# NCHRP Panel Member Survey: A Summary of Results

**Ratings and Comments from Panel Members on NCHRP Projects from 2001 through 2006**

**NCHRP 20-44G**

Prepared by
**CTC & Associates LLC**

**June 10, 2008**

# National Cooperative Highway Research Program

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## NCHRP and Technical Panels

The National Cooperative Highway Research Program is a unique contract research effort that responds to the needs of state DOTs through the resolution of pressing transportation problems. Created in 1962 and funded voluntarily by each state, NCHRP is administered by the Transportation Research Board of the National Academies. More information is available at http://www.trb.org/CRP/NCHRP/NCHRP.asp.

Once NCHRP's annual research program is developed, the Standing Committee on Research of the American Association of State Highway and Transportation Officials sends a report to the AASHTO Board of Directors requesting approval of the program. The final program for each year consists of those continuations and new problem statements that receive a favorable vote by two-thirds or more of the member departments. After AASHTO approves the program, it is referred to the National Academies for administration.

After acceptance by the National Academies (which delegates authority to TRB's Executive Committee Subcommittee for the NCHRP) for administration by TRB, the problem statements are assigned to **panels of experts** who provide guidance on the technical aspects of the research and translate the AASHTO problems into NCHRP research project statements with well-defined objectives.

The **technical panels** review the proposals, recommend contract awards, monitor research in progress, provide technical guidance, and review reports for acceptability and for accomplishment of the agency's research plan. They also provide counsel to TRB staff in matters of overall project administration.

## Survey Overview

Every four years, NCHRP conducts a survey of the project panel members to gauge the utility of individual NCHRP projects and of NCHRP research as a whole. The most recent survey was completed in early 2008, covering the projects that produced 83 NCHRP reports numbered 456 through 558. We have provided a list of projects covered as Appendix A of this report. All panel members for these projects were asked to complete a separate survey response for each project panel that they served on. This would yield a maximum of approximately 600 responses if all panel members for each project responded. The actual number of responses completed was 258, with at least one panel member responding for nearly all of the covered projects (a few of the more recent projects were not represented). For comparison, the 2004 survey generated 521 responses covering 147 projects out of 159 solicited.

We have provided the survey questions in Appendix B, as presented to panel members in a Web-based survey. Respondents were told that the purpose of the survey was to determine the success of the research and any application of the results, either at the respondent's DOT or elsewhere. The survey asked for information on each project for which the respondent was a panel member; projects included in the survey were specified via a drop-down selection list. Information gathered included:

- Panel identifying information
- Optional respondent identifying information

- Ratings (from Very Poor to Very Good, with a No Comment option) on:
  - Contractor performance
  - Panel contributions
  - NCHRP staff support
  - The respondent's overall panel experience
- An overall rating of the outcome of a project, with the following answer choices:
  - Research results have been applied.
  - The research confirmed/advanced current practice.
  - It was unsuccessful.
  - Other.
- Additional comments, including details on how results have been applied, why the project was unsuccessful, or explanations of "Other" responses above.

## Project Outcome Ratings

Project outcome ratings are the core piece of information tracked by the survey; these ratings confirmed the value of NCHRP studies, with only 8% of non-blank responses rating the project as unsuccessful. (251 responses included an outcome rating, with seven responses left blank.) **Throughout this summary, we have provided percentage breakdowns based on the total number of *non-blank* responses**.

The distribution of responses among the 251 responses to this question was as follows:

- 71 respondents (28%) stated that the research results have been applied.
- 129 respondents (52%) stated that the research confirmed current practice.
- 21 respondents (8%) rated the research as unsuccessful.
- 30 respondents (12%) chose "other."

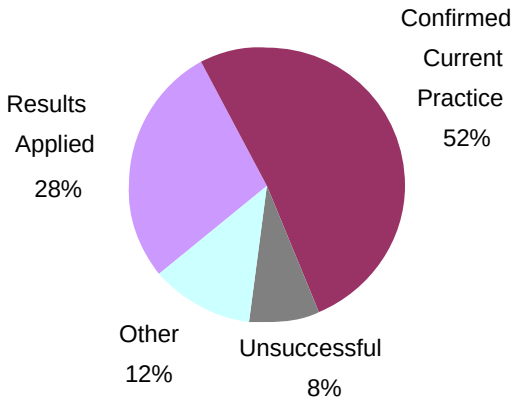


**Figure 1. Respondent Ratings of Project Outcome**

Considered by project, 43 projects (53% of the 81 responses that identified the project/report number) were rated as "applied" by at least one responding panel member, and 31 of the remaining projects (38% of 81) had at least one respondent provide a rating of "confirmed/advanced current practice." This leaves only seven projects, and of these, only three

(4%) had ratings of "unsuccessful" (with the others having answers of "other" with a comment such as "don't know" or "partial"). This breakdown is illustrated in Figure 2.

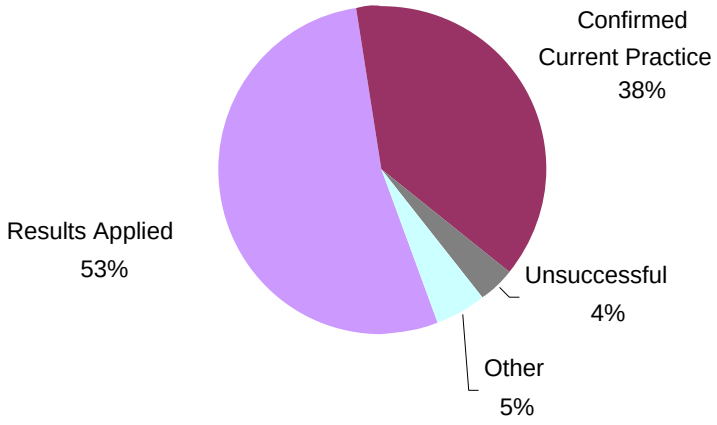


**Figure 2. Best Outcome Rating per Project**

***Characterization of "Other" Responses***

The "Other" option was accompanied by a directive to "specify below" in the supplemental comments text box. The comments place these 30 answers in the following categories:

- In **eight** cases, the research **should be implemented**, but additional effort is needed to do so.
- In **one** case, the research was **in the process of being implemented**.
- In **four** cases, the research is **not yet ready to be implemented**.
- In **three** cases, the research **was partially useful** and partially unsuccessful.
- In **three** cases, the respondent essentially answered that the research was **unsuccessful**.
- In **one** case, the respondent essentially answered that the research **confirmed current practice**.
- In **two** cases, the research was judged as **successful**, but a decision was made **not to implement** it at the respondent's DOT.
- In **six** cases, the respondent **did not know** if the research had been implemented or not.
- In **two** cases, the respondent **did not recall being on the panel** in question.

Multiple respondents made comments about the need for more implementation efforts for NCHRP products. One respondent stated, "The problem with this and other NCHRP projects is the lack of a clear implementation plan with implementation product that can be obtained as part of the study scope approved for funding."

***Characterization of "Unsuccessful" Ratings***

The 21 ratings of "unsuccessful" applied to 19 projects. Interestingly, in all but three of these cases, when a respondent rated a project as unsuccessful, at least one other panel member gave it a different rating. In five cases, at least one of these other ratings was the highest available ("results have been applied").

Comments associated with these 21 ratings of "unsuccessful" can be broken down into these categories:

- In **eight** cases, the complaint was about lack of implementation (or implementability) of results. (For example, "The process and concepts were never accepted by the States in the development and implementation of their Strategic Highway Safety Plan. Too idealistic.")
- In **six** cases, failure was blamed on contractor/researcher performance; often the complaint was that he or she was off track from the panel's directives.
- In **two** cases, the respondent stated that the problem statement was not well formed, and this led to problems.
- In **one** case, the respondent stated that the project did not produce any results not already known.
- In **one** case, the respondent stated that the project results were less clear than was hoped.
- In **one** case, the respondent complained about coordination among NCHRP research projects. ("The software (TRAFLOAD) did not interface with the NCHRP 1-37A software. There should have been better coordination of the two projects.")
- In **one** case, the respondent said that financial resources were insufficient to achieve the desired results.
- In **one** case, the respondent complained of a lack of independence from private sector influences. ("…Also, it clearly promotes pricing by the private sector. This kind of partial view is unacceptable for a supposedly independent research project.")

This comment provides a useful piece of advice: "Projects involving software delivery are a disaster waiting to happen, because at some point, the focus of the project turns from research to development… At this point, the panel and the NCHRP staff should transition from an advisory mode to a project management mode, and have contractual tools that allow them to actively steer the project and ensure that deliverables are well-defined and delivered on a schedule."

***What Types of Results Have Been Applied?***

As noted above, the 71 responses that "results have been applied" cover 43 projects. For all but five of these projects, there was disagreement among panel members; at least one panel member described the project not as applied, but instead as "confirming/advancing current practice." This may be due to the formulation of these answer choices: If something "advances" a current practice (i.e., improves it), then that research could be considered applied. To understand these disagreements, it is useful to look more closely at the comments made by these respondents.

***-Specific Applications***

**Report 464**, "The Restricted Zone in the Superpave Aggregate Gradation Specification," was unanimously described by four responding panel members as applied. One respondent described it as a "very specific, directed project," which led to changes by "many states" in their specifications. Another highly rated project (with four panel members saying that results have been applied and one saying that they confirmed/advanced current practice) was **Report 467**, "Performance Testing for Modular Bridge Joint Systems." This project produced performance test specifications that have been incorporated into state practices; its findings "reflected many concerns" of state DOTs. In the case of **Report 471**, "Evaluation of Roadside Features to Accommodate Vans, Minivans, Pickup Trucks, and 4-Wheel Drive Vehicles" (which, likewise, four respondents rated as applied and one as having confirmed/advanced current practice), "results have been incorporated into the AASHTO Roadside Design Guide publication."

A panel member for **Report 517** stated that "I have used this document on many occasions to help with designing spliced girder bridges," and one for **Report 526** stated that "…many snow and ice control practitioners (especially at the state level) have referenced [this report] when evaluating/updating their own programs." One respondent stated "**Report 534** provides very practical guidelines for suspension bridge owners to carry out cable inspection and evaluation. Based on this report, FHWA is developing a suspension bridge cable inspection primer." In the case of **Report 537**, a respondent said that "The crash tests and computer simulation studies of vehicles impacting curb and curb-barrier combinations advanced our understanding of these complex events. Revised design guidelines were proposed for incorporation into the AASHTO Roadside Design Guide."

**Report 493**, "Evaluation of Traffic Signal Displays for Protected/Permissive Left-Turn Control," had only one panel member responding, but the review was glowing: "This research was extremely comprehensive and answered many long-standing issues. The quality of the research resulted in FHWA issuing an Interim Approval for the use by highway agencies of the flashing yellow arrow (FYA) signal indication for protected-permissive left turns. The FYA has been very well accepted and is now in operation at 500+ intersections all over the U.S. The FHWA has proposed incorporating the FYA into the next edition of the national standards for traffic control devices (MUTCD)."

Applied research often concerned pavement, bridge and roadway design specifications, but also extended into the areas of policy and administration. One interesting example was **Report 525**, "Vol. 7: System Security Awareness for Transportation Employees." Eight members of this panel responded (more than for any other report): four who stated that results had been applied and four who stated that they confirmed/advanced current practice. One respondent said that they were "utilized by the public sector oriented portion of our membership (Institute of Transportation Engineers) which constitutes approximately 21% of the total membership of 17,000." Another stated that the project results were used in a "CD put out by NTI concerning terrorism awareness. Many agencies train employees through the USDOT Transportation Safety Institute Courses."

***-Ways in Which "Confirmed/Advanced Current Practice" Results Are Applied***

In some cases, reports provided important groundwork for later research that was applied, such as in the case of **Report 459**. One panel member stated, "Good information gathered which has led to important recent advancements well after completion of the project itself. For example, newly proposed MSCR test for binders originated with this project. Work on fatigue pointed out deficiencies in the state of the art at that time, which is only now being exploited in ways that may soon lead to a solution from the same PI."

