

A Model Guide for Condition Assessment Systems

NCHRP Project #20-07, Task 206



Katie Zimmerman, P.E.
Applied Pavement Technology, Inc.



Project Objectives



- ❖ Gather detailed information on condition assessment systems
 - Criteria used
 - Methods for assessing condition
 - Use in supporting a cost analysis
- ❖ Develop a guide on establishing a condition assessment system



Products – Final Report



- ❖ Summarizes the use of condition assessment systems
- ❖ Presents the results of the survey of state practice





Products - Guide



- ❖ Provides guidance in establishing a method of assessing condition
- ❖ Introduces survey considerations
- ❖ Illustrates the use of condition information
 - Reporting conditions
 - Establishing budget requirements
 - Programming work
- ❖ Offers implementation tips



Uses of an Effective System



- ❖ Identify maintenance needs
- ❖ Measure progress towards goals
- ❖ Monitor effectiveness of operations
- ❖ Estimate resource requirements
- ❖ Schedule resources
- ❖ Prioritize maintenance needs
- ❖ Illustrate consequences of strategies
- ❖ Improve overall delivery of services



Enhanced System Characteristics

- ❖ Performance based (rather than accomplishment based)
- ❖ Outcome focused (rather than output focused)
- ❖ Customer focused (rather than activity focused)





Common Attributes

❖ Drainage Features (Culverts & Ditches)

- Clogged or interrupted flow

❖ Roadside (Fence, Grass, Brush)

- Fence damage
- Grass height
- Obstructions

❖ Pavements

- Drop-off
- Distress

❖ Traffic Items (Signs & Guardrail)

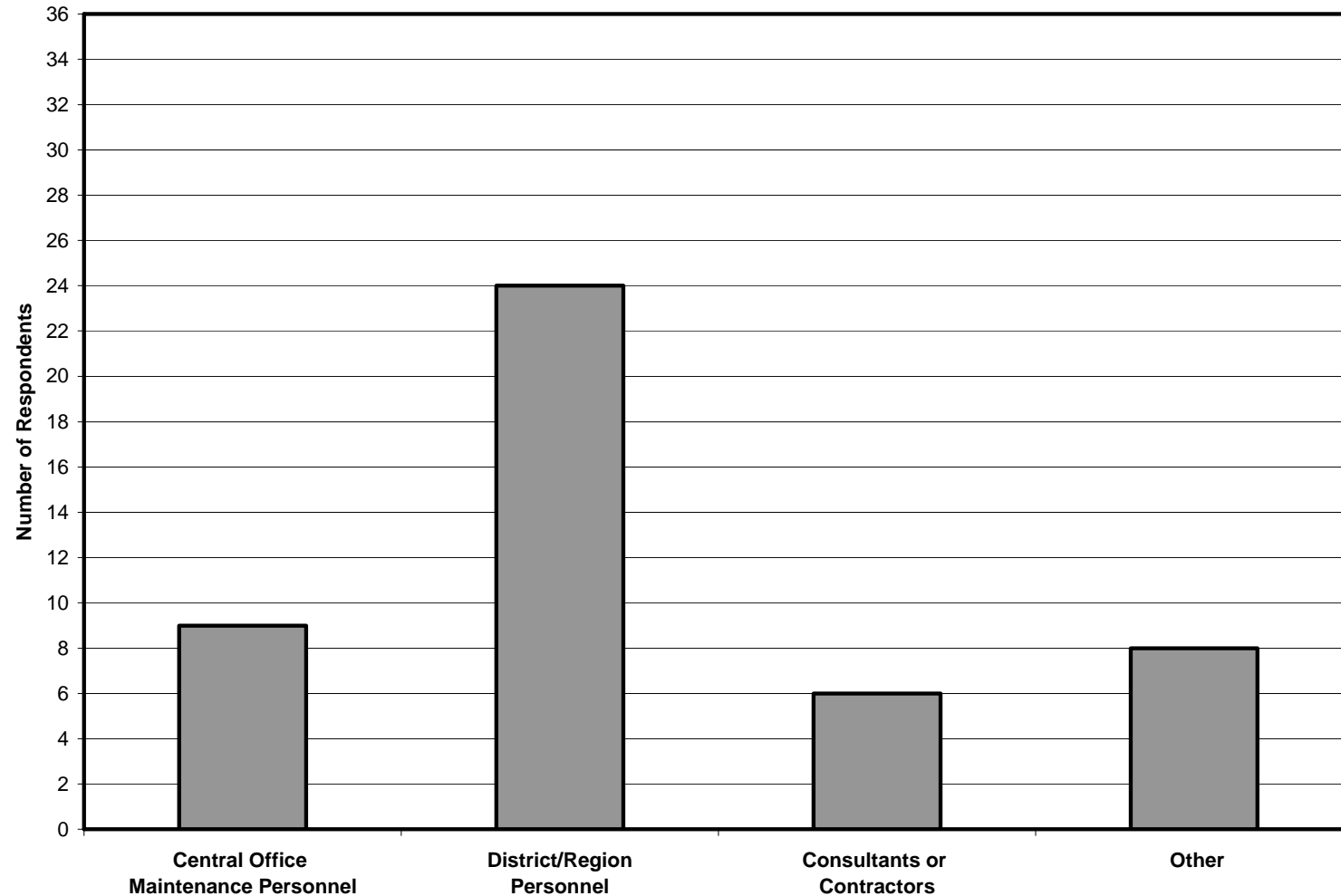
- Damage
- Visibility
- Orientation
- Serving as intended

