

IDEA

**Innovations Deserving
Exploratory Analysis Programs**

RELIABILITY



**TRANSPORTATION
SAFETY**

HIGHWAY

TRANSIT

Program Announcement

2011

TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

TRANSPORTATION RESEARCH BOARD

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* Membership as of September 2010.

Publications of the IDEA Programs are available on the internet at trb.org/IDEA.

Further information is available by contacting the IDEA Program Office by phone (202-334-3310) or fax (202-334-3471).

Transportation Research Board publications may be ordered directly from the TRB Business Office (202-334-3213), through the internet at trb.org, or by annual subscription through organization or individual affiliation with TRB. Affiliates and library subscribers are eligible for substantial discounts.

For further information, contact the Transportation Research Board Business Office, National Research Council
500 Fifth St., NW, Washington, DC 20001, (telephone 202-334-3214; fax 202-334-2519; or email TRBsales@nas.edu).

Innovations Deserving Exploratory Analysis

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TRANSPORTATION RESEARCH BOARD
OF THE NATIONAL ACADEMIES

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This Program Announcement describes the IDEA programs and how they are administered, provides instructions and documents for submitting proposals for funding, and lists general research topics derived from program goals.

IDEA PROGRAM SPONSORS

The American Association of State Highway and Transportation Officials (AASHTO) and the following agencies of the U.S. Department of Transportation (DOT) invest in the potential of innovative concepts by funding the Innovations Deserving Exploratory Analysis (IDEA) programs.

- Through the National Cooperative Highway Research Program (NCHRP), AASHTO funds the NCHRP Highway IDEA program in search of advances in design, construction, safety, maintenance, operations, and management of highway systems.
- The Federal Motor Carrier Safety Administration (FMCSA) and the Federal Railroad Administration (FRA) jointly fund the Safety IDEA program to support innovative approaches to improving truck safety and railroad safety.
- Through the Transit Cooperative Research Program (TCRP), the Federal Transit Administration (FTA) funds the Transit IDEA program to support innovations to improve the efficiency, safety, security, and ridership of transit systems.
- Through the second Strategic Highway Research Program (SHRP 2), the Federal Highway Administration (FHWA) funds the Reliability IDEA program in search of innovations that could improve highway travel time reliability.

IDEA programs differ from traditional research programs in two ways: IDEA projects are initiated by researchers rather than by a request for proposals, and funding can support initial testing of unproven concepts. Each of the sponsoring agencies supports programmed, fundamental research through other means. Their investment in the IDEA programs is meant to capture the unexpected concept that challenges conventional thinking.

PROGRAM ADMINISTRATION

The Transportation Research Board (TRB) administers the IDEA programs on behalf of their sponsoring agencies. A senior staff officer supports the work of committees and panels of unpaid experts who volunteer their time to review proposals, select projects for funding, and offer guidance on the conduct of investigations.

There are two project types: Type 1 projects are concept explorations that demonstrate the validity of unproven concepts, and Type 2 projects develop and test prototypes of proven concepts. Funding for Type 1 projects typically ranges from \$25,000 to \$100,000, and contracts may cover 3 to 18 months. Type 2 projects more often range from \$50,000 to \$100,000 and contracts may range from 6 to 24 months. Only the NCHRP Highway IDEA program has an upper limit of \$150,000 for both project types. The other IDEA programs cannot consider proposals for above \$100,000. Within these funding constraints, award amounts are based on the extent of the investigation required for the project.

