Florida and Louisiana
2021 Peer Exchange

Final Report

FLORIDA - LOUISIANA PEER EXCHANGE
July 20 and 21, 2021

Virtual Zoom Meeting

PEER EXCHANGE AT-A-GLANCE: THE EFFECTS OF COVID-19 ON RESEARCH AND TECHNOLOGY TRANSFER PROCESS

Host Agency: Florida Department of Transportation and Louisiana Department of Transportation and Development

Guest Agencies: FHWA State Offices (Louisiana and Florida), Turner Fairbanks Highway Research Center, National Academies of Sciences (NCHRP), Applied Pavement Technology, Inc., University of Florida, University of Louisiana – Lafayette, Michigan Department of Transportation, South Carolina Department of Transportation, Georgia Department of Transportation

Peer Exchange Need/Purpose/Goals

The objectives of this peer exchange were to study the effects of COVID-19 on research delivery, technology transfer, and research operations.

Top Findings and Takeaways (pg. 7-8)

- Explore how to leverage virtual technology for workforce development and student involvement
- Explore blended approaches to research with conduct and inclusion of stakeholders
- Revisit outdated policies
- Revisit and update the Manual of Research Procedures
- Advocate for a less stringent telework policy
- Virtual meetings should not totally replace in-person meetings
- Mental and physical health of employees is important
- Electronic submissions in the research process are welcome

INTRODUCTION

Federal regulations (23 CFR 420 Subpart B) require each State Department of Transportation (DOT) to facilitate peer exchanges of its Research, Development, and Technology Transfer ($RD\&T^2$) Program on a periodic basis. The Federal Highway Administration (FHWA) interprets these peer meetings to be exchanges of information regarding the various practices used by states to manage their $RD\&T^2$ programs. The intent is to enhance research programs through a sharing of ideas. The peer exchange teams are generally composed of state research managers and FHWA, university, and industry personnel.

Louisiana and Florida collaboratively hosted a peer exchange on July 20 and 21, 2021, in a virtual Zoom meeting. The focus of the exchange was "The Effects of COVID-19 on Research and Technology Transfer Process." The objectives of this peer exchange were to study the effects of COVID-19 on research delivery, technology transfer, and research operations.

The agenda can be found in Appendix A. Peer exchange members from other state DOTs were specifically invited to attend because of their knowledge and expertise, or desire to learn more in this specialized topic.

This report highlights the key observations and opportunities that were developed from information presented and discussions held during the peer exchange sessions.

PEER EXCHANGE TEAM

The authors wish to thank all the participants below for their participation in this peer exchange. Without their involvement in creating and giving presentations, taking notes, or actively participating in the discussions, the peer exchange would not have been the success it was.

J. Darryll Dockstader	Florida Department of Transportation (FDOT)
Jason Tuck	Florida Department of Transportation (FDOT)
Jennifer Clark	Florida Department of Transportation (FDOT)
Amanda Ulmer	Florida Department of Transportation (FDOT)
Howard Moseley	Florida Department of Transportation (FDOT)
Christina Freeman	Florida Department of Transportation (FDOT)
Dr. Tyson Rupnow	Louisiana Transportation Research Center (LTRC)
Terry Swygert	South Carolina Department of Transportation (SCDOT)
Supriya Kamatkar	Georgia Department of Transportation (GDOT)
Carol Aldrich	Michigan Department of Transportation (MDOT)
Camille Crichton-Sumners	National Cooperative Highway Research Program
Jill Stark	Turner Fairbanks Highway Research Center
Dr. Kumer Das	University of Louisiana-Lafayette
Dr. Gary Consolazio	University of Florida
Kurt Smith	Applied Pavement Technology, Inc.
Laura Phillips	LA Federal Highway Administration (FHWA)
Mary Stringfellow	LA Federal Highway Administration (FHWA)
Teresa Parker	FL Federal Highway Administration (FHWA)

PEER EXCHANGE FORMAT

The peer exchange was conducted in an informal setting with participation encouraged of all team members and invited guests. Presentations were given by invited guests and followed by informal group discussion and question and answers sessions. At the end of each day, all State DOT participants identified their key takeaways.

PRESENTATIONS

This section outlines presentations and participant observations. Participants were asked to present on pre-COVID, COVID, and post-COVID practices and to report on any lessons learned. Appendix B contains a copy of all presentations.

Jill Stark – Turner Firbank Highway Research Center

Jill presented on the ongoing activities of the Turner Fairbank Highway Research Center (TFHRC) including pooled fund studies. She noted FHWA will reopen in September with required reporting by staff in need of going into the office. With reduced and/or cancelled transit service, TFHRS is not entirely sure what the new normal will look like. Jill noted that TFHRC has created virtual interactive tours of their facilities as a measure for COVID-19.

Observations:

- Many states noted that they really enjoyed the virtual interactive tours

University Perspective - Gary Consolazio, Ph.D. – University of Florida

Dr. Consolazio presented on the methods that Florida DOT and University of Florida used to keep research ongoing during restricted travel periods: live streaming videos, Zoom Meetings, etc. One of the results was greater participation of stakeholders. Virtual attendance also offers the ability to engage more students.

Observations:

- Darryll asked if the university saw an opportunity to train others with respect to workforce development in this virtual method and Dr. Consolazio noted that in the future this will be a great opportunity. While not as good as in-person, virtual meetings could be scheduled when research students and others can most benefit.
- Teresa Parker asked how this method affected preplanning and Dr. Consolazio noted that for University of Florida, not so much, but FDOT did have a lot more preplanning (as the experimental site host).
- Carol asked if the tests were recorded. Dr. Consolazio advises that the testing process was not usually recorded, but the University of Florida was able to take screenshots of the results remotely.

Consultant Perspective – Kurt Smith, Applied Pavement Technology (APTech)

Kurt gave a brief overview of the client base of APTech and the effects of COVID-19 on their business operations. He noted that the switch to teleworking was pretty seamless but daily

outreach to younger/new staff members was conducted daily to maintain connectivity. Other ways APTech combated COVID-19 restrictions were to install SLACK and other communication platforms. Additionally budgets were monitored more closely. Kurt noted that the research and technology transfer arm of APTech carried the company during the worst of the pandemic.