❖ Special Facilities (Rest Areas)

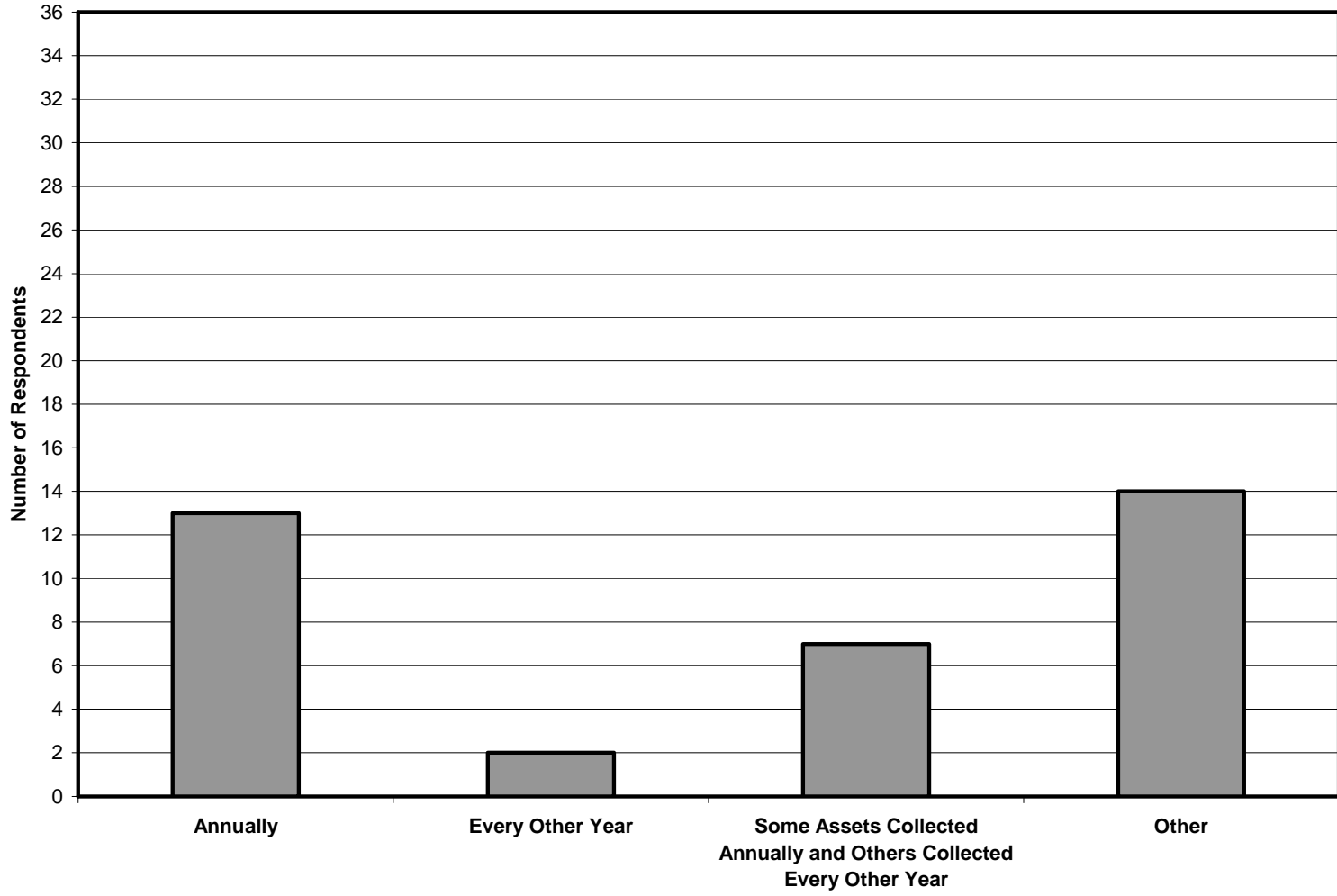
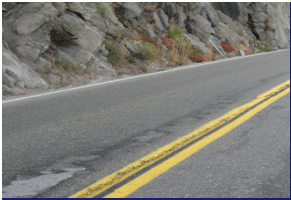
- Graffiti
- Facilities working as intended



