Investigator-Initiated Research and Evaluation on Firearm Violence, Fiscal Year 2020

FY 2020 Competitive Research Grant Solicitation

CFDA No. 16.560

Grants.gov Solicitation Number: NIJ-2020-17327

Solicitation Release Date: January 30, 2020

Application Deadline: 11:59 p.m. eastern time on March 30, 2020

The U.S. Department of Justice (DOJ), Office of Justice Programs (OJP), National Institute of Justice (NIJ) is seeking applications for funding for research and program evaluation projects that inform efforts to prevent and reduce intentional, interpersonal firearm violence in the United States. NIJ anticipates up to $2 million will be available to fund multiple grant awards. This program furthers the Department’s mission by supporting DOJ Strategic Objective 3.1: Combat violent crime, promote safe communities, and uphold the rights of victims of crime.

This solicitation incorporates the OJP Grant Application Resource Guide by reference. The OJP Grant Application Resource Guide provides guidance to applicants on how to prepare and submit applications for funding to OJP. If this solicitation expressly modifies any provision in the OJP Grant Application Resource Guide, the applicant is to follow the guidelines in this solicitation as to that provision.

Eligibility (Who may apply)

In general, NIJ is authorized to make grants to, or enter into contracts or cooperative agreements with eligible entities as listed below:

- States (including territories);
- Units of local government;
- Federally recognized Indian tribal governments that perform law enforcement functions (as determined by the Secretary of the Interior);
- Nonprofit and for-profit organizations (including tribal nonprofit and for-profit organizations); and
• Institutions of higher education (including tribal institutions of higher education).

Foreign governments, foreign organizations, and foreign colleges and universities are not eligible to apply. Federal agencies are eligible to apply. (Any award made to a federal agency will be made as an inter-agency reimbursable agreement.)

All recipients and subrecipients (including any for-profit organization) must forgo any profit or management fee.

NIJ will consider applications under which two-or-more entities would carry out the federal award; however, only one entity may be the applicant. Any others must be proposed as subrecipients (subgrantees). The applicant must be the entity that would have primary responsibility for carrying out the award, including administering the funding and managing the entire project. For additional information on subawards, see the OJP Grant Application Resource Guide.

Under this solicitation, any particular applicant entity may submit more than one application, as long as each application proposes a different project in response to the solicitation. Also, an entity may be proposed as a subrecipient (“subgrantee”) in more than one application.

**Contact Information**

For technical assistance with submitting an application, contact the Grants.gov Customer Support Hotline at 1-800-518-4726 or 1-606-545-5035 (international), at https://www.grants.gov/web/grants/support.html, or at support@grants.gov. The Grants.gov Support Hotline operates 24 hours a day, 7 days a week, except on federal holidays.

An applicant that experiences unforeseen Grants.gov technical issues beyond its control that prevent it from submitting its application by the deadline must email the NIJ contact identified below **within 24 hours after the application deadline** to request approval to submit its application after the deadline. Additional information on reporting technical issues appears under “Experiencing Unforeseen Grants.gov Technical Issues” in the “How To Apply (Grants.gov)” section in the OJP Grant Application Resource Guide.

For assistance with any other requirements of this solicitation, contact the National Criminal Justice Reference Service (NCJRS) Response Center: toll-free at 1-800-851-3420; via TTY at 301-240-6310 (hearing impaired only); email grants@ncjrs.gov; fax to 301-240-5830; or web chat at https://webcontact.ncjrs.gov/ncjchat/chat.jsp. The NCJRS Response Center hours of operation are 10:00 a.m. to 6:00 p.m. eastern time, Monday through Friday, and 10:00 a.m. to 8:00 p.m. eastern time on the solicitation close date. General information on applying for NIJ awards can be found at https://nij.ojp.gov/funding. Answers to frequently asked questions that may assist applicants are posted at https://nij.ojp.gov/funding/frequently-asked-questions-about-applying-grants-and-cooperative-agreements.

**Deadline Details**

Applicants must register with Grants.gov at https://www.grants.gov/web/grants/register.html prior to submitting an application. All applications are due by 11:59 p.m. eastern time on March 30, 2020.
To be considered timely, an application must be submitted by the application deadline using Grants.gov, and the applicant must have received a validation message from Grants.gov that indicates successful and timely submission. OJP urges applicants to submit applications at least 72 hours prior to the application due date, to allow time for the applicant to receive validation messages or rejection notifications from Grants.gov, and to correct in a timely fashion any problems that may have caused a rejection notification.

An applicant must use the Add Attachment button to attach a file to its application. Do not click the paperclip icon to attach files. This action will not attach the files to the application. After adding an attachment, select the View Attachment button to confirm you attached the correct file. To remove the file, select the Delete Attachment button.

OJP encourages all applicants to read this Important Notice: Applying for Grants in Grants.gov.

For additional information, see the “How to Apply (Grants.gov)” section in the OJP Grant Application Resource Guide.
Contents

A. Program Description 5
   Overview 5
   Project-Specific Information 5
   Goals, Objectives, Deliverables, and Expected Scholarly Products 9
   Performance Measures 10
   OJP Priority Areas 12

B. Federal Award Information 12
   Type of Award 13
   Financial Management and System of Internal Controls 14
   Budget Information 14
   Cost Sharing or Matching Requirement 14
   Pre-agreement Costs (also known as Pre-award Costs) 14
   Limitation on Use of Award Funds for Employee Compensation; Waiver 14
   Prior Approval, Planning, and Reporting of Conference/Meeting/Training Costs 14
   Costs Associated with Language Assistance (if applicable) 14

C. Eligibility Information 14

D. Application and Submission Information 15
   What an Application Should Include 15
   How To Apply (Grants.gov) 21

E. Application Review Information 21
   Review Criteria 21
   Review Process 23

F. Federal Award Administration Information 24
   Federal Award Notices 24
   Administrative, National Policy, and Other Legal Requirements 24
   Information Technology (IT) Security Clauses 25
   General Information about Post-Federal Award Reporting Requirements 25

G. Federal Awarding Agency Contact(s) 25

H. Other Information 25
   Provide Feedback to OJP 25
   Application Checklist 26
A. Program Description

Overview

NIJ is seeking applications for the funding of research and program evaluation projects that inform efforts to prevent and reduce intentional, interpersonal, firearm violence, and mass shootings in the United States. NIJ will support scientifically rigorous research and evaluation projects designed to strengthen the scientific knowledge-base, and produce findings with high-practical utility to improve public safety. This solicitation supports the U.S. Department of Justice’s priority to prevent and reduce gun crimes, gun violence-related victimization, and the wide-range of criminal activities related to firearm violence. This solicitation supports DOJ Strategic Objective 3.1: Combat violent crime, promote safe communities, and uphold the rights of victims of crime.

