



APR 04		<b>NIJ</b>
Solicitation		
<b>Testing the Effectiveness of Comprehensive Police Fatigue Management Programs</b>		

**Notice:**

You *must* submit your application using the Office of Justice Programs' automated Grants Management System. Paper applications will not be accepted. We suggest you begin the process as soon as possible. To start the process, go to <http://www.ojp.usdoj.gov/fundopps.htm>.

**Deadline:**

**9 p.m. eastern time  
June 1, 2004**

SL 000667

**U.S. Department of Justice**  
**Office of Justice Programs**  
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# Testing the Effectiveness of Comprehensive Police Fatigue Management Programs

## I. Introduction

The National Institute of Justice (NIJ) is the research, development, and evaluation agency of the U.S. Department of Justice. NIJ provides objective, independent, evidence-based knowledge and tools to enhance the administration of justice and public safety. The Institute solicits proposals to inform its search for the knowledge and tools to guide policy and practice.

Excess fatigue and inadequate sleep have a negative impact on human performance, health, and safety. NIJ is seeking proposals to test whether successful fatigue management strategies can be adapted from other occupational groups to develop a comprehensive fatigue and alertness program for law enforcement agencies and whether such a comprehensive effort can reduce the impact of such factors as shift work, excessive overtime, erratic work hours, and poor sleep habits on police officer performance, health, and safety.

**Due date:** The due date is listed on the cover of this announcement and on the NIJ Web site at <http://www.ojp.usdoj.gov/nij/funding.htm>. Extensions to the deadline are generally not granted.

**Page limit:** The program narrative section of your proposal must not exceed 30 double-spaced pages in 12-point font with 1-inch margins. Tables, charts, figures, appendixes, and government forms do not count toward the 30-page limit.

**Reasons for rejection:** NIJ may reject applications that are incomplete, do not respond to the scope of the solicitation, do not comply with format requirements, or are submitted after the deadline. No additions to the original submission are allowed.

**How to submit proposals to NIJ:** Complete details about how to apply for funding are in "NIJ Guidelines for Submitting Applications," available on the NIJ Web site at <http://www.ojp.usdoj.gov/nij/funding.htm>.

## II. Proposal Topics

A solid body of research indicates that shift work and long work hours reduce alertness and cognitive skills, degrade performance and decisionmaking abilities, increase accidents, and increase vulnerability to illness and stress. They also affect mood and increase irritability. There also is evidence that few police agencies have policies that limit officers' work hours or that they train officers to manage fatigue; that a large proportion of officers are excessively fatigued on the

**Letters of Intent Requested**

To accommodate the volume of proposals expected, NIJ requests that nonbinding letters of intent to apply be received by **May 5, 2004**. NIJ will use these letters to anticipate the number of peer panels needed to review the proposals and to identify possible conflicts of interest among potential peer panel reviewers.

Letters of intent to apply can be submitted by e-mail to *tellnij@ncjrs.org* or, because of continuing delays in delivering mail to U.S. government offices, by letter via overnight courier to **Testing the Effectiveness of Comprehensive Police Fatigue Management Programs, Office of Research and Evaluation, National Institute of Justice, 810 7th Street, N.W., Washington, DC 20001 (overnight courier ZIP code)**. Be sure to include your name, title, and organization in the letter.

job; and that much of the fatigue experienced by officers is related to administratively controllable factors such as overtime work, shift scheduling, and outside employment, or to officers' personal sleep habits. Today, many officers work significant amounts of overtime—in a few cases, more than 3,000 hours of overtime annually. Managing police officer fatigue, therefore, is important to public safety and to the health and safety of the Nation's law enforcement officers.

Other occupational groups—such as military, mining, heavy manufacturing, and transportation—have developed comprehensive policies, technologies,

and educational programs that help reduce the negative impact of shift work and work-related fatigue on employees and their families. NIJ is sponsoring an innovative research and experimental program to expand understanding of the nature, scope, and consequences of police fatigue and to test the effectiveness of different strategies to manage fatigue and alertness.

