

Deployment, Use, and Effect of RT Traveler Information Systems

NCHRP 08-82

Westat & UMD-CATT

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Research Objectives

- Explore Agency Perceptions/Rational for Providing Traveler Info (TI)
- Explore Public Perceptions/Rational for Using TI
- Identify Synergies, Gaps, Recommendations for Improvement, etc.
- Explore Future of TI

Summary of Information Collection

- DOT Agency Surveys & Interviews
 - Web-based Survey (43 agencies responded)
 - Detailed Follow-Up Phone Interviews (5 agencies)
- Travelers
 - Detailed Assessments in DC, Orlando, San Fran, Teaneck
 - Consisted of Surveys, Focus Groups, Traveler Logs
 - Follow Up (Survey Only) Assessments of Detroit, Salt Lake City

Results - Agency

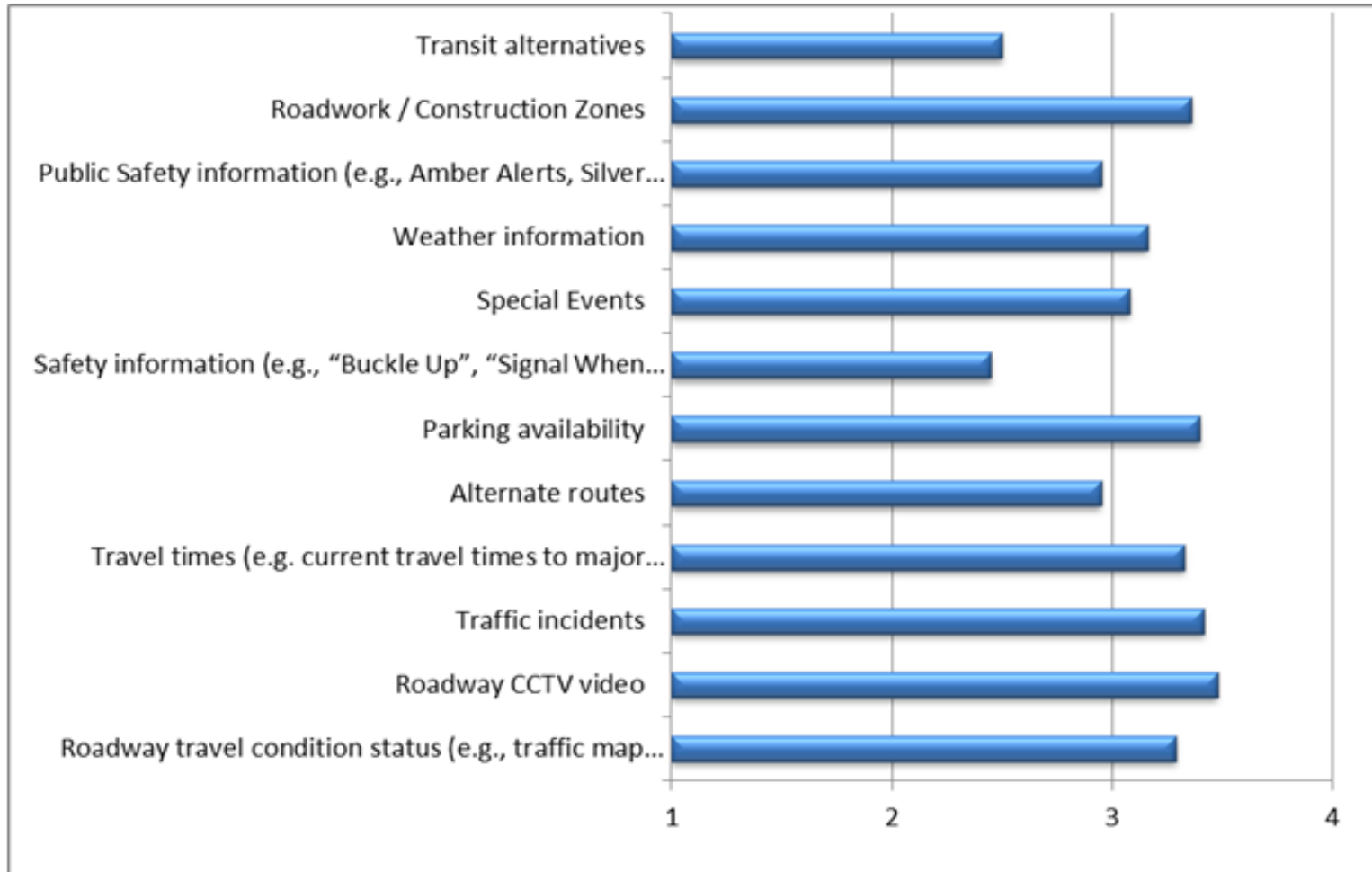


Figure 3. Perceived traveler information system effectiveness in meeting agency goals.