In the case of **Report 511**, "Guide for Customer-Driven Benchmarking of Maintenance," one respondent described the results as applied: "...a developer for a commercial maintenance management system… mentioned using the products of the… research. New tools were being written to utilize the concepts of performance frontiers." The other responding panel member stated that the research had confirmed/advanced current practice, acting as a "springboard for defining highway maintenance performance measures. Including identifying common measures, data collection, and linking output and results for highway maintenance activities."

**Report 532**, "Effective Methods for Environmental Justice Assessment" received three ratings of "confirmed/advanced current practice," but garnered this comment indicating results were being applied: "Some of the methods are being picked up beyond the roadway projects; e.g., the Baltimore EJ project. This is encouraging."

***-Why Isn't Research Applied?***

As listed in the comments on "unsuccessful" reports above, in some cases results are incomplete, unclear or impractical to implement. In other cases, lack of implementation resulted from factors that are either beyond NCHRP's control, or alternately, should be taken further into account at the time a study is devised. Discussing **Report 463**, "Economic Implications of Congestion," one respondent stated, "Unfortunately decisions regarding transportation facilities are not made based on economic impacts. They are mostly made based on funding/administrative/political factors. That is why the results were never really used." In the case of **Report 482**, "Guidance for Selecting Compensatory Wetlands Mitigation Options," a panel member said that "While this project somewhat confirmed current practice, selecting mitigation options at the time was and continues to be constrained by local practices, regulatory policy, cost, and opportunity. These remain as significant factors in determination of compensatory mitigation implementation. FHWA continues to try to move toward an ecosystem or watershed based approach, in spite of significant obstacles, including local practices, opportunities, and a regulatory perspective that on-site mitigation is often preferable."

In regard to **Report 474**, "Assessment of Impacts of Bridge-Deck Runoff Contaminants in Receiving Waters," a panel member claimed that "In CA, there was little to no recognition of the completed work by regulatory water board staff. The quality and level of research was excellent, and so was the report. Caltrans staff in the Oakland office were savvy about the work and its application to the San Francisco Oakland Bay Bridge; however, regulatory water board staff (2 boards, I believe) basically ignored the research, data collection, findings, and application; they ultimately demanded monies be spent on mitigation that was basically 'superficial.'" In the same comment, however, the respondent provides this positive advice: "The Academies need to develop and establish an implementation program that goes beyond publishing reports and issuing CDs… So, marketing the products and spending time and money to implement them is really needed. Also, it would benefit some projects to be "regionally" staffed and funded, as scoping a "nationwide" effort is often too generic for some topics, and that is a likely cause for lack of implementation."

## Contractor Performance Ratings

Thirteen respondents either did not rate contractor performance or selected "No comment." Of the 245 remaining respondents, only 3% rated contractor performance negatively (two ratings of "very poor" and five ratings of "poor"), while 15% (37 responses) rated performance as "fair" and the vast majority (201 responses, or 82%) rated it as good (106 responses) or very good (95 responses). The mean contractor performance rating for all responses was 4.17, where 4 represents "good" and 5 is "very good."

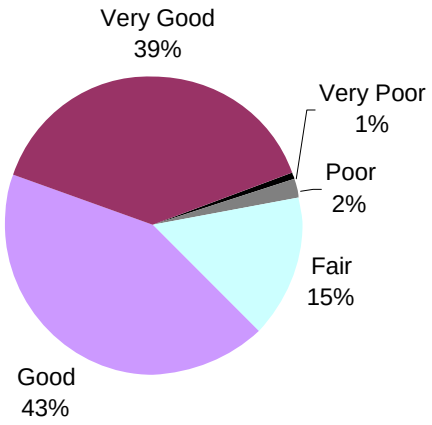


**Figure 3. Contractor Performance Ratings**

## Panel Contributions

How well did panel members serve to provide value to the project, according to the panel members themselves? Eleven respondents did not answer this question or selected "No comment." Of the 247 remaining respondents, only 2% (five respondents) rated support as "poor," with no votes for "very poor." Some 7% (18 respondents) rated support as fair, while 91% (224 respondents) rated panel contributions as good (113 respondents) or very good (111 respondents). The mean rating was 4.33.

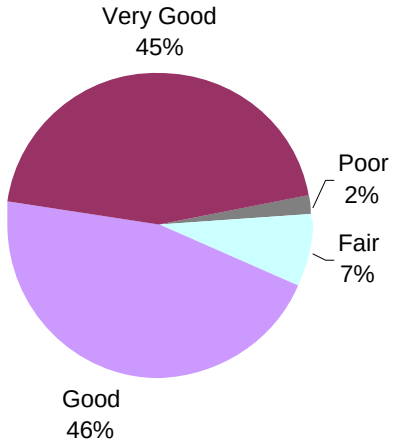


**Figure 4. Panel Contribution Ratings**

## NCHRP Staff Support

Fourteen respondents did not answer this question or selected "No comment." Of the 244 remaining respondents, only 1% (three respondents) rated support as "poor," with no votes for "very poor." Only 3% (seven respondents) rated support as fair, and 96% (234 respondents) rated it as good (64 respondents) or very good (170 respondents). The mean rating was 4.64. This was the most highly rated category, and indicates a key strength of NCHRP.

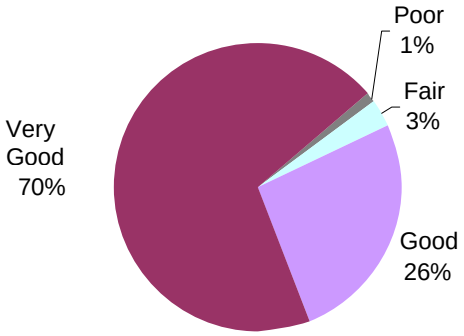


**Figure 5. NCHRP Staff Support Ratings**

## Overall Project Panel Experience

Twelve respondents did not answer this question or selected "No comment." Of the 246 remaining respondents, only one (less than 0.5%) rated his or her overall experience as "poor," and no one rated a panel experience as "very poor." Some 9% (22 respondents) rated their experience as fair, while 91% (224 respondents) rated their experience as good (95 respondents) or very good (129 respondents). The mean rating was 4.43.

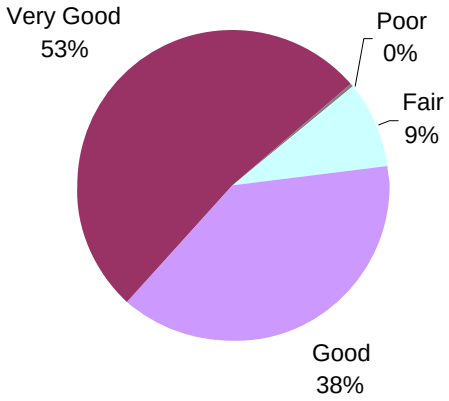


**Figure 6. Overall Respondent Panel Experience Ratings**

## Identifying Information

Some 156 individuals (via 183 responses) provided their names and phone numbers to allow follow-up contact for additional details. This represented 71% of survey responses.

## Summary

The overall findings of this survey are extremely positive for NCHRP, with project results frequently applied and often considered "definitive guidance." The overall positive responses in ratings of project outcome include 200 out of 251 respondents saying that the research has been applied or has confirmed/advanced current practice, plus an additional 12 "other" responses with unambiguously positive comments, bringing the total positive response rate to 84.5%. This compares to only 24 responses (9.6% of the 251) that rated the project as unsuccessful (21) or as "other" with a negative comment (3).

Considered by project instead of by individual response (as many projects had multiple responses), 91% (74 out of 81 identified projects) were rated as applied or as having confirmed/advanced current practice by at least one panel member, as compared to only 4% (3 projects) rated as unsuccessful by all responding panel members.

In a similarly positive vein, the percentage of responses that rated other specific categories as "good" or "very good" was also very high:

- NCHRP staff support: 96%
- Panel contributions: 91%
- Overall project panel experience: 91%

Ratings of contractor performance were slightly lower, though still very positive, with 82% of respondents selecting "good" or "very good" and only 3% selecting "poor" or "very poor." One respondent stated the concern this way: "I believe NCHRP is a very valuable organization that advances our transportation practice. We cannot live without it. I will say that the only issue I have with NCHRP is that the selected contractors at times perform very poorly. The contracts take far longer to complete and many of us that volunteer our time end up with conflicts that hurt our participation. This has happened to me twice. NCHRP staff is great—but we need to hold contractors accountable."

The average ratings across all responses for the four categories were higher than those from 2004 when this survey was last administered. The scores are as follows, with 4 as the numerical equivalent of "good" and 5 indicating "very good":

- Contractor performance: 4.17 (as compared to the 2004 survey's score of 3.93)
- NCHRP staff support: 4.64 (2004 score: 4.49)
- Panel contributions: 4.33 (2004 score: 4.14)
- Overall project panel experience: 4.43 (2004 score: 4.19)

In the words of one respondent (discussing **Report 537**): "I thoroughly enjoyed my experience on this and on the other panels on which I've served. NCHRP staff support is consistently very good and for the most part panel members are highly professional and productive. It was an honor to serve on this panel and would be happy to do so again if called upon."

### *Lessons Learned and Ideas Gathered*

To maximize the probability of a project being successful, comments indicate that panels must be vigilant in ensuring that the problem statement is well defined and that the scope of the research is communicated clearly to the contractor, with regular monitoring and correction for

deviation from the project scope. The project should be carefully coordinated with other research projects and designed to ensure that results will not be duplicative of existing or concurrent work. Most pressingly, the project needs to be formulated with an eye to implementability, and a feasible implementation plan should be drafted when possible. As one respondent stated, some state agencies lack “any systematic procedure for disseminating new products and reports such as those that come from NCHRP. They arrive at our agency, may or may not get forwarded to appropriate staff, and may or may not (usually not) be discussed at discipline meetings or evaluated for use by the agency.”

The survey also produced some specific ideas for NCHRP to consider. For instance, one respondent complained about strict RFP deadlines that ruled out (because of a document being received an hour late) a contractor that in the respondent’s opinion, would have produced better results than the team selected. Another comment made by one respondent was that when a project is extended, the research team that performed the initial study should not be so often selected to perform the extended project, particularly when the extended study is different than the initial study. A third respondent expressed the need for tighter review deadlines so that reviews get done and that staff changes over the course of a project do not necessitate repeating the same recommendations.

The overall theme of the bulk of survey comments is that NCHRP plays a unique and valuable role in transportation research in its ability to identify and address state DOT research needs, and that its reach should be extended to facilitate more thorough implementation of the valuable research that NCHRP produces.

