

FY 2020 Fire Prevention and Safety Grant Program - Frequently Asked Questions

This document addresses Frequently Asked Questions related to the Fiscal Year (FY) 2020 FP&S Grant Program – Research and Development (R&D) Activity.

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What is the purpose of the R&D Activity?

The purpose of the R&D Activity is to improve firefighter safety, health or wellness through research and development that reduces firefighter fatalities and injuries. Projects submitted under the R&D Activity should identify specific outcomes that are expected to lead to improved firefighter safety, health or wellness. These outcomes likely will be related to new or improved programs, policies and/or products. As an applied research program that aims to benefit firefighters, applicants are expected to develop strong partnerships with relevant fire service organizations and fire departments.

The “2015 Fire Service Research Agenda,” produced by the National Fallen Firefighters Foundation (NFFF), contains information that can be used as guidance for those interested in performing studies relevant to current research priorities of the fire service. A copy of the research agenda is available on the NFFF website at <https://www.everyonegoeshome.com/resources/research-symposium-reports/>.

What changes were made to the FP&S Grant Program since last year?

The FY 2020 FP&S Grant Program Notice of Funding Opportunity (NOFO) contains some changes to definitions, descriptions, and priority categories. Changes to the FY 2020 FP&S Grant Program NOFO include:

- Under section E – Application Review Information
 - Fire Department applicants that can demonstrate their commitment and proactive posture to reducing fire risk will receive higher consideration.
 - New Research Terms and Conditions added.
- Under sections D – Application and Submission Information, E – Application Review Information, F – Federal Award Administration Information, G – DHS Awarding Agency Contact and Resource Information, and H – Additional Information:
 - Various grants management changes due to recent Office of Management and Budget (OMB) revisions to 2 C.F.R., particularly regarding the System for Award Management (SAM) registration, performance measures, procurement, closeout and termination.
- Under Supporting Definitions:
 - Definitions added for Authority Having Jurisdiction, Career Fire Department, Combination Fire Department, Human Subject, Interest Organizations, Primary First Due, Research, and Volunteer Fire Department.
- Under National/State/Regional Programs and Projects:
 - Guidance regarding human subjects added.
- Under Regional Projects:
 - Guidance regarding regional projects added.
- Under Environmental and Historical Preservation (EHP)
 - Updated process for EHP added
- Under Ineligible Costs and Items for FP&S Activity
 - Intruder alerting systems and deployment notification systems were added as ineligible.

- Under Award Administration Information (Appendix C):
 - Updated process for Economic Hardship Waiver added.
- List of supporting documentation is added for advance and reimbursement payment requests

Reminders for FY 2020

The online FY 2020 FP&S Grant Program application is only available in the FEMA GO (FEMA Grants Outcomes) application portal at <https://go.fema.gov>.

Applicants must complete all of the following, in order, to start, complete and submit an FP&S Grant Program application:

- The applicant organization must provide a valid Dun & Bradstreet Data Universal Numbering System (DUNS) number registered in the System for Award Management (SAM) to apply in FEMA GO system. Instructions for obtaining a DUNS number can be found at the following website:
<https://www.grants.gov/web/grants/applicants/organization-registration/step-1-obtain-duns-number.html>.
- The applicant organization must be currently registered and active in the System for Award Management (SAM) in order to apply. SAM is available from Grants.gov at
<https://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>.

Environmental and Historic Preservation (EHP)

It is FEMA policy that actions initiated and/or completed without fulfilling the specific EHP requirements will not be considered for funding.

FP&S Grant Program projects that involve the installation of supplies/equipment not specifically excluded from a FEMA EHP Review, per the GPD Programmatic Environmental Assessment, such as ground-disturbing activities, or modification/renovation of existing buildings or structures, will require an EHP review. Some equipment activities will require an EHP review as well. Such activities include but are not limited to the installation of:

- Air compressor/fill station/cascade system (fixed) for filling Self-Contained Breather Apparatus;
- Air quality systems;
- Fire/smoke/carbon monoxide alarm systems for the facility (life safety);
- Generators (fixed);
- Sprinklers;
- Vehicle exhaust systems (fixed);
- Washer/dryer/extractor;
- Fixed communication antennas onto a building;
- Building renovations such as removal of wall or installation of electrical or water lines;
- Training/exercises in natural settings such as rope or swift water;

- LED Signs; and
- Any scope of work that involves ground disturbances.

Please see FEMA's EHP Screening Process. EHP Screening form and instructions are available at [EHP Screening Form](#). EHP policy guidance can be found at [Preparedness Grants EHP Compliance webpage](#). Recipients will be notified of their EHP responsibilities in the grant award package.