*THE IDEA WEB SITE LISTS
UPDATED INFORMATION ON:*

■ *Current and
completed projects*

■ *Committee members*

■ *Proposal submission
deadlines*

■ *Contact information*

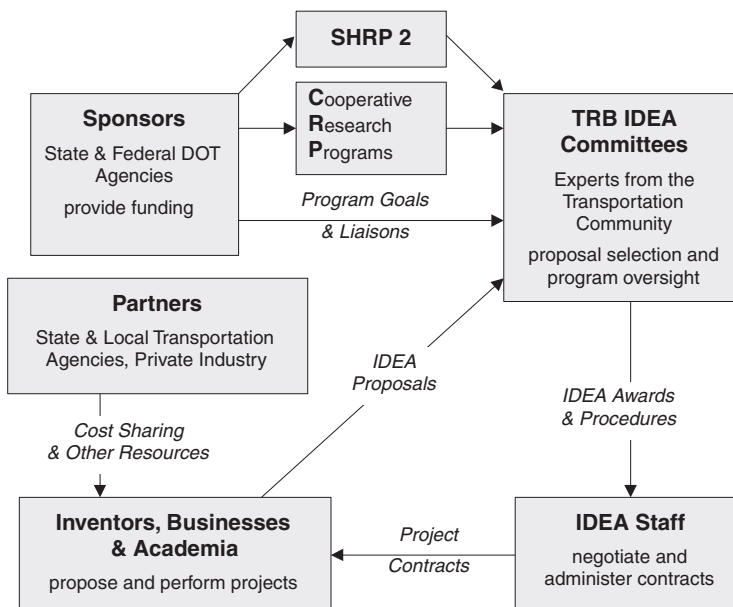
www.TRB.org/IDEA

Contact the IDEA office:

Phone: 202.334.3310

E-mail: ideaprogram@nas.edu

How TRB Manages IDEA Programs



Transit IDEA proposals are due April 1st and October 1st. NCHRP IDEA and Reliability IDEA proposals are due March 1st and September 1st, depending on which of the two funding cycles is targeted. For the Reliability IDEA program, the September 1st proposal due date is subject to available funds; check the IDEA programs' website prior to submitting. The Safety IDEA program has only one review cycle per year; Safety IDEA proposals are due March 1.

Protections

Proposals received by the IDEA programs are held in confidence. The information they contain is used only for evaluation during the review process by committee members who are instructed not to disclose it.

Investigators selected for IDEA funding retain intellectual property rights to their ideas and are encouraged to obtain patents or in other ways secure their rights.

EVALUATION CRITERIA

Proposals are reviewed by technical experts in the program area who are selected from industry, academia, and state and federal transportation agencies to serve on IDEA committees. In evaluating proposals, committee members require clear, concise answers in three areas:

CONTACT THE IDEA STAFF:

Harvey Berlin

—Transit IDEA

—Safety IDEA

Inam Jawed

—NCHRP Highway IDEA

—Reliability IDEA

at 202.334.3310

Fax: 202.334.3471

Quality of Innovation—Is this a credible technical concept, and would it produce a significant advance for the state of the art or the practice?

Potential Payoff—Is this an important problem that the IDEA program should investigate, and would the product have potential for application? (For the NCHRP and Reliability Programs, what is the economic feasibility of the proposed product? For the Reliability Program, would the product have a demonstrable impact on travel time reliability?)

Research Approach—Would the proposed investigative approach rigorously assess the concept and the application?

Complete proposals that follow the Guidelines for Preparing IDEA Proposals will be further evaluated according to their strength in those and the following areas:

1. What are the expected benefits to transportation agencies? Is there potential to produce a breakthrough or a major advance in some portion of transportation practice?
2. Does the concept have scientific and technical merit?
3. Is the research plan sound, and does it have a realistic scope?
4. What are the qualifications of the investigating team, and what facilities are available to them?
5. How practical are the plans for product implementation or commercialization?
6. Have potential users of the ultimate product agreed to participate in the project?

Cost-sharing can leverage an agency's investment in research as well as spread the risk inherent in early-stage concept development. For those reasons, all other things being equal, proposals that include cost-sharing from the proposing organization and other sources may be given some preference in the evaluations.

TRB may recommend technical or budget modifications to the project after a proposal has been selected for funding but before a contract is awarded. For example, investigators may be asked to clarify project details, revise the work plan, or reestimate the cost to perform the project.

INFORMATION RESOURCES

The Transportation Research Information Service (TRIS), which provides free abstracts of thousands of reports on transportation topics in virtually every area, is accessible online through the Bureau of Transportation Statistics at <http://trisonline.bts.gov/search.cfm> and through the TRB Web site (www.TRB.org). A TRIS search will help avoid duplicating earlier efforts.

The IDEA Web site (www.TRB.org/IDEA) links to annual progress reports for each program. These reports describe projects that have been funded and may be useful in evaluating whether a proposed project is an appropriate fit with the IDEA programs and in developing the scope of a project. Look for these links under the section labeled "IDEA Publications."

Transportation agencies, perhaps the ultimate users of the proposed product, are also valuable resources. Input from agencies can clarify implementation issues and sometimes results in agreements for testing facilities or trial implementation. Letters of meaningful support or participation from partnering organizations strengthen proposals.

Investigators are encouraged to ask questions early in the process of developing proposals. Both technical and procedural questions can be directed to the IDEA program office by e-mail or telephone call to the appropriate staff officer. Contact information is listed on page 14.

