National Science Foundation

Vermont EPSCOR Annual State Meeting
August 2012

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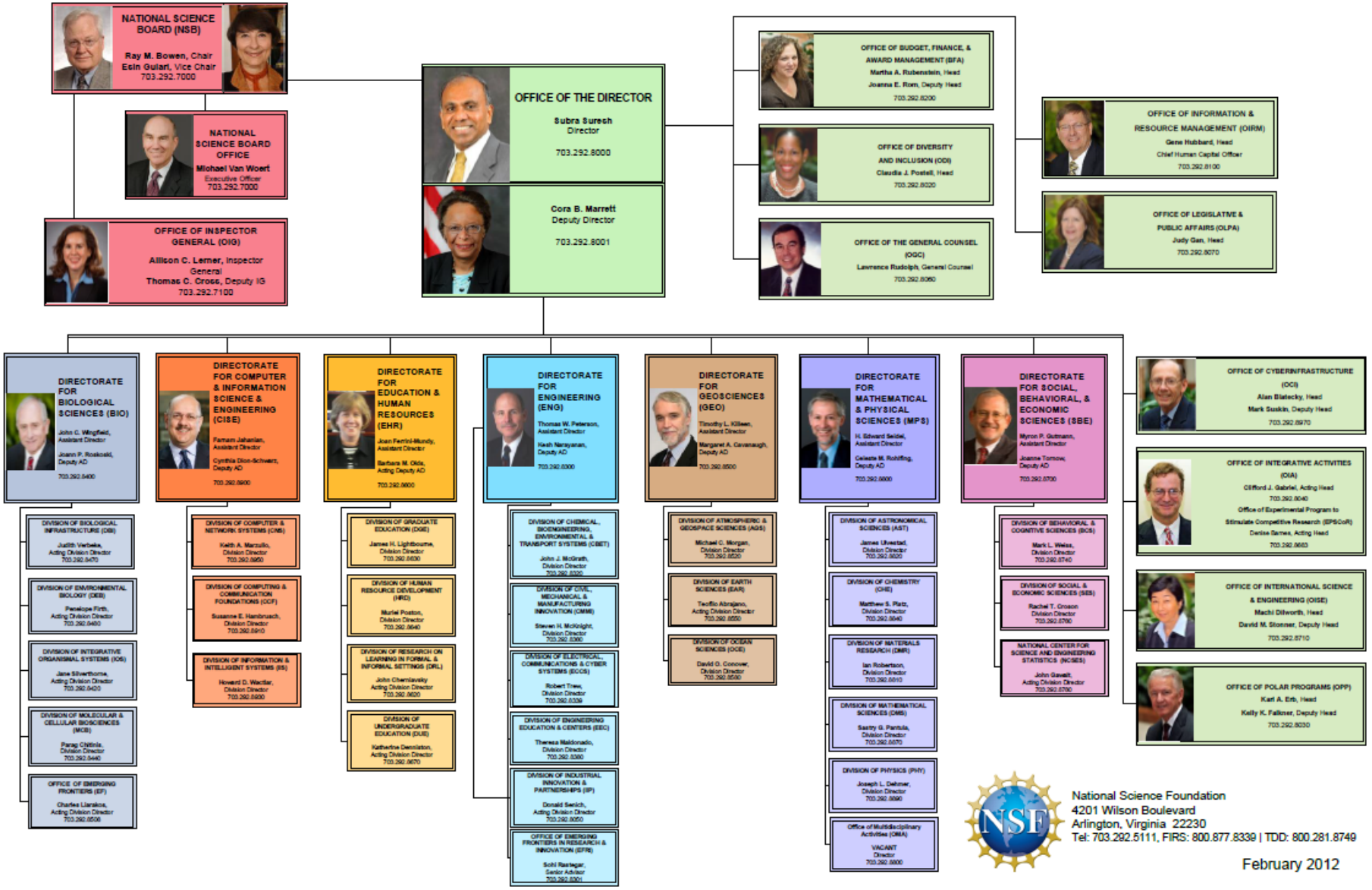
Program Director
Directorate for Computer and Information
Science and Engineering

Ways to broaden NSF Support:

- Navigating the NSF “Maze”
- Knowing Who’s Who and how that helps you
- Finding what we’ve funded
- Keeping up with what’s new
- What’s actually new
- A few words about Innovation funding
- It’s up to you too

Navigating the NSF "Maze" – how we are organized & why you need to know this information



