

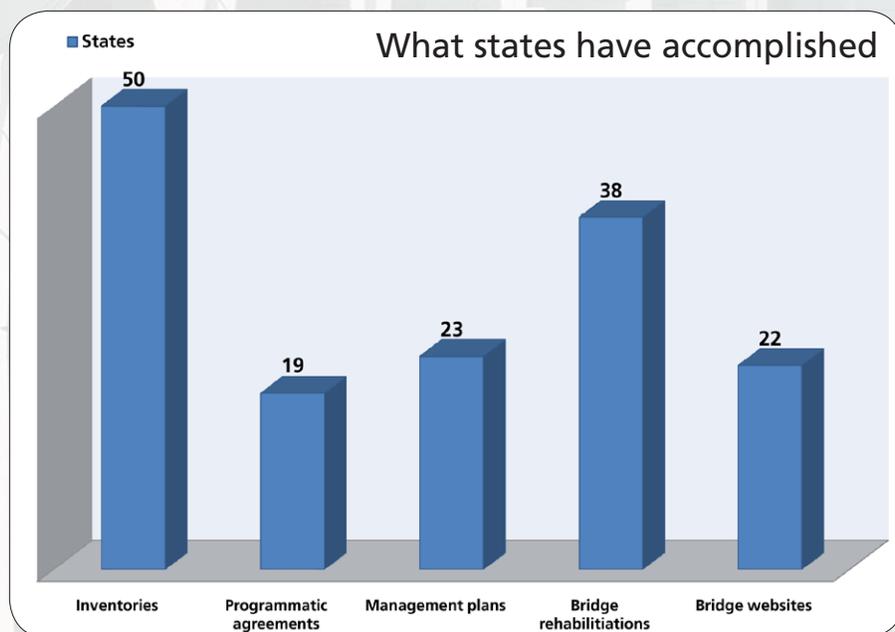
# Historic Bridge Practices Nationwide: Inventory, Evaluation, and Management

This study provides state departments of transportation (DOTs), preservation advocates, and cultural resource and engineering professionals with an enhanced understanding of historic bridge practices nationwide. The goal of the study is to inform the national dialogue about historic bridge preservation and encourage continued management of significant structures that represent the nation's engineering history.

Typically DOTs complete historic bridge activities to comply with Section 106 and Section 4(f) regulations. These regulations encourage the identification and consideration of historic structures, and, when possible, their preservation.

Interviewees responded to questions about preservation and management practices in their state, including historic bridge inventories, rehabilitation projects, successes and challenges they are facing, and future bridge management activities.

Mead & Hunt completed this survey of DOTs and select State Historic Preservation Offices (SHPOs) and Federal Highway Administration (FHWA) representatives between February and June 2008. All 50 state DOTs provided responses, and the results are depicted in this document.

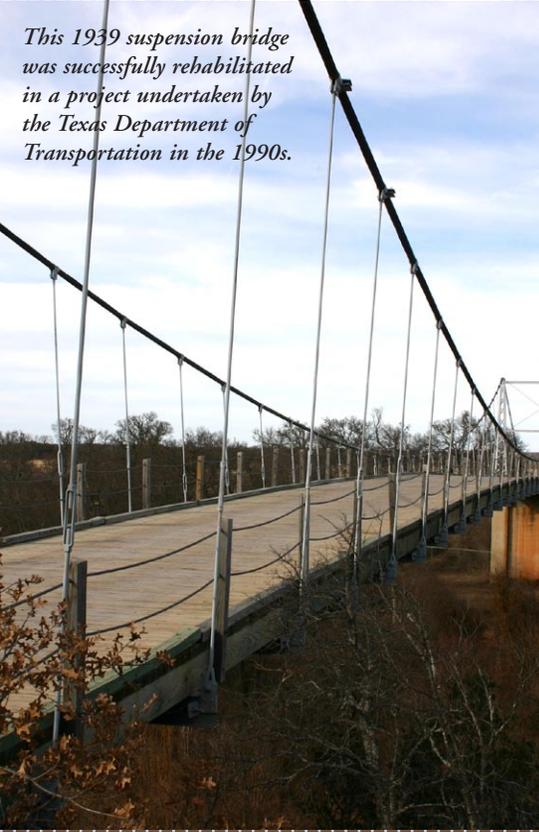


*The Oregon Department of Transportation has undertaken a number of successful rehabilitations of coastal highway structures. (Source: ODOT)*

This 1956 cantilevered plate girder is included in the New York inventory, which included bridges built through 1960.

