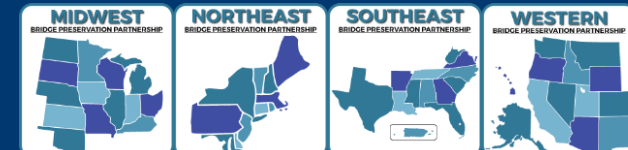


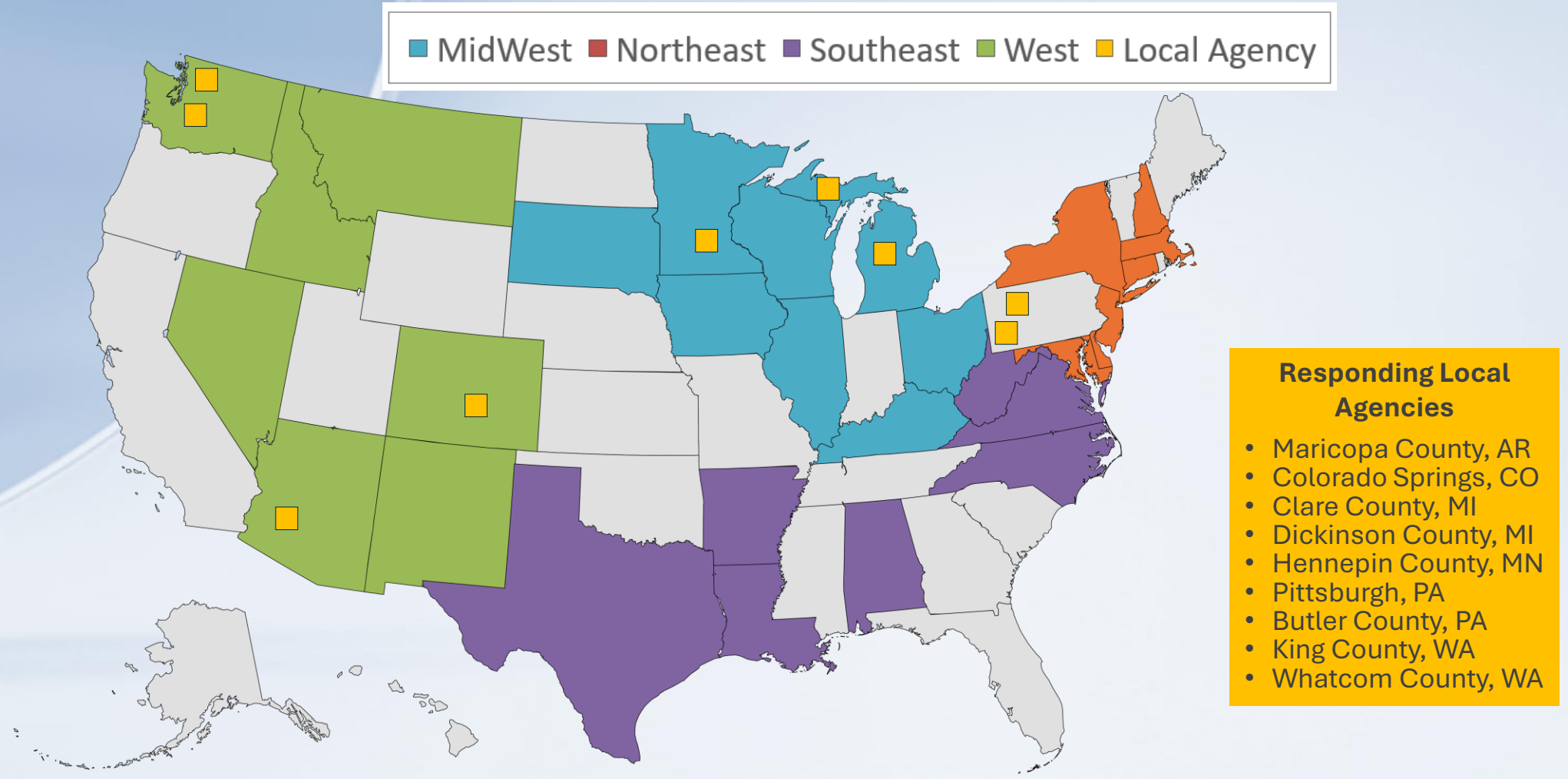
# Workforce Challenges and Innovative Contracting