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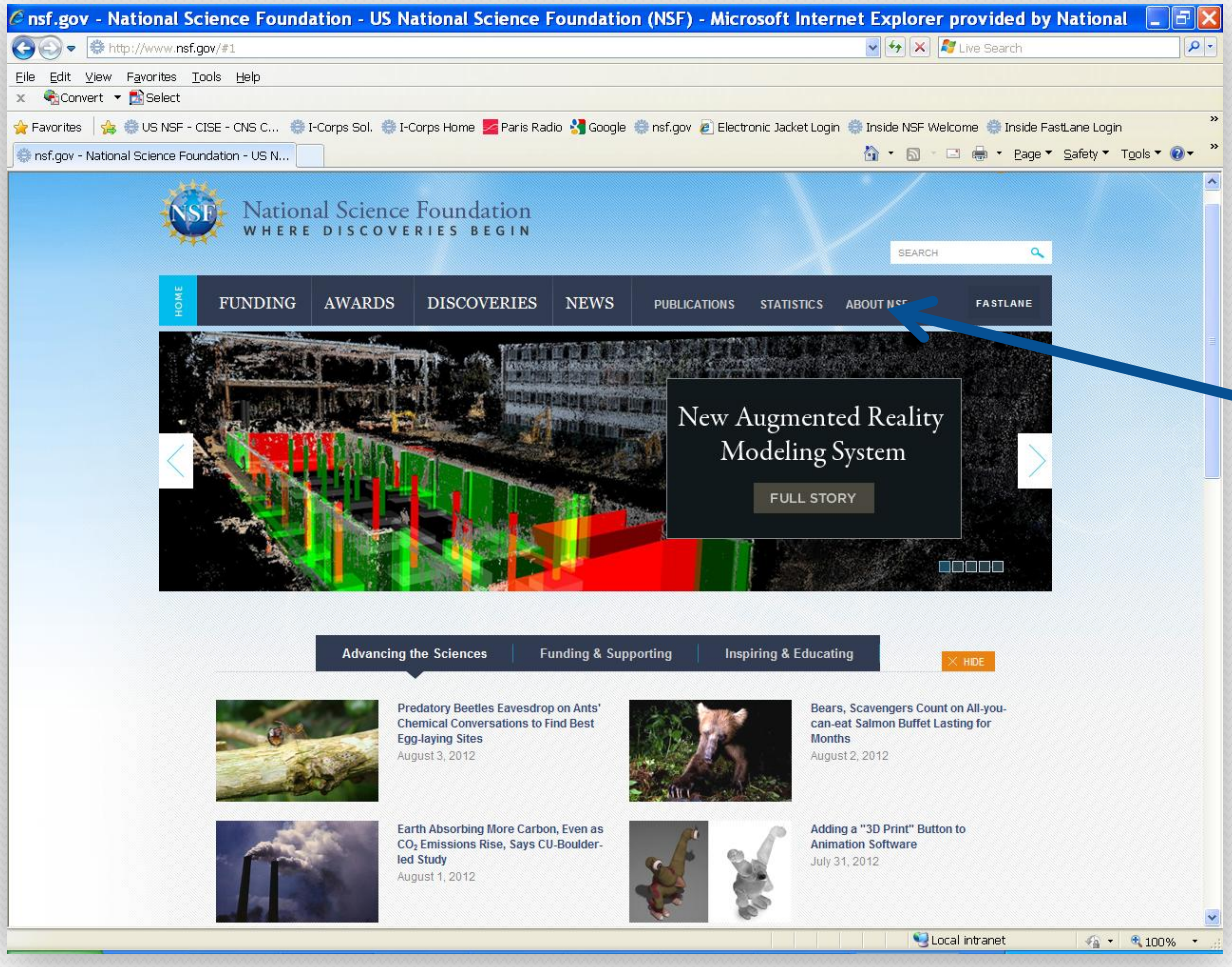
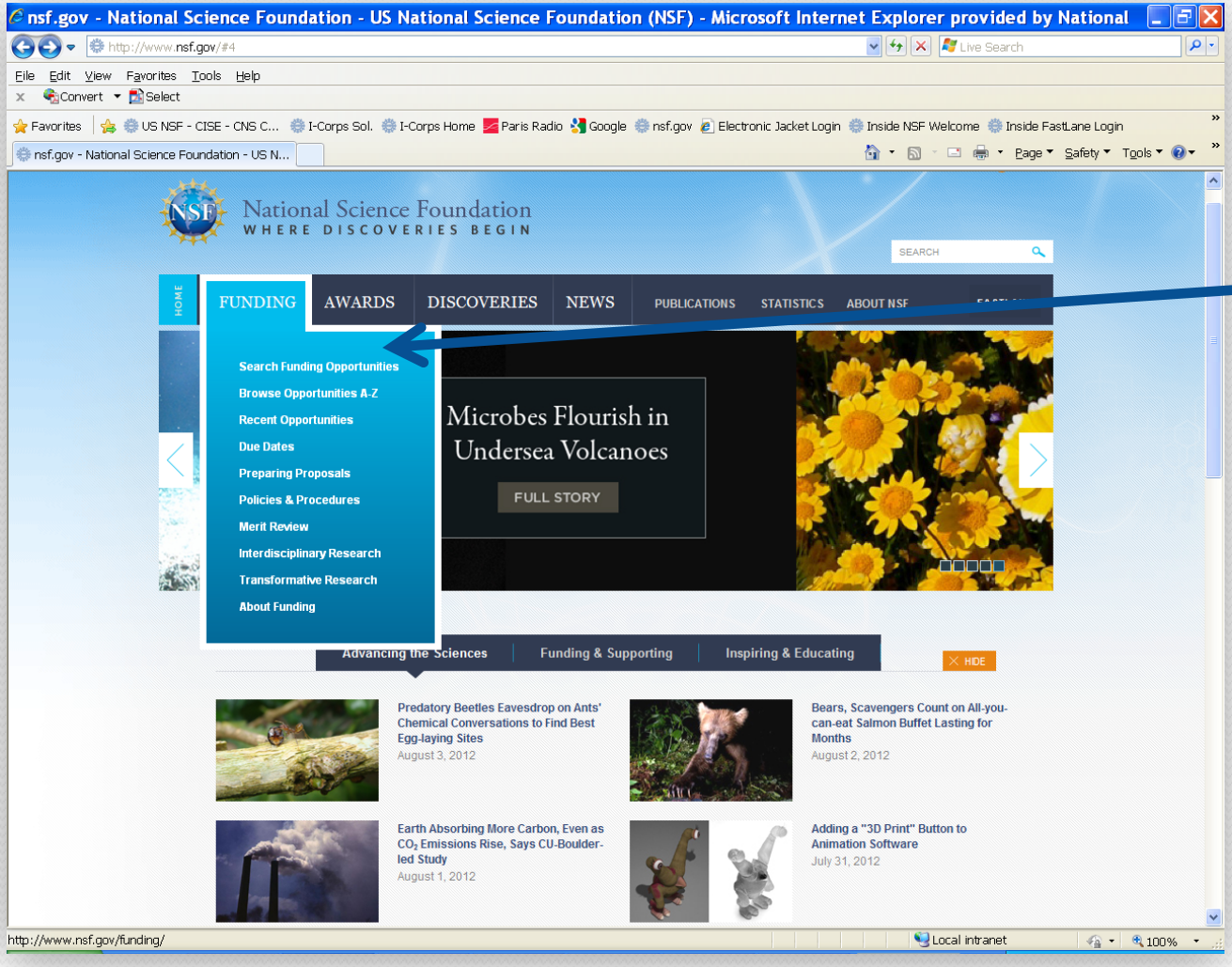
February 2012

