Strategic Plan
Transportation Research Board
Vehicle Size and Weight Committee (AT055)

This document presents the draft strategic plan of the Transportation Research Board's Motor Vehicle Size and Weight Committee, also referenced by TRB numeric code—AT055.

This draft plan was developed during interactive sessions of the full committee during the 2004 mid-year meeting and 2005 annual meeting. The discussion below consists of the following:

- An overview of TRB and the Motor Vehicle Size and Weight Committee,
- An itemization of the committee's Strengths, Weaknesses, Opportunities, and Threats, sometimes referenced as a "SWOT Analysis,"
- A discussion of a realigned committee structure, and
- The results of a systems mapping exercise intended to identify key areas for future vehicle size and weight research driven by measurable outcomes.

The committee's strategic plan is intended to be a "living document" that will be reviewed periodically and updated as needed. Comments about the strategic plan should be directed to the Committee's chair or to any of the committee's other officers.

Overview

The Transportation Research Board (TRB) is one of six major divisions of the National Research Council, a private, nonprofit institution that provides services to the government, public, and scientific and engineering communities. Established in 1920, the TRB is supported by state transportation departments and federal agencies, including the U.S. Department of Transportation and its component administrations.

The TRB is organized into five major divisions, one of which is "Technical Activities" (Division A). The Technical Activities Division is further divided into 11 groups comprised of approximately 200 standing committees and task forces, representing 4,000 volunteer members. Four of the 11 groups include standing committees that focus wholly or partially on freight-related activities. One of these four groups--Freight Systems—is comprised of 10 standing committees and two task forces.

The Motor Vehicle Size and Weight Committee is one of the 10 standing committees in the TRB Freight System Group. The Motor Vehicle Size and Weight Committee was established in 19xx. Over its 20 plus year existence, the committee has focused on a research and policy studies examining safety and productivity issues related to commercial vehicle interactions with traffic operations and infrastructure protection. The scope of the committee includes all aspects of research pertaining to Motor Vehicle Size and Weight, including passenger buses.

Strengths, Weaknesses, Opportunities, and Threats

Many strategic planning efforts include an assessment of strengths, weaknesses, opportunities, and threats, sometimes referenced as a SWOT analysis. The purpose of such an analysis is to identify a wide variety of factors and forces affecting the ability of an organizational entity to meet its goals and accomplish its objectives. **Exhibit 1** provides a summary of the components of a SWOT analysis for the Motor Vehicle Size and Weight Committee.

Exhibit 1:
SWOT Analysis Overview for the Motor Vehicle Size and Weight Committee

Strengths	**Weaknesses**
• Depth and breathe of technical expertise on the committee • Good cross-section of policy and technical membership • Strong awareness of the current issues related to the topic	• Poor implementation track record from previous research • Too focused on the "technical:" i.e. the committee has been excluded from some high level policy studies • Finding common ground between safety and productivity
Opportunities	**Threats**
• Become a repository / resource for future policy studies • Broaden private sector participation • Examine S & W issues across supply chains • Seek more policy oriented opportunities; i.e. case studies, education	• The ability to get good data or affect data collection activities • Mis-information / politically driven agendas by special interest groups

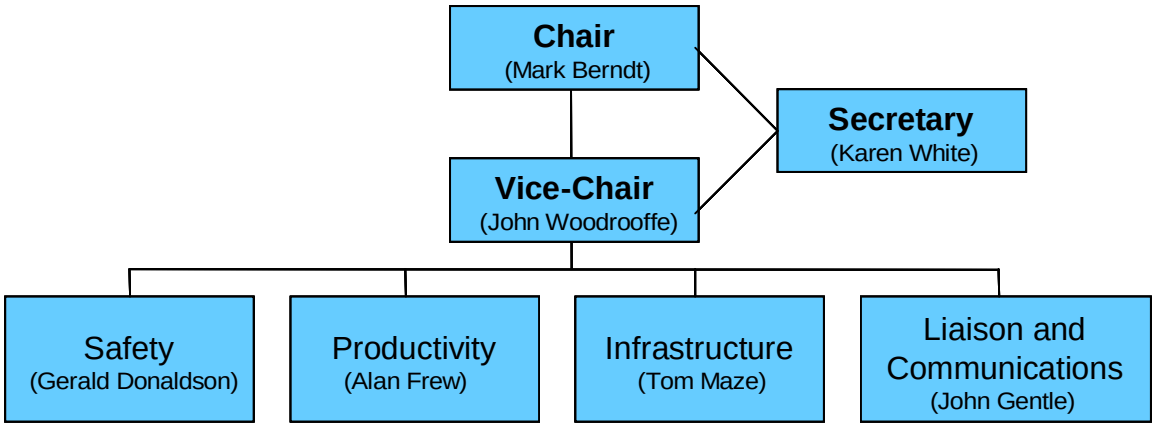
Through the active involvement of its members, the committee is characterized by an extensive set of strengths related primarily to the experience and expertise of its membership. Limited implementation of the committee's past research efforts are among the weaknesses and threats which must be considered in identifying future research topics, as well as strategies for research results information dissemination.