Applications proposing research involving partnerships with criminal justice or other agencies are to include a strong letter of support, signed by an appropriate decision-making authority from each proposed partnering agency. A letter of support must include the partnering agency’s acknowledgement that de-identified data provided through this project will be archived by the awardee in the National Archive of Criminal Justice Data (NACJD) at the conclusion of the award (please see “Goals, Objectives, Deliverables, and Expected Scholarly Products,” below). If selected for award, applicants will be expected to have a formal agreement in place with partnering agencies by January 1, 2021. That agreement must include provisions to meet the data archiving requirements of the award.

In rare circumstances — for example where law prohibits the archiving of agency data — NIJ may agree to a successful applicant creating and archiving an appropriate synthetic dataset. Those circumstances will be rare, decided by NIJ on a case-by-case basis, and will require extensive documentation and justification for exceptions to be made.


Project-Specific Information

NIJ is authorized to make grants or enter into cooperative agreements or contracts to conduct multi-year and short-term research, evaluation, and development projects for the purpose of providing objective, independent, evidence-based knowledge and tools to meet the challenges of crime and justice in the United States, particularly at the state, local, and tribal levels.

NIJ will consider applications for rigorously designed scientific research and evaluation projects aiming to produce findings that may improve public safety by addressing intentional, interpersonal firearm violence and mass shootings in the United States. This solicitation is investigator-initiated, meaning that applicants have leeway to generate their ideas and center their research within their field of social science, or in conjunction with other areas of interest.
and expertise. Where appropriate, NIJ encourages applicants to secure partnerships that involve researchers and criminal justice practitioners for the purposes of facilitating access to data, as well as designing analysis strategies, interpreting findings, and disseminating results.

Though applications may cover a range of topics related to firearm violence, NIJ is particularly interested in the priority topics listed below.

1. **Evaluations of programs and practices to reduce firearm violence**

   NIJ seeks applications that propose evaluations to generate evidence about the effectiveness of programs and practices designed to reduce firearm violence. NIJ is particularly interested in supporting rigorous evaluations of:

   1. Collaborative, strategic approaches to reduce, prevent, or deter firearm violence;
   2. Community-based firearm violence prevention and intervention programs; and
   3. Approaches that focus on the integration of crime and criminal intelligence analysis with forensic technologies, including ballistics, crime gun data, and other forensic evidence.

   NIJ will consider applications for such evaluations that are conducted in individual sites, but is particularly interested in supporting evaluations that examine programs or practices occurring in multiple sites.

   Applicants are encouraged to propose randomized evaluation designs, multi-site studies, and replication studies of rigorously evaluated programs. Studies that incorporate more than one of these design elements are encouraged. Applicants should propose the most rigorous and appropriate design possible to produce high-quality causal evidence.

   Randomized controlled trial (RCT) studies are a powerful tool for building scientific evidence about what works. Therefore, studies employing RCT methods will be given higher-priority consideration. RCT applications with strong designs measuring outcomes of self-evident policy importance are encouraged strongly.

   Given the findings of previous studies, applicants should consider whether to explore long-term outcomes (18 months or longer). A strong RCT design should include low sample attrition, sufficient sample size, close adherence to random assignment, valid outcome measures, and appropriate statistical analyses. Taking RCT costs into consideration, applicants may want to consider studies that minimize costs, such as those that use privacy-protected administrative data that are already being collected, or implement an intervention into a program already funded.

   When multiple rigorous studies of a program or strategy produce comparable results, confidence regarding the effectiveness of that program increases. This may be accomplished by conducting replication studies that incorporate the same research

---

1 Many firearm violence prevention and reduction programs and strategies have been implemented in communities across the nation. Some of these have been carefully evaluated and have demonstrated strong evidence of effectiveness. NIJ’s [CrimeSolutions.gov](http://www.CrimeSolutions.gov) website profiles gun/firearm violence programs that have been scientifically evaluated. There is a strong need for more rigorous program evaluations in this area.
questions and designs in different locations (e.g., multi-site studies), or those that test the impact of a program on a different population than the original study.

It is important to understand why a program or strategy is (in)effective. Therefore, applicants should consider incorporating research questions that examine issues including, but not limited to, what elements of a program are responsible for outcomes, the impact of modification(s) on well-developed program models, whether a program works well only for a certain target population, and/or a program’s unintended consequences or outcomes.

Applications should include and append supplementary materials, as necessary, to describe the level of program development, and demonstrate that needed data will be available for the study. Note: funding under this solicitation may only be used to cover costs associated with the evaluation — but may include reasonable costs incurred by program personnel to support activities directly and exclusively required for the execution of the evaluation (e.g., manual extraction of administrative records).

2. Research to inform the prevention of mass shooting incidents

NIJ is interested in research that builds knowledge and informs policy and practice on reducing the incidence of mass shootings, including public mass shootings, domestic violence-related mass shootings, and mass shootings carried out during the course of committing a felony. Applicants may address a wide-range of potentially relevant topics, but NIJ is especially interested in studies that: (1) address domestic mass shootings (i.e., familicide with a firearm); and (2) studies that compare different types of mass shootings and examine differences and commonalities in motivation, the preparation phase, weapon selection, and/or other situational factors. In general, NIJ seeks applications for studies that have high potential informational value for practitioners, and for the design of intervention and prevention activities.

The Congressional Research Service defined a public mass shooting incident as one that occurred, “…in relatively public places, involving four or more deaths — not including the shooter(s) — and gunmen who select victims somewhat indiscriminately” and where “…the gunmen do not pursue criminal profit or kill in the name of terrorist ideologies.” The research defines a domestic mass shooting as an incident “where the shooter was either a family member or a past or present intimate partner of a member of the household,” and excludes “home invasion and drug-related domestic shootings.”

