportation systems.
- Essential academic partner for novel, high-impact collaborative research.
- Advance state of practice industry applications through a mix of engaged application-driven research and fundamental advances.
Progress Highlights:

BAC Membership (since last meeting)
- 3 new companies (7 new members)

Funded Research Activity
- Active: 9 projects $2.1 M, 5 faculty
- Submitted ➔ 5/16: 13 proposals $8.0 M+, 15+ faculty

Students
- 15 current T&L minor students
- 17 graduate students supported via research projects
- 3 supported via dissertation year fellowships
- Strong recruiting year for 2016-2017
2015 Progress Report
BAC: Update on Membership

- A strong year in terms of recruitment, retention of companies, events, and engagement
- Active research investigations with several BAC companies
- Actively seeking more opportunities to engage individual companies and/or consortia in research support and collaboration
- Active membership committee, several new prospects
BAC: New Membership

**Leadership**

Hub Group

Walgreens

**Sustaining**

Air Canada

CVS

SkyTeam
BAC Contributions: AY06 - AY15

AY16 in progress
BAC Contributions: AY06 – AY15

AY07  AY08  AY09  AY10  AY11  AY12  AY13  AY14  AY15  AY16

$-  $100,000  $200,000  $300,000  $400,000  $500,000  $600,000

60th
Individual
Sustaining
Leadership

AY16 in progress
New Faculty Affiliates

Gad Allon
Professor
Managerial Economics and Decision Sciences, Kellogg

Ying Chen
Research Assistant Professor
The Transportation Center

Mohan Sawhney
McCormick Foundation Chair of Technology;
Clinical Professor of Marketing; Director, Center for Research in Technology & Innovation
Kellogg
Faculty Awards / Honors (I)

Zdenek Bazant
Elected to the Royal Society of London
by the Royal Academy

Wei Chen
2015 Design Automation Award
from the American Society of Mechanical Engineers (ASME)

J. Edward Colgate
Named Fellow of the National Academy of Inventors
Faculty Awards / Honors (II)

**Noshir Contractor**
Named Fellow of the International Communications Association (ICA)

**Richard Joseph**
Lifetime Social Justice Award from Dartmouth College

**Amanda Stathopolous**
Appointed the William A. Patterson Junior Professorship Chair for 2015-2018 from the McCormick School of Engineering and Applied Science
Faculty Awards / Honors (III)

Hani Mahmassani

2016 Thomas B. Deen Distinguished Lectureship award

from the Transportation Research Board
Students: Our Core Mission (I)

- TC adds *value to student experience* through industry exposure, seminars by authorities in the field, travel funds for conferences, fellowship stipends—essential differentiator for recruiting top talent

- Many opportunities for *undergraduates* interested in transportation; increasing engagement in research, *internship* placement with *BAC companies*

- *Industry support is critical* to our mission and to making a Northwestern Education in Transportation the unique experience it is.
Students: Our Core Mission (II)
Direct Student Funding Through NUTC

<table>
<thead>
<tr>
<th>Year</th>
<th>Travel/Events</th>
<th>Fellowships</th>
<th>Tuition/Stipend</th>
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<tbody>
<tr>
<td>FY14</td>
<td></td>
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<td>$400,000</td>
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<tr>
<td>FY15</td>
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<td>$300,000</td>
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<tr>
<td>FY16</td>
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<td>$500,000</td>
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</table>
Students: Ali Zockaie and Mehrnaz Ghamami

Husband and Wife PhD graduates both earn Assistant Professor positions at Michigan State University
Proposed Center (I)

National University Transportation on Freight Mobility and Sustainability (for Resilient Communities)

Partners: NUTC (lead), Vanderbilt, UIUC, UC-Irvine, NYU U Washington, TX Southern, Cal Poly Pomona

Mission

1) conduct cross-disciplinary on the mobility and fluidity of goods and related information in global and domestic supply and demand chains;

2) provide a networked forum where industry, academia and public agencies work together to advance knowledge;

3) provide and promote a unique educational experience aimed at developing the human resources necessary for a modern transportation and logistics industry.

BAC, roles on Advisory Committee available
Proposed Centers (II)

More University Transportation Center proposals

1) Tier 1, **lead** – *Preserving the Environment*
2) Tier 1, **lead** – *Reducing Congestion (Smart Cities, IoT)*
3) Tier 1, partner (Florida, lead) – *Improving mobility for people and freight*
4) Tier 1, partner (**UIC**, lead) – *Preserving the environment*
5) Tier 1, partner (U Akron, lead) – *Preserving the existing transportation system*
6) Regional Center, partner (**UIC**, lead) – *Improving mobility*
Research Activities (I)

**Industry Research**
- AEM
- Boeing
- BNSF

**Industry Teaming**
- Booz Allen Hamilton
- Leidos, Inc.
- Sejel Technologies (KSA)
- Various small businesses

Booz | Allen | Hamilton
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delivering results that endure
Research Activities (II)

Public Agencies / Federal Research

- Argonne National Laboratory (DOE)
- Chicago Department of Transportation
- Chicagoland Metropolitan Agency for Planning
- Federal Highway Administration
- United States Department of Labor
Research Activities (III)

Association of Equipment Manufacturers

- Mobility Report 2050
- Symposium
  - Mobility 2050: A Vision for Transportation Infrastructure and How We Can Get There
  - Monday, May 23
Selected Outreach Activities (I)

Executive Education

Freight Transportation and Logistics
Managing in a World of Rapidly Advancing Technology
May 9 - 11, 2016

- Discounted Rates available for BAC member companies
- Superb speaker list: CSCMP, CN, eBay, Echo Global, Ruan, Schneider, Nippon Cargo, and more… and Northwestern faculty