SUGGESTED FOCUS AREAS

IDEA projects are initiated by investigators whose innovative concepts have potential to advance the general goals of improving the safety and efficiency of the nation's surface transportation network. While specific research problems are not defined by the sponsoring transportation agencies, the following topics are illustrative of areas in which proposals may be submitted.

NCHRP IDEA Highway Topics for Investigation

The NCHRP Highway IDEA program is managed by the NCHRP and is sponsored by the member states of AASHTO. The program seeks advances in the construction, safety, maintenance, and management of highway systems. Suggested topics warranting investigation are outlined in the next section.

Highway Operations

- Deployment of improved or advanced technologies for systems operations;
- Incorporation of reliability estimation into planning and operations modeling tools;
- Means for reducing inappropriate driver response to adverse weather, roadside distractions, traffic incident scenes, and queues;
- Data gathering and processing technologies;
- Real-time data fusion to support traveler information systems; and
- Advanced queue and incident scene management techniques.

Highway and Worker Safety

- New concepts for automated identification and warning of hazardous conditions;
- Advanced technology to reduce highway workers' exposure to hazardous conditions and to warn them of impending hazards;
- New concepts for highway infrastructure systems and vehicles, including ITS advances to improve highway safety; and
- Worker safety in night construction

Security of Highway Facilities and Services

- New technologies and concepts for security warnings and assessments,
- Advanced materials and techniques for hardening the infrastructure, and
- New information technology for crisis response and evacuation procedures.

Highway Design, Construction, and Quality Control

- Innovative concepts for incorporating initial and life-cycle design features, constructability, durability, and maintainability;
- Low-cost design concepts for enhancing the dynamic damage resistance of bridges, pavements, and structures to natural hazards such as earthquakes, wind, and floods;
- Design concepts using advanced composites, steel, and hybrid materials in pavement and bridge constructions;
- Automated systems for monitoring and controlling construction quality of highway pavements, earthworks, and structures; and
- Accelerated construction methods and techniques.

Maintenance and Renewal of Service Life

- Advanced diagnostic technologies to enhance early detection of deterioration and repair technologies that reduce the time between repair and resumption of service;
- Modern materials and composites to improve the service life of pavements and bridges with reduced maintenance; and
- Advanced coating materials and corrosion protection processes to increase the service life of highway structures, including steel and reinforced concrete structures.

Pavement and Bridge Performance and Management

- Innovative systems for pavement and bridge management, including advanced application of remote sensing, communication, and information processing technologies to enhance collection, analysis, and data management processes; and
- Innovative methods to manage and analyze data from long-term pavement performance studies.

Environment and Resource Conservation

- Advanced monitoring methods to rapidly measure the environmental impacts of highway construction and operation,
- Advanced technologies for recycling and reusing materials and waste products, and
- Advanced and alternative methods for conformance with environmental requirements in highway construction.

Transit IDEA Topics for Investigation

The Transit IDEA program, which is funded by the FTA as part of the Transit Cooperative Research Program, seeks innovations to improve the efficiency, safety, security, maintenance, and ridership of transit systems. Proposers are encouraged to work with transit agencies in developing IDEA proposals and to include participation by transit agencies in proposals, such as in testing innovative methods. Evidence from transit agencies that they would want to use the proposed concepts and products and to participate in testing prototypes strengthens proposals. Any letters from transit agencies confirming their participation in Transit IDEA proposals should be addressed to the proposer and should briefly describe what that participation would be. Possible areas of investigation are described on the next pages.

High-Priority Focus Areas

The panel that reviews Transit IDEA proposals is encouraging proposals for innovative methods that address one of the following four high-priority focus areas. The panel developed these focus areas in cooperation with FTA and the American Public Transportation Association (APTA):

1. Increasing transit ridership;
2. Improving transit safety, security, or emergency preparedness;
3. Improving transit capital or operating efficiencies; and
4. Protecting the environment or promoting energy independence.

Other Possible Areas of Investigation

Transit IDEA proposals may also be submitted in other areas with application to transit practice, including examples identified below.

Transit Operations

- Quick delivery of timely information,
- More reliable service, and
- Improved safety and security.

Service Configuration

- Methods and concepts that integrate urban development and travel patterns, level of traveler abilities and disabilities, neighborhood demographics, and intermodal system connections; and
- Innovative concepts for advances in planning, marketing, and service delivery.

Transit Vehicles and Equipment

- Vehicle and equipment improvements to enhance passenger safety, comfort, and mobility;
- Advances that reduce costs and improve operational reliability; and
- Automated monitoring of transit vehicle locations and operations.