# Appendix A – Surveyed NCHRP Reports



Publication Titles

| | |
|---|---|
| 456 | 'Guidebook for Assessing the Social and Economic Effects of Transportation Projects' |
| 457 | 'Assessing Traffic Control Signal Installations Using Capacity Analysis and Simulation' |
| 459 | 'Characterization of Modified Asphalt Binders in Superpave Mix Design' |
| 460 | 'Guidelines for Implementation of Multimodal Transpo. Location Referencing Systems' |
| 463 | 'Economic Implications of Congestion' |
| 464 | 'The Restricted Zone in the Superpave Aggregate Gradation Specification' |
| 466 | 'Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects' |
| 467 | 'Performance Testing for Modular Bridge Joint Systems' |
| 468 | 'Contribution of Pavement Structural Layers to Rutting of Hot-Mix Asphalt Pavements' |
| 469 | 'Fatigue-Resistant Design of Cantilevered Signal, Sign, and Light Supports' |
| 470 | 'Traffic Control Devices for Passive Railroad-Highway Grade Crossings' |
| 471 | 'Evaluation of Roadside Features to Accommodate Vans; Minivans; Pickups...' |
| 472 | 'Comprehensive Specification for the Seismic Design of Bridges' |
| 473 | 'Recommended Specification for Large-Span Culverts' |
| 474 | 'Assessment of Impacts of Bridge-Deck Runoff Contaminants in Receiving Waters' |
| 475 | 'A Procedure for Assessing & Planning Nighttime Highway Construction and Maintenance' |
| 476 | 'Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance' |
| 477 | 'Recommended Practice for Metal-Tensioned Systems in Geotechnical Applications' |
| 478 | 'Relationship of Superpave Gyratory Compaction Properties to HMA Rutting Behavior' |
| 479 | 'Short-Term Monitoring for Compliance with Air Quality Standards' |
| 480 | 'A Guide to Best Practices for Context Sensitive Solutions' |
| 481 | 'EIM & DSS Implementation Handbook' |
| 482 | 'Guidance for Selecting Compensatory Wetlands Mitigation Options' |
| 483 | 'Life-Cycle Cost Analysis for Bridges' |
| 484 | 'Feasibility Study for an All-White Pavement Marking System' |
| 485 | 'Bridge Software: Validation Guidelines & Examples' |
| 486 | 'Systemwide Impact of Safety and Traffic Operations Design Decisions for 3R Projects' |
| 487 | 'Using Customer Needs to Drive Transportation Decisions' |
| 488 | 'Additional Investigations on Driver Information Overload' |
| 489 | 'Design of Highway Bridges for Extreme Events' |
| 490 | 'In-Service Performance of Barrier Systems' |
| 491 | 'Crash Experience Warrant for Traffic Signals' |
| 492 | 'Roadside Safety Analysis Program (RSAP): Engineer's Manual' |
| 493 | 'Evaluation of Traffic Signal Displays for Protected/Permissive Left-Turn Control' |
| 494 | 'Structural Supports for Highway Signs, Luminaires, and Traffic Signals' |
| 495 | 'Effect of Truck Weight on Bridge Network Costs' |
| 497 | 'Financing and Improving Land Access to U.S. Intermodal Cargo Hubs' |
| 499 | 'Effects of Subsurface Drainage on Performance of Asphalt and Concrete Pavements' |
| 501 | 'Integrated Safety Management Process' |
| 502 | 'Geometric Design Consistency on High-Speed Rural Two-Lane Roadways' |
| 503 | 'Application of Fiber-Reinforced Polymer Composites to the Highway Infrastructure' |
| 504 | 'Design Speed, Operating Speed, and Posted Speed Practices' |
| 505 | 'Review of Truck Characteristics as Factors in Roadway Design' |
| 506 | 'Quality and Accuracy of Positional Data in Transportation' |
| 507 | 'Load and Resistance Factor Design (LRFD) for Deep Foundations' |

# Appendix A – Surveyed NCHRP Reports



Publication Titles

| | |
|---|---|
| 508 | 'Accelerated Laboratory Rutting Tests: Evaluation of the Asphalt Pavement Analyzer' |
| 509 | 'Equipment for Collecting Traffic Load Data' |
| 511 | 'Guide for Customer-Driven Benchmarking of Maintenance Activities' |
| 512 | 'Accelerated Pavement Testing: Data Guidelines' |
| 514 | 'Bonded Repair and Retrofit of Concrete Structures Using FRP Composites' |
| 515 | 'Portable Scour Monitoring Equipment' |
| 516 | 'Pier and Contraction Scour in Cohesive Soils' |
| 517 | 'Extending Span Ranges of Precast Prestressed Concrete Girders' |
| 518 | 'Safety Evaluation of Permanent Raised Pavement Markers' |
| 519 | 'Connection of Simple-Span Precast Concrete Girders for Continuity' |
| 520 | 'Sharing Info between Public Safety and Transportation Agencies for Traffic Incident Management' |
| 521 | 'Identification of Research Needs Related to Highway Runoff Management' |
| 523 | 'Optimal Timing of Pavement Preventive Maintenance Treatment Applications' |
| 524 | 'Safety of U-Turns at Unsignalized Median Openings' |
| 525 | 'Vol. 4: A Self-Study Course on Terrorism-Related Risk Management of Highway Infrastructure' |
| 526 | 'Snow and Ice Control: Guidelines for Materials and Methods' |
| 527 | 'Integrated Steel Box-Beam Pier Caps' |
| 528 | 'Thermally Sprayed Metal Coatings to Protect Steel Piling: Final Report and Guides' |
| 529 | 'Guideline and Recommended Standard for Geofoam Applications in Highway Embankments' |
| 531 | 'Relationship of Air Voids, Lift Thickness, & Permeability in Hot Mix Asphalt Pavements' |
| 532 | 'Effective Methods for Environmental Justice Assessment' |
| 533 | 'Handbook for Predicting Stream Meander Mitigation' |
| 534 | 'Guidelines for Inspection and Strength Evaluation of Suspension Bridge Parallel Wire Cables' |
| 535 | 'Predicting Air Quality Effects of Traffic-Flow Improvements' |
| 537 | 'Recommended Guidelines for Curb and Curb-Barrier Installations' |
| 538 | Traffic Data Collection, Analysis, and Forecasting for Mechanistic Pavement Design' |
| 539 | 'Aggregate Properties and the Performance of Superpave-Designed Hot Mix Asphalt' |
| 540 | 'Guidelines for Early Opening-to-Traffic Portland Cement Concrete for Pavement Rehabilitation' |
| 541 | 'Consideration of Environmental Factors in Transportation Systems Planning' |
| 542 | 'Evaluating Cultural Resource Significance: Implementation Tools' |
| 543 | 'Effective Slab Width for Composite Steel Bridge Members' |
| 544 | 'Environmentally Sensitive Channel- and Bank-Protection Measures' |
| 556 | 'Guidelines for Geosynthetic-Reinforced Soil Bridge Abutments with a Flexible Facing' |
| 558 | 'Manual on Service Life of Corrosion-Damaged Reinforced Concrete Bridge Superstructure' |
| RRD 262 | 'Field Shear Test for Hot Mix Asphalt' |
| Unspecified | Unspecified |
| XX | 'Improved Framework and Tools for Highway Pricing Decisions' |
| XXX | 'ESTIMATION OF SCOUR DEPTH AT BRIDGE ABUTMENTS' |

# Appendix B: Survey of Retired NCHRP Panel

The NCHRP is constantly seeking ways to improve the conduct of research projects and implementation of research findings. A few years back, you participated in the subject NCHRP Project Panel as a panel member. Now that some years have passed since the project was completed, the NCHRP would like to determine the success of the research and any application of the results, either at your DOT, agency, or elsewhere. Given your personal knowledge of this project, I would appreciate your taking a few minutes of your time to answer the following questions.

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1) Please select the panel you served on. *The list below is sorted by NCHRP Panel number.*
**Note**: In you served on multiple panels, please complete this survey for **each** panel by returning to this page via http://trb.org/ss/wsb.dll/s/1bg41

2) How would you rate the following aspects of the project?

| | Very Good | Good | Fair | Poor | Very Poor | No Comment |
|---|---|---|---|---|---|---|
| Contractor's Performance was: | ○ | ○ | ○ | ○ | ○ | ○ |
| Panel Contributions were: | ○ | ○ | ○ | ○ | ○ | ○ |
| NCHRP Staff Support was: | ○ | ○ | ○ | ○ | ○ | ○ |
| Your Overall Experience was: | ○ | ○ | ○ | ○ | ○ | ○ |

3) Please check the statement which best describes the project's outcome:

- ○ Research results have been applied. (Please explain and provide contact information in Questions 4, 5, and 6)
- ○ The research confirmed/advanced current practice
- ○ It was unsuccessful (if you know why it failed, please explain in Question 4)
- ○ Other (Please specify in item Question 4)

4) If you have any additional thoughts, please comment:

5) ***Optional*** **Name:**

6) ***Optional*** **Phone:**

---

Thank you!

Submit Survey

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# Appendix C – Full Survey Results

Publication No.: 456 (25-19) Sr. Program Officer: Christopher J.

Title: *'Guidebook for Assessing the Social and Economic Effects of Transportation Projects'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | | 4 | 5 | 4 | 4.33 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| **Project Averages** | | 4 | 4.5 | 4.5 | 4 | |

Comments:

There was considerable contractor delay due to illness. The product was academic and not very user friendly.

Publication No.: 457 (03-58) Sr. Program Officer: B. Ray Derr

Title: *'Assessing Traffic Control Signal Installations Using Capacity Analysis and Simulation'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| 2 | | | | | | NR |
| 3 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.5 | 5 | 5 | 5 | |

Comments:

Overall my panel participation has been very positive and beneficial to my career.

As far as I can recall, I did not serve on this panel, but I recently served on the Accessible Pedestrian Signals Panel, but it may not have been closed

I have provided the report to my staff and other agencies. Those that have used it, find it a helpful & useful tool for analyzing intersections for signal warrants and overall operational issues.

## Appendix C – Full Survey Results

Publication No.: 459 (09-10) Sr. Program Officer: Edward T. Harrigan

Title: *'Characterization of Modified Asphalt Binders in Superpave Mix Design'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Research results have been applied | 4 | 5 | 4 | 5 | 4.5 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 5 | 4 | 4.5 |
| 4 | The research confirmed/advanced current practice | 5 | 4 | 4 | 5 | 4.5 |
| **Project Averages** | | 4.5 | 4.75 | 4.5 | 4.75 | |

Comments:

This study was well done and received. It was work that should have been accomplished under SHRP A004.

Very difficult project in terms of research objectives, in that it attempted to fill an important void left after the end of the SHRP research program. Good information gathered which has led to important recent advancements well after completion of the project itself. For example, newly proposed MSCR test for binders originated with this project. Work on fatigue pointed out deficiencies in the state of the art at that time, which is only now being exploited in ways that may soon lead to a solution from the same PI. Ed Harrigan is a real pleasure to work with as a project manager, and I would gladly accept an appointment to any research panel where he felt my expertise would add to the project.

This project laid the ground work future upgrades to the SHRP binder spec.

Publication No.: 460 (20-27(03)) Sr. Program Officer: Charles W. "Chuck"

Title: *'Guidelines for Implementation of Multimodal Transpo. Location Referencing Systems'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 4 | 5 | 4.75 |
| **Project Averages** | | 5 | 5 | 4 | 5 | |

Comments:

I don't know if the research results applied. I do know that many of the results were adapted to better fit transit experience. Current technology has advanced and changed how the results should be applied since the publication of the report.

## Appendix C – Full Survey Results

Publication No.: 463 (02-21) Sr. Program Officer: Dianne S. Schwager

Title: *'Economic Implications of Congestion'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 2 | It was unsuccessful | 4 | | 4 | 3 | 3.66 |
| **Project Averages** | | 4.5 | 5 | 4 | 4 | |

Comments:

Although the results of the research was good and used by states, it was difficult to get the funding to really do anything about the congestion.

Unfortunately decisions regarding transportation facilities are not made based on economic impacts. They are mostly made based on funding/administrative/political factors. That is why the results were never really used. However, we used bits and pieces of info from it.

## Appendix C – Full Survey Results

Publication No.: 464 (09-14) Sr. Program Officer: Edward T. Harrigan

Title: *'The Restricted Zone in the Superpave Aggregate Gradation Specification'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 4 | 5 | 4 | 5 | 4.5 |
| 2 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 3 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 4 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| **Project Averages** | | 4.75 | 5 | 4.5 | 5 | |

Comments:

"After the report publication, we (TxDOT) modified our Superpave specification to match the findings that the “restricted” zone should not be “restricted”, i.e., that good mixes could be developed with gradations that passed through the zone. Performance tests, such as the Hamburg, have given us a performance-type test for mixes that may or may not pass through the formerly restricted zone, thus saving money by better using available materials. Ed Harrigan was superlative."

The problem statement was very well defined resulting in a very well crafted RFP. The work was done with little redirection and results have been implemented in an AASHTO spec change.

Many states have removed the restricted zone requirement from their specifications thanks to this research.

Very specific directed project

Publication No.: 466 (25-10(02)) Sr. Program Officer: Stephan A. Parker

Title: *'Desk Reference for Estimating the Indirect Effects of Proposed Transportation Projects'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 4 | 4 | 4 | 4 | 4 |
| **Project Averages** | | 4 | 4 | 4 | 4 | |

Comments:

The information produced has been used by State DOTs and by FHWA as reflective of good practice in this area.

## Appendix C – Full Survey Results

Publication No.: 467 (10-52) Sr. Program Officer: David B. Beal

Title: *'Performance Testing for Modular Bridge Joint Systems'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 5 | 4 | 4.5 |
| 3 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 4 | Research results have been applied | 4 | 5 | 4 | 5 | 4.5 |
| 5 | Research results have been applied | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 4.4 | 5 | 4.8 | 4.8 | |

Comments:

The recommended performance test specifications developed from the research results have been incorporated into the Minnesota Dept. of Transportation's special provisions for Modular Bridge Joint Systems. The specifications are currently in practice for all new modular bridge joint systems.

