CEO Peer Exchange Workshop 2017
NCHRP Project 20-24 (113)

Summary Report

Sunday, November 12 – Tuesday, November 14, 2017

McNamara Alumni Center
University of Minnesota
Minneapolis, Minnesota

Sponsored by
American Association of State Highway and Transportation Officials

With support provided by
National Cooperative Highway Research Program

Prepared by
Benjamin G. Perez
Paula J. Hammond

The information contained in this report was prepared as part of NCHRP Project 20-24(113), National Cooperative Highway Research Program.

SPECIAL NOTE: This report is not an official publication of the National Cooperative Highway Research Program, Transportation Research Board, National Research Council, or The National Academies.
Workshop Participants
The following department of transportation chief executive officers participated in the 2017 CEO Peer Exchange Workshop:

- Scott Bennet
  Arkansas Department of Transportation

- Shailen Bhatt
  Colorado Department of Transportation

- Mike Dew
  Florida Department of Transportation

- Russel McMurry
  Georgia Department of Transportation

- Mark Lowe
  Iowa Department of Transportation

- Richard Carlson
  Kansas Department of Transportation

- Shawn Wilson
  Louisiana Department of Transportation and Development

- Dave Bernhardt
  Maine Department of Transportation

- Charlie Zelle
  Minnesota Department of Transportation

- James Trogdon
  North Carolina Department of Transportation

- Mike Patterson
  Oklahoma Department of Transportation

- John Schroer
  Tennessee Department of Transportation

- Carlos Braceras
  Utah Department of Transportation

- Bill Panos
  Wyoming Department of Transportation
Acknowledgments

The American Association of State Highway and Transportation Officials requested this workshop, which was conducted as part of National Cooperative Highway Research Program (NCHRP) Project 20-24. Annual voluntary contributions from the state departments of transportation (DOTs) support the NCHRP. NCHRP Project 20-24 provides funds for research studies intended to address specific needs of chief executive officers and other top managers of DOTs. The following NCHRP project panel members guided the work:

- Kirk T. Steudle
- David Bernhardt
- Shailen Bhatt
- John Halikowski
- Melinda McGath
- Brian Ness
- Leslie Richards
- Shawn Wilson
- Charles Zelle, and liaisons members
- Neil Pedersen
- Michael Trentacoste
- Jim Tymon
- Walter (Butch) Waidelich
- Bud Wright

NCHRP Senior Program Officer Andrew C. Lemer managed the project.

Disclaimer

Except as attributed to named individuals, the opinions and conclusions expressed or implied in this report are those of the research agency and are not necessarily those of the Transportation Research Board, the National Research Council, or the program sponsors. This document has not been reviewed or accepted by the Transportation Research Board Executive Committee or the Governing Board of the National Research Council, and has not been edited by the Transportation Research Board.
Contents

Workshop Overview ......................................................................................................................... 1
Partnerships between States and Federal Agencies ................................................................. 2
Roundtable: What’s in my way? What do you wish you could spend more time on in your work week? .................................................................................................................................. 4
Leveraging Federal and State Agendas to Achieve Your Transportation Priorities 5
Building Relationships for a Stronger AASHTO Organization ............................................ 7
    Engagement with newly appointed CEOs ........................................................................... 7
    Sorting out our differences .................................................................................................. 7
    Identifying important topics for CEOs ................................................................................. 8
Principles for our Transportation Future: Beginning the Discussion ......................... 9
Roundtable: The Best Thing I’ve Done as a CEO and the One Thing I’ll Never Do Again ................................................................................................................................. 11
    Best ........................................................................................................................................ 11
    Best/Worst .............................................................................................................................. 11
    Worst ...................................................................................................................................... 12
Hurry Up and Innovate: What are States Doing Now to Prepare for a Connected and Autonomous Future? .................................................................................................................. 13
Leading Change .......................................................................................................................... 15
Basic Survival as a State Transportation Agency CEO ............................................................. 16
Roundtable: What if … there is a scandal in the ranks? … there’s a major system breakdown? … I am appointed to a second term? … my second-in-command resigns? ........................................................................... 18
Key Take-Aways ........................................................................................................................... 20
Appendix A

2015 CEO Peer Exchange Workshop Technical Summary
Workshop Overview .....................................................................................................3
Pay Me Now: Funding Transportation in Today’s Contentious Fiscal Environment .....4
In or Out – Who Does the Work and How Does It Get Done ....................................7
The Buck Stops Here: The Art and Practice of Using Performance Management and
Communications to Build Agency Credibility .............................................................9
Things I Knew After 15 Years as a DOT CEO that I Wish I Had Known at Six
Months ........................................................................................................................11
Skating on Thin Ice .....................................................................................................13
Disaster Recovery ......................................................................................................15
Round Table Discussion: Ask the Experts – Learn How Your Peers and Predecessors
Have Dealt with Similar Issues ..................................................................................17
Building and Sustaining Working Relationships with Transportation Stakeholders: Five
Best Practices .............................................................................................................19
Workshop Synthesis ...................................................................................................21
Potential Research Topics for Further Consideration .................................................23

2016 CEO Peer Exchange Workshop Technical Summary
Workshop Overview ...................................................................................................27
Are State DOTs Ready for the Technology Transformation? .................................28
Leading Change: Implementing New Practices and Innovations at State DOTs ....30
Getting the Work Done: Managing the Changing Role and Workforce of the State
DOT ..................................................................................................................................32
The Buck Stops Here: The Art and Practice of Using Performance Management and
Communications to Build Agency Credibility ..............................................................34
Where Do We Get The Money: Funding Transportation Investment When Budgets are
Slim .....................................................................................................................................36
What Keeps the CEO Awake at Night: Disaster Recovery and System Resiliency......38
Roundtable Discussion: Ask the Experts – Learn How Your Peers and Predecessors
Have Dealt with Similar Issues ....................................................................................40
Partnering for Results: Building and Sustaining Relationships ..................................44
Workshop Synthesis ...................................................................................................46
Potential Research Topics for Further Consideration .................................................47
Workshop Overview

The American Association of State Highway and Transportation Officials (AASHTO) requested the 2017 state department of transportation (DOT) Chief Executive Officer (CEO) Peer Exchange Workshop, which was conducted as part of National Cooperative Highway Research Program (NCHRP) Project 20-24. NCHRP Project 20-24 provides funds for research studies addressing specific needs of CEOs and senior state DOT managers.

The objective of the workshop was to explore emerging transportation and public policy topics, best practices and leadership challenges in operating state DOTs.

A consultant team—lead by WSP USA, in collaboration with the University of Minnesota Center for Transportation Studies; HMB Professional Engineers, Inc.; John R. Njord LLC; and Thomas DeCoster—conducted the workshop. The team coordinated closely with senior management from AASHTO to identify candidate topics for the workshop and vet them with current DOT CEO’s. The workshop was structured to maximize open discussion and encourage exchange and interaction among the CEO’s, allowing them to learn from their shared yet varying experiences.

The workshop was held at the University of Minnesota in Minneapolis Sunday, November 12 through Tuesday, November 14, 2017. It included six hour-long, facilitated discussions of current and emerging topics, three round table discussions, and a final synthesis session. The intent was to create a forum for information exchange and open discussion and to provide the CEO’s with the opportunity to build relationships with their peers.

Following welcoming remarks, the workshop began with a session on “Partnerships Between States and Federal Agencies”, during which senior AASHTO and U.S. Department of Transportation (USDOT) leadership shared their perspective on state DOT interactions with their agencies. This session was followed by a dinner providing the opportunity for informal exchange.

Over the following day and a half, the workshop continued with technical sessions on the following topics:

- Leveraging Federal and State Agendas to Achieve Your Transportation Priorities
- Building Relationships for a Stronger Organization
- Principles for Our Transportation Future: Beginning the Discussion
- Hurry Up and Innovate: What are States Doing Now to Prepare for a Connected and Autonomous Future
- Leading Change
- Basic Survival as a State Transportation Agency CEO

The technical sessions were interspersed with meals and periodic breaks.

The workshop’s three round table discussions gave the CEO’s the opportunity to ask questions of one another on topics of their own choice and share their experiences on those issues. The workshop adjourned on Tuesday morning shortly before lunch.

NCHRP has supported similar DOT CEO events for more than a decade. For the interest of readers and the broader DOT CEO community, summaries of the topical discussions from the 2015 and 2016 CEO Peer Exchange Workshops are included as an appendix to this report.
Partnerships between States and Federal Agencies

Federal Highway Administration (FHWA) Executive Director Walter “Butch” Waidelich and former Maryland Transportation Secretary and U.S. Deputy Secretary of Transportation John Porcari discussed the relationship between USDOT and state DOTs. Butch noted the unique structure of the United States transportation program, which is state-administered and federally assisted. This arrangement was formalized in the Federal Aid Road Act of 1916, but has roots dating back to the 1800’s. During his tenure (1817-1825), President Monroe vetoed a law that would have allowed the federal government to operate and collect tolls on the National Road. Monroe rejected this notion because the National Road was built on a state lane. Instead, the National Road was turned over to the states, each of which could operate it per their own policies. In Europe, national governments own the transportation system, but the model is different in the United States. The states own their transportation roadway networks, with FHWA providing funding and technical assistance. The state-administered, federally assisted U.S. transportation program is a unique arrangement within the federal government.

In the United States, the federal government and states interact as partners in operating and maintaining transportation infrastructure. Both levels of government provide funding. FHWA’s division offices provide stewardship and information sharing, and operate as the eyes and ears of FHWA. The relationship between state DOT CEOs and FHWA division administrators influences the speed at which information is shared. Division administrators need to understand the different challenges that state DOTs are dealing with. A success/failure for a state DOT is also a success/failure for FHWA.

Today, USDOT has a de-regulatory agenda. One of FHWA’s important roles is to help guide state DOTs through complex processes and avoid roadblocks. FHWA has a policy of no surprises. It needs to know if something is wrong so that it can act on it and resolve the issue. It is always helpful for states and FHWA to discuss their joint agendas. Most state and federal agendas remain much the same in the new administration. FHWA is getting smaller and is instituting risk management across more of what it does. FHWA needs to anticipate issues and remove barriers before they arise.

To enable alignment, there needs to be constant communication between state DOTs and FHWA. FHWA expects its division administrators to develop relationships with DOT CEOs and senior leadership, as well as metropolitan planning organizations and environmental agencies. Building good relationships takes time and requires all sides to be proactive. If both sides communicate well there will be no surprises. DOT leadership should sit down with FHWA and talk about their governor’s agenda. If there is a need to send a letter, discuss it prior to the letter’s being sent. It is always important that there is a face behind a name; this makes matters more personal and enables things to be resolved at a lower level. As states take on greater responsibility in delivering their transportation programs, things will work smoothly with the proper relationships in place.

For partnerships to be successful, state CEO’s need to be clear about their priorities. They also need to build truly integrated project teams and make things easy for their partners. CEO’s should make sure that metropolitan planning organizations and other partners know what a state’s priorities are. Would your federal partners be able to list...
your DOT’s top three priorities if you asked them today? Under the federalist system in the United States, decisions are made at the state level. The nation’s transportation program reflects the aggregated priorities of all the states. If the federal government does not know your state’s transportation priorities, then you will not get what you want. State DOTs should take time up front to consider how their priorities mesh with the federal program and pursue areas that align. Do not forget that federal partners extend beyond USDOT; other agencies also influence infrastructure and policy decisions. States should strive to build integrated teams that include the participation of the right mix of federal agencies. States should build both internal and external teams that include all the necessary elements to develop regular discussions, and be explicit to ensure that participants understand that these forums are where decisions should be made.

States should make it easy on their federal partners and develop a unified state perspective. This approach makes it easier for their partners to help advance a state’s priorities. Think about developing a briefing book that lays out the state’s priorities. This way your partners will always know where you are coming from. This can be a positive tipping point and help in gaining funding and approvals.

Always share the credit when projects are successful. Celebrate successes more than once. If you operate in this way, your partners will be there for you the next time. Build personal relationships and remember that partnerships can be both vertical and horizontal. Partnerships need to be established early and move in all directions.
Roundtable: What’s in my way? What do you wish you could spend more time on in your work week?

What do you wish you could spend more time on? Dr. Tom DeCoster discussed four strategies for CEOs to allocate their work days in an optimal way. Per a survey conducted by Harvard University, only 9–10 percent of executives are satisfied with how they spend their time at work. The issue involves leadership versus management. When you lead, you make a difference; when you manage, you make sure. CEOs should spend more time on the leadership component.

Habit 1: Become a disciplined “bracketologist”. There are four critical brackets in the work day: the first 15 minutes, the second to third hour, the first 15 minutes after lunch, and the last half hour of the work day. Mental acuity is at its peak during the second to third hour of the work day. However, this is also when many external meetings are scheduled. CEOs should try to focus their time in broad areas. How much time do CEOs spend focused on their vision and values? When does this happen? It may require a retreat.

Be tactile with your time; color-code your schedule. How much time is spent dealing with sensitive staff? How much trivial time is there when you do not get anything done? Manage your brackets. You can become a role model for the rest of your executive team.

Habit 2: Nurture your team of two. Who is your assistant? Your assistant should be the best-trained time manager in your organization. The CEO’s assistant should get the first and last appointment of the day and be the czar of the CEO’s time. Reserve time each day to coordinate with your assistant and protect the second to third hour of your day. Train your assistant to compile meaningful agendas for meetings and make sure that all meetings have a beginning and an end.

Have your assistant parse your e-mail. How many e-mails ask for your approval? How many ask for your input? How many e-mails just provide information? How many e-mails are irrelevant?

Habit 3: Enforce your agendas. Put the most important item at the top of the agendas. Include time limits on your agendas. Meetings should involve decisions and accountability for them. Do not let meetings become a source of miscommunication.

Habit 4: Identify your vital few. Do not produce “change fatigue.” Identify your vital issues and conduct change readiness assessments for each. Identify who is responsible for meeting your critical goals. Be constant and consistent in your communications. Keep talking about the DO T’s real priorities— the vital view— and never get off that horse.

Scheduled things happen and resourced things happen. One CEO starts every Monday morning with an executive leadership meeting, with the following key people: CEO’s executive assistant and chief of staff; chief operations officer; or deputy director/secretary. In some cases, the CEO will establish the direction, and the second-in-command will lead the implementation of an initiative. Most importantly, the CEO should do what works for them, while setting clear expectations on responsibilities for follow-through.
Leveraging Federal and State Agendas to Achieve Your Transportation Priorities

Federal funding supports many state transportation programs. To maximize the success of the partnership, state DOTs will seek to understand federal priorities and the administration’s agenda. One of the current administration’s priorities is regulatory reform. It is important for states to identify those opportunities that align with the federal agenda. The federal government is interested in identifying projects that could be accelerated. There is also a new emphasis on local self-help and on rural projects.

The federal government has encouraged states to work for federal funding. They are interested in finding what it takes to get states and local governments to step up to the plate. State and local leverage is the pricing of entry for receiving federal funding. Federal funding is spent on national priorities, so states need to define federal priorities. Local money is going to be spent anyway. Not everyone will agree to approach local funding as self-help funding.

Government alignment is essential in gaining federal funding and grant monies. DOTs need to be aligned with elected officials and their congressional delegations. This is something that DOTs can control. Moving grant applications forward requires the support of state governors. FHWA interacts with its division offices and conducts its own due diligence to verify that political alignment is in place. Speaking with one voice makes a difference.

Today, local governments are turning the transportation planning process on its head. They see being proactive as a way to jump-start certain projects. This means that states must be able to demonstrate the benefits and priority of their proposed projects, and it’s helpful if the CEO strives to reach consensus with the local agencies. CEOs should always make a state’s priorities known to FHWA.

When is the right time to bypass an FHWA Division Office? This can be warranted if the division office is not meeting expectations and if agreement does not occur. If there is an impasse, it may be worth having a conversation with headquarters. If the division office is not acting on issues, it may be appropriate to elevate the issue. But it is always incumbent on a state to be clear about its priorities. It is difficult for FHWA to assist if it does not know what the state’s priorities are. Regardless of differences of opinion on a specific issue, it is always important to maintain a strong relationship with FHWA.

Master credit agreements under the Transportation Infrastructure Finance and Innovation Act (TIFIA) have been underutilized. Sound Transit in Washington state is the only agency to have taken advantage of this tool. Master credit agreements allow deals to be structured differently and could be helpful to CEOs who want to build steady, multi-year transportation investment programs.