Help FEMA Prevent Fraud, Waste, and Abuse

If you have information about instances of fraud, waste, abuse or mismanagement involving FEMA programs or operations, you should contact the Department of Homeland Security Office of Inspector General Hotline at 1-800-323-8603; by fax at 202-254-4297; or online at <https://www.oig.dhs.gov/hotline>. All procurement activity must be conducted in accordance with Federal Procurement Standards at 2 C.F.R. §§ 200.317 – 200.326.

Who is eligible to apply under the R&D Activity?

Eligible applicants for the R&D Activity include national, state, local, federally recognized tribal, and non-profit organizations, such as academic (e.g., universities), public health, occupational health, and injury prevention institutions. Both private and public non-profit organizations are eligible to apply for funding in this activity. Fire departments are not eligible to apply for funding in the R&D Activity.

How many applications may I submit?

Eligible applicants may submit only one application for each eligible activity under the FP&S Grant Program (one application under the FP&S Activity and/or one application under the R&D Activity). Up to three projects may be included in a grant application under the FP&S Activity and up to three projects may be included in a grant application under the R&D Activity. All submissions of duplicate applications may be disqualified.

What projects may I apply for under the R&D Activity?

Applicants may apply for up to three separate projects within this activity. The period of performance is 12, 24, or 36 months from the date of award. Proposed projects must address the potential for a successful research outcome to be implemented in the fire service and reduce firefighter fatalities or injuries. Eligible project categories include: Clinical Studies, Technology and Product Development, Database System Development, Dissemination and Implementation Research, Preliminary Studies, and Early Career Investigator. All applicants are subject to a 5% cost share.

How many projects may I apply for under the R&D Activity?

A total of three projects may be included in a grant application under the R&D Activity.

How much funding is available for the FY 2020 FP&S Grant Program?

There is \$35.5 million available for funding FP&S Grant Program Activities.

What is the maximum amount of funding a recipient may be awarded?

The total amount of funding a recipient may receive under an FP&S Grant Program award is limited to a maximum federal share of \$1.5 million set by § 33(d)(2) of the Federal Fire Prevention and Control Act of 1974, Pub. L. 93-498, as amended, (15 U.S.C. § 2229(d)(2)). The maximum federal share of \$1.5 million is the total that may be requested under all six projects (up to three projects in a grant application under the FP&S Activity and up to three projects in a grant application under the R&D Activity). For multi-year projects, applicants may divide the \$1.5 million over the period of performance however they deem necessary.

Applicants applying under the R&D Activity, Early Career Investigator category are limited to a maximum federal share of \$75,000 per project year.

Where do I submit the federally approved Indirect Cost Rate Agreement?

Applicants required to have a negotiated indirect cost rate agreement that desire to charge indirect costs to an award must provide a copy of their negotiated indirect cost rate agreement at the time of application. Applicants that are not required by 2 C.F.R. Part 200 to have a negotiated indirect cost rate agreement but are required by 2 C.F.R. Part 200 to develop an indirect cost rate proposal must provide a copy of their proposal at the time of application. Copies of the indirect cost rate agreements or proposals, along with the FP&S Grant Program application number, must be submitted electronically to FireGrants@fema.dhs.gov. Please ensure that the request details budget portion of your application includes information pertaining to your indirect cost rate agreement or proposal.

I was awarded a FY 2019 FP&S Grant. May I still apply under the FY 2020 FP&S Grant Program?

Yes. However, since the possibility exists that the period of performance on the FY 2019 and the FY 2020 Grants will overlap, you need to ensure that if you are awarded a FY 2020 Grant, the start of your FY 2020 Grant does not depend on the completion of your FY 2019 Grant. Additionally, you should ensure that receipt of a FY 2020 Grant will not impact your ability to continue with and/or complete your FY 2019 Grant.

How do I apply for a FP&S Grant?

The online FY 2020 FP&S Grant Program application is available through the Assistance to Firefighters Grant Program's FEMA GO (FEMA Grants Outcomes) application portal at <https://go.fema.gov>. The application will also be linked with the US Fire Administration's (USFA) website <https://www.usfa.fema.gov/grants> and the grants.gov website <https://www.grants.gov>.

Which internet browsers are compatible with FEMA GO?

FEMA GO is compatible with the most recent major release of Google Chrome, Internet Explorer, Mozilla Firefox, Apple Safari, and Microsoft Edge. Users who attempt to use tablet type devices or other browsers may encounter issues with using FEMA GO.

When can I apply?

Applications will only be accepted only from 8 a.m. Eastern Time (ET) on Monday, January 25, 2021 until 5 p.m. ET on Friday, February 26, 2021.