Results - Agency

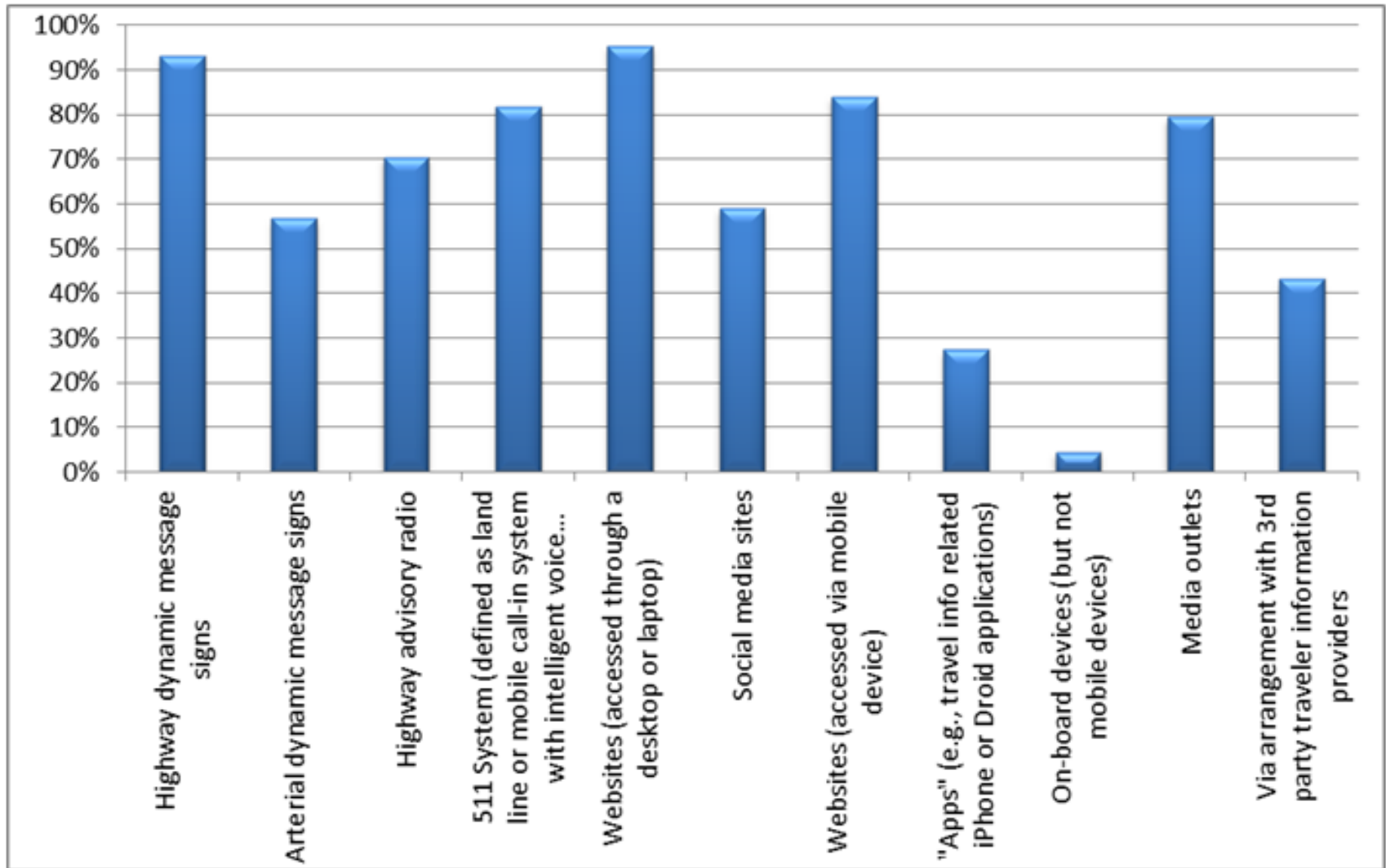


Figure 4. Deployment of traveler information systems.

