

ESP 178 Applied Research Methods

Research Proposal

CALL FOR PROPOSALS

Purpose

Environmental regulations adopted starting in the 1960s have contributed to a tremendous improvement in the quality of air and water and a notable increase in the protection of natural resources in the U.S., despite a 57% increase in the population between 1960 and 2000 and 288% growth in the inflation-adjusted value of the gross domestic product (U.S. Census Bureau 2002). However, continued progress depends on the citizens of the U.S. in their roles as consumers and as participants in the policy making process. A CBS News/*New York Times* Poll from November, 2002 of 996 adults from throughout the U.S. asked, "Do you agree or disagree with the following statement? Protecting the environment is so important that requirements and standards cannot be too high and continuing environmental improvements must be made regardless of the cost." Sixty-two percent of all respondents said that government should be doing more (PollingReport.com 2003). Yet recent voting patterns in elections from the national to the local level have not consistently prioritized action on the environment, and citizens have shown little willingness to change their own behavior in ways that improve the environment.

Stalled efforts to improve automobile fuel efficiencies provide one example of the impact of human behavior on environmental progress. The Corporate Average Fuel Efficiency (CAFÉ) standards were established in the Energy Policy and Conservation Act passed by Congress in 1975. At the time, average fuel efficiency had dropped to 12.9 mpg (Bamberger 2002). The standards required a gradual increase in average fuel efficiency for the fleet of vehicles sold in the U.S. The current standard of 27.5 mpg for passenger cars and 20.7 mpg for light trucks was adopted in 1986. Since then, concerns over the impacts of the standards on safety, through their impact on vehicle size, have proven a powerful counterweight to efforts to further increase the standards. Now, one quarter of the vehicles that Americans buy are classified as sport utility vehicles (SUVs), subject to the lower light truck standard rather than the higher passenger car standard. As a result, the fuel efficiency of the average new vehicle has dropped 1.7 mpg since 1987 (Davis and Diegel 2002).

The future of environmental policy depends on our understanding of the contribution of human attitudes and behavior to environmental problems and the solution of those problems. In an effort to improve this understanding and thus to improve the future of environmental policy, the Handy Family Foundation is establishing a new initiative that will support first-class scientific research in this area. In this Call for Proposals, the Foundation seeks research projects that address one of these questions for a specific environmental problem:

- What role do human attitudes and/or behavior play in the emergence or growth of the environmental problem?
- What role do human attitudes and/or behavior play, directly or indirectly, in the solution of the environmental problem?
- What factors shape the human attitudes and/or behavior that contribute to the environmental problem or its solution?
- Are attitudes consistent with behavior with respect to the environmental problem or its potential solutions?

Ten grants of up to \$20,000 will be awarded in this round of funding. Projects must be completed within one year of the initiation of the contract.

Selection Criteria

Proposals must demonstrate the potential to produce high-quality results useful in the formulation of environmental policy. A committee composed of foundation staff members and outside reviewers will assess proposals using the following criteria:

- The proposed research addresses one of the stated questions and is timely for advancing environmental policy.
- The proposal outlines a clear conceptual model and project aims.
- The proposed research design is appropriate for the research question and adequately addresses internal validity issues.
- The proposed sampling plan is sound and adequately addresses external validity issues.
- The proposed data collection method is sound and adequately addresses non-response issues and measurement reliability and validity issues.
- The proposal cites adequate and credible sources.
- The proposed research design is feasible within time and budget constraints.

How to Apply

Two hardcopies of the proposal are due to the office of the Foundation by 10:30pm PST on March 13, 2008. The proposal must include:

- A cover sheet that indicates the title of the project and the name and contact information for the principle investigator.
- A 300-word summary that includes the following sections: background, specific aims, and method.
- A 2000-word description of the project that includes the following sections:
 - Background, literature review, and conceptual model (include up to 5 relevant literature references)
 - Specific aims
 - Study design
 - Sampling plan
 - Measurement methods
 - Analysis plan
 - Proposed budget table (template will be provided)
 - Citations (up to five)

The proposal should be double-spaced, printed on 8 ½ by 11 paper with 1 inch margins and 12-point font, and stapled in the upper left corner. Graphics may be included if deemed essential and will not be included in the word count.

Sources

Bamberger, Robert. 2002. *Automobile and Light Truck Fuel Economy: the CAFÉ standards*. Almanac of Policy Issues. Updated September 25. Available: http://www.policyalmanac.org/environment/archive/crs_cafe_standards.shtml (accessed March 25, 2003).

Davis, Stacy C. and Susan W. Diegel. 2002. *Transportation Energy Data Book*. Edition 22. Oak Ridge National Lab, U.S. Department of Energy. Available: <http://www.cta.ornl.gov/cta/data/Index.html> (accessed March 25, 2003).

PollingReport.com. 2003. *Environment*. Available: <http://www.pollingreport.com/enviro.htm> (accessed March 25, 2003).

U.S. Census Bureau. 2002. *Statistical Abstract of the United States*. Available: <http://www.census.gov/prod/www/statistical-abstract-02.html> (accessed March 25, 2003).

Assignment Background

Research proposals are an essential part of the research process. For one thing, they serve as the means by which limited research funds are distributed. Proposals are used as a way of evaluating and prioritizing alternative projects and thus maximizing the benefits derived from spending on research (at least in theory). Because most sources of research funding are competitive, proposals must be clear and persuasive. In addition, research proposals serve as the blue print for the research itself. The more carefully developed the research question and the research design in the proposal, the easier it is to successfully complete the project and the greater the chance of doing so without significant problems along the way. Researchers spend a considerable share of their time writing proposals, only a subset of which will ultimately be funded. (They also spend a significant amount of time reviewing the proposals of other researchers.)

Over the course of the quarter, you will prepare a research proposal that responds to this hypothetical call for proposals. The purpose of this assignment is to give you experience in developing a research question, designing a study to address that question, and clearly and concisely describing the proposed study. This assignment will be divided into five stages, designed to help you work towards the final proposal and to enable feedback from me along the way. I will grade each stage of the assignment separately, as indicated below. At various points during the quarter, the TA will devote time during the discussion section to going over key aspects of this assignment and answering your questions about how to complete it.

1. Proposed Research Question

Due: 1/22
Length: 1 double-spaced page
Grade: 5% of total course grade

2. Literature Review

Due: 2/5
Length: 3-4 double-spaced pages
Grade: 10% of total course grade

3. Conceptualization and Research Design

Due: 2/19
Length: 3-4 double-spaced pages
Grade: 10% of total course grade

4. Data Collection and Budget

Due: 3/4
Length: 2 double-spaced pages plus 2 page survey or other instrument plus budget table
Grade: 10% of total course grade

5. Proposal

Due: 3/13
Length: 2000 word description with 300 word summary
Grade: 25% of total course grade