Observations:

- Tyson asked if there was an increased need for meeting pre-pandemic versus during the pandemic and Kurt responded that they have more meetings in the virtual arena versus pre-pandemic, and it was effective to maintain some level of engagement.
- Kurt noted that virtual meetings are not a substitute for in-person meetings, a point met with the consensus of most of the participating states.
- Darryll asked, in moving forward under less or nonrestrictive conditions, if there will be opportunity to leverage virtual meetings in a way that supplements or complements, or prepares for, in-person meetings. Kurt noted APTech has explored using virtual tools as a springboard to get into actual in-person training.
- Gary asked about thoughts on keeping engagement in a virtual setting and Kurt noted that both Zoom and Teams have separate breakout rooms to aid in this.
- Virtual bingo was presented as a way to maintain engagement.
- Laura asked if this Peer Exchange meeting would have been in person if the pandemic were not ongoing; both Tyson and Darryll noted that, yes, the meeting would have been in-person if not for the COVID-19 pandemic.

University Perspective – Kumer Das, Ph.D. – University of Louisiana-Lafayette

Dr. Das noted that, like many others, an immediate shift to remote work operations was required for COVID-19. He discussed blended research methods that aimed to create more collaborative, diverse, and ethical research opportunities. He noted that mental health should be a top priority to maintain personal well-being and that remote work is likely to continue. Changes adopted moving forward included electronic routing, expanded teleworking, public impact research, and that COVID-19 may propel faster adoption of Artificial Intelligence (AI).

Observations:

- Darryll asked about the upsides/downsides of blended research specifically with a potential for overwhelming participation requests. Dr. Das noted that there are definitely more upsides and so far it is being easily managed.
- Tyson inquired about the ways the university was measuring mental health, and Dr. Das noted that they are currently using GAD-7 and PHQ-9 psychometric tools as ongoing measures.
- Supriya asked about the status of time extensions for the university with a follow up question of ease of obtaining them. Dr. Das noted that they did ask for a number of no-cost extensions, and they were easily obtained.
- Carol asked if COVID-19 led to a loss of graduate students and Dr. Das noted that not many students were lost, but financial issues do exist with graduate students due to funding being used up while projects are having to be extended.

Transportation Research Board / NCHRP Perspective – Camille Crichton-Sumners

Camille discussed the scope and breadth of the TRB Cooperative Research Programs and noted that Cooperative Research Programs (CRPs) continued to provide timely access to COVID-19 related resources once the pandemic was designated. Prior to COVID-19, TRB already had a policy in place for telework and many employees routinely required remote access to organizational systems. The increased number of employees transitioning to telework had implications for hardware availability. Many of the processes were previously digitized. In the procurement stage of a project, she noted that CRPs moved away from hard copies of proposals, contract packages, etc. to electronic copies. They adapted other business processes such as convening more virtual meetings. They also initiated virtual hiring and onboarding, training, procurement, and contract administration. Camille noted that the National Academies is updating their telework policy and may allow up to 50 percent telework. National Academies have also implemented the Headspace Software, a tool for mental, emotional, behavioral, and physical health. This aids staff with mental health challenges and helps with the management of work life balance amid the COVID-19 lockdown.

Observations:

- Tyson asked if 50 percent telework is really an option, and Camille noted that it is an option because they (employees) showed it can work.
- Darryll asked if NCHRP was able to find new ways to acknowledge good work. Camille noted that, while not likely for State DOTs, TRB has been able to provide some financial recognition using saved travel monies.
- Tyson noted that DOTD is moving backwards on its telework policies; reverting to pre-COVID rules.
- Mary Stringfellow noted that there are many good points to teleworking and advocated that LTRC should approach senior management about being more flexible with the teleworking policies.

Michigan Perspective – Carol Aldrich

Carol presented that, prior to COVID-19 MDOT was using Project Wise for contracts and invoicing with all appropriate people having access. She noted that MDOT was already invested in DocuSign and regularly used Skype and Microsoft Teams. During COVID-19 Carol advised that five of the 38 research contracts were issued no cost extensions and regular communication between vendors and universities assisted with issues. She noted that their Employee Service Program (ESP) helped with mindfulness and stress relief. Her team meets weekly for a half an hour to just visit and talk about personal and sometimes work-related items with cameras on. New employees really appreciate this activity. Post-pandemic, they are flexible with only two employees out of eight in the office once per week with all others working from home and coming into the office for performance reviews and staff meetings face-to-face. Lessons learned include virtual meetings are effective but some people thrive on face-to-face relationships. Carol also noted that MDOT installed YAMMER; similar to Facebook/Twitter, but internal to staff only.

Observations:

- Participants asked questions about the Yammer product.

South Carolina Perspective – Terry Swygert

Terry noted that in a pre-COVID peer exchange in 2018, monthly meetings were suggested to be audio/virtual with in-person yearly meetings and reports to be distributed electronically with limited hard copies. During COVID, Terry noted there were more virtual meetings with Principal Investigators (PIs), leading to improved communication. No-cost extensions have been granted and all invoices and reports are now electronic. All conferences/trainings were conducted online. Currently, "post pandemic," they are working via virtual meetings and determining a best path forward with SCDOT being open. Telecommuting is not allowed at the current time and the in-state travel ban has been lifted. SCDOT lessons learned included the following: (1) virtual meetings work well with SP&R projects and telework in the Research unit proved to be very efficient, (2) more communication through more frequent virtual meetings is good, and (3) they are still trying to find the balance between virtual and in-person meetings.

Observations:

- Tyson noted that all the problem statement evaluations were completed virtually this year. The benefit was that he could attend all the committee meetings and interact with members of the Department that he would not regularly communicate with.
- Darryll had similar observations as Tyson.
- A question was asked if the SCDOT research program was staying with virtual meetings and Terry advised that is the plan for now; they will eventually migrate back to in-person.

