

Cost/Benefit Analyses for MDSS

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Cost/Benefit Analyses

- Identifying and quantifying the costs and benefits required to perform a Costs/Benefits Analysis (C/BA) can be quite challenging...
- Establishing a reliable costs/benefits ratio is an important step when considering an investment in MDSS technologies
- To justify the investment, the benefits must exceed costs



Tangible vs.. Intangible data

- Ideally, C/BA's should be based on costs versus savings data that can be directly measured (tangible). Examples include:
 - Labor
 - Fuel
 - Equipment
 - Chemicals
- While these may seem logical, history has shown that these values are difficult to obtain!



Tangible vs.. Intangible data

- Data that cannot be directly measured are called intangible. They can be used to supplement tangible benefits associated with the use of MDSS
 - Increasing Public Safety (Crash reduction = \$ value?)
 - Increasing Mobility (Delay reductions = \$ value?)
 - Improved levels of service (Bare road vs slightly covered vs closed = \$ value?)



C/BA Efforts

- Members across our community have been attempting to use winter maintenance data to generate a viable cost/benefit ratio that (hopefully) results in a positive value . . .
- FHWA conducted a MDSS C/BA in Portland Maine during the winter of 2006/07. However, limited amounts of tangible data due to first season deployment resulted in re-scoping this effort to a “lessons learned” qualitative study.



C/BA Efforts

- FHWA provided funds to the MDSS Pooled-Fund Study consortium to perform a parallel MDSS C/BA during that same winter season. This effort is still ongoing.
- FHWA is currently assessing the feasibility of conducting a MDSS C/BA with the City/County of Denver. Based on the results of analyzing data availability during the winter of 2007/08, a decision will be made early this fall on whether or not to proceed with the C/BA.



Presentations

- And now, we're going to hear from a group of road weather management experts who have been dealing with the challenge of performing a C/BA:
 - Dean Kernan (ILDOT) will discuss a cost/benefit study that was performed after one storm last winter
 - Pat Kennedy (Denver DPW) will discuss the ongoing C/BA that may be implemented this winter in the City of Denver
 - Dave Huft (SDDOT) will provide a progress report on the C/BA study that is near completion within the Pooled-Fund consortium
 - Allen Williams (VADOT) & Tim Jackson (MoDOT) will discuss a cost-benefit toolbox effort that is being funded by the Clear Roads consortium
- These will be followed by an open discussion

