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TRB TRANSPORTATION RESEARCH BOARD

TRB Webinar: Lessons of Agency Resilience During Periods of Disruption

March 20th, 2024

2:00 – 3:30 PM



PDH Certification Information

1.5 Professional Development Hours (PDH) – see follow-up email

You must attend the entire webinar.

Questions? Contact Andie Pitchford at TRBwebinar@nas.edu

The Transportation Research Board has met the standards and requirements of the Registered Continuing Education Program. Credit earned on completion of this program will be reported to RCEP at RCEP.net. A certificate of completion will be issued to each participant. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the RCEP.



AICP Credit Information

1.5 American Institute of Certified Planners Certification
Maintenance Credits

You must attend the entire webinar

Log into the American Planning Association website to claim your
credits

Contact AICP, not TRB, with questions

Purpose Statement

This webinar will provide useful strategies for agencies to prepare and respond to future disruptions.

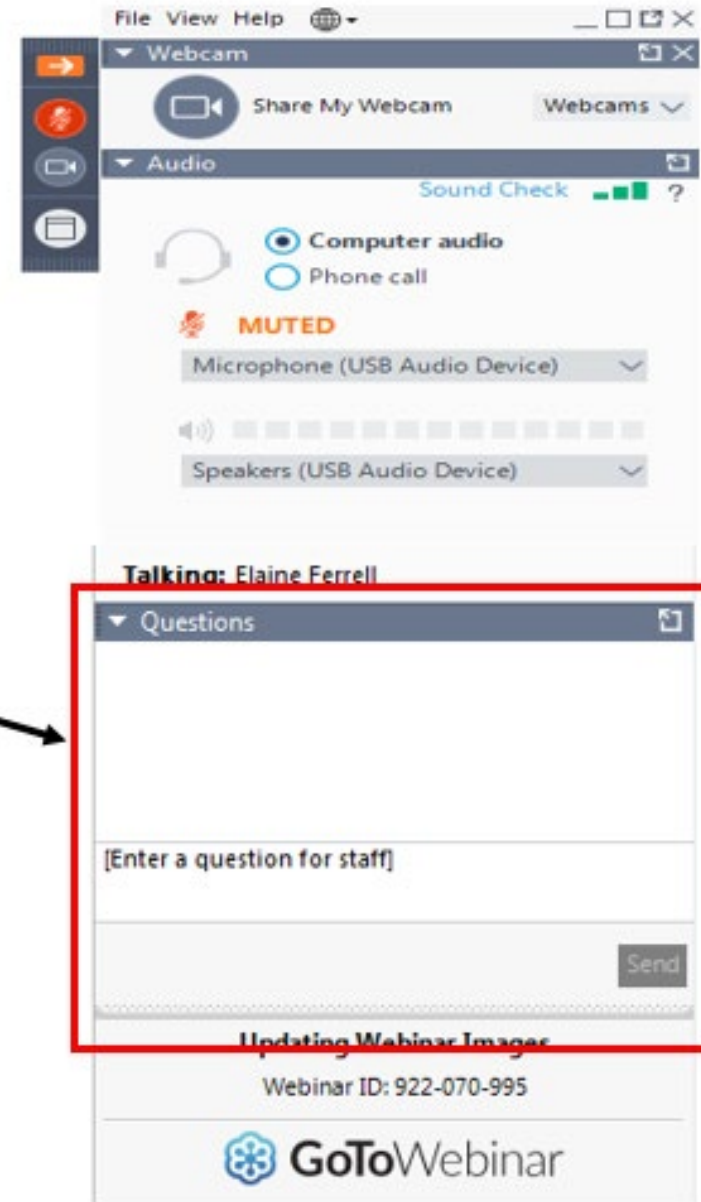
Learning Objectives

At the end of this webinar, you will be able to:

- (1) Identify lessons learned by state transportation agencies during the pandemic that DOTs can use to bolster current and future resiliency
- (2) Demonstrate innovative and beneficial practices adopted by agencies to maintain productivity and system performance and promote sustainability
- (3) Implement strategies and methods to help prepare for future disruptions

Questions and Answers

- Please type your questions into your webinar control panel
- We will read your questions out loud, and answer as many as time allows



Today's presenters



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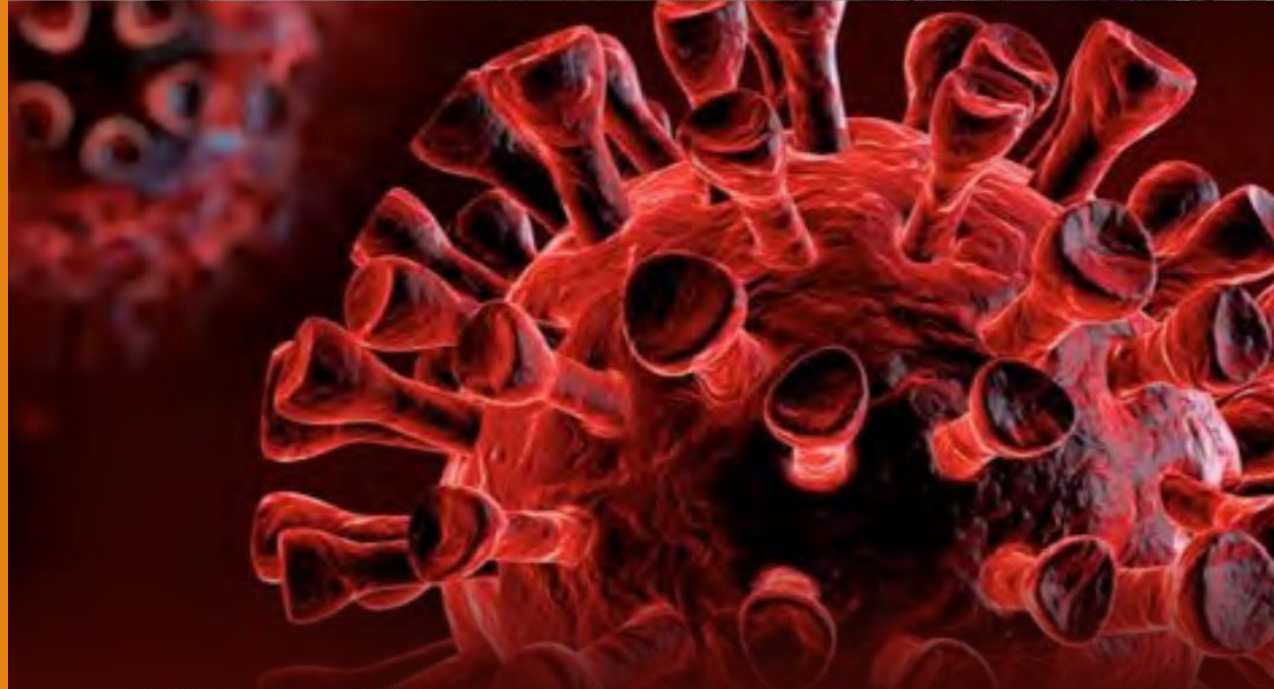
Lessons of Agency Resilience During Periods of Disruption