Georgia Perspective – Supriya Kamatkar

Supriya discussed the Georgia research program and had very nice slides showing the pre-COVID, COVID, and post-COVID processes. They showed that changes have been made in several areas allowing for an increased use of digital medial platforms and digital / electronic copies of invoices, proposals, and final reports. Specifically, lab access was noted as a hardship severely limiting field and laboratory testing and reporting of research results. Lessons learned included the following: (1) electronic routing is faster, (2) virtual meetings allow for lower travel costs, (3) close coordination and tracking of the delivery of electronic and hard copies of final reports is very important, and (4) finding ways to engage with the virtual audience is necessary.

Observations:

- Attendees noted similar instances of each item enumerated within their organizations.
- Tyson noted that many universities have COVID relief monies and inquired if anybody had heard if those universities are applying that money to graduate students in need. There was discussion about some universities offering it to students, but the students are required to apply for the money and show a genuine need.
- Many in attendance echoed the issues with engaging a virtual audience.
- A discussion on hard copies versus electronic copies of the final reports ensued and relevant state laws varied among the attendees

Florida Perspective – Christina Freeman and Howie Moseley

Darryll introduced the presentations, reporting that FDOT research responded very easily to COVID-19 era with Teams meetings, electronic submissions of reports, invoices, etc. Christina Freeman from the FDOT Structures Research Center detailed the FDOT side of virtual testing, noting that the preplanning is significantly more effort in a virtual environment. There is considerable concern with the quality of virtual attendees' observation. She noted that virtual attendance is no substitute for in-person attendance; especially for complex tests and test setups. Darryll posed the question, "How do we expand/leverage lessons learned for future work?"

Howie Moseley from the FDOT State Materials Office (SMO) presented that SMO went to paperless worksheets, and the laboratories never shut down due to the ability to social distance. Training was conducted virtually, cutting down on costs; especially with the sessions being recorded for future use. Virtual plant and facility inspections allowed FDOT to conduct inspection safely. Virtual participation allowed more people to attend demo and pilot projects, and participants could interact with project staff. This all led to significant travel cost reductions.

Observations:

- Tyson noted that a lesson learned from all of the COVID work is that many of the in-person meetings can be made virtual and several of the in-person meetings can be made much shorter.

Louisiana Perspective – Tyson Rupnow

Tyson reported that the COVID-19 pandemic allowed telework, but technicians were required to come to work since their jobs do not allow teleworking. LADOTD is going to change its research manual to require digital submission of proposals, and continue use of electronic signatures and routing, where applicable. Tyson did note that engagement in a virtual setting is difficult, as one cannot read the room in a virtual meeting, especially when people do not have their cameras turned on.

Observations:

- Participants noted that lack of engagement in virtual meetings can be a problem.

PEER EXCHANGE TAKEAWAYS

Florida DOT

- Explore how to leverage virtual technology for workforce development and student involvement
- Look at technology to extend options for optimizing research setups
- Explore blended approaches to research with conduct and inclusion of stakeholders
- Take "temperature" of how everybody is doing
- Investigate potential virtual poster sessions
- Leverage virtual technology for technology transfer (NOT training)
- Increase attendance options for experiments (virtual)

Louisiana DOTD

- Revisit outdated policies
- Revisit and update the Manual of Research Procedures
- Continue electronic activities such as invoice routing, final report routing, etc.
- Advocate for less stringent telework policy
- Look for ways to measure stress/mental health
- Continuously monitor other virtual platforms, etc. for new advancements
- Virtual meetings cannot replace many in-person meetings

South Carolina DOT

- Virtual meetings should not totally replace in-person meetings
- Want to see what/where the balance is between the two
- Mental health, how to measure?
- Hybrid meetings are difficult to facilitate
- Laptops for employees is essential (looking to add more to the section)
- Finish updating outdated processes
- Create videos for finished/completed projects (plans to follow up to receive information from Michigan)
- Continue increased level/quality of communication through more virtual and in-person meetings with PI's
- Currently (in aftermath of pandemic) taking submitted time schedule and adding 6 months

Georgia DOT

- Same as South Carolina with respect to virtual meetings and in-person meetings
- Time extensions (TRB and NCHRP allowed)
- Outdated policies and practices need to be evaluated post-pandemic
- Mental and physical health is important
    - Posting jokes and comments every morning might have helped with this
- Laptops, electronic signatures, submission, etc. makes for a smoother transition to teleworking
- Liked the idea of virtual viewing of the lab testing, virtual plant and facility inspections, virtual lab tour, etc.

Michigan DOT

- Have enjoyed a lot of the information on other virtual platforms (HeadSpace/Jamboard)
- Mental and physical health is important. Posting jokes and comments in MS Teams chat everyday has helped with this aspect.
- Hybrid meeting style is difficult
- Current peer exchange has forced them to look back on previous practices and to make notes about it
- Proving productivity is difficult for those that are teleworking
- Final reports being electronic only has streamlined their process

Figure 1. Peer Exchange Attendees (Day #1)

Figure 2. Peer Exchange Attendees (Day #2)

APPENDIX A

The Effects of COVID-19 on Research and Technology Transfer Processes
Florida / Louisiana Virtual Peer Exchange
July 20 and 21, 2021
1 to 4 PM - Eastern