Experts note that there are limitations associated with counting fatalities when studying mass shootings, as well as familicides. Specifically, they find that for the development of prevention strategies, there are benefits to studying both averted attacks (e.g., due to official or bystander intervention) and less deadly attacks (e.g., due to near misses, weapon malfunction, rapid medical response, or fewer count of potential victims at the crime scene). Therefore, NIJ is particularly interested in studies that not only aim to

---

examine perpetrators and incidents of mass shootings resulting in death of at least four victims, but also those where there was an evident premeditated intent to kill multiple victims, but the plan was either not carried out, or resulted in fewer or no fatalities and injuries.\(^5\)

3. **Research on the legal and illegal acquisition of firearms used in the commission of a crime**

NIJ seeks applications that propose rigorous studies to improve scientific knowledge and understanding of how firearms used in the commission of a crime are acquired, both legally and illegally, to inform development of improved detection and intervention strategies, and investigative tactics. This includes, but is not necessarily limited to, studies examining how such firearms are acquired through secondary gun markets, including straw purchases (direct or indirect\(^6\)); gifting; underground sales/trafficking (including on the dark web); theft; and lending/sharing among social and familial networks, including gangs.\(^7\) Applicants may address a wide-range of relevant topics, but NIJ is particularly interested in studies addressing emerging challenges to law enforcement, such as the detection of acquisition and intervention points.

4. **Examine the impact of plea bargaining firearm charges on firearm violence**

NIJ seeks applications that propose rigorous studies to improve scientific knowledge and assess the impact that plea bargaining of firearm charges in criminal and/or juvenile courts has on crime, violence in general, and firearm violence in particular. NIJ is interested in research projects designed to determine whether using plea bargaining in firearm-related cases contributes to later violence or crime by those affected by the decision to plea bargain. In general, prosecutors and defendants enter into plea bargains in which the defendant pleads guilty in return for some concession from the prosecutor (e.g., lesser charges, dropping other charges, reducing the sentence). There are many reasons why prosecutors and defendants may seek a plea bargain, and many factors to consider when attempting to assess the impact of plea agreements on subsequent crime and violence.

For example, a plea bargain does not hold the prosecution to the burden of proving its case. Therefore, any case that is plea bargained might have led to an acquittal if it had proceeded to full trial. One cannot assume that all cases that are plea-bargained would have otherwise led to convictions on the original charges. Furthermore, prosecutors may use a plea agreement as a tool to get information or testimony from an offender to inform another case deemed to be more serious or important. Thus, to properly study the effects of plea bargaining in these cases, it is necessary to consider the criminal offending patterns of those who receive plea bargains, as well as the offending patterns of those involved in cases that are informed by plea bargain recipients.


New Investigator/Early Career Opportunity

NIJ is interested in supporting researchers who are early in their careers and new to NIJ’s research grant portfolios, specifically non-tenured assistant professors, or equivalent full-time staff scientist positions in a research institution, who propose research on topics relevant to NIJ’s Office of Research, Evaluation and Technology (ORET). To that end, NIJ may, in appropriate circumstances, give special consideration in award decisions to applications proposing such researchers as principal investigators. To qualify, the proposed PI must at the time of application submission:

- Hold a non-tenured assistant professor appointment at an accredited institution of higher education in the United States or an equivalent full-time staff scientist position at a research institution; and
- Have completed a terminal degree or post-graduate clinical training within the ten (10) years prior to September 30, 2020, and
- Have never previously received NIJ funding as a PI on a research project with the exception of Graduate Research Fellows or Data Resources Program grantees.

If seeking to be considered for the New Investigator/Early Career Opportunity, the applicant should identify that they are submitting a New Investigator/Early Career proposal on the title page of the application.

Goals, Objectives, Deliverables, and Expected Scholarly Products

The goal of this solicitation is to develop evidence-based knowledge that can be applied to more effectively prevent and deter firearms violence, and improve public safety through an enhanced understanding of firearms violence and public mass shooting incidents. The goal of this solicitation may be accomplished through the dissemination of research findings to public safety practitioners, other stakeholders, and policymakers.

Final Research Report. Any recipient of an award under this solicitation will be expected to submit a final research report. Additional information on the final research report requirement for the solicitation is posted on the Research, Development, and Evaluation Grant Award Requirements. The Final Research Report will undergo review for public archive on the National Criminal Justice Reference Service (NCJRS).

Required Data Sets and Associated Files and Documentation. Any recipient of an award under this solicitation will be expected to submit to the National Archive of Criminal Justice Data (NACJD) all data sets that result in whole or in part from the work funded by the award, along with associated files and any documentation necessary for future efforts by others to reproduce the project's findings and/or to extend the scientific value of the data set through secondary analysis. For more information, see Program Narrative in Section D. Application and Submission Information.

In addition to these deliverables (and the required reports and data on performance measures described in Section F. Federal Award Administration Information), NIJ expects scholarly products to result from each award under this solicitation, taking the form of one or more published, peer-reviewed, scientific journal articles, and/or (if appropriate) law review journal
articles, book chapter(s) or book(s) in the academic press, technological prototypes, patented inventions, or similar scientific products.

**Technology Prototype:** An exemplar of any algorithm, method, software development kit, and training data set resulting from research and development activities funded under this solicitation will be delivered to NIJ at the end of the award for third-party evaluation, along with detailed implementation instructions. Documentation must include descriptions of algorithmic development and approaches to data collection.

NIJ expects that there will be an equal effort to make the research findings accessible to practitioner and policymaker audiences through articles in trade publications, the development of training manuals, policy briefs, conferences, webinars, and articles for newspapers or magazines.

The Goals, Objectives, Deliverables, and Expected Scholarly Products are directly related to the performance measures that demonstrate the results of the work completed.

**Performance Measures**

OJP will require each successful applicant to submit regular performance data that demonstrate the results of the work carried out under the award (see “General Information about Post-Federal Award Reporting Requirements” in Section F. Federal Award Administration Information).

Applicants should visit OJP’s performance measurement page at [www.ojp.gov/performance](http://www.ojp.gov/performance) for an overview of performance measurement activities at OJP.

The application should demonstrate the applicant’s understanding of the performance data reporting requirements for this grant program and detail how the applicant will gather the required data should it receive funding.