Engineering of Fixed Transit Facilities

- Cost-effective concepts for design, construction, maintenance, and rehabilitation of tracks, terminals, and stations to improve operations of transit systems.

Transit Vehicle Maintenance

- Improved methods for repairing and maintaining transit vehicles and equipment;
- Innovative methods for repairing and maintaining transit vehicles and equipment; and
- Innovative concepts to address critical problem areas such as vehicle servicing, inspection, equipment failure diagnostics, and maintenance management.

Human Resources

- Human resource management systems, and

- New tools to educate and train transit personnel to enhance productivity and performance.

Administration

- Innovative approaches for improving decision making and resource management.

Policy and Planning

- Methods for increasing ridership on transit systems and developing creative public policies.

Safety IDEA Topics for Investigation

The Safety IDEA program is jointly funded by the FMCSA and the FRA. The U.S. Department of Transportation has set aggressive goals for reducing fatalities and injuries. Achieving these goals could save lives, reduce injuries, and have major economic benefits. To this end, FMCSA and FRA have provided funding to the Safety IDEA program for projects that promote innovative approaches to improving commercial motor vehicle safety and railroad safety and safety-related improvements.

Proposers are encouraged to get participation of railroads or trucking companies in Safety IDEA proposals, such as participation in testing of innovative methods or prototypes in appropriate proposals. Letters to proposers from those companies confirming their participation strengthen proposals. Any letters from railroads or trucking companies confirming their participation in Safety IDEA proposals should be addressed to the proposer and should briefly describe what that participation would be.

Safety IDEA proposals with a potential path to early implementation of results are also particularly encouraged.

Many safety improvement technologies and techniques developed for one transportation mode will have application to other modes, hence the multimodal sponsorship of this program. This is particularly true where human factors are concerned. The Safety IDEA program currently focuses on innovations with applications to large truck, intercity bus, and railroad safety. Examples of some of the possible areas of investigation are described below.

Improve Safety of Commercial Motor Vehicles

Improve truck and motorcoach performance through vehicle-based safety technologies and devices.

- A majority of crashes involving light vehicles and large trucks involve “proximity” errors by car drivers (such as tailgating and unsafe lane changes) and truck drivers (visibility-related errors during lane change, turning, merging, and backing maneuvers). Improved technology is needed for better visibility and awareness of light vehicles around trucks.
- Development and deployment of advanced sensors to continuously monitor the status of safety systems such as brakes and tires.

- Devices that reduce damage to smaller vehicles in collisions with large trucks by preventing side underride, creating better bumper-level compatibility, and providing better absorption of collision forces.

Produce Safer Carriers

Support efforts to improve carrier safety via innovations relevant to FMCSA's enforcement of carrier-related regulations.

- Development and pilot testing of technologies to expedite roadside inspections through better inspection methods and better prioritization of operators/vehicles for roadside inspection and other enforcement actions.

Produce Safer Drivers

Research techniques that help to ensure that commercial drivers are physically qualified, trained to perform safely, and mentally alert.

- Technologies for monitoring and mitigating hazardous situations caused by reckless or inattentive driving;
- Identification, assessment, and deployment of fatigue-related technologies to monitor sleep, performance, and alertness and help drivers manage their rest periods and work habits to obtain more sleep and to perform better;
- Health, wellness, and medical-related innovations, such as monitoring or screening systems, to improve driver safety and performance; and
- Improved methods for training both novices and experienced operators, including advanced technologies such as simulators, computer-based training, and onboard performance monitoring and feedback mechanisms.

Railroad and Commercial Motor Vehicle Security

- Assessment tools that identify risk factors and predict security risks for commercial drivers, railroad train operators, vehicles, and cargo;
- Devices to increase security of commercial drivers/railroad train operators, commercial motor vehicles/railroad cars and/or their cargo, including those commercial vehicles and railroad cars hauling hazardous materials; and
- Tracking and warning system to alert motor carriers or railroads of safety or security breaches.

The Federal Railroad Administration is interested in proposals in a variety of safety-related areas in railroad systems: safety, security, and environment; human factors; rolling stock and components; track and structures; track/train interaction; grade crossings; hazardous materials transportation; and train occupant protection. Examples of some of the additional possible areas of Safety IDEA investigation are outlined below.

Railroad Systems Issues

- Ways in which weather data can be collected on railroads and moved to forecasters, and ways that forecasts and current weather information can be collected and used by railroad control centers and train and maintenance crews to avoid accident situations;

- New applications of existing technology to improve railroad physical security; and
- Innovative active suspension and steering systems for railroad passenger cars and locomotives to improve safety.