I believe NCHRP is a very valuable organization that advances our transportation practice. We can not live without it. I will say that they only issue I have with NCHRP is that the selected contractors at times perform very poorly. The contracts take far longer to complete and many of us that volunteer our time end up with conflicts that hurt our participation. This has happened to me twice. NCHRP staff is great - but we need to hold contractors accountable.

The information obtained in this study were used directly in TxDOT's work on the repair of the MBJS on the Houston Ship Channel Cable Stay Bridge. The repair of the MBJS was quite costly but would have been much more costly if not done correctly. To my knowledge, the subject MBJS repair that was done after the report was finished is still in service without further maintenance.

AASHTO specifications for Highway bridges have been updated to incorporate the research findings.

Implementation of research as an AASHTO Specification was critical. Findings reflected many of concerns of the Colorado DOT. For more information on CDOT implementation the contact is below.

## Appendix C – Full Survey Results

Publication No.: 468 (01-34A) Sr. Program Officer: Edward T. Harrigan

Title: *'Contribution of Pavement Structural Layers to Rutting of Hot-Mix Asphalt Pavements'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 4.5 | 5 | 5 | 5 | |

Comments:

Publication No.: 469 (10-38(02)) Sr. Program Officer: David B. Beal

Title: *'Fatigue-Resistant Design of Cantilevered Signal, Sign, and Light Supports'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 3 | 3 | 3 | 3 | 3 |
| 2 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 5 | 4 | 4.5 |
| **Project Averages** | | 4 | 4.33 | 4 | 4 | |

Comments:

Details have been adopted by many states and incorporated into AASHTO standards

## Appendix C – Full Survey Results

Publication No.: 470 (03-57) Sr. Program Officer: B. Ray Derr

Title: *'Traffic Control Devices for Passive Railroad-Highway Grade Crossings'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 2 | Other (Please specify in item Question 4) | 5 | 5 | 5 | 5 | 5 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| 4 | It was unsuccessful | 3 | 4 | 4 | 3 | 3.5 |
| 5 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| 6 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.33 | 4.83 | 4.5 | 4.33 | |

Comments:

The yield sign has been incorporated into the MUTCD and we are currently in the process of doing agreements with RR's in our state for installation.

The research results are valid but have not been incorporated into the MUTCD

"The findings regarding utilizing Yield Signs and/or Stop Signs (if I recall properly) at Passive RHGC intersections was and still is controversial. One of the key findings from the research was the ineffectiveness of existing traffic control devices in practice. This “finding” on the way to the principal objective should be highlighted, reinforced and implications for both practice and further research leading to more effective information and driver compliance measures."

Nothing was implemented

Results were incorporated into the 1-2-08 FHWA NPA to revise the MUTCD.

## Appendix C – Full Survey Results

Publication No.: 471 (22-11) Sr. Program Officer: Charles W. "Chuck"

Title: *'Evaluation of Roadside Features to Accommodate Vans; Minivans; Pickups...'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 4 | 4 | 4 | 4 | 4 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 3 | Research results have been applied | 4 | 5 | 4 | 4 | 4.25 |
| 4 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.25 | 4.5 | 4.25 | 4.25 | |

Comments:

The research was important to the updating of NCHRP 350.

The research results have been incorporated into the AASHTO Roadside Design Guide publication.

Publication No.: 472 (12-49) Sr. Program Officer: David B. Beal

Title: *'Comprehensive Specification for the Seismic Design of Bridges'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 3 | 3 | 3.5 |
| 3 | Research results have been applied | 5 | 5 | 4 | 4 | 4.5 |
| **Project Averages** | | 4.66 | 4.66 | 4 | 4 | |

Comments:

New Specs were developed

The research done definitely advanced the state-of-the-practice but one key issue that was not explored thoroughly by the panel was how the proposed outcomes would be accepted/supported/adopted by various State DOT's. This is where the panel, with more support from the related AASHTO Technical Committee (HSCOBS T-3, in this case), should have/should have provided more clear direction.

Specs have been incorporated into the AASHTO Design Specs with modifications.

## Appendix C – Full Survey Results

Publication No.: 473 (12-45) Sr. Program Officer: David B. Beal

Title: *'Recommended Specification for Large-Span Culverts'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | 3 | 5 | 4 | 4 | 4 |
| **Project Averages** | | 3 | 5 | 4 | 4 | |

Comments:

It's been a long time but I believe we had trouble getting the research completed, as well as carrying out research that met the needs of the project. I believe we ended up getting enough completed to develop a report but it was of mixed usefulness. Therefore, I would say the research was partially successful.

## Appendix C – Full Survey Results

Publication No.: 474 (25-13) Sr. Program Officer: Christopher J.

Title: *'Assessment of Impacts of Bridge-Deck Runoff Contaminants in Receiving Waters'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | It was unsuccessful | 5 | 5 | 4 | 5 | 4.75 |
| 2 | Other (Please specify in item Question 4) | 3 | 4 | 4 | 4 | 3.75 |
| **Project Averages** | | 4 | 4.5 | 4 | 4.5 | |

Comments:

"In CA, there was little to no recognition of the completed work by regulatory water board staff. The quality and level of research was excellent, and so was the report. Caltrans staff in the Oakland office were savvy about the work and its application to the San Francisco Oakland Bay Bridge, however, regulatory water board staff (2 boards, I believe) basically ignored the research, data collection, findings, and application; they ultimately demanded monies be spent on mitigation that was basically “superficial” (They demanded that Caltrans add an expensive runoff collection and treatment system, which would have had little to no environmental benefit for the biota of San Francisco Bay-Estuary, as based on data and findings of 25-13). While the runoff and collection system may not have been added, street sweeping was adopted as a regular mitigation practice (has some benefit). What is sorely needed is for the Academies to solicit the DOT participant's input for recommendations of staff other than DOT's, to participate on review panels (on projects which involve regulatory decisions). While the 25-13 project had someone from EPA, they did not seem to have enough “local savvy” to contribute meaningfully. Also, the Academies need to develop and establish an implementation program that goes beyond publishing reports and issuing CD's. Project 25-9 did a fairly good job of that, however, to get the state DOT to accept and participate in their own effort seemed to be lacking here in CA for 25-13. So, marketing the products and spending time and $ to implement them is really needed. p.s. It would benefit some projects to be “regionally” staffed and funded, as scoping a “nationwide” effort is often too generic for some topics, and that is a likely cause for lack of implementation."

The research was inconclusive

## Appendix C – Full Survey Results

Publication No.: 475 (17-17(02)) Sr. Program Officer: Charles W. "Chuck"

Title: *'A Procedure for Assessing & Planning Nighttime Highway Construction and Maintenance'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 3 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 5 | 5 | |

Comments:

New Wisconsin DOT policy on lane closures and night work references and includes excerpts from the reports developed through this research.

Publication No.: 476 (17-17(02)) Sr. Program Officer: Charles W. "Chuck"

Title: *'Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 5 | 5 | |

Comments:

Many of the concepts have become part of the procedures used by the Nevada Department of Transportation.

## Appendix C – Full Survey Results

Publication No.: 477 (24-13) Sr. Program Officer: Edward T. Harrigan

Title: *'Recommended Practice for Metal-Tensioned Systems in Geotechnical Applications'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 5 | 5 | |

Comments:

Publication No.: 478 (09-16) Sr. Program Officer: Edward T. Harrigan

Title: *'Relationship of Superpave Gyratory Compaction Properties to HMA Rutting Behavior'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | It was unsuccessful | 5 | 5 | 4 | 4 | 4.5 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 4 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| 5 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| **Project Averages** | | 4.4 | 5 | 4.2 | 4.6 | |

Comments:

I would say that the research was somewhat successful. Partly, this is because the results were not as clear as had been hoped. I think the contractors did a reasonable job trying to find a solution. The solution they found was something that could have been implemented, but I don't think that anything was.

The contractor identified the limitations of the Gyratory compactor. This was not the primary goal but was an excellent outcome

## Appendix C – Full Survey Results

Publication No.: 479 (25-15) Sr. Program Officer: Ron M. McCready

Title: *'Short-Term Monitoring for Compliance with Air Quality Standards'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 1 | 5 | 5 | 2 | 3.25 |
| 2 | It was unsuccessful | 3 | 5 | 4 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 3 | 5 | 4 | 3 | 3.75 |
| **Project Averages** | | 2.33 | 5 | 4.33 | 3 | |

Comments:

The research was 4 years late past the contracted due date. There must be a way to hold contractors to the time frames for products that they commit to.

The experience was a bit frustrating because the problem statement on which the panel had to prepare a RFP was poorly expressed. In my humble opinion the panel was never quite able to establish a set of clear objectives, and this lead to problems 'down the line' with the contractor.

Communication with the contractor was difficult due to changes in the staff assigned to the project. Since conformity is not a critical issue in the NW, I am unfamiliar with any actual application of the findings of this study.

## Appendix C – Full Survey Results

Publication No.: 480 (15-19) Sr. Program Officer: B. Ray Derr

Title: *'A Guide to Best Practices for Context Sensitive Solutions'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 2 | 4 | 4 | 4 | 3.5 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 4 | 5 | 4.75 |
| 4 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 5 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.25 | 4.8 | 4.6 | 4.8 | |

Comments:

NCHRP 15-19: Report 480

Some of the solutions presented were not well proven for safety nor practical.

"This was truly a significant volume that furthered the practice of “context sensitive design”"

I think this is one of the best studies on CSS to date. It provided definitive guidance for the designers and decision makers...technical as well as procedural. I was proud to be on the panel and have my name associated with the report. I have been gone too long from FHWA to know if anything specific from the report has been implemented...such as AASHTO G Book revisions. However, I do know that the report has been the basis for various CSS training efforts by FHWA and others...that was what I pushed for during my last months at the FHWA.

NCHRP 480 is now recognized as one of the primacy documents for formatine training for CSS. I use it on a continual basis when we establish the public out-reach program for each project we work on. It is especially useful when explaining to stakeholders their role in the process

## Appendix C – Full Survey Results

Publication No.: 481 (25-23) Sr. Program Officer: Andrew Lemer

Title: *'EIM & DSS Implementation Handbook'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Other (Please specify in item Question 4) | 5 | 4 | 5 | 5 | 4.75 |
| 3 | Other (Please specify in item Question 4) | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 4.66 | 5 | 5 | |

Comments:

"The magnitude of the project may have “doomed” the ultimate success of the project in total."

The EIM & DSS Software prototype was developed and tested and is ready for deployment. An AASHTO AASHTOWARE Panel is being formed to evaluate the deployment as an AASHTOWARE Product.

I am sure it was very useful to those that were fortunate enough to use it. In its current format, the software does not exactly match my research needs.

## Appendix C – Full Survey Results

Publication No.: 482 (25-16) Sr. Program Officer: Christopher J.

Title: *'Guidance for Selecting Compensatory Wetlands Mitigation Options'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| 4 | Research results have been applied | 4 | 5 | 5 | 5 | 4.75 |
| 5 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 6 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.33 | 4.66 | 4.66 | 4.66 | |

Comments:

While this project somewhat confirmed current practice, selecting mitigation options at the time was and continues to be constrained by local practices, regulatory policy, cost, and opportunity.
These remain as significant factors in determination of compensatory mitigation implementation. FHWA continues to try to move toward an ecosystem or watershed based approach, in spite of significant obstacles, including local practices, opportunities, and a regulatory perspective that on site mitigation is often preferable. meanwhile, opportunities for a true ecosystem/watershed based approach are disappearing continually due to advancing development and habitat fragmentation. There are significant exceptions, such as ECO-LOGICAL, which stands out as a flagship example of process improvement toward a true ecosystem/landscape process which might bear significant fruit in improving conservation of important ecological resources while allowing for continued transportation improvements.