How do local self-help initiatives and public-private partnership (P3s) fit in with the nexus of state and federal alignment? Make sure you understand your goals and how they jibe with local priorities and performance metrics. Building a coalition with local officials is critical to success. Projects also need to fit in with the election cycle. There are many unconventional project advocates in the business and environmental communities. It always helps to build partnerships.
Building policy and project priorities is firmly within the CEO’s wheelhouse. The old Tappan Zee Bridge (New NY Bridge) is perhaps the best example of this. The project was fast-tracked in a matter of months. Elected officials divvied up the priorities. The governor of New York governor drove the project and said that he would replace the bridge in a new way. He also pledged to come up with the local share of the funding. In a situation like this, FHWA had to respond. The project received a record of decision in just 13 months, and a permitting rapid response team was put in place. The team met biweekly and was co-chaired by the president of the Center for Environmental Quality and USDOT deputy secretary.

Resource agencies—including the U.S. Fish and Wildlife Service and U.S. Environmental Protection Agency—are often decentralized. In such cases, states need to develop relationships with resource agency regions. Learn their priorities.

As far as accountability is concerned, states are free to make up their own measures of success. You may want to start small and then build up momentum. Give credit where it is due, it is a small price to pay.

FHWA’s executive director runs the day-to-day business of FHWA, and provides the necessary resources to ensure that the division administrator succeeds. Transitions in government are often messy, but FHWA and USDOT help maintain continuity. The executive director facilitated the transition to bring the new secretary up to speed and ensure good relationships between career staff and political appointees. Interestingly, FHWA’s response to the I-85 fire in Georgia was also a catalyst in solidifying FHWA’s relationship with the new administration.

For projects to be successfully completed, they need to have both internal (DOT) and external champions, including the governor. DOT CEOs should always make sure that FHWA understands which projects are priorities for the DOT.
Building Relationships for a Stronger AASHTO Organization

AASHTO is a respected organization, and is often referred to as the voice of transportation professionals. DOTs from the transportation industry look to the organization for technical and policy guidance. AASHTO provides an opportunity for transportation professionals to engage with their counterparts from other states to advance their transportation missions.

ENGAGEMENT WITH NEWLY APPOINTED CEOs

With the relatively high turnover rate of state CEOs, AASHTO is continually introducing itself to new member CEOs, and working to demonstrate the advantages the association brings to state DOTs. Many CEOs soon find they can be more successful in achieving their goals by leveraging their AASHTO engagement with the support of their peers. AASHTO relies on the participation of professionals on its committees at all levels of state DOTs. Policy experts and senior technical specialists typically have longer tenures at state DOTs, so it is important for a state agency’s continuity for them to be engaged in AASHTO. Career staff are the foundation of AASHTO.

AASHTO membership broadens the DOT staff’s perspectives on engineering standards, new technology and advancements in transportation, as well as policy implications at both the federal and state levels.

How do we make sure that new CEOs are attracted to take full advantage of AASHTO membership? There may be a role for existing CEOs who are active in AASHTO and in a neighboring state to introduce their newer peers to the organization. It may not be realistic to think that all new CEOs would be able to attend a peer exchange workshop in their first year, so a variety of peer engagement opportunities may be advantageous.

Whether the CEO is appointed from within the state DOT or from outside or another industry, there will be an adjustment period for the new CEO. Regardless of how people arrive at the CEO position, there is a difference between being in the room and sitting in the CEO’s chair. The new CEO will quickly come to realize there are many benefits to AASHTO involvement, and it’s important to provide them with early orientation and engagement opportunities.

Whether a CEO reports to a transportation commission or the governor, the governor has an interest and is held accountable for state transportation systems by their constituents. CEOs are better at helping their governors succeed by participating in AASHTO. The AASHTO name provides credibility with legislators and governors and is often called on for expert testimony. CEOs have often leveraged the national brand of AASHTO for use in their own states.

SORTING OUT OUR DIFFERENCES

State DOTs have much in common, what with nationwide challenges in available revenue for transportation and common initiatives and goals for transportation systems. However, as a broad association with varied political alignment, a state DOT does have to navigate differences of opinion from time to time. Is this healthy, or should such discussions be avoided? If an issue before the Board of Directors is controversial, success has been found by fully communicating issues for decision and seeking alignment of goals and outcomes before determining the policy direction for vote. By understanding interests of varied positions and maintaining the high level of respect that
exists among the states, common ground can be found.

It is good to explore issues in committee meetings before bringing them to full board meetings. This approach is not always foolproof. Even if issues are vetted in committees, there may be dissent when they are addressed by the Board of Directors. An example may be that AASHTO member states have not been able to reach consensus on the issue of whether or how much to increase federal motor fuel tax. Instead, the organization has sought to fully communicate the needs and goals of the nation’s transportation system, highlight the opportunities and menu of ideas to financially invest in transportation, and convey the community and economic benefits of good transportation. This approach sets aside the “how to” of funding transportation but supports the unified agreement that transportation systems need sustainable revenues to be effective.

**IDENTIFYING IMPORTANT TOPICS FOR CEOs**

What are the key issues that more seasoned CEO’s would like to discuss? AASHTO could prepare white papers describing all sides of strategic issues. This is a good time to prepare for issues that will come up during reauthorization. AASHTO needs to focus on its job rather than politics, but the reality is that CEO’s are all in politics. Whenever new CEO’s come on board at DOTs it is important that they understand the benefits and support their agency’s involvement in AASHTO. AASHTO has kicked off new training programs designed for managers below the CEO level. CEO’s should encourage their staff to participate, not only to advance their leadership skills but to meet and network with peers from other states. AASHTO’s recent reorganization of its committee structure provides an opportunity for new people with varied disciplines to become involved.
Principles for our Transportation Future: Beginning the Discussion

The CEOs reviewed AASHTO’s current policy principles for transportation reauthorization. The principles address the areas of revenue, state processes, and innovation. AASHTO’s policy priorities address a broad spectrum, and they are multimodal. The intent is to make connections between states and legislatures. The principles include the following:

- Implement Sustainable, Long-Term Funding for Transportation Investment
- Strengthen the State-Administered, Federally Assisted National Transportation Program
- Ensure Economic Productivity and Competitiveness Through a Seamless Nationwide Freight Network
- Deliver Balanced, Multimodal Mobility Solutions
- Streamline Regulations, Including on Permitting and Approvals
- Honor Authorized Funding Levels in Appropriations
- Further Enhance Decision-Making Based on Performance
- Ensure Accountability for the Lifecycle
- Reauthorize Federal Aviation Administration Programs
- Foster and Implement Cutting-Edge Innovation
- Leverage Revenue Streams and Harness Private Capital
- Ensure Infrastructure Resiliency and Sustainability
- Utilize Tax Credits to Incentivize Infrastructure Investment

Although AASHTO’s principles include sustainable long-term funding, a source is not identified. Just to maintain the current level of federal support, the federal motor fuel tax would need to be increased by 15 cents per gallon. If the federal transportation program were to be limited to funding provided through the transportation trust fund, the program would need to be narrowed.

The Future Interstate Study (currently underway) is developing cost estimates of the future funding levels that will be necessary to ensure that the interstate system remains viable moving forward. Congress has directed the Transportation Research Board to oversee this study. It is recognized that the interstate system serves many different roles.

If AASHTO took the position that Congress should increase the motor fuel tax, there would likely be a call for more discipline of efficient delivery and investment performance. There are some who feel the funds would need to be focused on transportation options that can be demonstrated to make a difference (in whatever performance outcome is stated). Tax reform does not address infrastructure funding. Moving forward, it will likely be more difficult to direct monies from the General Fund to support the federal transportation program. Federal Highway Trust Fund balances are reaching an impasse and aren't sustainable.
Tax reform provides an opportunity to address infrastructure finance, but if it happens it will come quickly.\(^1\) We need a campaign of shock and awe to warn people about the impending substantial reduction in transportation funding. There are many talking points and figures, but the issue does not get political traction. We need to be able to explain what will and will not be funded if we face a 40 percent reduction in transportation funding. States do not want to over promise and under deliver. We should use performance metrics to demonstrate the effect the substantial funding reduction will be on critical issues such as pavement and bridge conditions. Some states are now delaying projects to live within available funding levels. The public will remain ambivalent until major projects are cancelled.

With the American Recovery and Reinvestment Act of 2009, it was difficult to identify what additional projects were undertaken. Now, if new transportation revenues are approved, we should identify the projects that would be advanced as a result. In some states, new funding has been approved to improve the condition of transportation assets. The advocacy by cities and regions to gain direct federal funding for projects will likely not dissipate.

Do we feel that the state-administered, federally assisted model is still viable? The CEOs feel there are good examples of successful partnerships with local agencies. States are increasingly involving communities in decisions on transportation investment. Some metropolitan planning organizations and local jurisdictions do not have the capacity to deliver major transportation programs, so partnerships with the states are essential.

When advocating with congressional committees, AASHTO refers to its reauthorization principles. Local officials are energized by the current lack of earmarks. Thus, local governments are advocating for changes in the federal process. Chambers of commerce and local business communities can help neutralize the issue. Larger projects have a better return; the issue is finding more money to address state and local needs.

In reauthorization discussions, AASHTO supports a robust federal research effort. We are at a watershed moment in safety enhancements for vehicles. Japan has seen an 80 percent reduction in accidents due to technology improvements. AASHTO’s new committee structure will enable discussion on states’ approaches to new technologies and initiatives at the committee level before going to the board.

\(^1\) H.R. 1- An Act to provide for reconciliation pursuant to titles II and V on the concurrent resolution on the budget for fiscal year 2018 became Public Law No. 115-97 on Dec. 22, 2017
Roundtable: The Best Thing I’ve Done as a CEO and the One Thing I’ll Never Do Again

The CEOs were asked to discuss the best and worst thing that they have done in their time as DOT CEOs.

**BEST**

- Created better internal communications by setting up a “director’s corner” - before outsiders had a better idea of what was going on at the department than DOT staffers.
- Not keeping quiet about the DOT’s priorities. This has been helpful both for public opinion and internally. People realize what is going on at the DOT.
- Picked the right deputy director - it was all based on intuition, but his initial thoughts were right and proved to be the right decision.
- After eight years of stagnant policy, brought his leadership team together and developed a new strategic plan. During this process, the CEO met with everyone in the agency. The strategic plan is now updated every two years, and all departmental activities are included. The plan has three main objectives and a one-sentence mission statement so that everyone in the agency knows where they are headed.
- Selected the right leadership team and hired someone with a marketing background to lead the communications effort, which developed a common brand and controlled the DOT’s message on social media, even during catastrophic events.
- Moved to a true performance-based compensation plan, allowing the DOT to hire and retain the best people possible.
- The DOT is not going to be successful if its staff is not supported.
- Improved the education base of DOT employees. The DOT partnered with technical schools across the state and has created a culture of life-long learning. The DOT provides staff with paid time to pursue a General Equivalency Diploma and other technical accreditations. This has enabled the DOT to nearly double these employee’s annual salary and has increased retention by a factor of four.
- Winning the trust of the state legislature.
- Putting the right leadership team in place. It took six months to build the team and involved capturing the energy of young engineers.
- Adopting a policy of practical solutions to identify the cost-effective designs.
- The day of the I-35 bridge collapse in Minnesota, one DOT CEO collected her bridge rankings and appeared on the local news to discuss the status of the state’s bridges and closed two fracture-critical bridges to traffic.
- Combined the maintenance and construction department, opening doors for many people.

**BEST/WORST**

- One CEO had trouble recovering quickly enough from an ice storm, but used the situation as the rationale for hiring additional maintenance staff and getting new equipment.
**WORST**

- Not changing major directions during the first two years in office. It would have been better to make changes and show that the DOT was making an impact and not doing business as usual.

- Kept quiet on strategic positions. The CEO should have expressed the DOT’s position and vocalized concerns that could have been validated.

- Not taking advantage of a relationship with the speaker and president of the Senate to explain the department’s needs and priorities.

- Trusted someone but did not verify what had been said and got burned. This situation hurt a lot of people.

- Trusting people who should have been verified first. It is often hard to make connections with municipal officials. They often go to other people rather than the CEO. Building trust and relationships is essential.

- Underestimating the importance of external relationships. This is often not as intuitive for CEOs who have come from within a DOT. It is important to maintain external relationships with different communities, including local contractors.

- One CEO—whose predecessor was in office for over 17 years—had trouble implementing staff reductions once in charge.

- Agreeing to undertake a local project. Local communities ask DOTs to help only with difficult projects. Working on local projects won’t help the DOT or endear the CEO to anyone if it’s been misrepresented.

- Not facing one’s instincts and seeing an issue for what it really was. Trust your gut.

- Not alerting the governor, whose staff didn’t want to be forthright when it became apparent that a bond bill could have been delayed. This eroded legislative trust.

- The DOT paid heavy equipment operators very low salaries. It had an opportunity to raise salaries, but the governor would not let them do it all at once, so the DOT began making the increases one group at a time. However, the issue blew up and rates were ultimately frozen.

- One CEO delivered a message to the governor’s chief of staff, but the message was misconstrued. It would have been much better to go to the governor directly.
Hurry Up and Innovate: What are States Doing Now to Prepare for a Connected and Autonomous Future?

Connected and autonomous vehicle (CAV) technology is here. Cars are being sold with brains, autonomous deliveries are being made in Sweden, and truck platoons are being tested across the United States. State DOTs want to be part of this evolution and are collaborating with different industry partners, in-state entities, and other states to position themselves for a connected and autonomous future. Transformation is in progress, and at this time, is being driven by private industry rather than public policy.

While there are many benefits, CAV’s number-one payoff is safety improvements. The operation of the entire transportation system will improve with CAV technologies. Combining autonomous technology, electronic vehicles, and transportation as a service will provide more convenient, productive, personalized, and affordable transportation services.

The question for state DOTs is whether they are positioned in the game appropriately. Mobility now involves more than just transportation; it is daunting and exciting and bigger than all of us. It involves developing smart cities, improving mortality rates of infants in marginal neighborhoods, improving the environment, economic development, sustainability, and public health.

There is autonomous vehicle activity underway in many different states. Vehicle automation is already in use, as are transportation operations advancements with technology.

How do we make the transition to CAV with DOTs having an influence over the process? Certain states are actively engaged while others are just starting out. There are multiple players, and that is part of the challenge. Some states are afraid to make an investment in the wrong area and chose not to be front runners in this arena. CAV technologies are generating excitement among elected officials and community leaders. This is part of the rationale for why DOTs need to continue investing in transportation modernization. DOTs have the opportunity to be transformational.

The average vehicle in the United States is 11 years old, so we will have a mixed fleet for some time to come. In the meantime, states continue to seek safety and efficiency. Public acceptance remains an issue with CAVs. Earlier generations were not comfortable with elevators, and today it takes just one Tesla crash to stoke fears. We need to help manage expectations of the pace of a CAV future, and what it will take to make the systems work.

Electrification is another opportunity. Soon states will be using their rights-of-way to generate electricity. We do not want to wait for 16 years for the fleet to change. CAVs are going to be cheaper, and this fact will be the main driver for the changing of the fleet. We need to engage in long-range planning with our partners to think about what we want our communities to look like moving forward.

In the past, DOTs have driven the conversation. Today, some are frustrated because DOTs aren’t leading the conversation. This is being done by industry, and DOTs are not privy to everything that industry is doing. We are going to have to consider whether there will be different levels of functional qualifications for CAV access, and it may begin with the interstate system.
CAVs are being developed separately. There are different working groups and technology options.

The workplace and workforce is also changing. Seventeen percent of the workforce works from home. We need less office space, and we may be done building highway capacity in urban areas. Behavior is changing, too. Millennials recognize they cannot drink and drive, so they are giving up driving. They are ready for driverless vehicles.

If we are done building urban capacity, then we need to use technology to manage the capacity we have. If we only use 14 percent of the interstate system nationally, why build more? We need to take advantage of the capacity that we have.

Technology may enable answers, but there are serious policy issues that technology also influences. Some are asking why government should continue to develop subsidized transit systems when people could take Uber instead. These are conversations DOTs should be involved in within their states.

One state DOT has a working group in place and is looking at policy and operational issues associated with CAV technologies. They are trying to be strategic. If they get extra funding, they will do something small and incentivize local communities to be involved.

Not all states have the same demographics. Young people in more rural states still want to drive and have cars. CAV technology could be very helpful in meeting the needs of seniors. There are many unknowns, so it is important for DOTs to be prepared and understand the policy ramifications. Smart transportation can work well in rural settings.

While the technology future continues to unfold, DOTs need to look for the low-hanging fruit, including smart corridors and cities and facilitating freight movement. One state is using two different P3 procurements to install broadband on its interstate corridors. Others are doing the same to install fiber-optic lines and 5G wireless system antennas in strategic locations.

