

URBAN FREIGHT TRANSPORTATION COMMITTEE

TRANSPORTATION RESEARCH BOARD

TRIENNIAL STRATEGIC PLAN 2017–2020

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Freight Systems Group

Dr. Anne Goodchild, Chair University of Washington

- Freight Transportation Economics and Regulation (AT010)
- Freight Transportation Planning and Logistics (AT015)
- Development of Freight Fluidity Performance Measures (AT017T)
- International Trade and Transportation (AT020)
- Urban Freight Transportation (AT025)
- Agricultural Transportation (AT030)
- Military Transportation (AT035)
- Transportation of Hazardous Materials (AT040)
- Intermodal Freight Transport (AT045)
- Intermodal Freight Terminal Design and Operations (AT050)
- Truck Size and Weight (AT055)
- Trucking Industry Research (AT060)
- Freight Transportation Data (ABJ90)
- Truck and Bus Safety (ANB70)
- Freight Rail Transportation (AR040)

Triennial Strategic Plan (TSP)

Committee Name and Number:

TSP Three-Year Period: Date Prepared: Urban Freight Transportation, AT025 April 2017 to April 2020 December 21, 2016

Committee Future Outlook Statement:

Committee Scope

This Committee promotes research on urban freight transportation, for the advancement of knowledge and the dissemination of information, the improvement of performance, the cultivation of practitioners, and the improvement of public policy and planning as they interact with private systems of logistics.



TRB Urban Freight Transportation Committee Washington, D.C. January 11, 2016 (Note: not all members pictured.) Photo courtesy of Lea Camarda, TRB

The Committee is concerned with developing and advancing the state of the practice in strategies and methods that improve the planning, implementation, operation and performance of urban freight transportation. It seeks to do so by promoting collaboration among academia, the public sector and private interests. It recognizes the vital contribution of efficient freight transportation to the quality of life of urban residents and to their economic wellbeing. It contributes to professional and academic discourse objectively, without advocating any particular position on public policy or private sector decision-making.

For the purposes of this Triennial Strategic Plan (TSP), "urban freight transportation" refers to the movement of goods and services by any transportation mode that uses or impacts the multi-modal urban transportation system.

Considerations that Shape Committee Activities

The Committee's activities are influenced by (and in turn influence) many factors.

Planning & Economics

- Urban regions are national economic drivers and intermodal freight transportation hubs.
- The state of urban transportation, as expressed by congestion, traffic circulation, parking, mobility, accessibility, air quality, greenhouse gas emissions, sustainable development, capacity needs, and state of infrastructure repair.
- Integrating freight into the urban and regional transportation and land use planning and priority-setting processes.
- Anticipated market conditions, customer expectations and demands for the transportation of freight and services that shape economic development opportunities, and how these compete with or complement urban land use and environmental policies.
- Freight industry conditions, including the economics of freight transportation, labor supply and skills, and commercial viability in a competitive environment.
- Commercial usage of infrastructure, including efficient truck route planning, improving the first/last mile access and city logistics, repurposing of underutilized facilities, and minimizing infiltration through residential communities and other sensitive areas.
- Availability of data and analytical tools to predict, plan and monitor urban freight activity, commodity flows, and the

factors that influence freight demand.

• America's role as a trading nation, vis-à-vis structural economic changes in other nations (e.g., China, India, Russia, and Brazil)

Policy

- Complete streets, allowing for the shared use of all road users safely and efficiently (with special attention to facilitating truck loading/unloading and mitigating conflicts between trucks and non-motorized modes).
- Funding for urban freight infrastructure, including traditional public sources, private sources, and alternate delivery (such as public-private partnerships [P3]).
- Pricing of urban freight transportation, including prices impacting energy, tolls, parking and time-of-day facility access.
- Methods of engaging urban freight stakeholders, including freight forums, task forces, and the like.

Operations

- State of repair, capacity and resiliency of critical freight transportation links.
- Institutional ability to enforce existing regulations and to anticipate / respond to changes in the factors that impact urban freight.
- Technologies that optimize the operations, safety, performance, emissions and energy usage of urban freight transportation (e.g., growing use of e-purchases, alternative fuel trucks, expansion and contraction of distribution centers, use of longer-combination vehicles, automated vehicles, 3D printing and drone delivery).
- Global supply chain changes (e.g., shifts towards nearshoring due to changing transportation, foreign labor and fuel costs; shipping domestic oil by rail).
- Security needs amid new foreign and domestic challenges.

These factors may also be read as issues or as opportunities (and often as both). Many of these factors impact more than one area of Planning & Economics, Policy and Operations. In the prior list, they are listed where the impact is most significant.