Railroad Rolling Stock and Components

- New materials to improve safety of rolling stock and components.

Railroad Grade Crossings

- Safety improvements to highway-railroad grade crossings, and
- Improved warning systems to alert highway vehicle operators of approaching trains in limited sight areas.

Reliability IDEA Topics for Investigation

Travelers report unexpected congestion and delay as the most troublesome aspect of using our highways. Commuters and other highway users greatly value travel time reliability, that is, consistent or dependable travel times. The central goal of the SHRP 2 Reliability focus area is to reduce unexpected congestion and to improve travel time reliability through incident reduction, improved incident management, quicker incident response, and mitigation of the impacts of traffic incidents.

Nonrecurring congestion is the major cause of variability in travel times. It results from crashes/accidents, bad weather, work zones and road construction, special events (football games, festivals, etc.), and problems with traffic signals and other traffic control devices. Effectively dealing with these nonrecurring “events” can and should lead to greater travel time reliability and dependability. Even if nonrecurring congestion is dealt with effectively, there will still be variation in travel times; it is important to effectively communicate delays to travelers.

The SHRP 2 Reliability IDEA program is available to support innovative approaches, technologies, and projects that will help to improve travel time reliability. The program will foster selected innovations that could improve the consistency or dependability of travel times, improve the prediction of travel times, provide information that travelers and other highway system users could use when dealing with unexpected delays.

The focus of this program is on highway transportation and improved highway travel time reliability, but IDEAs that involve intermodal transportation are also encouraged. For instance, travelers may receive information that encourages them to use a different mode for a trip that they originally planned to take on the highway system.

Suggested areas for Reliability IDEA program proposals include but are not limited to concepts that are aimed at:

- Improving traffic incident management and clearance
- Addressing “rubbernecking”
- Improving traveler information
- Improving traffic flow through work zones and highway user awareness of work zones



- Mitigating the impacts of weather and reduced visibility on travel reliability
- Improving special events traffic management
- Understanding traffic patterns and behaviors that contribute to nonrecurring congestion and travel delays
- “Smarter” and more resilient traffic control devices and control and management systems
- Mobile applications for enhancing personal mobility and freight shipping
- Interfaces between the transportation system and vehicle navigation systems
- Innovative devices and methods for reliability-related data collection and analysis

This program fosters innovative ideas and funds the first steps toward proving concepts and moving them toward implementation and commercialization.

The program encourages the submission of ideas with application to travel time reliability drawn from other, nontransportation fields such as medicine, health care, psychology, utility and telecommunications management, and aerospace. Ideas that involve software development, biotechnology, nanotechnology, and other advanced technologies are particularly welcome.

Applicants for Reliability IDEA funding *must* be able to show how their innovation could positively impact travel time reliability. Submissions without a clear linkage in this regard will not be considered.

GUIDELINES FOR PREPARING IDEA PROPOSALS

The following sections provide guidance on how to prepare a proposal for funding from the IDEA programs. The most valuable advice, however, may be this: make it easy for reviewers to quickly grasp the intended benefits of the project. **Develop a clear statement of what can potentially change as a result of the project, include it on the cover sheet, and begin the proposal with it.**

This program announcement contains three attachments that must accompany all proposals. Attachments 1 (cover sheet), 2 (budget summary), and 3 (liability statement) are a Microsoft Word document that can be downloaded and printed from the IDEA website (www.TRB.org/IDEA) by clicking on Submit a Proposal and then on Proposal Submission Forms. Attachments 2 and 3 **must be signed** by the authorized representative and should appear at the end of the proposal.

1. Cover Sheet

Attachment 1 will be page 1 of the proposal. In the summary section, clearly state the intended benefits of the innovation, along with the problem it addresses. Summarize the research approach, indicate any cost-sharing arrangements, and briefly address potential impact on practice.

2. Summary of Concept and Its Application for Practice

Starting on page 2 of the proposal, provide a technical summary of the proposed concept and potential application as follows:



- (a) Concept and Application: Clearly and concisely define the problem the concept addresses and describe the innovative approach to the problem.
- (b) Potential Payoff for Practice: Describe the potential benefits of implementing the innovation.
- (c) Transfer to Practice: Describe the approach to implementation, considering partnerships and customer base.

3. Investigative Approach

Describe the planned investigative approach, including potential technical issues. Provide a proposed work plan that describes the work required for each task. Divide the plan into two or three stages and include a specific plan for evaluating research results at the completion of each stage. Include a summary of the results of a literature search to show that the concept is not similar to or duplicative of other investigations. (See Information Resources on page 3.)