What is the deadline for FY 2020 FP&S Grant Program applications to be submitted?

All applications must be completed and submitted online by 5 p.m. ET on Friday, February 26, 2021. Applications received after the close of the application period will not be accepted.

Do I need to register with the System for Award Management (SAM)?

Yes. Per 2 C.F.R. § 25.205, SAM registration is required to both begin and submit an FP&S Grant Program application in the FEMA GO system. Organizational SAM.gov registrations are only active for one year and must be renewed annually. Therefore, applicants must ensure the applicant entity has a valid and active registration in SAM.gov before starting an application.

Step-by-step instructions for registering with SAM can be found at <http://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>. Applicants should contact SAM.gov with questions or concerns about their SAM registration.

DHS may not make a federal award to an applicant until the applicant has complied with all applicable DUNS and SAM requirements. If an applicant has not fully complied with the requirements by the time DHS is ready to make a federal award, DHS may determine that the applicant is not qualified to receive a federal award and make a federal award to another applicant.

The submission of payment requests and amendments are also contingent on the information provided in the entity's SAM.gov registration. It is imperative that all information in the application is correct, current and matches the information in the SAM.gov registration. Please ensure that your organization's name, address, DUNS number, and EIN are up to date in SAM.gov and that the DUNS number used in SAM.gov is the same number used to apply for all other FEMA grant program awards.

More information on SAM.gov may be located in the FY 2020 FP&S NOFO and on the AFGP Website. If applicants have questions or concerns about a SAM registration, please contact the Federal Support Desk at <https://www.fsd.gov/> or call (866) 606-8220, Monday – Friday between the hours of 8 a.m. – 8 p.m. ET.

May I change or edit my application after it has been submitted?

You will be able to review or edit the entire application prior to submission. However, if you would like to edit or change your application after submission, you will have to withdraw the application from consideration of award to edit. Then, the application must be resubmitted to FEMA to be considered for an award.

What is Management and Administration (M&A)?

M&A costs are administrative expenses that are incurred during the administration of an FP&S Grant Program award. Applicants may apply for M&A costs if the costs are directly related to the implementation of the program for

which they are applying. M&A costs are identifiable costs directly associated with the implementation and management of the grant and cannot exceed 3% of the federal share of FP&S Grant Program funds awarded. If you are requesting M&A expenses, you must list the costs under the "Other" category in the budget and explain the purpose for the administrative costs in your Project Narrative. All M&A costs must be in accordance with 2 C.F.R. Part 225, Cost Principles for state, local and Indian Tribal Governments (OMB Circular A-87) or 2 C.F.R. Part 230, Cost Principles for Non-Profit Organizations (OMB Circular A-122), as applicable.

M&A costs should be based on actual expenses only, not a percentage of the overall grant. Examples of eligible administrative costs include shipping, office supplies and computers and software associated with the National Fire Incident Reporting System reporting requirements.

When an FP&S Grant Program award is accepted, when does the period of performance start?

Recipients are notified via email and through the FEMA GO system of the award offer. The recipient shall notify the awarding agency of its intent to accept or decline the award. Recipients must accept their grant awards no later than 30 days from the award date. Funds remain on hold (for a maximum of 90 days) until the recipient accepts or declines the award. The grant award date can be found in the award agreement within the Obligating Document for Award in section "14 - Performance Period".

How does an eligible applicant obtain help with the application?

The FP&S Grant Program Help Desk at 866-274-0960 will be available to provide technical assistance with completing your FP&S Grant Program Application(s).

During the application period, the Help Desk will be staffed between the hours of 8 a.m. and 4:30 p.m. ET, Monday through Friday; and until 5 p.m. ET on the last day of the application period. However, these hours may change as the application period progresses. The toll-free number also accepts voicemail messages after hours or if the line is busy. Questions may also be e-mailed to FireGrants@fema.dhs.gov.

How are the R&D Activity projects reviewed?

R&D Activity projects will be reviewed according to the evaluation criteria listed in the NOFO. Review the NOFO and focus on these criteria in order to develop a competitive application for panel reviews.

When the application is received, the projects will be separated and each one will be evaluated on its own merit (without reference to any other project in the application).

A panel of fire service professionals carries out an initial review. As detailed in the NOFO, the fire service panel uses a specific set of criteria to consider relevance of the proposal for improving firefighter safety, health and wellness and the likelihood of implementation of successful research results in the fire service.

The highest scoring projects from the fire service evaluation receive further evaluation by a science panel that is composed of experts in fields relevant to the proposed research. The science review panel uses a set of specific criteria listed in the NOFO that addresses the scientific rigor of the proposal.

Each project must be fully documented, including a budget and relevant supporting document (such as letters of support specific to each project and biographical information for principal team members), even if the information is the same for more than one project.

When will the awards be announced?

Award announcements will be made at the beginning of spring 2021 and on a continuous basis until all available funds have been awarded.

Is there a cost share for all applicants?

Yes. In general, an applicant shall agree to make available non-federal funds in an amount equal to and not less than 5% of the grant awarded. FEMA GO automatically calculates the cost share in the Budget Summary section of the application.

All recipients should ensure that they are thoroughly familiar with FEMA's cost sharing requirements, as well as appropriate cost principles identified at 2 C.F.R. Part 200 Subpart E. The recipient is not required to have the cost share at the time of application. However, before a grant is awarded, FEMA may contact potential awardees to determine whether the recipient has the funding in hand or if the recipient has a viable plan to obtain the funding necessary to fulfill the cost sharing requirement.

Types of Contributions

- Cash (Hard Match):
 - Cost share of non-federal cash is allowable for FP&S Grant Program grants.
- In-kind (Soft Match):
 - In-kind cost share is allowable for FP&S Grant Program grants. This includes using the values for the following in-kind contributions to meet the cost share requirement:
 - Complementary activities (such as providing additional smoke alarms for installation or educational materials for public education); and
 - Provision of staff, facilities, services, materials or equipment.
 - In-kind is the value of something received or provided that does not have a cost associated with it. For example, where an in-kind match is permitted, then the value of donated services could be used to comply with the match requirement. Also, third party in-kind contributions may count toward satisfying match requirements, provided the recipient receiving the contributions expends them as allowable costs in compliance with provisions listed above.
 - Recipients who use in-kind contributions for their 5% cost share must comply with all applicable regulations and 2 C.F.R. Part 200 regarding matching or cost-sharing. Applicants who are under consideration for award

and plan to use in-kind as their method for cost sharing will be asked to submit their plan for documenting and verifying in-kind contributions prior to award. Please see 2 C.F.R. § 200.306, as applicable, for further guidance regarding cost matching.

What is program income?

Although not common, recipients may generate income in the course of carrying out grant-supported activities during the period of performance under the FP&S Grant Program award. This is referred to as program income. This income can be used to defray program costs, where appropriate, consistent with 2 CFR § 200.307. The Budget Summary section of the grant application contains a field for program income. The response should be \$0 unless the recipient anticipates generating program income during the period of performance. If the recipient plans to generate program income, it should be explained in the narrative. The FEMA GO application will not include program income estimates in the total budget. FEMA will review the program income submitted and adjust the budget as appropriate, prior to award. Any program income must be used and managed in accordance with 2 C.F.R. § 200.307.

Where can I find FP&S Grant Program documents and other information?

You can find FP&S Grant Program documents and additional information on the [Fire Prevention and Safety Grant Program Webpage](#).

Are multi-year projects eligible under the R&D Activity?

Yes. Applicants can propose projects with up to a three-year period of performance under the R&D Activity.

What is meant by "firefighter fatalities and injuries"?

Line of duty deaths (LODDs) may be the result of incidents linked to firefighter training, vehicle crashes, and other fire service activities. The U. S. Fire Administration tracks and collects information on the causes of on-duty firefighter fatalities that occur in the United States. See <https://apps.usfa.fema.gov/firefighter-fatalities/>. Fatal and non-fatal injuries are also tracked and described by the National Fire Protection Association (NFPA). See <https://www.nfpa.org/News-and-Research/Data-research-and-tools/Emergency-Responders>.

Firefighter fatalities and injuries can be linked to behavioral and mental health events that occur during firefighting activities. Behavioral and mental health includes post-traumatic stress, depression and suicide. Cancer is also a significant concern for firefighters and is related to exposures to carcinogenic chemicals and particulates encountered in and related to firefighting activities. See <https://www.cdc.gov/niosh/firefighters/health.html>.

What is meant by "strong partnership" with the fire service?

With the Assistance to Firefighters Grant Program's (AFGP) focus on improving firefighter safety, health and wellness, applicants are expected to partner with fire service organizations and departments from the earliest stages of study design to the end of the study. These partners should provide the study with a depth of fire service expertise and experience that (assuming the study is successful) likely will improve future dissemination, implementation and impact. For example, an applicant studying cancer outcomes among volunteer firefighters

might partner with the National Volunteer Fire Council (NVFC) as well as fire departments in several regions of the country. Applicants should submit letters of support from partners and explain the specific roles and responsibilities of each key partner within the grant application.

What is meant by AFGP’s focus on “fire service in the United States”?

AFGP’s interest is in improving the safety, health and wellness of firefighters throughout the nation. Most studies will need to select or sample participants in a way that is feasible for research study and such that outcomes can be generalized nationwide by firefighters. These studies, if successful, are expected to lead to new or improved programs, policies, and products that have potential for widespread adoption and use. Exceptions may occur but the reason for the exception must be clearly explained in the application. An example of an exception may be preliminary studies or proof of concept designs. Another example may be an Early Career Investigator project which focuses on a local fire service group to develop their project due to the funding limitations of their award.

Where can I find information about past awards?

AFGP maintains a listing of the grants awarded on its website at <https://www.fema.gov/grants/preparedness/firefighters/safety-awards>.

What studies are not eligible under the R&D Activity?

The NOFO specifies what types of studies are ineligible under the R&D Activity. These include:

- Projects that focus primarily on curriculum development and delivery of education or training materials;
- A descriptive study about the fire service or any study without reduced firefighter injury or enhanced firefighter safety aims;
- Projects with local emphasis and little or no indication of application to the broader fire service;
- Projects that emphasize funding for service delivery; and
- Applications that include violations of intellectual property.

What is the difference between the R&D Activity and the National/State/Regional Programs and Projects category under the FP&S Activity?

The National/State/Regional Programs and Projects category under the FP&S Activity includes projects that:

1. Focus on residential fire issues;
2. Focus on firefighter safety, health and wellness by dissemination and implementation of programs, policies or products from previous research studies that used rigorous scientific methods to determine effectiveness; or,
3. Develop new firefighter safety, health and wellness projects that do not include a research component.

Projects to determine effectiveness of firefighter safety, health or wellness programs, policies or products should be applied for under the R&D Activity. Projects requiring Institutional Review Board (IRB) approval to work with human subjects must be applied for under the R&D Activity. If a study aims to conduct research that can be generalized nationwide, especially if it involves human subjects, then the application must be made through the R&D Activity so that appropriate reviews (for funding) and monitoring (if awarded) can be conducted.

How can I find the NOFO that includes the R&D Activity?

The NOFO that includes the R&D Activity is called the Fire Prevention and Safety (FP&S) Grant Program NOFO. The FP&S Grant Program NOFO contains two funding activities: (1) Fire Prevention and Safety (FP&S) Activity and (2) Firefighter Safety Research and Development (R&D) Activity and can be found at <https://www.fema.gov/grants/preparedness/firefighters/safety-awards>.

How do I sign-up for e-mail notifications about the FP&S Grant Program?

To register for automatic e-mail notices of NOFO availability and other important program information go to https://public.govdelivery.com/accounts/USDHSFEMA/subscriber/new?topic_id=USDHSFEMA_409.

What are the types of project categories under the R&D Activity?

The R&D Activity is divided into six categories, including (1) clinical studies, (2) technology and product development, (3) database system development, (4) dissemination and implementation research, (5) preliminary studies, and (6) early career investigator. Applicants will be asked to indicate which of these categories is most relevant to each project. Categories help to organize the project submitted. All categories are considered equally for awards.

What is meant by the “clinical studies” category?

This category may address one (or more) of three areas of specialization: clinical, behavioral and social. For example, clinical studies may focus on physiological function before, during or after firefighter activity; behavioral research may address topics such as mental health interventions for work-related issues such as post-traumatic stress or depression; and studies in the social category may seek an understanding of how departmental culture and psychosocial norms impact safety.

What are “technology and product development” studies?

Technology and product development activities include a wide scope of projects that result in outcomes that can enhance safety or health of firefighters. Results may be new or improved equipment. Also, results may be new information that will be useful in improving the safety of firefighting strategies and fire ground operations, or information about hazardous exposures. For example, firefighter safety can be improved through greater understanding of fire phenomena inside and outside structures, and the development of products to enhance firefighter situational awareness and effectiveness. New products can be developed by application of new technologies or adapting existing products and technology to new uses. As the intention of the R&D Activity is to deliver outcomes that are likely to be implemented nationally by the fire service, inclusion of a cost-effectiveness analysis is encouraged. Technology and product development projects need to assess the ultimate practicality of deployment and use of the results by firefighters during actual firefighting operations.

What are “database system development” studies?

Information from databases can inform the fire service about where there are challenges, and what specific factors influence firefighter safety, health and wellness. For instance, a database system may be developed to identify firefighters’ use of hospital emergency departments nationwide. Such epidemiologic information potentially could result in changes to fire service programs, policies, and products, leading to reduced fatal and non-fatal injuries nationwide. Researchers who apply for funding in this category also should consider resources and strategies for continued support and maintenance of the database system after the initial one to three-year funding period. These grants should be considered as start-up and demonstration funding only.

Note: If you intend to develop a dataset as a function of your specific research study, without data collection with the same participants post study, then your proposal likely fits the clinical or technology category rather than the database systems category.

What is "dissemination and implementation" research?

This is a research (not a Fire Prevention and Safety Activity) category and, as such, it is distinct from the activities of dissemination and implementation of study results, per se. Instead, it is about conducting research on the effectiveness of methods for dissemination and implementation of results.

The precondition for studies in this research category is a previously completed rigorous research trial or test that achieved a successful result (and had peer review publication). This category supports moving from research to practice in ways that enhance uptake, translation, fidelity, and long-term sustainability.

The study design for dissemination and implementation research (D&I research) should be as relevant and rigorous as the research that led to the outcome of interest. For instance, D&I research might include a project with a control and comparison group to examine whether adoption and sustainability of a new program is more likely to be achieved following in-person training or internet training, and/or with use of department level mentors or online chats with experts.

Note: D&I research should not attempt to re-examine original or new intervention outcomes as was done in the prior effectiveness trials. A replication study would be a different focus and should be directed to a clinical or technology category.

What are "preliminary studies"?

The preliminary study category supports researchers' need to answer questions or establish methods prior to determination of a specific study design. This is particularly true when there is little evidence already available in the literature or from other sources. For example, when little or no research existed on women firefighters, preliminary study established the need for certain kinds of research, such as regarding reproductive health. Data from preliminary work likely would strengthen a subsequent application for a larger (clinical or technology) study.

In another example, this category was used effectively to gain support for evaluation of advanced sensors that could be candidates for building a practical gas and particulate hazard warning system. The preliminary study allowed the

researchers to identify and eliminate risks associated with sensor performance so that the follow-on major proposal was able to build and test a practical new product for deployment.

Note: If an application could be competitive without the results of preliminary study (such as when adequate information and methods are already established with prior research in this area), then the clinical or technology category should be used.

What are "early career investigator" studies?

This project category is intended to promote the development of new principal investigators who wish to engage in research to improve firefighter safety, health, and wellness. The project may be identified with any of the five other R&D Activity categories. This category is reserved for projects led by a principal investigator who received a Ph.D. or equivalent advanced level research degree no more than five years prior to the opening date of the application period. As the development of new research talent through mentoring is a focus of these awards, projects that are affiliated with larger ongoing fire service research efforts are encouraged. The applicant must be an eligible institution, as individuals are not eligible to receive an award under the program. All proposed projects must have a fire service partner and a mentor in the area of expertise of the new investigator. The mentor must provide a letter of support to include in the Appendix material. As noted earlier, these awards are limited to a maximum federal share of \$75,000 per project year.

What kinds of expertise are required for Principal Investigators and interdisciplinary research teams?

Generally, scientists who take the lead in R&D studies in the clinical category are trained in area(s) of specialization that are specific to the study topic, such as physicians who are toxicologists in toxicology research, clinical or social psychologists in behavioral and mental health areas, and sociologists in social or cultural areas. Scientists and engineers that take the lead in R&D studies in the technology and product development category also are trained in area(s) of specialization that are specific to the study topics, such as combustion scientists leading studies of toxic gas exposures, textile engineers for development of better fabric for advanced turnout gear and protective shelters, fire protection engineers to address fire dynamics in structural firefighting. In some cases, physicians and engineers team up to study the heat stress and work effort need to accomplish routine firefighting tasks to better define expectations for safe work on the fire ground. Also, scientists and engineers with relevant expertise may be from many other specializations such as anthropology, behavioral sciences, biostatistics, chemical engineering, codes and standards, computer sciences, economics, electrical engineering, emergency medicine, epidemiology, fire modeling, geophysical sciences, health behavior, kinesiology, mechanical engineering, neural science, nutrition, physics, physiology and public health.

Do applicants receive feedback from the review(s)?

Where an application received a fire service review only, that feedback is provided. The aim is to indicate where the proposal was not considered sufficiently relevant and/or how the applicant might improve relevance.

Where fire service relevance was sufficiently strong to merit the proposal receiving further review by a science panel, but the proposal was not funded, then feedback from both the fire service review and the science panel will be provided to the Principal Investigator specified in the application.

Should letters of support be included with an application for funding?

AFGP encourages participation with research partners throughout the project from application through dissemination of results. In particular, partnerships with fire departments are very much encouraged and are part of the fire service and science evaluation process for all project proposals. Letters of support are defined as commitments of fire departments to provide specified support to the projects in terms of fire service expertise (e.g., consultations, advisory board membership), encouraging firefighter participation in the study, and/or use of facilities (e.g., control burn buildings, fitness equipment).

Letters from partners and other supporting organizations should be included in the Appendix of the application. The Appendix is limited to 25 pages per project. It may include, as appropriate, data collection instruments, additional tables and figures, illustrations, specifications for product designs, and letters of commitment and role description from partners. Additionally, if this project is a resubmission, applicants may use the Appendix to address how they adapted the proposal to address reviewer concerns from a previous year.

Note: Applicants may reduce size of letters so that two images can be placed side by side on a landscape format page, if sufficient in size that the text of the letter can still be read.

What should be considered in selection of potential fire service partners and others?

The project team, including partners and others, is evaluated for its ability to complete the proposed project in a timely manner and deliver research results that are relevant to improving firefighter safety, health, and wellness and can satisfy rigorous scientific review, such as peer review for publication as a contribution to the body of knowledge. The principal investigator should assemble a research team with expertise to accomplish all parts of the proposed project. For example, partners may have the ability to encourage firefighter participation in the study, or the ability to review and promote program, product or policy changes based on study results.

How important is it to address all guidance and criteria in the application?

It is critical that the application addresses each of the evaluation criteria as thoroughly as possible. Project evaluation total scores are rank ordered from the fire service review with the highest going forward for additional science review. The projects are then ranked according to the highest science panel evaluation scores. FEMA makes awards based on this final ranking.

How can the structure of the application support the Panel Reviews?

Each project must include responses to the fire service evaluation criteria within text boxes in the FEMA GO application. Each project must also include one Narrative Statement and one Appendix document, as attachments in the FEMA GO application. The Narrative Statement must follow the science panel evaluation criteria listed within the NOFO: The first page of the Narrative Statement must include an abstract of approximately 250 words that addresses purpose and aims, relevance, methods and anticipated outcomes. All narrative text, including pertinent

references and footnotes, must be in the Narrative Statement. The contact information (e-mail address and telephone number) for the principal investigator must be provided on the first page of the Narrative Statement. Tables and figures may be included in either the Narrative Statement or the Appendix document.

The Appendix is limited to 25 pages per project. It may include, as appropriate, data collection instruments, additional tables and figures, illustrations, specifications for product designs, and letters of commitment and role description from partners. Additionally, if the project is a resubmission, applicants may use the Appendix to address how they adapted the proposal to address reviewer concerns from a previous year.

A biographical sketch (bio sketch) for the principal investigator and lead scientists, as well as other key research personnel listed in the budget, are to be included in the Appendix, but are limited to a maximum of two pages per biographical sketch. Applicants are strongly encouraged to follow the biographical sketch sample provided in the NOFO.

What are the character limitations for text boxes in FEMA GO?

The project name field is limited to 100 characters max.

The abstract field is limited to 5,000 characters max.

Under the Fire Service Panel Evaluation Criteria:

- Purpose (25%) - 5,000 characters max
- Implementation by Fire Service (25%) - 5,000 characters max
- Potential Impact (15%) - 3,000 characters max
- Barriers (15%) - 3,000 characters max
- Partners (20%) - 4,000 characters max

What information might be included to help fire service reviewers?

The primary information about fire service evaluation criteria is provided in the NOFO. Prepare responses to the criteria using language that is friendly for a fire service audience. Include by reference information in the science narrative that would be helpful to fire service reviewers in understanding the proposal. You can point them to figures, pictures, tables, and charts in the science narrative, which will enhance their understanding of the proposal. Due to formatting restrictions, figures, pictures, table, and charts cannot be placed directly into the fire service criteria text boxes in FEMA GO. Fire service reviewers have full access to all of the proposal information. Review each fire service evaluation criteria in the NOFO as you prepare each section. Further guidance is offered here, per criterion:

Purpose: Reviewers will consider your justifications of the study importance which may be established by citing high injury rates as established by respected sources, such as Centers for Disease Control and Prevention (CDC), NFPA, National Institute for Occupational Safety and Health (NIOSH) and USFA; or new trends toward increasingly high injury rates; and/or identification within the NFFF research priorities. Further, they may draw on their own experience and that of other firefighters they know to appreciate your stated purpose. Thus, examples or anecdotal data could be useful tools for clarifying your purpose. These are not the only possible justifications; however, they may provide a good foundation.

Implementation by Fire Service: For implementation by the fire service, reviewers may focus on whether the fire service would adopt your (successful) results. It is best to address this issue for the fire service reviewers in the front pages of the application. If you recognize that future implementation would require a series of steps before the fire service would be ready for change, you could suggest some appropriate strategies. Note that you will address this again under the "dissemination and implementation" criteria for the science reviewers.

Potential Impact: In describing potential impact, you may project numbers of reduced injuries that would be accomplished with the (expected) results. If you provide strategies to overcome implementation barriers, you can further demonstrate that you have knowledge of fire service realities and the change process.

Barriers: Barriers to timely completion of the study and the eventual implementation of the proposed results are important to discuss in the early pages of the narrative. Especially important to discuss are those barriers that involve fire service participants, from recruitment and retention, to compliance and bias, to national and local political concerns, among other factors. Addressing these types of barriers, as well as the strategies to overcome them, is another way to underscore your knowledge of the realities of the fire service.

Partners: Since fire service partnerships are a central element of a research team, your development of those partnerships prior to the application would be reflected in the detailed letters of support you provide in the Appendix. An overview of those relationships would be helpful in the front pages of the application. In many cases, fire service panelists will expect to see evidence of relevant national or regional partnerships that support the study's purpose and goals and eventual national implementation. For instance, if the population of interest were volunteer firefighters, then the National Volunteer Fire Council would be expected to be a helpful partner. If the project is a preliminary study or early career investigation it is good to note this here to explain why there may be fewer partners necessary to support the smaller study designs.

What further guidance can be given for addressing the criteria considered in the Science Panel Review?

The science review of an application is a thorough and rigorous evaluation by experts knowledgeable in the research areas relevant to the proposed project. It is critical that the content of the narrative and the appendix fully address how the proposed research is responsive to the evaluation criteria. The Narrative Statement must follow the science panel evaluation criteria listed within the NOFO. Responses to the fire service panel evaluation criteria must be inserted in text boxes provided in the FEMA GO application. Further guidance is offered here, per criterion:

Goals, objectives and specific aims: The goals, objectives and specific aims criterion intend to provide a framework that guides the applicant to move from a statement of broader purpose (such as reducing toxic exposure) to

providing precise, measurable, and/or behavioral details that represent what you plan to achieve by this study (such as increased time lapsed from suppression to overhaul). The applicant's goals and objectives should drive the study design and activities. If that is not the case, then some goals and/or objectives should be dropped (or design and activities amended); measurements and analyses must follow the methods planned and should lead to answers regarding specific aims.

Literature review: The literature review in the application demonstrates the principal investigator and scientific team are knowledgeable about what has been studied in the past. This expertise suggests the ability to do applied research in this area. Importantly, the literature review makes evident how the proposed research will contribute to the existing body of knowledge in this area. Without a strong literature review, the relevance of this study, as proposed, will be less evident.

Project methods: Project methods describe the overall approach to the study. Methods may be a study design such as a randomized control trial or a large-scale fire test series design. Related information, such as how best to select participants or structures, contents and firefighting methods utilized, respectively, should be described.

Project measurements: Project measurements include the more macro and micro aspects of the research. The applicant may specify established instruments that will provide the data for analysis. Where extensive, a table format may be useful. Sufficient information would be such that the feasibility of the analytic plan can be assessed.

Project analysis: Project analysis may include the statistical plan for determining clinical and statistically significant results, including power analysis information. For instance, where fire departments rather than individual firefighters are the unit of analysis, then sampling, measurement strategies, and analysis would reflect that decision. For technology and product development studies the analysis plan should specify what constitutes significant or successful results.

Dissemination and implementation: The dissemination and implementation criterion (not the same as dissemination and implementation research) asks principal investigators to indicate how the results of the proposed project (if successful) would be disseminated to the fire service and scientific communities. Not only does this criterion cover dissemination of study results, but also how the study might move to implementation, that is, moving from research to practice. The applicant should show how the issues for dissemination and implementation have been taken into consideration throughout the study and in development of their project product. For instance, if a product can be made available via the Internet that would improve access and adoption. Also, providing the research result to relevant firefighter standards organizations to promote national adoption is a proven means to implement successful research results. This development of dissemination and implementation plans does not intend to suggest that the applicant would be responsible for all the subsequent activities.

Should I include a discussion of the possible impact of the pandemic on my project, if it is awarded?

Yes, you should incorporate into the narrative a discussion about how you will implement the grant in a pandemic environment. Reviewers will consider the ability of a project to be completed successfully during the proposed period of performance. If you plan to work with human subjects, consider possible IRB restrictions. Be sure to also consider

the ability of staff to access facilities or the lab, and possible restrictions on travel. Suggest ways you could alter or change your process to keep the study moving forward.