The objectives of this program are (1) to determine whether current fatigue management strategies used by other occupational groups can be adapted and implemented successfully in police and sheriffs' departments in the United States; (2) to conduct experiments in fatigue management with a focus on line officers and their families; and (3) to study the effectiveness of comprehensive fatigue management programs in reducing the risks and negative consequences of fatigue on officer health, performance, and safety as well as public safety. The research will study the impact of experimental projects in police and/or sheriffs' departments in terms of the cost benefits (e.g., fewer accidents, on-the-job injuries, early retirements, and civil suits and less illness and absence from work) as well as quality of life for officers (e.g., reduced job and family stress and improved job satisfaction and overall health). The research results will be disseminated to practitioners, policymakers, and researchers.

Prospective applicants are encouraged to attend the NIJ-sponsored Workshop on Police Fatigue and Long Work Hours, which will be held April 30 to May 1, 2004, in Baltimore, Maryland. Participants will discuss the problems and potential solutions of adapting fatigue management strategies from other occupational groups to the law enforcement environment. This workshop immediately follows a National Long Work Hours Conference (April 29–30, 2004), sponsored by the National Institute for Occupational Safety and Health, the University of Maryland School of

Nursing, and the U.S. Department of Justice. *Attendance at the National Long Work Hours Conference is expected before participating in the NIJ workshop.* More information about the NIJ workshop is available at <http://www.ojp.usdoj.gov/nij/new.htm#conf>. More information about the National Long Work Hours Conference is available at <http://www.nursing.umaryland.edu/longworkhours/index.htm>. For a recent presentation by NIJ staff on police fatigue and performance, go to <http://www.ojp.usdoj.gov/nij/pdf/VilaTiredCopsPresentation040604.pdf>.

NIJ is soliciting proposals from teams that have strong collective experience in policing research and fatigue management, that are partnered with police or sheriffs' departments, and that can implement the following components:

**A. Program/Experiment Design**

The selected grantee will conduct a review of effective fatigue management programs used in other occupational sectors. Using proven as well as potentially successful approaches—and taking into account issues that may be unique to police and sheriffs' departments—the grantee will design a comprehensive fatigue management program that can be implemented in one or more police and/or sheriffs' departments in the United States.

In consultation with NIJ, the grant recipient will select critical elements that will be included in the management program. These elements may include, for example, developing and implementing policies on long work hours, shift schedules, overtime, and moonlighting; providing training to staff and supervisors on these policies; implementing health-based programs to combat and prevent fatigue and stress experienced by patrol officers (e.g., alignment of circadian rhythm with the homeostatic drive for sleep); and educating families of law enforcement officers about strategies to reduce police officer fatigue and stress and to cope with shift schedules.

**B. Implementation, Assistance, and Oversight**

NIJ expects the winning applicant to fully operationalize, implement, and oversee all aspects of the management program in experimental and control sites. The applicant must describe the rationale for selecting participating police and sheriffs' departments. If the applicant has already identified departments that are willing to participate, letters of support from the chief executive of the law enforcement agency—and, perhaps, relevant employee organizations—should be submitted with the application. Technical assistance with the intervention also will be the responsibility of the selected grant recipient.

The experiment must be expedited to provide intermediate results 1 year after funding and final results at the 2-year mark. Additionally, the applicant should describe how the team will monitor program fidelity and timeliness through its program design and management plan.

### **C. Research Design**

The research component is intended to test whether a comprehensive set of fatigue management strategies applied in a law enforcement environment are effective in reducing the consequences of fatigue on officer health, safety, and performance. The researchers will develop the study design and research methodologies; program implementation measures; measures of fatigue and stress; and measures of intermediate outcomes, impact, and cost benefits. Variables include, but are not limited to, the impact on police performance, injuries, job satisfaction, personal and family relationships, attitudes, physical health, and disciplinary actions and commendations. At minimum, the evaluation methodology should include pre- and post tests and quasi-experimental designs; however, experimental designs are preferred. Discussion of methods should include power analyses to ensure that enough subjects will be studied to enable the researchers to collect data on low base-rate phenomena such as accidents and injuries.

Because these experiments will be conducted in an occupational rather than a laboratory setting, the researchers will play an integral role in developing and conducting the experiments. Responsibilities of the researchers include designing and implementing a rigorous (preferably experimental) research design, managing all data collection, subcontracting to and helping facilitate the work of fatigue management technical assistance providers in a law enforcement environment, documenting program implementation, providing feedback to the program implementers and technical assistance providers, analyzing the data, and preparing interim and final reports. NIJ intends to closely monitor the program, including conducting program fidelity audits.

