

*The National Academies of*  
SCIENCE • ENGINEERING • MEDICINE



**Executive Committee Minutes**

June 19-20, 2019

Woods Hole

Wednesday, June 19, 2019

8:30 a.m.

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| <ul style="list-style-type: none"> <li>• Welcome and Announcements (Arroyo)</li> <li>• Self-Introductions (All)</li> <li>• Approval of Minutes (Arroyo)</li> <li>• Approval of Consent Agenda (Arroyo)</li> <li>• Conflict of Interest and Bias Definitions</li> <li>• Appointed committee members did an updated conflict and bias statement. No known conflicts of interest nor any unusual biases were revealed. Appointed committee members who were present updated their written conflict and bias forms.</li> </ul> | <p>Information/Discussion</p> <p>Discussion</p> <p>Approved Action</p> <p>Approved Action</p> <p>Information</p> |
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8:50 a.m.

Executive Director's Report (Pedersen)

Information

(see pages 7-11 of the Executive Committee Agenda Book)

The Executive Director gave:

- a. A quick history of the Academies Woods Hole property
- b. An overview of the NAS organizational structure and leadership changes on the Executive Committee
- c. News from the USDOT and Congress
- d. Information about the NRC Transformation initiatives
- e. A review of his performance evaluation and performance goals (see pages 12-18)
- f. A report on TRB Finances and the changes between 2018 and 2019, in which the overall budget was down from \$90.8m to \$88.1m (see pages 19-20), and
- g. An introduction of TRB's news communications director (see page 21) and a brief rundown of communications initiatives.

9:25 a.m.

TRB Division Committee Report, including a diversity update (Hendrickson)

Information

(see pages 22-33)

9:35 a.m.

Adoption of New TRB Strategic Plan (Turnbull)

Action

(see pages 34-51)

- Vision, mission, goals, objectives, and emphasis areas were discussed. Emphasis areas include critical issues, collaboration, inclusion and diversity, ongoing NRC Transformation efforts, seeking new revenue sources, workforce development, and better methods for communications and tracking impacts.
- Adding more international committees, like our active ones on transit and freight, was also discussed, especially in areas like AI in which countries like China are surpassing the U.S., as well as mobility-as-a-service in Europe.
- Some EC members noted that the scope of the Plan needs to be right so staff and volunteers will have a good roadmap for the work ahead. It was suggested that *Critical Issues in Transportation 2019* can be the guide, even though many committees are doing important work that is not part of the critical issues list, and the realignment of Technical Activities committees will help provide enhanced guidance.
- Included in the motion to approve the Plan was to identify and pursue opportunities that address key issues of interest to Congress, the Administration, states, and cities in as timely a manner as possible, and in a way so that the TRB process is not overwhelming to them.
- New stakeholders and new people entering the transportation field were also noted as needing to better know about TRB. It was suggested that research in the field is going down in quality and that TRB needs to play a role to reverse that trend. Part of the answer could be leveraging and even monetizing TRB's rich database of content and doing great communications with it.
- The Executive Committee voted unanimously to adopt the Strategic Plan as presented, with the understanding that the discussion in the second bullet above is incorporated.

10 a.m.

Addressing Critical Issues (Turnbull)  
(see page 52)

Discussion

- The word has been spread well so far, but Executive Committee members can help to identify which groups people would like to be part of – as speakers, writing articles for TR News, drafting research problem statements, and helping committees. A sheet was passed around for Executive Committee members to sign up to be resource persons for Critical Issues.

10:25 a.m.

Break

10:40 a.m.

Diversity and Inclusion Plan Update (Lewis)  
(see pages 53-59)

Information

- There are lots of TRB initiatives on diversity, including a special issue of TR News planned for 2021 (and one in 2019 on workforce development), TRB's Minority Student Fellows program, tracking of diversity data across industry modes, and coordination with the full National Academies on programs such as NAE's Engineer Girl. Donations from Executive Committee members can be made directly to the Minority Student Fellows program.

11:00 a.m.

International Subcommittee (Ford)  
(see pages 60-65)

Information

- There are four MOUs and four Letters of Intent (three of which are still being formed).

11:25 a.m.

Current Issues in Rail Transportation (McClellan)

Discussion

- In the industry, there are major disruptions – like “positive train control,” which is mandated to be used by December 2020 and sets the stage for autonomous train operation. Highway automation could mean truck costs go down 25-40 percent and could change the competitive landscape.

11:40 a.m.

Issues from an OEM’s Perspective (Ableson)

Discussion

- There are 1.25 million car-related deaths globally each year. The future is connectivity, electrified propulsion, sharing, and autonomous technologies. There is some question as to how active TRB is in the automotive industry and an opportunity might be around the major questions regarding the need for advancements in the recycling of batteries and also in Smart Cities implementations.

12:15 p.m.

Lunch

1:15 p.m.

Policy Session on Distraction (Richards)  
(see pages 68-70)

Presentations

- Chris Monk of Exponent presented on the psychological foundations of driver distraction, which is associated with inattentiveness. There were at least 3,166 fatalities in 2017, according to NHTSA. People typically pay 80% attention to the road but most studies in the lab look at 100% attention.
- Thomas Dingus of the Virginia Tech Transportation Institute said SHRP 2 data looks at crash data, and 52 percent of the time drivers are doing something other than just driving. The same is the case in about 7 of 10 crashes. It’s 10 times more risky to drive in an emotional state. Legislation should be considered limiting the use of cell phones by drivers, which would save more than 10,000 lives over a decade.
- Bruce Landsberg of the National Traffic Safety Board said that distractions are everywhere, not just on roads. Some of his work is focusing on wide-open spaces like waterways, airspace, and railroads. He said good case studies of distracted crashes and technological fixes and staffing resources are possible.
- Diana Furchtgott-Roth, Assistant Secretary for Research and Technology for the USDOT Secretary, discussed the initiatives of the federal government. She said we are distracted because we’re bored while driving and can’t change behaviors but we can outfit our cars with the right technologies.

- Some of the post-presentations discussion centered around why the cell-phone companies aren't stopping people from dangerous use of their products in cars. Also discussed:
  - revamping the processes for learning to drive
  - how the U.S. has fallen behind some other countries that are doing good things on distracted driving
  - the big differences between state efforts
  - how TRB data and research would be better than just one university study
  - looking more closely at the extent to which phones are actually causing the current levels of distraction
  - whether tech distraction is any different than drunk driving
  - the tension between designers and actual safety
  - the lack of regulation on phones connected to vehicles, and
  - safety and income/equity/generational issues.

3:45 p.m.

Breakout Groups (All)

Discussion

- The question was: What do people think can be done by TRB and the rest of the industry on issues related to distracted driving?

5:15 p.m.

Break for Evening Activities

5:30 p.m.

Reception/Dinner

Thursday, June 20, 2019

8:30 a.m.

Rapporteur Reports from Breakouts (Arroyo)

Information

- Human Cognition: Need a synthesis study with all the best practices, what's worked, what tools are most effective, information and enforcement studies. Could be a research road map.
- What does the data tell us? Existing research and data are sufficient, now it needs to be communicated better to stakeholders and to influence enforcement and travelers. The group agreed there needs to be a synthesis, which can help make policy recommendations. Some other opportunities for CRP projects, like a toolkit for what OEMs need to do design-wise and how to provide better auto data to agencies. A young member hackathon was suggested. We need to get committees to work better together.
- Distraction, distraction everywhere: Themes - More isn't better, better is better; Design for idiots; People thinking they multitask better than they do. Actions – Still need better data so could create a database; Research shows deterrence is effective so needs to be translated into policy; What's the automation sweet spot of information versus distraction; Active mode distraction.

8:50 a.m.

Discussion of Policy Session Follow Up (Arroyo)

Discussion

- Timing of getting information to AASHTO officials in a synthesis manner would really be helpful. Congress would have reason to act and we would have something to back the talk about needing funding.
- Help us tell compelling stories as to how the best use of, say, \$1 million would be helpful, whether it's enforcement or information or something else.
- We really know very little about the active transportation distractions.
- It seems there's some uncertainty as to what even exists at TRB already.
- This is an important time to gather data and tell stories because the next version of the design guide The Green Book is being revised.
- We should set up a meeting with Bruce Landsberg to figure out ways to inform policymakers. We can educate people.
- We should apply the principles of the Strategic Plan and make what TRB has done a little better than what it's done before.
- We need to tell a story.
- We need to make sure we realize that these things don't happen quickly.
- Syntheses lend themselves to workshops, conferences, and other initiatives.
- We need to do all this in a non-advocacy kind of way. TRB can prepare and take to important leaders.
- We should address research and recommendations to OEMs. People want to be able to choose which cars they buy. Some of this is driver behavior, which is regulated by state governments.
- We look forward to looking into a synthesis report.

9:30 a.m.

Future Policy Sessions (Houston)

Discussion

(see pages 71-76)

- AI could be a logical follow-up discussion. We have a lot of ideas for panelists. Is this a good idea and what specifically should we cover? (China is ahead of us. Use of AI in logistics and trade in rail and transit is very efficient in China. We could probably get a Chinese representative to speak with us. We can identify a lot of key people. AI in traffic signal systems is a prime area. We need to deal with privacy elements so we can move into the next stages of technology.

9:45 a.m.

Technical Activities Update (Brach/Park)

Information

(see pages 77-80)

- Annual conference: attendance was down 3 percent, primarily due to the federal government shutdown and a snowstorm on the first day of the meeting. 1,200 people rode in an autonomous shuttle. The TAC meetings discussed cross-cutting topics; reviewed and updated the committee structure; re-engineering the TR Record, which is "the largest transportation journal in the world;" and reviewing staffing structures.

- TRR: We are trying to publish more papers earlier in the year so they can be referenced throughout the year to gain more “impact.” TRR is #1 in policy citation, #3 in news citations, and #3 in patent citations. It was noted that another journal, Transport Policy, publishes less academically rigorous articles, which have a lower impact factor but are important to get out. Some in academia are discouraged from publishing there, so we are excited about Sage for TRR. It would be great to have as part of the communications strategy.
- TAC is refreshing Technical Activities committees to connect better with TRB’s mission in serving the country, attracting the next generation of volunteers, fostering greater collaboration across committees, and becoming more comfortable with big reorganizations like the one we are going through. There will be consolidation of a number of committees. We will launch the “Woods Hole” version in the fall. The top-level group restructuring is: Policy and Organization; Planning, Methods, and Data; Resilience and Sustainability-NEW; Highway Infrastructure; Safety and Operations; Transportation Users-NEW; Public Transportation; Rail; Aviation; Marine; and Freight Systems. There are also new committees to reflect critical issues such as Transportation and Health. The challenges include consistent messaging, change management, requests for exceptions, and strong leadership during the transition. AASHTO went through a similar change recently and it was tied to a strategic plan. That might be helpful in building the sense of leadership and urgency. The right types of leaders will be needed to transition committee changes. We want the Executive Committee’s support, but it doesn’t need full approval. Everyone needs to be a part of the process to come along with it. In a show of hands, there were no objections.
- How will the best process happen for including the best papers at the conference? We need to make a better connection of them to the critical issues and make sure strong cases are made for presenting.

10:30 a.m.

Young Member’s Council (Ivanov)  
(see pages 89-90)

Information

- YMC has been very involved in supporting the TAC realignment over the past year
- YMC meets at the annual meeting and throughout the year for information exchange. We have a tool that helps us communicate in real time, and it has helped foster improvements. YMC is organizing cross-cutting events, doing hackathon planning, continuing our 6-Minute Pitch, 3-Minute Thesis competition and awards, and great targeted events coming out of group activities.
- It was suggested that we should have a mentor’s program for the young members.

10:35 a.m.

Break

10:50 a.m.

Centennial Update (Houston)  
(see pages 91-93)

Information

- A book will be distributed starting at the annual conference. It will be free to registrants at the event, and then it will be available for sale. We have created a National Academies beta website, which will go public in August, and we are also improving our archiving of TRB's photos. We are encouraging people to send stories and videos on their "aha" moments from working with TRB. We are making a 5-minute video with TTI that focuses on younger audiences to get them excited to enter the transportation fold. We have been making the identifier "logo" available for others. We are looking to raise \$300,000 (at \$240,000 now) from Patron and individual sponsors. September 30 is the deadline to get all funding names into the book. Even \$100 is a good donation. Statewide conferences and meetings would be good places to announce this. Testimonials from people are really great.

11 a.m.

Marine Board Update (Comstock)  
(see pages 81-88)

Information

- Considering a Maritime Technology Research and Innovation Summit in 2020. Maritime activities are largely not understood in the U.S. World trade is expected to grow from 10b to 20b tons by 2030. Aging infrastructure is a challenge but opportunities abound. The fall meeting is November 6-7, 2019 at Woods Hole, with a focus on recent commercial and naval autonomous vessels ("unmanned robot ships") and offshore wind energy.

11:20 a.m.

CRP Update (Hedges)  
(see pages 94-96)

Information

- CRPs have contract research programs of about \$60 million per year. The newest is a \$2 million program called Behavioral Traffic Safety, with 14 projects including ones on child safety concerns in ride-hailing, e-scooter safety, and safety strategies in rural areas. New work from FHWA is to evaluate some labs working with Volpe. We also have new reports we're working on with NCHRP, TCRP, and ACRP, lining up well with critical issues. We are implementing new developments in our digital internal processes that we've dubbed CRP 2.0.

11:30 a.m.

Consensus and Advisory Studies Update (Menzies)  
(see pages 97-105)

Information

- Three studies called for in the FAA Reauthorization bill, one in the Coast Guard Reauthorization, and two in the Water Resources and Development Act. We are having good discussions on two additional topics with Hill and agency staff.
- The Transit and Mobility Management study is difficult to do as a Consensus topic because it's so fast moving. So we have open meetings and other ways to publicize this work as we

go along. TRB staff participated in APTA tours in Europe and will bring that knowledge back to the next meeting in Dallas.

- We have proposed self-funded study on public-sector transportation workforce issues. Feedback on this is appreciated.

11:45 a.m.

Other Business (Arroyo)

Information

- Diana – Sharing transportation bandwidth with wifi compromises the system. We aren't as strong as cable lobbyists and others in this space. She drafted a short draft letter about vehicle safety and bandwidth spectrum and asked if NAS could pass it along. She has dubbed the term "the safety ban." If we lose this (5.9 GHz), we're not going to get any more bandwidth. We can add references to work DOT and TRB have done to make it a stronger letter. This is one of the top priorities for AASHTO. Neil indicated that he would discuss the draft letter internally and see what TRB could do to provide input to the record on the issue.

Noon

Lunch

1 p.m.

Adjourn