WELCOME!

September 24, 2014
8:00 AM – 4:00 PM

THE UCONN GRADUATE BUSINESS LEARNING CENTER (GBLC)
100 CONSTITUTION PLAZA
HARTFORD, CT 06103

PRESENTED BY UCONN, FHWA, AND CTDOT

T-HUB WORKSHOP SERIES: BIG DATA FOR EQUITY AND PERFORMANCE MEASUREMENT

Nicholas Lownes, PhD, PE
University of Connecticut
• Please continue eating!
• Wi-fi: UCONN_GUEST
• Demo tickets
• Please make sure to sign in
• Coats, restrooms, computer lab down the hall
THANK YOU!

Workshop sponsors:

- U.S. Department of Transportation
- Federal Highway Administration
- Connecticut Department of Transportation

Project support:

- UConn School of Engineering
- CTLs (Center for Transportation and Livable Systems)
- UTC

Event support:

- Pat Ryiz, GBLC
- John Rhoads, GBLC
- Jon Kokines, Catering
- Steve Pfaffle, Photography
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<thead>
<tr>
<th>TRANSPORTATION ENGINEERING:</th>
<th>COMPUTER SCIENCE AND ENGINEERING:</th>
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</thead>
<tbody>
<tr>
<td>Nick Lownes</td>
<td>Dong-Guk Shin, PhD (lead)</td>
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<tr>
<td>Kelly Bertolaccini</td>
<td>Timothy Becker</td>
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<tr>
<td>Sina Kahrobaei</td>
<td>Edwin Olivos</td>
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<tr>
<td>GEOGRAPHY</td>
<td>CT STATE DATA CENTER</td>
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<tr>
<td>Jeff Osleeb</td>
<td>Michael Howser</td>
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<tr>
<td>Curtis Denton</td>
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<tr>
<td>Natasha Vorotyntseva</td>
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<td>CT TRANSPORTATION SAFETY RESEARCH CENTER</td>
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<td>Eric Jackson</td>
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Three topics:

- Workshop history and context
- Today’s agenda
- t-HUB application development
June 2011: CT Public Transit Working Group

April 2012: t-HUB first proposed

November 2012: 1st t-HUB workshop

February 2013: 2nd t-HUB workshop

December 2013: FHWA Technology Deployment Grant

September 2014: 3rd t-HUB workshop Web application demo

November 2012: 1st t-HUB workshop
DATA COMPONENTS

Performance Data
- Currently static
- Real-time integration

System Data
- GTFS
- Network and schedule structure

Census Data
- CT State Data Center
- Demographic & socio-economic data
CONNECTICUT
Population 3.5 million
Land Area 5,500 mi² (14,300 km²)

SEATTLE METRO AREA
Population 3.5 million
Land Area 5,900 mi² (14,400 km²)

New York METRO AREA
Population 20 million
Land Area 13,300 mi² (34,500 km²)

Boston METRO AREA
Population 4.95 million
Land Area 4,500 mi² (11,700 km²)
Connecticut’s 9 Regional Planning Organizations (RPOs)

And its fixed route bus transit system.
Brief demonstration

http://mmucc-map.ad.engr.uconn.edu/thub/
t-HUB Next steps

Next year:
- AVL/ACP – data integration planning
- On-board survey data and methods review
- Public launch
- Move to production environment

1-2 years:
- New research integration
- Connecting with AVL/ACP data
- Survey data integration

2+ years:
- User edit features – expand beyond CT (t-HUB Sydney)
<table>
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<tr>
<th>Time</th>
<th>Speaker Details</th>
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<tr>
<td>9:15 – 10:30 AM</td>
<td><strong>Kari Watkins, PhD, Georgia Institute of Technology</strong>&lt;br&gt;&quot;The impacts of real-time information on transit user perceptions&quot;</td>
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<td>10:45 – 12:00 PM</td>
<td><strong>Stephen Boyles, PhD, The University of Texas at Austin</strong>&lt;br&gt;&quot;Equity considerations in transportation decision-making&quot;</td>
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<td>12:00 – 1:15 PM</td>
<td><strong>Lunch: Keynote Speaker – Brendon Hemily, PhD</strong>&lt;br&gt;Dr. Brendon Hemily of Hemily &amp; Associates and the University of Toronto will provide our lunch keynote on the topic of “Transit Intelligent Transportation Systems (ITS): Evolution, Developments, Challenges, and Future Directions”</td>
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<td>1:30 – 2:30 PM</td>
<td><strong>Transit performance measurement today &amp; tomorrow – UConn Team</strong>&lt;br&gt;- Embedded algorithms for transit performance measurement – Timothy Becker&lt;br&gt;- The impact of equity analysis parameters – Curtis Denton&lt;br&gt;- Advanced metrics for transit equity measurement – Kelly Bertolaccini</td>
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Kari Watkins, PhD
Georgia Institute of Technology