

# Transportation Planning & Research

---

## Mission

To develop highway construction and multimodal projects that create a safe, cost-effective and environmentally sound transportation system.

## Summary of Activities

The **Indiana Department of Transportation (INDOT)** has planning, design, engineering, and research responsibilities for all state transportation projects.

Planning utilizes a 25-year horizon, and includes long range planning, environmental assessment, engineering assessment and needs assessment. The INDOT Research Division implements a State Planning and Research (SPR) program using a combination of federal and state funds to satisfy the requirements of the Federal Highway Administration, assuring continued receipt of Federal approvals for items such as road and street improvement projects, maintenance of records, and multimodal transportation plan. Pre-construction consulting services complete various phases of INDOT's Capital Improvement Program. Consultants are contracted for various duties, including engineering and environmental assessments.

Design and engineering of highway projects are done both in-house and contracted out to consultants. Preliminary engineering activities include: field survey, road and bridge design, signing and signal design, landscape design, utility coordination, and sub-surface utility engineering.



The research portion of the SPR program is administered in conjunction with the Joint Transportation Research Program Board (consisting of senior INDOT personnel, Indiana universities, Federal Highway Administration (FHWA), and Indiana transportation industry associations). The program funds and oversees research and implementation projects (currently over 112 ongoing projects) impacting all transportation areas, including construction/geotechnical, environment, intermodal/planning/financing, traffic/safety/intelligent transportation systems, pavement/materials, structures/hydraulics, and policy. Research and technology transfer products include specification development and testing protocols, improved materials / performance/methods, and new technology.

The Transportation Corridor Planning Board (TCPB) provides a process for the selection of alternative transportation corridors along abandoned railroad property. Appointed by the Governor, the board is charged with determining if the state has an interest in purchasing abandoned railroad property and converting it to an alternative transportation use.

## External Factors

Demand on the transportation infrastructure continues to increase, due to escalating traffic volumes, increased truck traffic and the demand for the system to support heavier loads. Federal and state funding for transportation construction increased significantly as a result of federal transportation legislation (TEA-21) and state initiatives (the Crossroads 2000 program), raising construction levels to record heights. These factors, plus an increase in consulting fees due to the high demand for and shortage of civil engineers, have led to an increase in the cost of using consultants.

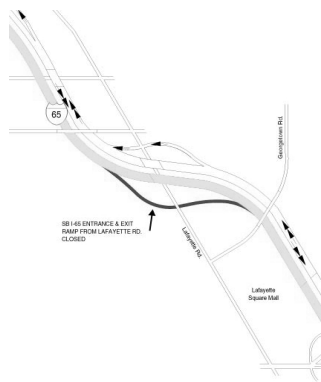
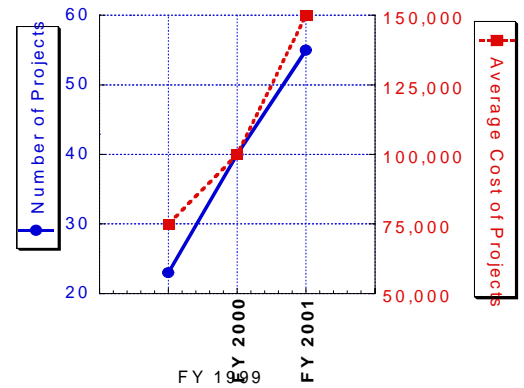
The Environmental Protection Agency and the **Indiana Department of Environmental Management** have recently implemented stricter environmental regulations for groundwater, surface water, air quality and wetland development, impacting congestion mitigation, construction activities and runoff from INDOT facilities. Environmental and industry groups are both challenging and promoting the reuse of waste materials in transportation. Federal mandates link receipt of federal funds to various programs including the use, evaluation and performance of new materials and products.

## Evaluation and Accomplishments

INDOT is completing a 25-year transportation plan that includes specific major projects. This will allow INDOT to determine planning and budgetary needs for both consulting and in-house services in future years.

As a result of the increased demand for information, research and technical assistance projects have increased 74% in FY 2000 and a record 140% in FY 2001. In a coordinated effort to address these needs, the research program initiated recommendations from a recent peer review, including fast-track research, information and technology investments, implementation assistance program, utilization of focus groups, etc. A three-year Long-Range Research Plan (LRRP) for FY 2001-2003 has been finalized. A detailed economic review of implemented research products indicated an average benefit-cost ratio of 53:1 with a range of 5:1 to 89:1 for FY 2000 projects. Forty-seven projects are in active implementation status.

Number of Projects and Cost of Projects by Fiscal Year



## Plans for the Biennium

INDOT will continue to work with other public or quasi-agencies, educational institutions, private industries, and consultants to accomplish the objectives of the SPR program. Planning functions will continue to provide the most up-to-date assessment data possible to provide cost feasibility and design details in determining which projects best meet the needs for the citizenry of Indiana. The TCPB will initiate a Corridor Preservation and Development plan that will be used to guide future actions and continue to fulfill its obligations as established by statute. The Research Program will fully implement and evaluate the recommendations of the recent peer review. This will provide fast-track research capabilities, assist in knowledge management, and result in a better-trained, safer workforce, designed to address customer needs.

Program: 0705

**Appropriation  
(All Funds)**

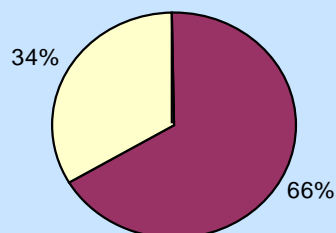
|                                  | FY 1999      | FY 2000       | FY 2001       | FY 2002       | FY 2003       |
|----------------------------------|--------------|---------------|---------------|---------------|---------------|
| <b>Appropriation (All Funds)</b> | \$85,422,505 | \$125,370,281 | \$126,334,216 | \$138,202,827 | \$143,438,774 |

**Expenditures**

|                     |               |               |               |
|---------------------|---------------|---------------|---------------|
| <b>Expenditures</b> | \$112,697,007 | \$131,979,355 | \$147,596,930 |
|---------------------|---------------|---------------|---------------|

**Sources of Funds  
FY 2001 (Approp)**

General
  Dedicated
  Federal
  Other



**Uses of Funds  
FY 2001 (Approp)**

Personal Services
  Distributions
  Capital
  Other