Navigating the NSF "Maze" -- Find your research/program/division/directorate



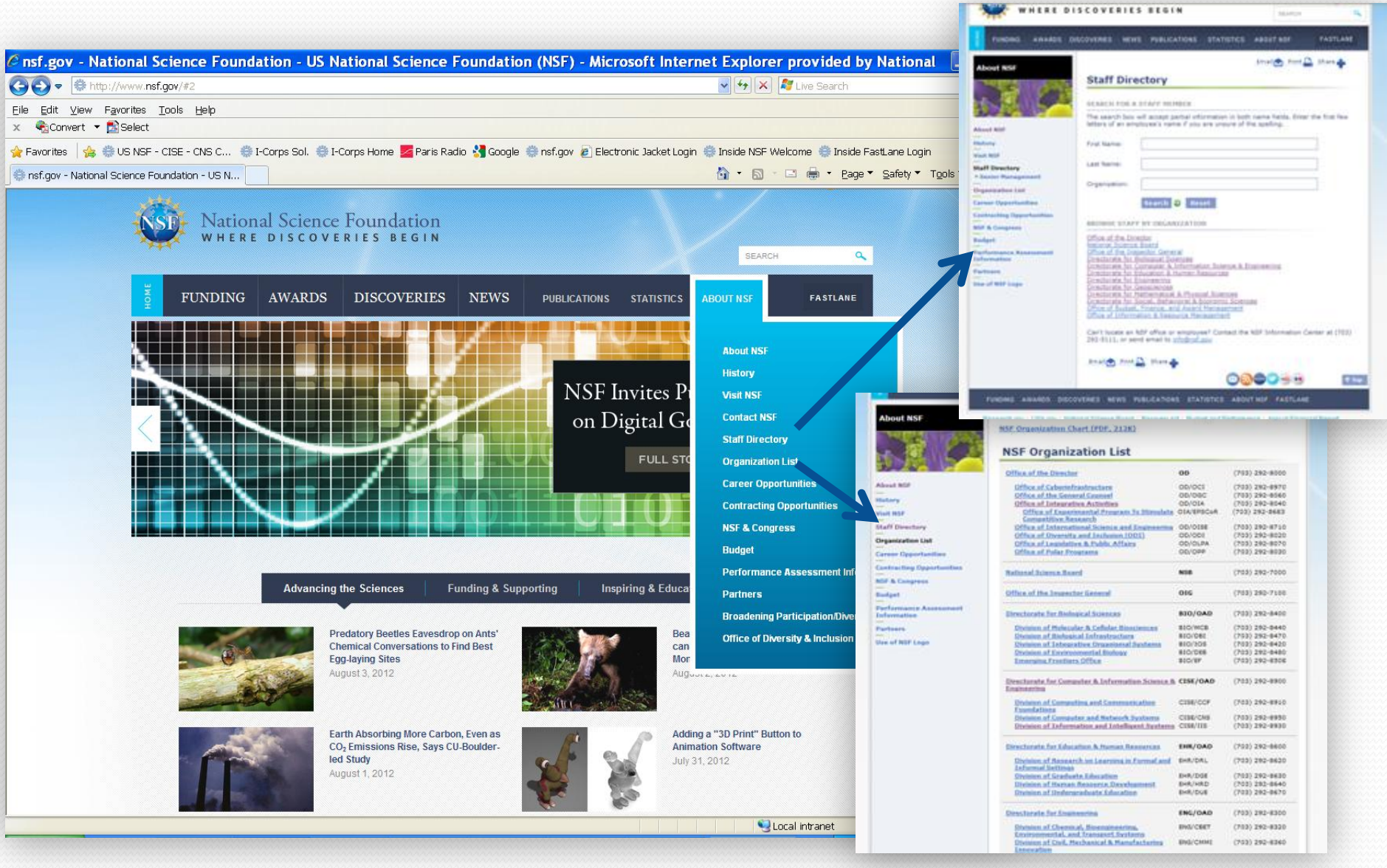
If you know your Directorate, start here.

Navigating the NSF "Maze" -- Find your research/program/division/directorate

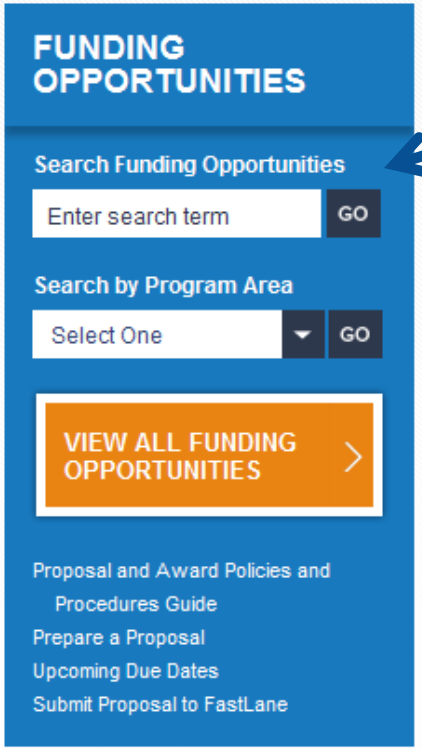


If you want to browse for specific programs, what's new and some cross-cutting activities, start here.