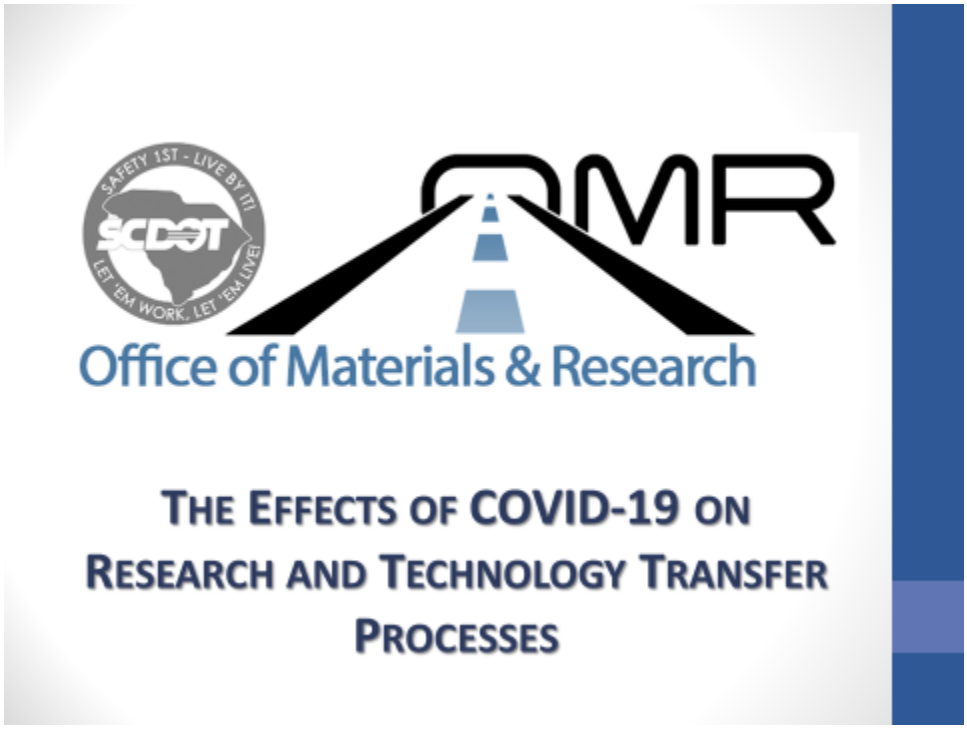
July 20

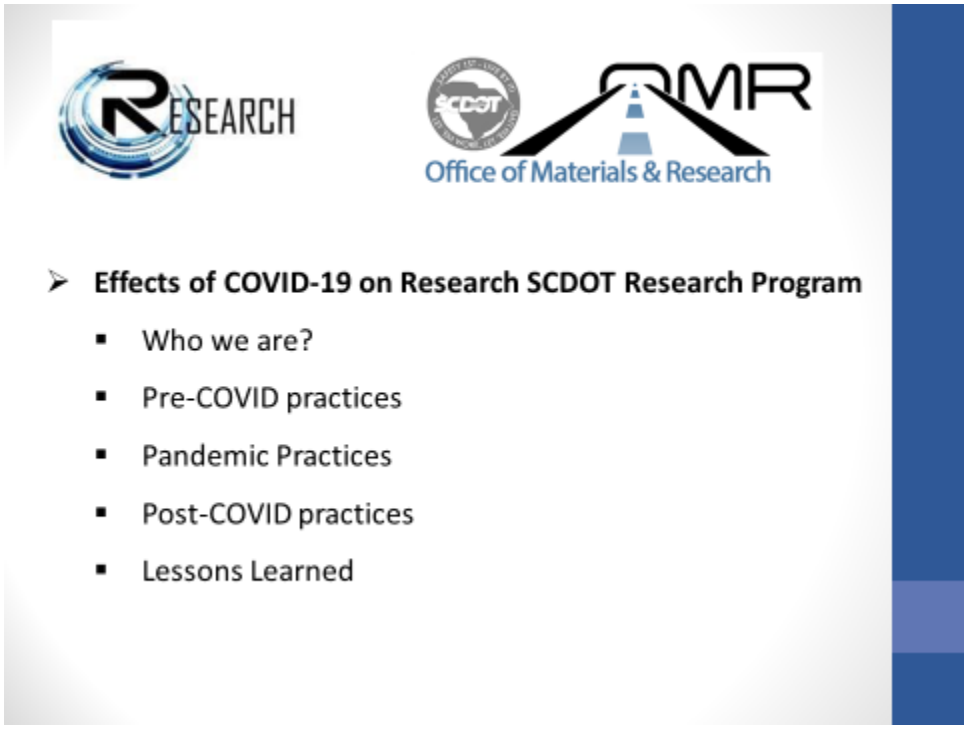
1:00 – Welcome and Introduction
1:15 – Peer Exchange Objectives
1:30 – Jill Stark – Turner Fairbank Highway Research Center
1:50 – Gary Consolazio, Ph.D., Professor, University of Florida, Director, Bridge Software Institute
2:10 – Kumer Das, Ph.D. – AVP for Research, Innovation and Economic Development and Assistant Provost, University of Louisiana at Lafayette
2:30 – Break
2:40 – Kurt Smith, Applied Pavement Technology
3:00 – Camille Crichton-Sumners – NCHRP
3:20 – Group Discussion
3:45 – Identification of Potential Takeaways for DOT's
4:00 - Adjourn

July 21

1:00 – Welcome and recap of Day #1
1:15 – Carol Aldrich, Michigan DOT
1:30 – Terry Swygert, South Carolina DOT
1:45 – Supriya Kamatkar, Georgia DOT
2:00 – Darryll Dockstader, Florida DOT
2:15 – Tyson Rupnow, Louisiana DOTD
2:30 – Break
2:45 – Group Discussion
3:15 – Identify and Recap Takeaways
3:45 – Final Comments
4:00 – Adjourn

APPENDIX B


SAFETY 1ST - LIVE BY IT!
SCDOT
LET 'EM WORK, LET 'EM LIVE!
OMR
Office of Materials & Research
THE EFFECTS OF COVID-19 ON RESEARCH AND TECHNOLOGY TRANSFER PROCESSES


RESEARCH
OMR
Office of Materials & Research
Effects of COVID-19 on Research SCDOT Research Program
Who we are?
Pre-COVID practices
Pandemic Practices
Post-COVID practices
Lessons Learned

RESEARCH UNIT

Who We Are

The South Carolina Department of Transportation's (SCDOT's) Research Unit is part of the Office of Materials and Research (OMR). The OMR is one of the offices reporting to the Director of Construction in the Engineering Division.

Staff

The staff is composed of the Research Engineer, Research Program Manager, and Research Program Coordinator.

RESEARCH UNIT

What We Do

- Administer the State Planning and Research (SPR) - Part B Program. This typically includes twenty to thirty active projects at any given time, most contracted with in-state institutes of higher education.
- Manage the Department's In-House Investigation Program that includes small-scale studies conducted by staff at the OMR utilizing state funds.
- Coordinate the Department's New Products Program.
- Provide oversite and handle administration of SCDOT's LTAP Program (Transportation Technology Transfer Service T3S – Clemson University)
- Coordinate national research activities involved with the Transportation Research Board (TRB), National Cooperative Highway Research Program (NCHRP), and the Transportation Pooled Fund (TPF) Program.