Please note that applicants are **not** required to submit performance data with the application. Performance measures information is included as an alert that successful applicants will be required to submit performance data as part of the reporting requirements under an award.
<table>
<thead>
<tr>
<th>Objective</th>
<th>Performance Measure(s)</th>
<th>Data Recipient Provides</th>
</tr>
</thead>
</table>
| Conduct research in social and behavioral sciences having clear implications for criminal justice policy and practice in the United States. | 1. Relevance to the needs of the field as measured by whether the project’s substantive scope did not deviate from the funded project or any subsequent agency-approved modifications to the scope.  
2. Quality of the research as demonstrated by the scholarly products that result in whole or in part from work funded under the NIJ award, such as published, peer-reviewed, scientific journal articles, and/or (as appropriate for the funded project) law review journal articles, book chapter(s) or book(s) in the academic press, technological prototypes, patented inventions, or similar scientific products.  
3. Quality of management as measured by such factors as whether significant project milestones were achieved, reporting and other deadlines were met, and costs remained within approved limits.  
4. Number of technologies fielded as a result (in whole or in part) of work funded under the NIJ award. | 1. Quarterly financial reports, semi-annual and final progress reports, and products of the work performed under the NIJ award (including, at minimum, a final research report).  
If applicable, an annual audit report.  
2. List of citation(s) to all scholarly products that resulted in whole or in part from work funded under the NIJ award.  
3. If applicable, each data set that resulted in whole or in part from work funded under the NIJ award.  
4. Description of all technologies fielded as a result (in whole or in part) of work funded under the NIJ award. |

Evaluation Research

If an application includes an evaluation research component (or consists entirely of evaluation research), the application is expected to propose the most rigorous evaluation design appropriate for the research questions to be addressed. If the primary purpose of the evaluation is to determine the effectiveness or impact of an intervention (e.g., program, practice, or policy), the most rigorous evaluation designs may include random selection and assignment of participants (or other appropriate units of analysis) to experimental and control conditions. In cases where randomization is not feasible, applicants should propose a strong quasi-experimental design that can address the risk of selection bias.

Applications that include evaluation research should consider the feasibility of including cost/benefit analysis. In cases where evaluations find that interventions have produced the intended benefit, cost/benefit analysis provides valuable and practical information for practitioners and policymakers that aids decision making.

Evaluation research projects may also address a wide range of research questions beyond those focused on the effectiveness or impact of an intervention. Different research designs may be more appropriate for different research questions and at different stages of program development. The intervention strategies, setting, other contextual factors, and resources should be taken into account when selecting an evaluation design. In all cases, applications are expected to propose the most rigorous evaluation design appropriate for the research questions to be addressed.
Applicants are encouraged to review evidence rating criteria at https://www.crimesolutions.gov/about_starttofinish.aspx for further information on high-quality evaluation design elements.

**OJP Priority Areas**

Applications proposing activities in the following areas may be given priority consideration:

- Addresses the specific challenges that rural communities face.
- Encouraging program investments in economically distressed communities (Qualified Opportunity Zones).

To receive priority consideration under the rural priority, applicants must describe what makes the geographic service area rural (using U.S. Census or other appropriate government data), how isolated the area is from needed services, and how they will address specific public safety challenges in rural communities.

To receive priority consideration under the Qualified Opportunity Zones priority, applicants must include information that specifies how the project will enhance public safety in the specified QOZs. For resources on QOZs, and for a current list of designated QOZs, see the U.S. Department of the Treasury’s resource webpage, accessible at https://www.cdfifund.gov/pages/opportunity-zones.aspx.

**B. Federal Award Information**

**Maximum number of awards NIJ expects to make:**
To be determined by the merit of applications submitted to this solicitation and advanced to peer review, and available funding.

**Estimated maximum dollar amount for each award:**
To be determined by the funding requested in awarded applications, and available funding.

**Total amount anticipated to be awarded under solicitation:**
$2 Million

**Period of performance start date:**
January 1, 2021

**Period of performance duration:**
To be determined by the period of performance of awarded applications. Successful applicants will be expected to complete the work proposed within a five-year period of performance.
To allow time for (among other things) any necessary post-award review and financial clearance by OJP of the proposed budget and for any associated responses or other action(s) that may be required of the recipient, applicants should propose an award start date of January 1, 2021.

If the applicant is proposing a project that reasonably could be conducted in discrete phases, with each phase resulting in completion of one or more significant, defined milestones, then NIJ strongly recommends that the applicant structure the application — specifically including the narrative, expected scholarly products, timelines/milestones, and budget detail worksheet and budget narrative — to clearly define each phase. (This is particularly the case if the applicant proposes a project that will exceed — in cost or the length of the period of performance — the amount or length of time anticipated for an individual award (or awards) under this solicitation.) Given limitations on the availability to NIJ of funds for awards for research, development, and evaluation, this information will assist NIJ in considering whether partial funding of applications would be productive. (If, in FY 2020, NIJ elects to fund only certain phases of a proposed project, the expected scholarly products from the partial-funding award may, in some cases, vary from those described above.)

NIJ may, in certain cases, provide additional funding in future years to awards made under this solicitation, through continuation awards. OJP will consider, among other factors, OJP’s strategic priorities a recipient’s overall management of the award, and progress of award funded work, when making continuation award decisions.

Under this solicitation, any particular applicant entity may submit more than one application, as long as each application proposes a different project in response to the solicitation. Also, an entity may be proposed as a subrecipient (“subgrantee”) in more than one application.

NIJ may elect to fund applications submitted under this FY 2020 solicitation in future fiscal years, dependent on, among other considerations, the merit of the applications and on the availability of appropriations.

All awards are subject to the availability of appropriated funds and to any modifications or additional requirements that may be imposed by law.

**Type of Award**

NIJ expects to make awards under this solicitation as grants. See the “Administrative, National Policy, and Other Legal Requirements” section of the OJP Grant Application Resource Guide for additional information. Any funds provided to another federal agency will be made as an inter-agency reimbursable agreement.

**Please note:** Any recipient of an award under this solicitation will be required to comply with DOJ regulations on confidentiality and protection of human subjects. See “Requirements related to Research” under “Overview of Legal Requirements Generally Applicable to OJP Grants and Cooperative Agreements – FY 2020 Awards” in the OJP Funding Resource Center.
Financial Management and System of Internal Controls

Award recipients and subrecipients (including recipients or subrecipients that are pass-through entities) must, as described in the Part 200 Uniform Requirements as set out at 2 C.F.R. 200.303, comply with standards for financial and program management. See OJP Grant Application Resource Guide for additional information.

Budget Information

What will not be funded:

- Applications primarily to purchase equipment, materials, or supplies. (A budget may include these items if they are necessary to conduct research, development, demonstration, evaluation, or analysis.)
- Applications that are not responsive to this specific solicitation.
- Proposals that seek to develop technology for functional or operational purposes only.
- Research that lacks clear implications for criminal justice policy and/or practice in the United States.