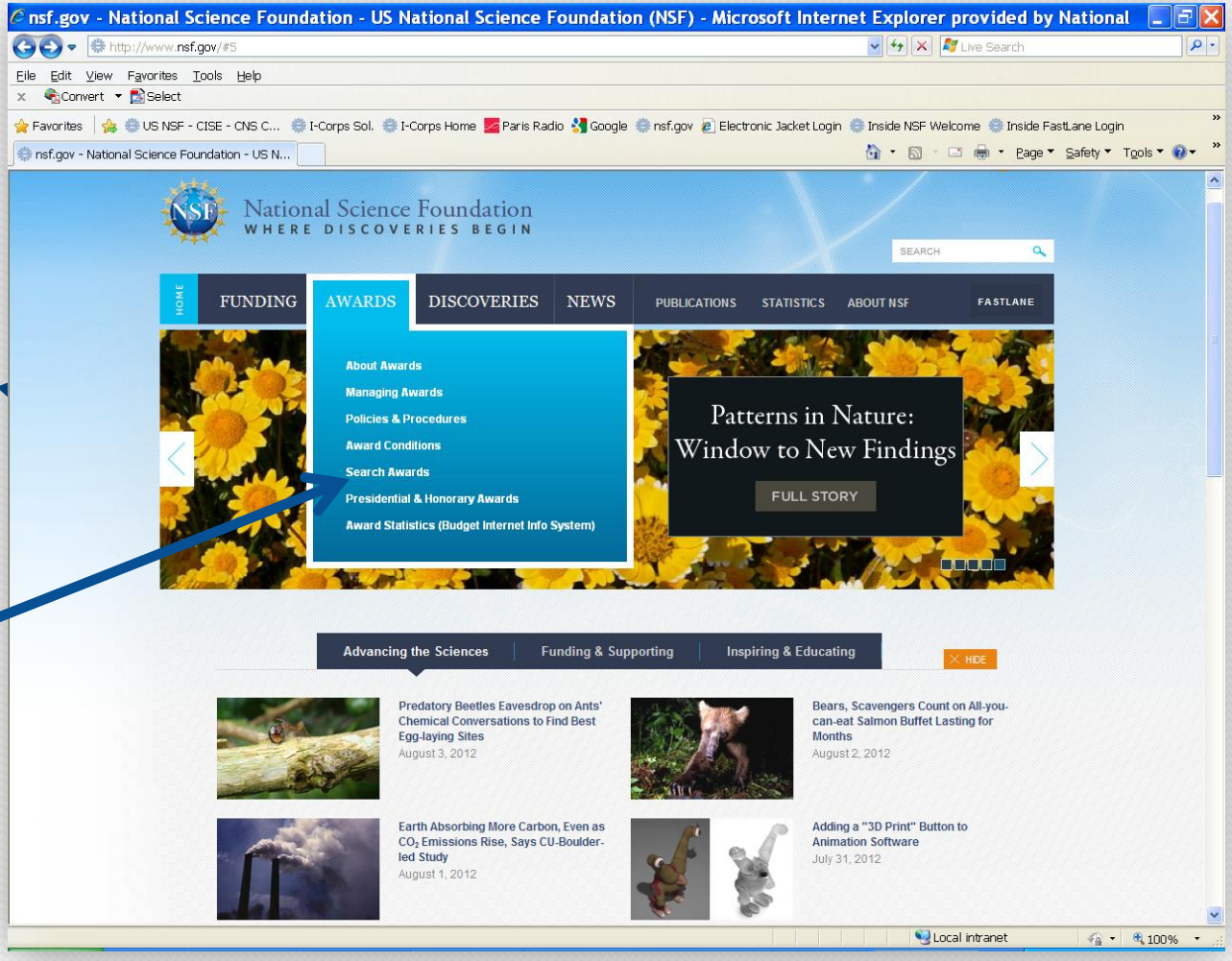
Knowing Who's Who and how that helps you



Finding what we've funded

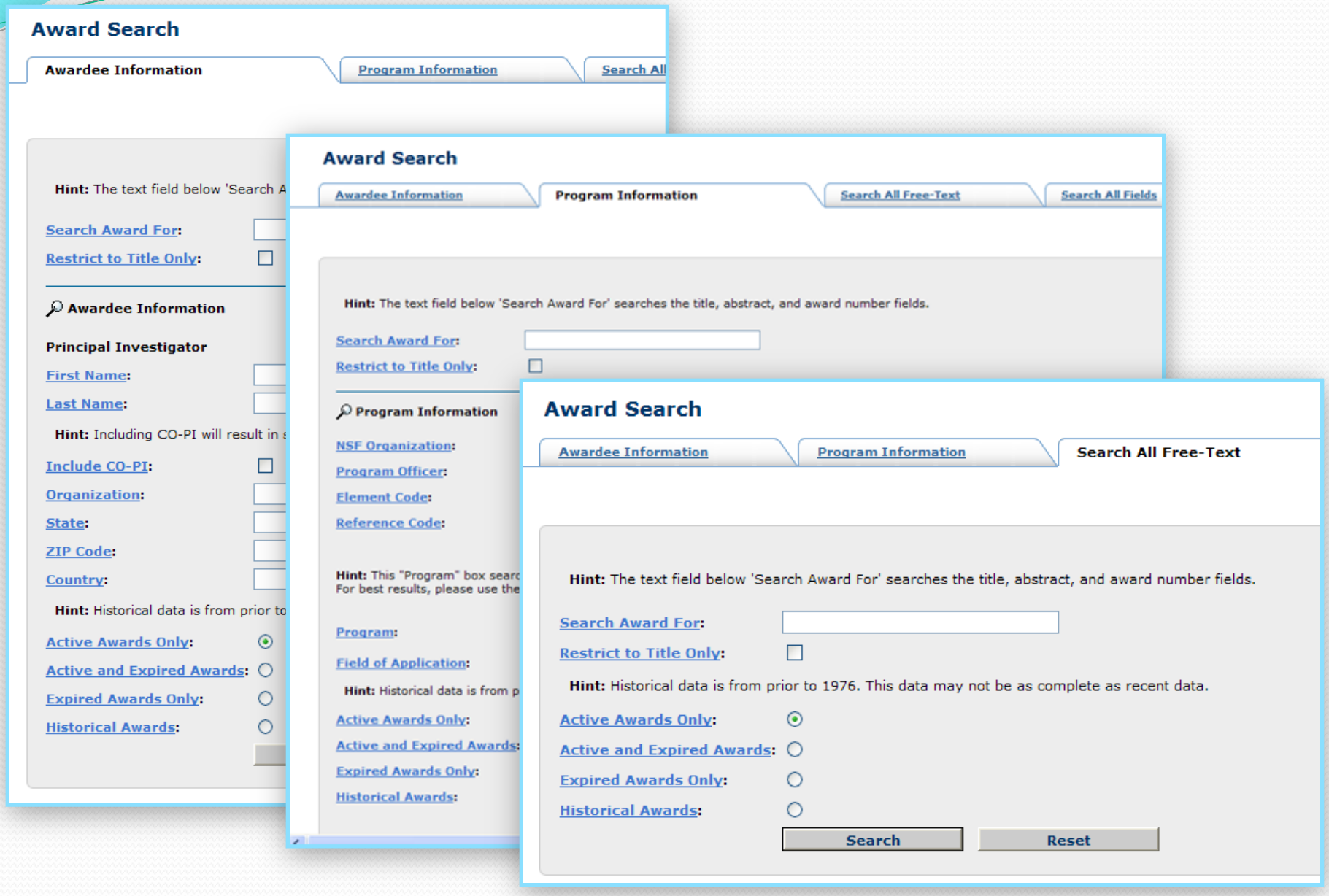


The "quick and dirty" way – on NSF's home page. …



Or, the more detailed way …

Find Relevant Projects, Researchers, Programs, Program Directors



Careful with your query – you may get more than you bargained for …

Search Results

Back

Results are sorted by award date, with the most recent awards at the top. Click on a column heading to re-sort the results.