SPR - Part B Program

State Planning and Research (SPR) - Part B Program

We have a Research and Development Executive Committee (RDEC) who guides and directs the SPR research program. The RDEC is chaired by the Deputy Secretary for Engineering and includes the other Deputy Secretaries, Chief Engineers, and all the Engineering Directors, and 2 District Engineering Administrators. The Research Section's tasks include the following:

- Solicit topics every 2 years and host a topic solicitation forum (Topics are selected by RDEC).
- Establish steering committees for all projects.
- Assist the steering committee with selecting Principal Investigator for the project.
- Handle agreements, set up meetings, pay invoices, distribute progress reports, ensure everything is included in final report and all deliverables are received, and follow through implementation.

SPR Part B Funding

- In FFY 21, the Department received 3,624,541.00 in SPR Part B funds.
- The 2021 SPR Part B Program includes 31 research projects (active and pending) and 11 pooled-fund studies.

PRE-COVID PRACTICES

- In-person Meetings
  - SPR committee meetings generally held at OMR, and occasionally at SCDOT HQ. Most Committees were meeting at least once a year.
    - At our 2018 SCDOT Peer Exchange ("Collaborating with Institutes of Higher Learning to ensure Quality Research") one of our major takeaways was to explore monthly communication options (in-person and or audio/video) with the PI and key members in addition to routine full committee meetings.
  - Research and Development Executive Committee (RDEC), In-House Investigations, and New Products committee meetings held bi-annually.
- SPR Invoices
  - Paper routing and submission for SPR invoices.
- Report Distribution
  - Mostly electronic (proposals, progress report, interim, final reports). Some hard copies were distributed to the steering committee.

PRE-COVID PRACTICES

- Research Topic Solicitation Forum
  - In-Person meeting with 100+ attendees
    - SCDOT personnel
    - Institutes of higher learning
    - Industry and Government institutions (FHWA, USGS, Asphalt, Concrete, etc.)
  - Held every 2 years at the Columbia Metropolitan Convention Center
  - Two all-attendee group sessions, multiple concurrent break-out sessions, and lunch
- Conferences/Training
  - Able to attend in-person conferences, workshops, and training courses out-of-state, within SC, and at SCDOT HQ
- Telework and alternative schedules not encouraged/prohibited

SCDOT Office of Materials & Research

PANDEMIC PRACTICES
(3/20/2020 TO 4/16/2021)

- Telework request forms submitted (beginning 3/20/20)
- Restricted access to SCDOT buildings
  - Research staff fully remote (3/20/20 to 7/24/20)
  - Alternating groups return-to work in person/telework (7/27/20 to 9/4/20)
  - Return to work w/ restricted access (No outsiders) (9/9/20 to 5/13/21)
    - Temperature checks, social distancing and facemasks required inside SCDOT facilities, vehicles, offices, common areas
    - Few exceptions for continued telework
- ***Evolving SCDOT telework protocols and requirements***
- Shared office restrictions implemented (1/19/2021 to 4/16/2021)
  - Research Coordinator – telework 1 day per week (no SCDOT network access – personal laptop)
  - Research Manager – telework 4 days per week (SCDOT network access – SCDOT issued SurfacePro)
  - Research Engineer – flexible telework/in-office (SCDOT network access – SCDOT issued Laptop)
    - Weekly telecommute requests & weekly accountability forms

SCDOT Office of Materials & Research

PANDEMIC PRACTICES
(3/20/2020 TO 4/16/2021)

- Evolving SCDOT telework protocols and requirements
- Telework protocols established for Research Unit
  - Microsoft 365 email; help desk contact; and time entry (SCEIS)
  - 2X per day department check-in (9am and 3pm) with items to do and items accomplished
  - Information and contact person provided for scheduling conference calls and WebEx meetings
  - Expectations: (a) available by and would timely respond to email; (2) have access to a reliable internet connection; and (3) work would be performed during standard business hours while working from home
- Multiple virtual meeting platforms used inside and outside SCDOT (e.g., Zoom, Adobe Connect, Teams, Webex)
  - SCDOT preference for Teams and/or WebEx to schedule meetings

PANDEMIC PRACTICES
(3/20/2020 TO 4/16/2021)

- Meetings
  - **All** SPR meetings previously held in-person rescheduled using WebEx or Teams
    - SPR meetings increased substantially (weekly, monthly, quarterly)
  - Summer 2020 RDEC meeting held with hybrid (limited) in-person attendance and virtual attendance using WebEx, Winter 2021 was virtual (WebEx)
  - In-House Investigations and New Products meetings
    - 2020 Spring in-person/virtual meetings were canceled with members reported by email; minutes were compiled and shared
    - 2020 Fall meetings were held virtually
- SPR Invoices
  - All SPR invoices routed and submitted electronically
    - Evolving eForm submission procedures
- Report Distribution
  - All electronic

PANDEMIC PRACTICES
(3/20/2020 TO 4/16/2021)

- Research Topic Solicitation
  - Five topic meetings (that would have been held in concurrent break-out sessions) were held using WebEx over a one-week period
  - Individual Sessions were divided into two parts with a break in the middle
    - SCDOT personnel and all attendees (Industry, Government institutions (FHWA, USGS, DHEC), and institutes of higher learning) attended the first part
      - Topic introduction, one-by-one timed topic discussion, and Q&A
    - Break
    - SCDOT personnel and FHWA (only) attended the second part
      - Continued topic discussion
      - Voting to identify higher priority topics
  - Higher priority topics shared with all attendees by email

SCDOT Office of Materials & Research

PANDEMIC PRACTICES
(3/20/2020 TO 4/16/2021)

- Conferences/Training
  - Conferences and training moved to on-line platforms
  - SCDOT in-person training cancelled and rescheduled to on-line
    - Learning Management System (LMS) courses encouraged
- Travel
  - All out-of-state travel suspended
  - In-state travel restricted; preauthorization required

SCDOT Office of Materials & Research

POST-COVID PRACTICES
(STARTING 4/19/21)

- In-Person meetings
  - Virtual meetings continued for SPR projects
    - Currently working to determine the best path forward for meetings using virtual, in-person, and/or hybrid
  - Virtual meetings held for New Products and In-House Investigations committees (May 2021)
- SCDOT – Open for Business
  - Restrictions lifted for SCDOT buildings
  - Telework generally prohibited