This strategic planning effort seeks to balance an understanding of the committee's strengths, weaknesses, and threats in assessing future research opportunities. As noted above, the strategic plan is a living document that should be considered as a snapshot in time affected by numerous internal and external factors. As internal and external factors change, so too will the understanding of what the committee can realistically seek to achieve in the area of vehicle size and weight research.

Proposed Committee Structure

During the 2005 Annual meeting the incoming committee chair proposed a new committee structure intended to distribute the committee workload and offer broader opportunities for members to be involved in research and outreach efforts of the committee. The proposed committee structure identifies four subcommittees within which to focus much of the committee's work. These are: Safety, Productivity, Infrastructure and Liaison/Communications. **(Exhibit 2)**

Exhibit 2: Proposed AT055 Committee Structure



The proposed committee structure, retains the positions of committee chair and secretary, and creates a new position of vice chair. In addition the structure creates four subcommittees intended to become "activity areas," each of which having a coordinator to shape and guide liaison, communications, meetings, and research activities.

Subcommittee leaders, for the activity areas of: Safety, Productivity and Infrastructure will be expected to work with the members of their subcommittee to:

- Develop research ideas and problem statements.
- Provide updates to the committee on the latest in research and studies in the topic area during annual and mid-year meetings
- Organize sessions for annual and mid-year meetings related to the subcommittee topic area

The tasks associated with sponsoring and organizing sessions for annual and summer meetings are intended to be shared among the committee and subcommittee leadership, and coordinated through the Liaison and Communications subcommittee leader. Additional responsibilities falling to the Liaison and Communications subcommittee leader include:

- Strengthening ties between AT055 and other related TRB committees

- Providing input and direction for the committee's web site content
- Working with TRB staff and other committees to organize sessions and other activities for the summer meeting, and;
- Identifying opportunities to sponsor, co-sponsor, or otherwise participate in workshops, conferences, or meetings focusing on Motor Vehicle Size and Weight themes or topics

Committee Mission, Goals, Strategies and Action Agenda (Draft - To be completed during the 2005 Mid-year Meeting)

The following discussion provides specifics on the committee's overall mission, goals, strategies, and activities. The mission and goals are broad statements of what the committee seeks to accomplish. Strategies and activities are more specific and also more subject to change as internal and external considerations change. The strategies and activities presented herein will be supplemented with more specific work tasks that arise from time to time and are not specifically identified in this strategic planning document.

I. Committee Scope: (Existing)

This committee is concerned with the issue of motor vehicle size and weight, and the problems associated with larger and heavier trucks. It is concerned with the social, economic and political factors related to motor vehicle size and weight; the interrelationships of larger loads with pavements, shoulders, structures, facility capacity, safety and the environment; and the effects of changing vehicle dimensions on carrier and highway economics, on other modes of freight transport, and on labor and management.

II. Committee Mission Statement (proposed)

Promote commercial vehicle research related to motor vehicle size and weight for the purpose of maximizing highway transport safety and efficiency.

