Our Transportation Center: Staying on Track

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Presentation to the BAC
October 31, 2012
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: 2012- (I)

**BAC Membership**
- 8 new companies, 8 new members

**Sponsored Research Activity**
- Active: 28 projects $3.65 M, 12 faculty
  - Students Supported: 34
- Submitted: 10 proposals, $1.47 M, 5 faculty
Progress Highlights: 2012- (II)

Executive Education

- Partner with Chalmers University, Supply Chain & Management program (open to 5 BAC members) (Nov. 12-15, 2012)
- Pricing Highway Infrastructure (Sept. 10-12, 2012)
- Freight Transportation & Logistics – Delivering Value in a Volatile Market (May 14-16, 2012) ➔ next program May 2013

International Technical Assistance

- New National Transportation Center for Ministry of Transport, Kingdom of Saudi Arabia
Outreach, Events, Public Policy

- Workshop: The Electrification of Transportation: A Look at the Road Ahead
- Hosted White House Round Table featuring The Honorable David L. Strickland, Administrator of the National Highway Traffic Safety Administration (NHTSA)
- Transportation Deregulation and Safety: A Retrospective and Reflection after 25 Years (May 3, 2012)
Progress Highlights: 2012- (IV)

Upcoming Events

▪ Sixth William O. Lipinski Symposium on Transportation Policy – Advancing Transportation Infrastructure through Public Private Partnerships
  ▪ January 28, 2013

▪ Hosting Kuhmo NECTAR Conference and Summer School on Transportation Economics: Annual Conference of the International Transportation Economics Association 2013
  ▪ July 8 – 12, 2013
Execution Education Survey

- **COPING WITH CARBON**: Sustainable Strategies for the Transportation and Logistics Enterprise
- **PRICING TRANSPORTATION SERVICES**: Economic principles, common practices, new trends
- **INSURANCE IN TRANSPORTATION**: Policies, Issues & Strategic Decisions
- **DATA MINING AND ANALYTICS FOR DECISION MAKING IN TRANSPORTATION**
- **SUPPLY CHAIN NETWORK DESIGN**: What is SCND?, The Science Behind SCND, and How to Do SCND.
Graduate Education Update

Professional Masters in Analytics (offered by IEMS in McC)
Director: Diego Klabjan

Launched this Fall, with first class of ~30 students.

Contemplated Transportation Infrastructure specialization under Professional Masters in Project Management (offered by CEEin McC)
Director: Ray Krizek

Next year launch?
BAC: New Member Companies

Chrysler

Florida East Coast Railway

TranzAct
BAC: Target Sectors for New Members

- Shippers with significant logistics operations
- International Carriers
- Trucking / Logistics companies
- Transportation Equipment / Systems Manufacturers
- Technology Providers
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)

4  Dissertation Year Fellows (2012-13)

15  New graduate students in Fall 2012

3  Transportation & Logistics graduating seniors

15 T&L students in all classes
Students: Dissertation Year Fellows

**Yikai Chen** (Civil & Environmental Eng.)
*Statistical Health-Monitoring for Transportation Infrastructure*

**Luis de la Torre** (Industrial Eng. & Mgt Science)
*Models and Algorithms for Coordination in Humanitarian Logistics*

**Jiwon Kim** (Civil & Environmental Eng.)
*Reliability in Traffic Simulation Models*

**Timothy Sweda** (Industrial Eng. & Mgt Science)
*Decision Making for Electric Vehicles*
Students: External Awards

Charlotte Anne Frei, PhD candidate, C & E Engineering
Eisenhower Transportation Fellowship, 2012–2013

Madison Fitzpatrick, PhD candidate, Transportation
NSF Fellowship: “Reach for the Stars: Computational Models for Teaching and Learning in Physics, Astronomy and Computer Science”

Yue Geng, PhD candidate, Ind. Engineering & Mgt Science
CII (Containerization & Intermodal Institute) Scholarship, 2012

Ali Zockaie Kheiraie, PhD candidate, C & E Engineering
Graduate Student Participation Grant to attend 8th National Aviation System Planning Symposium, 2012

Ramón L Torres, PhD candidate, C & E Engineering
NSF Fellowship: “Reach for the Stars: Computational Models for Teaching and Learning in Physics, Astronomy and Computer Science”
Jan Achenbach
2012 Medal: American Society of Mechanical Engineers (ASME)

Zdenek Bazant
Faculty: Selected Recognition (II)

Irina Dolinskaya  
Junior William A. Patterson Professor of Transportation

Joel Horowitz  
2012 Econometric Theory Multa Scripsit Award

Marco (Yu) Nie  
Promoted to Associate Professor
NUTC Staff Transitions

Robert Reddy

Communications Specialist
Research Proposal (I)

US Department of Transportation Center

• National Transportation Center
  – 5 Awards, $3M /year for 2 years
  – Safety, State of Good Repair, Economic Competitiveness, Livable Communities, Environmental Sustainability
  – Our Strategy ➔ focus on freight, logistics, intermodal
    – Partner with BAC companies

• Other Options
  • Tier I Center: 20 awards, $1.5M /year for 2 years
  • Regional Center: 10 awards, $2.75M /year for 2 years
Recent or new research engagements with BAC and other industry partners
BAC Contributions: FY11, FY12

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Patterson Lecture 2013

Dr. Irwin Jacobs
Chairman and Founder

April 24, 2013

Spring BAC Dates: April 24 and 25, 2013
Looking Ahead

• New faculty hire in Transportation (demand/planning/sustainability)
• Strategic additions to BAC
• Research engagement with at least three more BAC companies
• Moving forward with big initiatives – if successful
• Raising endowment for Leon N. Moses Distinguished Lecture
Closing Thoughts

• **AT NORTHWESTERN**
  – Uniquely successful industry-engaged approach to transportation research and education

• What we do at the NUTC matters
  • BAC engagement and support critical to what we do, and how well we do it
MORE HERE
BAC: New Leadership Members Here Today

Jim Compton
Executive Vice President, Chief Revenue Officer
BAC: Members with New Companies Here Today

Dan Avramovich
Chairman and CEO

William Cook
Director - Logistics and Customs

Jean Reagan
Chairman and CEO
Thank you!