POST-COVID PRACTICES (STARTING 4/19/21)

- SPR Invoices
  - Continued use of eForm with attachments
  - Routing and submission using ProjectWise links
- Research Topic Solicitation meeting
  - Currently working to determine the best path forward for meetings using virtual, in-person, and/or hybrid
- Conferences/Training
  - In-Person attendance encouraged where available
  - On-line offerings are still predominately used
- Travel
  - In-state travel restrictions lifted
  - Out-of-state travel generally allowed with pre-authorization

LESSONS LEARNED

- The Research Unit ran smoothly and did not experience any down time during transition from in-person to virtual operations (Network-accessible connectivity is a must to successfully function as if working from an SCDOT facility)
- Virtual meetings work well for SPR projects
  - Noted minimal learning curve for platforms and large group discussions
  - Accomplished Peer Exchange goal of monthly communication options for PIs and Committee
- Paperless files (ProjectWise) work well for SPR and In-House Investigation projects, and for New-Product submissions
  - Noted minimal learning curve for committee users, PIs, and others
- All SPR Invoices and Reports are handle electronically
- Research Topic Solicitation virtual meeting was successful and very productive
  - Individuals were able to attend multiple sessions where attendance would have not been an option due to concurrently scheduled sessions
  - Able to expand attendance within SCDOT and institutes of higher learning
  - May want to consider a hybrid in-person/virtual option going forward

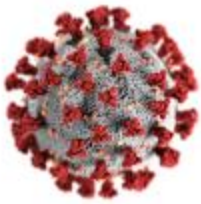
Thank You

thanks

Questions

Florida Department of TRANSPORTATION

The Effects of COVID-19 on Research and Technology Transfer Processes



Howie Moseley
State Bituminous Materials Engineer

Presentation Outline

- Paperless Data Worksheets in the Cloud
- Virtual Training
- Virtual Plant & Facility Inspections

Paperless Data Worksheets

- Enhanced laboratory safety
  - Our lab never shut down for COVID
  - Technicians were able to stay socially distant and minimize touch points
- Benefits today
  - Allows technicians to pick up testing where others have left off
  - Allows all team members the opportunity to review test progress and results immediately and remotely
  - Allows all interested parties to monitor research progress in real time

FDOT Florida Department of Transportation

Virtual Training

- Examples
  - FDOT Technician Qualification Courses
  - AMPT virtual training with FHWA MATC and NCSU
- Benefits
  - Participants can interact with trainers and ask questions
    - Participants can even direct the camera shots
  - Sessions can be recorded for reference later
  - Provides significant travel cost reductions while fostering employee development

FDOT Florida Department of Transportation

Virtual Plant & Facility Inspections

- Allowed FDOT to conduct required inspections safely
- Benefits
  - Could allow more folks to attend demonstration or pilot projects
    - Participants could interact with project staff
    - Could provide significant travel cost reductions while allowing additional participants to view the demonstration project

FDOT Florida Department of Transportation

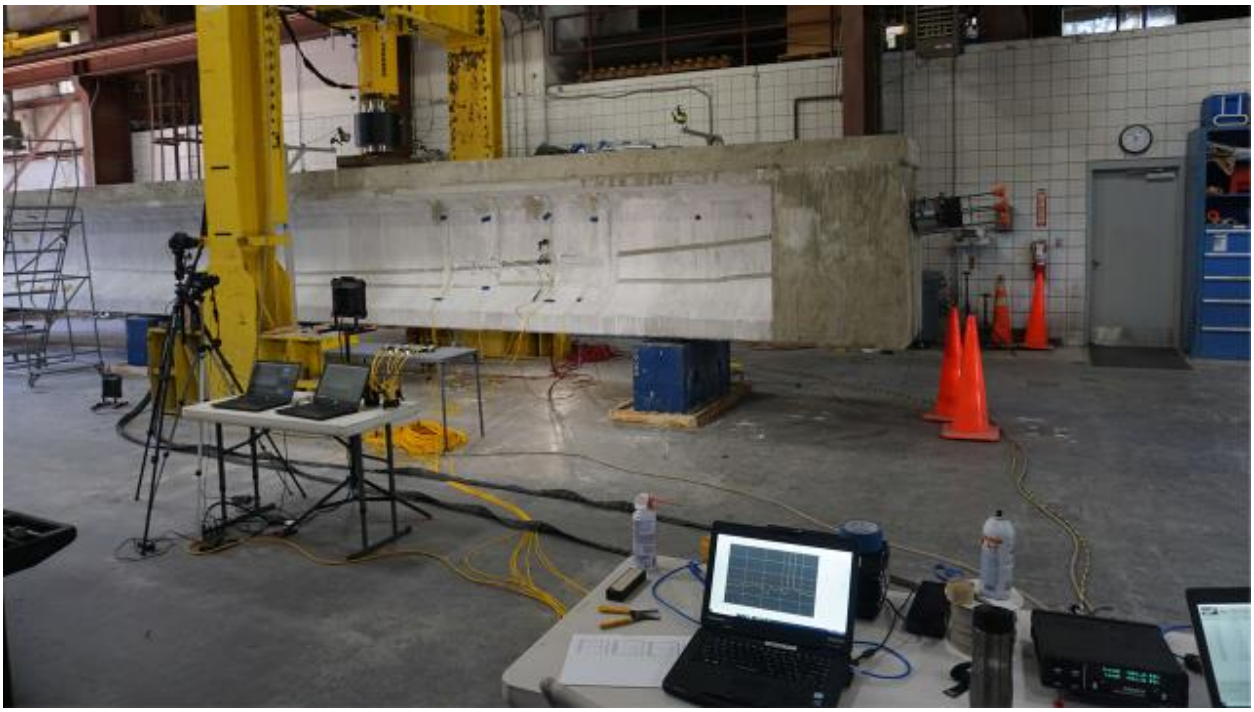
Thank You

Keeping Research Going During a Pandemic

Christina Freeman, P.E., Structures Research Engineer
FDOT M.H. Ansley Structures Research Center