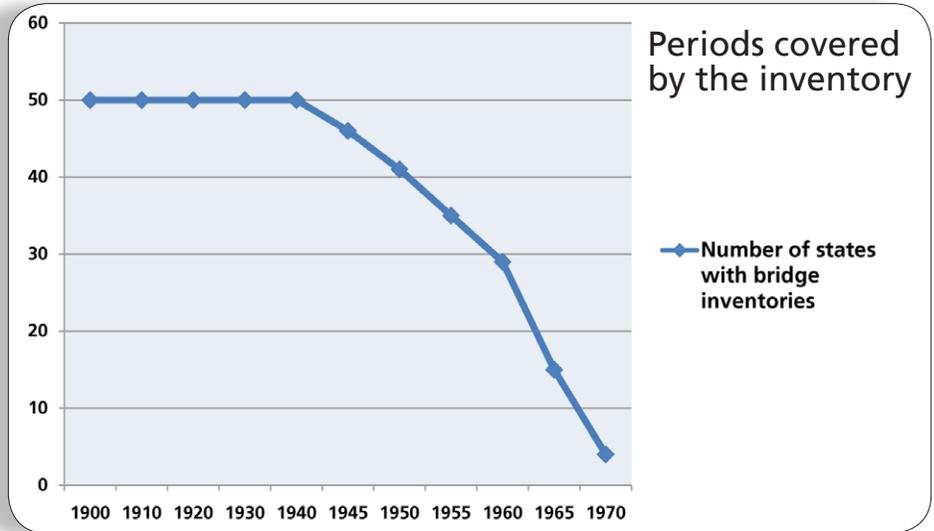


This 1939 suspension bridge was successfully rehabilitated in a project undertaken by the Texas Department of Transportation in the 1990s.



## Historic bridge inventory

Though 41 state historic bridge inventories have been comprehensive, representing all materials and types, eight states have only surveyed bridges built with certain materials, and 13 states have surveyed selected types of bridges.



## Bridge rehabilitation and the Secretary of the Interior's Standards

Thirty-eight states report completing historic bridge rehabilitations, from minor repairs to multi-million-dollar restorations. Almost all states say they applied the *Secretary of the Interior's Standards (Standards)*, but over half report difficulties in their application ("You can't NOT use them," one said). DOTs expressed frustration with *Standards* designed more for buildings than bridges. Conflicts between *Standards* and other professional codes such as American Association of State Highway and Transportation Officials (AASHTO) requirements, with issues such as widening proving hard to resolve, were also cited. The *Standards* "typically don't fit well, so they are overlooked," reported one SHPO. Some agencies say their lack of expertise with historic materials, such as deteriorated concrete, makes rehabilitation difficult and replacement easier.

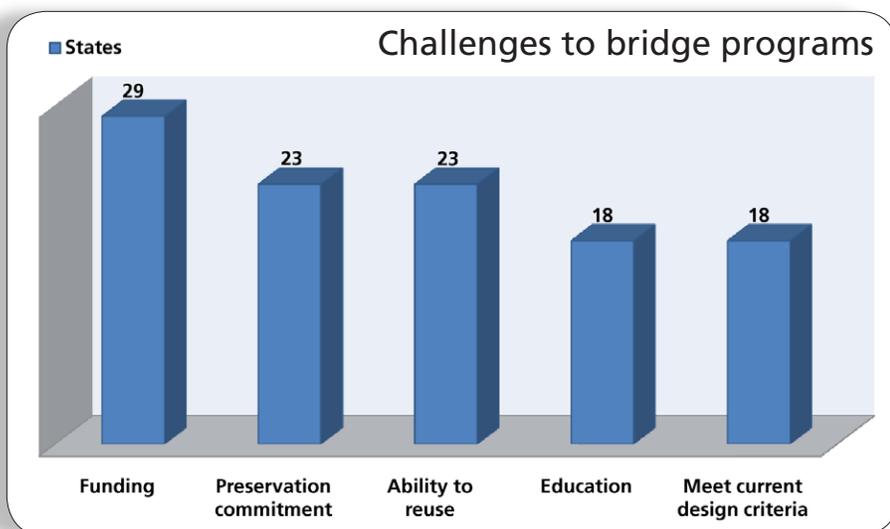
## Management plans and programmatic agreements