Results - Agency

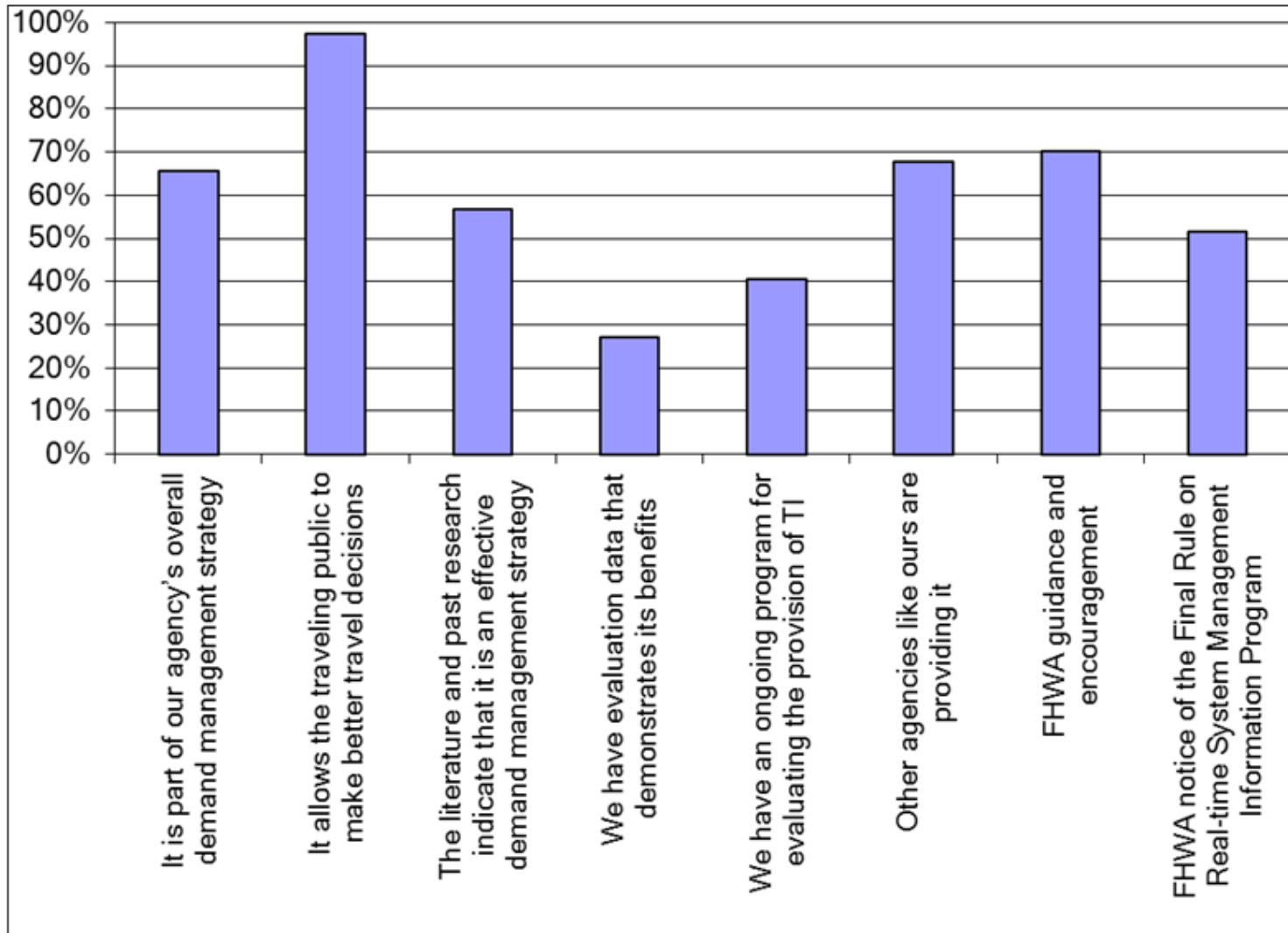


Figure 5. Reasons for disseminating real-time traveler information.