### **D. Deliverables**

NIJ expects that this initiative will result in tangible products that can aid police and sheriffs' departments in adopting successful fatigue management strategies. Products may include work-hour policies and guidelines, training programs, technologies, and interim and final research reports. After this initial research, the program may be expanded to and adapted for use in corrections settings.

In addition to meeting the standard requirements of proposals submitted to NIJ, higher-quality proposals will include:

- A team approach, including experts in policing or police research as well as experts in fatigue management and research.
- A comprehensive and balanced program of fatigue management strategies.

- Demonstrated expertise in working with police department executives, supervisors, and line officers and police employee organizations or unions.
- Demonstrated knowledge of existing research in shift work, long work hours, and police fatigue and its consequences for organizational and individual performance, health, and safety.
- Demonstrated expertise in implementing successful fatigue and alertness management programs with other occupational groups.
- Objective measures of the effectiveness of fatigue and alertness management for police performance, health, and safety as well as the impact on officers' families.
- Quasi-experimental or experimental research designs that include a sample large enough to assess the impact of interventions on relatively rare phenomena.
- A discussion of the likelihood of being able to generalize the results of the proposed research design.

### III. General Requirements and Guidance

This section describes the main requirements for submitting your proposal. Complete instructions are in "NIJ Guidelines for Submitting Applications," available on the NIJ Web site at <http://www.ojp.usdoj.gov/nij/funding.htm>.

- A. Submit applications online:** Paper applications are not accepted. Applications must be submitted through the Office of Justice Programs' (OJP) online Grants Management System. NIJ suggests you begin the process early, especially if this is the first time you have used the system. To begin, go to <http://www.ojp.usdoj.gov/fundopps.htm>. There are three types of documents that can be uploaded to an application package: PDFs, Word Documents, and Text Documents.
- B. Relevance of the project for policy and practice:** Higher-quality proposals clearly explain the practical implications of the project. They connect technical expertise with policy and practice. To ensure that the project has strong relevance for policy and practice, some researchers and technologists collaborate with practitioners and policymakers. You may include letters showing support from practitioners. (See Section II B.) While a partnership may affect State or local activities, it should also have broader implications for others across the country.
- C. Equal opportunity for all applicants:** It is OJP policy that faith-based and community organizations that statutorily qualify as eligible applicants under OJP programs are

invited and encouraged to apply for awards. Faith-based and community organizations will be considered for an award on the same basis as any other eligible applicants and, if they receive awards, will be treated on an equal basis with nonfaith-based and community organization grantees in the administration of such awards. No eligible applicant or grantee will be discriminated against on the basis of its religious character or affiliation, religious name, or the religious composition of its board of directors or persons working in the organization.

- D. Cofunding is not required:** You are not required to combine NIJ funds with other funds (for example, you do not need matching funds), but if you intend to use multiple funding sources to support your proposed effort, the budget you submit must show the other funds.
- E. Number of grants to be awarded:** NIJ's grant award process is highly competitive. One award will be made under this solicitation. (See Section III M.)
- F. When awards will be made:** The review and approval process takes about 6 months. Therefore, you should not propose to begin work until at least 6 months after the deadline on the cover of this solicitation. Also, you should not expect to receive notification of a decision for at least 6 months after that date. Lists of awards are updated regularly on NIJ's Web site at <http://www.ojp.usdoj.gov/nij/funding.htm>.
- G. Financial audits are required:** If your organization spends \$500,000 or more of Federal funds during the year, you will be required to submit an organization-wide financial and compliance audit report before any award is made. The audit must be performed in accordance with the U.S. General Accounting Office Government Accounting Standards and must conform to Chapter 19 of the Office of Justice Programs' *Financial Guide* (available at <http://www.ojp.usdoj.gov/FinGuide>). You may include the costs of complying with these audits in the proposed budget submitted as part of your application. Detailed information regarding the independent audit is available in Office of Management and Budget Circular A-133 (available at <http://www.whitehouse.gov/omb/circulars>).
- H. An environmental assessment may be required:** All award recipients must comply with the National Environmental Policy Act (NEPA). To ensure NEPA compliance, NIJ may require some award recipients to submit additional information.
- I. Protection of confidentiality:** Federal regulations require applicants for NIJ funding to outline specific procedures for protecting private information about individuals as part of the Privacy Certificate submitted with the application package. For complete details, see <http://www.ojp.usdoj.gov/nij/funding.htm>.