DOMESTIC SCAN 21-01

FINDINGS, CONCLUSIONS
AND RECOMMENDATIONS

TRB WEBINAR

MARCH 20, 2024



SCAN TEAM REPORT

NCHRP Project 20-68, Scan 21-01

Lessons of Agency Resilience During Periods of Disruption

Supported by the
National Cooperative Highway Research Program

Scan Summary

Through the COVID-19 pandemic experience, transportation agencies have learned valuable lessons, and many have found innovative ways to maintain their operations and productivity.

Experiences gained in dealing with the pandemic disruptions may be useful to other agencies in the preparing for and responding to future disruptions stemming from public health concerns or other sources.

Scan Objective: Document agency experiences and the lessons learned that can ensure and facilitate agency resilience to maintain efficiency and effectiveness during disruption and post-event recovery, as well as agency preparedness for future disruptions.

The scan team will seek to identify the most innovative and beneficial elements of practice adopted by state transportation agencies to maintain their productivity and system performance, particularly as those activities have enhanced agency resilience and are likely to strengthen agencies' adaptability if confronted by future disruptions.

Scan Team

Amanda Holland– Team Chair
Former Acting Commissioner
Alaska Department of Administration

Karen A. Bobo
Director, Center for Transportation Workforce Development
Federal Highway Administration

Lee Wilkinson
Director, Administrative Services Division
Iowa DOT

Jeff Pelton
Director of Human Resources
Washington State DOT

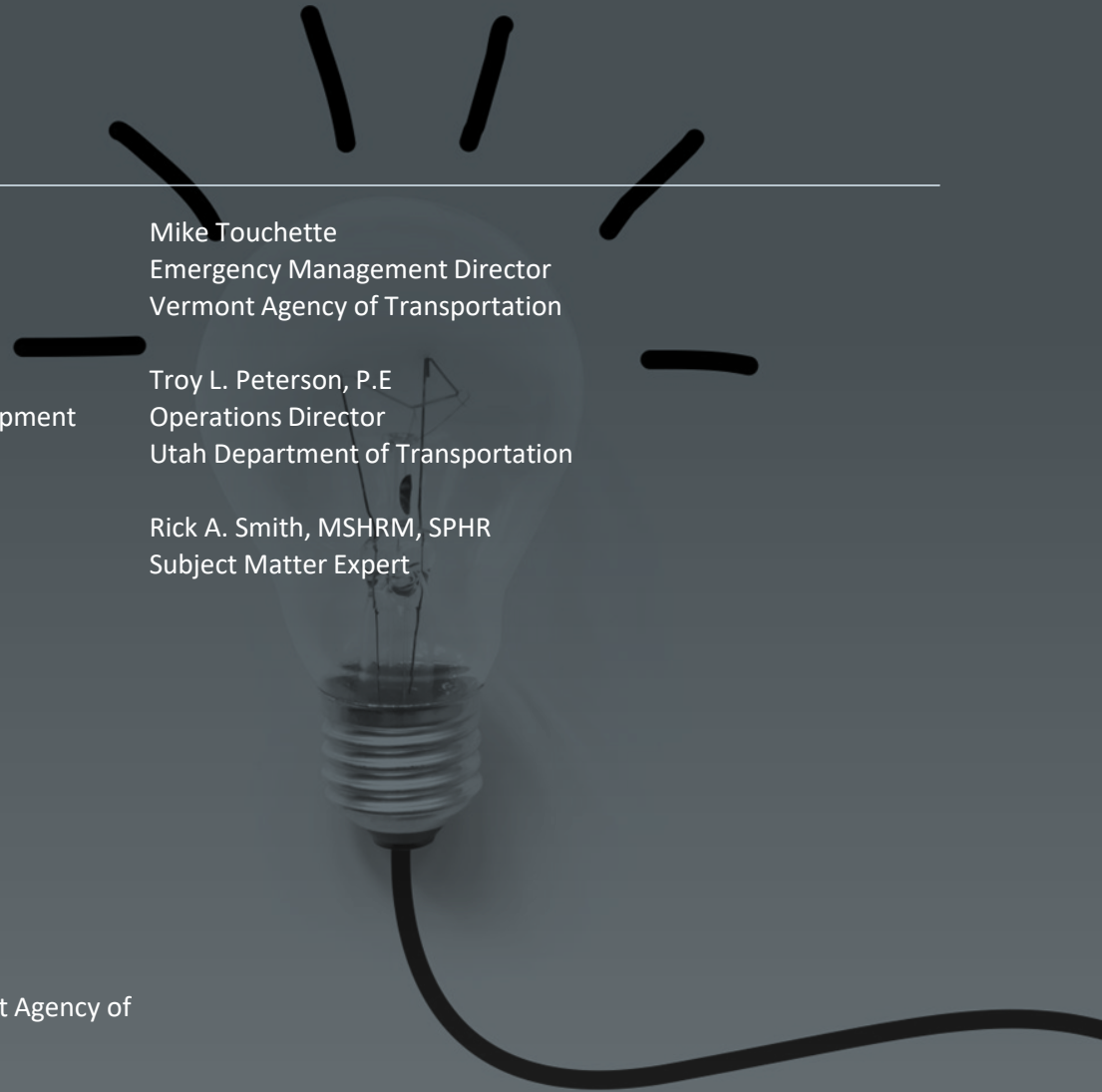
Brian Robinson
Deputy Human Resources Director
Georgia DOT