4. Key Personnel and Facilities

Identify the key investigators and include summary information on their background and technical expertise. Describe resources of the research facility that are available for performing the project. Indicate liaison or cooperative work arrangements, if any, with states, other research organizations, producers, or potential product users.

5. Other Related Proposals

Provide information on other proposals in the same or related technical areas that have been prepared and submitted by the investigator(s) to other agencies or programs, that are planned to be submitted in the current year, or that have been funded previously. Indicate “not applicable” if no such awards or proposals have been submitted or received. Provide a brief synopsis of other ongoing or completed work related to the proposal.

6. Budget

Complete the Budget Summary in Attachment 2 and provide information showing how the requested funds will be used. Follow the instructions under Budget and Contract Guidelines. Leave blank any items that are not applicable. At least half of the research must be performed directly by the proposing firm, individuals, or institution. Only critically needed hardware and equipment specifically required for the project will be considered for funding. The appropriate disposition of capital equipment purchased with project funds will be determined on completion of the project. Proposed purchase of such equipment with IDEA funds is discouraged. Any travel budget items must be directly related to the performance of the project work. Include potential travel for at least one project briefing to the IDEA committee. The budget should reflect the proposer’s best terms from a cost and technical standpoint.

7. Cost Sharing, In-House Contributions, and Joint Ventures

Cost sharing includes direct cash contributions or indirect contributions and payment in kind. Cost sharing is encouraged for all proposals, especially from users, industry sponsors and state agencies, and it is a prerequisite for submitting a Type 2 proposal. Any cost sharing should be discussed in proposals. Specific arrangements, if proposed, must be completed before an award is made.

CONTRACT AND BUDGET GUIDELINES

IDEA awards are firm fixed-price contracts. Payments will be made at specified stages contingent on approved progress toward contract completion. The Budget Summary (Attachment 2) should provide the estimated costs for the project with detailed information on each cost element, consistent with the proposer's cost accounting system. The amounts requested should be justified in each category or, as appropriate, on a budget explanation page immediately following the Budget Summary.

1. Personnel

List individually all personnel and include for each the requested person-hours to be funded and respective rates of pay.

2. Materials

Itemize materials required and include costs for each (indicate only materials and supplies required for the performance of the investigation).

3. Other Direct Costs

List all direct costs that are not included in other categories. For travel, address the type and the duration of travel and its relation to the project.

4. Consultants and Subcontractors

List the names of consultants and/or subcontractors and describe the activities to be performed, the duration of the service, the compensation involved, and the total cost of all subcontracts, which should not exceed 50 percent of total project cost, excluding any costs for specialized equipment or services.

5. Overhead Costs

Specify current rates(s) and bases(s). Use current rate(s) negotiated with the cognizant government agency, if available, and enclose a copy of the negotiated indirect cost agreement. If no rate(s) has (have) been negotiated, a reasonable indirect cost (overhead) rate may be requested, in accordance with the existing accounting systems.

6. General and Administrative Costs

Specify current rate and base. Use current rate negotiated with the cognizant federal negotiating agency, if available. If no rate has been negotiated, a reasonable and justifiable indirect cost rate may be requested.

Note: A cost analysis will be made to determine the reasonableness of the proposed itemized budget. A pre-award audit for financial accountability may also be made by the National Research Council. Institutions of higher education and other nonprofit organizations receiving IDEA awards are subject to the Office of Management and Budget audit requirements (refer to OMB Circular A-133: Audit Requirements for institutions of Higher Education and Other Non-Profit Organizations).

Intellectual Property Rights

Individuals or institutions retain copyright to written materials, data, and software derived from the IDEA projects and are encouraged to obtain patents on any resulting inventions. The U.S. Government holds a nonexclusive license to use the results of



research for certain purposes. The National Academy of Sciences retains the right to print and distribute material from project reports submitted to IDEA.

Project Negotiations

The project scope, work plans, and budget may be revised based on evaluation of the proposal. Guidelines for preparing project revisions for an IDEA project will be provided for proposals selected for IDEA awards before a contract is awarded.

Liability Requirements

A completed, signed original Liability Statement (Attachment 3) must be submitted with the proposal. Proposals submitted without this statement will not be considered for award.

