

<b>UTC Project Information</b>	
Project Title	MPC-594 – Transferring Research Innovations in Bridge Inspection Planning to Bridge Inspection Practice
University	Colorado State University
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Funding Source(s) and Amounts Provided (by each agency or organization)	<p>USDOT, Research and Innovative Technology Administration \$58,000</p> <p>Colorado State University \$58,000</p>
Total Project Cost	\$116,000
Agency ID or Contract Number	69A3551747108
Start and End Dates	February 26, 2019 to July 31, 2022
Brief Description of Research Project	<p>Recent bridge failures have resulted in calls for change in the way bridges are inspected and managed. Furthermore, nondestructive evaluation methods are more commonly used and deterioration models are becoming more sophisticated. Researchers have responded to the need for change and advances in technology and understanding with proposals for new ways to plan inspections that move away from the federally mandated two-year cycle for visual inspection of most bridges. However, current inspection techniques are well established and integrated into bridge management processes at departments of transportation. This project studies how large-scale changes are made to engineering practice at DOTs within the specific context of bridge inspection. The project pursues a two-pronged approach to study the incentives and barriers to organization change. The first prong works closely with a DOT to collect data sets describing current bridge management practices. This data set will then be used to assess the practical needs associated with moving to a new inspection system and the costs associated with the change. The second prong includes interviews and surveys of bridge inspection</p>

	<p>and management professionals at a variety of levels (federal, state, local) to learn what obstacles they perceive in switching to a different bridge inspection paradigm. These interviews will be used to study the human factors associated with a change. The result of this project will be an approach for how an agency could work to change their inspection practices to better incorporate new technology and more effectively utilize inspection funds.</p>
<p>Describe Implementation of Research Outcomes (or why not implemented)</p> <p>Place Any Photos Here</p>	<p>This study, by its very nature, is aimed at significantly enhancing the implementation of transportation-related research. We investigated how large-scale changes are made to engineering practice at DOTs and how to engage with transportation agencies to promote the adoption (or adaptation) of research advances into routine practice.</p>
<p>Impacts/Benefits of Implementation (actual, not anticipated)</p>	<p>This qualitative study set out to identify the factors that can help improve research products and accelerate change and research transfer in bridge inspection departments. As such, this study provides DOTs and researchers with practical and theoretical solutions to help accelerate change and research transfer. While we studied these concepts within the specific context of bridge inspection, this study also provides insights about how major changes may occur in DOT practices that might be more generally applied to other aspects of transportation. As such, this study's impact will be broad and supportive of the technology transfer efforts.</p>
<p>Web Links</p> <ul style="list-style-type: none"> <li>• Reports</li> <li>• Project Website</li> </ul>	<ul style="list-style-type: none"> <li>• MPC Research Report – <a href="#">Transferring Research Innovations in Bridge Inspection Planning to Bridge Inspection Practice</a></li> <li>• CSU Doctoral Dissertation – <a href="#">A Study on Bridge Inspections: Identifying Barriers to New Practices and Providing Strategies for Change</a></li> </ul>