Equipment and Software Specifications

- Canon EOS DSLR Camera(s)
- Dell Laptop with Canon EOS Utility Software (1 per camera)
- ZOOM with Host-Enabled Multiple Screen Sharing (ZOOM is only meeting software currently with this capability)
- OneDrive Cloud Service (with ability to share outside organization)
- Wi-Fi
- USB Computer-to-Camera Cables and Extensions
- Camera Power Supply



Capabilities for Remote Participation

- Ability to view (2) screens shared simultaneously
  - Either (2) cameras, or
  - (1) camera and (1) data acquisition screen
- With remote control of camera-connected laptop
  - Ability to zoom in with camera (unless in video mode)
  - Ability to capture pictures/videos remotely
  - Ability to view pictures remotely almost immediately

Considerations

- Added risk in connecting data acquisition machine to Zoom meetings
- Ability to have closer view of test set-up than in-person (due to safety concerns)
- Poor substitute for in-person attendance for complex tests

Future Use

- Including more people than who would generally travel for a test
- Eliminating need to travel for simple tests

Michigan DOT Research: COVID-19 Effects on Research and Technology Transfer Processes

July 21, 2021

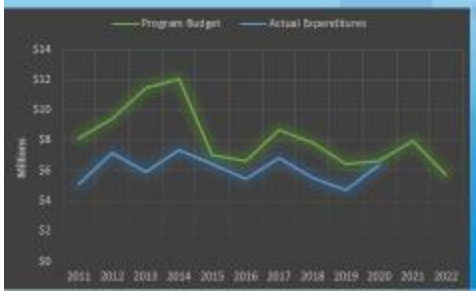
Carol Aldrich, PE
MDOT – Engineer of Research

Michigan Department of Transportation
RESEARCH Administration

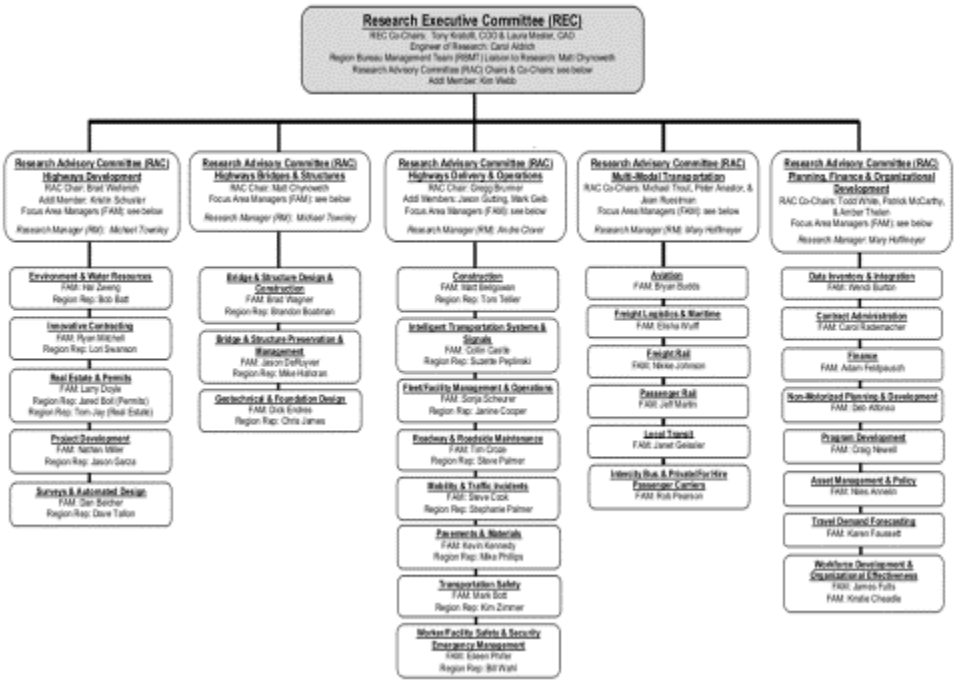
Research Administration:

MDOT Research Program:

- Total budget for FY2022 = $5,722,000
- 86 total projects – 8 new + 78 continuing



Research Program Committee Structure



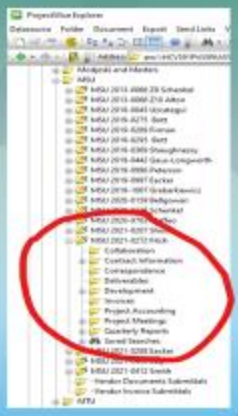
Every 2 Year Research Project Selection:

Activity	Oct - Nov 2021	May 2022	May - June 2022	Oct 2022	Spring 2023	Spring 2024
Call for research ideas+	+					
Program Development Meetings refine ideas						
Problem statements are Developed						
Request for Proposals						

+We accept project ideas anytime throughout the year with RAC Chair approval

Michigan Department of Transportation RESEARCH Administration

Changes Prior to COVID 19:



ePROPOSALS

MS Teams
Chat, Teams, Calls

Issues due to COVID-19:

- 12 active vendors in 2020 and 6 universities notified us they had delayed lab work due to temporary lab closings
- 5 out of 38 contracts had “No Cost Time Extensions” in 2020
- Mental and physical health of employees is so important – ESP helped with mindfulness and stress relief
- Weight gain and physical inactivity

Post Pandemic:

- Continue with flexible remote work with 2 people going to the office once per week
- Removal of conference and fax lines
- Staff meetings and performance reviews will be in person
- Hold some in person meetings with virtual option?