Results - Agency

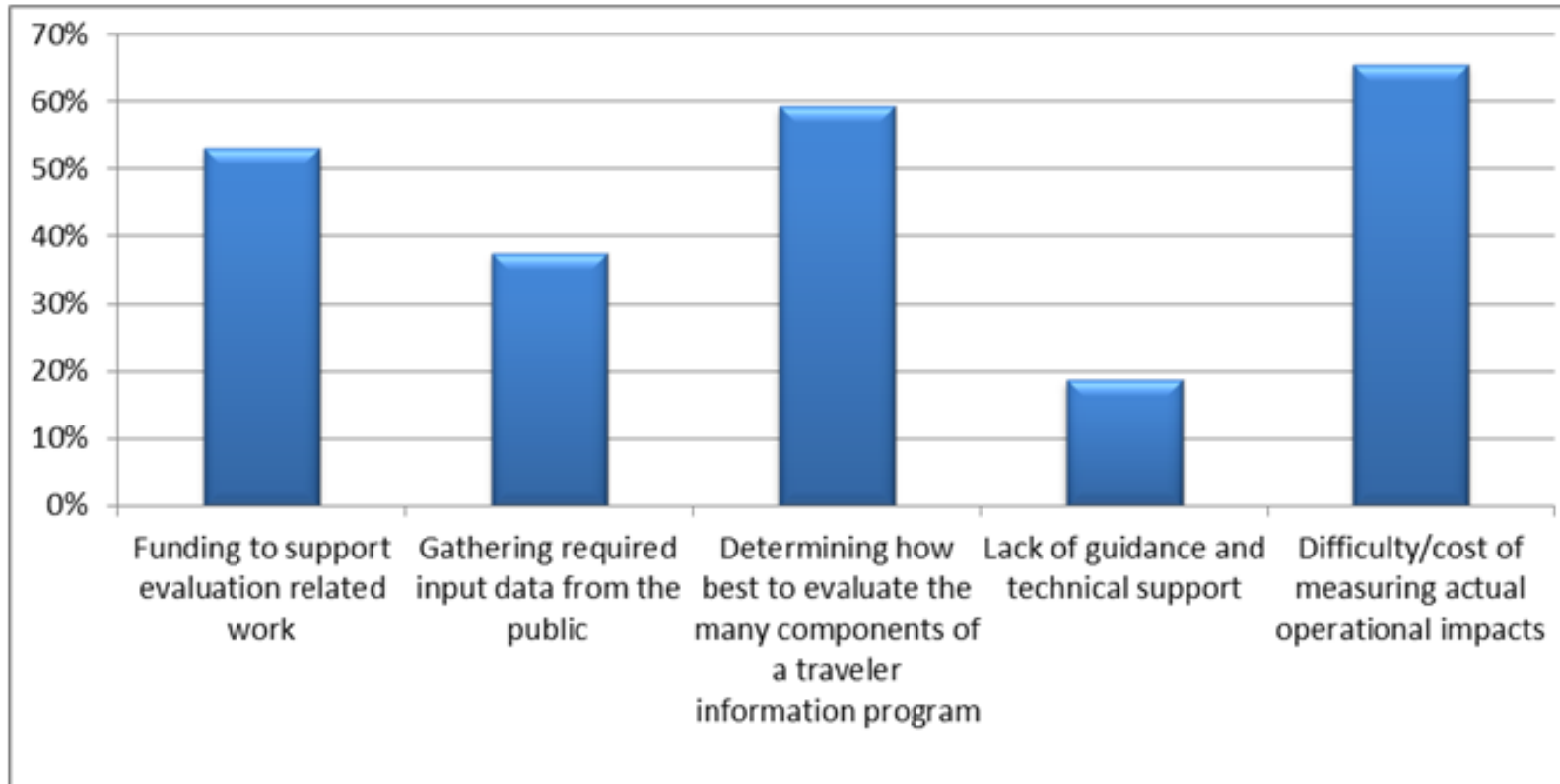


Figure 6. Factors hindering agencies' abilities to effectively evaluate traveler information programs.