Chalmers University of Technology
Supply Chain Management

April 11 - 14, 2016
- Several Kellogg faculty participated in the course
Selected Outreach Activities (II)

Leon N. Moses Distinguished Lecture in Transportation

Jan K. Brueckner
Professor, Economics
University of California, Irvine

Convenient Flight Connections vs. Airport Congestion:
Modeling the "Rolling Hub"
Selected Outreach Activities (III)

• Secretary, Illinois Department of Transportation – Randall Blankenhorn
  • The Future of Transportation in Illinois
  • November, 2015

• The 22nd International Symposium on Transportation and Traffic Theory
  • Hosting in Chicago, 2017
Selected Outreach Activities (IV)

Fall 2015

- Industry Technical Workshop
  - The Internet of Things in Transportation and Logistics
  - Tuesday, October 27, 2015
  - 2:00 p.m. to 4:30 p.m.
  - Hilton Orrington/Evanston Hotel
  - 1710 Orrington Avenue
  - Evanston, IL 60201

Spring 2016

- Industry Technical Workshop
  - BIOLOGISTICS IN A CHANGING HEALTHCARE WORLD
  - April 20, 2016  |  2:00 - 4:45 PM
  - NORTHWESTERN UNIVERSITY - JAMES L. ALLEN CENTER
  - 2619 Campus Drive, Evanston, Illinois 60208
Selected Outreach Activities (V)

Sandhouse Gang (Rail)


- Railway Study Association (RSA), British Railway and rail transit officers, suppliers, professionals and academics associated with the London School of Economics
- Amtrak Blue Ribbon Panel Meeting
- The Business Case for Higher Speed Freight Trains
- Railroad Renaissance: Dead or Alive?
- Metra – Building on the Successes of 2015 for the Future
- Modernizing Freight Rail Regulation—The 2015 Transportation Research Board Recommendation to Congress
NUTC Fundraising Campaign

• **STRATEGIC RESEARCH FUND**
  – Freight, Logistics & Economic Competitiveness
  – Data-Driven Operations & Analytics
  – Sustainable Practices
  – Safety
  – Urban Logistics and Smart Cities

• **ACCOMPLISHMENTS**
  – October 2015 outreach mission to New York City with Paul Schneider (Greenbriar, Morgan Stanley, Scott-Macon)
  – Fundraising Strategic Messaging Sessions facilitated by Coyote Logistics (Paul to share later)
  – Targeted Outreach Lists Developed (dynamic)
Closing Thoughts

• NUTC brings value: to students, to faculty, to NU, and to our industry partners.

• **NUTC focused on the future**
  – Pushing the limits on logistics and supply chain operations
  – Automated and connected vehicles, trucks
  – Last mile supply chain logistics
  – Internet of Things and smart cities

• **BAC engagement and support critical to what we do, and how well we do it**
Thank you!

More here ➔
BAC: New Members Here Today

Leadership
Jim Butler
President, American Airlines Cargo, American Airlines

Mike Macyauski
Vice President, Operations Planning & Engineering, FedEx Express
BAC: New Members Here Today

**Leadership**

**Dov Shenkman**
Group Vice President, Supply Chain Strategy, Inventory and Transportation, Walgreens

**Philip Yeager**
Executive Vice President, Account Management and Intermodal Operations, Hub Group
BAC: New Members Here Today

Sustaining

Grace Cerocke
Vice President, Finance, Matson

Amos Kazazz
Senior Vice President, Financial Planning and Analysis, Air Canada
Guests Here Today (I)

- **Frank Bush**, Senior Consultant, Teradata
- **Ron Chomiuk**, Senior Consultant, Teradata
- **Mark Christos**, Vice President, Matson Logistics
- **John Efken**, Director, GCB Head of Commodities Sales, Bank of America Merrill Lynch
- **Marc J. Gorlin**, Founder and CEO, Roadie, Inc.
- **George Harrison**, VP Sales, North America, Eyefreight
- **Emily Herman**, Head of Intelligence, Roadie, Inc.
Guests Here Today (II)

- **Eric Jakubowski**, Chief Commercial Officer, Anacostia Rail Holdings
- **Timothy Jones**, Timothy Jones and Associates
- **Marisa Jo (Clark) Kozachenok**, Service Executive, GE Transportation
- **Dave Menzel**, President and COO, Echo Global Logistics
- **Dennis Nicoski**, Director, Field Sales Strategy and Contracts, United States Postal Service
- **Michael Roeth**, Executive Director, North American Council for Freight Efficiency
- **Brian Wesbury**, Chief Economist, First Trust Advisors
60th Fundraising Committee

- Paul Schneider, Chair
- Andrew Boyle
- Vicki Bretthauer
- Ben Mclean
- Jeff Silver

- Successful trip to NYC to gain insight from BAC members
- Honing a fundraising message with support from Coyote Logistics
- Working with NU Development for alumni and past BAC donor candidates
- Working with NU Development and McCormick Marketing to develop fundraising materials
Membership Committee

- Vicki Bretthauer
- Lee Clair
- Norm Carlson
- Ann Drake
- Rob Hart
- Kathleen Ross
- Justin Zubrod

- Several candidates identified, invitations made, invitations in progress

- Target Areas: Shippers, International Carriers, Trucking / Logistics companies, Transportation Equipment / Systems Manufacturers, Technology Providers
Meeting Planning Committee

- Price Blackford
- Mike Burton
- Peeter Kivestu
- Jean Regan
- Rich Thompson

Meeting held in January 2016 helped identify meeting topics and some guest speakers