The up/down arrows at the right of each column title control whether the sort is ascending or descending.

To view the abstract, click on the award number or title. Click on the data in other columns to perform a new search with that parameter.

Refine Search

18 awards found, displaying all awards.

Award Number	Title	NSF Organization	Program(s)	Start Date	Principal Investigator	State	Organization	Awarded Amount to Date
0956924	International Workshop on Connected Multimedia	IIS	ROBUST INTELLIGENCE	09/15/2009	Zhang, Zhongfei	NY	SUNY at Binghamton	$10,250.00
0917072	DC: Small: Semantic Analysis of Large Multimedia Data Sets	IIS	DATA-INTENSIVE COMPUTING	09/01/2009	Hauptmann, Alexander	PA	Carnegie-Mellon University	$450,000.00
0812307	III-COR-Small: Developing Novel Mosaic Generation Methods for Object-Based Multimedia Information Systems	IIS	EXP PROG TO STIM COMP RES, INFO INTEGRATION & INFORMATICS	10/01/2008	Aygun, Ramazan	AL	University of Alabama in Huntsville	$189,441.00
0854606	III-CXT-Small: Collaborative Research: Structuring, Reasoning, and Querying in a Very Large Medical Image Database	IIS	INFO INTEGRATION & INFORMATICS	09/01/2008	Tan, Gang	PA	Lehigh University	$54,464.00
0812601	III-COR-Small: Collaborative Research: Time Series Subsequence Matching for Content-based Access in Very Large Multimedia Databases	IIS	INFO INTEGRATION & INFORMATICS	09/01/2008	Athitsos, Vassilis	TX	University of Texas at Arlington	$241,001.00
0812377	III-COR-Small: Similarity Criteria Issues in Similarity Retrieval	IIS	INFO INTEGRATION & INFORMATICS	09/01/2008	Samet, Hanan	MD	University of Maryland College Park	$449,999.00
0812309	III-COR-Small: Collaborative Research: Time Series Subsequence Matching for Content-based Access in Very Large Multimedia Databases	IIS	INFO INTEGRATION & INFORMATICS	09/01/2008	Kollios, George	MA	Trustees of Boston University	$224,998.00
0812124	III-CXT-Small: Collaborative Research: Structuring, Reasoning, and Querying	IIS	INFO INTEGRATION & INFORMATICS	09/01/2008	Nagy, George	NY	Rensselaer Polytechnic Institute	$115,469.00
0812120	`III-CXT-Small: Collaborative Research: Structuring, Reasoning, and Querying in a Very Large Medical Image Database	IIS	INFO INTEGRATION & INFORMATICS	09/01/2008	Huang, Xiaolei	PA	Lehigh University	$229,519.00
0751185	CRI: CRD: Collaborative Research: Large Analytics Library and Scalable Concept Ontology for Multimedia Research	CNS	ROBUST INTELLIGENCE, COMPUTING RES INFRASTRUCTURE	03/15/2008	Hauptmann, Alexander	PA	Carnegie-Mellon University	$438,000.00
0751078	CRI: CRD: Collaborative Research: Large Analytics Library and Scalable Concept	CNS	COMPUTING RES INFRASTRUCTURE	03/15/2008	Chang, Shih-Fu	NY	Columbia University	$285,000.00

Click on those of interest and you will be able to get lots of details.

Award Abstract #0917072

DC: Small: Semantic Analysis of Large Multimedia Data Sets

NSF Org:	IIS Division of Information & Intelligent Systems
Initial Amendment Date:	September 4, 2009
Latest Amendment Date:	September 4, 2009
Award Number:	0917072
Award Instrument:	Standard Grant
Program Manager:	Frank Olken IIS Division of Information & Intelligent Systems CSE Directorate for Computer & Information Science & Engineering
Start Date:	September 1, 2009
Expires:	August 31, 2012 (Estimated)
Awarded Amount to Date:	$450000
Investigator(s):	Alexander Hauptmann alex@cs.cmu.edu (Principal Investigator)
Sponsor:	Carnegie-Mellon University 5000 Forbes Avenue PITTSBURGH, PA 15213 412/268-8746
NSF Program(s):	DATA-INTENSIVE COMPUTING
Field Application(s):	
Program Reference Code(s):	HPCC, 9216, 7923, 7793
Program Element Code(s):	7793