It is best to collaborate with different stakeholders and have them help DOTs consider the ramifications of advancing technology on the transportation system. AASHTO continues to vision with industry on the spread of CAV technology. It is developing a coordinated approach on technology with its different committees and is also partnering with other organizations and regions. It is also meeting with automobile manufacturers and IT firms on the issue of technology and local agreements. It also promotes best practices and model state legislation with its membership.
Leading Change

What does it mean to lead change? Most states find good ideas and put them to use by copying from other states—improving on them and executing. In government, failure is often punished. If we don’t share information and learn from our mistakes, we are destined to repeat them. It is said that we can resist change and die, accept change and survive, or lead change and prosper. State DOTs are built around processes. This provides significant momentum for consistent delivery, but it also makes them particularly challenging to change.

Many DOT staff make the decision to work in the public sector because they are averse to risk, appreciate stability, and want to make a difference in the lives of others. How does one lead change in this type of environment? One of the challenges with state employees is that they are not taught that failure can be an option and therefore are risk adverse. The reality is that we learn from failure. DOT staff should not be punished for taking risks, but seek to control the impact of possible failures. If a team is trying to be innovative and things do not work as anticipated, they will need to fix them. CEOs need to defend their teams. If the DOT staff knows that the CEO has their back, they will be more willing to innovate. The tone is set from the top of the agency.

The private sector has a larger appetite for failure and often works on concepts that ultimately do not work out. This is part of doing business with an innovative culture. The private sector puts its own money at risk, but DOTs are using taxpayer dollars. Nonetheless, it costs more when engineers over-design. When the private sector takes risks, they price it and understand that there is a risk-reward. DOTs need to think in the same way.

It is easier for DOTs to take risks if people have favorable opinions of them. If you do your homework up front, you may be able to take on risk that would not otherwise be accepted. The public wants DOTs to be innovative. DOTs often find innovative solutions to situations such as unanticipated bridge outages and the pace they can restore service. They need to explore opportunities for incubating innovation in new areas. Communication with the public and policy makers is essential before, during, and after undertaking innovations that bear risk.

DOTs have learned to innovate through design-build procurements and alternative technical concepts, and they have leveraged the knowledge gained from these strategies into their design work. In many circumstances, road user impact costs caused by road closures are higher than the cost to restore an asset to service. In such cases, it makes sense to include incentives to expedite the completion of projects within a shortened time.

Performance-based practical design can be a good avenue to challenge staff to take risks, and is supported by FHWA. Innovating on projects is a great way for staff to gain confidence in risk management.

CEOs should resist personal technical involvement in designing projects, and give their technical teams the authority to innovate. Accelerated bridge construction can be an excellent source of innovation as well. This also requires partnering with and being supportive of the contracting community.
Basic Survival as a State Transportation Agency CEO

Managing a state DOT is a risky business. Things come at you constantly; some will undo you quickly, some slowly, and others amount to death by a thousand cuts. In early 2015 in Kentucky, a well-advertised snow storm dropped 8 inches of snow in 4 hours. One location along I-65 received 12 inches in 2 hours and shut down traffic on the interstate. Some nationally prominent people happened to be stuck in the situation, and their plight became an instant issue for the Transportation Cabinet. Other issues percolate slowly—such as pavement maintenance and bridge conditions—but they can threaten a DOT’s success, as can failing to make timely decisions. Lawsuits are inevitable and time consuming for DOTs.

CEOs need to deliver on their project commitments and lead by example. If you are lax, you will pay in the end. Inadequate public involvement poses enormous risks for state DOTs. You must also pay attention to elected officials; you never want them to talk behind your back. You also need to pay attention to your staff and make sure that they have the training they need to do their jobs well. It is always better to train and lose staff than to not train and keep them.

DOTs cannot keep from getting sued; it goes with the turf. One DOT had a history of settling law suits, especially those dealing with personnel. So, the new CEO got rid of the chief counsel and made a point of not settling. The number of employee lawsuits plummeted as a result.

The best place to see a legislator is on their own turf. That makes it much more than just face time. Remember, we live in a political world. Attend meetings by legislator if you are invited to do so. Never say no to a legislator; instead, tell them, “Wow, I wish I could to that!”

Work on your relationship with the contracting community. One CEO inherited a lawsuit from a contractor that dated from three previous administrations. He tried to resolve the issue and was successful. This effort helped build trust. It is also helpful to ensure that the DOT's work is spread around equitably among the contracting community. Make it a priority to engage with the local chapter of the Associated General Contractors of America (AGC).

Relationships with contractors can become too cozy at times. When this happens, contractors can be perceived as partners; the reality is that they are vendors. It is often helpful for DOTs to engage national contractors. They, in turn, will bring on local firms as subcontractors. This changes the way in which the contracting community looks at the DOT’s program.

It is good to have discussions with contractors, but DOTs must remember that ultimately they are owners. Building good relationships with industry organizations such as AGC and the American Road & Transportation Builders Association is helpful. More cross fertilization is good. The “good old boy” network is changing, and DOTs must be careful not to fall into old traps. One CEO’s predecessor received a pickup truck from a local contractor when he assumed office. Many local contractors are family owned, and DOTs need to make sure that proper checks and balances are in place when they procure work.

One DOT with a high approval rating has been asked by the legislature to assume the management of an independent transit authority. The authority has built a lot of
infrastructure and issued bonds to fund its construction program during a period of declining revenues. The transit authority is governed by an 18-member, citizen board appointed local municipalities. The DOT is worried that assuming responsibility for the transit authority could hurt the trust and culture of the DOT, and it needs to make sure that robust accounting firewalls are established so that the DOT’s finances are not affected by the move.

Some topics are tactile and others are strategic. CEOs and their leadership teams help their departments prepare for tactile issues—such as disaster relief—through protocols and practice. The success of strategic issues depends on the CEO’s relationships with others and how they communicate.

Performance measurement dashboards are very helpful. They provide transparent data on the performance of the DOT. There is always a default answer. Some DOTs use web feeds to access performance dashboards during hearings with legislators. Sometimes the information in dashboards can be too detailed. Legislators generally understand condition and investment levels; these are the “big buckets.”

AASHTO also maintains good relationships with industry groups representing contractors. This is important to AASHTO because it helps the organization represent the entire transportation community. AASHTO also regularly interacts with the American Council of Engineering Companies. AASHTO representatives attend many meetings and events organized by industry associations.

FHWA is a good example of how the federal government should work. It would be helpful if FHWA division offices could represent all aspects of USDOT. FHWA division offices are also helpful in setting up meetings with other federal agencies.
Roundtable:
What if ... there is a scandal in the ranks? ...
there’s a major system breakdown? ...
I am appointed to a second term? ... my second-in-command resigns?

During this final round table discussion, the CEOs began by discussing the issue of sexual harassment. One state is conducting an audit of its harassment training and has done a lot of work to ensure respect in the workplace. The attorney general’s office in another state has a trainer to address sexual harassment and diversity training needs. If an issue surfaces, it needs to be addressed as soon as possible. You cannot involve management. The inspector general should conduct the investigation, collect the forensics, and provide an early assessment of facts.

Another DOT experienced purchasing irregularities. The DOT informed the governor right away and recognized that it would incur a lot more damage if it let the issue linger. It is amazing how much people know and how little information they share. Having a no tolerance policy sends an important message. The Human Resources Department is critical in dealing with instances of graft or sexual harassment. The head of the Human Resources Department at one DOT is on the CEO’s leadership team and touches every aspect of the department’s business and has the authority to respond to issues if they arise. This relationship has been helpful in preventing issues.

DOTs should also focus on empowering women and minorities. One DOT has seen employees of color increase from 6 to 35 percent of its workforce in a state with a 2.5-percent unemployment rate. The DOT has an Office of Equity and Inclusion, and it prides itself on being a respectful employer. This has been an important cultural shift. DOT CEOs need to work with senior management to remove cultural blind spots. The DOT hopes to train 2,000 staff members on cultural awareness issues. It generally takes three to five years to achieve this type of cultural change. This is what the workforce of the future needs to look like.

Some elements of the news media function as government watchdogs and look for salacious stories of harassment and discrimination, even when they are false. This can be a trap door. DOTs need to be diligent and train their staffs. Where there is smoke, there is usually fire. These issues cannot be ignored and require a robust communication strategy.

All DOTs should have a succession plan. If a key employee leaves, there should always be someone to take that person’s place. As a leader, it is part of the CEO’s job to keep everyone calm and to prioritize program delivery. CEOs should also envision multiple staffing scenarios and should receive input from their leadership. If someone is leaving, CEOs should understand why and formulate a communication plan. It is important to be honest in discussing what happened and why. CEOs need to be prepared for change among their senior staff at any time.

Change is healthy. Ask people how long they plan on staying in their jobs. This provides an opportunity to adapt your leadership team and use the capabilities that different people bring to the table. It is generally a good idea to move people around if they have been in the same position for three or four years. People need new challenges and stimulation. The military is also a big believer in rotating staff. One DOT has a mobility project that helps stretch and
develop leadership. Move people into different modes. One former assistant commissioner of policy has a new job as chief of staff with the state legislature. Fresh air and energy are always good. We are all perishable. Do not regret waiting too long to make a change.

Senior staff are harder to move compared to more junior people, but they are often hired elsewhere once they are eligible to retire. The table turns by itself. *Hire the right people, and do not be afraid to rearrange the deck chairs.*

DOT CEOs should also determine what their own exit strategy should be. Figure out if you want to stay until the end of your governor’s second term. Figure out what you can control and what you want to accomplish while you are leading the agency. Formulate a first thousand-day plan and identify how you will make a difference. CEOs should have a defined message and communicate clearly with their staff on their plans. Stay as long as you are having fun and making a difference. Your staff will likely think that the decision to stay belongs to the CEO. One of the odd things about being a CEO is knowing the day you will be fired. Always keep working toward that day; know the number of days you have left.

*DOT CEOs serve the people. This transcends all political lines.*
Key Take-Aways

The CEOs were given the opportunity to discuss key take-aways from the 2017 CEO Peer Exchange Workshop.

- Decide when to lead change and how to mitigate risk.
- Don’t underestimate the power of contacting the office of the secretary of USDOT.
- Make your congressional delegation aware of the state DOT’s priorities.
- Impressed by Tennessee’s staff training program. One other state had an unsuccessful attempt at creating an associate degree program, but will have another try at it.
- The discussion of autonomous vehicles is difficult because no one knows the answers. The DOT CEO’s role is to set the vision; we cannot afford to not get it right.

- Funding remains the top priority in the transportation sector; it is always in flux and a substantial reduction is imminent. Will it take a national shortfall for elected officials to realize this? People are not paying attention to it.
- The workshop confirms that regarding autonomous vehicles, we are working from the right approach of risk management and education.
- We should continue the public funding discussion if the federal government does not step up.
- Scheduled things happen; there are things we would all like to do, so put them on your calendar.
- It is good to spend time with other CEOs. It reminds us of what we should be doing and helps advance our shared historical knowledge. It is very easy to get sucked back into the mire.
The 2017 CEO Peer Exchange Workshop was the most recent series of similar events sponsored by NCHRP for more than a decade. For the interest of readers and the broader DOT CEO community, this appendix provides summaries of the topical discussions from the 2015 and 2016 workshops. These workshops followed the same general format as the 2017 event and featured technical discussions of a range of topics pertinent to DOT CEOs. Both the 2015 and 2016 workshops were facilitated by the WSP team.

Appendix A
2015 CEO Peer Exchange Workshop
Technical Summary
NCHRP 20-24 (99)

April 19-21, 2015
Workshop Participants

The following department of transportation chief executive officers participated in the 2015 CEO Peer Exchange Workshop:

- Marc Luiken
  Alaska Department of Transportation & Public Utilities

- Malcolm Dougherty
  California Department of Transportation

- Shailen Bhatt
  Colorado Department of Transportation

- Jennifer Cohan
  Delaware Department of Transportation

- Randy Blackenhorn
  Illinois Department of Transportation

- Michael Hancock
  Kentucky Transportation Cabinet

- Pete Rahn
  Maryland Department of Transportation

- Charlie Zelle
  Minnesota Department of Transportation

- Janet Oakley
  South Carolina Department of Transportation

- Sue Minter
  Vermont Agency of Transportation

- Carlos Braceras
  Utah Department of Transportation

- John Cox
  Wyoming Department of Transportation
Workshop Overview

The state department of transportation (DOT) Chief Executive Officer (CEO) Peer Exchange Workshop was held at the University of Minnesota in Minneapolis Sunday, April 19 through Tuesday, April 21, 2015. The CEO Peer Exchange Workshop included six hour-long, facilitated discussions of current and emerging technical topics. A larger list of 11 potential topics was vetted with DOT CEOs at the 2015 American Association of State Highway and Transportation Officials (AASHTO) Washington Briefing CEO dinner in February 2015 and then narrowed for inclusion in the workshop agenda based on their recommendations. The workshop also included two roundtable discussions and a final synthesis session.

Each of the technical sessions included brief 15-minute presentations made by former DOT CEOs, followed by 45-minute facilitated discussions. The intent of the workshop was to create a forum for information exchange and open discussion and to provide the CEOs with the opportunity to build relationships with their peers.

The CEO Peer Exchange Workshop is one of AASHTO’s most important activities. While DOT CEOs are an ever-changing group, they remain close-knit because of their shared experiences and service ethics. The CEO Peer Exchange provides a forum for sharing experiences and engaging in informal, open discussion. The hope is that the information shared at these events will help CEOs do their jobs better.

This appendix provides overviews of the discussions on the different technical topics, as well as the roundtable and synthesis sessions.
Pay Me Now: Funding Transportation in Today’s Contentious Fiscal Environment

DOTs manage construction programs, assets, and operations of major infrastructure; they are also regulators, enforcers, and grant administrators. Their work requires obtaining financial resources and using them to deliver services. Federal transportation funding is allocated through a set of programs that can flex up to a certain dollar limit. The consolidated program categories include:

- National Highway Performance Program
- Surface Transportation Program
- National Highway Safety Improvement Program
- Congestion Mitigation and Air Quality Program

Each of these funding programs is consolidated under the Moving Ahead for Progress in the 21st Century (MAP-21) transportation authorization act. Under Map-21, 92.6 percent of federal funding is apportioned by formula, up from a previous level of 83 percent. This has been largely accomplished by eliminating earmarking.

Of all transportation funding across the United States, 43 percent comes from the states, who levy a combination of fees and taxes to generate state transportation funding. There are also significant local funds. For the past 10 to 15 years, the states have also been using a variety of financing tools to augment their programs. These tools are used with different levels of intensity and include revenue bonds, grant anticipation bonds, state infrastructure banks, and federal credit assistance through the Transportation Infrastructure Finance and Innovation Act program. Some states also team with private-investor developers to implement projects on a public-private partnership (P3) basis.

Federal transportation funding is not sustainable at current levels. Two federal commissions agree that a new approach to transportation funding in the United States is needed, and AASHTO and the Transportation Research Board have also reached the same conclusion: Additional transportation revenue is needed to support the growing needs of the federal system. One proposal being explored for a sustainable source of user fees is to levy fees based on vehicle-miles travelled (VMT). There are VMT fee pilot projects under way in Oregon, Washington, California, and Florida, and the University of Iowa has conducted a nationwide pilot. Other states including Arizona, Georgia, Virginia, and West Virginia have enacted fees or taxes on electric and alternative fuel vehicles.

Oregon has moved past pilots and has four or five contractors implementing their own VMT systems. Each of them collects fees through different methods. By doing so, they have provided consumer choice. VMT fees are a new method of collection of user fee that could vary from a flat, statewide rate to a variable rate in congested areas as a form of demand management tool and to enable funding of congestion relief projects and programs. A prevalent issue to overcome with the VMT method of collection is the issue of privacy and the cost of collection, which is higher than current gas tax collections. Many transportation advocates feel new federal revenues should include a “lockbox” to ensure they can be used only for transportation purposes. DOTs also need to work on messaging. They need to explain how the current funding crisis arose. DOTs need to
gain the public's trust. Traditionally, DOT's have not focused on talking about accomplishments and recognize the need to do a better job on how they report on the benefits of investments and agency efficiencies. They need to document inputs and outcomes. They can also use bridge and tunnel conditions to stress the need for the funding to bring them into good repair.

With gas tax being a flat penny-per-gallon source, higher-efficiency vehicles are contributing less revenue into the highway trust fund, and those revenues' purchasing power has declined due to inflation. At the federal level, Congress has had to transfer funds from the general fund to keep the highway trust fund solvent. The revenue gap is about $15 billion annually, which could be closed with a 7-8 cent increase in the federal motor fuel tax. Even with an increase of federal gas tax by 10 cents, 8 cents would simply fill the gap and leave only 2 cents for investment. Even to return to 1990 funding levels, the gas tax would need to be increased by 15 cents per gallon.

States that receive a large portion of their transportation funding from federal sources are at risk in terms of cash management if the federal government cannot meet its full commitment. State are at risk of delaying projects unless an additional funding source can be found. There is a huge opportunity cost if the federal government does not authorize a new transportation act. As the pipeline slows down, contractors are having difficulty getting loans to buy new equipment, so some states are losing contractor capacity. DOTs are not undertaking the kind of large reconstruction project that they would if they had more certainty regarding funding.

Some advocate for indexing the motor fuel tax according to two indices: the consumer price index (CPI) and national average fuel economy. This two-step index would ensure that the gas tax would be adjusted commensurately as increases in fuel economy continue. Another option would be to implement a sales tax on the cost of gas rather than a per-gallon tax. Decreases in the CPI should not be indexed, since this would cause a decrease in revenue.

Local sales tax measures have been passed to fund transportation improvements in 20 counties in California, gaining the required two-thirds of the vote. Local governments told the voters what projects would be built with the money the measures raised. This began in 1986 and involved 20- to 30-year improvement programs. Now the counties have demonstrated that they can deliver. Los Angeles County has 10 million residents alone and has successfully passed three revenue measures, one of which is perpetual. It is harder to do this at the state level and far harder at the federal level. California led with a strategy for investments and followed with what it would cost. People will vote for fixing potholes at the local level. Other smaller regions do not have the population levels to raise revenues for larger investments.

Georgia recently passed a bill to raise the state gas tax by 6 cents. It also includes a $5.00 hotel fee and a $200 tax on sales of electric vehicles. This provides additional money to fund maintenance needs, but it does not provide for growth beyond that. A national investment program is necessary to support the needs of a connected interstate transportation system. DOTs cannot be reduced to having islands of good in a sea of poor. How can state DOT’s elevate the conversation at the national level? Funding needs to address a national purpose, so we need to connect it to outcomes. If DOTs are successful at the local level, perhaps they could replicate it at the federal level.
In or Out - Who Does the Work and How Does It Get Done

The outsourcing of traditional DOT functions is ideologically charged and politically emotional. Therefore, it is necessary to delve into the motivations that drive it, the choice of functions to be outsourced, contract structures, and how relationships are managed. These are two factors that drive the outcome of pursuing this strategy. If a DOT is weak in any one area, the entire program can be diminished. All outsourcing efforts involve complex discussions that come at different stages; they involve promoting the public interest; they require initial assessments of feasibility; they are facilitated though sophisticated agreements; and they require ongoing performance assessment.

In 1995 Virginia passed P3-enabling legislation and the state’s first P3 project involved outsourcing the maintenance of 10 percent of its interstate system. Elected officials did not object and the public was generally ambivalent, if the job was done well. However, there was opposition in the contracting community. The Virginia Department of Transportation implemented the project as a pilot and conducted an exhaustive performance assessment to document the performance of its contractors.

Under the right conditions, outsourcing can be a source of new ideas, creativity and innovation. This can be encouraged by including research and development elements into a DOT’s contracts with service providers. Outsourcing also provides the opportunity to change the organizational culture of a DOT and a focus on how core functions are approached. It also mitigates the long-term costs to government of providing health care and retirement benefits to public employees.

There are also potential pitfalls. If cost savings fail to materialize, the situation needs to be assessed holistically, since there will be many critics. Another important issue is attracting enough bidders for outsourcing opportunities to maintain a competitive process. This becomes problematic when there are fewer than two or three bidders. If this is the case, there may be a need to rework the procurement documents and conduct a new bidding process. DOTs should be prepared for the management of outsourcing contracts to be more expensive compared to traditional procurements due to the need for heightened performance monitoring. There may also be a cost and difficulty in bringing work back into the agency if necessary.

DOTs should determine their motivations for pursuing outsourcing contracts, and they should assess the potential costs and benefits of doing so. Benefits can include saving money or reducing the size of the government. When outsourcing leads to staff reductions, managers should make plans to utilize remaining staff resources so that service is maintained. Contract requirements need to be both specific and clear, and competition needs to be encouraged throughout the procurement process. DOTs should perform due diligence reviews on service providers and supplies before awarding contracts and then assess their performance during the contract period, as well as at the end of the job. DOTs should also take care to minimize potential service disruptions at the end transition of outsourcing contracts.

Some states intend to have as much as 45 percent of their maintenance needs performed by private contractors. However, CEOs need to stay involved in the process to ensure an unbiased opinion on outsourcing. At the same time, some states are moving in the opposite direction and have reduced their
reliance on contractors and have moved functions back in-house. Other states are more interested in the bottom line and are open to retaining functions or outsourcing them. It all comes down to cost savings and using taxpayer dollars efficiently. Outsourcing involves questions regarding risk and control. Some DOTs may expand staff levels to improve efficiency, but outsource certain functions, thereby delivering the best value to taxpayers while allowing agencies to remain in control. State DOTs need to find the right mix of organic competencies, keeping their most efficient functions, and outsourcing those that are less efficient.

When work is done outside a DOT there may be less opportunity to control it and, therefore, greater risk. If states can achieve a vibrant and competitive market, then outsourcing is more likely to be effective. DOTs do need to maintain agency core competencies so that they can provide effective oversight. They also need a certain level of competency to be able to negotiate for fair value. Healthy competition should give DOTs a sense of what the work should cost. There is usually good competition in urban areas, but that may be difficult to replicate in rural settings.

In some states, performance standards are higher for private service providers than for the public sector. DOTs often achieve better efficiencies by outsourcing an entire function. However, if work is well managed there may not be much difference in the cost whether it is done in-house or not. States can also utilize both approaches to keep staff levels below the fluctuation of work flows. When DOT investment programs are ramping up it makes sense to contract out more; if work is receding, then contract out less. It is always important for DOTs to maintain their core competencies. The worst situation for contractors is when a state DOT has project managers who are not qualified. One way that state DOTs can gage their own internal performance is to take the same performance monitoring standards used on outsourcing contracts and apply them on work done internally.

Under the right circumstances, outsourcing provides states with the opportunity to learn from their private-sector partners. One state had a highway retaining wall with a chronic water seepage problem. The DOT had looked at it but was unable to fix the problem. Within 10 days of the private sector’s taking over the maintenance of the road, the seepage stopped. The contractor found that it was caused by a blocked drain. It then approached this issue systematically by inventorying all drains on the interstate corridor and then fixing any that clogged, thereby reducing its costs.

The American Council of Engineering Companies and AASHTO have supported federal legislation to outsource a larger portion of work delivered with federal money. The bottom line is how costs and quality in innovation are considered. It would be helpful to undertake a study of outsourcing to identify benchmarks on what strategies work well. Alternatively, it might be more helpful to contact a handful of states that have used outsourcing successfully and develop case studies based on their experiences. It would also be helpful if some examples of good outsourcing contracts could be assembled. At the end of the day, states need to undertake their own risk process reviews and identify the best program delivery options that meet their needs.
The Buck Stops Here: The Art and Practice of Using Performance Management and Communications to Build Agency Credibility

Public service may once have been revered, but today it has evolved into a “Got you!” mentality. Public watch dogs look for problems and instances where government needs to be reformed. At the same time, there are diminishing resources available to public agencies, and there is a growing expectation the government will be efficient. With its growing role and prominence, technology is changing transportation from many aspects. It facilitates efficient outcomes and informs all kinds of decisions, including driver behavior. Change has come fast, and in this new environment there is a need for strategic communication in a 24/7 world where everyone is an author and has an opinion.

CEOs need to figure out where they want to go and how to get there. What will be their legacy and how can their employees follow them? What is their agency focus and how do they align their strategic plans and visions? What is the path for getting there? In Washington, accountability is a key tenet of the DOT’s vision and they used performance management and strategic communication to convey this culture of performance.

To shape a culture of performance DOTs need to communicate their vision and direction and get the right people on their team. Employees need to feel engaged and empowered to do their best work. Agency leaders should engage with the legislature and discuss the challenges the DOT is facing, and employees appreciate knowing the CEO has their back. Effective DOTs encourage the broad use of data to inform decision-making across the agency. There is valuable data coming from many different sources, including private vendors, and all can contribute.

It is important to communicate results consistently and be the first to admit to mistakes. DOT CEOs should be honest brokers, and tell what they are going to do about a situation. CEOs should create a communication strategy for just about all their work, both internally and externally, and use a variety of tools, including social media, to provide information where the public gets its news. CEOs should inform key stakeholders (such as city council members) about important developments first and then bring in a trusted reporter to help communicate important agency news. CEOs should draw from performance results to create good news stories and educate and inform. They should give their employees guidance on communication and then trust them to deliver.

Agency leaders should be the first to share their bad news to the media/public. It is important to control the story and make their message proactive rather than defensive. CEOs should draw from performance results to create good news stories to educate and inform – encourage frequent social media posts to dialogue with the public. If their employees know the talking points then they will be educators and ambassadors too.

Be an open book. If there is a mistake it will come out anyway. The press can be a CEO’s biggest ally and liability. Hold a lantern to the problem. When communications are reactive, CEOs tend to appear in a bad light. Tell the public that there is a problem, and then tell them what will be done about it. This is far better than having others discover your problem. CEOs need to keep staff informed to and tell them facts. When there is bad news, be proactive and convey it to television stations and transportation reporters. By
doing so, CEOs will also convey that their jobs are important. It is important to communicate in person. Use the media to show stakeholders that CEOs have boots on the ground. One state has used its work zone safety staff in advertisements, and they have also given testimony to the state legislature.

Results can change the story. States are using data and performance journalism to tell their stories.

It is helpful to identify the best metrics to demonstrate if we are heading in the right direction? One state has a “Mile Marker” performance report that includes regular reporting on such metrics as percentage of distressed pavement. Consistent reporting allows the DOT to show its progress. Quarterly reviews are also an effective performance management tool. When managers meet quarterly to review performance, this encourages staff to engage and do a good job. One DOT has a set of 115 performance measures and its quarterly performance reviews have grown to include 175–200 people. This began to instill an understanding of the importance of doing things right.

There is also a lot of information on real-time traffic conditions. One state has developed a system to use asset management data to develop a timeline of future maintenance projects. Asset management is an important investment driver, and this is a way to convey its significance. Many large DOT projects have their own Twitter accounts and communicate through social media. Contractors also have information to share on progress in work zones and can help explain why motorists do or don’t see workers at a given construction site. Convey this information to the public in the form of real-time information. It is also useful to keep key stakeholders informed. If there are problems on a road that is used by an important company, reach out to the company’s leadership and keep them apprised of ongoing repairs. Similarly, it is also important for DOTs to communicate with the contractor community.

DOTs should also be cognizant of putting out information that makes their governors look good and recognize that communications may change if the governor is up for reelection.

It is important for CEOs to meet with employees. Engage with staff and let them tell you how they have been supporting your business plan. Front line management should also train other staff on messaging.

AASHTO’s Communication Committee is an excellent resource that provides communication and media training to state DOTs.
Things I Knew After 15 Years as a DOT CEO that I Wish I Had Known at Six Months

Pete Rahn shared the following lessons learned from his long-time experience as a DOT CEO in several different states.

- Problems get reinvented with each new administration. Take a breath. Someone may be hoping to get a different decision.
- There is no such thing as a “one time” decision for a CEO — every decision is a precedent. It will come back and be used to justify many other requests in the future.
- There is a reason things are done the way they are. Understand why before you make changes, but don’t fall victim to “paralysis by analysis.”
- There are no secrets in government—ever—don’t try to fool yourself that there can be. If people hear something from you they will want to share it to demonstrate that they are close to you. It is hard to hold a confidential conversation. If you ask someone for something, they will likely need to ask someone else.
- There are people in your organization who will never like you. Don’t be afraid to make a decision because you think people won’t like you as a result.
- The sooner you can explain why something is not a good idea to your governor, the sooner you will be of real value to him/her. It is a service to be honest with your governor and help him or her make fully informed decisions.
- There are a lot of other agencies envious of your resources. DOTs have a lot of discretion in how they spend money. As a CEO, you choose how and where money is spent. This makes DOT CEOs important.
- Make sure your staff knows it’s ok to disagree with you. You need to cultivate an environment where staff are willing to share their opinions openly.
- You’re being watched and interpreted, always... always... ALW AYS! Even questions that you ask can be perceived as requests.
- Everything you see has been screened. You should have detailed conversations with your staff about what you think needs to come to your desk.
- It’s not your enemies that will get you into trouble—it’s your friends, because you naturally want to help friends.
- You can never praise your staff enough, but false praise does not produce desired results. Praise reinforces good behavior.
- Messages get weaker coming up and stronger going down. You should be very concerned if someone tells you that you have “a little problem with a bridge.”
- Announce to all staff instantly what you’re going to do to them that is negative. Have a communications plan in place. Your staff needs to communicate bad news to you too. At the start of a crisis, information is often wrong, so be careful in your reporting to the media. Give them clear information, but devoid of details that could be wrong.
- You don’t have to know the answer to start.
- Eighty percent is close enough to implement. Don’t get bogged down before starting. How do you get planners and engineers to do this? Find the right
planners and engineers and put them in the right positions. Change behavior, not necessarily the culture.

Middle management can be like a thick layer of old Jell-O if you don't have them aligned with your agenda. They bounce back to their old shape. Bring people together and make them part of the process outcome. Engage middle management and involve them in decision-making.

You can't have innovation without both empowerment and need. Why change something if it is working? You need an obstacle to drive innovation. Policy and procedures are the scar tissue of past transgressions. Just empowering won't get you what you want, you need to describe what the problem or obstacle is. These two things must go together.

Your staff must be ONE TEAM! Having multiple competing teams leads to infighting. If two leaders are not getting along, invite them to have breakfast and tell them to work it out. Also tell them that if they cannot, you will do it for them, but they will not like the outcome.

Legislators won't increase resources as long as they get what they want. Be straightforward. Tell them that the DOT doesn't have the money, but that there is a planning process.

The media can be your partner—but never your friend. They are like semi-domesticated wolves. If you feed them they will be your friend, but if they smell blood they will go for your throat.

Creating competition is the key to lowering costs. Specifications are 50 percent politics and 50 percent engineering. Let the marketplace decide these things. Get more bidders involved and you will lower costs.

Trust your intuition. You haven't gotten where you are because your instincts are bad.

Your department will follow what you do—not what you say (if it's positive... just do it... don't announce it—they won't believe you anyway).

The lawsuits follow you long after you've left the job.

Have fun! Your organization can work well if you are not there. Attend events. That is your reward. You do a lot of good things in your job. Your satisfaction is your reward.
Skating on Thin Ice

There are three inevitabilities in life: death, taxes, and change. To create change, one needs to keep up enough momentum, because if you go too slowly you may “break through the ice” and drown. Innovations in technology fostered tremendous change from 1900 to 1985, but since that time the pace has doubled.

As large, process-driven entities, instigating change in a state DOT is perilous. CEOs can expect to encounter three general attitudes among their staff: those who are eager to help implement change; the bulk of employees who could go either way; and those who believe that “this too shall pass.” Naysayers to change are likely to view the DOT CEO as a political appointee who will not be in the position that long. If there is a disruptive force on your team, the only thing to do is get rid of it.

There are several drivers of change at state DOTs. They include the governor’s expectations, the evolving legislative environment, downsizing and rightsizing, changes in technology, and changes in customer demands. Implementing change successfully involves creating power and motivation and high-quality leadership that extends beyond excellent management alone. Change is 70 to 90 percent leadership and 10 to 30 percent management.

John Kotter in his book Leading Change identifies the following steps that make successful change within an organization happen:

1. Establishing a sense of urgency
2. Building a guiding coalition of people who are committed to carrying out change
3. Developing a vision and strategy
4. Communicating the change vision
5. Empowering broad-based action
6. Generating Short Term Wins
7. Never letting up
8. Incorporating change into the DOT’s organizational culture

One CEO formed focus groups across the organization to discuss and address different issues. Through this process the CEO cobbled together a cross-section of employees who became a guiding coalition to enact change. The composition of the focus groups was random and they discussed the DOT’s work around the state.

When you are looking to implement change, make those most affected by it create the change. Empower them for broad-based action and then generate incremental wins. Success is not forever, and failure is not fatal. If you start small, your first wins will generate bigger wins later. Never let up; make embracing change part of the DOT’s organizational culture. As Yogi Berra said, “If you don’t know where you’re going, you will wind up someplace else.”

Change at a DOT can often involve implementing a new strategic plan. One successful strategy involved building consensus from the bottom up and the top down. The process began with a program review that focused on processes and organizational structure. The process took 12 to 18 months and was led by a committee of eight people, four of whom were internal to the DOT and four external people. Three of the four external committee members were former employees and they added creativity and credibility to the process. Their input was valuable, but could have been more so if their
experience had been more complementary to Caltrans as an agency. The premise underlying the process was to modernize the agency to reflect a new age.

When it was time to fold the recommendations of the committee into a strategic plan, the DOT needed input from its managers. They convened a group of 25 to 30 people and spent four hours refining the agency’s vision and mission statement, and through this process management also owned that vision. The agency also needed to recognize that it does not exist just to deliver projects. Its real mission was to improve the quality of life and the state’s economy. The DOT had been too highway-centric, so the plan wrapped safety, system performance, stewardship, sustainability, and organization in one package. First the DOT gained buy-in and ownership from executive staff, and now the agency is conducting outreach to its staff through a series of district meetings. Staff are selling the plan to their co-workers and lightbulbs are turning on. It is difficult to communicate to the entire organization, but they did have a town hall meeting with 5,000 to 6,000 staff attending one week after the strategic plan was announced.

When implementing change, remember that actions speak louder than words. Adopt an element of the plan and act on it to give the process credibility. The CEO adopted a bike plan, and by doing so brought a large cohort of staff onboard. The agency’s executive team also became part of the sell team. The plan is a flag, and hopefully agencywide staff are all rowing toward that flag. It has taken a lot of work to bring staff on board, and it has involved building consensus from above and below and interaction with external partners, but when staff saw the final product they understood the value.

With a new strategic plan, CEOs change where decisions are made. CEOs need to change the delegation and move it down. Be honest and explain when cuts were made for political purposes. Recognize that middle management may not want to take on change because it means more work. Engage with the staff; they know what they need to do their jobs better. Making effective change and good decisions on daily operations buys credibility with the staff. That said, CEOs also need to manage expectations. Some DOTs have had some early wins—such as raising wages for maintenance staff and implementing process reforms—but there may always be an expectation that the wins could have gone further.

AASHTO offers training courses to develop leadership opportunities and groom promising new talent for positions in their DOTs.
Disaster Recovery

With disasters, it is not a matter of “if” it will happen, but rather “when.” Not all disasters are on the scale of Hurricane Katrina or Superstorm Sandy; they can encompass train derailments, floods, storms, dam and levy failures, tornados, truck explosions, train derailments, and bridge hits. Lessons can be derived from any disaster event, and when it comes to a disaster, no agency should be as prepared as a state DOT. The National Guard and State Police will clearly play important roles, but DOTs have the people, the know-how and the contracting authority that is required to respond to a disaster.

How long would it take you as DOT CEOs to respond to a catastrophic bridge failure? A disaster response may be your only opportunity to use alternative delivery techniques such as design-build Construction Manager/General Contractor procurements. If you believe you do not have the tools in place to respond to a disaster, now is the time to plan. In addition to natural disasters there are also planned disasters, such as the planned closure of the I-405 freeway in Los Angeles known as “carmageddon” or special events such as the Olympics. Planned disasters require exceptional planning. There are important lessons to be learned from both.

Disaster recovery requires all hands on deck. Make your best people available. Learn how old processes can be modified and improved. Your staff will deliver in spades, and it is an opportunity to build the DOT's reputation and public trust. Your staff will thrive in this type of environment. They will be able to bypass certain processes, and the overall experience will be fulfilling. Your staff will apply their experience from prior events in responding to new incidents. DOT staff can arrive at the scene of a disaster with little or no direction from headquarters.

With regard to resiliency, our transportation infrastructure is designed to accommodate predictable occurrences such as 100-year floods. How to we plan for an uncertain future; what happens if 100-year storms happen every 30 to 50 years? Changing that standard has a significant coast. There are certain subjects you can and cannot broach with elected officials. They may not want to discuss climate change, but they are almost always willing to discuss weather events, including billion-dollar storms. We have an uncertain future, so we need to discuss these issues with our local government partners.

One DOT had to respond to a hurricane that dumped 15 inches of rain on the state, inflicting damage in 225 out of the state’s 251 towns, together with 500 miles of state roads and over 200 state and local bridges. In addition, all east-west corridors in the state were severed and 13 communities were completely cut off. The DOT’s maintenance staff were the state’s responders. Even though the state’s emergency response center was flooded, the DOT stood up its own Incident Command Centers in the areas hardest hit by repurposing state tourism call centers. This strategy provided the information and processes in place to launch an effective response.

The first step in the recovery was to set the goals. The governor’s priority was to reestablish access to all communities that were cut off. Within 24 hours of the storm, the DOT had re-deployed 750 people out of a staff of 1,500, and they had reestablished communication with 12 out of 13 affected communities. The DOT articulated response goals and reported on progress. People were
desperate for information, so the DOT went on the radio every day at noon to report on the recovery. It was important to make sure the responders understood the order of priorities as they went about their jobs. The private sector also assisted in the response with contractors providing back hoes and Google assisting with mapping. Within three days they had real-time maps showing outages and ongoing repair work. Neighboring states sent workers who helped with road building, and the state also employed innovative new contracting and permitting procedures. Permitting needs involved a high level of interagency coordination with mapped information shared on iPads.

In the end, the crisis was transformed into mission and opportunity. The recovery effort also provided the impetus to improve resiliency so that the state would be stronger and better prepared in the event of another storm. Part of this effort involved replacing 2,000 drainage culverts. After the storm, the state legislature took the opportunity to increase salaries for DOT employees based on the agency’s contribution to the recovery.

One challenging aspect of the response was constantly being asked by the media what the recovery effort would cost and how the state would pay for it. The DOT’s initial estimates were based on a nominal construction process. Now they are closing roads and rebuilding bridges, and they know the more you can be prepared for the next event the better the outcome will be. One of the worst things one can do in disaster response is to over promise on response times.

Another DOT has learned as a result of multiple events and coordinates with the Department of Emergency Services, the National Guard, and the State Police. The state has seen an F-5 tornado, a ½ inch ice storm, a 25-inch snowfall, river flooding that required breaching a levee, and a damaged bridge on the inland waterway. This last incident required closing a bridge on a major interstate, but the DOT completed the repair in four months. This experience also demonstrated to the metropolitan area that two bridges in the region were not enough. Disasters provide opportunities to build your reputation, but you don’t think of them that way at the time.

Another state has had a series of floods and mountain pass avalanches that has required coordination between the DOT and the governor. At one point when a major interstate highway was closed, the DOT prepared maps updating the situation on a daily basis by 7:00 a.m. so that all agencies could understand the latest developments. They were so good at addressing the situation that the governor would call in advance if the forecast looked threatening. One of the first things that incoming CEOs should do is to confirm their emergency response teams and conduct table top exercises. Disaster response also involves coordination with the department of finance and accounting procedures to document the flow of money. You cannot do enough joint agency disaster response preplanning. Roles need to be clearly defined.

In the event of an emergency, DOTs should reach out to their Federal Highway Administration (FHWA) Division Administrator. FHWA can provide information on disaster declaration in order to access federal emergency relief funds. AASHTO can also help mobilize resources. It has used its Standing Committee on Maintenance to determine what equipment is available in nearby states in the event of a disaster.
Round Table Discussion: Ask the Experts - Learn How Your Peers and Predecessors Have Dealt with Similar Issues

It would be helpful to share information on what metrics different CEOs monitor on an annual, quarterly or monthly basis. What information is most important to you as a CEO and how frequently do you look at it?

- Safety and reliability of the urban system. One CEO looks at this on a daily basis.

- It is good to look at project delivery and big line budget items, such as snow removal in the winter. Pay more attention if you are close to maxing out your budget.

- One DOT CEO has biannual check-ins with legislators and conducts annual reviews of asset conditions, including culverts, signing and striping.

- Another seasoned CEO reported having a list of 103 metrics that he tracks. You want to be able to see tangible results in things like striping, signage and guardrail markers. They have an outcome measure for each of these items. For example, what percentage of signage has a reflection factor of “x.” Sometimes it is best to track a collection of factors.

- It is good to monitor information that drives decisions that the CEO needs to make. If data helps you make decisions, monitor it. Otherwise don’t get bogged down.

- Another CEO would identify four or five metrics that would help track how well the department was meeting its five major goals, which included safety and employee satisfaction. These were monitored on a quarterly basis. Each business unit also conducted periodic reviews. This requires a lot of work, but if you do it consistently over time then you know where you are.

- Governors are increasingly demanding that DOTs track a series of performance measures.

- The public is interested in system operations, as well as automobile, bike, and pedestrian safety. On the sustainability front, stakeholders are interested in greenhouse gas emissions and energy consumption, both in terms of motor fuels and buildings. Financial performance is also of interest.

- One DOT had approximately 120 performance measures that it tracked regularly and then the governor increased that to 400 reported at the county level. It is important to focus on what informs decisions.

- One CEO tracks cash flow and looks at the department’s ebb and flow of money daily. They can accelerate or slow down projects and expenditures as needed. They also project cash flows forward 18 months. All the CEO’s attending confirmed that they have access to cash flow models; some delegate monitoring and review of the cash flow model output to their CFO’s.

- One CEO looks at bid summaries on a weekly basis. These reports identify the number of bidders, the high and low cost estimates, and the deviations from those amounts in the bids. This gives him a sense of market trends in just five minutes and helps him understand where the department’s cost estimates are lagging actual trends.
About disasters, it was interesting to note the difference in the responses to a major hurricane in two neighboring states. Only 10 percent of DOT workers reported to work the day following one of those states. However, 90 percent of DOT workers came to work on the same day in the other. That state had worker home kits for their maintenance staff that identify any special needs their family members may have. The DOT then facilitated communication between its workers and their families. It also provided family members with any support they needed to deal with the effects of the disaster, allowing state maintenance workers to go to work rather than look after their families. This proved to be an extremely useful process that could be replicated in other states.

Several gulf state DOTs are coordinating on hurricane response. They have a repository of information on resources and have conducted joint disaster response exercises. Maintenance workers often do not get much credit, but they are the backbone when it comes to disaster response. They know what to do without being told.

One DOT has an annual regional equipment rodeo with other DOTs every year. It is a great event that boosts morale and pride for maintenance workers.

The experience to date with P3s has been halting. There are public outreach challenges when private partners make a profit performing roles that are perceived as belonging to the public sector.

P3s are an important concept for DOTs and in addition to toll road concessions they can also be used to develop and operate rest areas or 511 centers. There is a continuum of P3 opportunities.

We can derive important lessons from P3 projects that have failed and from overseas experience. Many P3s in Europe have been used to mitigate against European Union sovereign debt caps. There is concern about the prevalence of availability payment P3 projects. We should be talking about funding, not financing. In 1980 we had issued $18 billion in transportation debt in the United States. By 2012 that level had risen to $164 billion. The fact is that we are making up for the lack of transportation revenue by borrowing. P3 projects will not help us unless they provide new revenue.

There is a misunderstanding that involving the private sector will solve the funding crisis. Financing does not replace funding.

The United States can innovate. We are moving toward connected vehicles and the private sector is playing a prominent role. P3s will be involved, and we will need new business models to use them on connected vehicle strategies. With multistate corridors, we will need business people to leverage more than just the connected infrastructure.

The more information that AASHTO can provide on P3s the better. There is a long learning curve involved with P3 contracting and with the dispute resolution process.
DOT CEOs rely on relationships and partnerships to do their jobs. Powering through alone is not an option. In particular, CEOs need to build partnerships with their legislatures. Five best practices for engendering and nurturing partnerships include 1) trustworthiness, 2) being a good asker, 3) staying on message, 4) assessing the political environment, and 5) resolving conflict.

One state DOT has a fleet of howitzers that it uses to control avalanche risk during the snow season. One day there was an incident where the department had overshot a snow pack on a mountain and hit a home instead. That same day, the DOT CEO visited the damaged home and spent time with its owner. The DOT admitted that it was at fault and agreed to assume all costs involved with repairing the home. While the incident was reported on the evening news, it quickly became a non-story. By owning its own mistake, the DOT garnered trustworthiness in the community. You are never wrong when you do the right thing.

Whenever you have an opportunity to do the right thing, take it and be a trustworthy partner.

DOT CEOs are an interface between the governor and everyone else. CEOs need to build allies in the governor’s office and with industry, local officials, and legislators. You can do so by asking people about their roles and concerns. It is important to help make connections and find allies and then reach out to the right people and inform leadership—including legislators on both sides of the aisle—about what is going on in the community.

If you are technically trained, it is hard to deliver the message in a sound bite. In order to stay on message, you need to keep things at the level of a fifth-grade elevator speech when interacting with stakeholders who are not transportation specialists. Do not get into geomorphology. If you have children, test your messaging on them and see what they take away.

A DOT CEO cannot work in a vacuum. Who is your boss? Everyone is, from the governor to legislators, so it is always important to assess the political environment. If you have unresolved conflicts, it is like having an anchor attached. Resolve conflicts and keep the momentum going.

As a CEO, your number one boss is the governor. You need to understand their sphere of influence, as well as that of their staff. Get to know the governor’s chiefs of staff and make sure that you don’t give them surprises. When interacting with external players, listen and nod, but do not promise. Never promise anything unless you know where your governor stands. It can be a problem when stakeholders go around the DOT CEO and take a situation to the governor. You need to make sure that you and your governor are aware when you are being told different stories by the same stakeholder.

You will also find that a small number of legislators understand and are interested in transportation. Establish a close and frank relationship with them. Be trustworthy advisors to them, but always know what you stand for. You also need to include local officials including mayors and metropolitan planning organization (MPO) officials in the fabric of transportation programs. Work hard at cultivating these relationships. You need to
understand community needs and visions in order.

There are some debates in Congress about pushing funding down to the local level. CEOs need to establish open working relationships with counties, cities and MPOs. CEOs should engage them in discussions so that they understand how the DOT makes decisions, and remember that the DOT is better at awarding and managing contracts. Remember that the role of counties, cities, and MPOs is different in different states. In some states, MPOs are also funding partners.

In some cases, lobbyists can be advocates. They can be a good source of information and they may be helpful in stitching together the coalition of supporters to pass a transportation bill. They will want to help if you promote what they do. CEOs must know where your governor stands before engaging with lobbyists. Never assume where a lobbyist will fall on an issue. Follow the money. You should be aware if a local government has hired a lobbyist to talk to you as a CEO. Lobbyists have close relationships with legislators and they can be effective, but be careful.

Being a DOT CEO is lonely. Very few CEOs get a ticker tape parade. Your self-worth should never be based on your position. Remember who you are. All your actions should be based on what you want people to say about you. The DOT CEO's integrity is his or her most precious possession. Give level-handed access and respect, and then if you and others you deal with are on the same side of an issue, you can advance it. Respect and positive relationships will carry you through challenging times.

When measuring success, there is a motivation to measure the process rather than the results. Remember, it is the results that matter. CEOs are hired for their judgment, so remember you don't have to follow the cookbook all the time.
Workshop Synthesis

In the final session, the CEO workshop participants discussed the core wisdom that they gained from the session:

- The workshop has been a valuable session and the intimate setting provided a safe environment for exchanging information. It was helpful to include seasoned CEOs and develop new contacts. There is much to be gained by listening to the participants discuss how to be effective as CEOs in our different settings. Transferability and trustworthiness were a common thread throughout the session, as was the value of humility. An appropriate sense of professional humility allows a CEO to lead unapologetically. As public servants, professional humility establishes credibility. While arrogance is usually unintentional, it is a real turnoff.

- One CEO wished he had been privy to these types of conversations early in his tenure. Communication with employees and stakeholders is critical to the CEO. If he had a message and others wound up not doing things his way, he always felt that he did a poor job in conveying his message.

- Another CEO learned a lot. Pete Rahn’s statement that friends can get you into trouble resonated. The shields should go up around friends. It might be helpful to have a checklist of questions for your comptroller, chief engineer, and others early on. This would help the CEO learn about their organization and think strategically.

- Another CEO agreed that friends need to be treated carefully and that it is important not to let down one’s shield.

- Every day is a learning experience. One issue that was not addressed in the workshop was internal communication. There are differences in the effectiveness based on the medium through which information is conveyed. The AASHTO Project Finance Institute may be a potential resource to allow us to have a P3 alternative on the table to determine what the best business decision is.

- Jack Welch’s new book, The Real-Life MBA, conveys that truth and trust are two important elements in an organization. We have the tools we have, and we teach one another how to use these tools effectively. Big meetings are necessary, but the small setting of the CEO Peer Exchange is very fruitful.

- Having attended a number of smaller meetings over the years, one CEO finds that the advantage of this type of setting is building relationships and providing opportunities for mentoring. The CEO’s job is very lonely, so it’s good to have relationships with one’s peers.

- It is important for organizational culture to drive people’s behavior in an organization. We need to come to grips with the culture to understand it and then have an influence on the culture and change the game.

- The peer exchange was a great format and it was valuable to learn from one another. Developing personal and agency credibility is important. This CEO has had great experiences traveling around his state and has found that people are pleased to see him. This makes him realize...
that the CEO’s position is important. He has learned to show interest but offer few opinions. He believes we need to be open about where we are going. Embracing plurality does not mean you don’t have a backbone as a CEO. You can have both, they’re not a dichotomy. The purpose of a DOT is to maximize the health of the people and the environment and prosperity of the state. We are working together for something bigger than any one of us. Wherever the CEO goes, they will be told that it is the center of growth for the state. Be straightforward and open: it’s an honor to do the job.

A number of former CEOs have moved into consulting. Their skills are transferable. Learning never ends; we all learn from one another.

It has been humbling to be a sponge and learn from her peers. The CEO’s job is all about people and risk. When you walk into this job, you need to understand your areas of risk and identify specific issues that you need to address early on. Recognize that you have a team of people that you can call on. It might be helpful to develop a checklist of issues to review with different senior staff members.

Trust and integrity are most important not just for the CEO, but for their organizations. It isn’t about the leader; it’s about the entire organization.

The Peer Exchange was an invaluable session and it was great to go through the issues. It’s all about developing relationships with this group, and it is helpful as we embark on our work. The discussion on performance metrics and the key measures we need to inform decisions was particularly helpful.

Having attended this event several times since 2001, it has always been helpful to validate what we are trying to accomplish as CEOs. Without this opportunity, they would not realize that others are dealing with the same issues. Encourage state DOT employees to participate in AASHTO activities and bring new ideas back home. Accomplishments are accountable to the culture of the department not an individual leader.

One observer was impressed by the willingness of all the CEOs to share and not feel vulnerable. The workshop provided an excellent opportunity for listening and understanding.
Potential Research Topics for Further Consideration

The workshop discussions highlighted areas in which research and development efforts could advance the state of transportation system and agency practices. Potential research topics could include:

- Opportunities for GIS-based data collection and information management efficiencies through cooperative efforts by state transportation agencies and departments of natural resources

- Understanding trends and management challenges as professional practice and agency culture in transportation evolve from a historical civil engineering base to greater engagement of communications, control systems, and information management

- Understanding of trends and management challenges associated with evolving roles of regional agencies, non-highway transportation modes and intermodal interchanges, alternative equipment ownership business models (such as shared-use fleets, privately-owned control systems), and maintenance service delivery

- Opportunities for information exchange and public-policy partnership with the insurance industry for use of VMT as a basis for rates and revenue generation

- Alternative approaches to indexing to prolong the effectiveness of fuel taxes as a primary transportation revenue source, for example based on (a) consumer price indices and (b) average fleet fuel efficiency.

- Envisioning the nation’s future transportation system and the implications for interstate commerce corridors, the role of metropolitan areas, development of regional economies, and distribution of resources among the states

- Improving management ability to characterize professional-services “product quality” and “core competencies” to facilitate workforce development and sourcing decisions

- Development of guidance for assessing outsourcing options, addressing, for example, setting of organizational goals, consistent measures of overhead and administrative costs, characterization of an effective decision-making sequence (decision tree), model contract documents, and case studies

- Development of guidance for DOT executives on disaster response, readiness assurance, “continuation of operations” plans, system and organizational resiliency and redundancy measures, financial and contracting procedures, and case studies

- Development of guidance on how to monitor transportation agency performance, including for example specific measures, frequency of reporting, and examples of dashboards and other displays

- Development of guidance on improving intra-agency communication and understanding of agency performance objectives, for example among maintenance and project delivery staff.
2016 CEO Peer Exchange Workshop
Technical Summary
NCHRP 20-24 (108)
April 3-5, 2016
Workshop Participants

The following department of transportation chief executive officers participated in the 2016 CEO Peer Exchange Workshop:

- Malcolm Dougherty
  California Department of Transportation
- Leif Dormsjo
  District of Columbia Department of Transportation
- Russel McMurry
  Georgia Department of Transportation
- Brian Ness
  Idaho Transportation Department
- Paul Trombino
  Iowa Department of Transportation
- Shawn Wilson
  Louisiana Department Transportation and Development
- Dave Bernhardt
  Maine Department of Transportation
- Stephanie Pollack
  Massachusetts Department of Transportation
- Kirk Steudle
  Michigan Department of Transportation
- Charlie Zelle
  Minnesota Department of Transportation
- Patrick McKenna
  Missouri Department of Transportation
- Kyle Schneweis
  Nebraska Department of Roads
- John Schroer
  Tennessee Department of Transportation
- James Bass
  Texas Department of Transportation
- Carlos Braceras
  Utah Department of Transportation
- Chris Cole
  Vermont Agency of Transportation
- Roger Millar
  Washington Department of Transportation
Workshop Overview

The CEO Peer Exchange Workshop was held at the University of Minnesota in Minneapolis Sunday, April 3, through Tuesday, April 5, 2016. The CEO Peer Exchange Workshop included seven hour-long, facilitated discussions of current and emerging technical topics. The workshop also included a roundtable discussion and a final synthesis session. The technical sessions included brief 15-minute technical presentations, followed by 45-minute facilitated discussions. The intent of the workshop was to create a forum for information exchange and open discussion and to provide the chief executive officers (CEO) to with the opportunity to build relationships with their peers.

The CEO Peer Exchange Workshop is one of State Highway and Transportation Officials’ (AASHTO) most important activities. The intent is to facilitate a continuous learning process for AASHTO’s members. For department of transportation (DOT) CEOs, there is no better group to learn from than those who sit in the same chair. Small groups such as the workshop attendees facilitate productive conversations. The workshop provides a safe setting where the CEOs can engage in productive conversations and ask questions of one another. The 2016 workshop included ten CEOs who were in office for 10 months or less and eight CEOs who have held their positions for much longer.

A secondary objective of the workshop was to identify initiatives that AASHTO or National Cooperative Highway Research Program (NCHRP) might pursue to address matters of concern to CEOs. During each topical discussion, the research team maintained a list of questions raised during the discussions that could become research topics or bases for future peer exchanges.
Are State DOTs Ready for the Technology Transformation?

Technology is changing how we manage our system assets, communicate and interact with customers, and monitor and measure system performance. Technology will also soon change how our society defines mobility. This is not change around the edges; it is a fundamental transition to driverless vehicle technologies. There is a sprint toward driverless vehicles right now; and industry watchers predict that fully autonomous vehicles will likely be available to the commercial market by the mid-2020s.

What are the implications of these changes for state DOTs? Driverless vehicles will likely be connected to the DOT's infrastructure. If we can run trains of vehicles at high speeds with low headways, then we will be able to increase throughput and roadway capacity. Deploying these technologies will require a transition period during which we may see driverless vehicle-only lanes on our highways. The precision of computer driving could enable us to add lanes within existing footprints. Connected vehicle technologies also present important opportunities for DOTs by providing data that can enhance current asset management, real-time operations, and system performance measurement.

How do we prepare for this future and when should we start? Starting early can further economic competitiveness and help states identify pathways to early user benefits. Regulatory action is likely to occur as soon as 2016, so early positioning will enable DOTs to gain experience before mandates are established. Connected vehicle technology could be installed in all new vehicles by 2019. To take advantage of this, DOTs will need to prepare the necessary digital infrastructure, and collect, parse, and manage enormous amounts of data. This will require partnering with other agencies and the industry to ensure the public system is prepared for a Connected and Automated Vehicle (CAV) future.

DOTs should follow industry research and activity and anticipate future communications needs. If you need to rip up pavements, put in fiber optics when they are restored. DOTs should also engender a cultural shift to make information technology part of their core missions. Looking forward, driverless vehicles will eventually achieve significant market penetration. That will have profound and yet unknown impacts on a wide range of travel behavior assumptions that have held constant for decades. We are no longer able to extrapolate trends from the static past. Technology will shift behavior in new ways and result in fundamental changes in long range planning.

State DOTs are interested in preparing for driverless vehicle implementation, but are also trying to manage growing demands with limited funds. CAV technology is all about safety, and experts predict that we will reduce traffic fatalities by 80 percent. This is a reduction from 30,000 to 6,000 traffic-related deaths annually. Why wouldn't we do that? Safety is an extremely effective benefit that legislators find compelling. The automobile industry recognizes the value of this technology and is racing to implement. Michigan and California are preparing for driverless technology; we recognize that we need to plant these trees even though we may not sit under their shade. Other states will recognize that they should forge new partnerships and start down this path.

As we prepare for driverless technologies, we also need to recognize the essential role that our IT staff will play in the process, since they have a greater sense of urgency and understand what needs to happen. Fifteen
years ago, IT staff were not allowed in traffic management centers. DOTs developed systems such as asset management software without input from IT and, thus, the systems were not consistent with what IT would have done if they had been involved. Today many DOTs are expanding their IT staff and traffic management staff and there can be conflict over which division owns different systems. These capabilities may need to be merged. Turf can be a big impediment. DOTs need to develop collective goals and vison.

Driverless vehicle technology is a big unfunded liability for DOTs. It takes a long time for DOTs to implement projects. Google takes it for granted that roadside technology is not provided by the public sector. We need to find a way to be nimble and learn to play with the actors in this sector. We need to stay at the table and interact with the real players. What do we do when the backlash comes? Public agencies will need to respond to that. Are we letting the technology run rampant? How does it work? What is our role and how do we network? DOTs are already collaborating with the telecom industry and sharing fiber optic lines. It is important to think about partnerships with local jurisdictions when autonomous vehicles are on the market.

The government's ability to predict the future is limited. What is clear however is that transportation is undergoing a tremendous transformation, and DOTs must remain nimble. Some predict that car sharing will be responsible for a 80 percent decrease in car sales and a 90 percent decrease in parking use. However, vehicle-miles travelled will increase.

The ability of state governments to select winning technologies is dubious. In some states, spending a penny doing anything but fixing a bridge is considered wasteful. One state is taking a venture capital approach and asking the industry to come in with their suggestions. Through this process, the state has generated 300 suggestions for fixing a major interstate.

How should DOTs approach improvement projects today to prepare for the future of autonomous vehicle technology? The initial technology deployment will not create more roadway capacity. One state is working with FedEx to study platooning to determine whether it will need new dedicated lanes to accommodate that concept. It is like transitioning from horses to cars. The challenge is how a DOT can mingle traditional and CAV without spending a lot of money. A key question is when will there be adequate saturation so we can derive wins from this new technology.

The NCHRP Foresight Report 750 Series: Informing Transportation's Future is looking at technology issues. There are many interesting questions. Getting the answer right is less important than thinking about the implications. Will technology gains impact toll revenues? How will we protect network security? How do we predict how the introduction of the technology will change things? We have to build this new world on top of the old system. If all new vehicles were equipped with CAV technology today, the transition would take 10-12 years.

The private sector is doing a lot of work with CAV vehicle technologies. What are they asking of the public sector? What do they want or expect us to do? AASHTO is organizing a coalition of private-sector actors to discuss these issues. The first phase will focus on functions and safety. Other activities include conversations on CAV policy issues. The private sector seems to have a better handle on deficiencies and delineation, but DOTs will need to ensure that they still have their say.
Leading Change: Implementing New Practices and Innovations at State DOTs

CEOs are hired as change agents, not caretakers. You should come into your job with a mission statement of what you want your legacy to be, recognizing that any substantive initiative will require change. The reality is that all organizations can be improved, but they do not adopt new practices and innovation on their own. Change requires a champion. How should you lead that change and what should you avoid in the process?

To implement change, you need to get your bearings. Gather input from the public, elected officials, and your team at the DOT—including both career and appointed staff. Steal ideas shamelessly and forge consensus. Start initiatives by gathering ideas and knowing who your allies are. CEOs should identify staff who can deliver the CEO’s message when they are not available. To assemble a winning coalition, you need external help and validation to lend credibility. CEOs can turn to local mayors, county officials, and developers, as well as state officials.

The central element in leading change is communication. The CEO needs to communicate effectively and directly. CEOs need to be consistent and have their elevator speeches prepared. Find some early victories to celebrate. As you move ahead, do not slow down. If you stop swimming, you will drown. The CEO must be a tireless champion. Build a circle of support as you go and be crystal-clear what the desired outcome should be. If both communication and the desired outcomes are clear, then you can get there. You also have a tactile advantage in redefining incremental change as you move forward and bring more people under the tent. Build allies from the onset, and win the support of career staff.

Choose your agenda for change carefully. A CEO can have only two or three change initiatives. These issues should leave the agency in a better place and serve the state well into the future.

Implementing change requires a process. DOT CEOs can come from within or outside of their organizations. Their suggestions may be met with skepticism on the part of some career staffers. This dynamic can make the CEO’s job difficult. When coming from within the DOT, some staff will expect that the status quo will continue. This dynamic is a challenge when a CEO wants to innovate. CEOs need to look for strategies to overcome these challenges.

When discussing outcomes and actions that staff should pursue, the CEO needs to explain how they mesh with their vision and mission for the DOT. Identify unofficial leaders in your department and discuss your program with key staff ahead of time, explaining what their role will be in implementing new policies and programs. Never say that you are implementing change because you were directed to do so by someone else. You need to own the change completely, and demonstrate why it is good for your organization. Your staff needs to have the sense that they are moving forward.

One CEO worked for five years for a democratic governor and was then reappointed by his republican successor who had new directions and priorities. The department needed either to fix things itself, or be fixed by others. It took about two to three weeks for the CEO’s inner circle to come around and offer solutions. The new governor
had a different set of ideas and legislators agreed that the DOT needed to change. This included downsizing by 15 percent. The CEO got in front of the issues and made it happen, and ultimately closed eight offices without any layoffs.

From the outset, CEOs need to ask a lot of questions. With structural change, the hardest part is getting people on board. Some staff will walk away, but others will be willing to engage. Gaining buy-in from core staff who are important to the organization is the most challenging issue. You need to identify those people and gain their trust. There can also be leadership vacuums during a long search for a CEO. Leadership may be tired of waiting. Some senior staff have had it too good. It is important for CEOs to tap into staff below their direct reports.

Meaningful innovation also introduces a risk of failure. Risk management is key in managing failure and containing risk. There are advantages to risk. We may fail in 70 percent of things we take risk on, but the effects of the other 30 percent will be so positive that they will advance the organization. It is important not to box people in; help them remove their blinders. CEOs will wind up on the front page of the paper either way, so it is best to be on the front page for doing something bold. While change may be necessary, it is better not to turn DOTs upside down. Agencies need some stability, so it is better to make incremental changes. CEOs should reach out to senior staff and ask them what has impaired them from making changes that they believe would be helpful to the department. It is helpful to learn from the organization and then formulate a collective vision.

The power of a DOT does not rest with the CEO, it is vested in all its people, so career staff need to know that they have permission to take risk. When implementing change, your department needs to be with you. Twenty percent will be all on board, and another 20 percent will be unreceptive, so you need to focus on the 60 percent of the people who are in the middle. Most people do not like to be reformed. It is important for the CEO to demonstrate that they care about their staff and their safety. You need to look at what the 60 percent care about and then respond to those issues to gain their buy-in. It is also important for the CEO to demonstrate that they have the power to act on the input he received from staff. DOT management needs to win staff buy-in and then advocate for their agenda. CEOs need to build a level of trust and mutual support. Walk the halls and develop trust. Respect for the office is always there but, personally, CEOs must earn the respect of their colleagues. Shake every employee’s hand and do what you say you are going to do.

If you are not innovative, you are not moving toward your goals. DOTs need to change their culture to innovate. They need to count the innovations, make innovating a goal, and think about how progress will be measured.
Getting the Work Done: Managing the Changing Role and Workforce of the State DOT

One former CEO worked for four different governors. His third governor once asked him how he knew if he was being successful.DOTs plan, design, finance, build, operate and maintain transportation systems, but their real goal is to support the economic vitality of the state and improve quality of life for its citizens. You are successful when you are achieving this fundamental mission.

When CEOs come into a DOT, they need to understand why their staff has chosen to work for the DOT. Employees are looking for the stability and benefits the public sector provides. They are also interested in serving the public good and have a desire to be in the driver’s seat. A CEO should also be focused on what their organizations can do to make their staff great. Staff need training to keep current and do their jobs better. They are also looking for a diverse experience that provides them with challenges. The CEO’s trust is also essential. Your staff will be great if you give them that trust. Help by defining what their role is.

DOT staff are diminished if they lack training, diverse challenges, and trust. Managers need to invest in their staff and recognize that although they may ultimately leave the DOT, they will likely still interact with it after their departure. Managers should also recognize that staff reductions, layoffs and hiring freezes put a chill across the entire organization. Low pay is another impediment. DOTs have a vital dependence on their maintenance staff, so why is it that many of them qualify for Food Stamps? DOTs have large maintenance and operations staffs, and when they see problems, they fix them. Our maintenance staffs are instant problem solvers and do not need to wait for a process to be prescribed. How can we incorporate their “can do” attitude and ability to solve problems into the rest of the organization?

Part of the CEO’s job is to consider whether the possibility of outsourcing certain DOT activities might benefit the organization and allow it to focus on what it does best. Areas where many DOTs outsource activities include environmental stewardship, design, and construction engineering. DOTs have a normal ebb and flow in their work plans. The key to success is for DOTs to maintain adequate staff levels to cover slower periods and then augment their internal staff with outside support to meet peak needs. DOT employees should always maintain the owner role and treat external support as an extension of staff. While outsourcing is useful, DOTs need to maintain their core competencies.