REQUIRED FORMATTING FOR PROPOSALS

Proposals for the NCHRP Highway IDEA and Reliability IDEA programs **will not exceed 15 single-spaced pages**, including the cover sheet and all enclosures. For NCHRP proposals only, the pages must be printed on two sides, unbound, and stapled only.

Transit IDEA and Safety IDEA proposals **will not exceed 25 pages**, including the cover sheet and all enclosures. The pages must be **single-sided, unbound, and stapled only**.

For all programs, minimum font size is 12 points and margins are 1 inch on each side. Type is left-justified and page numbers are centered at the bottom. Exhibits and photographs must be black and white originals suitable for camera copy. Digital images must be a minimum of 300 dpi.

SUBMITTING PROPOSALS

The NCHRP Highway IDEA and Reliability IDEA programs require 18 copies of proposals and an electronic copy on compact disc. Transit IDEA and Safety IDEA each require four copies and an electronic copy. Mail the complete proposal package to the corresponding staff officer at this address:

IDEA Programs
Transportation Research Board
500 Fifth Street NW
Washington, DC 20001

Contact Information

Contact the IDEA office by telephone at 202-334-3310 or by fax at 202-334-3471. The IDEA program staff officers to send proposals to are as follows:

Harvey Berlin, Senior Program Officer for Transit IDEA and Safety IDEA
Inam Jawed, Senior Program Officer for NCHRP Highway IDEA and Reliability IDEA

REPORTS AND BRIEFINGS

The contractor must submit periodic progress reports, stage reports, and a final report as specified in the contract document. Guidelines for preparing the various reports will be provided. Following these guidelines may prevent delays in contract completion. During the contract period, the contractor may be required to present updates on the progress and results of the investigation to TRB IDEA committees, panels, or staff.

ANSWERS TO FREQUENTLY ASKED QUESTIONS

Q: Does an IDEA contract compromise my ability to get a patent?

A: No. IDEA does not retain any rights on your invention. Researchers should independently secure their intellectual property rights.

Q: Does IDEA ensure the confidentiality of my proposal?

A: We treat proposals as confidential material and do not release them in whole or part. Our review process involves committee members who are instructed not to disclose information from proposals.

Q: What do reviewers consider the most important part of a proposal?

A: The innovation. Effective proposals clearly identify what is being done differently.

Q: What can I do to make my proposal better?

A: Research. A proposal that shows an awareness of what has been done in the past makes a positive impression on reviewers. Similarity to existing or past work is one of the reasons proposals are not selected.

Q: What else can I do to improve my chances for selection?

A: Talk to potential users of your concept. Ask them if they might be able to help you develop or test the concept as part of the work plan. Sometimes a letter of commitment from a potential user to participate in your project can add strength to your proposal. Also, follow the guidelines for preparing a proposal. Reviewers do not want to miss a good idea because they couldn't understand it in a poorly prepared proposal.

Q: Is it OK to contact the program directly with questions?

A: Yes, you can call us to discuss questions about proposal preparation or submission. The telephone number is 202-334-3310.

PROPOSAL COVER SHEET - IDEA PROGRAMS

Proposal Submitted to: <input type="checkbox"/> Safety-IDEA <input type="checkbox"/> Reliability-IDEA <input type="checkbox"/> NCHRP-IDEA <input type="checkbox"/> Transit-IDEA		
For Use by TRB	Date Received	Proposal Number
Title of Project	<input type="checkbox"/> Concept Exploration (Type 1) <input type="checkbox"/> Product Application (Type 2) Project Duration _____ months	
Submission Date:	Signed, unaltered, NRC liability certification enclosed with the proposal <input type="checkbox"/> Yes <input type="checkbox"/> No	
Name/Address of Submitting Organization and Business Contact	Telephone	Fax
	IDEA Budget \$_____ +Cost Sharing \$_____ = Total Project Cost \$_____	
Business Type <input type="checkbox"/> Academic <input type="checkbox"/> Profit <input type="checkbox"/> Non-Profit	Size (Number of Employees) <input type="checkbox"/> <10 <input type="checkbox"/> <100 <input type="checkbox"/> <200 <input type="checkbox"/> >200	
Name/Address of Principal Investigator	Telephone and Email	Fax
Names of other Key Investigators		
Brief Summary of Concept and Potential Impact on Practice		

IDEA BUDGET SUMMARY

Attachment 2

IDEA BUDGET SUMMARY

Project Title _____
Principal Investigator _____
Organization _____
Phone _____ Project Duration (Months) _____
(Please attach budget detail as needed)

