Extending Monetary Values To Broader Performance And Impact Measures: Transportation Applications And Lessons For Other Fields

This article examines recent progress at assigning monetary values to what are normally considered “hard to quantify” benefits of transportation projects. It focuses on three types of impacts - environmental quality, health and wider economic impacts - to examine how transportation project evaluation methods have evolved in recent years and how they compare to methods used for evaluation of non-transportation programs. Examples of recent practice are provided to show how transport agencies are continuing to refine performance measures to include broader impacts in project evaluation. A classification is provided to distinguish direct traveler effects from indirect effects on non-travelers, a step important to maximize coverage and minimize double-counting of impacts. For each type of impact, the paper discusses the range of variation in monetized values and shows that the variation is due less to imprecision in measurement than to fundamental issues about whether to use damage compensation, impact avoidance costs, stated preferences or behavioral valuation perspectives to define those values. Case studies as diverse as Australian roads, Wisconsin energy programs and Appalachian economic development programs are used to show how common methods are evolving among transport and non-transport agencies to improve impact measurement and its use in project evaluation.