Results from an AASHTO Bridge Preservation Management Survey

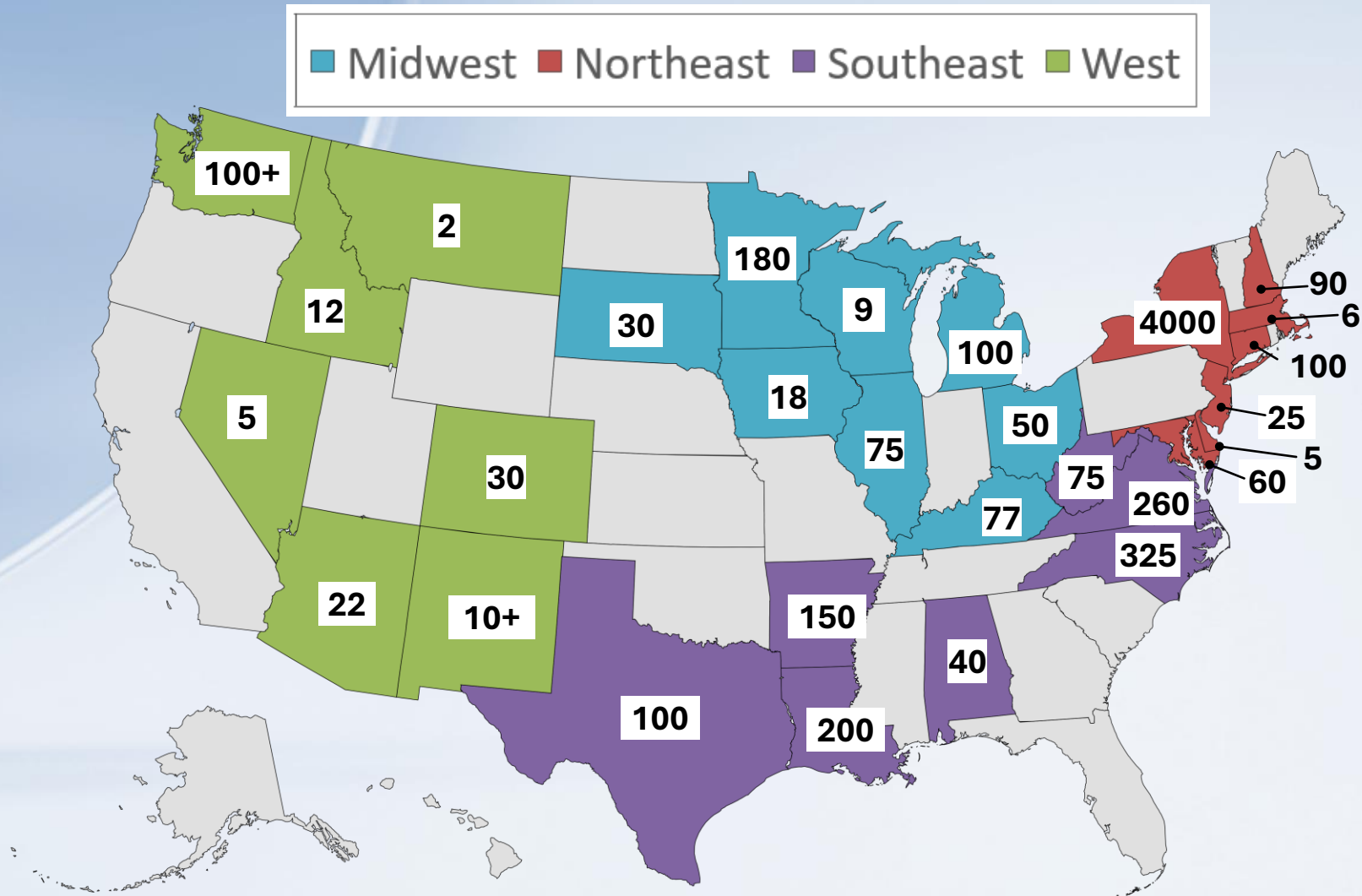
Presented by Richard Dunne, P.E.  
National Director of Bridge Preservation  
Greenman-Pedersen, Inc. (GPI)  
September 12, 2024