Cost Sharing or Matching Requirement

See “Cofunding” paragraph under item 4 (“Budget Information and Associated Documentation”) under “What an Application Should Include” in Section D. Application and Submission Information.

Please see the OJP Grant Application Resource Guide for information on the following:

- Pre-agreement Costs (also known as Pre-award Costs)
- Limitation on Use of Award Funds for Employee Compensation; Waiver
- Prior Approval, Planning, and Reporting of Conference/Meeting/Training Costs
- Costs Associated with Language Assistance (if applicable)

C. Eligibility Information

For eligibility information, see title page.

For information on cost sharing or match requirements, see “What an Application Should Include” in Section D. Application and Submission Information.

---

8 The "Part 200 Uniform Requirements" means the DOJ regulation at 2 C.F.R Part 2800, which adopts (with certain modifications) the provisions of 2 C.F.R. Part 200.
D. Application and Submission Information

What an Application Should Include

This solicitation expressly modifies the OJP Grant Application Resource Guide by not incorporating the “Disclosure of Process Related to Executive Compensation” provisions in the “Application Attachments” section of the OJP Grant Application Resource Guide.

The following application elements MUST be included in the application submission for an application to meet the basic minimum requirements (BMR) to advance to peer review and receive consideration for funding: Program Narrative, Budget Detail Worksheet (including Budget Narrative), resumes/curriculum vitae of key personnel. (For purposes of this solicitation, “key personnel” means the principal investigator, and any and all co-principal investigators.)

See the “Application Elements and Formatting Instructions” section of the OJP Grant Application Resource Guide for information on what happens to an application that does not contain all the specified elements, or that is nonresponsive to the scope of the solicitation.

1. Application for Federal Assistance (Standard Form (SF)-424)

The SF-424 is a required standard form used as a cover sheet for submission of pre-applications, applications, and related information. See the OJP Grant Application Resource Guide for additional information on completing the SF-424.

Intergovernmental Review: This solicitation (“funding opportunity”) is not subject to Executive Order 12372. (In completing the SF-424, an applicant is to answer question 19 by selecting the response that the “Program is not covered by E.O. 12372.”)

2. Project Abstract

The project abstract is a very important part of the application, and serves as an introduction to the proposed project. NIJ uses the project abstract for a number of purposes, including assignment of the application to an appropriate review panel. If the application is funded, the project abstract typically will become public information and be used to describe the project.

Applications should include a high quality project abstract that summarizes the proposed project in no more than 400 words. Project abstracts should be:

- Written for a general public audience.
- Submitted as a separate attachment with “Project Abstract” as part of its file name.
- Single-spaced, using a standard 12-point Times New Roman font with 1-inch margins.

As a separate attachment, the project abstract will not count against the page limit for the program narrative.

Project abstracts should follow the detailed template (including the detailed instructions as to content) available on the NIJ webpage.
3. **Program Narrative**

The program narrative section of the application should not exceed 30 double-spaced pages in 12-point font with 1-inch margins. If included in the main body of the program narrative, tables, charts, figures, and other illustrations count toward the 30-page limit for the narrative section. The project abstract, table of contents, appendices, and government forms do not count toward the 30-page limit.

If the program narrative fails to comply with these length-related restrictions, NIJ may negatively consider such noncompliance in peer review and in final award decisions.

The following sections should be included as part of the program narrative.\(^9\)

**Program Narrative Guidelines:**

a. **Title Page** (not counted against the 30-page program narrative limit)

The title page should include the title of the project, submission date, funding opportunity number, and the name and complete contact information (that is, address, telephone number, and e-mail address) for both the applicant and the principal investigator.

b. **Resubmit Response** (if applicable) (not counted against the 30-page program narrative limit)

If an applicant is resubmitting an application presented previously to NIJ, but not funded, the applicant should indicate this. A statement should be provided, no more than two pages, addressing: (1) the title, submission date, and NIJ-assigned application number of the previous application, and (2) a brief summary of revisions to the application, including responses to previous feedback received from NIJ.

c. **Table of Contents and Figures** (not counted against the 30-page program narrative limit)

d. **Main Body**

The main body of the program narrative should describe the proposed project in depth. The following sections should be included as part of the program narrative:

- **Statement of the Problem and Research Questions.** The statement of the problem should address the need for research in this area. Applicants should discuss current gaps in data, research, and knowledge, including those for particular justice sectors, for certain populations, and to answer questions relevant to current policy and practice needs and public interests. As part of this discussion, applicants should

---

\(^9\) As noted earlier, if the proposed program or project reasonably could be conducted in discrete phases, with each phase resulting in completion of one or more significant, defined milestones, then NIJ strongly recommends that the applicant structure the application – specifically including the narrative, expected scholarly products, timelines/milestones, and budget detail worksheet and budget narrative – to set out each phase clearly. (In appropriate cases, the expected scholarly product(s) from a particular phase may vary from those described above.) See generally "Goals, Objectives, Deliverables, and Expected Scholarly Products" under "Program-Specific Information," above.
present a review of previous literature and discuss previous research related to these problems.

This section should also identify the proposed research questions and discuss the purpose, goals, and objectives of the proposed project.

- **Project Design and Implementation.** Applicants should provide a detailed description of the strategies to implement this research project and address the research questions. Design elements should follow directly from the research project’s goals and objectives and address the program-specific information noted on page 5. Applicants should describe the research methodology in detail and demonstrate the validity and usefulness of the data they will collect. Applicants should consider the rigor and soundness of the methodology and analytical and technical approaches for the proposed research and address the feasibility of the proposed project and potential challenges or problems in carrying out the activities.

- **Potential Impact.** Applicants should describe the potential impact of the research and how it may inform or improve criminal or juvenile justice-related policy, practice, or theory in the United States.

  The discussion of impact should include a discussion of the deliverables, including planned scholarly products indicated in the project-specific information on page 9 and a plan for dissemination to appropriate audiences. Applicants should identify plans to produce or make available to broader interested practitioners and policy makers in a form that is designed to be readily accessible and useful to them.