On a related note, the committee also maintains an *Urban Freight Bibliography Resource* available here: <u>https://sites.google.com/site/trbcommitteeat025/resources</u>.

The resource documents cover a broad set of topics, which are organized as follows: Foundational Resources; Energy & Environment; Freight Facility Location and Land Use; Metropolitan Planning; Access, Parking, and Loading; City Logistics & Last-Mile Strategies; Port Access for Trucks and Intermodal Consideration in Urban Areas; Freight Transportation Demand Forecasting & Freight Mobility and Related Performance Measures; Economics of Urban Freight Transportation; Compendiums, reports and reviews; and city studies, websites.

Committee Future Outlook and Goals

The Committee aims to introduce innovations and promote good practices in policies, plans, procedures and actions that address the aforementioned factors and influences from the perspective of urban freight transportation. To achieve this, the Committee has adopted five key goals, with its corresponding actions, for the future:

- 1. Identify problems and opportunities: Identify and define relevant concerns, opportunities, and objectives in urban freight planning, policy, and operations and develop research problem statements to address these areas.
- Promote best practices: Promote practice-ready research for planning, policy, and operational issues in urban freight transportation while seeking funds for such efforts.
- 3. Engage stakeholders:

Seek ways to foster direct and active relationships between public and private stakeholders serving urban communities in order to develop better methods and policies for integrating freight into urban communities.

- Educate planners, elected officials, and young professionals: Support professional development for those interested in urban freight transportation.
- Diversify collaborations: Develop and diversify committee membership and relationships, so that its composition and connections reflect expertise from academic, private and public sectors across the U.S. and internationally.

The Committee plan below identifies specific milestones to achieve these goals.

Specific Milestones over the Next Three Years 2017-2020

The Committee will maintain a number of ongoing activities and responsibilities, including:

- Reviewing submitted technical papers.
- Organizing annual meeting sessions and workshops.
- Investigating ways to further promote the annual meeting call for papers.
- Conducting regular Committee teleconferences to keep momentum on activities and making decisions between formal meetings.
- Disseminating, via e-mail and LinkedIn, information on upcoming events that have urban freight content to the mailing list of Committee members and friends.
- Encouraging participation of Committee members and friends in upcoming freight conferences, webinars, etc. that are sponsored by other TRB committees or by other organizations (e.g., International Urban Freight Conference).

In addition to these ongoing activities, the following special objectives are identified for the upcoming three (3) years:

2017-2018 (Year 1)

- Complete 2017-2020 Triennial Strategic Plan.
- Install new Committee Chair.
- Make preparations for committee rotation in 2018 (33%).
- Transition website to new location.
- Develop script for a short video for the website, describing the committee's activities.
- Implement a non-formalized subcommittee structure in the key areas of Research, Communications, and Committee Chair Activities (see page 9).
- Recognize, disseminate and implement innovative research.
- Develop a matrix of diversified research funding sources (all levels of government, Transportation Investment Generating Economic Recovery [TIGER], National Science Foundation [NSF], Horizon 2020, Volvo Research and Education Foundations [VREF], and private-sector sources) and critical dates/timelines related to the funding sources.
- Hold breakout sessions in annual meeting to develop research problem statements.
- Track yearly number of papers (by topic area, if possible) submitted to the committee for the annual meeting.
- Track yearly trends in the number of problem statements developed by the committee.
- Undertake special outreach efforts with private-sector freight stakeholders (e.g., develop guidelines for effective and secure sharing of urban freight data).

2018-2019 (Year 2)

- Complete committee rotation (33%).
- Recognize, disseminate and implement innovative research.
- Based on the year-1 video script, develop video for website, describing the committee's activities.
- Hold breakout sessions in annual meeting to develop research problem statements.
- Track yearly number of papers (by topic area, if possible) submitted to the committee for the annual meeting.

- Track yearly trends in the number of problem statements developed by the committee.
- Involve at least two new committee members in a TRB study/activity (e.g., NCHRP project panels).
- Undertake special outreach efforts with the international community (e.g., develop list of case studies of successful urban freight strategies, conference co-sponsorship, etc.).

2019-2020 (Year 3)

- Recognize, disseminate and implement innovative research.
- Hold breakout sessions in annual meeting to develop research problem statements.
- Track yearly number of papers (by topic area, if possible) submitted to the committee for the annual meeting.
- Track yearly trends in the number of problem statements developed by the committee.
- Involve at least two new committee members in a TRB study/activity (e.g., NCHRP project panels).
- Begin TSP update.
- Perform comprehensive Committee SWOT analysis in preparation for TSP update.