Jayna Morse
Division Director, Finance and Administration Vermont Agency of
Transportation

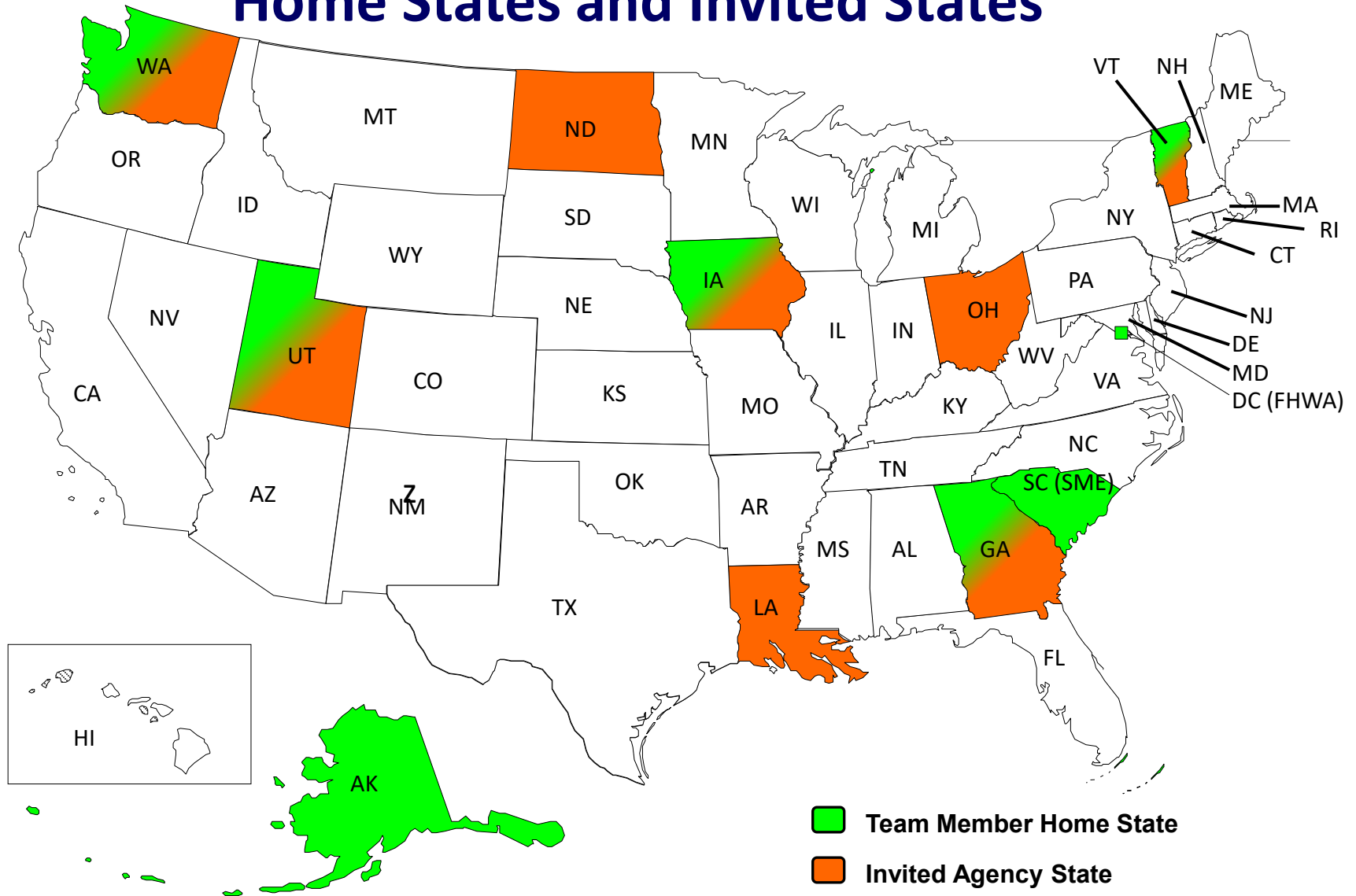
Mike Touchette
Emergency Management Director
Vermont Agency of Transportation

Troy L. Peterson, P.E
Operations Director
Utah Department of Transportation

Rick A. Smith, MSHRM, SPHR
Subject Matter Expert



Domestic scan 21-01 Team Members' Home States and Invited States



Development of Findings and Conclusions

The Findings and Conclusions are organized into ten categories that reflect characteristics of a resilient transportation agency:

- General,
- Leadership,
- Lessons Learned from the COVID-19 Pandemic
- Communications,
- Work environment,
- Learning and development,
- Organizational culture,
- Workforce,
- Technology/tools/systems, and
- Safety.

Lessons of Agency Resilience During Periods of Disruption

Sample of Findings

Conclusions

Recommendations

Recommendations

Develop dynamic tool that could grow – a way to share our lessons learned from disruptions – accessible to all the state DOTs

- Find a way to get together one year later and add to the conversation – add on
- Some way for this to continue developing after scan – ongoing follow-up and updates
- NCHRP 20-44 – implementation of NCHRP research – possibility of scan team developing a proposal

Recommendations

AASHTO identify committee with oversight over resiliency

- Current committee = Transportation Systems Security and Resilience? (Focuses on infrastructure resilience)
- Perhaps more closely aligned to AAMC, HR, and Planning committees
- Clarify resilience definition – change wording to better represent the Scan’s focus
- Keep resiliency alive and active
- Could become an emerging focus for AASHTO