- **Capabilities/Competencies.** This section should describe the experience and capability of the applicant organization, key staff, and any proposed subgrantees (including consultants) that the applicant will use to implement and manage this effort and the federal funds under this award, highlighting any previous experience implementing projects of similar scope, design, and magnitude. Applicants should address:

  o Experience and capacity to work with the proposed data sources in the conduct of similar research efforts.

  o Experience and capacity to design and implement rigorous research and data analysis projects.

  o Experience producing and disseminating meaningful deliverables.

  Applicants should also outline the management plan and organization that connects to the goals and objectives of the project.

  e. **Appendices** (not counted against the 30-page program narrative limit) include:

    - Bibliography/references.
• Any tools/instruments, questionnaires, tables/charts/graphs, or maps pertaining to the proposed project that are supplemental to such items included in the main body of the narrative.

• Curriculum vitae or resume of the principal investigator and any and all co-principal investigators. In addition, curriculum vitae, resume, or biographical sketches of all other individuals (regardless of “investigator” status) who will be significantly involved in substantive aspects of the proposed project (including, for example, individuals such as statisticians used to conduct proposed data analysis).

• To assist OJP in assessing actual or apparent conflicts of interest (including such conflicts on the part of prospective reviewers of the application, a complete list of the individuals named or otherwise identified anywhere in the application (including in the budget or in any other attachment) who will or may work (or advise or consult) on the proposed research, development, or evaluation project. This applies to all such individuals, including, for example, individuals who are or would be employees of the applicant or employees of any proposed subrecipient entity, any individuals who themselves may be a subrecipient, and individuals who may (or will) work without compensation (such as advisory board members). This appendix to the program narrative is to include, for each listed individual: name, title, employer, any other potentially-pertinent organizational affiliation(s), and the individual’s proposed roles and responsibilities in carrying out the proposed project. If the application identifies any specific entities or organizations (other than the applicant) that will or may work (or advise or consult) on the proposed project, without also naming any associated individuals, the name of each such organization also should be included on this list.

Applicants should use the “Proposed Project Staff, Affiliation, and Roles” form available on the NIJ webpage to prepare this list.

If the application (including the budget) identifies any proposed non-competitive agreements that are or may be considered procurement ”contracts” (rather than subawards) for purposes of federal grants administrative requirements the applicant also must list the entities with which the applicant proposes to contract. Applicants should provide this list as a separate sheet entitled “Proposed non-competitive procurement contracts.”

For information on distinctions — for purposes of federal grants administrative requirements — between subawards and procurement contracts under awards, see “Budget Information and Associated Documentation,” below.

• Proposed project timeline and expected milestones.


• List of any previous and current NIJ awards to the applicant and investigator(s), including the NIJ-assigned award numbers and a brief description of any scholarly products that resulted in whole or in part from work funded under the NIJ award(s). (See “Goals, Objectives, Deliverables, and Expected Scholarly Products” under “Program-Specific Information,” above, for the definition of “scholarly products.”)

• List of other agencies, organizations, or funding sources to which this application has been submitted (if applicable).

• Applicants proposing to use incentives or stipends payments as part of their research project design, must submit an incentive or stipend approval request, as a separate document, according to the requirements set forth at https://nij.ojp.gov/funding/participant-support-costs-and-incentives-social-science-research.

• Data archiving plan. Applicants should anticipate that NIJ will require (through special award conditions, that data sets resulting in whole or in part from projects funded under this solicitation be submitted for archiving with the NACJD. See https://nij.ojp.gov/funding/data-archiving-plans-nij-funding-applicants.

Applications should include as an appendix a brief plan — labeled “Data Archiving Plan” — to comply with data archiving requirements. The plan should provide brief details about proposed data management and archiving, including submission to NIJ (through NACJD) of all files and documentation necessary to allow for future efforts by others to reproduce the project’s findings and/or to extend the scientific value of the data set through secondary analysis. Pertinent files and documentation include, among other things, qualitative and quantitative data produced, instrumentation and data collection forms, codebook(s), any specialized programming code necessary to reproduce all constructed measures and the original data analysis, description of necessary de-identification procedures, and (when required) a copy of the privacy certificate and informed consent protocols.

The plan should be one or two pages in length and include the level of effort associated with meeting archiving requirements.

Note that recipients are strongly encouraged to submit required data sets at least 90 days before the end of the period of performance.

• Letters of cooperation/support or administrative agreements from organizations collaborating in the project, such as law enforcement and correctional agencies (if applicable).

Please see the OJP Grant Application Resource Guide for information on the following:

4. **Budget Information and Associated Documentation** in the Budget Preparation and Submission Information section.

The following paragraph (on “Cofunding”) expressly modifies the “Cost Sharing or Matching Requirement” provisions in the OJP Grant Application Resource Guide. The applicant is to
follow the guidance in the following paragraph instead of the guidance stated under the “Cost Sharing or Matching Requirement” heading in the OJP Grant Application Resource Guide.

**Cofunding:** An award made by NIJ under this solicitation may account for up to 100 percent of the total cost of the project. The application should indicate whether it is feasible for the applicant to contribute cash, facilities, or services as non-federal support for the project. The application should identify generally any such contributions that the applicant expects to make and the proposed budget should indicate in detail which items, if any, will be supported with non-federal contributions.

If a successful application proposes a voluntary match amount, and OJP approves the budget, the total match amount incorporated into the approved budget becomes mandatory and subject to audit.

5. *Indirect Cost Rate Agreement*

6. **Tribal Authorizing Resolution** (if applicable)

7. **Financial Management and System of Internal Controls Questionnaire (including applicant disclosure of high-risk status)**

8. **Disclosure of Lobbying Activities**

9. **Applicant Disclosure of Pending Applications**

10. **Applicant Disclosure and Justification – DOJ High-Risk Grantees** (if applicable)

11. **Research and Evaluation Independence and Integrity**

12. **Additional Attachments**

   a. **Documentation of Anticipated Benefit to Qualified Opportunity Zones** (if applicable)

As is mentioned above, OJP may, as appropriate, give priority consideration in award decisions to applications that propose projects that will generate information about enhancing public safety in the specified QOZs. Each applicant proposing a project it anticipates will generate information about enhancing public safety in the specified QOZs should provide a sufficient narrative explanation in order for OJP to identify clearly the public safety benefit the applicant anticipates that information generated under its project will have on a specified QOZ(s). The attachment(s) should be clearly labeled as addressing QOZs. The applicant may also include tables, charts, graphs, or other relevant illustrations that may be useful in comprehending the manner in which the proposed project is anticipated to benefit a QOZ(s).