DOTs traditionally use external design and construction firms to implement projects. Under the standard design-bid-build approach, the DOT retains considerable risk. Today with larger and more complex projects, DOTs are using other procurement models to transfer or share risk with their private sector partners. Some of these procurement models include construction management at risk, “progressive” design-build, lump-sum design-build, and design-build operate/finance.

As they set their priorities, DOT CEO’s should also be aware of the changing roles and interests of state DOTs and metropolitan regions. DOTs are interested in maintaining the highway system and improving throughput and longer-distance travel. Metropolitan regions are interested in establishing a sense of place and developing multimodal access to employment and activity centers.
CEOs own the DOT organization chart and can make organizational changes, but buy-in is critical. DOTs tend to train their staff how to do things in the way it’s always been done. DOTs’ role as owner operators will continue, but the organizations need to seek out ways to improve their processes. Many DOTs employ a data-driven approach to eliminate defects and improve its processes. DOT staff know our organizations better than others, and CEOs should follow up on internal suggestions when they are offered.

Communications is essential to the strategic planning process. As part of a strategic plan update, one DOT has held town hall meetings, webcasts, and video conferences for staff, enabling the CEO to field questions directly. The DOT also has an upcoming town hall meeting on partnerships with cities and metropolitan areas. It recognizes that it must work together with the different regions in the state and cultivate internal and private partners. Developing the strategic plan has been a two-year process, and now the DOT is trying to maintain its momentum as it implements the plan. DOTs also need to incorporate performance measurement into their strategic plans to document the effects of their investments and validate the need for new funding.

One CEO who spent time in local government observed that from the local perspective if the DOT is not working cooperatively with local partners then they assume that the DOT is “doing things to them.” The DOT needs to be a humble partner and participate in the metropolitan planning organization (MPO) process. The state’s interests need to include local interests. DOTs need to do a better job of demonstrating that the needs of metropolitan regions are important. There is a push to direct federal transportation funding to the local level rather than going through state government. There is also a false sense that the math adds up and that there are adequate resources. Growing the size of the funding pie is important because local regions are pushing to get more funding for facilities already under their jurisdiction. This could reduce the amount of money available for state needs. We need to have joint conversations and move toward joint unified plans. DOTs and local regions can speak with one voice for a unified plan.

The priority pendulum goes back and forth with a changing emphasis on maintenance versus economic sustainability. One DOT had started to develop a capital plan, and then the state went through a bad winter. Now the emphasis has switched to snow removal and transit reliability. The department’s plan does not reflect the MPO’s needs, so it has retained consultants to rank the MPO’s plans using the department’s planning criteria. This will facilitate the merging of the different plans.

One DOT has been in-sourcing its work efforts and has hired 4,000 new employees. Maintenance workers live below the poverty level, so the DOT is raising salaries and providing educational opportunities. There are not many employment opportunities in rural areas. The department has merged its construction and maintenance divisions, which allows maintenance workers to pursue GEDs. It is also requiring life-long learning for all staff. The DOT is also providing employees with the opportunity to pursue two-year degrees so they can learn new skills and take on new responsibilities. They just launched their first pilot and over 200 staff members signed up. It is the state’s duty to provide opportunity for its citizens. The DOT now has a Director of Education and a starting pay level of $28,000.
The Buck Stops Here: The Art and Practice of Using Performance Management and Communications to Build Agency Credibility

DOTs must use their performance management data to build credibility and success. It is all about building trust, so it is important to make sure that the data is not biased or inaccurate. This is critical to your trust as the leaders of a state DOT. DOTs are in the news all the time, and there are many headlines that one would rather not see. Government accountability is increasingly important, and CEOs will be well served by getting ahead of the policy makers’ call for action. There is also a notion that government does not tell the truth, so it is important to use performance data to be transparent and truthful. People will see that the DOT is being open and transparent, and that engenders trust and builds credibility for the agency.

We have and will continue to have limited resources for transportation, so the public wants to see and hear more about efficiency. Tell them about best-value reform at your DOT. Technology is changing what we do. Use it to the DOT’s advantage and demonstrate the benefits those investments to the public. We also live in a world with 24/7 communication, so there is a need to optimize strategic communication. The media has also changed. We have gone from having reporters who are trustworthy to those with computers in their mother’s basement who are wildcards; do they have journalistic integrity?

Social media tools present both challenges and opportunities for a DOT. DOTs are using social media to engage in active conversations about all different kinds of programs and services. This gives them the opportunity to shape the issues and explain the facts, if needed, rather than react after misinformation has been spread. Social media also allows DOTs to be accessible to the public on topics of interest. A DOT’s immediate response can change an inquiry into an active conversation. In the past, DOTs had to wait for public service channels to provide this type of information to the public, but now they can own the messaging.

These different strategies provide ways to for DOTs to communicate with the public on their goals, priorities and focus areas. They also provide an opportunity for DOTs to use all the data they collect to reinforce their communications. Coupling performance management with strategic communications disciplines the agency’s actions, builds credibility and improves the public’s confidence in the DOT. CEOs can shape a culture of performance by institutionalizing performance management in their DOT’s communications. This process involves communicating the agency’s vision and direction and requires having the right people on the team. Align strategic and business plans with performance expectations. Engage employees throughout the agency to focus on performance measurement and empower them to act. CEOs should manage their agencies by performance outcomes and engage employees in interpreting what the information tells them. Use performance data to identify what went well, what differed from expectations, and what has changed.

It is important for CEOs to be known as honest brokers of information. Create a communication strategy for just about everything you do, both internally and externally. This builds accountability and the ability to follow a communication road map. Report the good, but also be the first to tell your bad news. Public agencies are not good at explaining that what they do is hard.
Sometimes they look too perfect. Draw from performance results to create good news stories to educate and inform the public. In this way, public agencies can “be” the media. Keep the public involved in a dialogue on the risks the DOT faces and what it is doing to manage them.

Encourage your employees to communicate externally, but always with care. As state DOTs become more comfortable with 24/7 communication, it allows the agency to show the human effort involved in its work. There is a lot of effort behind every good headline. There are risks to 24/7 communication, but if you build a plan on how to push information out and be open when issues do not go well, you can reach a wide audience and go a long way to improving the public and policy makers’ image of the agency.

We want to be sincere, but we also need to recognize that the media is not always working in the interest of DOTs. We want to have good relationships with the media and one way to achieve that is by not shying away from difficult conversations. There is a need to be in front and up front with issues in the media. When information comes from the DOT, it builds trust. The DOT communicates directly with the public using Facebook as a key tool. Press releases are retro in today’s world. DOTs can communicate directly with their customers before the media has a chance to shape the story. Ultimately, this means that DOTs can market their own success. Videos can be prepared using equipment as simple as an iPhone. Once you see your video run like a report on the television news, you will see how powerful it is.

A 2009 mandate in one state required the DOT to establish an Office of Performance Management, which has built databases for internal purposes and then taken them public. It has also prepared an iPhone app that provides real-time information on wait times at the Registry of Motor Vehicles. When you provide this type of information, problems tend to solve themselves. The OPM provides reliability data for bus and rail transit. Even bad news can be good if people know that the DOT is working on it. Since reporting on wait times at the Registry of Motor Vehicles, people are treating its staff members more kindly. In another state, the DOT has co-located its staff responsible for Twitter with its highway and transit operations staff to get accurate information out quickly. Customer satisfaction is ultimately the most important metric for DOTs, so if you have a commitment to performance, show the public what you are doing.

Pictures are particularly powerful on social media. On Christmas Eve, a heavy snowfall closed all east-west highways in one state. The DOT put photographs on social media so that people could understand the nature of the problem. One showed a backhoe operating on a 30-foot snowbank on an interstate highway. The public came to the defense of the DOT and built up support for the DOT’s response to the storm. DOTs are also relying on social media and real-time maps to provide information on large events. They are even providing real-time information on snowplows on DOT websites.
Where Do We Get The Money: Funding Transportation Investment When Budgets are Slim

We spend a lot of time talking about constraints to federal transportation funding and the fact that the federal motor fuel tax has not been increased since 1992. However, most transportation funding in the U.S.—74 percent—comes from the state and local levels. So, rather than waiting for Congress to do something about federal funding, let’s explore what’s happening with state and local transportation funding.

State funding is derived from the state motor fuel taxes, other taxes, bond proceeds, and tolls. Local transportation funding is largely derived from the general fund and real estate taxes. Recently, several states have increased their fuel taxes and many have tied the tax rate to changes in the consumer price index. Most states with lower motor fuel taxes have not increased their tax rates since the 1980s or 1990s.

Since 2012, states have used several other strategies to increase transportation funding. The more common approaches include increases in the state sales tax, vehicle sales and rental taxes, and vehicle registration fees. They have also imposed new fees on hybrid and electric vehicles, or increased tolls and existing license and vehicle weight fees. There are also some interesting one-off strategies, including tolling new highway capacity, increasing cigarette and tobacco taxes and hotel taxes, and installing cell towers and solar energy farms in state highway rights-of-way. States that have passed major revenue initiatives, such as Florida and Pennsylvania, have also put firewalls around significant portions of the new revenues and then used them to fund specific groups of projects.

There have also been innovative approaches for raising new transportation funding at the local level. These efforts have been successful because investment needs are often better perceived closer to home. Local revenue measures usually support a group of pre-identified projects and may include a local sales tax increase, real estate tax increases, payroll taxes, improvement districts or property assessments. In 2015 alone, voters approved 8 out of 13 proposed local sales tax measures and 11 out of 12 real estate tax measures to support transportation investment.

California is home to 19 self-help counties that have passed local transportation sales tax measures, each of which has been approved by two-thirds majority of the voting public. Eighty-one percent of Californians live in self-help counties. Together these measures generate $3 billion–$4 billion a year in funding, supporting $95 billion in spending. The half-cent Measure R sales tax was passed in 2009 in Los Angeles and is expected to generate $40 billion in transportation funding over 30 years.

Several states are using public-private partnerships (P3s) to deliver transportation improvements. P3s are a project delivery tool and still require revenue derived from tolls or availability payments made by the state. However, their returns are not guaranteed and P3 investors are at risk of sustaining significant losses. The potential benefits of P3s include providing public project sponsors with access to new sources of funding, accelerating the completion of needed projects, incentivizing cost efficiencies, and transferring risk to the private sector.
A number of states are also studying the possible use of road user charges based on vehicle-miles travelled to replace the motor fuel tax. This would be a much more complicated system compared to the motor fuel tax. There are also unknowns about how advances in vehicle automation technology will influence vehicle-miles travelled in the future. While it is a promising approach, road user charge rates could also flat line just like the motor fuel tax.

As new toll roads have come on line, considerable opposition to tolling has developed. In 2014, voters approved a ballot measure allowing lawmakers to redirect revenues from the so-called “Rainy Day Fund,” which is funded by oil and gas tax revenues, to that state DOT. The DOT is now the beneficiary of half of the $9 billion in annual revenues coming into the Rainy Day Fund. There was concerted outreach to the business community and the ballot measure passed by a margin of 80 percent. Then, in 2015, the legislature passed a bill redirecting up to $2.5 billion annually in existing sales tax revenue and an additional $400 million in vehicle taxes to transportation needs.

Another state has restructured its motor fuel tax to stabilize revenues and reduce volatility. The new tax bases 50 percent on a percentage of the purchase price and 50 percent on a per gallon amount. The state has a “fair share” capital program. If a facility operates below the state level-of-service, then funding for improvements is allocated based on the number of vehicles using the road. This approach has garnered broad support from the environmental and business communities. It took two years to lay the groundwork for the increase to the fuel tax, but it has enabled a bond program that provides funding for a suite of projects.

Another state passed funding legislation linking the state vehicle excise tax to the fuel efficiency of the vehicle fleet in the state and the consumer price index. This has raised an additional $850 million in transportation funding. The state has also rescinded a tax credit for electric vehicles and replaced it with a fee, and it has also introduced heavy-vehicle fees. Technology is evolving and is increasing fuel efficiency, but if there is an indexing approach that can compensate for lost revenues, then it should be used. The DOT documented this in a legislative report and gained approval for an indexed motor fuel tax increase without identifying a list of projects to be funded. If a state could do this, why can’t the federal government?

Another state has made hard decisions about asset management and condition assessments. The DOT has demonstrated that good roads cost less to maintain and after an eight-year campaign, it was successful in gaining legislative approval to increase the state motor fuel tax from 24.5 cents to 29 cents per gallon. They accomplished this without having a list of projects. One of the main arguments for making the increase was the need to maintain the condition of the state’s roads.

One state recently gained and indexed its fuel tax, but the indexing was subsequently rescinded. This situation has exacerbated the tension between funding for asset management and new projects. We make the case for raising new revenue by promising new things. There is also competition for funding between states and local regions that want to poach federal funding. More money is needed.

At the federal level, 25 percent of funding for transportation comes from the general fund. Is this sustainable, or should highway users pay for federal transportation funding moving forward?
What Keeps the CEO Awake at Night: Disaster Recovery and System Resiliency

There is never a good time for a disaster. There are planned and unplanned disasters. Planned disasters can be managed. However, one can never know when an unplanned disaster will occur. In some cases, you may have some level of warning and see it coming. Then there are also totally unforeseen disasters. The only way to prepare for these events is to have response and recovery operations ingrained in your agency’s culture.

The mission of DOTs is to build, operate, and maintain infrastructure. Our facilities are the economic lifelines of our states and when a disaster occurs, all eyes in the state are on the DOT CEO. There are many resources that can help one prepare for emergencies. There are four phases to emergency response: preparedness, response, recovery, and mitigation. As part of their emergency preparedness procedures, DOTs should maintain a list of risk areas by type and impact. Coordinate with local legislators and officials to identify areas at risk of flooding. Identify lifeline bridges located in seismic areas. Establish relationships with local partners, develop incident response plans, and make sure that all your partners understand their roles and responsibilities. The DOT needs to have good relationships with first responders and other partners. DOTs should practice their emergency response procedures together with their local partners and run through tabletop exercises.

During the response to a major disaster, the governor becomes the point person. The DOT’s maintenance and engineering teams will know how to respond and what to do when there is a threat to highways and bridges. Let your employees “do their thing.” DOTs shine in an emergency response environment. Communication is critical during an emergency response. The target audience includes travelers, communities, the media, and the DOT staff. Speak to what you know, what the agency is doing and plans to do next, but do not speculate about what might happen unless you know for sure. (Will there be more rain? Will the road be open in 24 hours? How much damage did the earthquake do?). Tell people what has occurred and what is being done about it. One can get into trouble by having speculative opinions. Also, recognize that your employees may also be affected by the disaster. Recognize them for their hard work and that of other emergency responders, and support their needs.

Returning to “normal” may take time. Partnerships are extremely important during recovery periods. Recognize that local agencies do not have the same type of resources as state DOTs and that local governments and transportation agencies will likely need the DOT’s help. Be preemptive in the wake of a disaster and anticipate future needs. Learn from the response: what worked and what did not. If you have a large-scale medical situation, how do you prioritize who has access to hospitals and other facilities?

Ask your maintenance team what they worry about on the state facilities. They are the closest to your facilities and understand the risks and vulnerabilities. Prepare a risk map to identify areas impacted by climate change and start adapting your infrastructure to withstand predictable weather events in the future. Start to talk about it and formulate a plan. You need the right people in your agency with the right mindset. No private operator is going to have the same level of commitment as the DOT.
During the winter of 2015, a northeastern state experienced three major blizzards in a two-week period. The state’s largest metropolitan area received 72 inches of snow and the temperature rose above the freezing point only on two days. When you have statewide storms of this magnitude and have every highway district working at full tilt for five weeks, there is no plan.

When you design response plans and practice those procedures you think more strategically. Responding to an actual disaster is different. The governor asked the DOT to prepare criteria for a travel ban. There was a travel ban following the first storm and it was very effective. The state DOT did some scenario exercises to explore travel bans and recognized that they were an effective form of mitigation. The state’s largest transit authority was particularly hard hit by the storms. The third rail on its commuter rail lines became coated in ice and the entire system was shut down. The state deployed minimum-security prisoners to dig out from the snow.

Local municipalities were unable to function and it was clear that resources were needed from beyond the state. The state set up a centralize communication channel for cities and towns to make requests for assistance. The DOT also needed to develop an understanding of what the National Guard is authorized to do and what it is not allowed to do. It is problematic whenever responders are asked to do things that are not part of their normal functions. The state used the snow event as an opportunity to obtain resources and make policy changes. Other recommendations included building a practice facility for the transit authority staff, providing mobility training for disabled people, and establishing emergency preparation centers. The Chief Resilience Office also created a face-to-face operations center where managers from the different responding agencies could be co-located.