"As, I recall, the best product was in the preliminary report that provided important summary analysis of where wetland mitigation project design and development was weak. I used this information to work for internal process improvement in our agency. As I recall, the full-blown report came to 'obvious' conclusions and gave the standard “need for more research” response at the end. Professionally, I gained a great deal from meeting the other DOT biologists on this panel. Although I cannot articulate the details, I have a sense that more ground could have been covered with less money by contacting folks in the private sector (mitigation consultants). Since the panel and the report, I've found that they have lots of experience and are eager to show what projects they have worked on. The ability for some state agencies to adequately track data to answer these surveys can be greatly hampered by funding and other resources. Years have gone by since this work was done, and I may be forgetting how little was known then. As of late last year (2007) I no longer work in this subject area and have moved to Caltrans' Project Management division as a course developer and trainer. Thank you for the opportunity to provide input."

Excellent team, worked well together, NCHRP support staff was professional, effective and a pleasure to work with

Portions of the report were used for developing guidance documents for mitigation.

## Appendix C – Full Survey Results

Publication No.: 483 (12-43) Sr. Program Officer: David B. Beal

Title: *'Life-Cycle Cost Analysis for Bridges'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | 3 | 4 | 4 | 4 | 3.75 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| 3 | The research confirmed/advanced current practice | 5 | | 5 | 5 | 5 |
| 4 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.25 | 4.66 | 4.5 | 4.75 | |

Comments:

Needs a well-organized effort towards application of the final product.

I have not been involved with the completed research since it was completed.

Publication No.: 484 (04-28) Sr. Program Officer: Charles W. "Chuck"

Title: *'Feasibility Study for an All-White Pavement Marking System'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 3 | 3 | 3.5 |
| 3 | Other (Please specify in item Question 4) | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.66 | 4.66 | 4.33 | 4.33 | |

Comments:

Research removed this topic from the table for at least a few years. Reasonably convincing arguments made for status quo.

The research advanced current practice in that the results determined whether the US would follow other countries in using an all-white pavement marking system. It was clear from the research that US would need to continue to have a 2 color pavement marking system.

## Appendix C – Full Survey Results

Publication No.: 485 (12-50) Sr. Program Officer: David B. Beal

Title: *'Bridge Software: Validation Guidelines & Examples'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | | | | | NR |
| 2 | The research confirmed/advanced current practice | 3 | 4 | 4 | 4 | 3.75 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 4 | 5 | 4.75 |
| 4 | Research results have been applied | 3 | 4 | 3 | 4 | 3.5 |
| 5 | The research confirmed/advanced current practice | 5 | 5 | 5 | 4 | 4.75 |
| **Project Averages** | | 4 | 4.5 | 4 | 4.25 | |

Comments:

The spreadsheet with panel member names sent by C. Jencks listed me as being on Project 12-50. I don't remember being on that panel, and the project report does not list me as being on the panel.

I think the concept was sound but it has been very difficult to implement. I think that part of this is because technology moves faster than NCHRP projects. I think that NCHRP should carefully consider this type of project.

My experiences with this project and as an NSF administrator have shown me that research projects involving software delivery are a disaster waiting to happen because at some point, the focus of the project turns from research to development (Phase 2 of this project was a development effort, IMHO). At this point, the panel and the NCHRP staff, should transition from an advisory mode to a project management mode; and have contractual tools that allow them to actively steer the project and insure that deliverables are well-defined and delivered on a schedule.

It was a privilege to serve on the panel and the product, I believe, provides a useful tool for LRFD software developers and spec. writers.

## Appendix C – Full Survey Results

Publication No.: 486 (03-56) Sr. Program Officer: Charles W. "Chuck"

Title: *'Systemwide Impact of Safety and Traffic Operations Design Decisions for 3R Projects'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 3 | 4 | 4 | 3 | 3.5 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 3.5 | 4.5 | 4.5 | 4 | |

Comments:

None

Publication No.: 487 (20-53) Sr. Program Officer: Christopher J.

Title: *'Using Customer Needs to Drive Transportation Decisions'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 3 | It was unsuccessful | 4 | 5 | 4 | 5 | 4.5 |
| 4 | Other (Please specify in item Question 4) | | | | | NR |
| **Project Averages** | | 4 | 4.66 | 4 | 4.33 | |

Comments:

Somewhat subjective to expect huge impact.

I have no confirmation that the results have been applied. The consultant gave a brief overview of the study at a summer TRB meeting and the person presenting was not involved with the study and gave a less than stellar overview.

I don't see any of the projects I worked on.

## Appendix C – Full Survey Results

Publication No.: 488 (03-50(02)) Sr. Program Officer: Charles W. "Chuck"

Title: *'Additional Investigations on Driver Information Overload'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| 2 | The research confirmed/advanced current practice | 5 | 4 | 3 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 3 | 4 | 4 | 4 | 3.75 |
| **Project Averages** | | 4 | 4.33 | 4 | 4.33 | |

Comments:

The Problem was identified and quantified with implementation software developed. Funds & time did not allow testing of software. Data was based on only the D.C. area and may vary in ether regions.

Publication No.: 489 (12-48) Sr. Program Officer: David B. Beal

Title: *'Design of Highway Bridges for Extreme Events'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | | | | | NR |
| 2 | It was unsuccessful | 4 | 5 | 4 | 4 | 4.25 |
| **Project Averages** | | 4 | 5 | 4 | 4 | |

Comments:

The research results have not been incorporated in the LRFD design standards New York State DOT is implementing. The NYSDOT contact person for this topic is George Christian (518) 457-6827.

## Appendix C – Full Survey Results

Publication No.: 490 (22-13(02)) Sr. Program Officer: Charles W. "Chuck"

Title: *'In-Service Performance of Barrier Systems'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 4 | 5 | 4 | 4.5 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.66 | 4.33 | 4.66 | 4.33 | |

Comments:

There was a demonstration of the equipment developed by this project in the Mankato District. Since the end of the project I have referred the report, especially the equipment technical specification, to several Districts that were investigating portable scour monitoring equipment options.

Evaluating performance is a most difficult task requiring a multidiscipline group. The researchers certainly developed the procedures and illustrated them, especially with the BCT. One unexpected finding was that some hardware is not being properly installed, such as the BCT. Many BCTs were installed without the necessary parabolic flare.

The research study provided useful data about the actual performance in the field of the BCT terminal in 3 States. It showed that doing in-service evaluations with a statistically significant number of cases was not necessary because good results could be obtained with a much smaller number of cases. It also showed that long term data collection efforts were needed.

## Appendix C – Full Survey Results

Publication No.: 491 (17-16) Sr. Program Officer: B. Ray Derr

Title: *'Crash Experience Warrant for Traffic Signals'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | It was unsuccessful | 3 | 4 | 4 | 3 | 3.5 |
| **Project Averages** | | 4 | 4.5 | 4.5 | 4 | |

Comments:

I thoroughly enjoyed serving on this panel. I learned a great deal and hope I contributed to the work. I believe the panel/contractor interaction was a great benefit.

"It was not a contractor fault. We just had to spend too much money per crash included to get results. The cities which were strapped for cash could not provide all the traffic and crash data in the form the contractor needed it. The final produce was partly not successful because the traffic engineer or technician doing warrant analysis could not fully understand the methodology that was recommended. When the Signals Technical Comm. of the NCUTCD finally looked at this even many of us were confused exactly how this would be implement. We should think twice before we try to redo this crash research as it is very difficult under today's circumstance. The current crash warrant for Traf. Signals will have to remain the same, even though none of us can remember where the number of “5 right angles” came from. It's been there for over 40 years and it will have to stay there, unless we can somehow use this research"

## Appendix C – Full Survey Results

Publication No.: 492 (22-09(02)) Sr. Program Officer: Charles W. "Chuck"

Title: *'Roadside Safety Analysis Program (RSAP) Engineer's Manual'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | 5 | 5 | 4 | 4 | 4.5 |
| **Project Averages** | | 5 | 5 | 4 | 4 | |

Comments:

I haven't really seen the program be used. By the time the research was completed, I had moved into a management position and was not doing this type of hands on engineering. I suggested that the program be used a couple of times without any success. I don't think that anyone wanted to tackle building the model, especially when they were not familiar with the model or confident in the results.

Publication No.: 493 (03-54(02)) Sr. Program Officer: B. Ray Derr

Title: *'Evaluation of Traffic Signal Displays for Protected/Permissive Left-Turn Control'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 5 | 5 | |

Comments:

I am commenting on project 03-54(2), NCHRP report 493, Evaluation of Traffic Signal Displays for Protected/Permissive Left-Turn Control. This research was extremely comprehensive and answered many long-standing issues. The quality of the research resulted in FHWA issuing an Interim Approval for the use by highway agencies of the flashing yellow arrow (FYA) signal indication for protected-permissive left turns. The FYA has been very well accepted and is now in operation at 500+ intersections all over the U.S. The FHWA has proposed incorporating the FYA into the next edition of the national standards for traffic control devices (MUTCD).

## Appendix C – Full Survey Results

Publication No.: 494 (17-10(02)) Sr. Program Officer: David B. Beal

Title: *'Structural Supports for Highway Signs, Luminaires, and Traffic Signals'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 3 | 4 | 4 | 4 | 3.75 |
| 2 | | | | | | NR |
| 3 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 4 | Other (Please specify in item Question 4) | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 4 | 4.66 | 4.66 | 4.66 | |

Comments:

I honestly do not remember being on this panel. So I cannot fill out the above information.

"The research results were implemented by AASHTO which used Report No. 494 to update the document, “Structural Supports for Highway Signs, Luminaires and Traffic Signals”"

Some of the research was very applicable and timely. However, some of the work carried out by the researchers went beyond the scope of the project (wind loads as an example). Although the material had a place in a research context it should have been done as a separate contract. In the case of wind loads, the researchers were proposing a complete change in the way wind loads are configured. The research question in this panel was to verify the wind loading on luminaires etc. rather than propose an entirely new way of handling wind loads. In this instance I felt that the researchers should have spent more time addressing the other components of the research and less time on wind. Some of the panel members were not particularly happy with the design examples called for in the proposal indicating that they did not really follow DOT practice. The practitioners would have a better perspective on this.

## Appendix C – Full Survey Results

Publication No.: 495 (12-51) Sr. Program Officer: David B. Beal

Title: *'Effect of Truck Weight on Bridge Network Costs'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 4 | 5 | 4.75 |
| 2 | It was unsuccessful | 4 | 4 | 4 | 4 | 4 |
| **Project Averages** | | 4.5 | 4.5 | 4 | 4.5 | |

Comments:

This was an important project because it attempted to use available information to determine the bridge deterioration costs due to trucks. To my knowledge, this was the first attempt to do this. This project showed that there are approaches to determine costs, but more work needs to be done. The contractor did excellent work.

I no longer work in the Bridge Management Area and may not be fully up to speed on any latest developments. I do know there was some discussion of incorporating some of the results with Pontis Bridge Management System but I don't think that happened. We have reviewed the results of the research in our state to know in generalities what the concerns are over increased truck weights, but we have not used any of the particular details to modify our present practices or legislation.

Publication No.: 497 (08-39) Sr. Program Officer: Christopher J.

Title: *'Financing and Improving Land Access to U.S. Intermodal Cargo Hubs'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| 2 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 3 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| **Project Averages** | | 4.33 | 4.66 | 4.33 | 4.33 | |

Comments:

Progress on this project was reported in sessions at several TRB meetings. Since the NCHRP report for this project is now 5 years old, an update may be in order, e.g., after the next federal surface transportation funding legislation becomes law. Might be an interesting NCHRP 8-36 project.

This was a useful report for freight planners but less so for policy makers than we on the panel originally hope hoped for. It includes good summaries diverse project and some good planning approached to intermodal issues By trying establish a broad re

## Appendix C – Full Survey Results

Publication No.: 499 (01-34C) Sr. Program Officer: Edward T. Harrigan

Title: *'Effects of Subsurface Drainage on Performance of Asphalt and Concrete Pavements'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| **Project Averages** | | 4.33 | 5 | 4.66 | 4.66 | |

Comments:

Some may say that this project was unsuccessful. However, if they do, it will be because the findings were not consistent with what was expected.

Being a panel member was a great experience. The subject pavement drainage is a topic I am passionate about.