Targets for Years Four to Seven 2020-2024

Over the longer term, the committee will seek to build upon its strengths (in particular, the commitment of its members) and to continue to work collaboratively with other TRB standing committees. The committee will endeavor to fulfill all TRB committee requirements (even as these may change), revisit the Triennial Strategic Plan, and undertake special efforts to close gaps, address weaknesses, and make improvements where necessary.

Appendix A – Committee History Committee Leadership

Chair Vice-Chair Secretary TRB Staff Communications Coordinator Membership Coordinator Recognition Coordinator Research Coordinators

Resource Coordinator Session Coordinator TSP Coordinators Emeritus Member Ted Dahlburg Bill Eisele Chip Millard Scott Babcock Fatemeh Ranaeifar Vince Mantero Linsey Callaghan Erica Wygonik and Michael Browne Miguel Jaller Peter Plumeau Matt Roorda and Bill Eisele Arun Chatterjee

Committee website

https://sites.google.com/site/trbcommitteeat025/

Membership racial diversity and gender

The reported composition of the committee as of July, 2016 is shown below. This report includes Young Members (currently, four members) and Emeritus Members (currently, one member).

		Percentage
White:	23	0.66
Black:	3	0.09
Hispanic:	1	0.03
Asian or Pacific Islander:	7	0.20
American Indian:	0	0.00
Unknown:	1	0.03
Male: Female:	22 13	0.63 0.37

Geographic distribution of membership

North West US	South West US	Central US	North East US
3	7	1	13
South East US 3	International 8		

Professional affiliation distribution of membership

State Highway/State Government:	3	Federal Government	1
Academia/Education:	12	Contractor/Consultant:	8
Local/Regional government:	9	Nonprofit/Other:	2

Appendix B – Connecting Tasks to Leadership Structure

All TRB committees have a Committee Research Coordinator and a Committee Communications Coordinator. The near-term and long-term milestones listed in this TSP generally fall in the areas of Research, Communications, and Committee Chair. Per the 2017-2018 (Year 1) goals, the Committee will move toward a nonformalized subcommittee structure organized as follows to satisfy Committee tasks:

Research (Committee Research Coordinator)

- Develop problem statements and obtain support (Statement Coordinators).
- Perform annual meeting paper reviews (*Paper Review Coordinator*).
- Track committee performance measures related to papers, problem statements, funding, etc. (*Committee Research Coordinator*).
- Develop matrix of diversified research funding sources and timelines (Committee Research Coordinator or designee).
- Update and disseminate the Committee's *Urban Freight Resource Guide* to the TRB community at large (*Resource Coordinator*).

Communications (Outreach) (*Committee Communications Coordinator*)

• Maintain a Committee website (Web Coordinator).

- Publish regular Member Spotlight newsletter (Committee Communications Coordinator).
- Maintain social media presence (LinkedIn, consider Facebook, Twitter) (*Media Coordinator*).
- Develop a relationship with the media (Media Coordinator).

Committee Chair

- Providing overall committee leadership and direction to the committee.
- Facilitate committee activities by working closely with all coordinators
 - Ensure appropriate membership to tackle committee goals and activities (*Membership Coordinator*).
 - Periodically update Committee membership to maintain balanced representation by geography, gender, race, ethnicity and organizational affiliation (*Membership Coordinator*).
 - Recognize members and AT025 friends (*Recognition Coordinator*).
 - Oversee annual meeting and mid-year meeting planning by working closely with Session Coordinator.
- Engaging stakeholders interested in urban freight transportation.
 - Developing/maintaining relationships with privatesector and public-sector practitioners.
 - Undertaking special outreach efforts with the international community (conference cosponsorship, etc.).
 - Engaging other freight group committee chairs and freight group chair on coordination activities.
 - Engaging the membership to be involved in committee activities and moving committee objectives forward.
 - Identifying potential TRB Webinars related to urban freight in cooperation with the Session Coordinator.

- Providing TRB staff with required committee information when requested.
- Approving/circulating meeting minutes developed by the *Committee Secretary.*

Appendix C – Recent History (2014-2017)

- Named new committee vice-chair (2015) and new chair (2017)
- Developed problem statements that were eventually funded
 - Understanding and Using New Data Sources to Address Urban and Metropolitan Freight Challenges (NCFRP 49, \$600,000)
 - Metropolitan Freight Transportation: Implementing Effective Strategies (NCHRP 08-106, \$375,000)
- Named new coordinators for research, communications, recognition, resource, sessions, and Triennial Strategic Plan
- Completed committee rotation
- Annual Meeting
 - Conducted three committee meetings; a portion of the 2016 meeting was devoted to updating the committee's Triennial Strategic Plan
 - Helped organize and co-sponsor podium sessions, poster sessions, and workshops
- Midyear Meeting
 - o Conducted three committee meetings
 - Helped organize and co-sponsor sessions
- Conducted several committee meetings via conference
 call
- Completed reviews of all assigned papers and made recommendations
- Prepared Urban Freight Resource Guide, a compendium of practical and research documents that cover a wide range of topics. The focus is on US resources, but also includes several international references. First edition released in February 2014.