# Nine Local Agencies from Six States Responded to the Survey

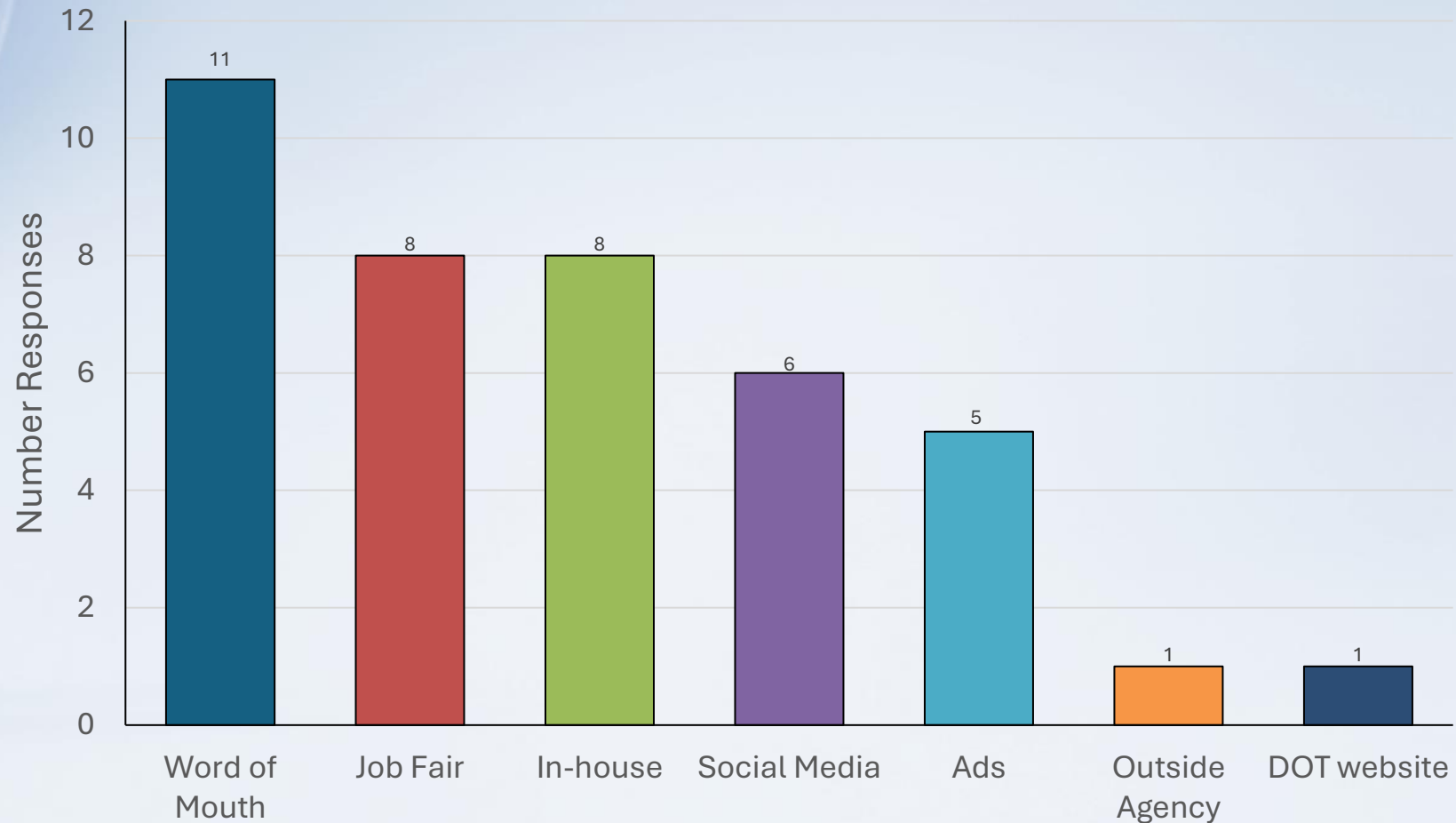


# # Bridge Maintenance Staff Varies Between States

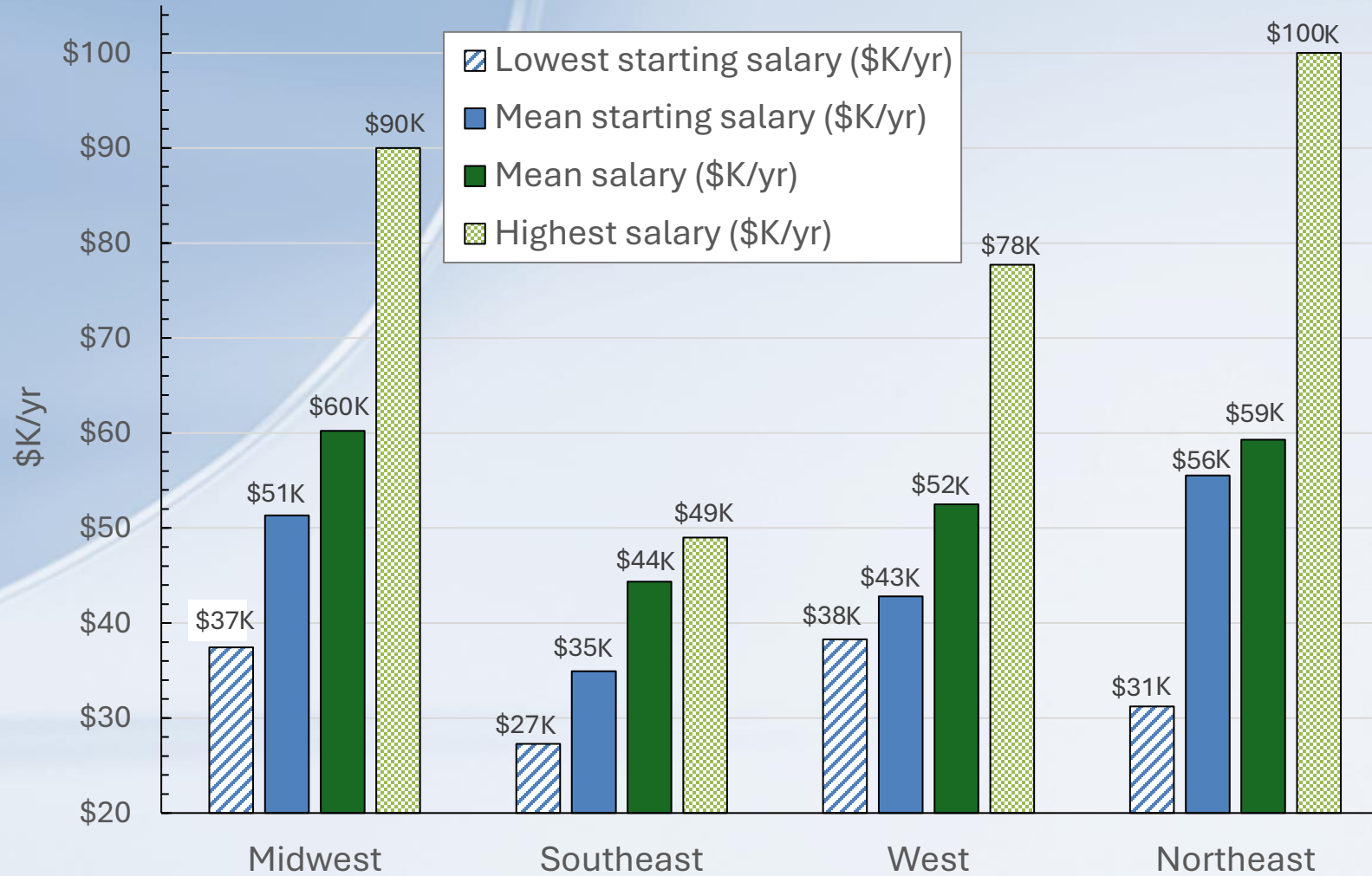


# Method of Recruitment Varies

- Word-of-mouth was the most commonly reported recruitment method
- Others:
  - Job fairs, “In-house”
  - Social media, Ads
  - Outside agency, DOT website