III. Committee Goals (proposed)

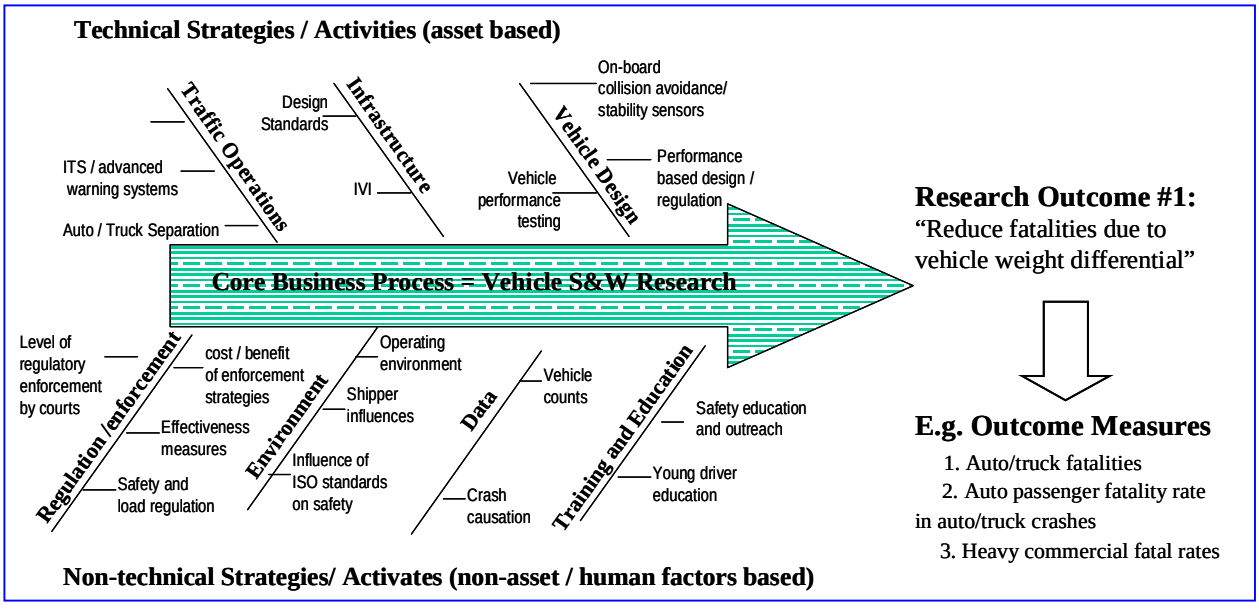
A. Reduce highway fatalities associated with vehicle weight differentials through research
B. Enhance and improve highway transport efficiency through commercial vehicle size and weight research
C. Promote research to enhance infrastructure design as it relates to motor vehicle size and weight
D. Identify truck configurations that allow higher capacity trucks to use the highways systems safely and without increased pavement or bridge damage.
E. Develop Risk management methodologies for highway agencies to use in managing higher weight trucks on specific corridors.
F.

IV. Potential Research Strategies / Activities to Achieve Key Committee Goals

A. Reduce highway fatalities associated with vehicle weight differentials

1) Traffic operations
    a. Work zone research and countermeasures
    b. Advanced safety technology / ITS / IVI research
    c. Auto / truck separation
2) Infrastructure
    a. Design standards and heavy vehicle safety
    b. Integrating intelligent vehicles and infrastructure
3) Vehicle Design
    a. On-board collision avoidance technologies
    b. Performance based vehicle designs
    c. Vehicle performance testing research
4) Regulation / Enforcement
    a. Enforcement / regulatory effectiveness - metric development
    b. Cost / benefit research
    c. Safety and load regulations / enforcement
5) Environmental Influences
    a. Interaction of functional class and vehicle configuration
    b. Shipper influences / best practices in carrier behavior / crash experience
    c. Influence of ISO standards on carrier safety
6) Data Enhancement
    a. Heavy / large vehicle crash causation research
7) Education
    a. Young driver education
    b. Safety education and outreach