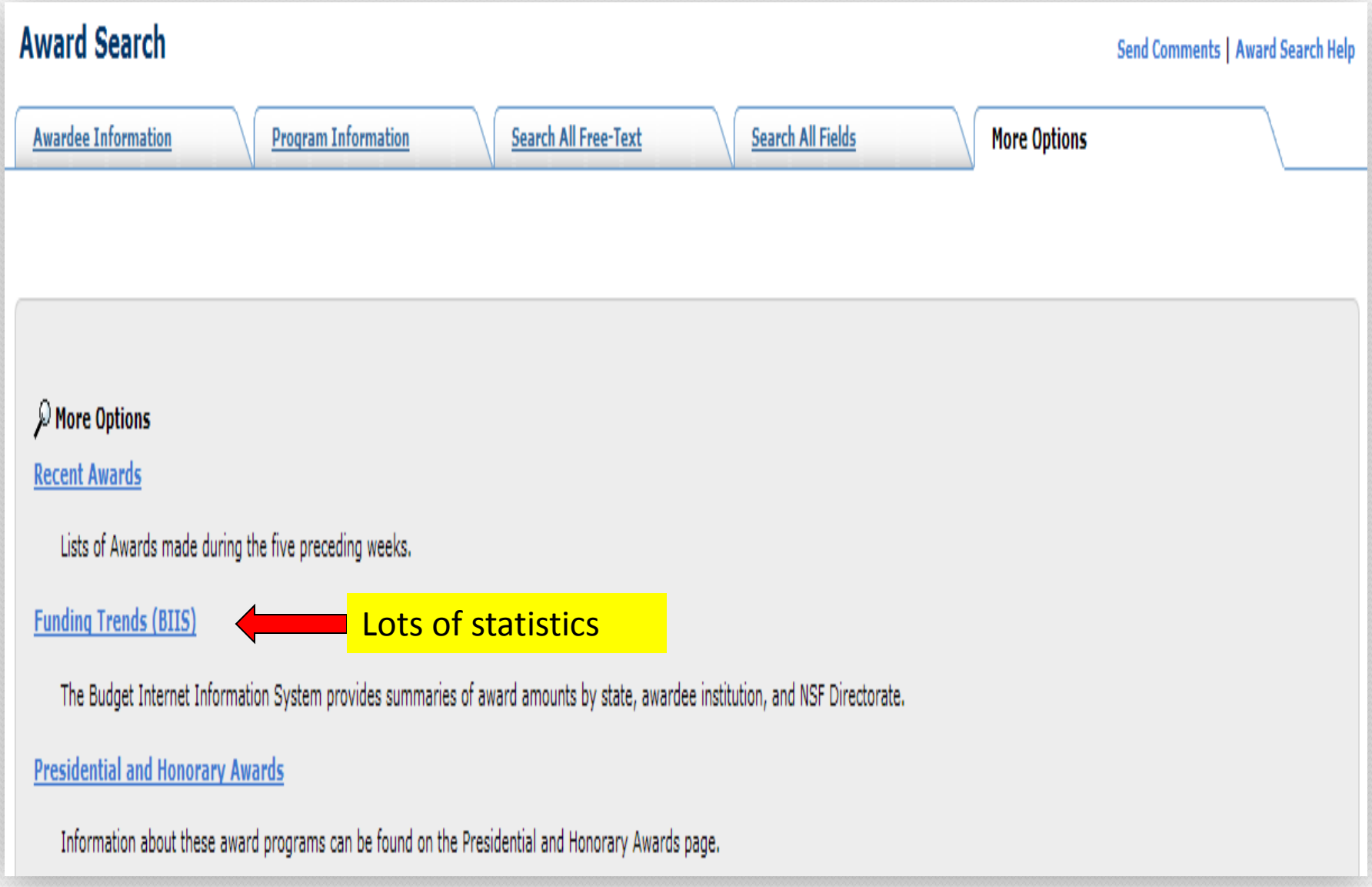
ABSTRACT

This research addresses interactivity and scalability in automatically analyzing large collections of video and multiple video streams processed continuously. This work is developing mechanisms to enable real-time interactive video search for user defined concepts using intelligent, active processing clusters and methods for performing high-accuracy semantic video analysis from large amounts of weakly-labeled video over distributed computing resources. The methods leverage modern cluster file systems where data is stored on the local disks of the compute servers, and the location of data is made available to the runtime system to allow co-location of compution and storage.

The specific research objectives are to allow co-location of compute and storage through a runtime for parallel stream processing that parallelizes data processing and machine learning tasks across a cluster of multi-core compute nodes. The project also extends distributed versions of graphic model algorithms to speed computation of both the basic low-level signal processing steps and for the semantic analysis based on weakly labeled video data as currently available on the web. The main outcome is to demonstrate vastly accelerated, complete processing of parallel live video streams into a retrieval database with immediate search capabilities and accessing cluster resources during interactive search. The goal of this work is to develop principles for interactive applications driven by real-time processing of high-rate streaming data. The processing architecture and modules developed in this work will enable computer vision and multimedia developers to efficiently apply and test their own methods within this framework.

Publications resulting from this research will appear here – a great information source!

And, there are other categories of information you can query.



NSF Funding Rate Statistics:

Award Search

=> More Options

=> Funding Trends

For Example: Summary Proposal and Award Information (Funding Rate) by State and Organization

Advice:

Don't spend time on trying to analyze the numbers

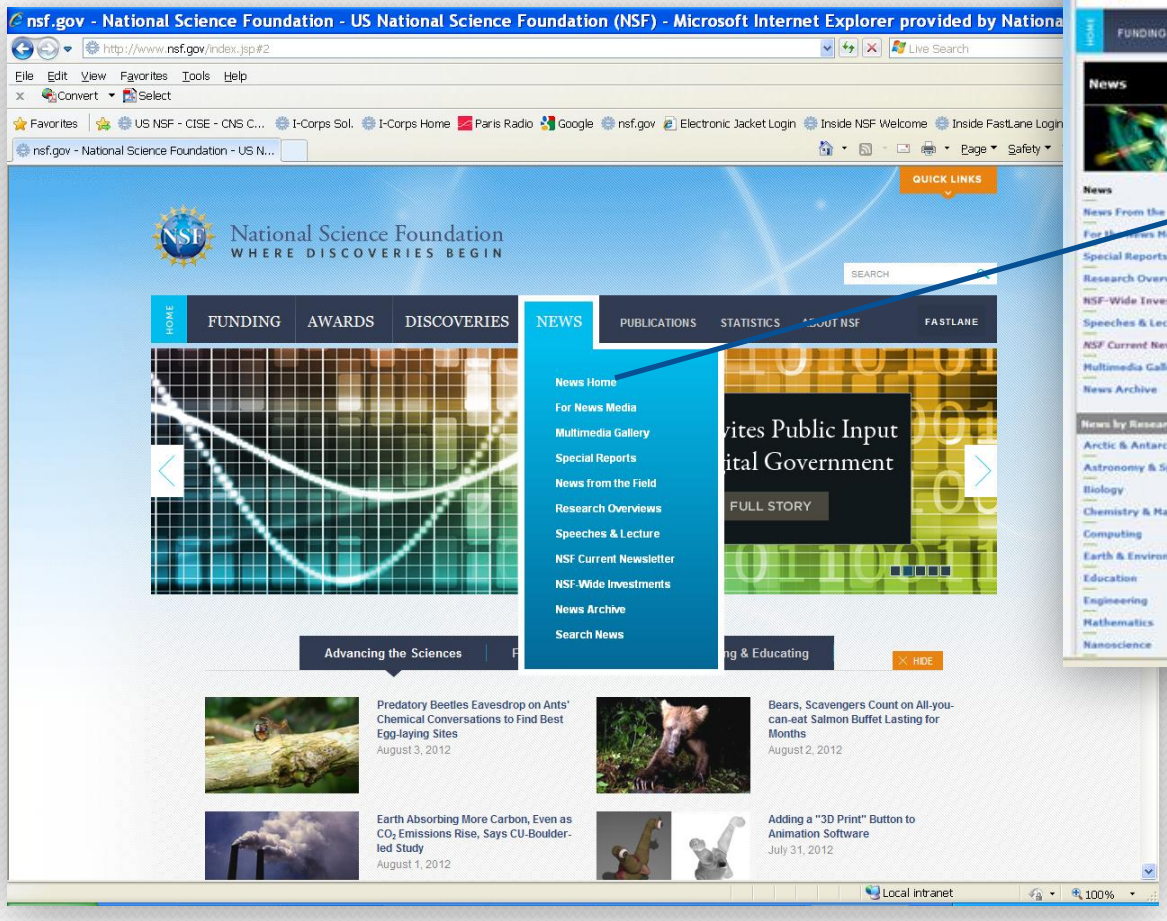
Don't dwell on the numbers

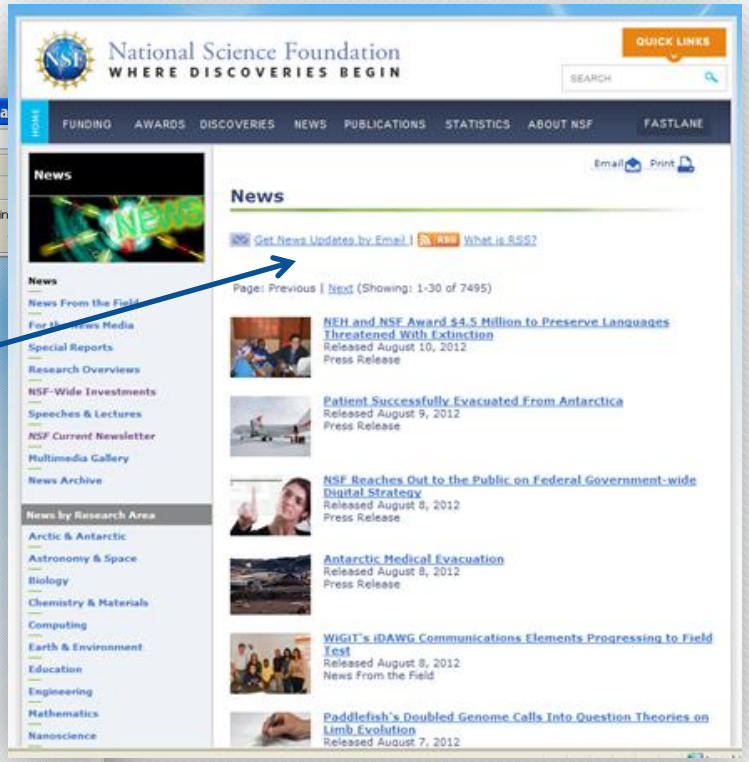
Don't blame the numbers

Best "game plan": submit an excellent proposal addressing program's goals

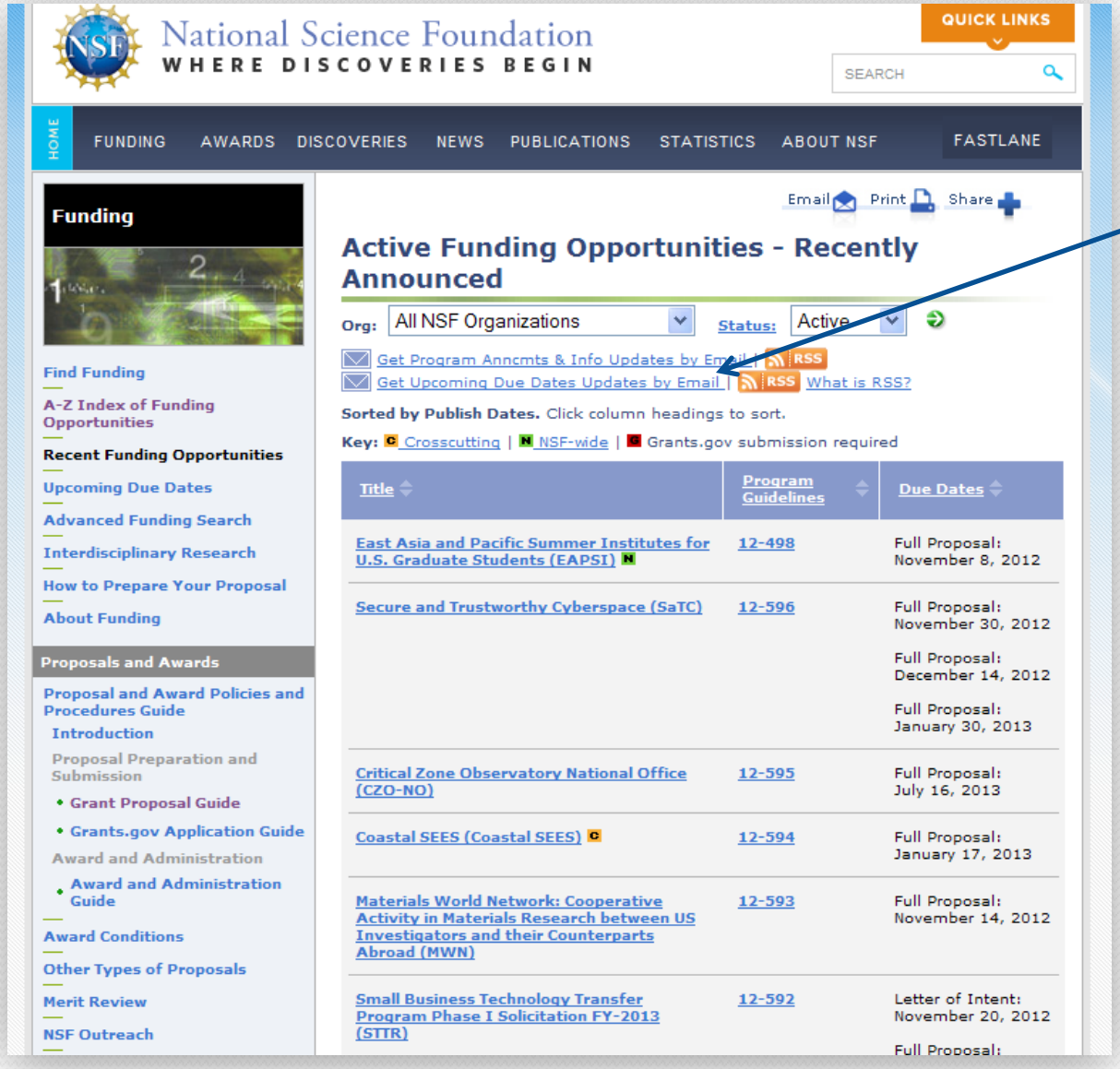
FY 2009 CISE Funding Rate for Research Grants