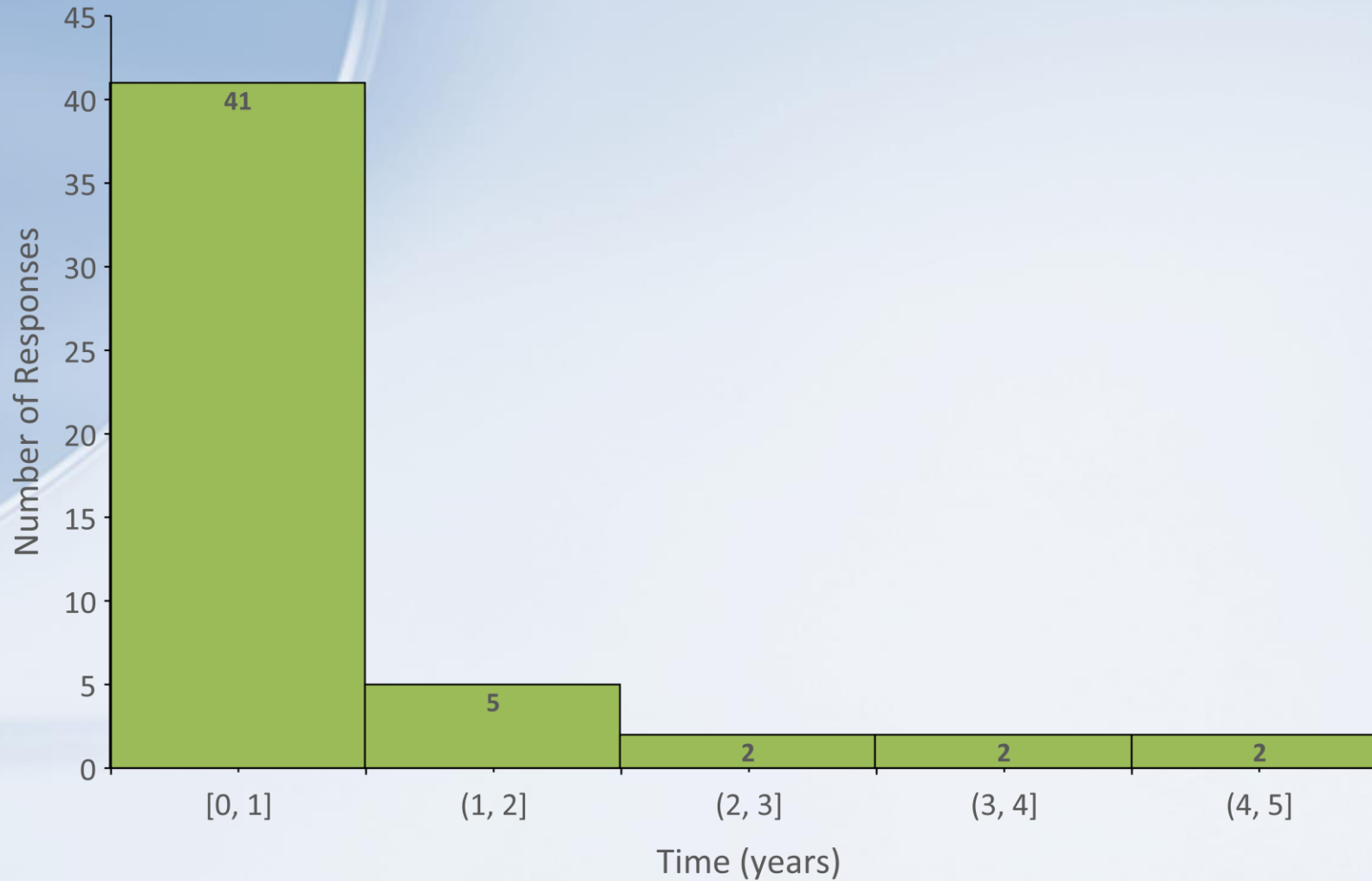
# Average Starting Salary vs. Average Salary (\$K/yr)