Publication No.: 501 (17-18(05)) Sr. Program Officer: Charles W. "Chuck"

Title: *'Integrated Safety Management Process'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| 2 | Research results have been applied | 4 | 4 | 4 | 3 | 3.75 |
| 3 | It was unsuccessful | 3 | 5 | 5 | 3 | 4 |
| 4 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| **Project Averages** | | 3.75 | 4.75 | 4.5 | 4 | |

Comments:

The integrated safety management process is a part of every Report 500 document, thus it has wide-spread application in the industry.

The process and concepts were never accepted by the States in the development and implementation of their Strategic Highway Safety Plan. Too idealistic.

## Appendix C – Full Survey Results

Publication No.: 502 (15-17) Sr. Program Officer: B. Ray Derr

Title: *'Geometric Design Consistency on High-Speed Rural Two-Lane Roadways'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 3 | 5 | 5 | 5 | 4.5 |
| 2 | It was unsuccessful | 3 | 4 | 3 | 3 | 3.25 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| **Project Averages** | | 3.33 | 4.66 | 4 | 4 | |

Comments:

It has been awhile since project was completed, so my response and comments are made with this time lag. The project has a nearly unachievable goal which may it difficult for the contractor. They probably did the best they could under those circumstances. The project statement should have been reviewed more carefully before release for determining likelihood of satisfying the objectives.

Publication No.: 503 (04-27) Sr. Program Officer: David B. Beal

Title: *'Application of Fiber-Reinforced Polymer Composites to the Highway Infrastructure'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | 4 | 5 | 4 | 3 | 4 |
| **Project Averages** | | 4 | 5 | 4 | 3 | |

Comments:

The project itself went fine. The objective was to develop a strategic plan for use of FRP but there was no mechanism for follow through on the plan that was developed. Some advance buy-in from AASHTO might have been good (regarding ownership of the product, i.e. the strategic plan).

## Appendix C – Full Survey Results

Publication No.: 504 (15-18) Sr. Program Officer: B. Ray Derr

Title: *'Design Speed, Operating Speed, and Posted Speed Practices'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | It was unsuccessful | 2 | 4 | 5 | 4 | 3.75 |
| 2 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 3 | Research results have been applied | 5 | 4 | 4 | 4 | 4.25 |
| 4 | It was unsuccessful | 3 | 4 | 5 | 4 | 4 |
| **Project Averages** | | 3.75 | 4.25 | 4.5 | 4.25 | |

Comments:

The researcher went off track. But, the panel and NCHRP staff stopped the study before it entered phase II and spent the rest of the funds.

The difference in the speed parameters was identified and defined. Appropriate changes have been made in various documents to correspond with the research results.

The Report identified the variables that are involved in the choices between choosing a design speed, based on a desirable operating speed, and in turn what the posting would be.

The contractor pursued a course that the panel felt was not going to work and we were correct. That is why we terminated the study.

Publication No.: 505 (15-21) Sr. Program Officer: Christopher J.

Title: *'Review of Truck Characteristics as Factors in Roadway Design'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 4 | 4 | 4 | 4 | 4 |
| 2 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.66 | 4.66 | 4.66 | 4.66 | |

Comments:

None

## Appendix C – Full Survey Results

Publication No.: 506 (20-47(01)) Sr. Program Officer: Christopher J.

Title: *'Quality and Accuracy of Positional Data in Transportation'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | 4 | 3 | 4 | 3 | 3.5 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| **Project Averages** | | 4 | 3.5 | 4 | 3.5 | |

Comments:

Research effort was disjointed because of NCHRP staff changes and Project Contractor changes.

Publication No.: 507 (24-17) Sr. Program Officer: David B. Beal

Title: *'Load and Resistance Factor Design (LRFD) for Deep Foundations'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 3 | 4 | 4 | 4 | 3.75 |
| 2 | Research results have been applied | 3 | 3 | 4 | 4 | 3.5 |
| **Project Averages** | | 3 | 3.5 | 4 | 4 | |

Comments:

The research was to develop resistance factors for deep foundations that could be used to update the resistance factors in the LRFD Bridge Specifications. That process has been completed. Best contact would be Tony Allen, Geotechnical Engineer, Washington State DOT. He is also a member of the AASHTO T-15 Committee.

The research results were usable but needed a lot of work by AASHTO before it could be used in practice. The PI was difficult to work with respect to accepting panel direction and input. Unfortunately, a competing proposal was delivered late by Fed Ex by one hour and could not be considered by the panel. That team that was late submitting the competing proposal would probably had produced a more practice ready product.

## Appendix C – Full Survey Results

Publication No.: 508 (09-17) Sr. Program Officer: Edward T. Harrigan

Title: *'Accelerated Laboratory Rutting Tests: Evaluation of the Asphalt Pavement Analyzer'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 3 | 5 | 4 | 4 | 4 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 2 | 3 | 3.5 |
| 4 | | | | | | NR |
| **Project Averages** | | 3.66 | 5 | 3.33 | 3.66 | |

Comments:

New York State DOT initially experimented with the Asphalt Pavement Analyzer, but currently doesn't use it. The main reason for not using the APA is its cost. Also, since the implementation of the Superpave rutting has not been a significant problem in the State.

Publication No.: 509 (01-39) Sr. Program Officer: Amir N. Hanna

Title: *'Equipment for Collecting Traffic Load Data'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 3 | 4 | 4 | 4 | 3.75 |
| 3 | The research confirmed/advanced current practice | 5 | 3 | 4 | 4 | 4 |
| 5 | The research confirmed/advanced current practice | 3 | 5 | 5 | 4 | 4.25 |
| 6 | It was unsuccessful | 3 | 4 | 5 | 4 | 4 |
| **Project Averages** | | 3.5 | 4 | 4.5 | 4 | |

Comments:

One of the primary products of this effort was software which was to be incorporated into the NCHRP 1-37A project. It never happened, since both contractors did not communicate and blamed each other. We did not get what we paid for.

## Appendix C – Full Survey Results

Publication No.: 511 (14-13) Sr. Program Officer: Christopher J.

Title: *'Guide for Customer-Driven Benchmarking of Maintenance Activities'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| 2 | Research results have been applied | 4 | 5 | 4 | 4 | 4.25 |
| **Project Averages** | | 4 | 5 | 4.5 | 4.5 | |

Comments:

Project was a springboard for defining highway maintenance performance measures. Including; identifying common measures, data collection, and linking output and results for highway maintenance activities.
Complemented NCHRP 14-12 Highway Maintenance quality Assurance.

I recently spoke with a developer for a commercial maintenance management system who mentioned using the products of the 14-13 research. New tools were being written to utilize the concepts of performance frontiers.

Publication No.: 512 (10-56) Sr. Program Officer: Amir N. Hanna

Title: *'Accelerated Pavement Testing: Data Guidelines'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 2 | 5 | 5 | 4 | 4 |
| 2 | It was unsuccessful | 2 | 5 | 5 | 3 | 3.75 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 2.66 | 5 | 5 | 4 | |

Comments:

Contractor failed to follow through with panel's recommendations and Contractor appeared to have own agenda.

Actual implementation of the project findings was left to the discretion of individual APT facilities. As far as I know, the results are mixed.

## Appendix C – Full Survey Results

Publication No.: 514 (10-59A) Sr. Program Officer: Amir N. Hanna

Title: *'Bonded Repair and Retrofit of Concrete Structures Using FRP Composites'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Other (Please specify in item Question 4) | 4 | 4 | 4 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 4 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 5 | Other (Please specify in item Question 4) | | | | | NR |
| 6 | | | | | | NR |
| 7 | Research results have been applied | 4 | 5 | 4 | 4 | 4.25 |
| 8 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| **Project Averages** | | 4.5 | 4.66 | 4.5 | 4.5 | |

Comments:

Overall, I felt this was a positive experience. I would do it again.

Project is not yet complete. The draft report is out for review currently.

Research results have been adopted into a NYSDOT construction specification

I do not recall being on this panel. I am currently on 10-74

This document was very useful and timely.

## Appendix C – Full Survey Results

Publication No.: 515 (21-07) Sr. Program Officer: Timothy G. Hess

Title: *'Portable Scour Monitoring Equipment'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 4 | 4 | 4 | 4 | 4 |
| 2 | The research confirmed/advanced current practice | 3 | 5 | 4 | 4 | 4 |
| **Project Averages** | | 3.5 | 4.5 | 4 | 4 | |

Comments:

I do not like the way that add-ons are so common to projects. It seems like once a contractor is selected, the add-on work goes for months if not years more. We on this panel cut it off at the end - I believe that's the way it should be.

I don't know if the equipment developed in the project has been adopted or used by any agencies. The parameters required to be met were quite extensive and proved hard to accomplish. However the deliverable did provide a useable device that advanced current scour monitoring techniques and devices.

Publication No.: 516 (24-15) Sr. Program Officer: David A. Reynaud

Title: *'Pier and Contraction Scour in Cohesive Soils'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 4 | 5 | 4.75 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 3 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.66 | 5 | 4 | 4.66 | |

Comments:

The research provided some good results but implementation has not been widespread probably because the abutment scour component portion of the project is not complete. In addition, the research has a new approach in the EFA which needs acceptance. As a first time panel, I was surprised how little some panel members participated in the project.

associated research continues

## Appendix C – Full Survey Results

Publication No.: 517 (12-57) Sr. Program Officer: David B. Beal

Title: *'Extending Span Ranges of Precast Prestressed Concrete Girders'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 5 | 4 | 4.5 |
| 2 | Research results have been applied | | | | | NR |
| **Project Averages** | | 4 | 5 | 5 | 4 | |

Comments:

A follow up survey of state DOTs regarding the span range increase of prestressed concrete girder bridges will be useful.

I have used this document on many occasions to help with designing spliced girder bridges. The information in this document was very useful.

Publication No.: 518 (05-17) Sr. Program Officer: Charles W. "Chuck"

Title: *'Safety Evaluation of Permanent Raised Pavement Markers'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | | 5 | 4 | 4 | 4.33 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 2 | 3 | 3.5 |
| 3 | The research confirmed/advanced current practice | | | | | NR |
| 4 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 4 | 5 | 3.66 | 4 | |

Comments:

I am not sure how the research was applied, if it was applied, or if it changed practices.

New York State DOT's use of PRPM's is and has been consistent with this research report's recommendations. The locations to install PRPMs are selected based on wet weather nighttime crash history. Within the past four or five years we have also started experimenting with reflective tape.

The research confirmed what our state had long suspected. PRRM's were effective when used at problematic locations and could actually lead to more accidents when used indiscriminately (because it gave a false sense of security to the motorists). We have been searching for alternatives to PRRMs and are experimenting more with wet weather reflective tape. This seems to have the potential of accomplishing what the RPPMs do at a reduced cost.

## Appendix C – Full Survey Results

Publication No.: 519 (12-53) Sr. Program Officer: David B. Beal

Title: *'Connection of Simple-Span Precast Concrete Girders for Continuity'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Research results have been applied | 3 | 4 | 4 | 3 | 3.5 |
| 3 | Research results have been applied | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 4 | 4.66 | 4.66 | 4.33 | |

Comments:

It has been nearly 9 years since this panel convened, but I feel that the research results helped advance the state of practice and shed some light on the effectiveness (or lack of effectiveness) of connecting prestressed girders for continuity.

Specification provisions were forwarded to AASHTO for adoption. I have not looked for the change in AASHTO to verify its adoption.

Publication No.: 520 (03-63) Sr. Program Officer: B. Ray Derr

Title: *'Sharing Info between Public Safety and Transportation Agencies for Traffic Incident Management'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Other (Please specify in item Question 4) | 3 | 5 | 5 | 4 | 4.25 |
| 3 | The research confirmed/advanced current practice | 3 | 4 | 5 | 5 | 4.25 |
| **Project Averages** | | 3.66 | 4.66 | 5 | 4.66 | |

Comments:

I am not sure if/how the research results have been applied.

## Appendix C – Full Survey Results

Publication No.: 521 (25-20(02)) Sr. Program Officer: Christopher J.

Title: *'Identification of Research Needs Related to Highway Runoff Management'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | It was unsuccessful | 3 | 5 | 5 | 5 | 4.5 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| 3 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| **Project Averages** | | 3.66 | 4.66 | 4.33 | 4.66 | |

Comments:

This project had two phases, the first was less successful, the second, highly successful.
In the first phase the efforts by the contractor were disappointing. The project was to be phased and the contractor in the initial phase seemed to be set on later activity and not on effective completion of contracted requirements. Aspects of the summaries were successful, but others fell short. In the second phase a very comprehensive set of reports were produced that clearly contributed to practice in both the highway runoff and LID areas. In fact, I would suggest that the results have been applied as part of developing stormwater management design, at a minimum this research has advanced current practice.

I served on NCHRP panel 25 25, management of runoff from highways, it did not show up in the list under question 1

## Appendix C – Full Survey Results

Publication No.: 523 (14-14) Sr. Program Officer: Amir N. Hanna

Title: *'Optimal Timing of Pavement Preventive Maintenance Treatment Applications'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | 5 | 2 | 3 | | 3.33 |
| 2 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 3 | The research confirmed/advanced current practice | 4 | 3 | 4 | 4 | 3.75 |
| 4 | Other (Please specify in item Question 4) | 5 | 5 | 4 | 5 | 4.75 |
| **Project Averages** | | 4.75 | 3.75 | 4 | 4.66 | |

Comments:

"1. The outcome of the project was very dependent on accumulating project data from SHAs which was not available. The contractor did an excellent job of developing an alternative protocol which is being used in other research efforts. 2. Contract funding was cut by 1/2 3. Staff person “bullied” a very incompetent Panel Chair and directed much of the research. He didn't convey the Panel's total comments to the Researcher"

An NHI web based course has been developed to implement the report's tool.

14-14 was a study that needed some midcourse adjustments in the scope since the assumed data was not available

Shift in professional activities out of this direct area of work, so can not respond to question 3

## Appendix C – Full Survey Results

Publication No.: 524 (17-21) Sr. Program Officer: B. Ray Derr

Title: *'Safety of U-Turns at Unsignalized Median Openings'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 3 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 5 | 5 | |

Comments:

The research showed the null answer, there are few crashes involving u-turning traffic. This is very helpful when designing a road widening with a median.

I retired from Michigan DOT prior to publication. Further info/thoughts and questions on agency use of report and practice could be directed to Larry E. Tibbits, P.E., Chief Operations Officer, MDOT, at TibbitsL@michigan.gov

The report comes up frequently when state and local agencies are dealing with the proposal to install a raised center median to restrict driveway left turns.

## Appendix C – Full Survey Results

Publication No.: 525 (20-59(06)) Sr. Program Officer: Stephan A. Parker

Title: *'Vol. 7: System Security Awareness for Transportation Employees*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 1 | Research results have been applied | 4 | 5 | 4 | 5 | 4.5 |
| 2 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 3 | Research results have been applied | 4 | 5 | 4 | 5 | 4.5 |
| 4 | The research confirmed/advanced current practice | 4 | 5 | 5 | 4 | 4.5 |
| 5 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 6 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 7 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| 8 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |

## Appendix C – Full Survey Results

| | | | | |
|---|---|---|---|---|
| **Project Averages** | 4.55 | 5 | 4.77 | 4.88 |

Comments:

When a panel member retires from their regular job they are just cut off the work they have been doing and contributing to NCHRP, in my opinion, there should be some way of continuing the effort if the individual and NCHRP agrees. The individual should not be paid, but their expenses should be reimbursed. The individual was asked to participate based on their experience and knowledge, just because they retire they still have a lot to offer. Not everyone may want to continue on and that is fine, but some may and it just seems like there should be a way to accommodate that effort.

It was an instructive experience, and I valued the working relationships I developed.

There are CD put out by NTI concerning terrorism awareness. Many agencies train employees through the USDOT Transportation Safety Institute Courses.

The research results were made available and utilized by the public sector oriented portion of our membership (Institute of Transportation Engineers) which constitutes approximately 21% of the total membership of 17,000. These individuals in most cases are either directly or indirectly responsible for the management of the public roadway infrastructure within their local, regional or state jurisdictions.

I want to thank the Academy for giving me the opportunity to serve on several panels

## Appendix C – Full Survey Results

Publication No.: 526 (06-13) Sr. Program Officer: Amir N. Hanna

Title: *'Snow and Ice Control: Guidelines for Materials and Methods'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Research results have been applied | 3 | 4 | 4 | 4 | 3.75 |
| 3 | The research confirmed/advanced current practice | 4 | | | 4 | 4 |
| 4 | Other (Please specify in item Question 4) | 4 | 4 | 4 | 4 | 4 |
| 5 | Research results have been applied | 4 | 4 | 4 | 4 | 4 |
| 6 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.16 | 4.4 | 4.4 | 4.33 | |

Comments:

AASHTO completed a computer based training program for snow and ice control and this material, after review by the SICOP committee, was incorporated into the training program.

I did not serve on the panel for 6-13. I did get involved in using the results of Report 526 in the AASHTO Computer-base Training (CBT) program which provided the technology transfer and training for utilizing the results of the research. We had great difficulties in using Table A-6 of this report. There seems to be mathematical rounding errors which caused problems in using this table in the CBT. We were unable to resolve these apparent errors.

While the work was done, and I believe that the research results have been applied, I'm too far removed from day-to-day operations to know that with certainty (I work for FHWA).

I believe that many S&I control practitioners (especially at the state level) have referenced 6-13 when evaluating/updating their own programs.

After several tries I think the panel and contractor got it right. I understand some recommendations had to be modified slightly, but overall this is an excellent report and will be implemented by the states. It will need a large impetus by the states to get the larger cities on board, but after this winter in the lower midwest, it is overdue. Practices need to be modified and this guide will be very helpful

## Appendix C – Full Survey Results

Publication No.: 527 (12-54) Sr. Program Officer: David B. Beal

Title: *'Integrated Steel Box-Beam Pier Caps'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 3 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 4.66 | 5 | |

Comments:

Washington State Dept. of Trans. designed a bridge with integral pier cap on State Highway SR 16 about the time of publication of the research.

I cannot commend Dave Beal too highly for his leadership of the technical panels on which I have served.

Publication No.: 528 (24-10) Sr. Program Officer: Edward T. Harrigan

Title: *'Thermally Sprayed Metal Coatings to Protect Steel Piling: Final Report and Guides'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| 2 | Other (Please specify in item Question 4) | 4 | 2 | 4 | 4 | 3.5 |
| 3 | The research confirmed/advanced current practice | 3 | 4 | 4 | 4 | 3.75 |
| **Project Averages** | | 3.66 | 3.66 | 4 | 4 | |

Comments:

The research is incomplete. The panels that were left in service need to be examined so we can see how the alloys performed and the results documented. Some of the findings have been applied in NC. Specifications and Training materials have been developed around some of the results.

In speaking with others who have participated on a panel, there seems to be inadequate opportunity to comment on drafts of the final report. The review process over the information gathering/research allows close monitoring. At the end of the process, there is a rush to complete the work and the final report is prepared without much input from the panel. In some cases, the report may not accurately communicate the findings.

## Appendix C – Full Survey Results

Publication No.: 529 (24-11) Sr. Program Officer: David A. Reynaud

Title: *'Guideline and Recommended Standard for Geofoam Applications in Highway Embankments'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | It was unsuccessful | 3 | 4 | 3 | 4 | 3.5 |
| 2 | Research results have been applied | 4 | 4 | 3 | 4 | 3.75 |
| **Project Averages** | | 3.5 | 4 | 3 | 4 | |

Comments:

Because for our organization it did not bring up any elements of knowledge that we were not aware of.

The first phase of this study was very successful. The second phase is in progress

Publication No.: 531 (09-27) Sr. Program Officer: Edward T. Harrigan

Title: *'Relationship of Air Voids, Lift Thickness, & Permeability in Hot Mix Asphalt Pavements'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | | 5 | 4 | 4 | 5 | 4.5 |
| 2 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 3 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| **Project Averages** | | 5 | 4.66 | 4 | 5 | |

Comments:

I was on NCHRP Panel 09-26 which was not shown above.

Lift thickness recommendations were implemented as standard practice at ODOT.

NCHRP Staff, specifically Ed Harrigan, were excellent!

## Appendix C – Full Survey Results

Publication No.: 532 (08-41) Sr. Program Officer: Martine A. Micozzi

Title: *'Effective Methods for Environmental Justice Assessment'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 5 | | 4.66 |
| 2 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 3 | The research confirmed/advanced current practice | 4 | 4 | 5 | 4 | 4.25 |
| **Project Averages** | | 4.33 | 4.66 | 5 | 4.5 | |

Comments:

Panel was excellent in its diversity and knowledge. NCHRP Staff was terrific in facilitating discussion, decision making and identifying salient policy findings. A worthy experience.

Some of the methods are being picked up beyond the roadway projects, e.g., the Baltimore EJ project. This is encouraging.

Publication No.: 533 (24-16) Sr. Program Officer: Timothy G. Hess

Title: *'Handbook for Predicting Stream Meander Mitigation'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 5 | 5 | |

Comments:

"Although not applied strictly as the “handbook” would suggest, parts of the research were utilized in a project I recently completed."

While I'm confident the methodology developed by the project has been applied in actual hydraulic design, I've been removed from engineering practice (retired) since 2002 so can not cite project design examples.

## Appendix C – Full Survey Results

Publication No.: 534 (10-57) Sr. Program Officer: David B. Beal

Title: *'Guidelines for Inspection and Strength Evaluation of Suspension Bridge Parallel Wire Cables'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | | 4 | 5 | 5 | 5 | 4.75 |
| 2 | Research results have been applied | 4 | 5 | 5 | 5 | 4.75 |
| 3 | Research results have been applied | 4 | 5 | 5 | 5 | 4.75 |
| 4 | The research confirmed/advanced current practice | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 4 | 5 | 5 | 5 | |

Comments:

Inspection guidelines and cable strength analysis models were used to evaluate the main suspension cable on the Ambassador Bridge over the Detroit River and the Forth Road Bridge in Scotland.

The Report 534 provides very practical guidelines for suspension bridge owners to carry out cable inspection and evaluation. Based on this report, FHWA is developing a suspension bride cable inspection primer.

The project became the basis for further work, currently in progress under the auspices of FHWA.

Publication No.: 535 (25-21) Sr. Program Officer: Martine A. Micozzi

Title: *'Predicting Air Quality Effects of Traffic-Flow Improvements'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | Other (Please specify in item Question 4) | 4 | 5 | 4 | 4 | 4.25 |
| **Project Averages** | | 4.5 | 5 | 4.5 | 4.5 | |

Comments:

The approach ultimately taken by the contractor was too complex to provide practical results, although it was still a useful effort. I did find the whole process quite interesting and it helped me think of a simpler way to examine the issue (which ultimately resulted in 2 papers and one research grant).

## Appendix C – Full Survey Results

Publication No.: 537 (22-17) Sr. Program Officer: Charles W. "Chuck"

Title: *'Recommended Guidelines for Curb and Curb-Barrier Installations'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 2 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| 3 | The research confirmed/advanced current practice | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 5 | 5 | 5 | 5 | |

Comments:

Of the several panels that I have been involved with, this was perhaps the best. The contractor provided what the panel expected, and kept the project well on track in terms of cost and time. Quarterly and interim reports were well written, and the contractor was responsive to comments/direction from the panel. I happened to chair this panel, but would give the contractor the credit for this project going well.

I thoroughly enjoyed my experience on this and on the other panels on which I've served. NCHRP staff support is consistently very good and for the most part panel members are highly professional and productive. It was an honor to serve on this panel and would be happy to do so again if called upon.

The crash tests and computer simulation studies of vehicles impacting curb and curb-barrier combinations advanced our understanding of these complex events. Revised design guidelines were proposed for incorporation into the AASHTO Roadside Design Guide. This might be still pending.

Publication No.: 538 (01-39) Sr. Program Officer: Amir N. Hanna

Title: *Traffic Data Collection, Analysis, and Forecasting for Mechanistic Pavement Design'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 2 | It was unsuccessful | 1 | 3 | 4 | 3 | 2.75 |
| 4 | It was unsuccessful | 4 | 2 | 4 | 3 | 3.25 |
| **Project Averages** | | 2.5 | 2.5 | 4 | 3 | |

Comments:

The Contractor would not follow Panel direction and neither staff nor Panel Chair would suspend or cancel the project. The product is not used by either industry or state DOT's.

