Re-Starting Transportation Center Executive Programs

Presentation for the Business Advisory Committee at Its Meeting
April 7, 2005

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Purpose & Outline

1. Request Input from Transportation Center BAC Members on the Value and Likely Success of “Re-Starting” Executive Courses
2. Provide Background on Previous TC Exec-Ed Programs
3. Provide Background on Current Kellogg (Allen Center) Exec-Ed Courses
4. Give Examples of Possible New Transport / Logistics Courses TC Might Offer Jointly with KSM / Allen Center
5. Next Steps

Appendix: Inbound Logistics’ Summary of Top University Supply Chain Executive Education Programs
Three BAC Member Survey Questions:
(Please Respond in Most Convenient Manner)

1. What issues that Northwestern professors might address are the most challenging for your firm:
   – In the next year?
   – Over the next decade?
Three BAC Member Survey Questions:  
(Please Respond in Most Convenient Manner)

2. What specific managerial skills do your people need to have to be better equipped for meeting these challenges?  
   - Quantitative / analytical skills?  
   - Knowledge / expertise in specific substantive areas?  
   - People skills, cultural awareness, international experience?
Three BAC Member Survey Questions:
(Please Respond in Most Convenient Manner)

3. Do you have interest in an executive workshop format in which your firm’s participants collaborate with Northwestern faculty in developing a specific outcome, such as:
   – A new product strategy
   – A forecasting system design
   – An inbound or distribution logistics network, or
   – A marketing plan?
• At Peak, 15 Years Ago, There Were about 275 TC Exec-Ed Students; By 1999, < 150

• Some Courses Were 3-4 Weeks Long
  – Attendance Mainly from BAC Firms
  – Courses Presented at Orrington Hotel
  – Heavy Use of Non-Northwestern Faculty

• Until mid-1990s, Exec Programs at Least Broke Even
  – Questionable “Profit” if Use Fully Allocated Cost Basis
  – Under NU President Weber, NWU Began Charging 8 ½ % Sales Tax on TC Exec-Ed Courses
  – TC Exec-Ed Courses Were a Significant Part of the Center’s Public Visibility
Background, Cont.

• Rising Competition from Other Universities and Commercial Education Vendors
  – Kellogg School of Management Developed Competing Courses at Allen Center
  – Many Top Schools Offered Courses and/or Certificate Programs – See Appendix = Inbound Logistics Article

• Corporate Belt-Tightening Hurt Registrations – Late 1990s

• By 2001, TC Exec-Ed Offerings Down to 6
  – 3 Logistics / Supply Chain
  – 2 Pipeline
  – 1 Info Tech for Transport & Logistics

• Impact of 9/11 Was Devastating
## Example Current Allen Center Exec-Ed Course Offerings

<table>
<thead>
<tr>
<th>KSM Account &amp; Shared with TC</th>
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<tbody>
<tr>
<td>• Global Supply Chain Management (Chopra)</td>
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<tr>
<td>• Market Access Strategies (Coughlan)</td>
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<tr>
<td>• Factory Physics (Hopp &amp; Chopra)</td>
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<tr>
<td>• Leading in Turbulent Times (Diermeier)</td>
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<tr>
<td>• Leveraging Financial Information for Supply Chain Optimization (Balachandran)</td>
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*See accompanying Allen Center brochure for complete listing.*
**Example Future Exec-Ed Course Offerings -- Shared Between TC and Allen Center**

* More Detail Provided in Later Slides

- International Supply Chain Development & Management*
- Marketing Channels with Precision Distribution & Returns
- Optimizing Supply and Distribution Networks
- Management of Long-Distance Supply Chains Under Emergencies
- Metropolitan Area Freight Planning to Increase Capacity and Ease Congestion*
- Meeting New Security & Safety Mandates
- Improving Business Forecasts under Uncertainty
- Innovative Financing for Public / Private Projects
- Airline and Airport Economics and Operations
- Managing Extreme Complexity in Network Businesses*
- Implementing Toll-Based Congestion Management Policies
- Improving Risk-Management Strategies in Transportation*
Four Examples of New TC-Allen Center Exec-Ed Possibilities

• Outlines of these Courses on 4 Following Slides

• Are these the Best Examples?