- These salaries represent a variety of pay grades

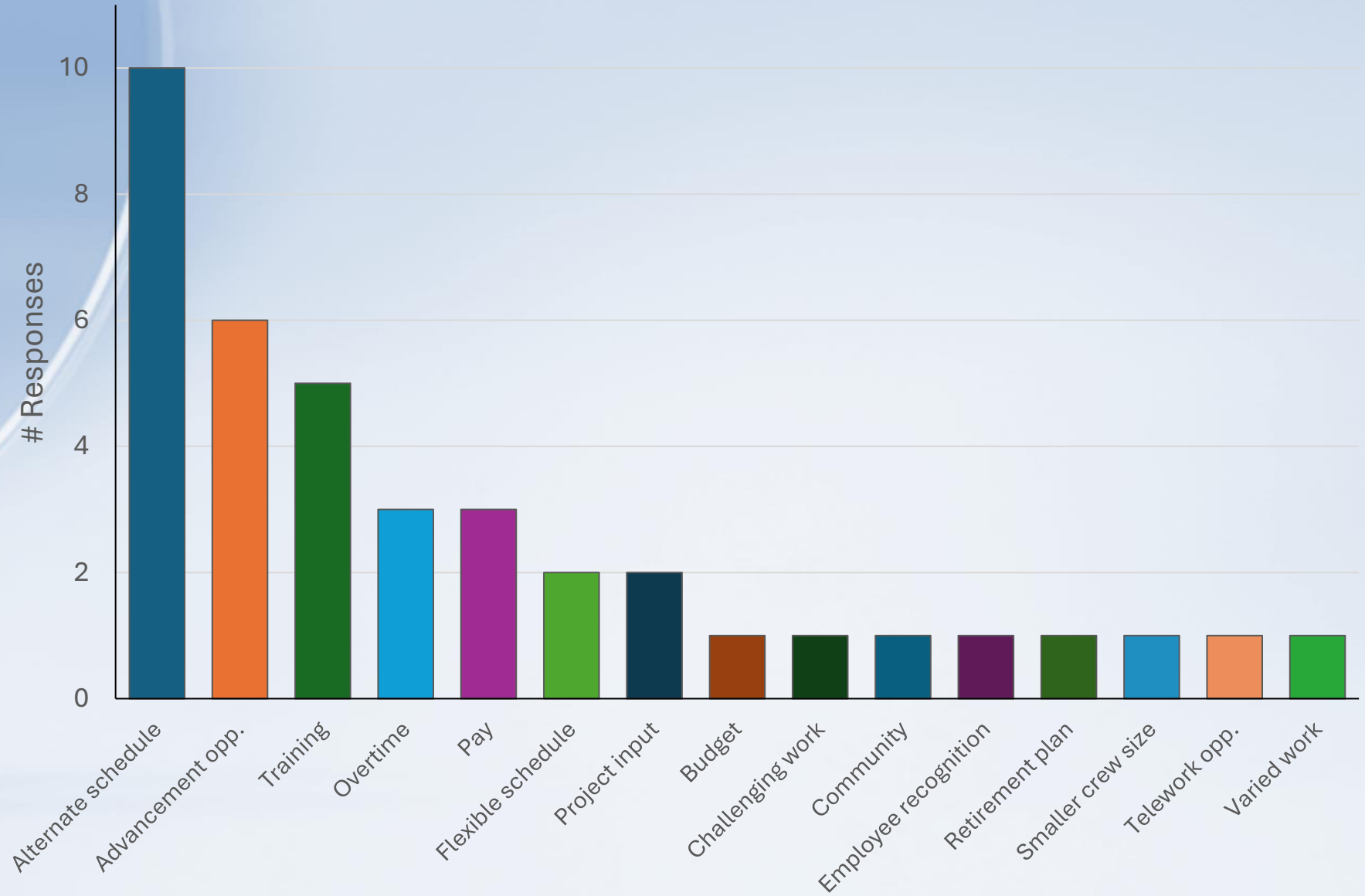
\*Data represents responses received

# Average time to move out of starting position is 12-18 months



# Effective Strategies for Staff Retainment

- Offering an alternate schedule was the most common method reported for retaining staff







# Work Activities Performed In-House the **Most** Often

- Deck Patching (28)
- Joint/Header Repair (26)
- Concrete Substructure Patching (23)
- Bearing Cleaning (23)
- Concrete Bridge Barrier Repair (23)



# Work Activities Performed In-House the **Least** Often?

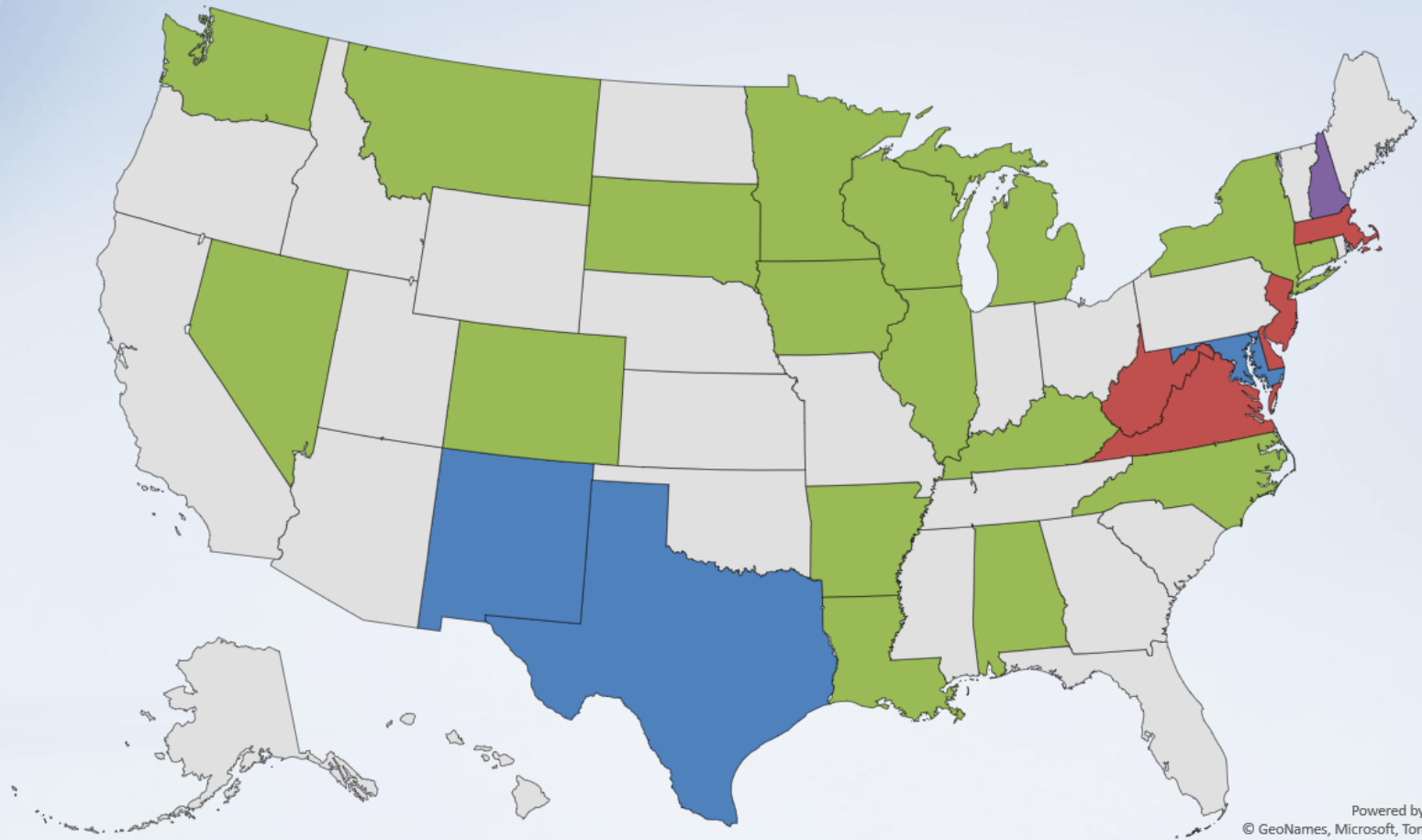
- Steel Bridge Full Painting (3)
- Steel Substructure Blast Clean & Paint (10)
- Deck Overlays (10)
- Bearing Replacement (13)
- Concrete Beam Sealing (13)



# Percent State Funding Used for Bridge Maintenance

■ 0-25% ■ 26-50% ■ 51-75% ■ 76-100%

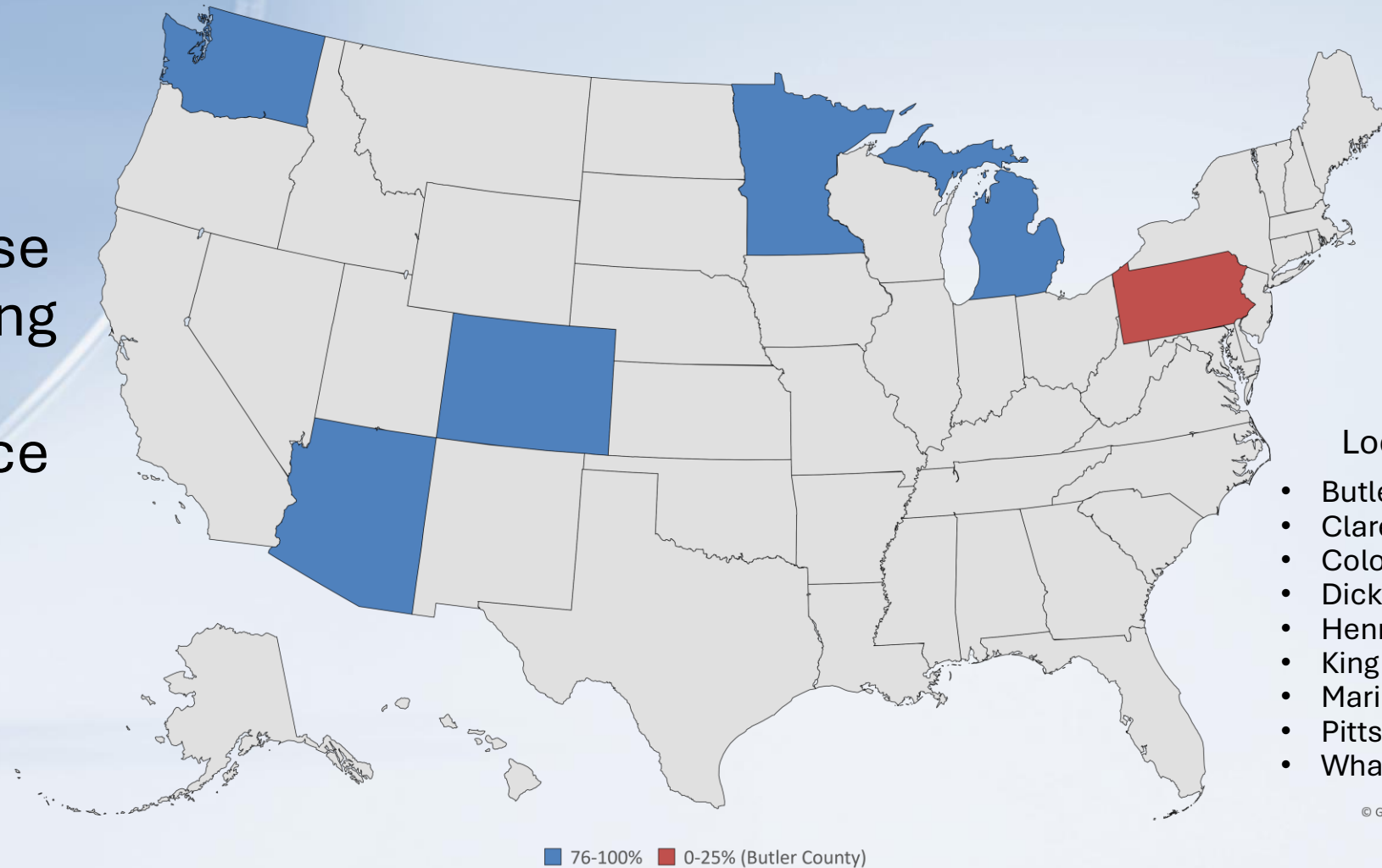
- Most bridge maintenance work is performed using State funding



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# Local Agencies Use of Local Funding

- Most Local Agencies use Local funding for bridge maintenance

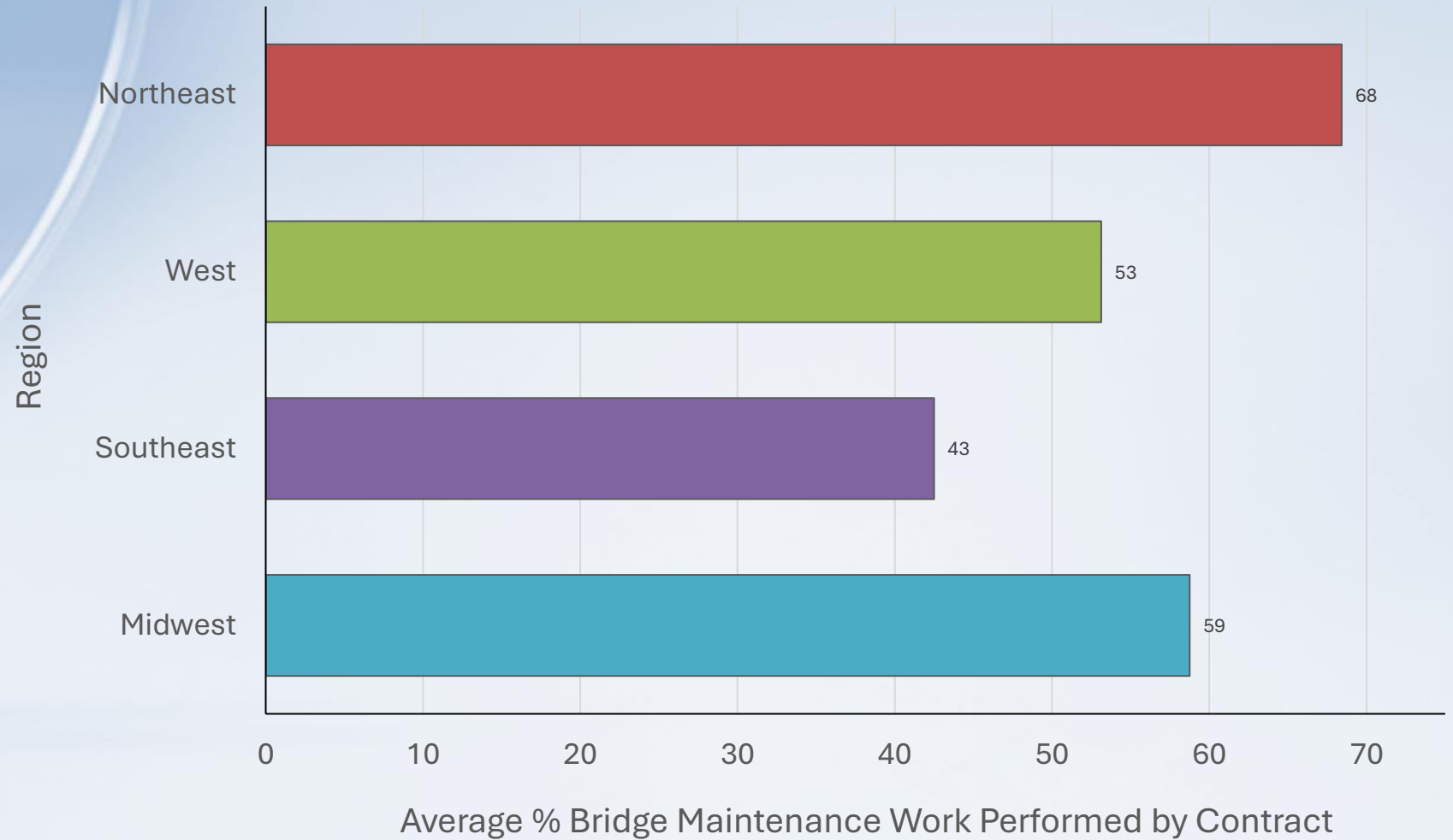


- Local Agencies
- Butler County, PA
  - Clare County, MI
  - Colorado Springs, CO
  - Dickinson County, MI
  - Hennepin, County, MN
  - King County, WA
  - Maricopa County, AR
  - Pittsburgh, PA
  - Whatcom County, WA