Who Conducts Survey?

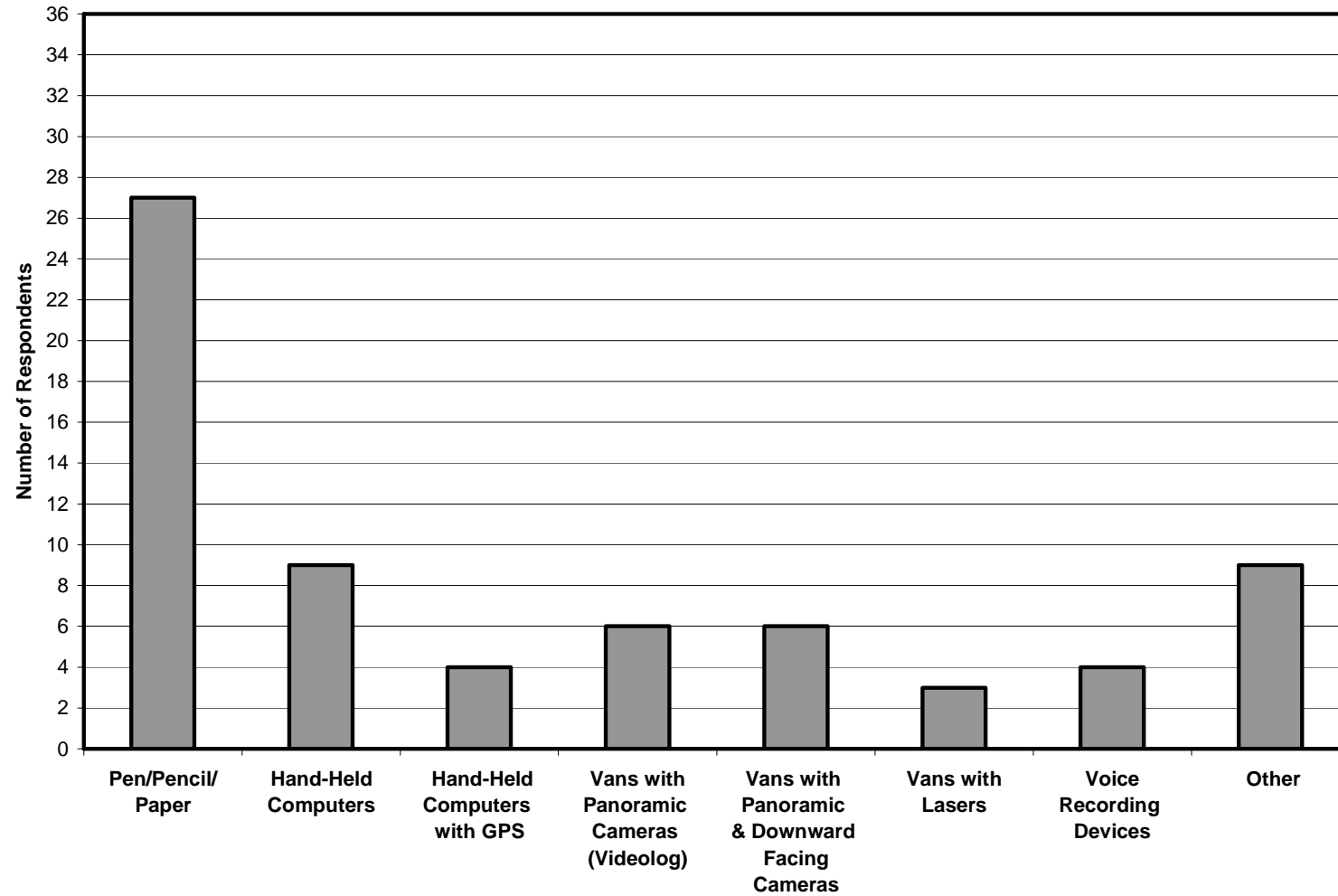


How Often?