• Do BAC Members Have Other Ideas for Courses that Are More Needed?

• Do the Outlines Cover the Most Important Success Factors?

• What Additional Market Research Should We Conduct?
1. **International Supply Chain Development & Management**

• An advanced course that picks up where “Global Supply Chain Management” leaves off.

• How do you set up inbound logistics and outbound distribution networks overseas?
  – What help can you get from your partner nations and from the U.S. Trade Development Agency?
  – Recruiting foreign nationals for line management functions in the USA and abroad.

• Complying with Customs & Border Patrol requirements – security and duties.

• Working with your carriers: maritime, air cargo, rail intermodal (container) lines, local drayage at both ends.

• Working with Third Party Logistics (3PL) firms.

• Pre-planning for (and recovery from) supply chain disruptions.
2. Metropolitan Area Freight Planning to Increase Capacity and Ease Congestion

• A course for policy-makers and practitioners in both public and private sectors.
  {TC is working on securing Federal funding for a pilot.}
• Introduction to best practice principles in metropolitan area planning:
  – Federal agency requirements
  – State, regional, and local planning environments
• Winning support for the planning process:
  – From business leaders and other key external stakeholders
  – From approval authorities and implementing agencies / carriers
• Public-Private Partnerships and Innovative Financing
• Using modeling tools and gathering adequate data to make them worthwhile.
• Recruiting and gaining maximum value from outside experts:
• Going public with the finished product!
3. Managing Extreme Complexity in Transportation & Logistics Networks

• An advanced course that picks up where “Leading in Turbulent Times” leaves off.

• How do you prepare quantitative analyses of the performance of your inbound logistics and outbound distribution networks, or your transportation carrier operations?

• What are the key steps in developing network performance improvement plans:
  – Capital / design enhancements for capacity and productivity?
  – Operational improvements for safety, reliability, flexibility, maintainability?
  – What are the benefits / costs of streamlining vs. redundancies in networks?

• How can you test changes in capital or operating plans before the investments and training are implemented?

• Should information systems support tools for re-engineered processes precede or follow roll-out of the changes?

• Are “Network Streamlining” and “Process Simplification” good in and of themselves? Is it easier to reduce or manage complexity?

• Anticipating network failures, and preparing to recover.
4. Improving Risk-Management Strategies in Transportation / Logistics

• This is an advanced course in applying risk-management tools and strategies to entrepreneurial and safety / security activities in both public- and private-sector enterprises.

• Examination of the principles of risk management
  – Understanding the differences between risk and uncertainty
  – Setting up risk / reward matrices, fault trees, other analytical tools
  – Benefits and costs of streamlining vs. redundancies in networks

• Using \([\text{probability of an incident } \times \text{consequences} = \text{risk}]\)
  – Gathering data for probabilistic analyses
  – Modeling poorly understood operations and attacks on vulnerable facilities
  – Developing and ranking mitigation strategies
  – Prevention vs. recovery
  – The value of monitoring, tracing, and mapping impact

• Fail-safe versus fail-operational outcomes

• Stimulating development of technological counter-measures

• Developing risk- and performance-based standards in public and company policies
Where Do We Go from Here?

1. Receive / Analyze Suggestions from BAC

2. If Apparent Consensus Is to Move Forward, Select Most Promising New Courses (Jointly with Allen Center):
   - Recruit Faculty Academic Directors
   - Flesh Out Course Outlines
   - Conduct Market Analyses

3. If Favorable Results Hold, Continue Course Development, Begin Marketing (Allen Center)


5. Remember, This Is All About Preparing Leaders for the Future of Transport & Logistics Industries!