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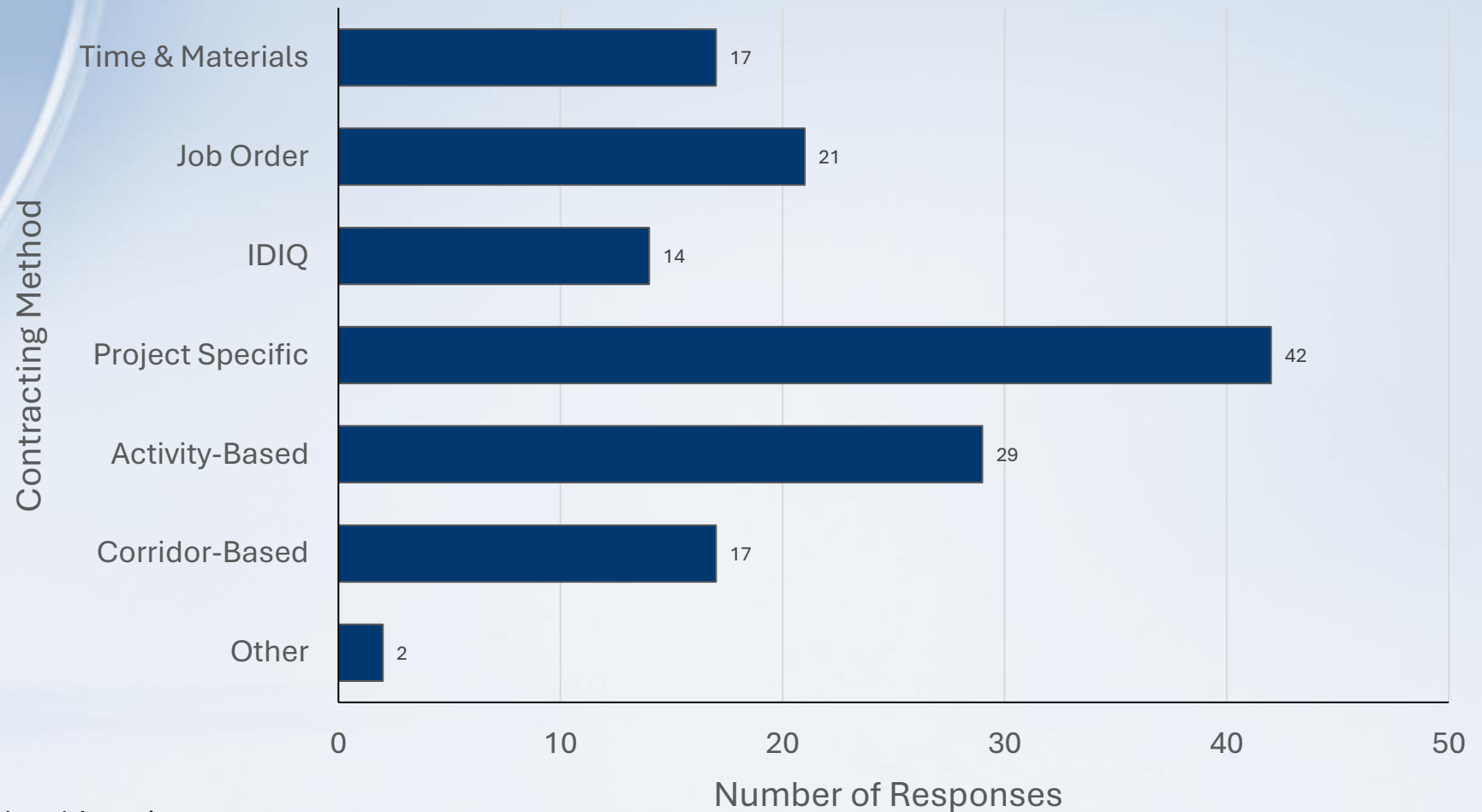
# % Bridge Maintenance Work Performed by Contract (Average)

- States outsource various amounts of bridge maintenance work



# Contracting Methods Used (All Responses)

- Project Specific Contracting is the most common contracting method overall



\*This chart represents responding Agencies

\*\*This chart includes multiple responses per State and Local Agencies

# Contracting Methods Used (by Region)

- Project Specific and Activity-Based are the most common contract methods used in all regions
- The least common contract method varies

Region	Most Common Method	2nd Most Common Method	Least Common Method
Midwest	Project Specific	Activity-Based	Time & Materials; Job Order
Southeast	Project Specific	Activity-Based	Corridor-Based
West	Project Specific	Job Order; Activity-Based	Time & Materials
Northeast	Project Specific; Activity-Based	Time & Materials	IDIQ

\*This chart represents responding Agencies

\*\*This chart includes multiple responses per State and Local Agencies

# Jobs Typically Performed by In-House Maintenance Crews

- Sweeping
- Cleaning
- Deck patching
- Epoxy injection of decks
- Deck sealing
- Bearing cleaning
- Various other activities within the crew's capabilities





# Factors that Determine Whether to Contract Out

- Work contracted out depends on:
  - Availability of the crew
  - Complexity of the work
  - Cost exceeding a threshold
  - Experience / capabilities of local bridge crew
  - Materials needed for the job
  - Resources
  - Size and scope of job (repair duration)
  - Combinations of the above



# Activities Which Are Typically Contracted Out

- Activities requiring complex traffic control
  - e.g., joint replacements on heavy volume/high traffic corridors
- High-risk activities
  - e.g., abrasive blasting of steel bridges and painting – lead exposure, bridge washing due to environmental exposures
- Activities requiring skilled personnel & specialized or larger equipment
  - e.g., welding and painting, hydro-scarification equipment (deck overlays), heat straightening, large painting projects with containment