Results - Traveler

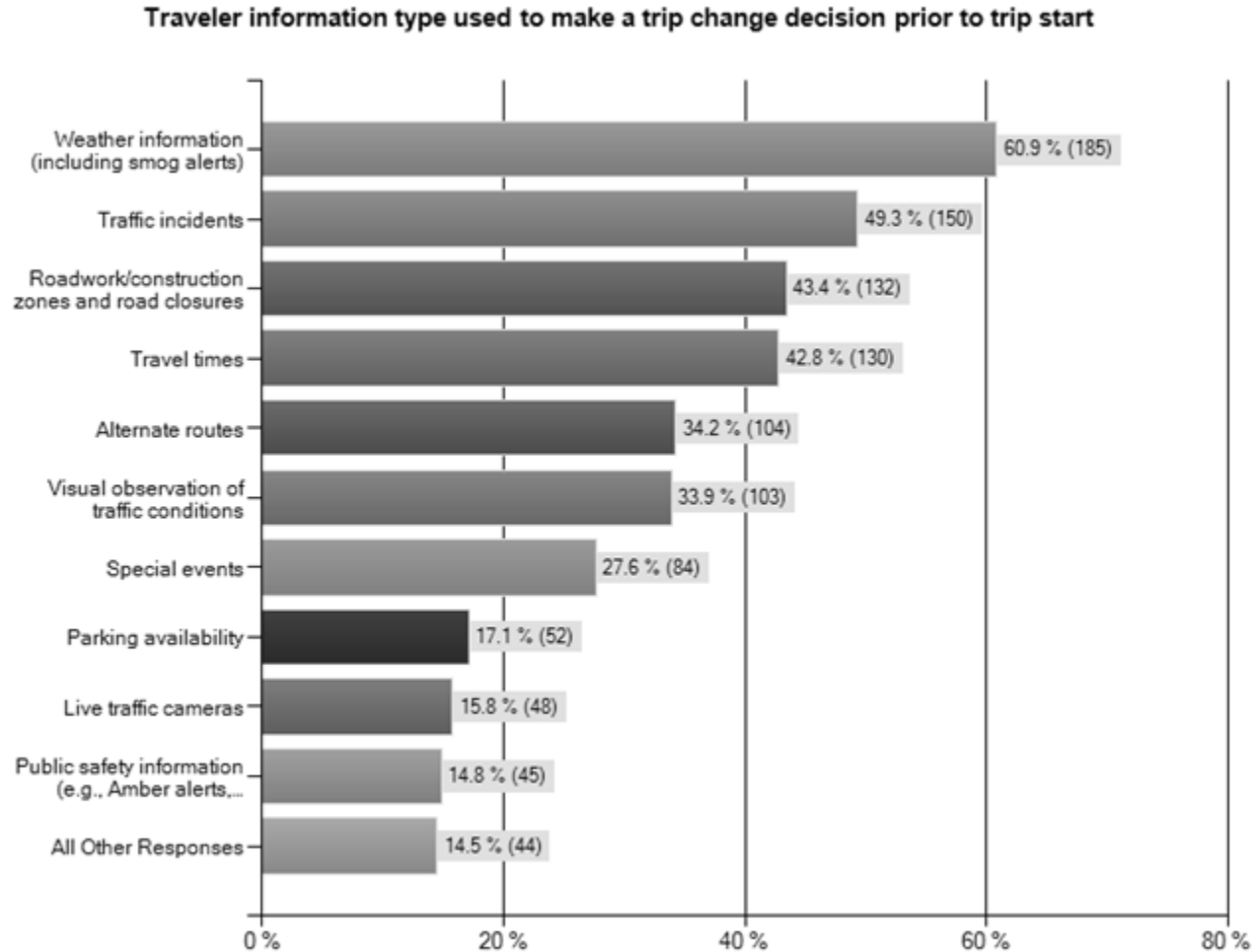


Figure 9. Traveler information type used to make a trip decision prior to trip start (web survey data).