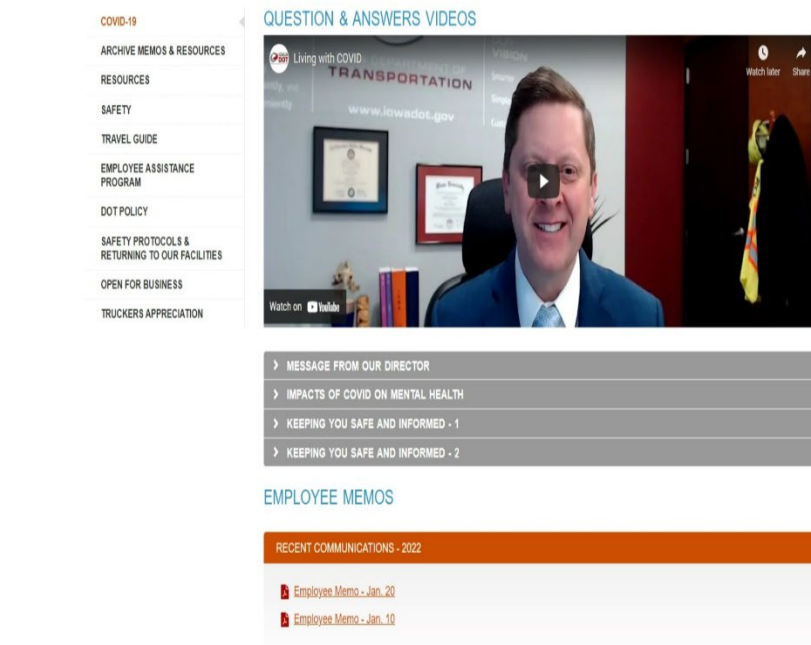
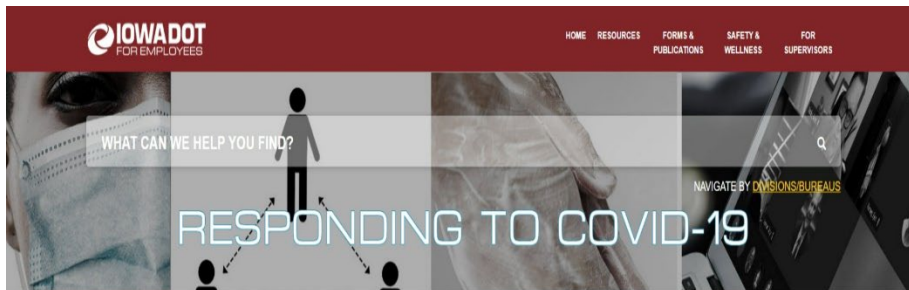
Recommendations

Create Center of Excellence for
workforce and organizational
resiliency



AGENCY SPOTLIGHT

IOWA DOT



Communication

- Created an internal COVID website for employee with all COVID information and resources
- Implemented daily emergency operations briefings initially
- Transitioned to weekly as we got into our battle rhythm
- Shared information regularly with employees regularly and openly
 - Updates from the Director
 - Weekly updates
 - Town hall meetings
- Created FAQ's for employees
- Surveyed employees to understand their perspectives and concerns

Stabilize, Recover, and Grow



STABILIZE, RECOVER AND GROW



SUMMARY OF FEEDBACK AND RECOMMENDATIONS FROM OUR PANDEMIC RESPONSE

OCTOBER 2020

- It was necessary to reflect upon where we've been, and the lessons learned as we've responded to the pandemic
- What changes were made that helped us continue to operate successfully in the midst of a pandemic?
- What changes were made or additional changes that should be made as we transition to a normal pace of business?
- What lessons were learned and how should this information be used to help us be even more resilient and successful in the future?

Iowa DOT

Shawn Havick Memorial Response Program

- *Shawn was a Highway Maintenance Supervisor*
- *Passed away from Cancer*
- *Shared experiences with his wife prior to his death*
- *Family wanted to see a program created to help employees cope with the challenges they face*
- *Made a significant donation to the Iowa DOT to make this happen*





Iowa DOT

- Three-hour training course from HeartMath Institute based on Blue Courage training for law enforcement
 - Provided to all Maintenance, Construction, and Materials field staff
 - All other employees are invited to go if they wish
- Provide individual critical incident debriefing with a licensed Psychologist at the request of the employee

The Resilience
Advantage™

Skills for Personal and
Professional Effectiveness

Domains of Resilience

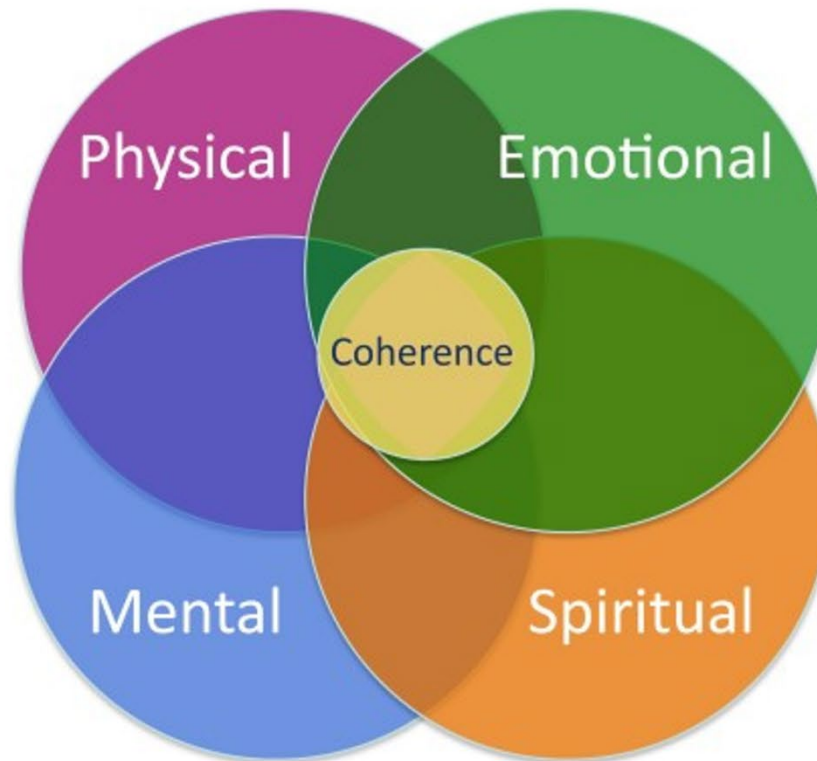
Resilience from *Resilience Advantage*®

Physical flexibility

- Endurance
- Strength

Mental flexibility

- Attention span
- Ability to focus
- Incorporate multiple points of view



Emotional flexibility

- Positive outlook
- Self-regulation

Spiritual flexibility

- Commitment to values
- Tolerance of others' values and beliefs

Sample of Initial Findings

General

The pandemic experience accelerated change and exacerbated the need for DOTs to address future of work challenges now. And as DOTs move forward, it is imperative for leaders to learn from the pandemic experience and continue to adapt their work, workforce, and workplace to address new and old problems.