FUNDING REQUESTED FROM IDEA PROGRAM

PERSONNEL	# hours x \$/hour	IDEA Costs	Cost Sharing
<u>Principal Investigator</u>	_____ x \$ _____	= \$ _____	\$ _____
	_____ x \$ _____	= \$ _____	\$ _____
<u>Other Staff</u>	_____ x \$ _____	= \$ _____	\$ _____
Subtotal, Personnel		\$ _____	\$ _____
CONSULTANTS AND SUBCONTRACTORS (specify)			
Subtotal, Consultants and Subcontractors		\$ _____	\$ _____
MATERIALS & EQUIPMENT (specify)			
Subtotal, Materials and Equipment		\$ _____	\$ _____
OTHER DIRECT COSTS (specify)			
Subtotal, Other Direct Costs		\$ _____	\$ _____
OVERHEAD COSTS (%)			
Subtotal, Overhead Costs		\$ _____	\$ _____
GENERAL AND ADMINISTRATIVE (%)			
Subtotal, General and Administrative		\$ _____	\$ _____
Total Cost:		\$ _____	\$ _____

PROPOSED COST SHARING (if any)

Direct (cash) contribution from proposing organization	\$ _____
In-kind contribution from proposing organization	\$ _____
Direct funding from other sources (specify)	\$ _____
Value of staff, etc., contributed by other sources	\$ _____

Total Project Budget:	\$ _____
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Signature _____ Date _____

LIABILITY STATEMENT—REVISED AUGUST 1997

This signature of an authorized representative of the proposing agency is required on the following unaltered statement in order for the IDEA Program to accept the agency's proposal for consideration. **Proposals submitted without this executed and unaltered statement by the proposal deadline will be summarily rejected.** An executed, unaltered statement indicates the agency's intent and ability to execute a contract that includes the provisions below.

Proposing Agency: _____

Name	Title
_____	_____
Signature	Date
_____	_____

CONTRACTOR LIABILITY

(a) The parties agree that the contractor and its employees and agents ("Contractor") will be primarily responsible for performing the work required under the contract, and shall therefore be legally responsible for, and shall indemnify and hold the Academy harmless for all claims asserted against the Academy, its committee members, officers, employees, and agents, by any third parties, whether or not represented by a final judgment, if such claims arise out of or result from Contractor's negligent or wrongful acts in performing such work, including all claims for bodily injury (including death), personal injury, property damage, and other losses, liabilities, costs, and expenses (including but not limited to attorneys fees).

(b) With respect to entities of State government that are subject to State law restrictions on their ability to indemnify and hold harmless third parties ("Restricted State Entities"), the obligation to indemnify and hold harmless the Academy in Paragraph (a) shall apply to the full extent permitted by applicable State law. In addition, each Restricted State Entity executing this contract represents and warrants that no part of any research product or other material delivered by such Restricted State Entity to the Academy ("Work Product") shall include anything of an obscene, libelous, defamatory, disparaging, or injurious nature; that neither the Work Product nor the title to the Work Product will infringe upon any copyright, patent, property right, personal right, or other right; and that all statements in the Contractor's proposal to the Academy and in the Work Product are true to the Contractor's actual knowledge and belief, or based upon reasonable research for accuracy.

(c) The term "wrongful act" as used herein shall include any tortious act or omission, willful misconduct, failure to comply with Federal or state governmental requirements, copyright or patent infringement, libel, slander or other defamatory or disparaging statement in any written deliverable required under the contract, or any false or negligent statement or omission made by Contractor in its proposal to the Academy.

(d) The obligations in paragraph (a) of this clause to indemnify and hold harmless the Academy shall not extend to claims, damages, losses, liabilities, costs, and expenses to the extent they arise out of the negligent or wrongful acts or omissions of the Academy, its committee members, officers, employees, and agents.

(e) Both the Academy and Contractor shall give prompt notice to each other upon learning of the assertion of any claim, or the commencement of any action or proceeding, in respect of which a claim under this paragraph may be sought, specifying, if known, the facts pertaining thereto and an estimate of the amount of the liability arising therefrom, but no failure to give such notice shall relieve the Academy or Contractor of any liability hereunder except to the extent actual prejudice is suffered thereby.

(f) The Academy and Contractor agree to cooperate with each other in the defense of any claim, action, or legal proceeding arising out of or resulting from Contractor's performance of the work required under this contract, but each party shall control its own defense. The Academy shall also have the option in its sole discretion to permit Contractor or its insurance carrier to assume the defense of any such claims against the Academy.

(g) The obligations under this clause survive the termination, expiration, or completion of performance under this contract.

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