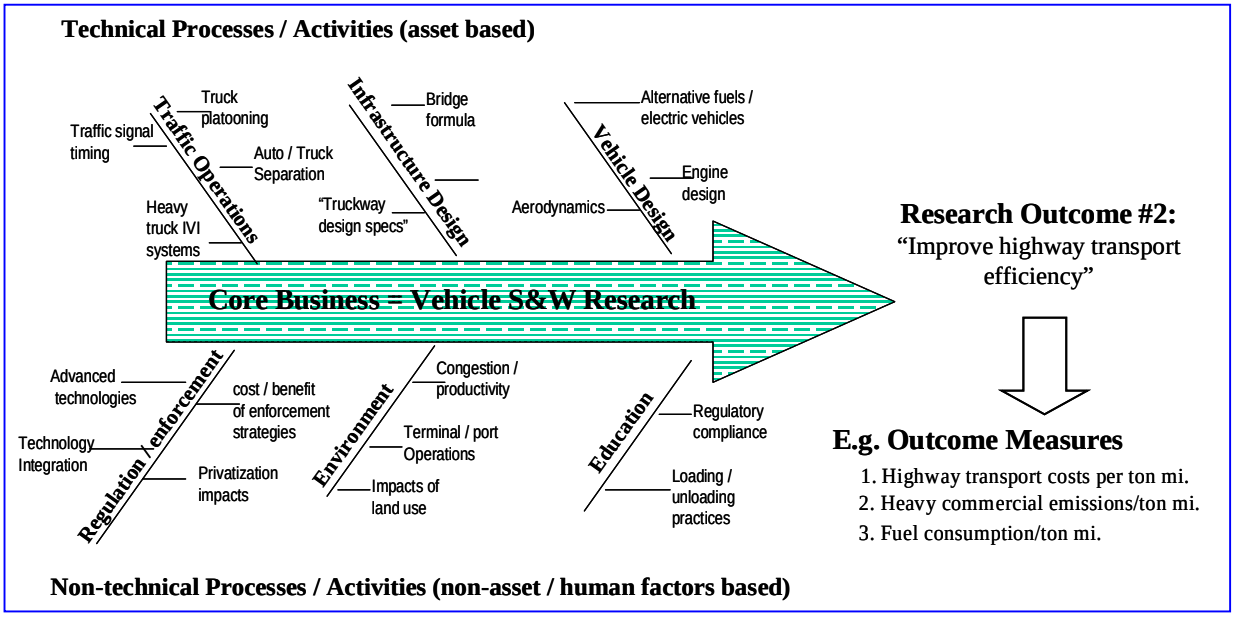
Exhibit 3: Systems Diagram of Safety Research Process for Vehicle Size & Weight



B. Improve highway transport efficiency

8) Traffic Operations
   a. Traffic signal timing / plans / technology
   b. Auto / truck separation
   c. Truck platoons
   d. Heavy vehicle IVI
9) Infrastructure Design
   a. Bridge formula
   b. Truckway design specs
10) Vehicle Design
   a. Aerodynamics
   b. Alternative fuels
   c. Engine design
   d. Suspension system
   e. Monitoring technologies
11) Enforcement / Regulation
   a. Advanced roadside technology / integration
   b. Cost / benefit of weight enforcement strategies
   c. Privatization
   d. Industry compliance programs
12) Environment
   a. Land use impacts
   b. Congestion and productivity
   c. Terminal / port operations
13) Education
   a. Shipper / carrier best practices
      - Loading / unloading
      - Weight compliance

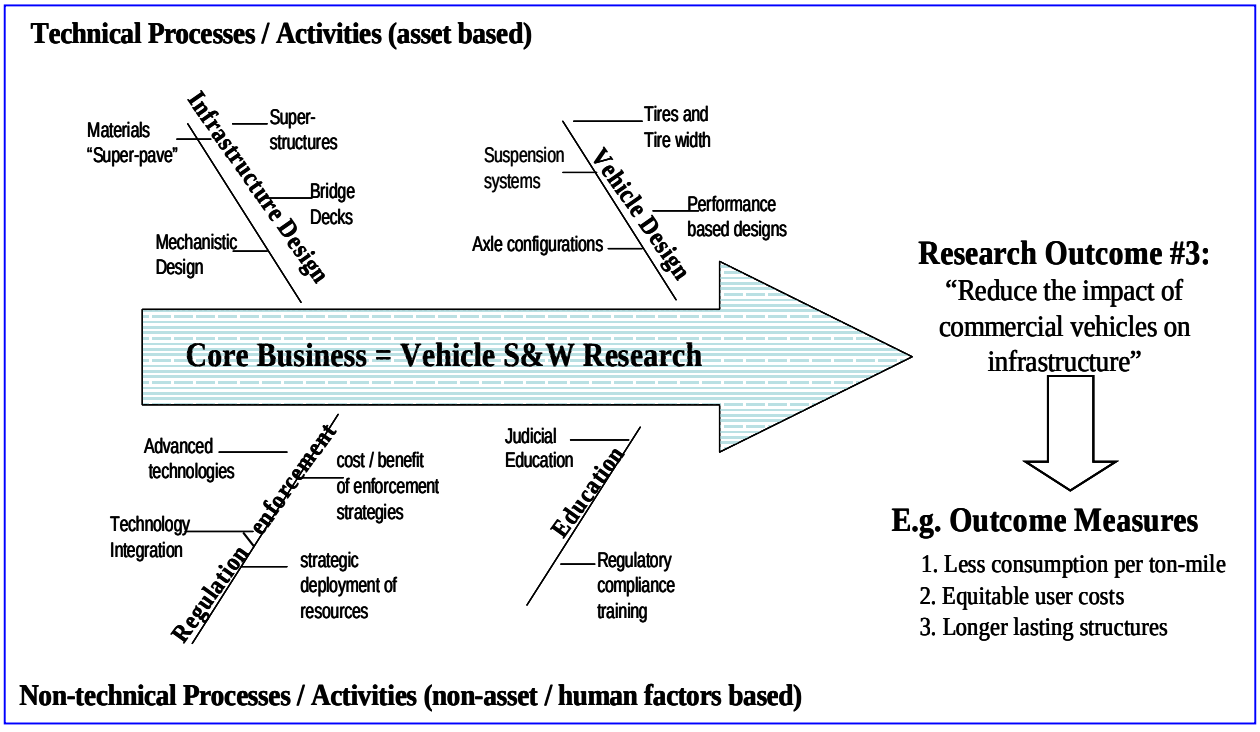
Exhibit 4: Systems Diagram of Efficiency Research Process for Vehicle S & W