Primarily, state DOTs use management plans and programmatic agreements to fulfill their regulatory responsibilities and effectively administer statewide historic bridge programs. Sixteen states reported that they have general management plans for their historic bridges and 10 state DOTs have management plans for individual bridges. Many states recognize the value of having them, and 20 states have plans to complete management plans for their historic bridges in the future.

Many states have programmatic agreements that encompass all historic resources under Section 106; however, 19 states have programmatic agreements that are specific to historic bridges. The bridge-specific programmatic agreements are varied in their scope and application. Fourteen state DOTs have comprehensive bridge-specific programmatic agreements that address wide-ranging issues such as National Register evaluation and coordination processes. Four states have programmatic agreements for individual bridge types, such as bascule or covered bridges, while other agreements serve as management tools dictating acceptable repair work. Several states responded that they are planning to or are in the process of completing programmatic agreements for historic bridges. Additionally, those state DOTs with bridge-specific programmatic agreements noted that they are planning to update them in the near future.

## Challenges to bridge programs

Managing historic bridges poses many challenges to the DOTs. Funding is the main obstacle identified by the states in their ability to complete historic bridge program activities. Nearly half of the states also cite a lack of agency commitments to preserve structures and the inability to identify adaptive uses for structures as additional challenges. A lack of education related to historic structures is an underlying factor in many of the cited challenges. In some cases, local governments interested in preserving structures are reluctant to take on the liability for the structure, derailing potential projects. Despite these varied hurdles, many states report successful historic bridge programs.

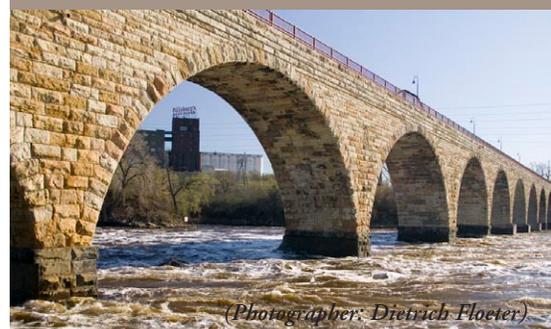


*“Bridge rehabilitations can be successful when the functional needs, cost, materials, and the level of deterioration are accounted for early in the planning process”*

– Wisconsin Department of Transportation

*“Each bridge is handled in a standardized way that looks at options and goes with the best alternative for the site.”*

– Nebraska Department of Roads



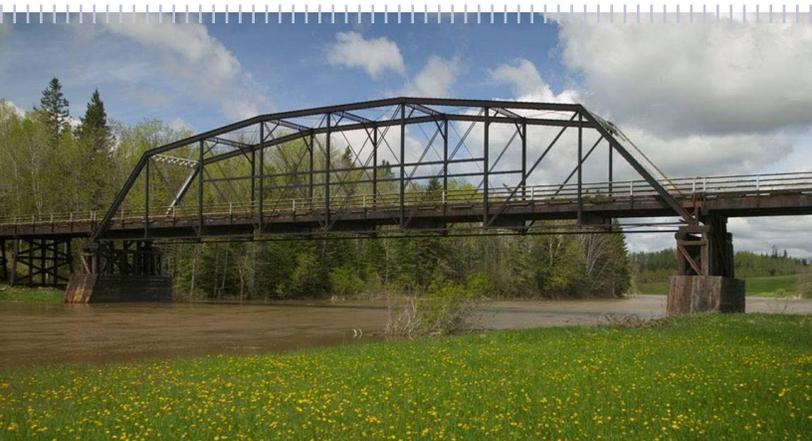
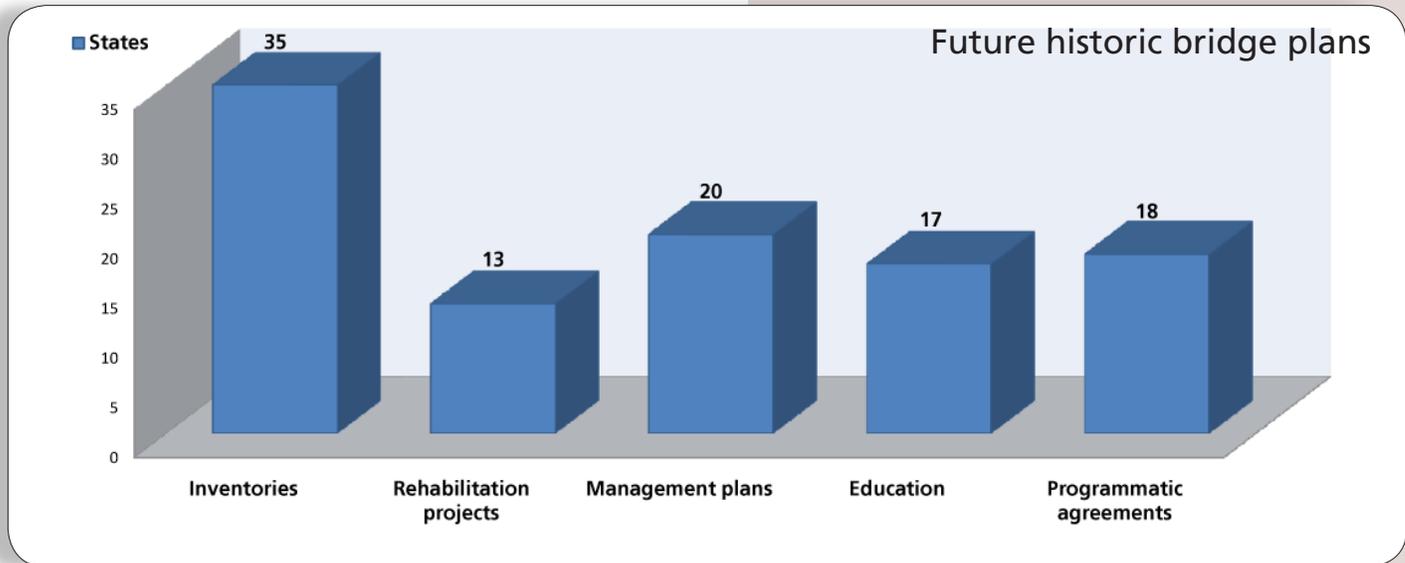
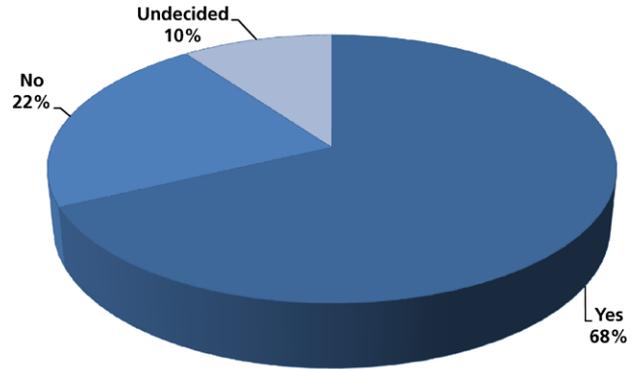
(Photographer: Dietrich Floeter)

*After successful rehabilitation in 1993, an individual management plan was prepared for this Minnesota bridge in 2006 to recommend further maintenance and preservation activities to assure its longevity.*

## Is your state's approach working

Two-thirds of state DOTs say the overall approach they are taking with historic bridges is working. Eleven states say their approach is not working and five states are undecided on this question. Notably, within the 34 states where DOTs reported success, partner agencies in six states disagree with their positive review of historic bridge efforts. In five of these cases, the SHPO responds that the state's historic bridge program is not working. FHWA disagrees with the DOTs in two cases, in one case siding with the SHPO. While the majority of states believe their overall historic bridge efforts are working, most also wish to accomplish more with their programs. Figure below illustrates new initiatives the DOTs are planning to implement in the future.

### Success of historic bridge programs



Produced by



www.meadhunt.com  
 preservation@meadhunt.com  
 Toll-free: 1-888-273-4555

Offices nationwide

in cooperation with