Another state DOT conducts drills to prepare for responding to mudslides and earthquakes. Experience from earlier events demonstrated that the emergency response and communication staff knew what to do, but that was not case with management. Following the washout of a bridge on the interstate system, the DOT coordinated with a neighboring state. The technical aspects of the response were relatively quick. Most of the department’s time was spent keeping legislators and elected officials informed, all of whom were at the ready to be helpful. Hourly briefings are too time consuming, it is best to manage expectations and avoid over-promising. Another state DOT is preparing for the possibility of a large earthquake that would likely damage a coastal area. It has developed a continuity of operations plan. The DOT needs to have a fully functional headquarters in the event of a disaster, so it has plans to establish a backup location for an Emergency Operations Center.

After surviving a recent hurricane, all employees of one DOT have received Level 1 disaster response training at the agency’s command centers. They have four levels of disaster response training. The agency is asking for volunteers to take the additional training modules. It also offers incentives to towns to close bridges during repairs. Recovery efforts are complicated by abandoned vehicles. We need to recognize the benefit of travel bans under certain situations. Resilience is the key moving forward. If shutting the transportation system down means that it will be up and running sooner, then it is appropriate to do so.
Roundtable Discussion: Ask the Experts - Learn How Your Peers and Predecessors Have Dealt with Similar Issues

One CEO asked for tips on preparing a DOT’s annual budget well.

- Staff may provide you with detailed information on the budget, but the legislature does not deal with the details. Keep your budget presentation to the legislature relatively high-level. Look at the legislature’s agenda so you can be aware of the issues they are focused on. Learn what the budget chairperson is expecting. It can be helpful to meet with the budget chairperson to understand the issues the state is facing.

- You need to know the details of the budget. Legislators may drill down on small details. Have a good relationship with legislative budget staff.

- Trust your instincts and keep asking staff questions. In developing budgets, know how past levels of funding have performed. There is a story to tell leading to more money or different allocations. Watch the budget presentations from the previous two years to get a feel for the way it has unfolded in the recent past. Do not answer questions that you do not know the answer to. Be as brief as possible. The more you talk, the more questions you will have to answer.

- You will know what your sticking points are. For example, in one state, funding for pavement upkeep was based on lane miles and population levels and had nothing to do with the condition of the system. It required a big transition to be able to spend dollars where they were most needed.

One CEO asked for advice when transitioning to a new governor from the same party as his or her predecessor.

- One CEO noted that he had served under four different governors. He visited one of the newly elected governors in his home and told the governor that he would like to continue to serve as the DOT CEO, but that he would also be willing to leave the position if the governor wanted him to. He was invited to stay.

- One CEO shared that he had worked for both Democrat and Republican governors. For his first five years in office he was considered a Republican in a Democrat administration and then with the new governor as a Democrat in a Republican administration. He noted that the CEO needs to be loyal to his or her boss, but otherwise run the department as a professional. Stay away from partisan politics and provide sound advice to the governor.

- Decide when you want to leave. After a new governor was voted in, one CEO noted a responsibility to stay in office. However, the new governor wanted to distinguish himself from his predecessor, and after being pressed he made it known that he wanted to the CEO to step down. You cannot forecast how these transitions will unfold. One of the main motivations
for wanting to stay was out of loyalty to employees at the DOT.

- Another CEO stated that after seven and a half years in office, he will not work for a new governor. He believes that he has articulated a clear vision for the DOT, and left enough flexibility to be able to incorporate the governor's agenda.

- Another CEO stated that when a new governor came into office, he demonstrated to the new governor how his priorities could mesh with what the DOT was doing. The CEO needs to be careful on how far aligned they are with the governor politically.

- Some CEOs report to a transportation commission rather than the governor. The Commissioner of the Georgia DOT had to satisfy a 14-member State Transportation Board. All negotiating is done through the board.

- Do not overlook the importance of an incoming governor's transition team.

One CEO who has a background in policy rather than engineering asked for thoughts on how best to maneuver within the DOT.

- Recognize that you cannot do everything. You have to be able to say, “No.” Most CEOs have excellent deputies. When the CEO is away, the deputy runs the show. Even if you are an engineer, you need to recognize that is not your job any more. You run a department of 4,000 staff and a $2 billion budget. Most people who become a CEO do not necessarily understand how to build staff. The CEO needs to understand the process not the details and has to become comfortable in not knowing. The CEO needs to give decision-making authority to the experts. Let other people make decisions about asphalt. The CEO needs to work less and think more and cannot focus on day-to-day issues. The same is true for senior leadership. You risk losing the higher-level vision if you drill down too far. Have somebody talented to work on whatever the CEO knows the most about, and then recognize that the CEO will hamper that person if they are too focused on the details. The CEO should put their own team in place. The staff will trust the CEO and over time, they become more entrenched. The CEO should show confidence in their team. The CEO also needs to remember to take care of home first.

- DOT CEOs are treated differently; many people will tell the CEO that they are doing a great job, but the reality is that they do not really care. They care about their own agenda.

One CEO noted that some DOTs are inclined to measure processes but not outcomes. There is a need to give employees the flexibility to adjust their behavior to achieve outcome goals. How can we instill this kind of ethic in mid-tier staff? There is a need to go to the mission and then work backward.

- We need to start by determining what the goal is. When given a fixed budget, the CEO needs to be clear what can be done with that amount of money. Use the goal to fight for the resources that are needed. And
demonstrate the effect of a budget that does not meet the department's needs.

- Link performance management to what is important for customers. This has forced some DOTs to rethink their data-collection practices and develop measures that are based more on outcomes, such as a reduction in traffic fatalities. This will force staff to think about issues such as driver error. The CEO should engage with the entire department on issues like safety and involve others in how he or she is addressing this issue. California has adopted a goal of Vision Zero. The goal may be unattainable, but the state is also looking at the issue at the county-level and other smaller zones.

- If reducing fatalities is a DOT's most important goal, then it needs to think differently. You may need to reduce speeds. You need to think about how to break the wall down. Volvo has adopted Vision Zero as a goal. If the goal isn't zero, then what is it?

- One DOT made a video addressing safety and asked people about what the state target for fatalities should be for the state and their own families. Issues include addressing impaired driving and looking at locations where fatalities occur and then addressing safety issues at those locations.

- We have poor culture of safety in the United States. Why do speedometers go up to 160 miles per hour?

- There is a robust alumni group of former CEOs who are available to current CEOs. Former CEOs generally keep some distance so current staff can do their jobs and operate the way they want to. However, most are happy to share advice when asked.

- CEOs of other state agencies may be jealous of the DOT because they have access to more resources and funding. CEOs should look for opportunities to partner with other government offices.

- One DOT lends staff to other departments, such as its videographer and public affairs teams to organize events. Other commissioners know that they can ask for assistance. The DOT assists other organizations as well, and recently blew out a sprinkler system for a veterans' cemetery.

- Different policies align the DOT with different areas of government and provide the DOT with opportunities to coordinate with other departments.

- Another DOT has a “get it done” list of priorities that it shares with other public agencies to help facilitate coordination.

- One coordinates frequently with natural resource agencies.

The biggest construction project in a small state recently incurred a six-month delay and is now a year and a half behind schedule. How can the DOT motivate the contractor and demonstrate to other branches of the state government that it is doing everything it can to move the project forward? What are the risks of modifying the contract to switch from liquidated damages to incentive/disincentive payments?

- Most contracts give the sponsor the right to cancel the agreement if the...
contractor does not deliver then project within a specified timeframe.

- Most contracts go off schedule early. Hold monthly progress meetings on high-risk, high-priority projects. Write letters to the contractor; put things in writing. Get the bonding company involved early. Monitor to ensure that the project is properly staffed. Ride the contractor; make project engineers be part of the solution.

- With high-priority projects it is best to transfer schedule completion risk to the contractor by using design-build or Construction Manager/General Contractor procurements.

- Put every project through a risk analysis and select the procurement model accordingly.

- Renegotiate the contract and put in an incentive/disincentive clause and increase liquidated damages. You need to adjust the contract to the circumstances. Make sure the Federal Highway Administration Division Administrator is included in meetings with the contractor. Use this situation as a learning opportunity rather than a precedent.

- In one DOT, a partnering approach has benefitted the state’s larger design-build contracts. Do not let the contractor try to dump risk back on the DOT. Problem solve together.

The CEOs were asked to identify some lessons that they had learned during their tenure.

- Build partnerships. Find out who your friends are. When you are in a position where you have to step on toes, you need friends who will have your back. Engender broad-based partnerships and use them.

- The CEO is the layer between a robust organization and politics. There are people above the CEO making decisions based on optics, but the CEO makes decisions based on management principles. Internally, do not underestimate the impact and influence you have on the DOT as a CEO.

- Recognize that people will read things into what you say and the questions you ask.

- You need someone in your organization that you can trust one thousand percent. That person will tell you the truth and be someone to whom you can show your weaknesses.

- Do not assume that the governor’s staff is on the same page as the governor. Staff can think that they are little governors themselves. Build a relationship with the governor. Take the state plane and spend time with the governor.

- You need to take the lead in communicating with the other officers in the governor’s cabinet. These are generally the only people who are able to speak candidly with the governor.

- Learn to work with young staffers and build their trust. Have clarity and make sure you know where to draw the line. Know who the governor listens to.

- Be consistent and build relationships with a wide range of stakeholders. Do not neglect people.

- If you do not manage your schedule on a daily basis, then it will manage you. You need to set the standard on how you manage your day.
Partnering for Results: Building and Sustaining Relationships

CEOs cannot accomplish their work by themselves. They need to work with partners to be successful. DOTs have many partners. They include consultants and contractors who function as an extension of staff. The local business community is also an important partner, and the CEO should contact them and understand their needs. The transportation commission, local legislators, the governor’s staff, and the staffs of local congressional representatives are also natural partners for DOTs. The CEO needs to respect governmental processes.

The DOT has many partners at the local government level and at MPOs. Know who the governor trusts and maintain good relationships with these people—recognizing that many of them may be part of the governor’s transition teams. It is also important to develop partnerships with agencies within your state. Some state DOTs have formed natural resource committees with representation from state and federal resource agencies, giving the participants the opportunity to talk through issues and look for ways to help one another.

When working with federal agencies, it is important to recognize that they may not have staff located in your state. Travel to meet face-to-face with federal resource agencies. It is important to put a face on your agency. You are less likely to receive unexpected difficulties from resource agencies if they know who you are. It is also a good idea to visit with utility companies from time to time. Your partners are also potential advocates. Many will be willing to work with you, including the business community. One DOT worked with a coal mine company that had approached the department and asked for its input in developing a new approach to worker safety. These types of partnerships provide the opportunity to learn about things that one may not have anticipated.

Be a good partner and invest in your trustworthiness. Good communication is essential. Working face-to-face is more effective than using e-mail. Listen carefully. It is too easy to listen in the moment, but not stay in the moment. Stay on message and ask good questions. This is a fundamental function of being a good partner. Always do the right thing and do not burn bridges. Partnerships are based on common goals, so look at where you and your partners have commonalities. Partnerships are also strengthened if you encounter difficulties. Allowing issues to remain unresolved inhibits partnerships. Communication and building trust are the secret sauce when it comes to building and maintaining relationships. To build trust you must deliver. If you put construction barrels in the road, then there has to be construction activity underway.

While some CEOs reach their positions as a culmination of years of employment with their agencies, others are recruited from outside, bringing with them experience from other transportation agencies or other types of organizations. One of the workshop participants who had come to his agency from elsewhere reflected on the new CEO’s need to get to know the layers of people and relationships that they will encounter. At the beginning, everyone wants to meet the new CEO; many tend to think that the CEO makes all the decisions and see the new person as a figurehead who has not yet done anything. During the first year, this new CEO met with each of state legislators and worked hard to form partnerships with the DOT’s employees.
Now, several years later, this CEO maintains close contact with key legislators, meets with the governor’s staff every two weeks, knows the local news anchors, interacts with editorial boards of the state’s newspapers; and engages regularly with counterparts in adjacent states. Maintaining partnerships within the DOT and beyond does not require specific preparation, but simply regularity of contact and a consistent message.

If you are dealing with someone who is causing trouble, you may need to build a bridge. Always think about the right thing to do. After every election meet with each new legislator and give them a personal lesson about the DOT’s mission and priorities. Drill down to their district and go over all the projects there. They will appreciate your time and will be eager to have the information you share. Visit with legislators in their districts. It is different if the CEO goes to see them. Contact vocal opponents and try to build relationships and develop a better understanding of their concerns.

During his first summer in office, one CEO took a four-day bus trip and visited every region in the state together with senior DOT leaders. They met with local legislators and described projects in their regions. He continues to meet with MPOs and regional planning organizations every year. CEOs cannot run the department from the seventh floor; they need to be an external representative. It is important to be your authentic self. If you are not, people can tell and things fall flat immediately. You need to embrace the plurality; have a backbone, but be authentic.

One DOT has funding partnerships with MPOs and regional transportation planning agencies. These organizations do not just want to be informed about decisions; they want to be at the table and part of the decision-making process. This is a different dynamic than with a contractor. Partners are not monolithic. Some make a living off controversy and there are some who make money based on the department’s dysfunction. Don’t give them another stick to beat you with.

In some cases, it is easier for the CEO to gain credibility externally. Internally it is more difficult to gain people’s trust. Bring internal staff in as part of the decision-making team and try to make decisions at the lowest level possible. Move the district engineers or make them part of executive boards. This is helpful in creating shared ownership of issues. Ask district engineers what they want you to know. Let them see that you understand their needs.

Look for an opportunity to have their back. One DOT CEO has traveled to each district office to teach a class together with the district administrator to demonstrate how the district’s work plan aligns with the agency’s goals. This provides an opportunity to show the team how they help meet important agency goals.

Working with all communities—including disadvantaged business enterprises and with people of all races—is essential. This is not window dressing. DOTs need to ensure that African-American staff have management roles. Inclusion is a developmental skill set. The DOT’s workforce needs to look like the people it serves. Cultural competence is an important issue. Inclusion is not nice to have; it is essential.

One of the good things about being a CEO is that you can pursue passions, such as inclusion. Inclusion helps people be successful. DOTs need to see more diversity in their contractors. The issue requires constant diligence.

One CEO attends monthly small and disadvantaged business council meetings. DOTs need to lift all groups. The Associated General Contractors also attends this meeting; representation at the meetings is quite diverse. It is also useful to engage larger contractors. They tend to be very transparent.
Workshop Synthesis

The CEOs agreed that the time together was well spent, not only because “new” CEOs gained helpful pointers from their more-experienced peers, but all found value in reflecting on their experience and learning from the particularities of others’ experiences. The newer CEOs were engaged in the workshop sessions and asked questions. All the CEOs agreed that the primary benefits of the workshop involved open discussion and exchange of ideas and advice with their peers. Having the opportunity for personal interaction and sharing real-world perspective was extremely valuable. The workshop enabled the CEOs to build contacts and friendships with their peers. A number of the CEOs found the open roundtable discussion particularly useful, since it allowed spontaneous dialogue on subjects of their own choice. It was suggested that at future workshops one or two technical sessions could be replaced by additional roundtable discussions. Most of the participants felt that the workshop provided a valuable opportunity to learn from each other and share experiences and feedback from other CEOs working in similar environments.
Potential Research Topics for Further Consideration

At several times during the CEO Peer Exchange Workshop, participants were reminded that the event was planned and funded under NCHRP Project 20-24 and that the NCHRP as a whole is a joint investment by the DOTs intended to assist the agencies to improve their practices and service to their stakeholders.

During the closing session, participants were invited to suggest topics addressing matters of particular concern to CEOs and other top agency executives that might be well suited for research specifically under NCHRP Project 20-24. The CEOs identified the following researchable topics:

- Current performance management efforts do not measure how efficiently DOTs deliver their work.
- Different governors talk about different ways to measure efficiency. The measures we have are great for communicating what DOTs do, but not for improving DOTs' business processes.
- DOTs talk about goals, but they do not have the metrics to connect them. We need to emulate the ways that other sectors such as public health, economics, and the environment measure work outcomes in order to sell the merits of our transportation programs.
- With controversial environmental impact statements, if the sponsoring agency does not have an autonomous vehicle alternative, it may be found liable to legal action. Agencies should formulate strategies for addressing this issue. Regions such as Portland and Atlanta are studying autonomous vehicles.
- DOTs need to develop capacity in all areas of their operation to foster and integrate intelligent transportation systems (ITS) and all other functions, including autonomous and connected vehicles.
- DOTs need to address succession planning in their workforce development programs. They need to consider how future trends and developments will shape DOTs' roles. In Washington state, 40 percent of the Ferry Division is eligible for retirement and the DOT's employees are compensated 30 to 40 percent below those in other branches of government.