Four critical considerations when responding to a disruption – a) Leadership resilience in the form of communicating critical information and supporting employee morale, b) Workforce engagement – supporting employee engagement, c) Telework enablement and infrastructure, d) Constituent impact.

There are three workplace models- the expanded traditional model equivalent to 20%-40% virtual, the employer choice job-based hybrid equivalent to 40%-60% virtual, and the workforce choice hybrid equivalent to 60%-80% virtual. The models address three attributes: 1) Work, 2) Workforce, and 3) Workplace.

Sample of Initial Findings

Leadership

During the Pandemic, leadership rapidly adjusted the workplace and work schedules to adapt to the quickly changing work environment.

Leaders and managers throughout the organization play an active role in communication efforts and reducing employee fears during a disruption.

Leaders need to work with and coordinate disruption responses with outside influencers external to a department of transportation such as the Office of Governor, Division of Administration, Office of Public Health, and the CDC.

Sample of Initial Findings

Lessons Learned

Have manual processes in place when electronic processes are unavailable.

Be prepared for short duration disruptions and long duration disruptions.

Use all available mediums for delivering communications including town halls, weekly meetings, TVs, email, leadership visits, and mass email.

Sample of Initial Findings

Communication

The creation of an internal COVID-19 website to communicate current COVID-19 information and availability of resources was instrumental in providing employees with the latest information.

A COVID-19 email address was created to distribute and receive information from employees.

Continue to share information and updates with employees as circumstances change.

Sample of Initial Findings

Work Environment

Remote working was an immediate response to the Pandemic.

DOTs moved rapidly to modernize Information Technology systems & Infrastructure to enable remote work operations.

DOTs employ three work arrangements: 1) In-office, 2) Hybrid, 3) Telework

Sample of Initial Findings

Learning and Development

Departments of transportation (DOTs) continued to offer training throughout the Pandemic.

During the two-year period covering the Pandemic, web-based training increased dramatically.

In-person class sizes reduced to ensure safety.

Sample of Initial Findings

Organizational Culture

A culture of innovation enhances a department's response to disruptions.

Learning the Department's culture was a challenge for employees hired during the pandemic.

Trust and the ability to be honest are two critically important elements of organizational culture and the importance of these are only heightened during disruptions.

Sample of Initial Findings

Workforce Demonstration of concern for the well-being of employees by conducting periodic welfare checks via phone calls, meetings, and virtual coffee/water cooler talks.

Employee wellbeing is strongly related to resilience, with most individuals reporting both high wellbeing and high resilience, or, conversely, low wellbeing alongside low resilience.

Response personnel are trained in their roles as responders. Plans are developed and continually revised. Response personnel exercise their response to situations.

Sample of Initial Findings

Technology/ Tools/ Systems

DOTs contained and mitigated the spread of the COVID-19 virus by monitoring interstate travel data collection systems already in use to collect and analyze data traffic.

Development of a tool to better understand employee circumstances and leverage employee skills.

DOTs responded to the Pandemic using meeting platforms, hotspots, satellite phones, Radio Amateur Civil Emergency Services and social media outlets.

Sample of Initial Findings

Safety

Psychological safety addressed through employee assistance program, Webinars and peer support groups.

Steps taken to modify workplace to ensure worker safety to include eliminating in-person activities including meetings, training, and gatherings of any kind.

Develop Internal communication plan to inform employees about changing conditions, reopening, etc.



AGENCY SPOTLIGHT

GEORGIA DOT

GA Executive Branch State Agencies Workforce Trends for FY21

- Over the last 10 years, Georgia's population has increased by 14.4%, while size of State government has decreased by 15.2%
- Overall FY21 turnover across all agencies was 23%
- 6th consecutive year where separations outpaced new hires
- Almost ¼ of all new hires left within their first year
- Newest generations have high turnover rates
 - Millennials (1981-1996) – 25.7%
 - Gen Z (1997-2012) – 76.4%
- Average employee retired with 21.6 years of service – a 6.6% year over year decrease
 - Retirement eligibility achieved through combination of age and service
- 74% of State agencies have moved or plan to move to a hybrid/telework arrangement

} Accounted for 67% of all hires

Source: State of Georgia TeamWorks HCM System Fiscal Year End 2021 Workforce Report

Potential Implications of Trends on Resiliency

Potential negatives

- Fewer employees means less staff available to respond in event of disruption
- Newer staff have less experience in emergency response
- Managers must balance daily operations with training staff for emergency operations
- Potential burnout as same employees involved with every disruption

Potential positives

- Better technology allows for better response (weather alerts, GPS tracking, salt barn monitoring, etc.)
- Virtual/hybrid training can get information out to more people quickly
- Remote workforce can continue working in event of disruption and can respond from any location
- Applying lessons learned from previous disruptions to improve emergency operations

Our Strategic Approach

Address workforce challenges by:

- Engaging in strategic workforce planning
- Addressing recruitment and retention challenges
- Implementing innovative enhancements to policies and hiring/onboarding processes
- ***Focusing on talent development***

Talent Development Start/Stop/Continue

Start

- ***Virtual leadership***
- ***Virtual soft skill trainings***
- Reduced class size
- Increased training opportunities
- Added new content
- ***Virtual NEO***
- ***Telehub***

Stop

- In person trainings where virtual is an option
- Old telework policy trainings
- Large class sizes

Continue

- Offering trainings needed for certifications
- NEO
- Bootcamps
- Leadership trainings
- Supporting the Department's mission and vision
- GDOT Connect

I-85 Rebuild as a Case Study on Resiliency

- Collapse of two spans NB and significant structural damage SB two spans from arson fire
- I-85 major North/South route inside of 285 (beltway) -240,000 VPD
- 2 track approach
 - Traffic Management
 - Highway Reconstruction
- Communication to employees and general public was critical component
- Applied many lessons learned from other emergency response efforts
- Initially estimated to take 10 weeks, actual completion time = 6 weeks
- “Be Ready, Be Actionable, Be Communicative”

Conclusions

General It is imperative to have redundancies in a system.