---

10 A “DOJ High-Risk Grantee” is a recipient that has received a DOJ High-Risk designation based on a documented history of unsatisfactory performance, financial instability, management system or other internal control deficiencies, or noncompliance with award terms and conditions on prior awards, or that is otherwise not responsible.
b. Documentation of Rural Challenges (if applicable)

As is mentioned above, OJP may give priority consideration in award decisions to applications that address the specific public safety challenges that rural communities face. Each applicant proposing a project under the rural priority, should provide a sufficient narrative to include what makes the geographic service area rural (using U.S. Census or other appropriate government data), how isolated the area is from needed services, and how they will address specific public safety challenges in rural communities. The narrative must be included as an attachment that is clearly labeled as addressing rural challenges.

How To Apply (Grants.gov)

Applicants must register in and submit applications through Grants.gov, a primary source to find federal funding opportunities and apply for funding. Find information on how to apply in response to this solicitation in the OJP Grant Application Resource Guide.

Registration and Submission Steps

Applicants will need the following identifying information when searching for the funding opportunity on Grants.gov.

- NIJ-2020-17327.

For information on each registration and submission step, see the OJP Grant Application Resource Guide.

E. Application Review Information

Review Criteria

Applications that meet basic minimum requirements will be evaluated by peer reviewers using the following review criteria.

Statement of the Problem and Research Questions (Understanding of the problem, research questions, and their importance) – 15%

1. Demonstrated understanding of the problem.

2. Demonstrated importance of research questions, goals and objectives, including alignment with the aims of the solicitation.

3. Demonstrated awareness of the state of current research.
**Project Design and Implementation** (Quality and technical merit) – 50%

1. Soundness of methods and analytic and technical approach to addressing the stated aim(s) of the proposed project.

2. Feasibility of proposed project.

3. Awareness of potential pitfalls of proposed project design and feasibility of proposed actions to minimize and/or mitigate them.

4. Feasibility of completing the deliverables noted in the solicitation.

**Potential Impact** – 15%

Potential for a significant scientific or technical advance(s) that will improve criminal/juvenile justice in the United States, such as:

- Potential for significantly improved understanding of the stated criminal/juvenile justice problem.

- Potential for innovative solution to address (all or a significant part of) the stated criminal/juvenile justice problem.

**Capabilities/Competencies** (Capabilities, demonstrated productivity, and experience of the applicant organization and proposed project staff) – 20%

1. Qualifications and experience of proposed project staff (that is, the principal investigator, any and all co-principal investigators, and all other individuals (and organizations) identified in the application (regardless of “investigator” status) who will be significantly involved in substantive aspects of the proposed project).

2. Demonstrated ability of the applicant organization to implement the proposed strategies and manage the effort.

3. Relationship between the capabilities/competencies of the proposed project staff (including the applicant organization) and the scope and strategies of the proposed project.

**Plan for Dissemination to Broader Audiences (if applicable to the proposed project)**

Peer reviewers may comment — in the context of scientific and technical merit — on strength and feasibility the proposed plan (if any) to produce or to make available to broader interested audiences, such as criminal/juvenile justice practitioners or policymakers, summary information from the planned scholarly products of the project.

**Budget**

In addition, peer reviewers will consider and may comment on the following additional items in the context of scientific and technical merit.
1. Total cost of the project relative to the perceived benefit (cost effectiveness).

2. Appropriateness of the budget relative to the level of effort.

3. Use of existing resources to conserve costs.

4. Alignment of the proposed budget with proposed project activities.

**Review Process**

OJP is committed to ensuring a fair and open process for making awards. NIJ reviews the application to make sure that the information presented is reasonable, understandable, measurable, achievable, and consistent with the solicitation.

The following five paragraphs in this solicitation expressly modify the “Application Review Information” provisions in the OJP Grant Application Resource Guide. An applicant is to follow the guidance in these five paragraphs instead of the guidance stated under the “Application Review Information” heading in the Guide.

Peer reviewers will review the applications submitted under this solicitation that meet basic minimum requirements. For purposes of assessing whether an application meets basic minimum requirements and should proceed to further consideration, OJP screens applications for compliance with those requirements. Although specific requirements may vary, the following are common requirements applicable to all solicitations for funding under OJP programs:

- The application must be submitted by an eligible type of applicant.
- The application must request funding within programmatic funding constraints (if applicable).
- The application must be responsive to the scope of the solicitation.
- The application must include all items necessary to meet the basic minimum requirements.
- The application, if submitted by an applicant that is a DOJ High-Risk Grantee, or is designated “high-risk” by a federal grant-making agency outside of DOJ, must not have been determined by the Director to pose a substantial risk of program implementation failure, based on 1) the applicant’s lack of sufficient progress in addressing required corrective actions necessary for removal of the DOJ High-Risk Grantee (or non-DOJ high-risk) designation, 2) the nature and severity of the issues leading to or accompanying the DOJ High-Risk Grantee (or non-DOJ high-risk) designation, and/or 3) the applicant’s expected ability to manage grant funds and achieve grant goals and objectives.

For a list of the application elements that MUST be included in the application submission in order for an application to meet the basic minimum requirements, see “What an Application Should Include” under Section D. Application and Submission Information.

11 See “Applicant Disclosure and Justification – DOJ High-Risk Grantees” under “What an Application Should Include,” above, for a definition of “DOJ High-Risk Grantee.”
Peer review panels will evaluate, score, and rate applications that meet basic minimum requirements. NIJ may use internal peer reviewers, external peer reviewers, or a combination, to assess applications on technical merit using the solicitation’s review criteria. An internal reviewer is a current DOJ employee who is well-versed or has expertise in the subject matter of this solicitation. An external peer reviewer is an expert in the subject matter of a given solicitation who is not a current DOJ employee. Peer reviewers’ ratings and any resulting recommendations are advisory only, but are considered carefully.

Other important considerations for NIJ include geographic diversity, strategic priorities (specifically including, but not limited to, addressing public safety challenges that rural communities face and/or demonstrable potential enhancement to public safety in one or more federally designated Qualified Opportunity Zones), available funding, the planned scholarly products, and the extent to which the Budget Detail Worksheet and Budget Narrative accurately explain project costs that are reasonable, necessary, and otherwise allowable under federal law and applicable federal cost principles.