Results - Traveler

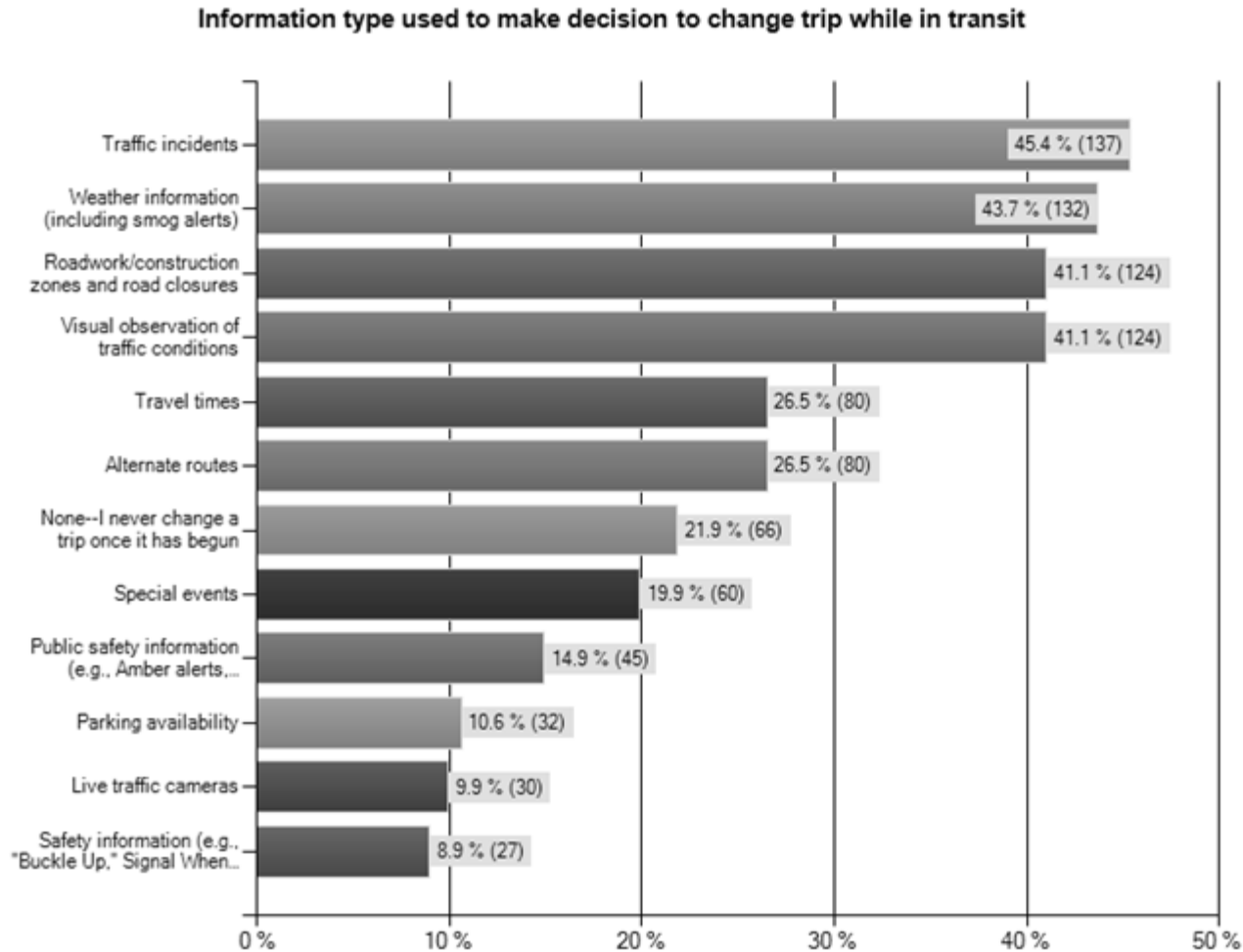


Figure 10. Information type used to make a decision to change trip while in transit (web survey data).

Results - Traveler

Traveler information sources used when changing a trip in the last 3 days

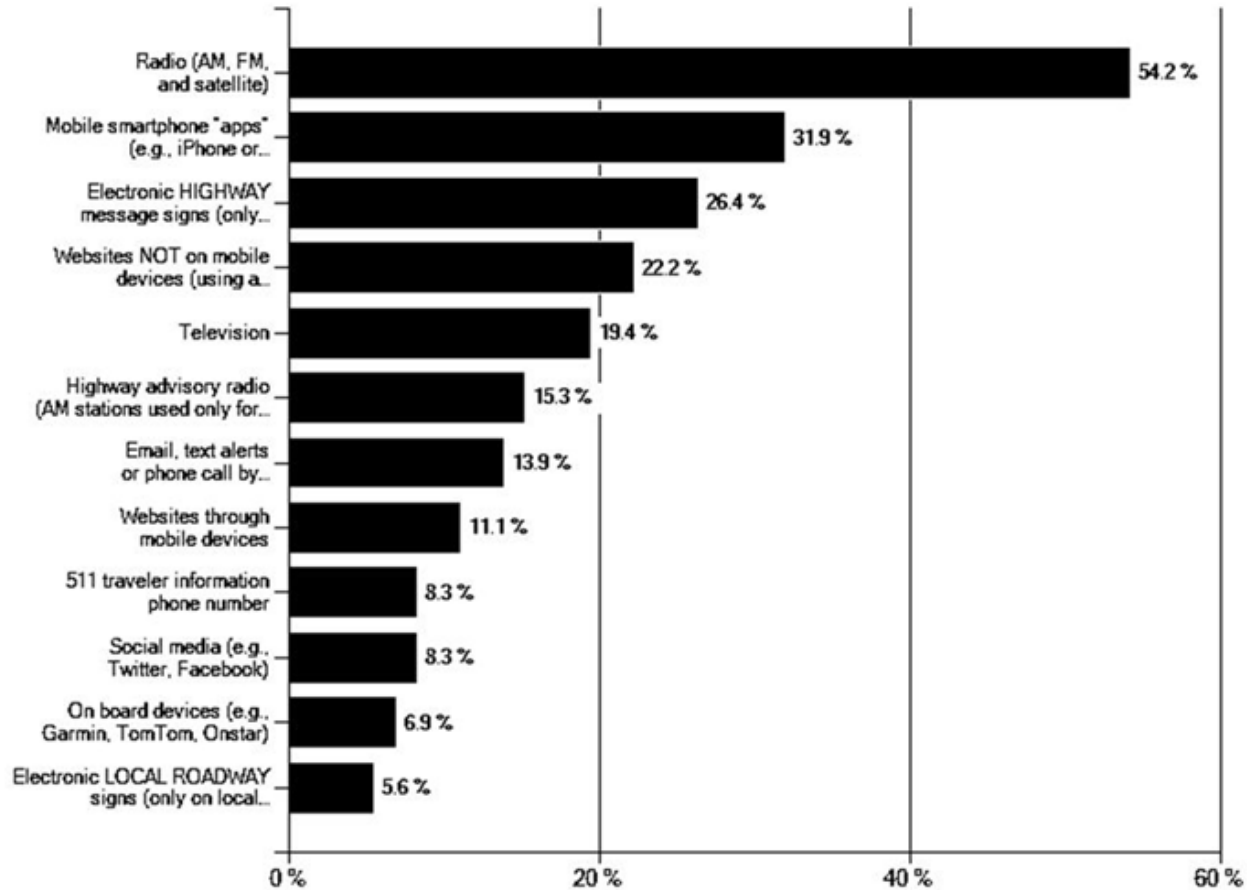


Figure 13. Traveler information sources used when changing a trip in the last 3 days.

Results - Traveler

Traveler Information types used when changing a trip in the last 3 days

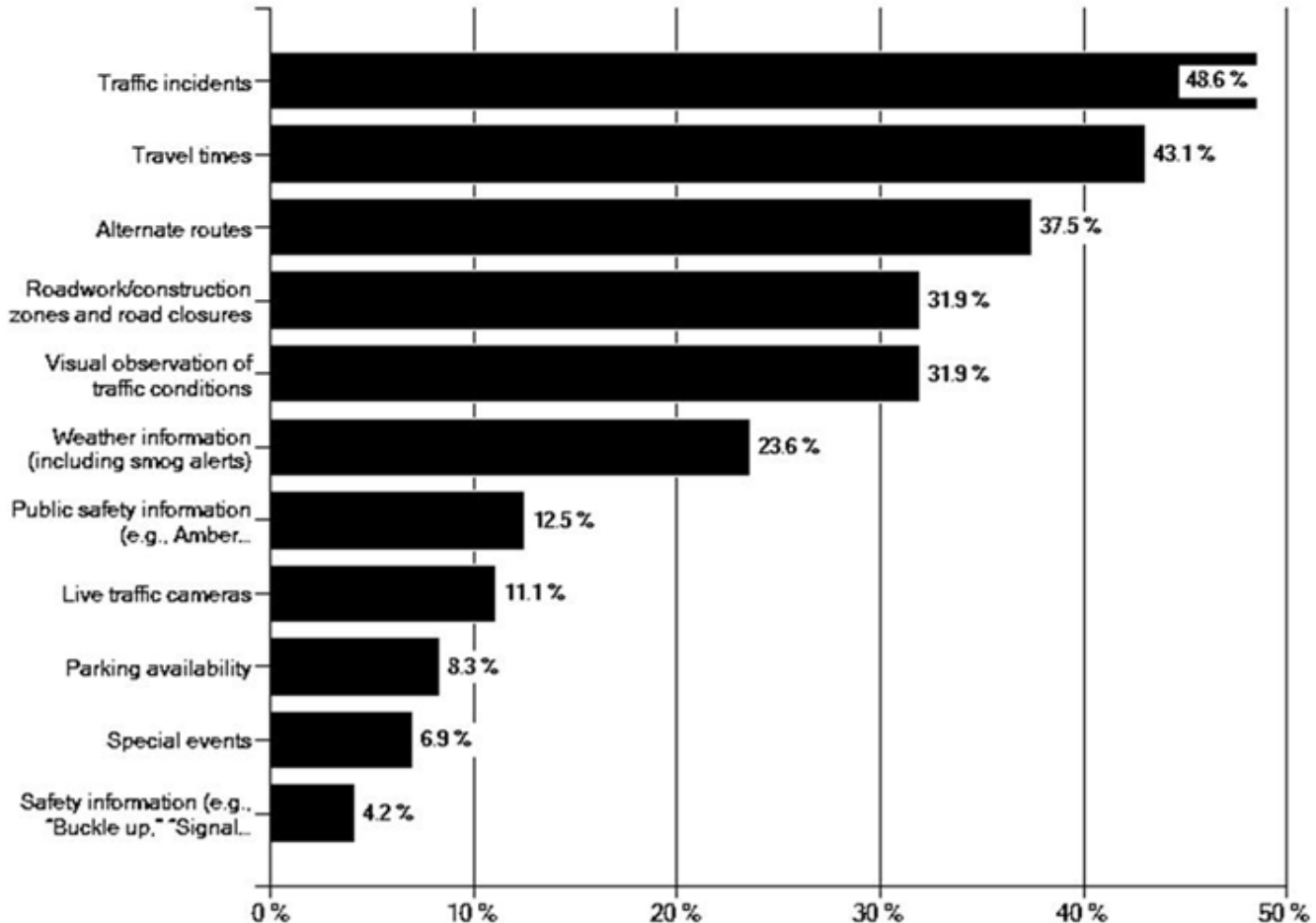


Figure 14. Traveler information types used when changing a trip in the last 3 days.

Results - Traveler

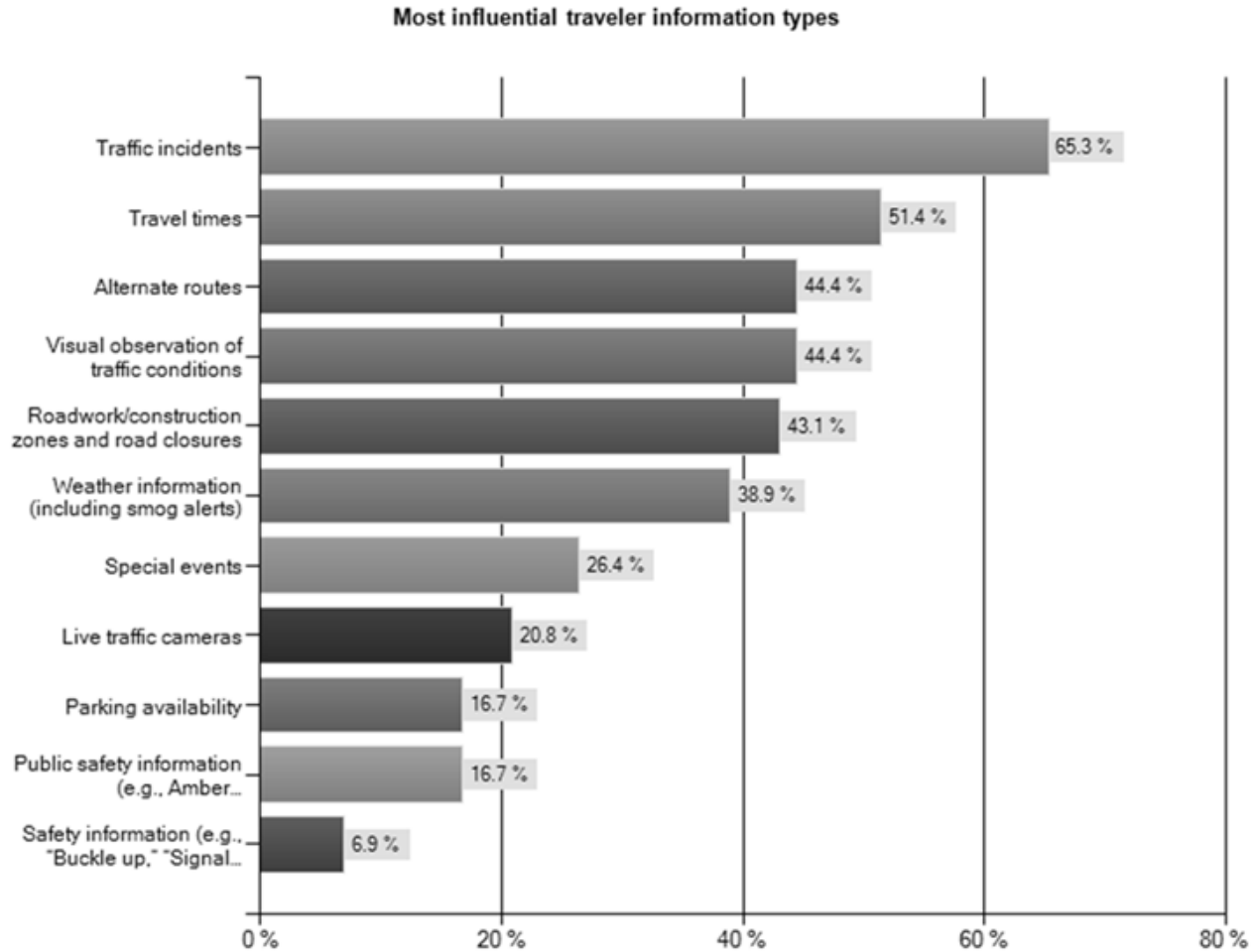


Figure 15. Most influential traveler information types.

Some Interesting Takeaways

- In general, good correlation between what TI agencies are providing & what public wants
- Travelers want incident, weather, and construction info to help make decisions
 - Also like Travel Times & Alternate Route Info
- Travelers want a wide variety of options to obtain TI
 - Radio most important
 - DMS use significant
 - Social media on rise

Some Interesting Takeaways

- Significant Lack of 511 Use/Awareness
- Agencies AND travelers don't perceive HAR as effective means of TI dissemination
- Traveler's perception of DMS:
 - Overall favorable...like to have information
 - General trust in information accuracy
 - Do help make en-route trip adjustments
 - Would like better placement (e.g. before making commitment to getting on highway)

Looking Ahead

- Smartphone / Telematics Integration
 - Apple CarPlay, Google Android Auto, (GM abandoning MyLink)
- More technology integration will remove need for “search and discovery” of TI
 - Integrated technology will (1) know where you are; (2) know where you need to be; (3) know the conditions along the way; (4) know the best time to leave; (5) know the best route to take (and ultimately “drive” you automatically)
- Augmented Reality with smartphones, google glass, wearable technology