Keeping up with what's new -- Subscribe to NSF's mailing list





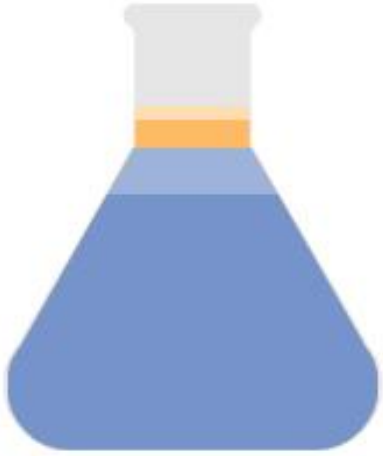
What's actually new



Speaking of Funding – of NSF's roughly $ 7 B Budget in 2011

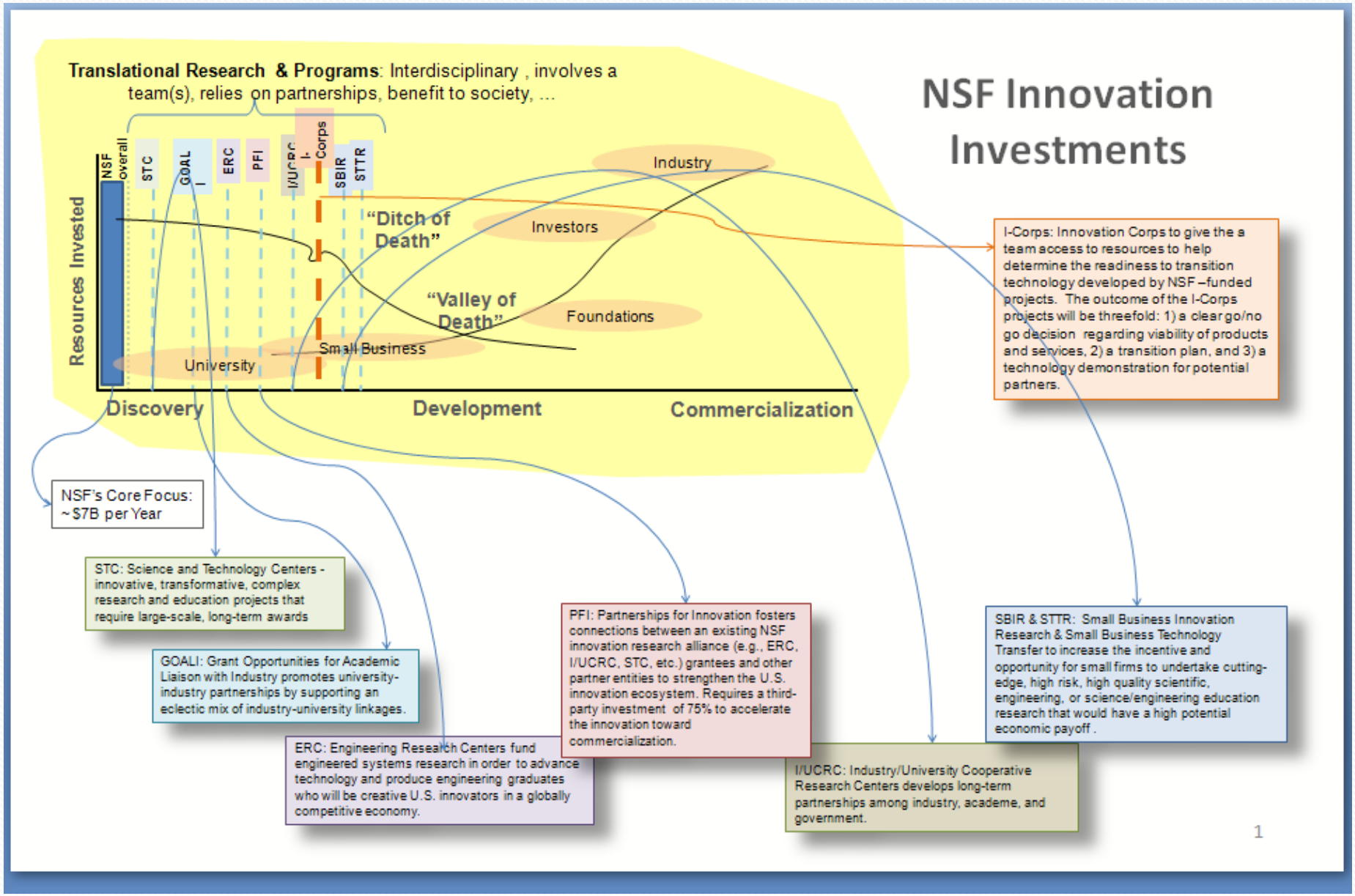
HOW IT'S SPENT

FY 2011 Net Cost



- 2% — COSTS NOT ASSIGNED TO OTHER PROGRAMS — $156 million
- 4% — MAJOR RESEARCH EQUIPMENT AND FACILITIES CONSTRUCTION — $262 million
- 12% — EDUCATION AND HUMAN RESOURCES — $828 million
- 82% — RESEARCH AND RELATED ACTIVITIES — $5,894 million

A few words about Innovation funding .. more to follow at break-out sessions



The “bottom line” – achieving funding is more complicated than just responding to an NSF Solicitation

- Keep informed about what is going on at NSF and National priorities.
- Of course, send your best ideas to NSF: BUT -- consistent with program focus and goals – read those solicitations carefully
- Collaborate – the world is becoming intra-, inter-, trans, -multi-disciplinary … this is reflected in many NSF new foci
- Get to know your Program Director(s)
- Volunteer to be a reviewer and panelist
- Call our attention to things that need improvement
- Think about transition strategies from basic research to prototyping and production
- Participate in NSF-funded events, workshops, etc.
- Organize research directions planning workshops
- Mentor your new faculty – send them to NSF (Arlington, VA) to speak with PDs
- Plan to serve as a program officer (“rotator”) or division director

Questions?