C. Improve Highway Infrastructure Truck Compatibility

14) Infrastructure Design
    a. Bridge super-structures
    b. Bridge decks
    c. Materials, e.g. superpave
    d. Mechanistic pavement designs
15) Vehicle Design
    a. Suspension systems
    b. Tires and tire width
    c. Axle configuration
16) Enforcement / Regulation
    a. Advanced technologies
    b. Cost / benefit of enforcement
17) Infrastructure Design
    a. Weight compliance training
    b. Judicial training on weight issues

Exhibit 5: Systems Diagram of Infrastructure Research Process for Vehicle S & W



IV. Action Agenda

A. Research

- Develop an annual research agenda for discussion and adoption during the annual meeting
- Explore opportunities to generated a working paper on vehicle size and weight research activities
- Periodically update and refine existing AT055 problem statements
- Develop at least 3 problem statements each year, including at least one research problem statement for an NCHRP synthesis project
- Revise and update the committee's millennium paper
- Develop at least one call for papers each year
- Work with TRB staff to appoint committee members to NCHRP research panels where appropriate
- Actively solicit input from committee members, friends and other transportation professionals on the committee research agenda
- Work with other committees of the TRB Freight Systems Group and modal groups on joint research initiatives
- Appoint "task forces" of committee members, friends, or members of other committees to address specific topics that require more detailed exploration for identification of specific research needs, on an as needed basis

B. Meetings

- Develop at least two annual meeting sessions on topics identified on the committee's research agenda, working in partnership with other TRB committees or related organizations where possible
- Develop at least one summer meeting session on topics identified on the committee's research agenda, working in partnership with other TRB committees or related organizations where possible
- Develop at least one paper or poster session for the annual meeting based on research conducted by TRB and/or papers submitted for review
- Organize at least one presentation on a research topic identified on the committee's research agenda for presentation at the committee meeting during the TRB annual meeting
- Review and comment on Motor Vehicle Size and Weight papers that TRB staff assigns to the committee

C. Communications

- Develop and maintain a committee Web site as a forum for exchanging information on research needs, current research findings, policy issues and member news, primarily oriented to committee members and friends but also to

other transportation professionals engaged in Motor Vehicle Size and Weight research.

- Identify opportunities to disseminate information with links to the committee web site from other relevant web sites
- Identify opportunities inside and outside TRB to publish information on research results, calls for papers, or topics of interest to the committee
- Establish and maintain a communications channel with the Motor Vehicle Size and Weight business community through which research needs and results can be effectively communicated

D. Liaison

- Develop a list of TRB committees and other organizations with which the committee desires to maintain regular contact
- Identify members to perform liaison with those groups for the purposes of identifying common interests and reporting that information to AT055 members
- Participate in meetings of other TRB committees, the TRB Freight Systems Group, and other committees and organizations where appropriate
- Monitor Web sites and/or newsletters of other relevant committees and disseminate information of interest to AT055 members