Lessons Learned:

- Always work as a team and knowing your team members is so important including their health (both mental and physical)
- Look for possible improvements and make changes earlier rather than putting them off
- You don't have to print as much as you think you do
- Virtual engagement is very efficient and productive
- Some people thrive on face to face relationships
- Communicate, Communicate, Communicate

WHEN IT'S SO HOT
THE STATE FLOWER WILTS
WHO EVER IN LOUISIANA IS PRAYING RAIN FOR A GARDEN
NEEDS TO STOP NOW THE PLANTS ARE WATERED
I THINK I'VE FOUND
OUR STATE MASCOT
Comments/Questions?
MEANWHILE IN FLORIDA...
Michigan Department of Transportation
RESEARCH
Administration

GDOT
Georgia Department of Transportation

Florida & Louisiana Virtual Peer Exchange

The Effects of COVID-19 on Research and Technology Transfer Processes

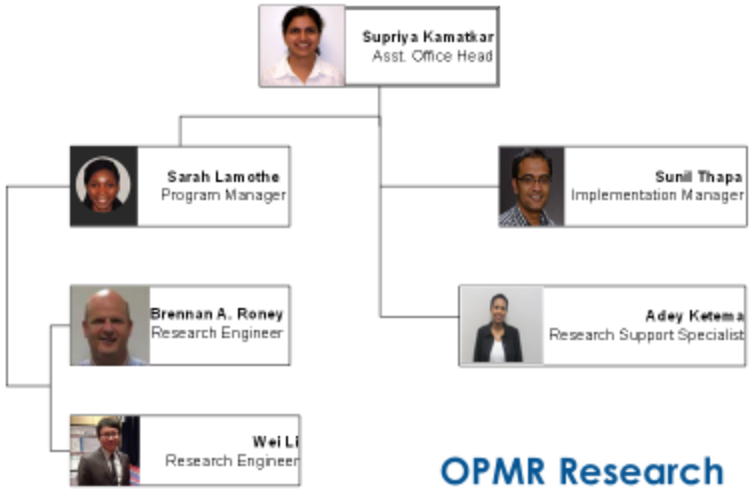
July 20-21, 2021

Supriya Kamatkar
Assistant Office Head
Office of Performance-based Management and Research

GDOT
Georgia Department of Transportation

Discussion Points

- Program Overview
- Pre-COVID Practices
- Pandemic Practices
- Post-COVID Practices
- Lessons Learned

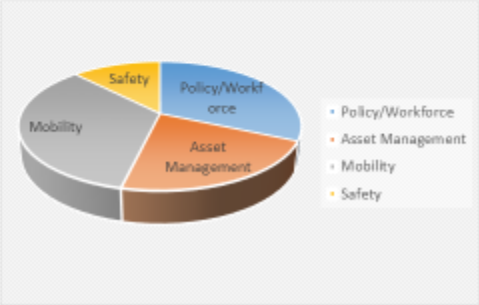


FY 2022 Core Program Project Statistics

37 active research projects

Asset Mgt.: 9
Mobility: 13
Policy/Workforce: 10
Safety: 5

UTC: 4



Practices

Tasks	Pre-COVID Practices	Pandemic Practices	Post-COVID Practices
Contracts	• Paper contract • Manual Signatures	• Electronic Signatures (DocuSign)	• Electronic Signatures (DocuSign)
Research Final Report Distribution	• Mail all final reports to One Georgia Center (OGC)	• Principal Investigator (PI) mails 1 copy to Project Manager for QA/QC • PI mails 5 copies to the State Repository • PI mails 4 copies to OGC	• Return to Pre-COVID practices
Invoice Approval	• Manual/Paper approval • Introduction of Perceptive Content	• Perceptive Content - electronic	• Perceptive Content - electronic

Practices

Tasks	Pre-COVID Practices	Pandemic Practices	Post-COVID Practices
Research Project Meetings	• In person • Hybrid (in person and/or virtual)	• Virtual (Zoom, MS Teams, BlueJeans)	• Hybrid (in person and/or virtual)
RTAG Meetings	• In person biannual meetings • Separate Break-out sessions	• Virtual and concurrent meetings	• Virtual and concurrent meetings currently • In person and/or hybrid meetings
RAC Meeting	• In person annual meeting	• Virtual meeting	• Virtual meeting • In person and/or hybrid meetings

Practices

Tasks	Pre-COVID Practices	Pandemic Practices	Post-COVID Practices
FHWA Quarterly Meetings	• In person meetings	• Virtual meetings	• Virtual meetings • In person and/or hybrid meetings
Peer Exchange	• In person sessions • Two and ½ day sessions	• Virtual sessions • Four ½ day sessions	• To be Determined
Roadshows/University Visits	• In person visits	• Virtual	• To be Determined

Practices

Tasks	Pre-COVID practices	Pandemic Practices	Post-COVID practices
GTI Activities	• In person annual poster session • In person annual leadership meeting • Digital RNS Submittal	• Virtual poster session • Virtual Meeting • Digital RNS Submittal	• To be Determined • To be determined • Digital RNS Submittal
Library	• In person by appointment • Digital access	• Digital access • Mail-in Requests for hard copies	• In person by appointment • Digital access • Mail-in Requests for hard copies

Pandemic Specific Issues

- Lab access restrictions and occupancy limitations for testing
- Field tests and data collection restrictions
- Delay in equipment delivery
- Limited access to available equipment in the workplace
- Simulations / test delays caused by VPN and internet traffic
- Administrative support staff on restricted schedule
- PI's family contracted COVID

Lessons Learned

- Streamlined and faster contracting process due to the electronic routing of contracts for signatures.
- Importance of close coordination and tracking of the delivery of research projects final reports.
- Virtual nature of meetings result in travel cost savings and allow more attendance.
- Lower participation can be observed at times during virtual meetings. Finding ways to engage the audience is necessary.
- Need to be informed of the meeting platform restrictions of other agencies.
- Importance and need to conduct meeting test run(s) before any major meeting(s).
- Necessary at times to have IT personnel for technology issues that may occur during meetings.
- Show patience

thank you
danke
謝謝
ngiyabonga
جزيلاً
teşekkür ederim
gracias
dank je
dziękuję
sukriya
kop khun krap
go raibh maith a
arigatō
grazie
terima kasih
감사합니다
merci
mochchak
takk
dakujem
hvala
mauruuru
sagolun
taiku
ありがとう
ευχαριστώ
dankie
faafetai lava
mersi
barka
welalin
tack
spas
vinaka
blagodaram
misaotra
matondo
paldies
grazzi
mahalo
djiere dieuf
tau
chnorakaloutioun
gracies
sulpay
dekuji
mesi
najis tuke
tanemirt
rahmet
diolch
dhanyavadagalu
shukriya
mercé
xiexie
rahmat
kam sah hamnida
didi madloba
köszönöm
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dankie
рахмат
спасибі
дякую
ভোমাকে ধন্যবাদ