Pursuant to the Part 200 Uniform Requirements, before award decisions are made, OJP also reviews information related to the degree of risk posed by the applicant. Among other things to help assess whether an applicant that has one or more prior federal awards has a satisfactory record with respect to performance, integrity, and business ethics, OJP checks whether the applicant is listed in SAM as excluded from receiving a federal award.

In addition, if OJP anticipates that an award will exceed $250,000 in federal funds, OJP also must review and consider any information above the applicant that appears in the non-public segment of the integrity and performance system accessible through SAM (currently, the Federal Awardee Performance Integrity Information System, FAPIIS).

**Important note on FAPIIS:** An applicant, at its option, may review and comment on any information about itself that currently appears in FAPIIS and was entered by a federal awarding agency. OJP will consider any such comments by the applicant, in addition to the other information in FAPIIS, in its assessment of the risk posed by the applicant.

All final award decisions will be made by Director of the National Institute of Justice, who may take into account not only peer review ratings and NIJ recommendations, but also other factors as indicated in this section.

**F. Federal Award Administration Information**

Please see the [OJP Grant Application Resource Guide](#) for information on the following:

- **Federal Award Notices**
- **Administrative, National Policy, and Other Legal Requirements**

OJP strongly encourages prospective applicants to review information on post-award legal requirements and common OJP award conditions prior to submitting an application.
If selected for funding, in addition to implementing the funded project consistent with the OJP-approved application, the recipient must comply with all award conditions, and all applicable requirements of federal statutes and regulations (including applicable requirements referred to in the assurances and certifications executed in connection with award acceptance).

For additional information on these legal requirements, see the “Administrative, National Policy, and Other Legal Requirements” section in the [OJP Grant Application Resource Guide](#).

- **Information Technology (IT) Security Clauses**
- **General Information about Post-Federal Award Reporting Requirements**

In addition to the deliverables described in [Section A. Program Description](#), any recipient of an award under this solicitation will be required to submit certain reports and data.

**Required reports.** Recipients typically must submit quarterly financial reports, semi-annual progress reports, final financial and progress reports, and, if applicable, an annual audit report in accordance with the Part 200 Uniform Requirements or specific award conditions. Applicants should anticipate that progress reports will be required to follow the non-budgetary components of the Research Performance Progress Report (RPPR) template/format. General information on RPPRs may be found at [www.nsf.gov/bfa/dias/policy/rppr/](http://www.nsf.gov/bfa/dias/policy/rppr/). Future awards and fund drawdowns may be withheld if reports are delinquent. (In appropriate cases, OJP may require additional reports.)

See the [OJP Grant Application Resource Guide](#) for additional information on specific post-award reporting requirements, including performance measures data.

**G. Federal Awarding Agency Contact(s)**

For questions directed to the Federal Awarding Agency, see NCJRS contact information on page 2.

For contact information for Grants.gov, see page 2.

**H. Other Information**

Please see the [OJP Grant Application Resource Guide](#) for information on the following:

- **Provide Feedback to OJP**
Application Checklist

Investigator-Initiated Research and Evaluation on Firearm Violence, Fiscal Year 2020

This application checklist has been created as an aid in developing an application.

What an Applicant Should Do:

Prior to Registering in Grants.gov:
- Acquire a DUNS Number (see OJP Grant Application Resource Guide)
- Acquire or renew registration with SAM (see OJP Grant Application Resource Guide)

To Register with Grants.gov:
- Acquire AOR and Grants.gov username/password (see OJP Grant Application Resource Guide)
- Acquire AOR confirmation from the E-Biz POC (see OJP Grant Application Resource Guide)

To Find Funding Opportunity:
- Search for the Funding Opportunity on Grants.gov (see page 21)
- Access Funding Opportunity and Application Package (see OJP Grant Application Resource Guide)
- Sign up for Grants.gov email notifications (optional) (see OJP Grant Application Resource Guide)
- Read Important Notice: Applying for Grants in Grants.gov
- Read OJP policy and guidance on conference approval, planning, and reporting available at ojp.gov/financialguide/DOJ/PostawardRequirements/chapter3.10a.htm (see OJP Grant Application Resource Guide)

After Application Submission, Receive Grants.gov Email Notifications That:
- (1) application has been received,
- (2) application has either been successfully validated or rejected with errors (see OJP Grant Application Resource Guide)

If No Grants.gov Receipt, and Validation or Error Notifications are Received:
- Contact NIJ regarding technical difficulties (see OJP Grant Application Resource Guide)

Overview of Post-Award Legal Requirements:
- Review the “Overview of Legal Requirements Generally Applicable to OJP Grants and Cooperative Agreements - FY 2020 Awards” in the OJP Funding Resource Center.

Scope Requirement:
- The federal amount requested is within the allowable limit(s).

Eligibility Requirement: See cover page.
What an Application Should Include:

The following items are critical application elements required to pass basic minimum requirements review. An application that OJP determines does not include the application elements that must be included in the application submission in order for the application to meet the basic minimum requirements, will neither proceed to peer review, nor receive further consideration.

☐ Program Narrative (see page 16)

☐ Budget Detail Worksheet (including Budget Narrative)
  (see OJP Grant Application Resource Guide)

☐ Resumes/curriculum vitae of key personnel (see page 18)

☐ Application for Federal Assistance (SF-424) (see page 15)

☐ Project Abstract (see page 15)

☐ Program Narrative (see page 16)

☐ Budget Detail Worksheet (including Narrative)
  (see OJP Grant Application Resource Guide)

☐ Indirect Cost Rate Agreement (if applicable) (see OJP Grant Application Resource Guide)

☐ Tribal Authorizing Resolution (if applicable) (see OJP Grant Application Resource Guide)

☐ Financial Management and System of Internal Controls Questionnaire
  (see OJP Grant Application Resource Guide)

☐ Disclosure of Lobbying Activities (SF-LLL) (see OJP Grant Application Resource Guide)

☐ Applicant Disclosure of Pending Applications (see OJP Grant Application Resource Guide)

☐ Applicant Disclosure and Justification – DOJ High-Risk Grantees (if applicable)
  (see OJP Grant Application Resource Guide)

Additional Attachments:

☐ Research and Evaluation Independence and Integrity
  (see OJP Grant Application Resource Guide)

☐ Request and Justification for Employee Compensation; Waiver (if applicable)
  (see OJP Grant Application Resource Guide)

☐ Documentation of Anticipated Benefit to federally designated Qualified Opportunity Zones (if applicable) (see page 20)

☐ Documentation of rural challenges (if applicable) (see page 21)