Keep risk as a part of the ongoing conversation, not just once a year.

Emergency planning is a journey not a destination, always need to be doing it.

Conclusions

Leadership The well-being of workers is a key focus with increased flexibility in schedules to accommodate needs of employees working from home.

Stepped up communications including an increase in the frequency of communication between leadership and the work force.

Continuous assessment of changing conditions is critical to recovery.

Conclusions

Lessons Learned

Lessons learned from previous disruptions can be used on the current disruption.

Have a single point of contact to ensure that there was consistent application of practices, safety measures, etc.

Having a central email address or building redundancy into your response or point of contact is effective.

Conclusions

Communications

Need multiple tools to reach all stakeholders, “No such thing as over communicating in an emergency”.

Create a central repository for disruption related information.

Use employee engagement polls or pulse checks with employees to ensure they are getting what they need.

Conclusions

Work Environment

Teleworking (hybrid, remote) is an effective tool to use during a disruption.

Make planned changes before the disruption occurs when possible.

Employees need the tools (training, equipment) to remain productive and to be successful in teleworking.

Conclusions

Learning and Development

For employees to remain resilient, DOTs need to pay attention to employees as persons.

Need resilience training at the leadership, team, and individual levels.

Having a central repository for training resources is an effective approach to delivery during a disruption.

Conclusions

Organizational Culture

A workforce open to change, which is transparent, collaborative, innovative, safe, and empathetic characterizes a resilient culture.

Culture plays a key role in the types of decisions made in an organization.

The culture needs to reflect an agency's core values.

Conclusions

Workforce Focus on the well-being of the employee - work and family.

Workforce decisions can either enhance or inhibit the ability to respond to disruptions.

DOTs should be looking for future skills needs in addition to skills traditionally sought.

Conclusions

Technology/
Tools/
Systems

Tools and systems need to support the type of decision-making model used.

Planning tools like the Continuity of Operations Plan need to be current and up to date.

In an emergency, DOTs need to know the availability of resources including equipment, technology, and employees.

Conclusions

Safety

The proper safety equipment needs to be available to all employees.

DOTs need to be looking for safety equipment that will enhance the welfare of their employees.

Internal communication plan needed to inform employees about changing conditions.



AGENCY SPOTLIGHT

VERMONT AOT

Agency Spotlight

Activated Transportation Incident Command Center to support statewide response efforts & organize internal operations in a disrupted environment.

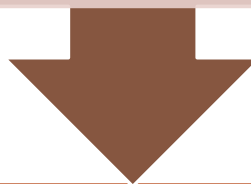
Employee Safety Plan

Inventory Management System

Skills Matrix

Contractor engagement

Adapted trainings



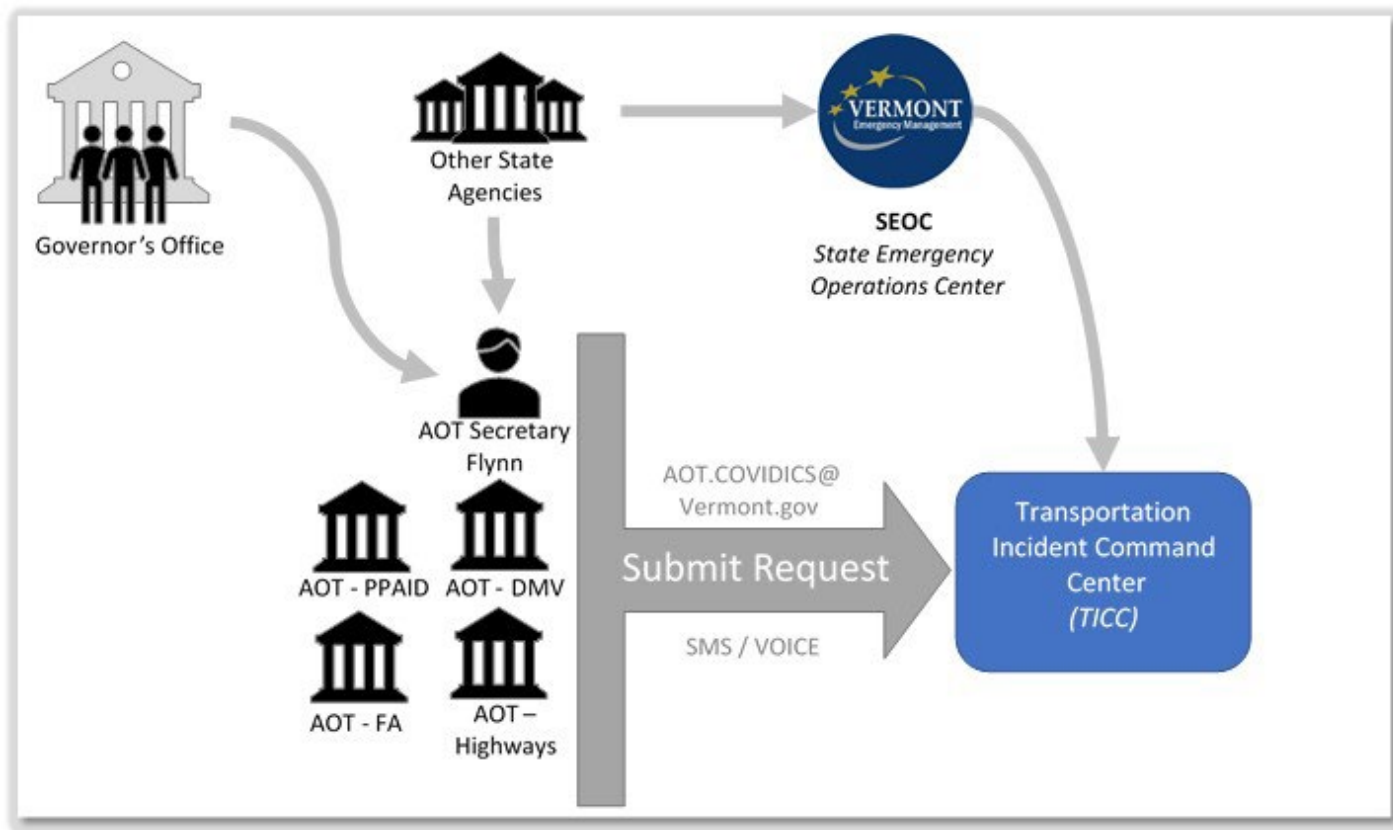
Strategies:

Operate ICS System

Mitigate Employee Absence and Sustain Mission Essential Functions

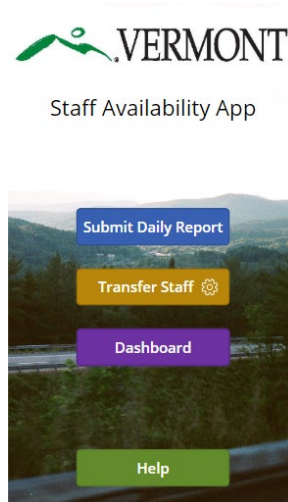
Assist State-Level Response Operations, Containment & Mitigation Strategies

Operate the ICS System: Basic Schematic

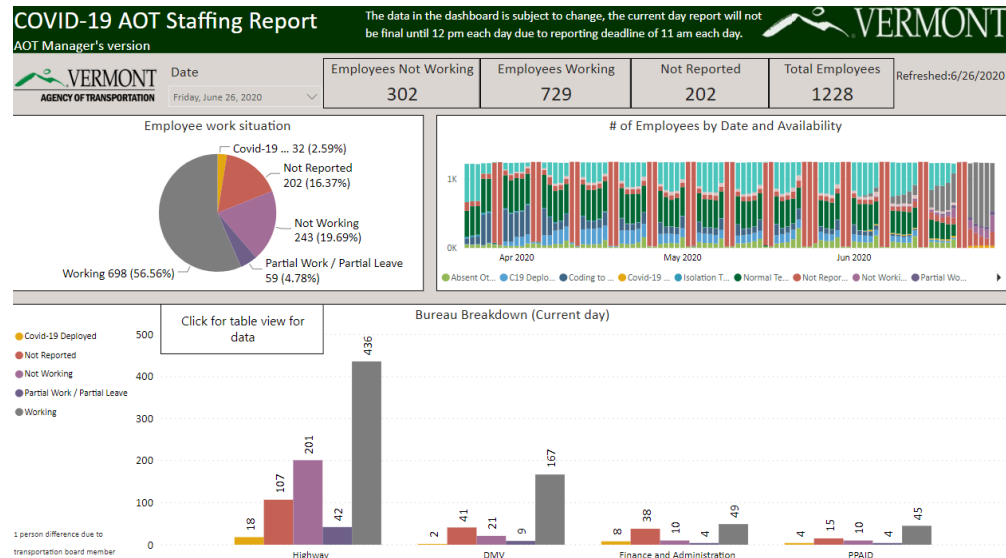


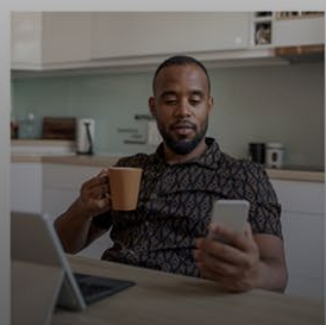
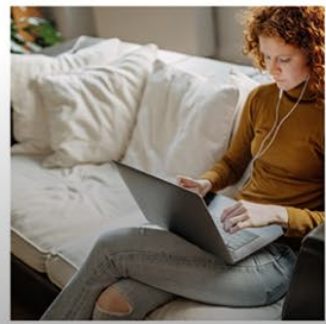
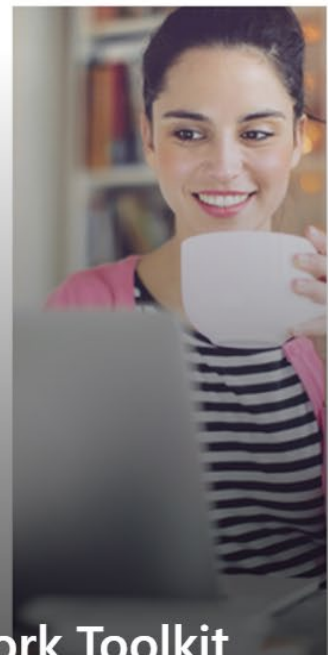
Mitigate Employee Absence & Maintain Mission Essential Functions

Vermont AOT



- Transitioned ~500 employees to telework within 72 hours
- Facilitated distribution of over 500 mobile devices to increase employee productivity
- Developed tools using Power BI and Power Automate to understand employee circumstances and leverage their skills





Telework Toolkit



Telework Software Tools Tips and Training



Vermont Department of Human Resources

Welcome to the Telework Vermont site for State of Vermont employees. The State of Vermont Human Resources Department, in collaboration with multiple State agencies, created this SharePoint Site to provide easy access to information on the telework policy, training and remote resource tools for both employees and supervisors.

DHR will continue to update this site with additional information.

What is Telework?

Telework is an arrangement that gives employee an approved alternative, generally the employee's home, to work at a state assigned workspace. All telework agreements must be approved by the appointing authority.

Key Missions

COMMUNITY POINTS OF DISTRIBUTION

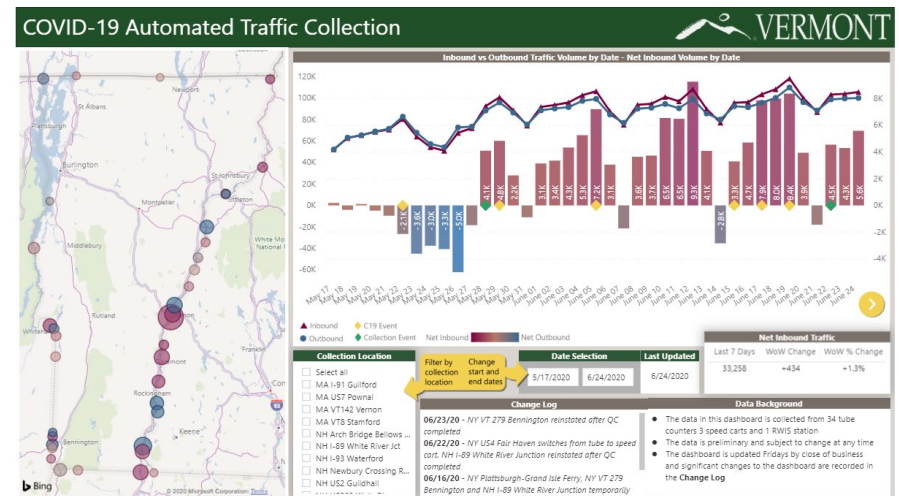


The Times Argus
May 15

Massive turnout today for a distribution of food at the EF Knapp Airport in Berlin. Photo by Jeb Wallace-Brodeur



TRAFFIC MONITORING



**Further information on this scan and the
NCHRP 20-68 “U.S. Domestic Scan Program”**

is available at:

<http://144.171.11.40/cmsfeed/TRBNetProjectDisplay.asp?ProjectID=1570>

Or

<http://www.domesticscan.org/>

Questions?



Today's presenters



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Upcoming events for you

March 25, 2024

TRB Webinar: Respectful Response to People Experiencing Homelessness in Transit

June 24-26, 2024

TRB's 4th International Conference on Access Management

[https://www.nationalacademies.org/trb/
events](https://www.nationalacademies.org/trb/events)

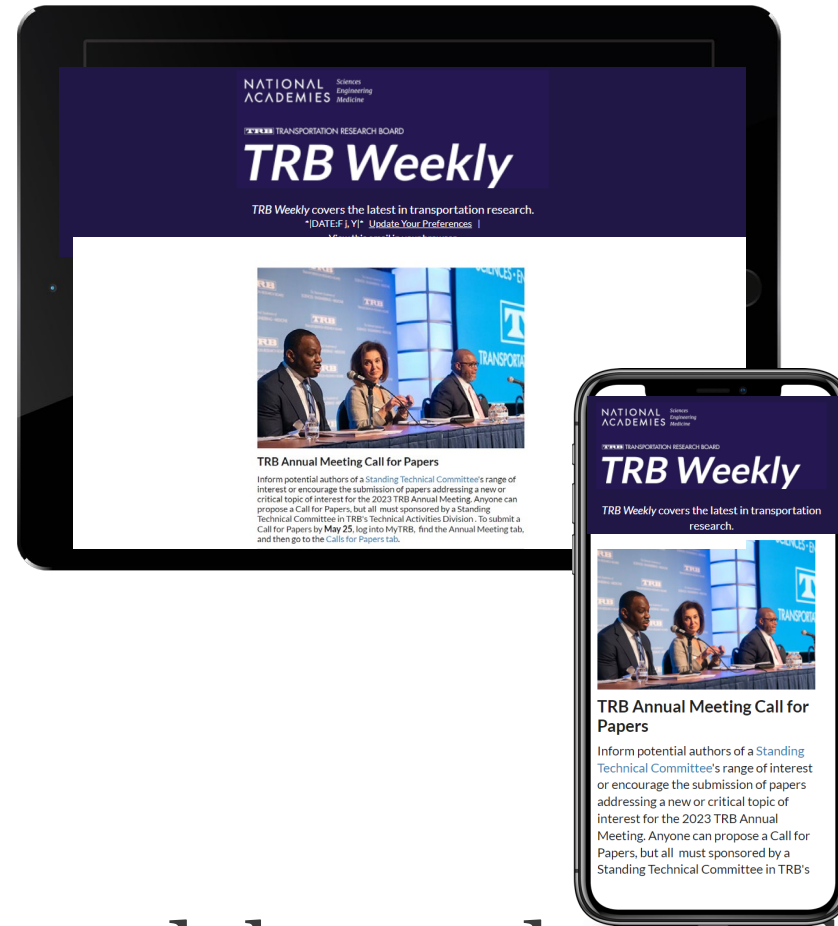


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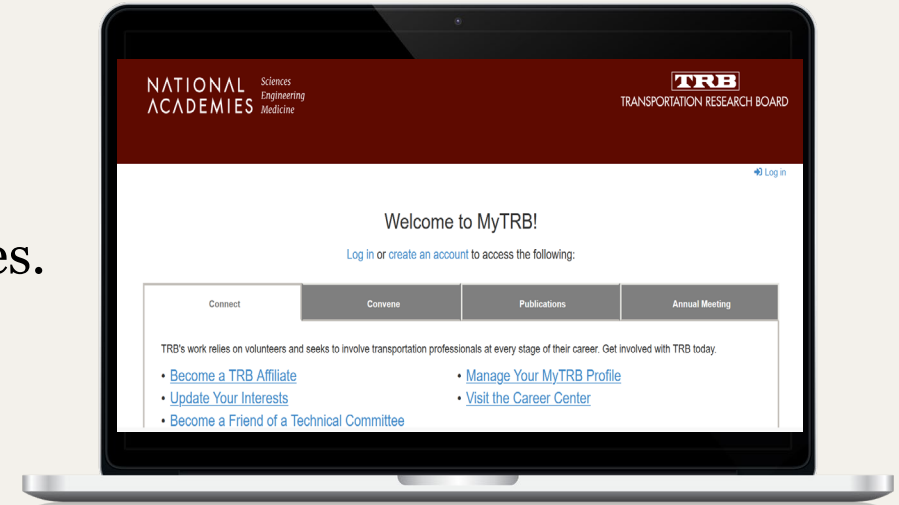


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