- J. New requirement—DUNS number:** Beginning October 1, 2003, a Dun and Bradstreet Data Universal Numbering System (DUNS) number must be included in every application for a new award or renewal of an award. The DUNS number will be required whether an applicant submits an application through the Office of Justice Programs' Grants Management System or the government-wide electronic portal (<http://www.grants.gov>). **An application will not be considered complete until a valid DUNS number is provided by the applicant.** Individuals who would personally receive a grant or cooperative agreement from the Federal government are exempt from this requirement.

Applicants can receive a DUNS number at no cost by calling the dedicated toll-free DUNS number request line at 1-866-705-5711.

If you have questions, contact the Office of Justice Programs' Office of the Comptroller's Customer Service Center at 1-800-458-0786.

- K. Funds cannot be used to lobby:** Under the Anti-Lobbying Act (18 U.S.C. § 1913), grantees generally may not use funds to support the enactment, repeal, or modification of any law, regulation, or policy at any level of government. For the complete rules and regulations, see "NIJ Guidelines for Submitting Applications" at <http://www.ojp.usdoj.gov/nij/funding.htm> and OJP's *Financial Guide* at <http://www.ojp.usdoj.gov/FinGuide>.

- L. What will *not* be funded:** Renovation and/or construction projects will not be funded. Additionally, applicants are strongly encouraged to limit proposed equipment purchases to instruments that will be used for measurement and data collection.

- M. Cost of proposed work:** NIJ will award one grant of up to \$1.5 million for a 2-year period.

**N. Call for assistance:**

1. For technical guidance about using the Grants Management System, call the hotline at 1-888-549-9901.
2. For questions about this solicitation, the research being solicited, the letter of intent, or other NIJ funding opportunities, contact the U.S. Department of Justice Response Center at 1-800-421-6770.

## IV. Selection Criteria

NIJ is firmly committed to the competitive process in awarding grants. All proposals are subjected to an independent peer-review panel evaluation. External peer-review panelists consider both technical and programmatic merits. Panelists are selected based on their expertise in subject areas pertinent to the proposals.

Peer-review panelists evaluate each proposal and give their assessments to NIJ. NIJ staff then recommend to the NIJ Director which proposals are most worthy of an award. The Director makes final award decisions.

Successful applicants must demonstrate the following:

**A. Understanding of the problem and its importance.**

**B. Quality and technical merit.**

1. Awareness of the state of current research or technology.
2. Soundness of methodology and analytic and technical approach.
3. Feasibility of proposed project and awareness of pitfalls.
4. Innovation and creativity (when appropriate).

**C. Impact of the proposed project.**

1. Potential for significant advances in scientific or technical understanding of the problem.
2. Potential for significant advances in the field.
3. Relevance for improving the policy and practice of criminal justice and related agencies and improving public safety, security, and quality of life.
4. Affordability and cost-effectiveness of proposed end products, when applicable (e.g., purchase price and maintenance costs for a new technology or cost of training to use the technology).
5. Perceived potential for commercialization and/or implementation of a new technology (when applicable).

**D. Capabilities, demonstrated productivity, and experience of applicants.**

1. Qualifications and experience of proposed staff.
2. Demonstrated ability of proposed staff and organization to manage the effort.
3. Adequacy of the plan to manage the project, including how various tasks are subdivided and resources are used.
4. Successful past performance on NIJ grants and contracts (when applicable).

**E. Budget.**

1. Total cost of the project relative to the perceived benefit.
2. Appropriateness of the budget relative to the level of effort.
3. Use of existing resources to conserve costs.

**F. Dissemination strategy.**

1. Well-defined plan for the grant recipient to disseminate results to appropriate audiences, including researchers, practitioners, and policymakers.
2. Suggestions for print and electronic products NIJ might develop for practitioners and policymakers.

## V. Requirements for Successful Applicants

If your proposal is funded, you will be required to submit several reports and other materials as follows:

- A. Final report:** The final report should be a comprehensive overview of the project and should include a detailed description of the project design, data, and methods; a full presentation of scientific findings; and a thorough discussion of the implications of the project findings for criminal justice practice and policy. It must contain an abstract of no more than 400 words and an executive summary of no more than 2,500 words.

