

The Joint Fire Science Program (JFSP) was created by Congress in 1998 as an interagency research, development, and applications partnership between the U.S. Department of the Interior and the U.S. Department of Agriculture. Funding priorities and policies are set by the JFSP Governing Board, which includes representatives from the Bureau of Land Management, National Park Service, U.S. Fish and Wildlife Service, Bureau of Indian Affairs, U.S. Geological Survey, and five representatives from the Forest Service.

Mission

The Joint Fire Science Program:

1. Provides credible research tailored to the needs of fire and fuel managers
2. Engages and listens to clients and then develops focused, strategic lines of new research responsive to those needs
3. Solicits proposals from scientists who compete for funding through a rigorous peer-review process designed to ensure the best projects are funded
4. Focuses on science delivery when research is completed with a suite of communication tools to ensure managers are aware of, understand, and can use the information to make sound decisions and implement projects.

In response to congressional direction, the JFSP develops science-based knowledge and tools to support federal, tribal, state, and local agencies and their partners in the following areas:

- Fuel inventory and mapping
- Fuel treatment planning, scheduling, and risk assessment
- Fire effects and fire behavior
- Monitoring and evaluation
- Restoration of fire-adapted ecosystems
- Post-fire stabilization and rehabilitation
- Remote sensing
- Developing and integrating research information for local land managers

Collaboration

The Program is uniquely positioned to tailor wildland fire research in response to the emerging needs of policymakers and fire managers. An annual cycle of proposal solicitation, review, and funding ensures timely response to evolving conditions. Research projects complement and build on other federal research programs, such as those in the Forest Service Forest and Rangeland Research Stations, U.S. Geological Survey, and National Fire Plan. Synthesis of research findings and targeted delivery to managers are essential components of the Program.

More than 90 colleges and universities have also collaborated on and partnered with JFSP-sponsored research projects. By engaging masters and doctoral candidates in these projects, we are training the next generation of resource managers and scientists. This collaboration extends to private, non-profit organizations and tribal, state, county, and local governments as well. In all, nearly 200 organizations have become partners in JFSP-sponsored research.

Completed Projects by Fiscal Year in Which They Were Delivered

2008	2007	2006	2005	2004	2003	2002	2001	2000	1999
29	75	70	55	23	7	11	4	3	1

Note: FY2008 projects completed as of January 24, 2008

Project information is always available by Fiscal Year from the *Search Our Projects* feature on the JFSP website at <http://www.firescience.gov>

Project Summary by the Fiscal Year Funded as of January 24, 2008

	Totals	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
Appropriation (in millions)	\$144	\$14	\$12	\$14	\$16	\$16	\$16	\$16	\$16	\$8	\$8	\$8
Total Projects Funded	415	2	37	46	60	43	59	32	60	29	19	28
Completed Projects	278	0	1	6	21	29	56	32	59	28	19	27
In Progress Projects	137	2	36	40	39	14	3	0	1	1	0	1
Air Quality, Smoke Management, Climate, & Weather	27		1	2	5	3	6		6		1	3
Cultural Resources	1			1								
Decision Support	21		2	2	5	5	1		4		1	1
Demonstration Sites	7							5	2			
Fire Behavior	13	1	3			2	5					2
Fire Effects & Fire Ecology	85		7	6	5	12	19	8	14	5	4	5
Fire Regimes	28			10	2	1	3	4	5			3
Fuel Treatments	43		6	2	8	2	3	2	1	15	3	1
Invasive Species	16			2	4	1		3	2	4		
Inventory & Mapping	19		1	2	2	3	1	2	2	1	2	3
Methods Development	1			1								
Planning & Risk	30		1	5	4	2	3		6		4	5
Remote Sensing	18				1	1	2	3	7	4		
Science & Technology Applications	23		2	2	11	4	3					1
Social Science & Economics	20		2	3	2	3	2		3		4	1
Stabilization, Rehabilitation, & Restoration	26		7	5	3	3	5	1	2			
Wildlife	12			1	5	1	1	1	2			1
Workshops & Conferences	23	1	5	2	3		5	2	4			1
Other Projects	2							1				1

Note: FY2008 projects were solicited in October 2007 and are currently under peer-review as of January 24, 2008. Funding decisions will be made in March of 2008. Two projects have been funded.

Science Delivery

	Total	2008	2007	2006	2005	2004	2003	2002	2001	2000	1999	1998
Publications												
Refereed	1057	9	116	156	140	106	54	41	14	7	1	
Non-refereed	387	2	50	87	74	59	45	23	13	21	12	1
Ph.D. Dissertation	26		7	9	5	3	1				1	
MS Thesis	90	1	8	18	16	18	9	12	2	2	3	1
Book or Book Chapter	14	1	3	5	2	2		1				
JFSP Final Reports	278	29	75	70	55	23	7	11	4	3	1	
Presentations												
Invited Paper	686	4	182	229	22	123	63	35	18	6	3	1
Conference /Workshop	1056	12	109	235	182	206	140	85	33	34	14	6
Poster Presentation	290		51	64	46	47	41	26	11	4		
Field Demonstration /Tour	143	2	25	40	26	22	11	4	6	4	2	1
Training Session	130	1	14	5	38	32	26	5	3	4	2	
Electronic Information												
Website	297		79	109	62	16	12	16	3			
Computer Model / Software or Algorithm	96		8	22	18	13	5	11	9	5	5	
Dataset (including spatial)	114		17	56	27	6	3	5				

Note: FY2008 projects completed as of January 24, 2008

Highlights and Trends

- From 1998 through 2007, the Program has funded 413 research proposals.
- On average, about 20 percent of the submitted proposals are selected.
- Typically, 96 percent of our appropriated funds go directly to new research projects at universities, federal research agencies, and other scientific institutions.
- The Program Office consists of a staff of four employees who provide administrative and technology transfer support.
- In FY 2007, JFSP partners contributed approximately \$8 million and substantial in-kind resources in support of JFSP projects.