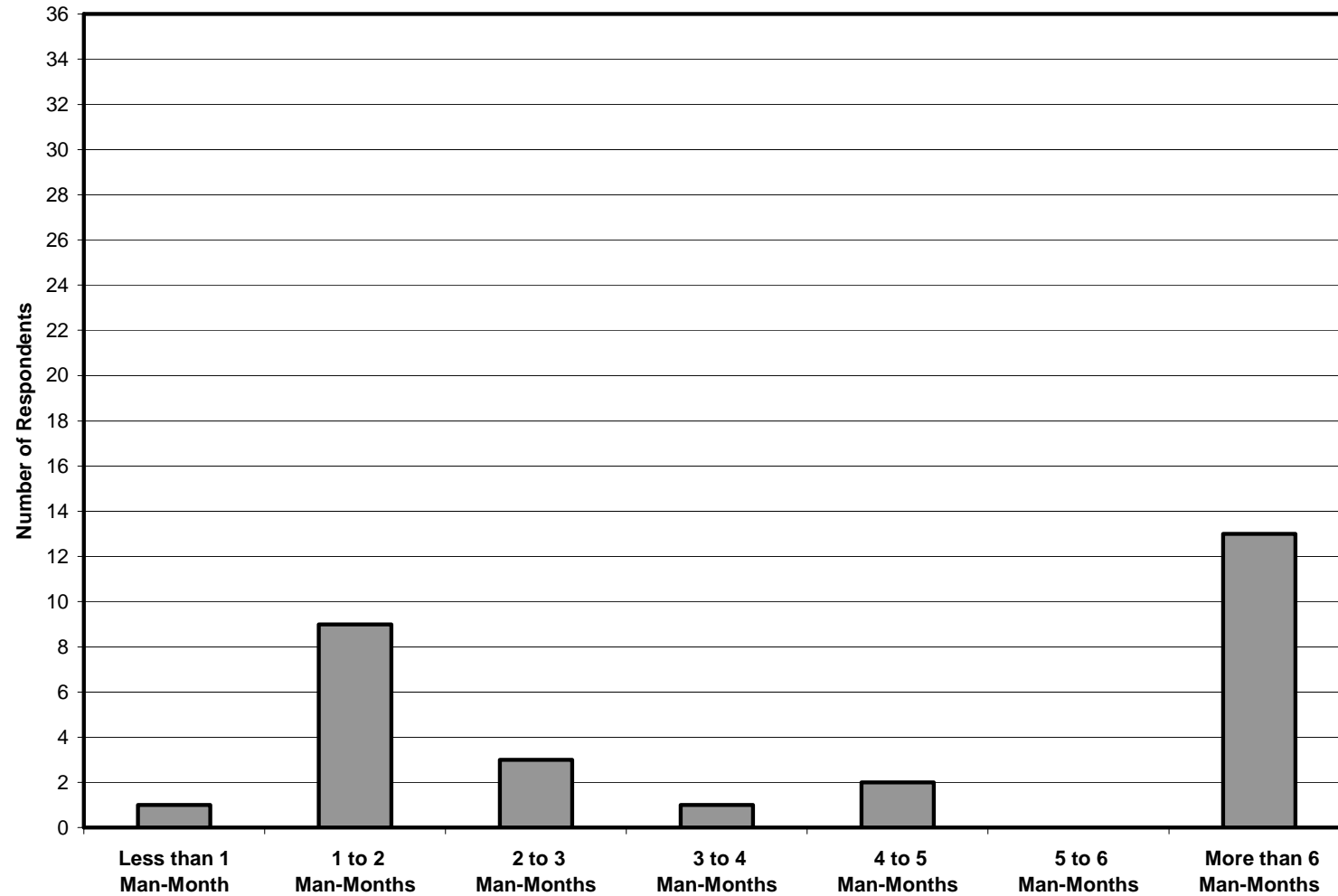




Method Used