A draft of the final report, abstract, and executive summary must be submitted 90 days before the end date of the grant. The draft report will be peer reviewed upon submission. The reviews will be forwarded to the principal investigator with suggestions for revisions. The principal investigator must then submit the revised final report, abstract, and executive summary by the end date of the grant. The abstract, executive summary, and final report must be submitted in both paper and electronic formats.

For evaluation studies, the report should include a section on measuring program performance. This section should outline the measures used to evaluate program effectiveness, modifications made to those measures as a result of the evaluation, and recommendations regarding these and other potential performance measures for similar programs. (This information will be particularly valuable to NIJ and other Federal program agencies in implementing performance measures for federally funded criminal justice programs.)

**B. Interim reports:** Grantees must submit quarterly financial reports, semi-annual progress reports, and a final progress report. Note that this solicitation requires that the selected grantee submit an interim report of findings one year after the award is made. (See Section II B.) Future awards and fund drawdowns may be withheld if reports are delinquent. Post-award reporting requirements are described in “NIJ Guidelines for Submitting Applications,” available at <http://www.ojp.usdoj.gov/nij/funding.htm>.

**C. Materials concerning protection of confidential information and human subjects:** Recipients of NIJ research funds must comply with Federal regulations concerning the protection of private information about individuals. Recipients also must comply with Federal regulations concerning protection of human subjects. In general, all research involving human subjects that is conducted or supported by NIJ funds must be reviewed and approved by an Institutional Review Board before Federal funds are expended for that research. NIJ may also ask grant recipients for additional information related to privacy and human subjects testing.

Additional general information regarding NIJ’s requirements for privacy and protection of human subjects appears in “NIJ Guidelines for Submitting Applications,” available at <http://www.ojp.usdoj.gov/nij/funding.htm>. Complete information about NIJ’s requirements can be found at <http://www.ojp.usdoj.gov/nij/humansubjects>.

**D. Electronic data:** Some grant recipients will be required to submit electronic data and supporting documentation, such as a codebook or dictionary, capable of being re-analyzed and used by other researchers. The materials must be submitted by the end date of the grant. Grant applicants should ensure that the proposed timeline and budget accommodate these requirements.

- E. Performance guidelines:** NIJ collects data to comply with the Government Performance and Results Act (GPRA), Public Law 103–62. Generally, these data are contained in a grantee’s final report (discussed in Section V of this solicitation), but NIJ may request additional information to facilitate future planning and to ensure accurate reporting to Congress and others on the measurable results of grants. For complete details, see “NIJ Guidelines for Submitting Applications,” available at <http://www.ojp.usdoj.gov/nij/funding.htm>.

### **Tips for Submitting Your Application**

6. Begin the application process early—especially if you have never used the online Grants Management System before. NIJ will not accept applications received after the closing date and time listed on the cover. To start the process, go to <http://www.ojp.usdoj.gov/fundopps.htm>.
7. Be sure your application package includes—
  - C Abstract of no more than 400 words.
  - C Complete budget, including detailed worksheet and narrative.
  - C Program narrative.
8. Review “NIJ Guidelines for Submitting Applications” for complete instructions, available at <http://www.ojp.usdoj.gov/nij/funding.htm>.
9. Although your proposal may budget for the purchase of equipment if the equipment is necessary to conduct the project, NIJ will not fund applications that are primarily to purchase equipment, materials, or supplies.
10. Call for help:
  - C For technical guidance about the Grants Management System, call the hotline at 1–888–549–9901.
  - C For questions about this solicitation, the research being solicited, the letter of intent, or other NIJ funding opportunities, contact the U.S. Department of

View or print a copy of this document from the NIJ Web site (<http://www.ojp.usdoj.gov/nij/funding.htm>) or request one by calling NCJRS at 1–800–851–3420 or e-mailing [askncjrs@ncjrs.org](mailto:askncjrs@ncjrs.org).

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NIJ provides objective, independent, evidence-based knowledge and tools to enhance the administration of justice and public safety.

NIJ is a component of the Office of Justice Programs, which also includes the Bureau of Justice Assistance, the Bureau of Justice Statistics, the Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime.