

Economic Analysis Tools (C03/C11)

Easier-to-use tools for improved economic analysis

Challenge

Strengthening the economic vitality of a region (jobs and income) is one of the primary reasons for investing in highway capacity. Governments and taxpayers need to know whether a region will be better off economically as a result of a proposed transportation investment. Current tools for estimating economic impacts of highway capacity projects are often complex and their outcomes can be difficult to explain to decision makers and the public. Planners need estimation methods that are more transparent and that provide a more complete understanding of the economic impacts of highway projects.

Solution

The Bundle: Transportation Project Impact Case Studies (C03); and Tools for Assessing Wider Economic Benefits of Transportation (C11)

The SHRP2 C03- *Transportation Project Impact Case Studies (T-PICS)* and C11 *Tools for Assessing Wider Economic Benefits of Transportation*, are two products culminated in a new bundle of economic analysis tools including web-based sketch planning tools, statistical models, case studies, and a practitioner’s handbook. This product bundle helps planners make broader-based, more realistic assessments of the wider economic impacts of highway capacity projects, which in turn leads to better decisions, more prudent investments, and – ultimately – a more robust economy at the local, regional, and national levels. These products were bundled together because of their technical and subject-matter commonalities as a result of an executive review committee consisting of AASHTO and FHWA leaders.

Transportation Project Impact Case Studies (C03)

Transportation Project Impact Case Studies (T-PICS) is a web tool that planners can use to quickly see the range of economic development impacts that occur as a result of different types of projects in different settings. T-PICS includes 100 detailed case studies of already-built highway capacity projects and their economic development impacts.

Clearer Economic Projections Deliver Better Return on Investment

FOCUS AREA:
Capacity (C03/11)

New suite of economic analysis tools include web-based sketch planning tools, forecasting tools, statistical models and cast studies along with a practitioner’s handbook.

Save Money

- Informed decision making results in better economic returns on capacity investments.



Save Time

- Optimal capacity improvements reduce traffic delays, saving drivers time.



Each case study includes pre-and post-project economic and land development data and local interviews that together portray the actual, observed economic development impacts of those projects, as measured at least five years after project completion. T-PICS results can help refine public debate about highway projects by establishing boundaries of the likely positive and negative impacts that typically occur from such projects. Understanding what changes in productivity result from improvements in market accessibility, intermodal connectivity, scheduling, logistics, and international competitiveness helps communities and transportation agencies identify transportation options to meet their goals.

Tools for Assessing Wider Economic Benefits of Transportation (C11)

SHRP2 has also developed a suite of new spreadsheet-based analysis tools that will provide the range of reasonable economic impact expectations for a proposed highway project. The new tools also enable a wider economic analysis by integrating four components:

- ▶ travel time reliability,
- ▶ connectivity to intermodal facilities for freight and passengers,
- ▶ access to labor and product markets, and
- ▶ an accounting tool that integrates the other three components and creates benchmarks to the local area.

By considering net effects, SHRP2 tools provide decision makers with better information for answering the question of whether a region will be economically better off because of a transportation investment, and if so, by how much. The outcome of this process describes the project's ultimate economic impact in terms of direct effect, total local effect, and total national effect.

The Benefits

Highway capacity improvements can support economic vitality by providing better access to markets and the labor force, saving time and money otherwise spent as a result of traffic delays, improving safety, reducing pollution, and supporting a higher quality of life. The question is: Which improvements actually make a difference and how do we make accurate projections about that? Better understanding how changes in productivity such as improvements in market accessibility, intermodal connectivity, scheduling, logistics, and international competitiveness, help identify transportation options that meet community goals.

How can you learn more?

For more information, contact Valentin Vulov with FHWA at valentin.vulov@dot.gov, or Matt Hardy with AASHTO at mhardy@aaashto.org. Updates on current implementation efforts can be found at www.fhwa.dot.gov/GoSHRP2 or <http://SHRP2.transportation.org>.

About SHRP2 Implementation



The second Strategic Highway Research Program is a national partnership of key transportation organizations: the Federal Highway Administration, the American Association of State Highway and Transportation Officials, and the Transportation Research Board. Together, these partners conduct research and deploy products that will help the transportation community enhance the productivity, boost the efficiency, increase the safety, and improve the reliability of the Nation's highway system.

Strategic Highway Research Program

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