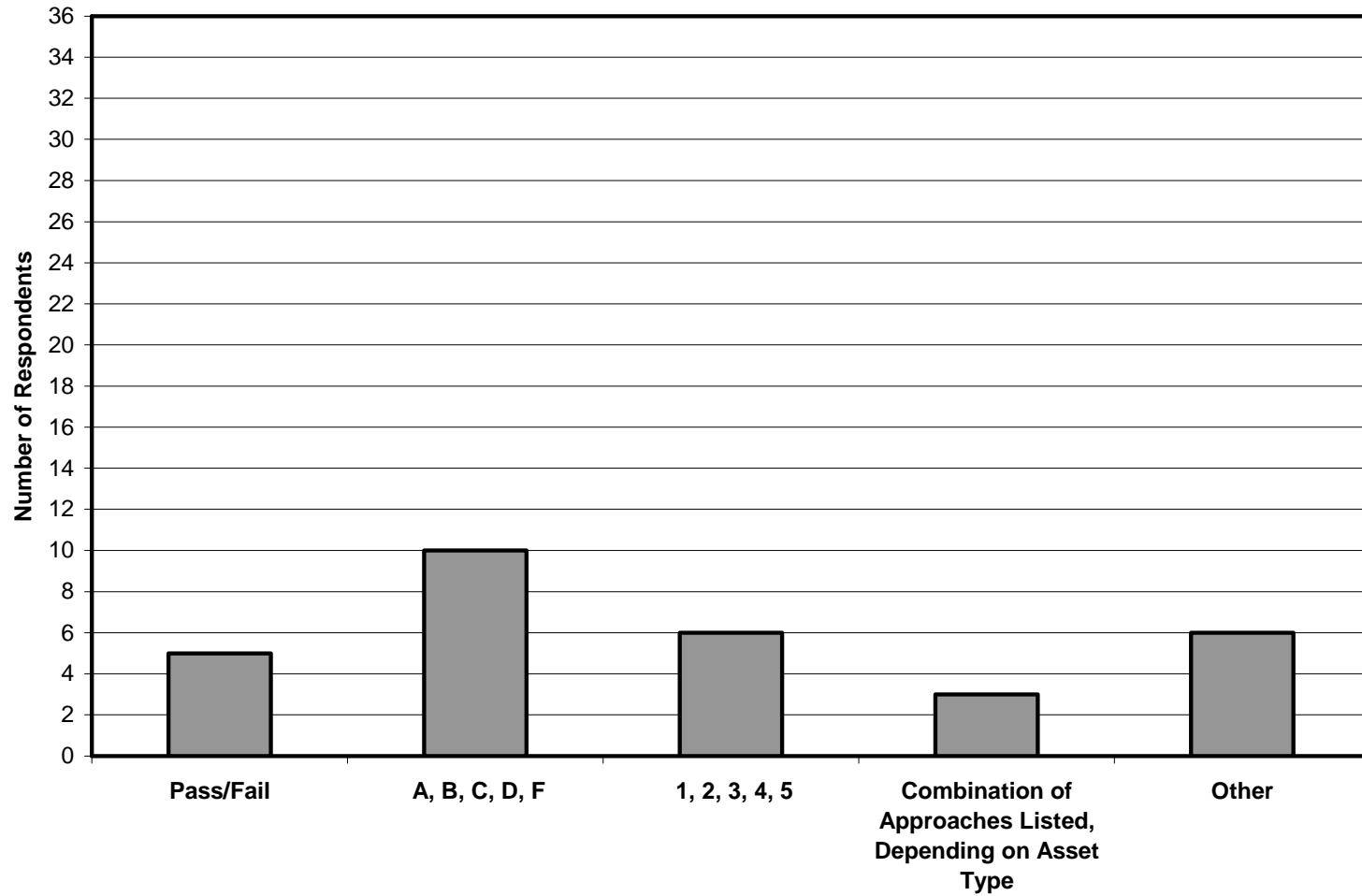


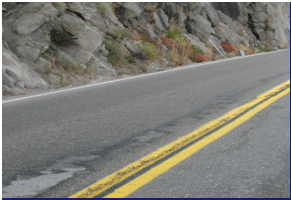
Time Spent



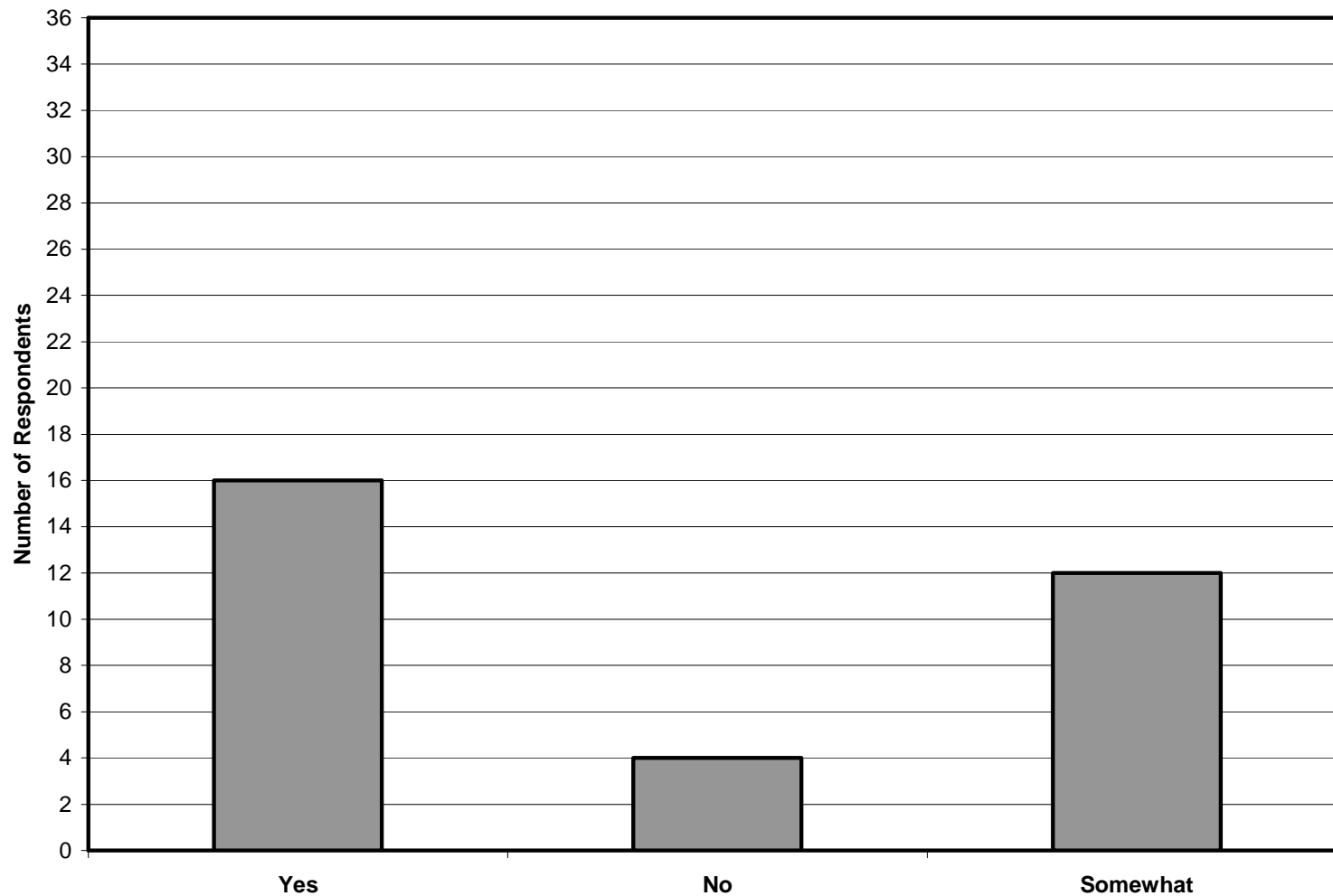


Levels of Service



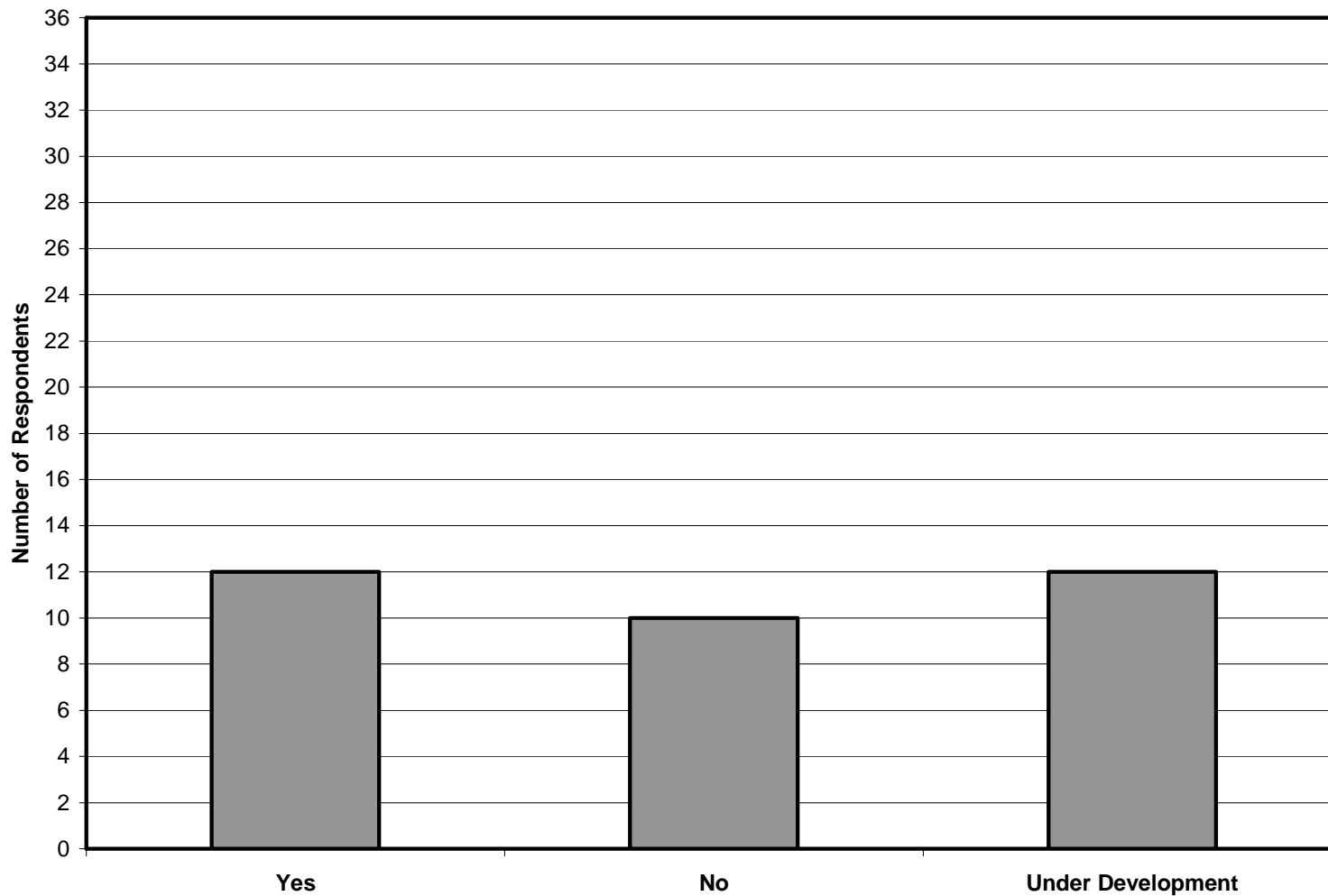


Linked to Strategic Performance?



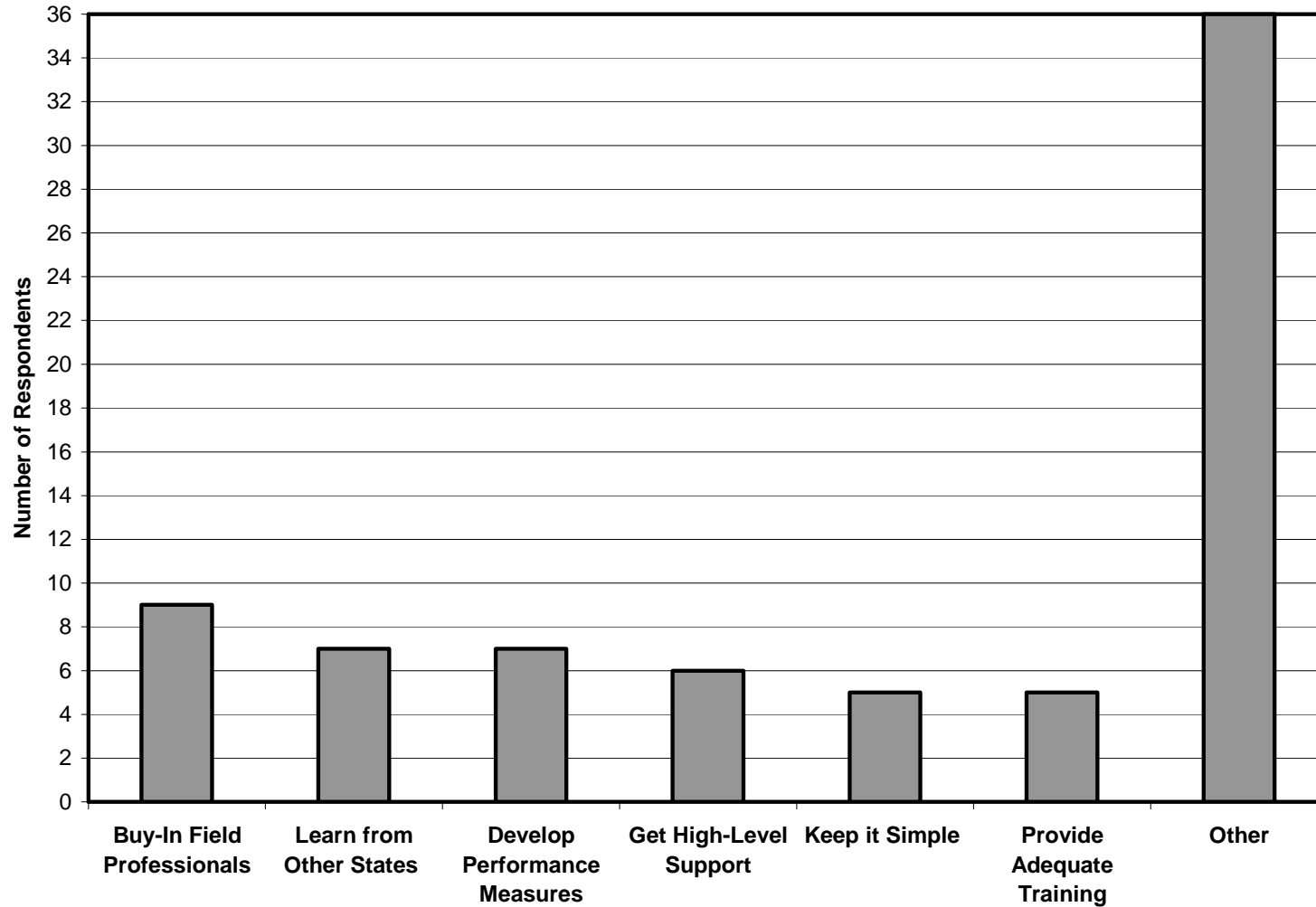


Linked to Budgets?





Tips





Development Areas



- ❖ Establishing performance targets linked to resource requirements
- ❖ Estimating budgets and/or evaluating impacts of investment strategies
- ❖ Scheduling maintenance activities
- ❖ Establishing stronger links between work priorities and customer expectations

Concluding Points

- ❖ A significant number of agencies are enhancing existing capabilities
- ❖ Guidelines are available for interested agencies
- ❖ Research could focus on:
 - Integration of PMS and MMS
 - Statistical applications
 - Budget analysis tools