- Organized and conducted several practitioner researcher focus group discussions, aimed at identifying opportunities for bringing research into practice and at identifying further research needs. The focus group held at the January 2015 TRB Annual Meeting attracted over 75 participants.
- Maintained committee website and LinkedIn Group
- Released member spotlights
- Migrated friends list to MyTRB resource
- Recognized outstanding member contributions and Best
 Papers
- Invited non-traditional TRB participant to Annual Meetings
- Updated Call for Papers
- Updated Wikipedia entry for "urban freight distribution"

Appendix D – Collaborations TRB Committees

The Committee seeks to maintain close formal and informal relationships with several other TRB committees. In many cases, Committee members are also members of other standing TRB technical committees and this affords an excellent opportunity to interject urban freight considerations into other areas of transportation research. These include, but are not limited to:

- A0010 International Cooperation
- ABC10 Strategic Management
- ABE30 Transportation Issues in Major Cities
- ABG20 Transportation Education and Training
- ABG50 Transportation History
- ABJ20 Statewide Data and Information Systems
- ABJ40 Travel Survey Methods

- ABJ90 Freight Transportation Data
- ABR20 Logistics of Disaster Response and Business Continuity
- ADA20 Metropolitan Policy, Planning and Processes
- ADB30 Transportation Network Modeling
- ADC20 Transportation and Air Quality
- ADD50 Environmental Justice in Transportation
- AFD60 Flexible Pavement Design
- AHB40 Highway Capacity and Quality of Service
- AHB60 Highway/Rail Grade Crossings
- AHB70 Access Management
- ANF20 Bicycle Transportation
- AT010 Freight Transportation Economics and Regulation
- AT015 Freight Transportation Planning and Logistics
- AT020 International Trade and Transportation
- AT030 Agricultural Transportation
- AT045 Intermodal Freight Transport
- AT050 Intermodal Freight Terminal Design and Operations
- AW030 Marine Environment

Other Organizations

The Committee is formalizing ties with several organizations separate from other standing TRB committees and other traditional partners. These external organizations yield broad influence in transportation planning and offer additional opportunities for integrating freight with other modes of transportation in urban settings. These organizations include:

- American Association of State Highway and Transportation
 Officials
- American Planning Association
- American Trucking Associations
- Association for Commuter Transportation
- Association of Metropolitan Planning Organizations
- Federal Highway Administration
- Institute of Transportation Engineers
- National Association of City Transportation Officials
- National Association of Regional Councils
- Transportation for America
- Urban Land Institute
- Volvo Research and Educational Foundations



Appendix E – List of Committee Members Bala Akundi, Baltimore Metropolitan Council Giorgio Ambrosino, MemEx Sean Ardussi, Puget Sound Regional Council Scott Babcock, Transportation Research Board Maria Boile, Hellenic Institute of Transport Ron Borowski, Seattle Department of Transportation Mike Browne, University of Gothenburg Joe Bryan, WSP/Parsons Brinckerhoff Linsey Callaghan, Rhode Island Department of Transportation Arun Chatterjee, University of Tennessee, Knoxville Tom Cherrett, University of Southampton Eulois Cleckley, Houston-Galveston Area Council Alison Conway, City College of New York Ted Dahlburg, Delaware Valley Regional Planning Commission Paula Dowell, Cambridge Systematics Bill Eisele, Texas A&M Transportation Institute Anne Goodchild, University of Washington Stacey Hodge, New York City Department of Transportation Barb Ivanov, University of Washington Miguel Jaller, University of California, Davis Michael Kray, Jacobs Maria Lindholm, Lindholmen Science Park Vince Mantero, Federal Highway Administration Chip Millard, Federal Highway Administration Tom Murtha, Chicago Metropolitan Agency for Planning Roseann O'Laughlin, Oregon Department of Transportation Peter Plumeau, RSG Fatemeh Ranaiefar, Fehr & Peers Matt Roorda, University of Toronto Mike Ruane, Delaware Valley Regional Planning Commission John Tompkins, Minnesota Department of Transportation Ron van Duin, Delft University of Technology Cara Wang, Rensselaer Polytechnic Institute Qian Wang, University at Buffalo Philbert Wong, Los Angeles County Metropolitan Transportation Authority Erica Wygonik, RSG Akiko Yamagami, Southern California Association of Governments Ema Yamamoto, City of Philadelphia

Hugo Yoshizaki, University of Sao Paulo