The software (TRAFLOAD) did not interface with the NCHRP 1-37A software. There should have been better coordination of the two projects.

## Appendix C – Full Survey Results

Publication No.: 539 (09-35) Sr. Program Officer: Edward T. Harrigan

Title: *'Aggregate Properties and the Performance of Superpave-Designed Hot Mix Asphalt'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 3 | 4 | 4 |
| 2 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| **Project Averages** | | 4 | 5 | 3.5 | 4.5 | |

Comments:

We still need a performance test

Publication No.: 540 (18-04B) Sr. Program Officer: Amir N. Hanna

Title: *'Guidelines for Early Opening-to-Traffic Portland Cement Concrete for Pavement Rehabilitation,'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 4 | 3 | 4 | 3.75 |
| **Project Averages** | | 4 | 4 | 3 | 4 | |

Comments:

I was selected to participate because of activities I was doing in California. The research was valuable to address less extreme needs, i.e. opening strength of durable concrete mixes at 12 to 24 hours, and not the extreme needs of heavy urban areas, i.e. opening strength of durable concrete mixes at 90 minutes to 4 hours.

## Appendix C – Full Survey Results

Publication No.: 541 (08-38) Sr. Program Officer: Ron M. McCready

Title: *'Consideration of Environmental Factors in Transportation Systems Planning'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 2 | Other (Please specify in item Question 4) | 4 | | 4 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 3 | 4 | 3 | 4 | 3.5 |
| **Project Averages** | | 3.66 | 4 | 3.66 | 4 | |

Comments:

It took an extremely long time to get the final report published after the research was completed.

Not sure if anyone implemented or not

Report largely consists of case studies. Critical comparison and analysis of agency experience and development of superior methodologies would have made the product more effective.

Publication No.: 542 (08-40(02)) Sr. Program Officer: Charles W. "Chuck"

Title: *'Evaluating Cultural Resource Significance: Implementation Tools'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Other (Please specify in item Question 4) | 5 | 5 | 5 | 5 | 5 |
| 2 | Other (Please specify in item Question 4) | 4 | 5 | 4 | 5 | 4.5 |
| **Project Averages** | | 4.5 | 5 | 4.5 | 5 | |

Comments:

The research was useful in providing a state of the art (at the time) survey of the kinds of tools being used and the experiences with it --the pros and cons of using information technology to develop and disseminate historic contexts (that discussion was one of the best presentations I've seen). Unfortunately, the research was cut off before the product could be properly tested on a wide basis, such as a state or an agency. I still believe it has the potential to be a useful tool and regret that it was never implemented. In summary, the background research and product development were very good, but the implementation phase was not pursued, which limits the utility of the project.

Useful but difficult to implement.

## Appendix C – Full Survey Results

Publication No.: 543 (12-58) Sr. Program Officer: David B. Beal

Title: *'Effective Slab Width for Composite Steel Bridge Members'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 4 | 4 | 3 | 4 | 3.75 |
| 2 | Research results have been applied | 5 | 5 | 5 | 5 | 5 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 4 | 4 | 4.25 |
| 4 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| **Project Averages** | | 4.25 | 4.75 | 4 | 4.5 | |

Comments:

I would like to commend Dave Beal on his excellent leadership in guiding the panel to fulfill it's charge.

## Appendix C – Full Survey Results

Publication No.: 544 (24-19) Sr. Program Officer: Timothy G. Hess

Title: *'Environmentally Sensitive Channel- and Bank-Protection Measures'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 3 | 5 | 4 | 4 | 4 |
| 2 | The research confirmed/advanced current practice | 3 | 5 | 3 | 4 | 3.75 |
| 3 | Other (Please specify in item Question 4) | 4 | 5 | 5 | 5 | 4.75 |
| 4 | Other (Please specify in item Question 4) | 4 | 5 | 5 | 5 | 4.75 |
| **Project Averages** | | 3.5 | 5 | 4.25 | 4.5 | |

Comments:

"I do not believe that the product developed from the project has been widely utilize by my agency (Oregon DOT) for a couple of reasons. The first is that ODOT lacks any systematic procedure for disseminating new products and reports such as those that come from NCHRP. They arrive at our agency, may or may not get forwarded to appropriate staff, and may or may not (usually not) discussed at discipline meetings or evaluated for use by the agency. The one NCHRP report that is getting wide distribution within ODOT, the Stormwater LID report done by Huber et at, has largely been pushed by Oregon's DEQ, who bring it up in permit pre-application meetings and send out CDs to anyone who they talk to. While the internal distribution is an agency specific issue, it does indicate that more aggressive marketing could be of value. Regulatory Agencies as well as DOTs could be targeted (for environmentally useful reports). The second element involved with the lack of adoption by ODOT has larger implications. I made sure that our lead Hydraulic Engineer involved in bank protection got a copy of the report and CD for evaluation. His response was that it was all very good, but any time he specified “no maintenance” as a requirement, the tool spit out riprap, which was already his favorite solution. Because FHWA is reluctant to or will not fund ongoing maintenance of facilities the result was a foregone conclusion. This points to the need for some sort of culture shift within both ODOT and FHWA with regards to maintenance of facilities required for environmental protection. It seems to me that the report could help inform discussion of policy implications of trying to utilize tools and recommendations from NCHRP projects. All that said, ODOT continues to struggle with ways to provide environmentally sensitive bank protection, something that I think the project report could help with - so far it is an underutilized resource."

"Plans and specifications were “concept sketches”, that is, generic and did not have enough detail for hydraulic design variables (velocity, shear stress) in close proximity to transportation facilities (roads, bridges). Several techniques were appropriate for low risk settings (away from roads, bridges), and a few were possible for near and at the higher risk settings of roads and bridges."

## Appendix C – Full Survey Results

Publication No.: 556 (12-59) Sr. Program Officer: Ron M. McCready

Title: *'Guidelines for Geosynthetic-Reinforced Soil Bridge Abutments with a Flexible Facing'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 2 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 3 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| 4 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| 5 | Other (Please specify in item Question 4) | 3 | 4 | 2 | 3 | 3 |
| 6 | Other (Please specify in item Question 4) | 3 | 4 | 2 | 3 | 3 |
| **Project Averages** | | 4 | 4.66 | 3.33 | 4.33 | |

Comments:

we are currently using report 556 to aid in the Design of GRS abutments

This project has served well as a stepping stone to the current 12-59(01) project, which addresses seismic issues w/ GRS bridge abutments. However, this current project has experienced bigger challenges.

The problem with this and other NCHRP projects is the lack of a clear implementation plan with implementation product that can be obtained as part of the study scope approved for funding. NCHRP is supposed to be the research arm of AASHTO but this project and some other research projects do not adhere to this requirements. NCHRP project should start on what is in AASHTO, what are the issues, needs, why the research is needed, and how the research results would change the current AASHTO specifications and benefit the state DOTs. May be NCHRP needs to consider diving the NCHRP project into two phases. In the preliminary phase, all these issues would be resolved and a decision should be made whether to continue the study or terminate it if it would not results in an implementation product. Another problem is the lack of technical experts on the subjects as part of the NCHRP panel. Finally, some projects were extended but the old research team was selected to perform the extended project. This is not appropriate especially when the topic of the extended study (e.g. dynamic behavior of GRS abutment) is different than the older study (e.g., static behavior of the GRS abutment).

## Appendix C – Full Survey Results

Publication No.: 558 (18-06) Sr. Program Officer: Amir N. Hanna

Title: *'Manual on Service Life of Corrosion-Damaged Reinforced Concrete Bridge Superstructure'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 2 | 4 | 3.75 |
| 2 | Research results have been applied | 4 | 4 | 4 | 5 | 4.25 |
| 3 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 4 | | 5 | 5 | 5 | 5 | 5 |
| **Project Averages** | | 4.25 | 4.5 | 3.75 | 4.5 | |

Comments:

Research put a very good tool out for industry use. The project took a long time to complete due to the need to terminate the original agreement and over time panel participation became weak.

The results were good but the contractor went way beyond the contract time period.

Publication No.: RRD 262 (09-18) Sr. Program Officer: Edward T. Harrigan

Title: *'Field Shear Test for Hot Mix Asphalt'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | It was unsuccessful | 3 | 4 | 4 | 4 | 3.75 |
| **Project Averages** | | 3 | 4 | 4 | 4 | |

Comments:

1. note I was on panel of 9-18. 2. Research was unsuccessful in large part due to poor performance of sub-contractor who did finite element analysis. Also industry did not move forward with next phase because an alternative device was coming on line (Simple Performance Tester). This research may get revived depending on performance of SPT. 3. It is difficult to go to DC for all meetings from west coast. Alternating some meetings to Irving facility would be good if there are west coast panel members.

## Appendix C – Full Survey Results

Publication No.: Unspecified (UNK) Sr. Program Officer:

Title: *Unspecified*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 5 | 4 | 5 | 4.5 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 4 | 4 | 4 |
| 3 | The research confirmed/advanced current practice | 4 | 3 | 4 | 4 | 3.75 |
| 4 | Research results have been applied | 4 | 5 | 5 | 5 | 4.75 |
| 5 | Research results have been applied | 5 | 5 | 4 | 5 | 4.75 |
| 6 | Research results have been applied | 5 | 5 | 3 | 4 | 4.25 |
| 7 | Other (Please specify in item Question 4) | 4 | 4 | 4 | 4 | 4 |
| **Project Averages** | | 4.28 | 4.42 | 4 | 4.42 | |

Comments:

Your product required to much input. No fixed items. The user needed to put in most every item value. With that you can just do a simple B/C ratio yourself.

I believe the research was adopted by AASHTO.

Specification has been adopted as an AASHTO Guide Spec with modifications

"I participated on two regular panels (NCHRP 25-14 and 25-18) and two short, “quick turn-around” panels (NCHRP 25-25-6 and 25-25-18). Most of my experiences were good, but the panels “dissolved” toward the end. I came in on several of these panels to assist someone from my Office who was retiring (and has since retired), so I may not be privy to all the information about these panels. I also “inherited” one panel that was mostly completed when that person retired, so my input was negligible. I have wanted to participate on other NCHRP panels but I have not heard of any and do not know how to be placed on the list for panel members although I believe my agency (FHWA) is supposed to have a member on all NCHRP panels."

## Appendix C – Full Survey Results

Publication No.: XX (08-57) Sr. Program Officer: Lori Sundstrom

Title: *'Improved Framework and Tools for Highway Pricing Decisions'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | It was unsuccessful | 2 | 4 | 4 | 4 | 3.5 |
| **Project Averages** | | 2 | 4 | 4 | 4 | |

Comments:

My panel is 08-57 - not a completed project yet. Perhaps I got this survey request in error, but am glad to raise my concern. As it is now, this research project is just a documentation of current practices and is not a decision making tool. Also, it clearly promotes pricing by the private sector. This kind of partial view is unacceptable for a supposedly independent research project.

Publication No.: XXX (24-20) Sr. Program Officer: David A. Reynaud

Title: *'ESTIMATION OF SCOUR DEPTH AT BRIDGE ABUTMENTS'*

| Respondent | Q1 | Contractor Performance | CRP Staff Support | Panel's Contribution | Overall Experience | Average Rating |
|---|---|---|---|---|---|---|
| 1 | The research confirmed/advanced current practice | 4 | 4 | 3 | 4 | 3.75 |
| 2 | The research confirmed/advanced current practice | 4 | 4 | 3 | 4 | 3.75 |
| **Project Averages** | | 4 | 4 | 3 | 4 | |

Comments:

"A minor comment: We need a deadline date set so the reviews couldn't get shuffled farther down the stacks by our bosses. We had a couple staff changes during the course of the project; every time it changed I had to make the same comment. I think this should be a normal part of business, especially with the current “do more with less” mentality. Otherwise, as I believe happened with this panel, we never get to the reviews."

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| | Contractor Performance | NCRP Staff Support | Panel's Contribution | Overall Experience |
|---|---|---|---|---|
| **Program Performance** | 4.17 | 4.64 | 4.33 | 4.43 |

Program ratings