There is no shortage of excellent ideas to provide solutions for the problems managers face. Indeed, each year many worthy projects cannot be funded. The following table shows that the average cost of proposals has been rising, while Program funding has declined.

Funding Trends				
Year	Proposals Submitted	Requested Funding	Average Proposal Cost	JFSP Program Funding
2007	169	\$79 million	\$467,000	\$12 million
2006	200	\$61 million	\$305,000	\$14 million
2005	217	\$76 million	\$350,000	\$16 million
2004	179	\$39 million	\$218,000	\$16 million
2003	182	\$44 million	\$242,000	\$16 million

What Constitutes Strong Evidence that the Joint Fire Science Program is Effective and Relevant to Our Customers?

This is difficult to gauge and we only have snippets of information. While we can supply data on the scientific goods we produce and deliver, it is a much different question to examine the effectiveness and relevancy of the science information we contribute to the wildland fire management community. One of the methods we employ is our publication *Managers Viewpoint* which is an opinion piece written about completed research from the managers perspective. The writers are on the ground fire management personnel and they focus on the theme of can the research be implemented and useful to fire managers. We began this effort in 2007 and are trying to produce 60 evaluations each year.

One way of measuring impact is to assess the role JFSP plays in fire management research and development nationwide.

- Established in 1998, the Joint Fire Science Program has played a crucial role in defining priority research topics and providing scarce funding in support of wildland fire managers priority needs. We are driven by the needs of our customers – wildland fire managers.
- The JFSP is an interagency partnership between the Forest Service and Department of Interior agencies and often acts as a clearing-house to reduce redundancy in research efforts.
- The JFSP complements other research institutions by providing applied research for fire managers within a short-term horizon of 3 to 5 years while other institutions provide funding for basic science.
- Over \$100 million (70%) of our appropriated funds have supported the work of scientists in the US Forest Service Forest and Range Experiment Stations.
- Joint Fire Science funding is a critical contributor in support of USGS, USFS, and university scientists. The JFSP and the National Fire Plan provide the operational dollars to conduct fire science research and development. An average of 60 percent of annual FS fire R&D funding has come from these and other funding sources. Reductions in any funding source would severely limit needed information in a rapidly changing fire environment.

- Our entire operation is based on a highly-competitive peer-reviewed process to ensure that we fund the best science proposals. On average, 96% of our appropriated dollars go directly to science institutions to conduct research, development, and application studies.
- The Program conducts extensive outreach efforts announcing research proposal solicitations through Grants.Gov, federal agencies, and universities to bring in new ideas and research solutions.
- The Program is a leader in science delivery and integration of information for fire managers.
- Managers help set our research agenda through our Roundtable discussions. From these roundtables the JFSP developed focused lines of research over the next 5 years on:
 1. Biomass from Fuel Treatments
 2. Smoke Management and Air Quality
 3. A Framework for Wildland Fire Management Risk Analysis
- The strength of the Program is that we can ask new questions each year in response to fire manager's priority issues. We are currently reviewing proposals that address fuel treatment effectiveness which was recently raised in GAO reports.
- A cornerstone of the JFSP science delivery effort is summarizing science information in a format suitable for land managers. We initiated a new series of 'state-of-the-science' syntheses that focus on integrating existing knowledge and interpreting research finding in terms relevant to land managers.
- In 2007, the JFSP launched a new website and publications aimed at land managers across the nation. Our goal is to develop a trusted source of reliable wildland fire science information. We developed four new publications:
 1. **Fire Science Digest** is a 12-page summary of several related JFSP-sponsored research projects. The first issue was **The Fire-Climate Connection** which quantified the relationships among climate and the occurrence and extent of wildfires in the US.
 2. **Fire Science Brief** is a 4-page summary of each completed JFSP project
 3. **Managers Viewpoint** is a companion piece to each Brief and is written by a fire manager assessing whether the research study is useful to managers and can be implemented on the ground.
 4. **Fire Science First Look** announces new research of finding hot of the press.
- The Program is testing a new concept in science delivery called a **Roadshow** where scientists demonstrate in the field new research findings and develop an agenda in direct response to manager's questions.
- JFSP sponsored projects have resulted in 116 advanced degrees. This is the next generation of fire managers and scientists.
- The JFSP sponsored the development of the online distance learning opportunities at the University of Idaho where college credits are earned to meet the Interagency Fire Program Management GS 401 Fire Professional series requirements.

- The JFSP Governing Board commissioned a study by Dr. Jamie Barbour titled **Accelerating Adoption of Fire Science and Related Research**. Views of both managers and scientists were examined. We offer the study as one way of assessing our ability to deliver science information to our customers. The document can be found at http://www.firescience.gov/projects/05-S-07/05-S-07_final_report.pdf
- The Governing Board has also commissioned a study to determine if JFSP research is being cited in NEPA documentation with results expected in the next year.