

Results of the 2012 Faculty Workload Survey (FWS)

Sandra L. Schneider, Ph.D.

FDP Vice Chair; FWS PI and Task Force Chair

University of South Florida

Presented to the Federal Demonstration Partnership January 29, 2013

- Randy Brutkiewicz, **Indiana University**
- Laura Lang, Florida State University
- Kiri Ness, St. Jude Research Hospital
- Sara Rockwell, Yale University
- Sandra Schneider (Chair), University of South Florida
- Kelly Shaver, College of Charleston
- Jennifer Wisdom, George Washington University

(During 2011/12: Joshua Rosenbloom, University of Kansas [now NSF])

FWS II Task Force FWS II Research Team

Principal Investigator:

Sandra Schneider (USF), FDP Vice Chair

Project Manager:

David Wright, **FDP Executive Director**

Data Collection support:

Survey Sciences Group, LLC

Scott Crawford, **SSG Executive Director** Brian Hempton, SSG Study Director

Research Assistant:

Nate Decker, Univ. of South Florida (now Sentient, Inc.) Andrea Ranieri, Chris Strait Univ. of South Florida

2012 FWS Purpose / Goal Refresher

Purposes:

- Assess
 - changes in burdens since FWS1 in 2005
 - new burdens (e.g., ARRA)
- Obtain more detailed information about specific burdens (e.g., IRB, IACUC)

Goals:

- To increase the likelihood of efficient and effective demonstration projects
- Provide information to FDP and federal agencies to facilitate targeted reduction of administrative burden

Questionnaire Content Overview

Q1-Q4 Basic Work Background

Q5-Q6 Breakdown of Work Time

Q7-Q9 Federally-funded Research Overview

Q10-13 Administrative Workload on

Federally-funded Projects

Q14-16 Demographic Information

Q17 Perspectives on Funded Research and

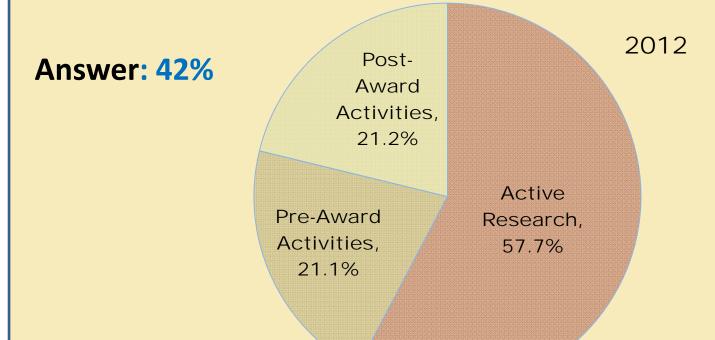
Administrative Workload

2012 Faculty Workload Survey (FWS)

- Jan 23 Mar 22, 2012: Survey Open and Close
- Participants: Pls on Federal Grants/Contracts during 2010-2011 academic year.
- 99 of the 119 (83%) FDP non-federal member organizations participated
- 13453+ respondents (26%)/12816 with complete data

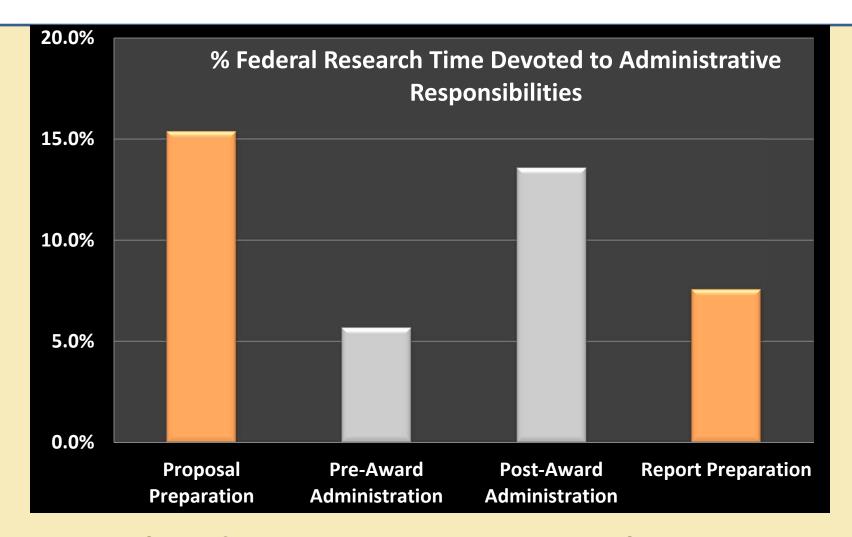
Question: On average, what percentage of a PI's time working on federally-funded projects is spent on administrative responsibilities rather than active research?

Question: On average, what percentage of a PI's time on federally-funded projects is spent on administrative responsibilities rather than active research?



Just as we found in 2005, researchers still spend less than 60% of their research time actually engaged in research. 42% of their federal research time is spent completing administrative requirements.

Question: On average, which types of administrative responsibilities are taking away the most time from active research?



Proposal and Report Preparation takes up almost one quarter of the average Pl's federal research time.

Question: What are the administrative issues that are most burdensome about proposal preparation?

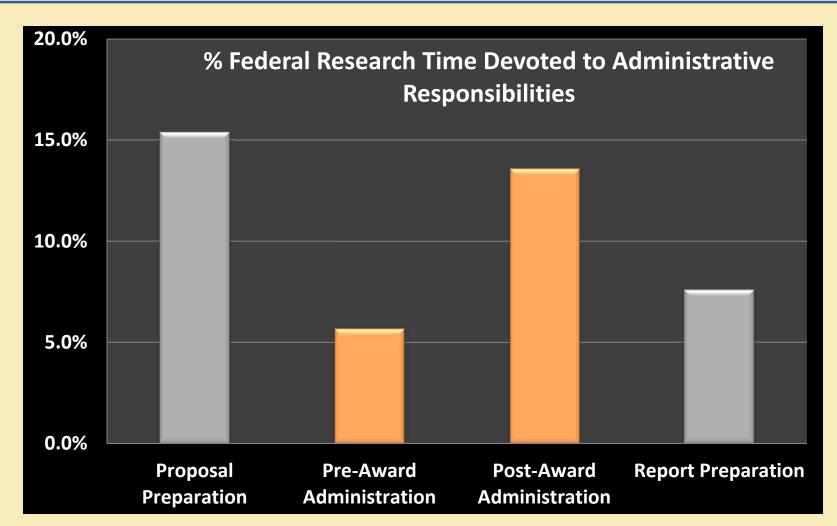
Over 400 comments identifying proposal preparation as the single most frustrating administrative responsibility:

- Constantly changing requirements, formats and content
- Wasted time filling out numerous documents when the vast majority of proposals will not be funded
- Detailed budgets despite low likelihood of funding
- Different requirements from different agencies; different forms (CVs, budgets, etc.)
- Increasing requirements with decreasing funding rates
- Emphasis within proposal on procedure and data that are not directly relevant to the research

Question: What are the administrative issues that are most burdensome about report preparation?

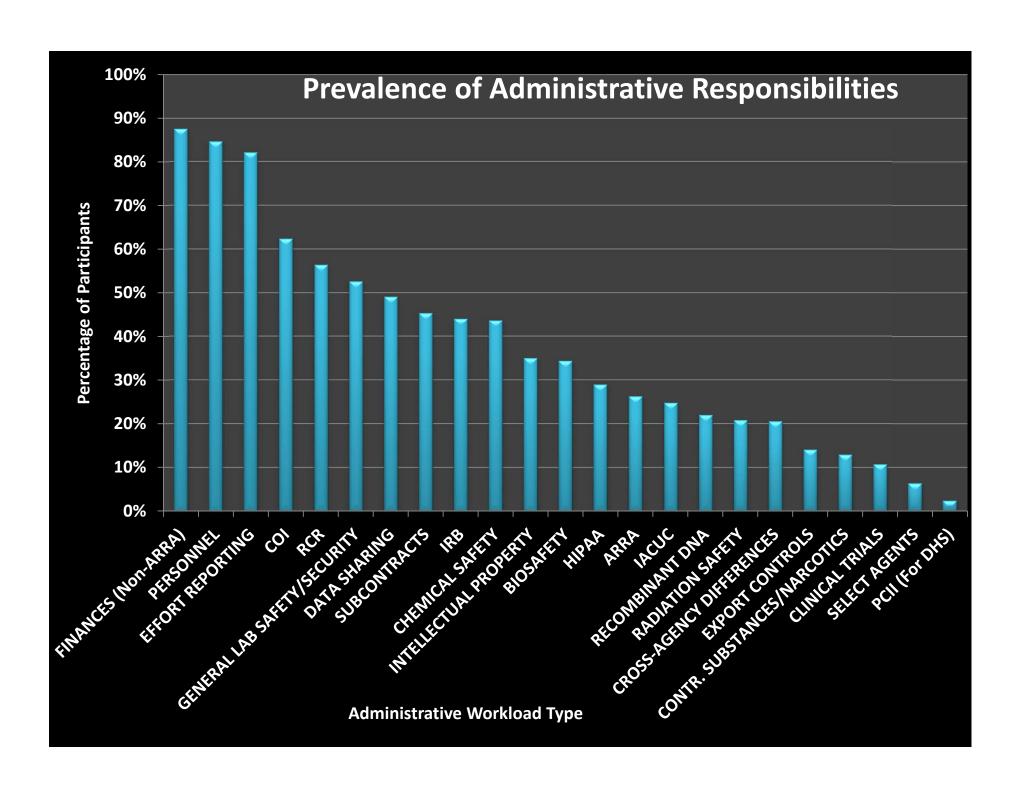
Over 600 comments identifying report preparation as the single most frustrating administrative responsibility:

- Constantly changing requirements, formats, and content
- Routine, redundant, detailed interim reports that no one reads
- Different requirements from different agencies; complex forms
- Requirements are too frequent and overly detailed; tedious
- Ambiguities in requirements; poor fit of forms to actual research
- Online submission is "user unfriendly"

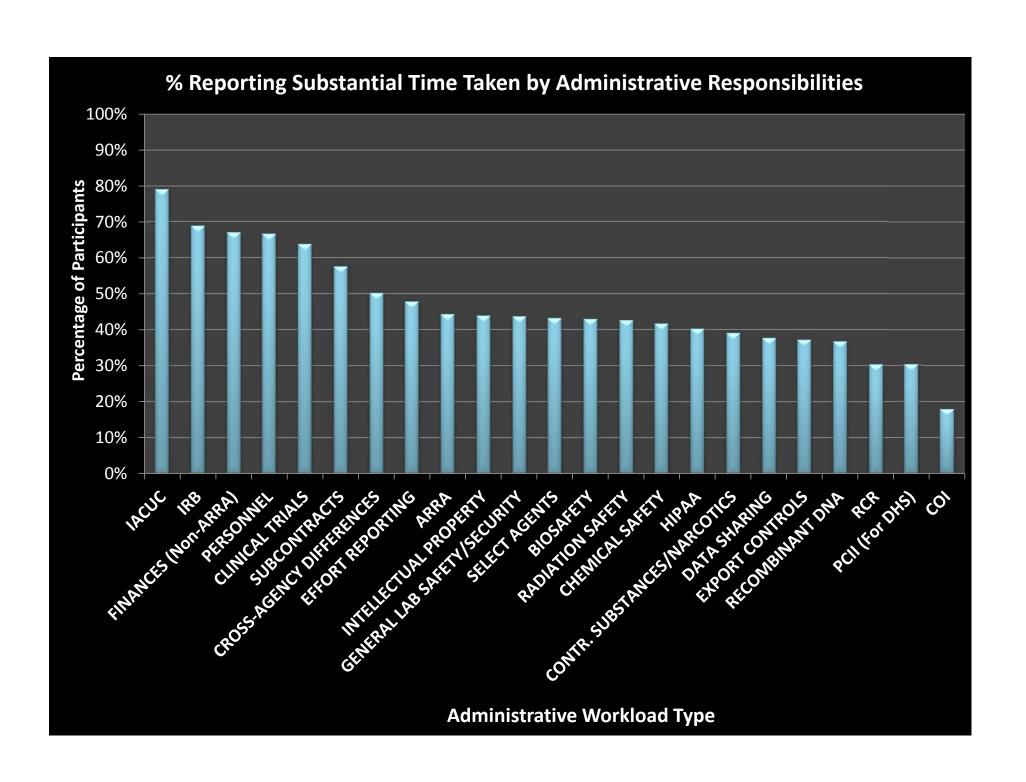


Pre-Award and Post-Award Administration takes up almost one fifth of the average Pl's federal research time.

Question: What are the most common preaward and post-award administrative responsibilities?



Question: What are the most intensive pre-award and post-award administrative responsibilities?



Question: Which specific aspects of the most prevalent administrative responsibilities take away the most research time?

Over 80% of PIs report having time taken away from research in order to deal with <u>Finances</u>, <u>Personnel</u> and <u>Effort Reporting</u>.

2012 Burden Drill-Down (Initial N=12816)	Mean
FINANCESNon-ARRA (N=7531)	1=None – 5=Very much
Managing budget-to-actual expenses	3.09
Dealing with equipment and supplies purchases	2.89
Determining and justifying which tasks and related costs are allowable as direct charges	2.34
Meeting other fed. cost accounting standards (incl. budget transfers, spending	2.09
Completing training regarding budgets/expenditures on federal projects	1.74
Requesting meeting and tracking federally-mandated cost-share requirements	1.71
PERSONNEL (N=7240)	
Managing personnel	3.55
Hiring personnel	2.99
Evaluating personnel	2.95
Dealing with issues related to visas	1.89
EFFORT REPORTING (N=5041)	
Completing federal time and effort reports for myself	2.66
Completing federal time and effort reports for others	2.37
Completing training regarding time and effort reporting on federal projects	2.08

Question: Which specific aspects of the most intense administrative responsibilities take away the most research time?

• Although not as prevalent, almost 80% of those who have <u>IACUC</u> responsibilities report that it takes substantial time away from research.

2012 Burden Drill-Down (continued)	Mean	
IACUC (N=2513)	1=None – 5=Very m	uch
Preparing IACUC protocols for initial review		3.62
Completing annual IACUC reviews and three-year re-writes of protocols		3.38
Completing protocol revisions requested by reviewers		3.29
Fulfilling federal requirements for training in animal care and use		2.75
Satisfying federal requirements for funded projects (e.g. tracking animal numbers)		2.63
Maintaining veterinary medical records		2.25

Over 50% of those who experience the responsibilities report that <u>IRB</u>, <u>Finances</u>, <u>Personnel</u>, <u>Clinical Trials</u>, and <u>Subcontracts</u> require substantial time away from research.

2012 Burden Drill-Down (continued)	Mean
IRB (N=3897)	1=None – 5=Very much
Preparing IRB protocols and consent forms for initial review	3.5
Completing protocol revisions requested by reviewers	3.0
Waiting for feedback from review	3.0
Completing annual continuing review of protocols	2.9
Ensuring that study procedures meet protocols	2.8
Fulfilling federal requirements for training in human subjects protections	2.6
CLINICAL TRIALS (N=880)	
Posting and updating trial progress to meet federal requirements	2.5
Completing training regarding federal requirements for clinical trials	2.3
Posting and updating trial results to meet federal requirements	2.3
SUBCONTRACTS (N=3354)	
Overseeing progress toward project goals and deadlines	3.3
Overseeing budgets, expenditures, invoices and other financial matters	3.2
Overseeing compliance and safety/security issues	2.0
Dealing with management issues specific to international subcontracts	1.7

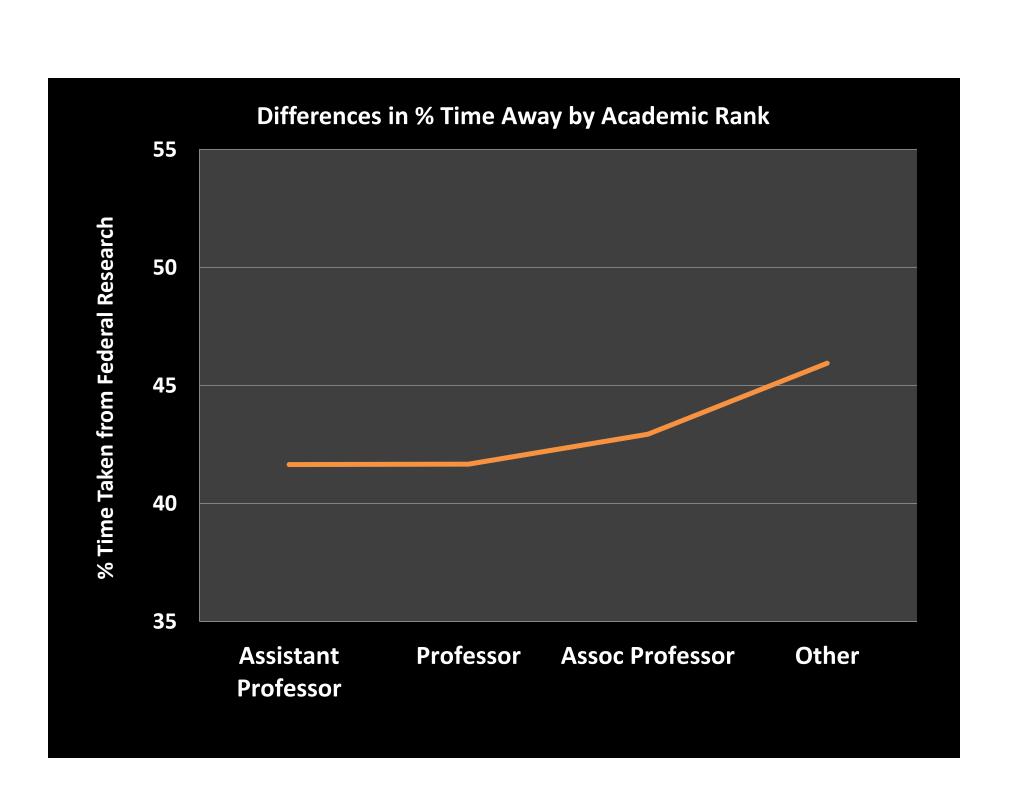
Question: What factors are associated with higher and lower levels of administrative responsibilities?

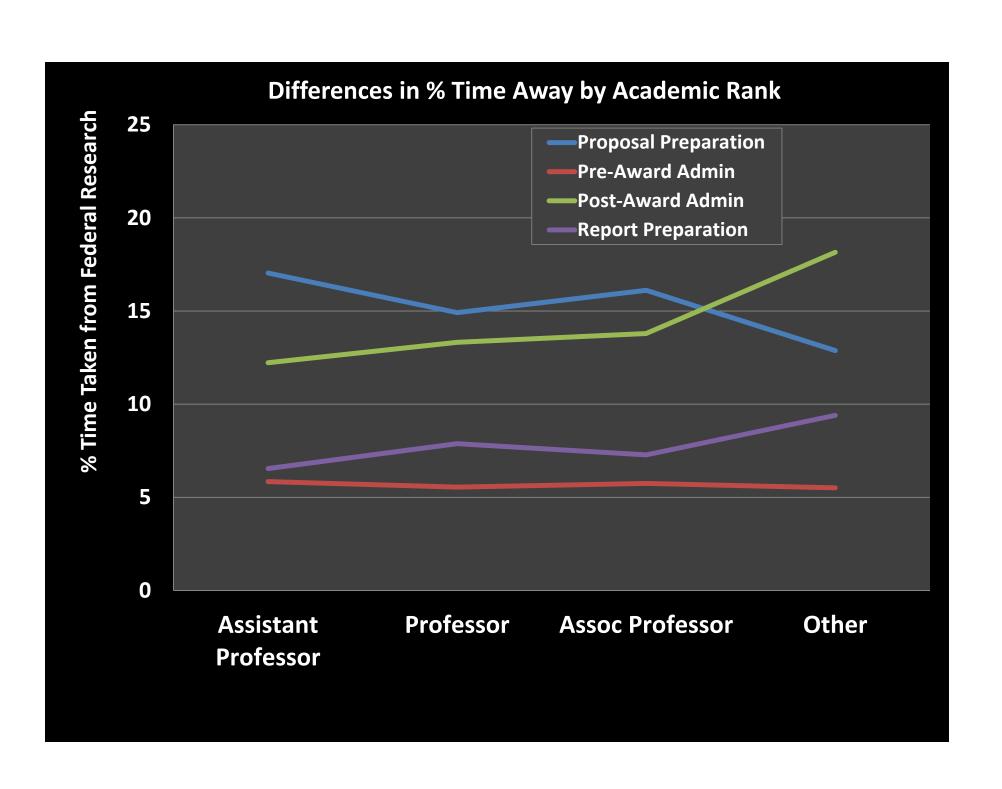
Consider:

- Academic Rank
- Administrative Role
- Type of Project
- Amount of Funding
- Principal Field of Research
- Funding Agency
- Demographics

FWS Breakdown of Participants by Rank

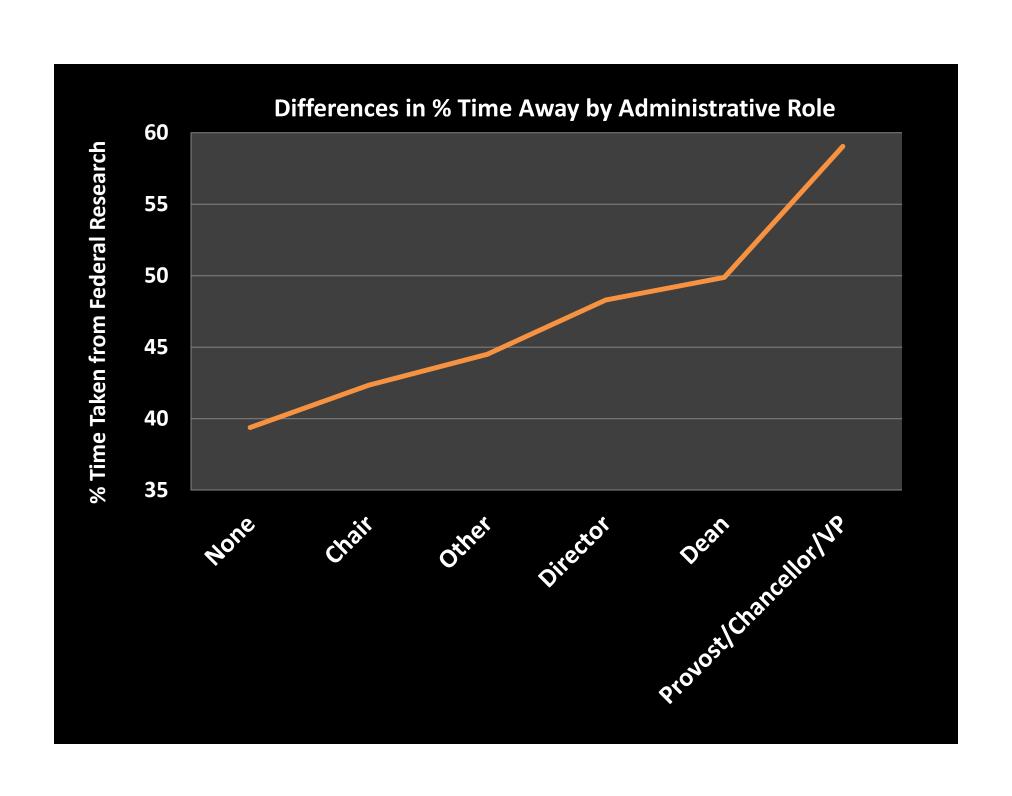
Academic Rank	
Professor	49%
Assoc Professor	23%
Assistant Professor	19%
Other	8%

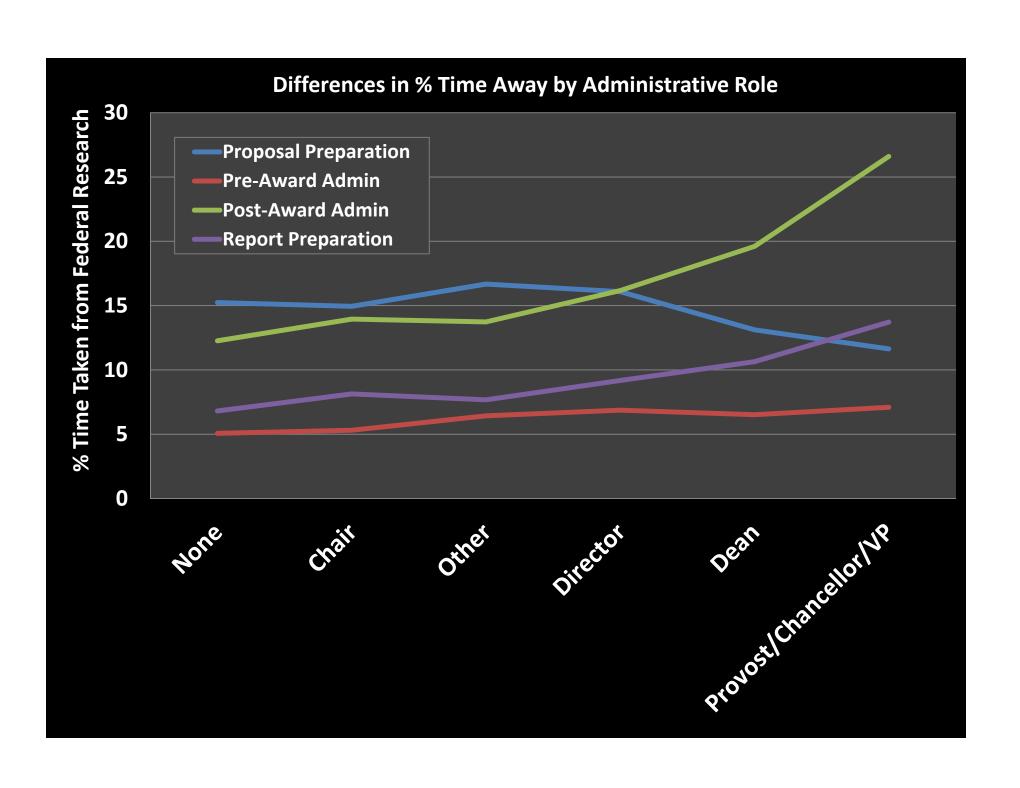




FWS Breakdown of Participants by Admin. Role

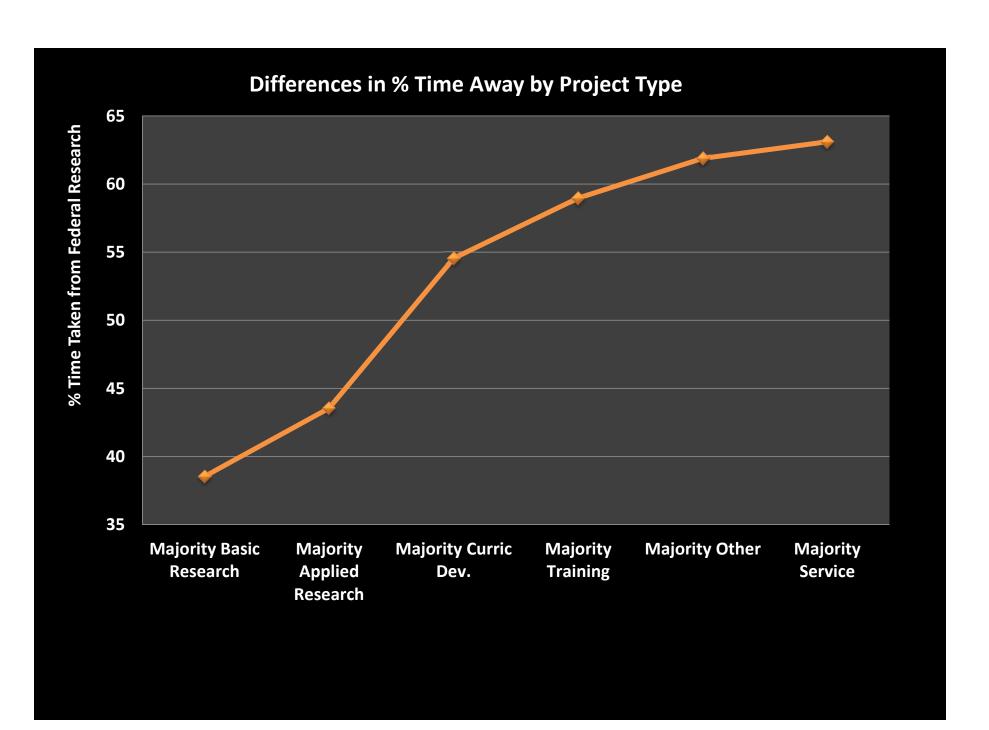
Administrative Roles	
Provost/Chancellor/VP	1%
Dean	2%
Chair	7%
Director	17%
Other	10%
More than 1	3%
None	59 <mark>%</mark>

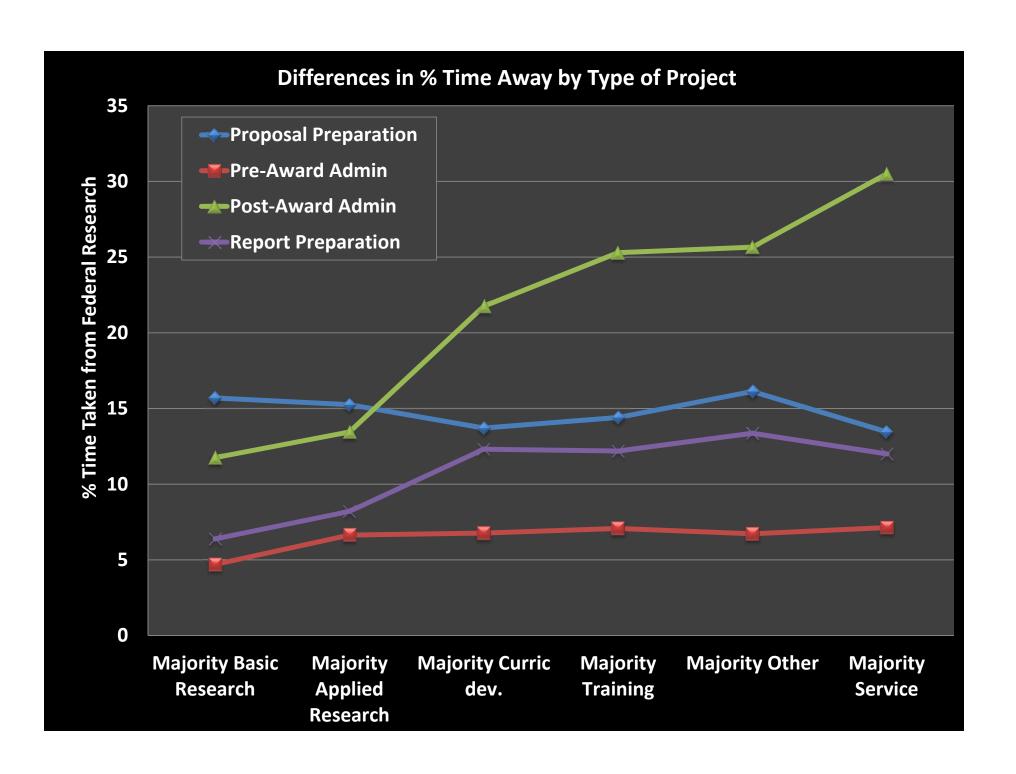




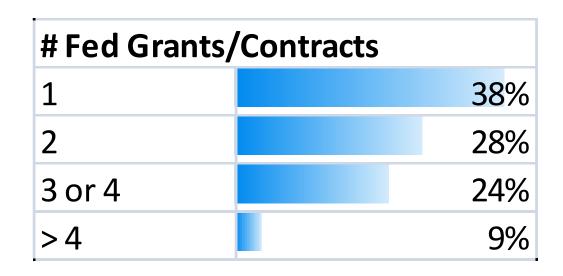
FWS Breakdown of Participants by Project Type

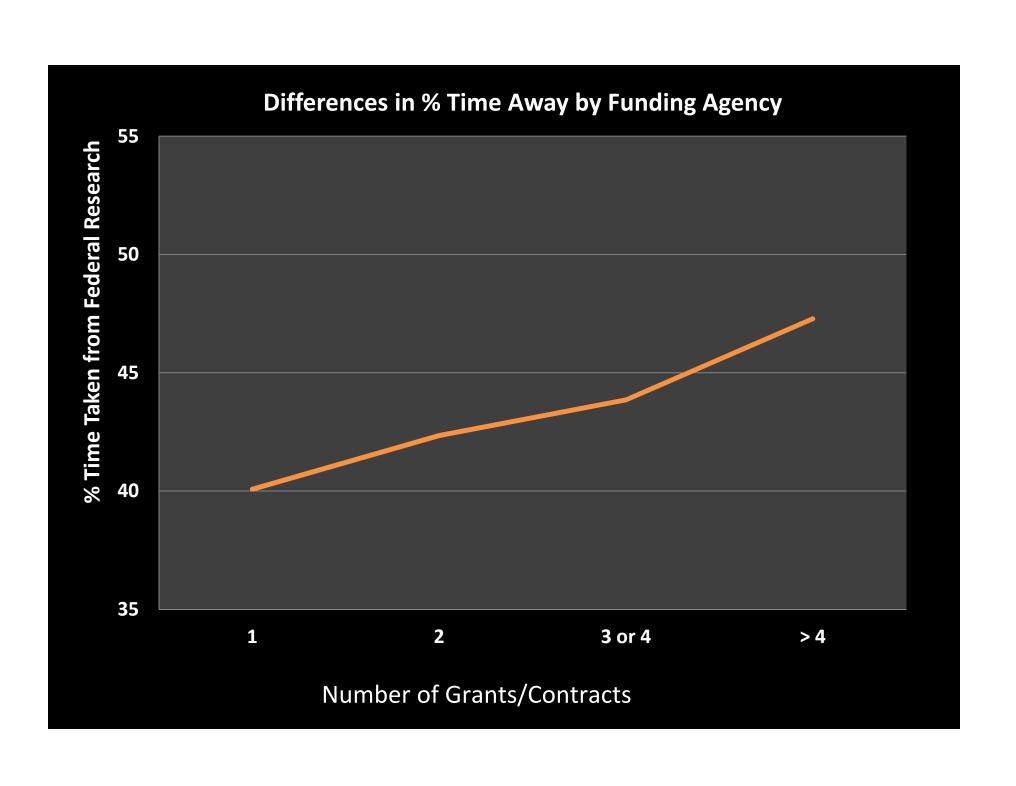
Focus of Grants	
Majority Basic Research	53%
Majority Applied Research	38%
Majority Training	4%
Majority Service	2%
Majority Curric Dev.	2%
Majority Other	2%



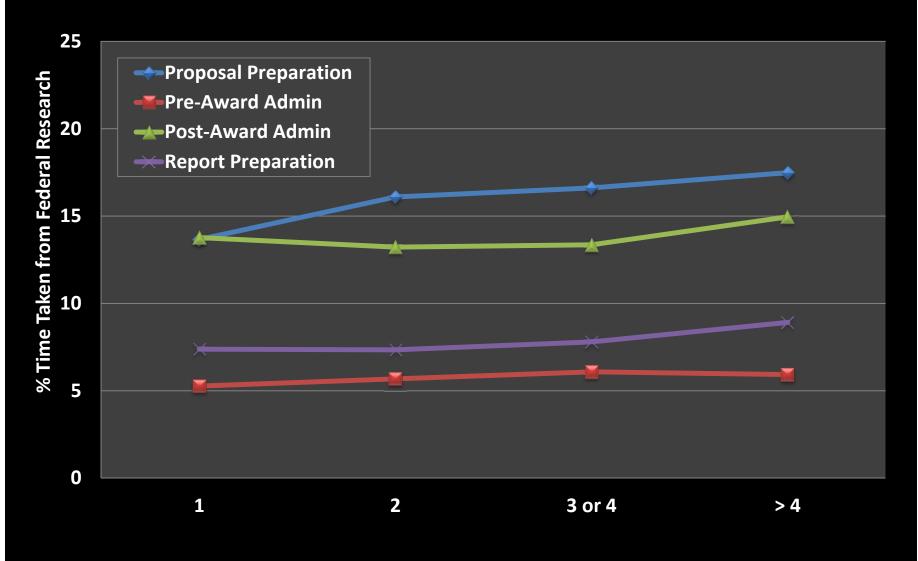


FWS Breakdown of Participants by Number of Grants/Contracts





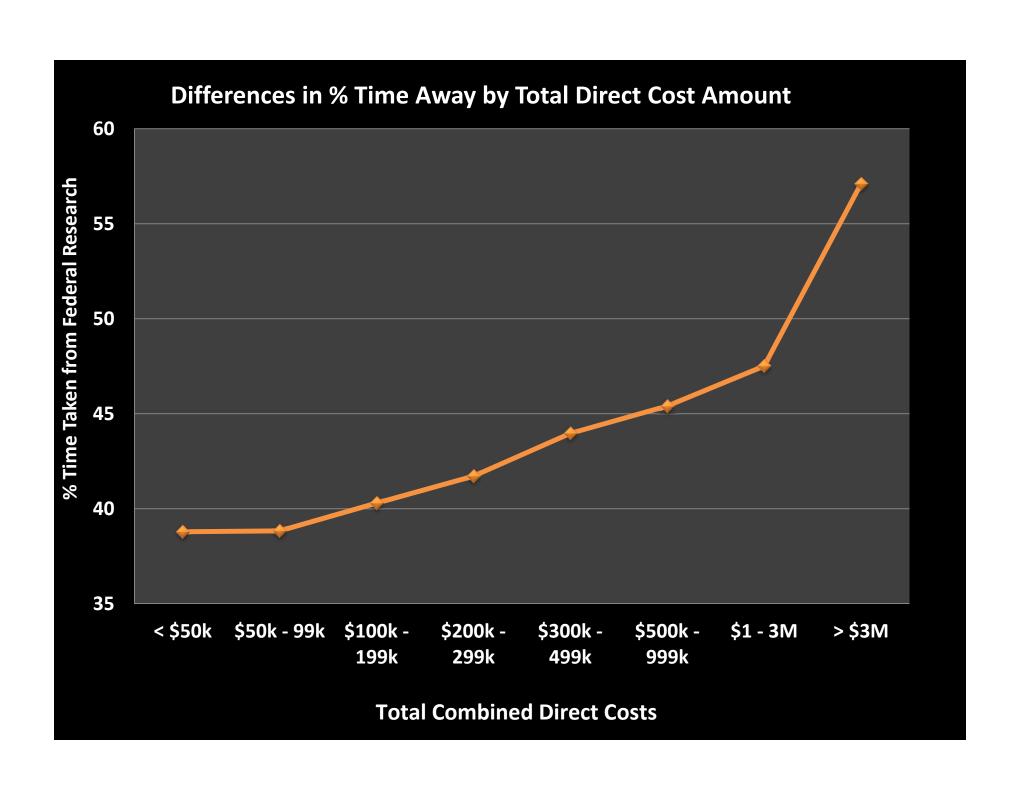
Differences in % Time Away by Funding Agency

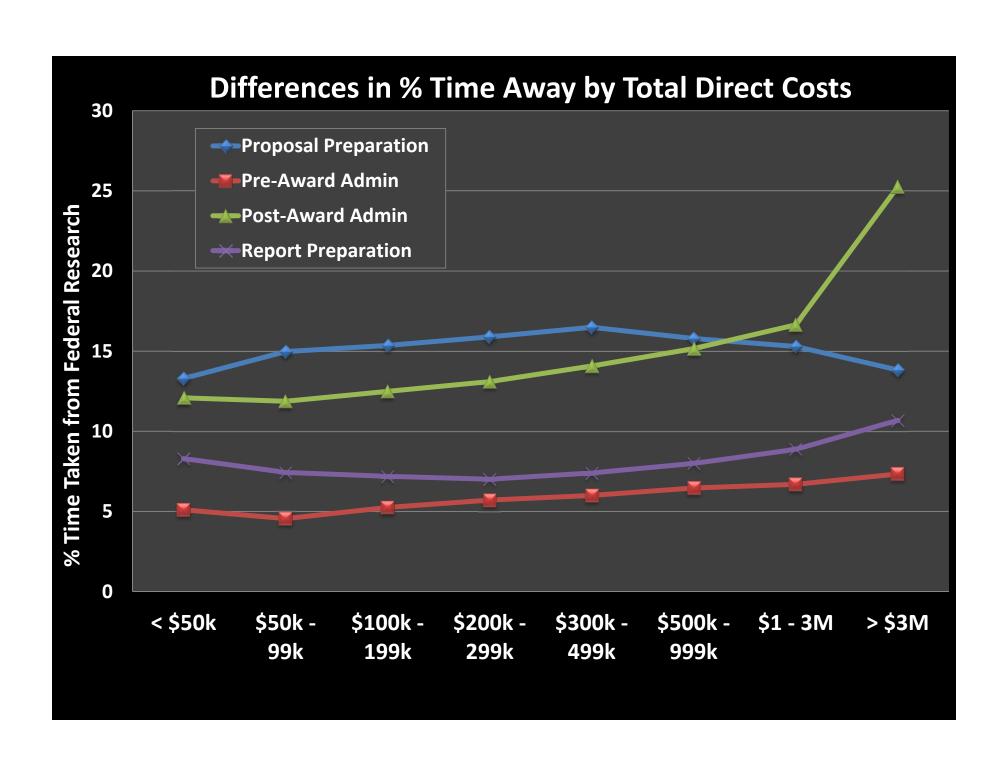


Number of Grants/Contracts

FWS Breakdown of Participants by Total Combined Annual Direct Costs

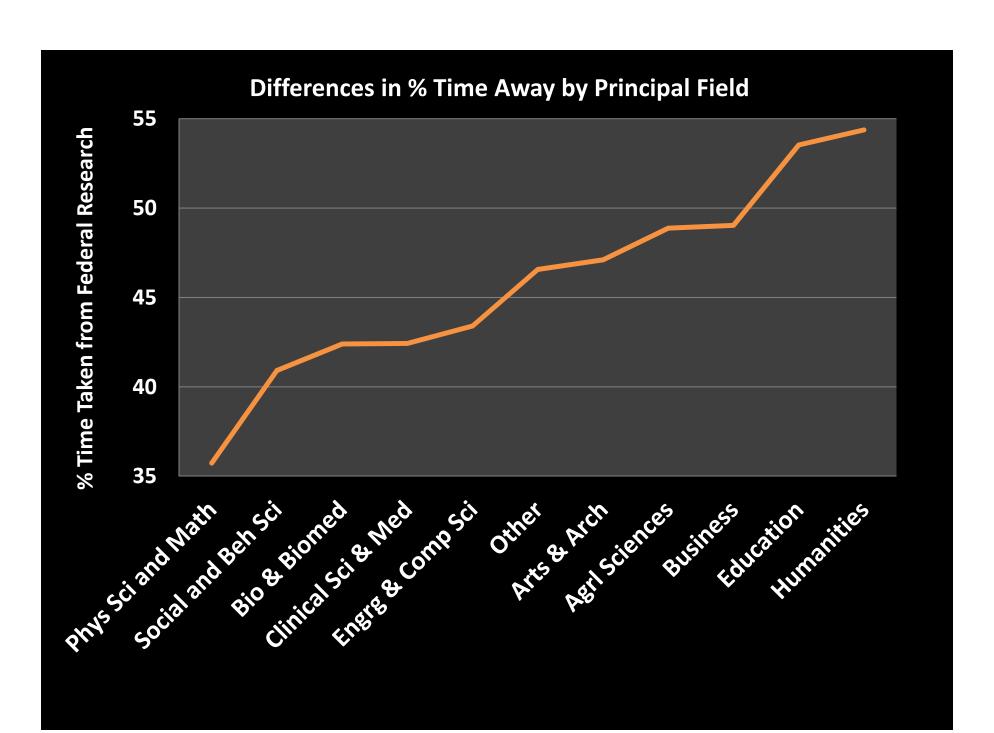
Total Combined Direct Costs		
< 50,000	9%	
50k - 99,999	13%	
100k - 199k	22%	
200k - 299k	17%	
300k - 499k	17%	
500k - 999k	14%	
1m - 3m	7%	
> 3m	2%	

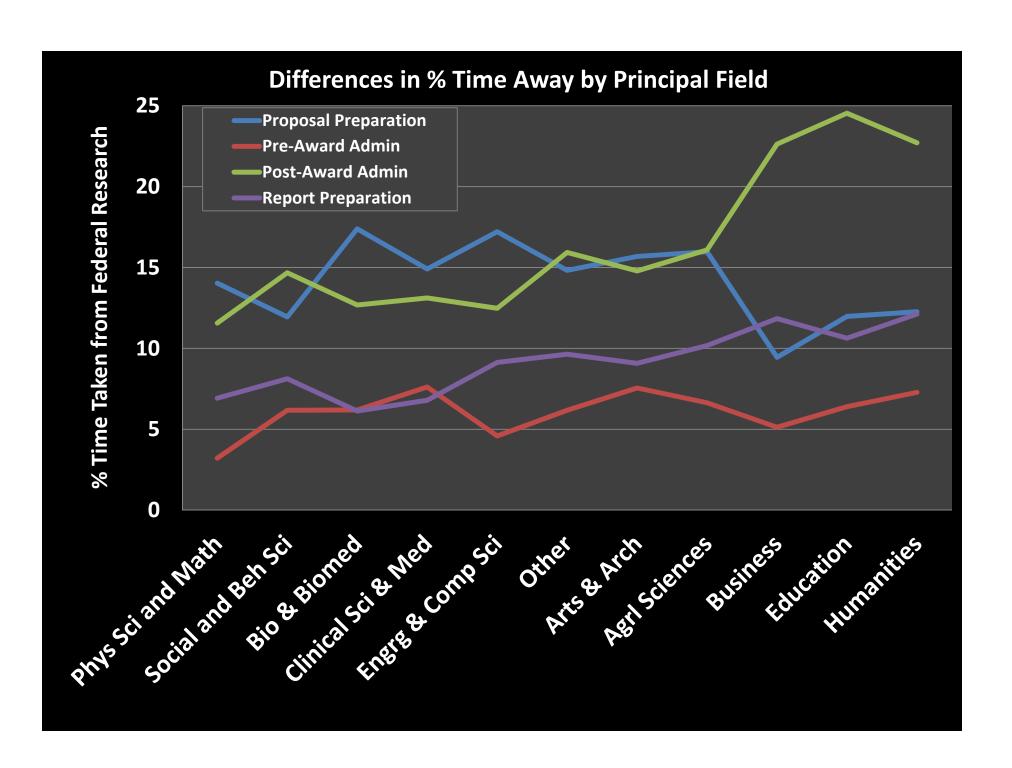




FWS Breakdown of Participants by Principal Field

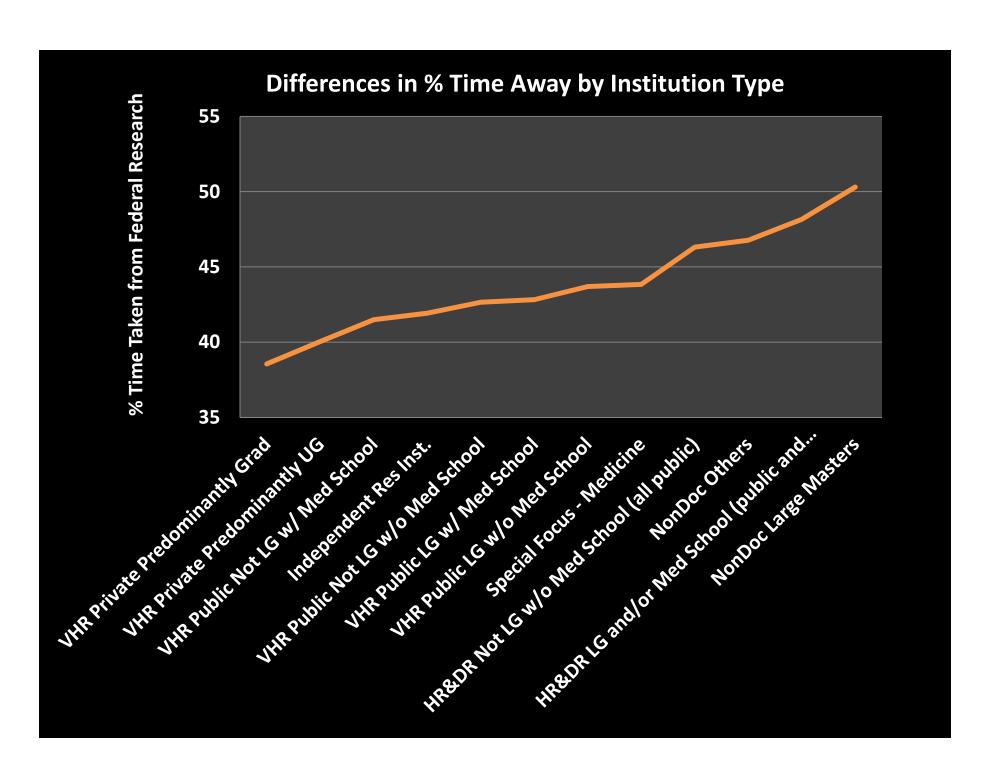
Principal Field	
Bio & Biomed	32.3%
Phys Sci and Math	16.3%
Engrg & Comp Sci	13.7%
Social and Beh Sci	12.1%
Clinical Sci & Med	9.5%
Agrl Sciences	4.1%
Education	3.1%
Humanities	0.9%
Business	0.4%
Arts & Arch	0.3%
Other	7.2%

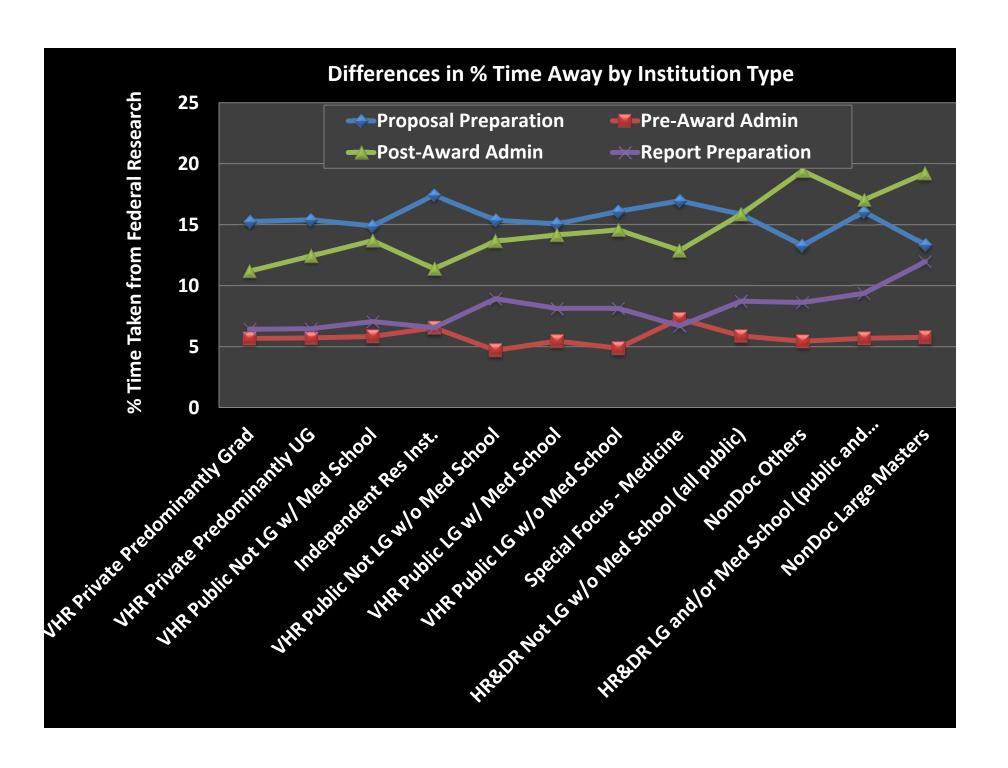




FWS Breakdown of Participants by Institution

Carnegie SubClass	
VHR Public LG w/ Med School	25%
VHR Public Not LG w/ Med School	14%
VHR Public LG w/o Med School	7%
VHR Public Not LG w/o Med School	8%
VHR Private Predominantly UG	10%
VHR Private Predominantly Grad	15%
HR&DR LG and/or Med School (public and private)	3%
HR&DR Not LG w/o Med School (all public)	7%
Special Focus - Medicine	6%
NonDoc Large Masters	1%
NonDoc Others	1%
Independent Res Institute	3%

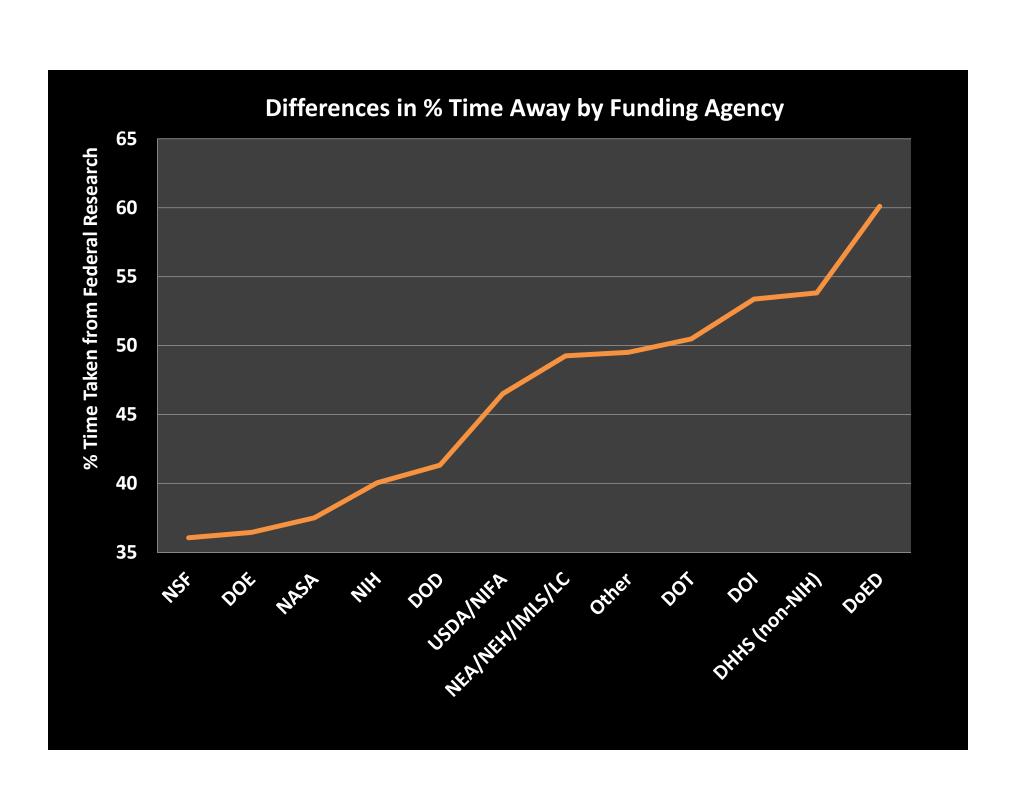


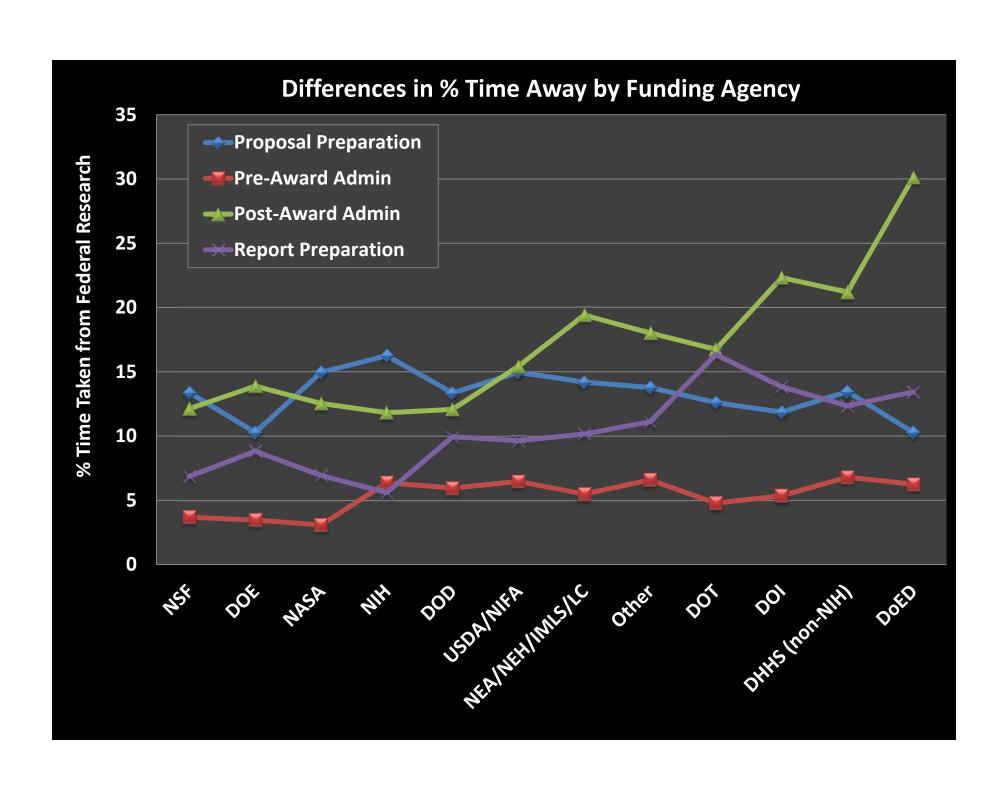


FWS Breakdown of Participants by Federal Funding

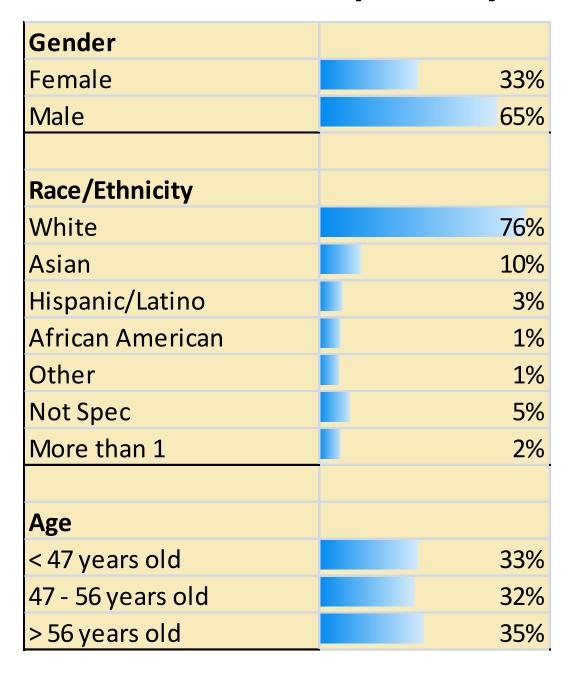
Agency

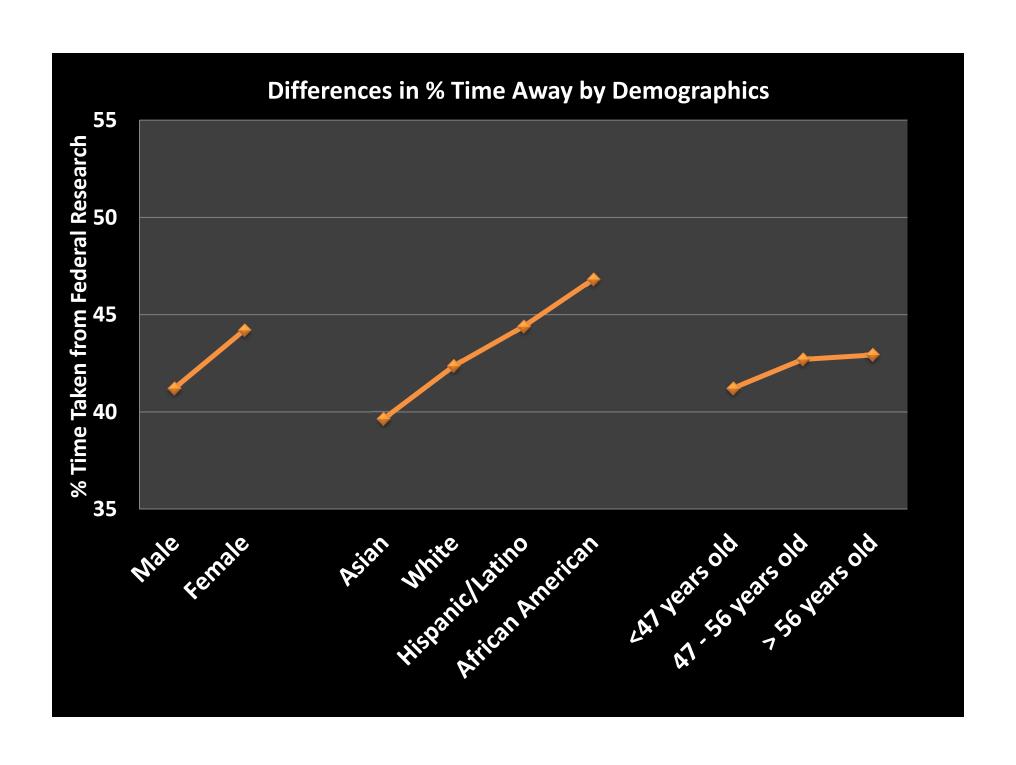
Federal Funding Agencies	
NIH	32.3 <mark>%</mark>
NSF	16.3%
USDA/NIFA	3.3%
DoED	2.1%
DOD	1.8%
DHHS (non-NIH)	1.6%
DOE	1.6%
NASA	1.1%
NEA/NEH/IMLS/Lib of Congre	0.7%
U.S. Dept. of Interior	0.5%
U.S. Dept. of Transportation	0.3%
Other	2.9%
2 Agencies	26.9%
More than 2 Agencies	8.5%

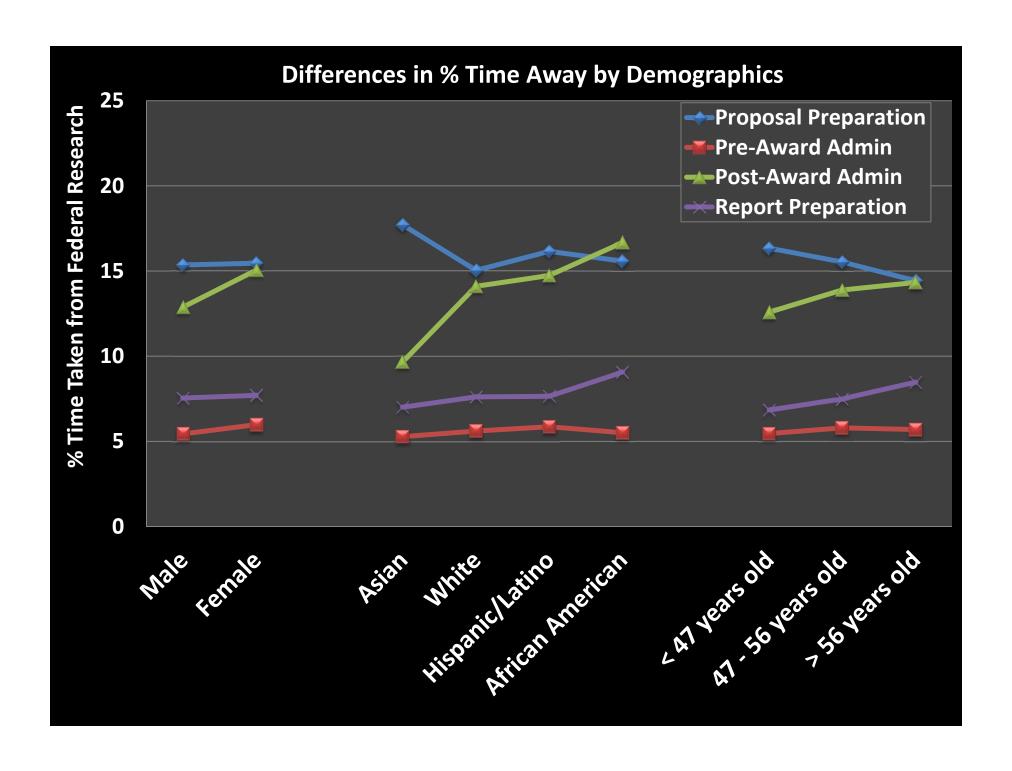




FWS Breakdown of Participants by Demographics







Question: What factors are associated with higher and lower levels of administrative responsibilities?

In no area is time taken away from research less than 35% and often it is over 50%.

Factors associated with greater federal administrative responsibility include:

- Non-professor positions
- Administrative appointments
- Service, Training, Curriculum and other non-researchfocused projects
- Higher combined direct costs; more projects
- Smaller, non-doctoral or specific focus institutions
- Smaller funding agencies
- Females; Hispanic/Latino or African American

Question: What factors are associated with higher and lower levels of administrative responsibilities?

Differences in post-award administrative responsibilities, and to a lesser degree, report preparation account for most differences in administrative responsibilities.

Proposal preparation tends to reliably account for about 15% of federal research time, while pre-award administration hovers around 6%.

Identifying Administrative Workload Profiles

Principal Components Analysis:

- Method of identifying shared variance among subgroups
- Goal: To find subgroups who share the same kinds of responsibilities have the same Workload Profile
- Tested across 20 administrative responsibilities
- 5 components were selected based on the coherence of results and increments in variance accounted for by additional components
- All Eigenvalues > 1
- Total variance accounted for: 53%

Search for Administrative Workload Profiles

To what extent do different types of administrative workload cluster together?

Are there identifiable groups of researchers who share the same group of administrative responsibilities?

Identifying Administrative Workload Profiles

Principal Components Analysis:

- Method of identifying shared variance among subgroups
- Goal: To find subgroups who share the same kinds of responsibilities; → have the same Workload Profile
- Applied across 20 administrative responsibilities
- 5 components were selected based on the coherence of results and increments in variance accounted for by additional components
- All Eigenvalues > 1
- Total variance accounted for: 53%

Identifying Administrative Workload Profiles

Common Responsibilities:

Relatively Few

PF&E (Personnel, Finances, and Effort Reporting)

Targeted Responsibilities (all include PF&E plus):

General Compliance

Animals & Safety

Human Subjects

Contractual

National Security (n < 50)

Multiple Areas of Responsibility

Include National Security

Two Areas (not including National Security)

> 2 Areas (not including National Security)

% Experiencing Responsibilities Within Responsibility Profile (identified by Principal Components Anal.)

		•	PF&E	
			(Pers.,	
	Responsibility		Finance, &	
	=		Effort R.)	
	i ionic >	1 C VV	Litore IX.	
	Administrative			
	Responsibility	757	3402	
PF&E	Personnel	15.3%	84.8%	
	Finance	25.5%	93.9%	
	Effort Reporting	25.5%	84.9%	\prod
Genl Compliance	COI	25.9%	39.7%	\prod
	RCR	19.3%	30.1%	,
	Data Sharing	20.2%		
	Cross-Agency Difs.	2.2%		-
Animals & Safety		18.6%		
•	Chem Safety	12.3%		
	Biosafety	2.5%		
	IACUC	3.4%		-
	Recomb. DNA	1.3%		-
				-
	Radiation Safety	3.0%	5.6%	\vdash
	Controlled	0.50/	0.70/	
	Substance	0.5%		
•	IRB	19.8%		-
	HIPAA	2.4%		+ +
	Clinical Trials	0.3%		-
Contractual	Sub-contracts	11.5%		-
	Intellec. Prop.	9.9%	11.4%	Ш
	ARRA	9.1%	10.7%	
National Security	Export Controls	5.8%	9.2%	
	Select Agents	0.1%	0.2%	,
	Drot Crit Infractr	0.0%	0.0%	

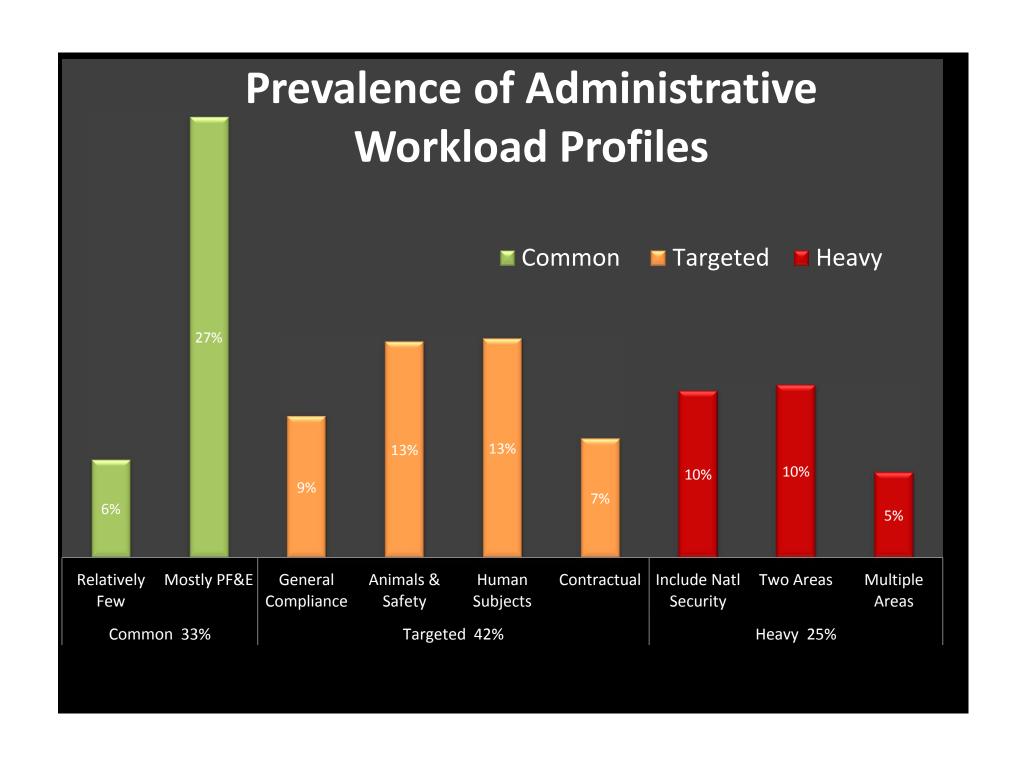
% Experiencing Responsibilities Within Responsibility Profile (identified by Principal Components Anal.)

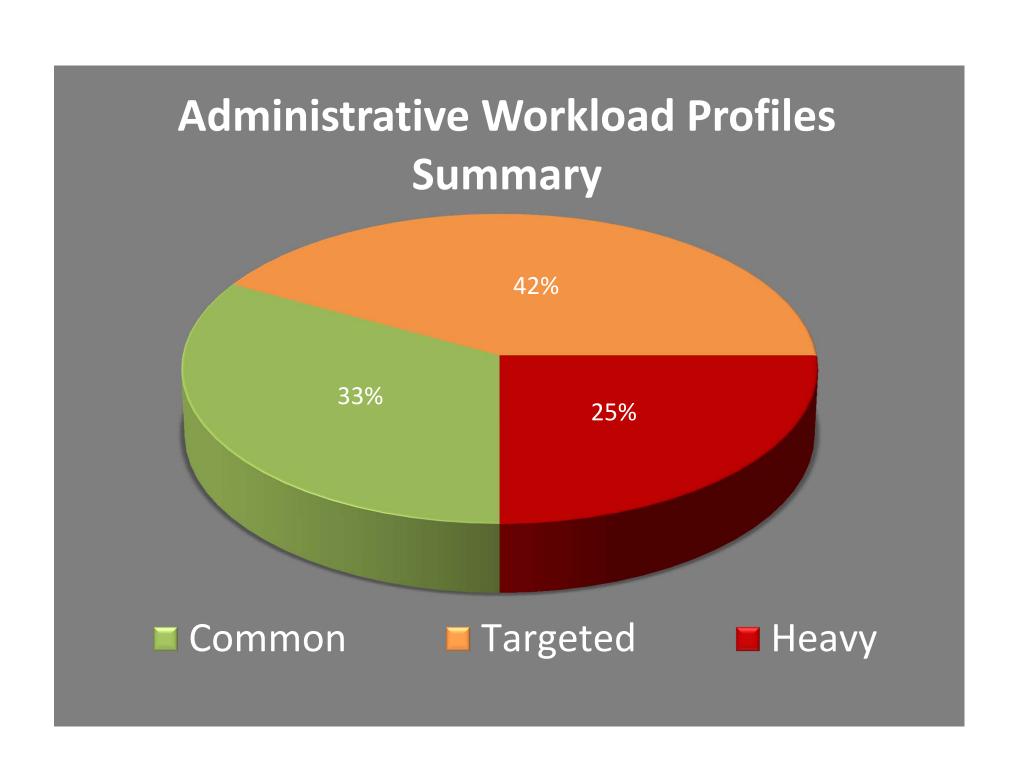
70 Experiencing III	DEC.							IIPOIICIICS
			PF&E		Camaral		l lange en	
	D		(Pers.,		General		Human	
	•		Finance, &		Complianc		Subject	
	Profile>	Few	Effort R.)	E	2	& Safety	S	Contract
	Administrative							
	Responsibility	757	3402		1093	1668	1691	920
PF&E	Personnel	15.3%	84.8%		89.6%	87.9%	88.5%	87.6%
	Finance	25.5%	93.9%		92.5%	86.2%	88.9%	92.0%
	Effort Reporting	25.5%	84.9%		90.6%	79.1%	82.7%	82.6%
Genl Compliance	COI	25.9%	39.7%		93.7%	54.7%	72.2%	46.5%
	RCR	19.3%	30.1%		86.6%	59.5%	65.5%	32.1%
	Data Sharing	20.2%	31.3%		92.9%	36.5%	35.1%	42.7%
	Cross-Agency Difs.	2.2%	7.7%		48.0%	7.1%	13.1%	15.0%
Animals & Safety	Gen Lab Safety	18.6%	30.5%		45.7%	99.2%	16.2%	44.0%
	Chem Safety	12.3%	21.5%		35.1%	96.4%	4.1%	30.9%
	Biosafety	2.5%	4.1%		6.5%	88.4%	20.3%	5.9%
	IACUC	3.4%	4.7%		5.1%	69.2%	4.9%	3.4%
	Recomb. DNA	1.3%	1.0%		1.6%	65.6%	0.9%	1.6%
	Radiation Safety	3.0%	5.6%		7.9%	43.6%	4.6%	7.5%
	Controlled							
	Substance	0.5%	0.7%		0.8%	33.3%	2.7%	1.6%
Human Subjects	IRB	19.8%	31.4%		35.5%	17.6%	99.8%	29.1%
	HIPAA	2.4%	1.9%		8.9%	14.5%	93.6%	3.0%
	Clinical Trials	0.3%	0.1%		0.0%	0.3%	41.3%	0.2%
Contractual	Sub-contracts	11.5%	26.4%		41.9%	22.8%	60.4%	89.0%
	Intellec. Prop.	9.9%	11.4%		25.4%	29.2%	14.0%	71.6%
	ARRA	9.1%	10.7%		11.0%	26.7%	25.7%	55.0%
National Security	Export Controls	5.8%	9.2%		15.2%	4.2%	1.3%	26.1%
	Select Agents	0.1%	0.2%		0.1%	4.4%	0.3%	0.3%
	Drot Crit Infractr	0.0%	n n%		n n%	0.0%	n n%	0.0%

% Experiencing Responsibilities Within Responsibility Profile (identified by Principal Components Anal.)

		<u>-</u>	PF&E	,		,				
			(Pers.,	General		Human		Include		
	Responsibility	None or	Finance, &	Complianc	Animals	Subject		Natl	Two	> 2
	Profile>	Few	Effort R.)	е	& Safety	S	Contract	Security	Areas	Areas
	Administrative				-					
	Responsibility	757	3402	1093	1668	1691	920	1288	1335	660
	Personnel	15.3%		89.6%				93.8%		
	Finance	25.5%		92.5%				91.9%		
	Effort Reporting	25.5%		90.6%				90.0%		
Genl Compliance		25.9%	39.7%	93.7%				81.4%		
	RCR	19.3%		86.6%				79.1%		
	Data Sharing	20.2%		92.9%				68.7%		
	Cross-Agency Difs.	2.2%		48.0%				42.2%		
Animals & Safety		18.6%		45.7%				94.8%		
	Chem Safety	12.3%	21.5%	35.1%	96.4%	4.1%	30.9%	89.4%	59.0%	74.7%
	Biosafety	2.5%	4.1%	6.5%	88.4%	20.3%	5.9%	82.7%	52.7%	81.4%
	IACUC	3.4%	4.7%	5.1%	69.2%	4.9%	3.4%	68.2%	33.0%	52.9%
	Recomb. DNA	1.3%	1.0%	1.6%	65.6%	0.9%	1.6%	63.5%	36.3%	50.6%
	Radiation Safety	3.0%	5.6%	7.9%	43.6%	4.6%	7.5%	60.5%	30.3%	47.6%
	Controlled									
	Substance	0.5%	0.7%	0.8%	33.3%	2.7%	1.6%	53.0%	14.0%	20.8%
Human Subjects	IRB	19.8%	31.4%	35.5%	17.6%	99.8%	29.1%	41.7%	54.0%	81.5%
	HIPAA	2.4%	1.9%	8.9%	14.5%	93.6%	3.0%	41.8%	46.9%	78.2%
	Clinical Trials	0.3%	0.1%	0.0%	0.3%	41.3%	0.2%	12.4%	17.6%	41.1%
Contractual	Sub-contracts	11.5%	26.4%	41.9%	22.8%	60.4%	89.0%	56.3%	66.8%	81.7%
	Intellec. Prop.	9.9%	11.4%	25.4%	29.2%	14.0%	71.6%	72.4%	67.4%	80.6%
	ARRA	9.1%		11.0%				34.1%		
National Security	Export Controls	5.8%	9.2%	15.2%	4.2%	1.3%	26.1%	47.5%	18.4%	14.1%
,	Select Agents	0.1%		0.1%	4.4%	0.3%	0.3%	54.5%	1.0%	0.6%
	Drot Crit Infractr	0.0%	0.0%	0.0%				22 5%		

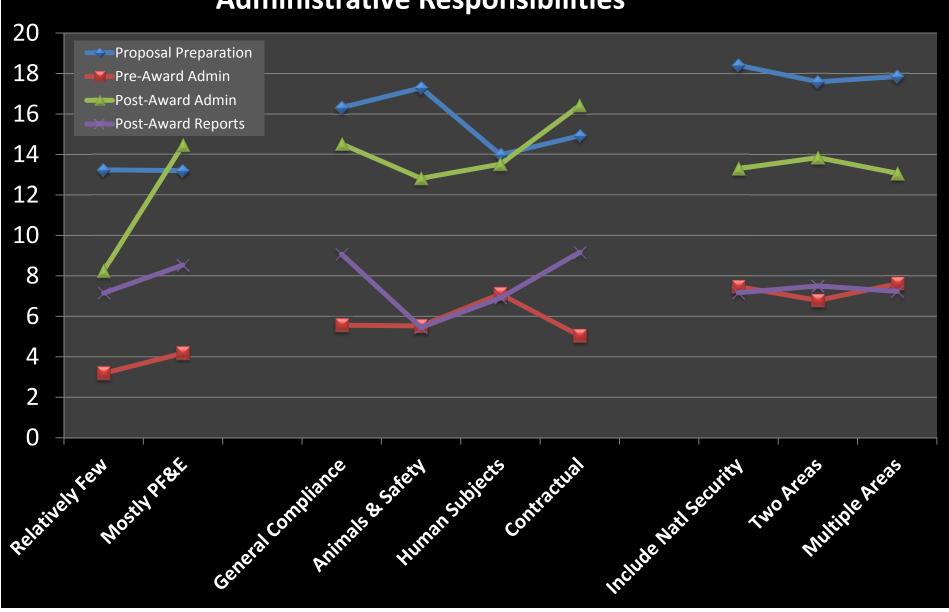
Question: How typical are the various administrative workload profiles?

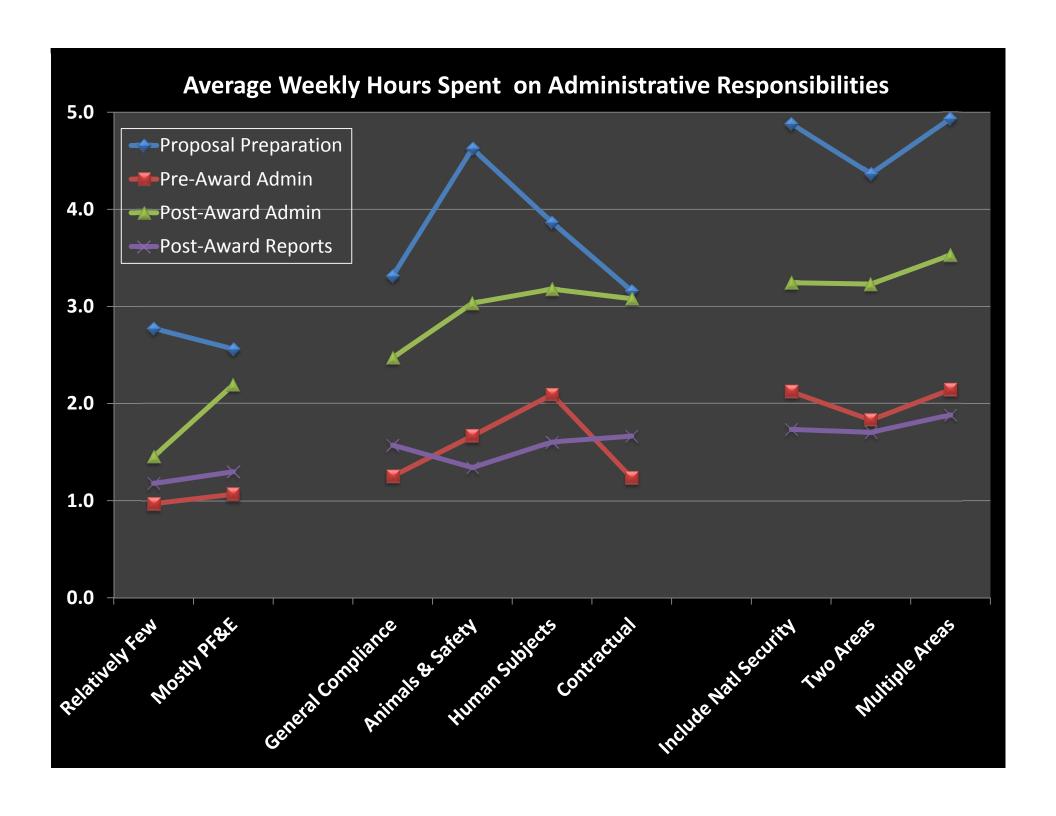




Question: What are the administrative workload implications of having a particular profile? To what extent does having multiple targeted workload areas influence overall administrative workload?





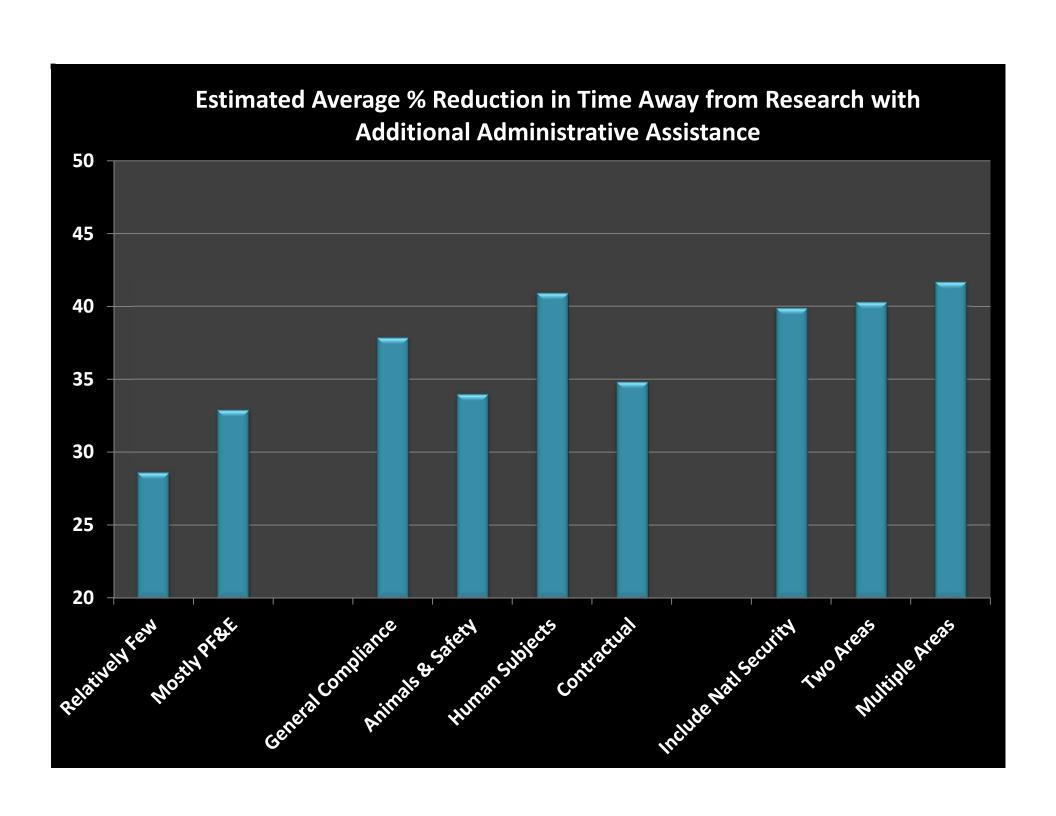


Question: What are the administrative workload implications of having a particular profile? To what extent does having multiple targeted workload areas influence overall administrative workload?

There are differences in workload for different targeted areas, although proposal preparation and post-award administration tend to take more time than pre-award administration and report preparation in all areas.

Multiple targeted workload areas are associated with higher time commitments in most areas, though some differences tend to be larger than others. Proposal preparation time increases are especially large.

Question: To what extent do PIs feel they could benefit from additional administrative assistance?



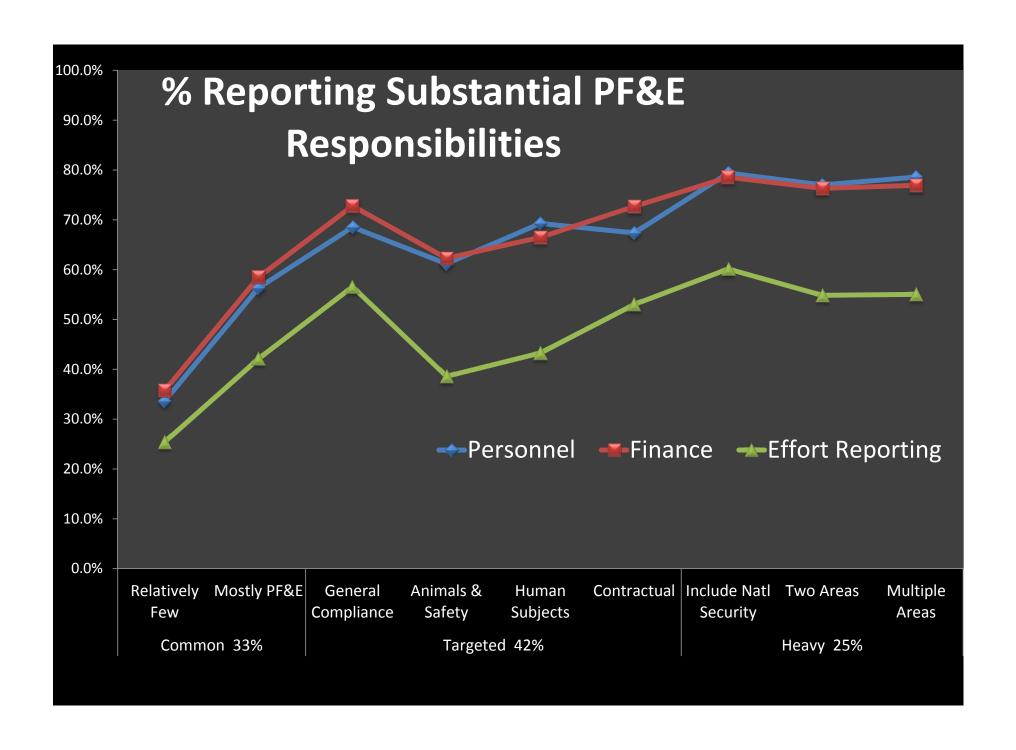
Question: To what extent do PIs feel they could benefit from additional administrative assistance?

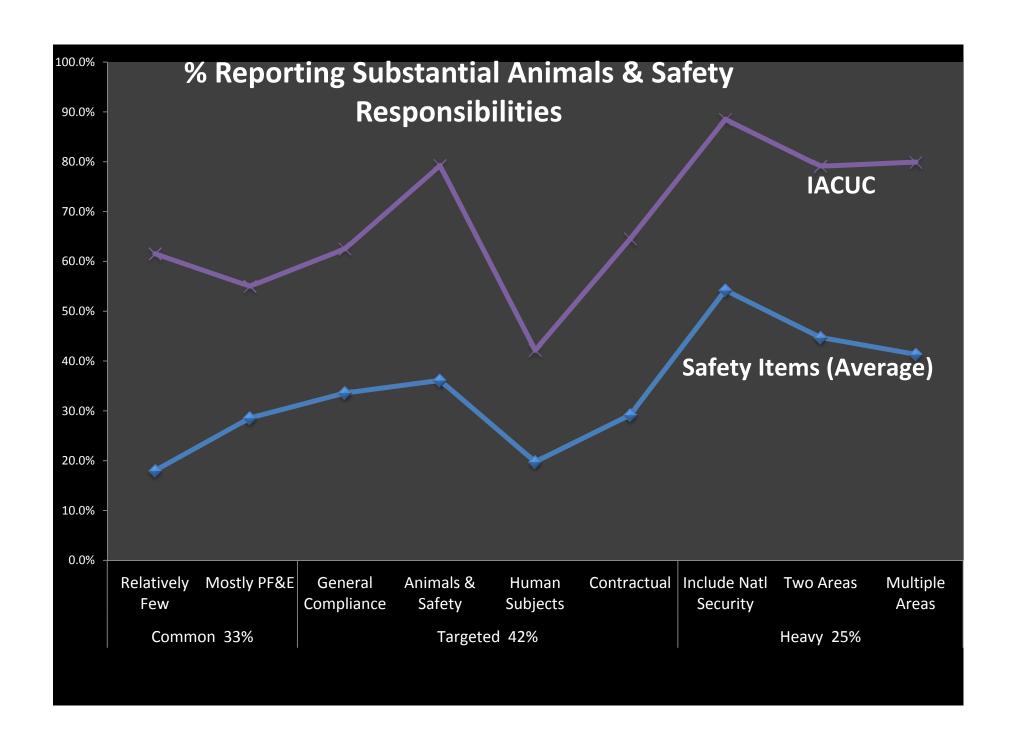
Pls estimate that they could reduce their time away from research from approximately 25-40% with additional assistance. Generally, the greater the time away from research, the larger the estimated potential reduction.

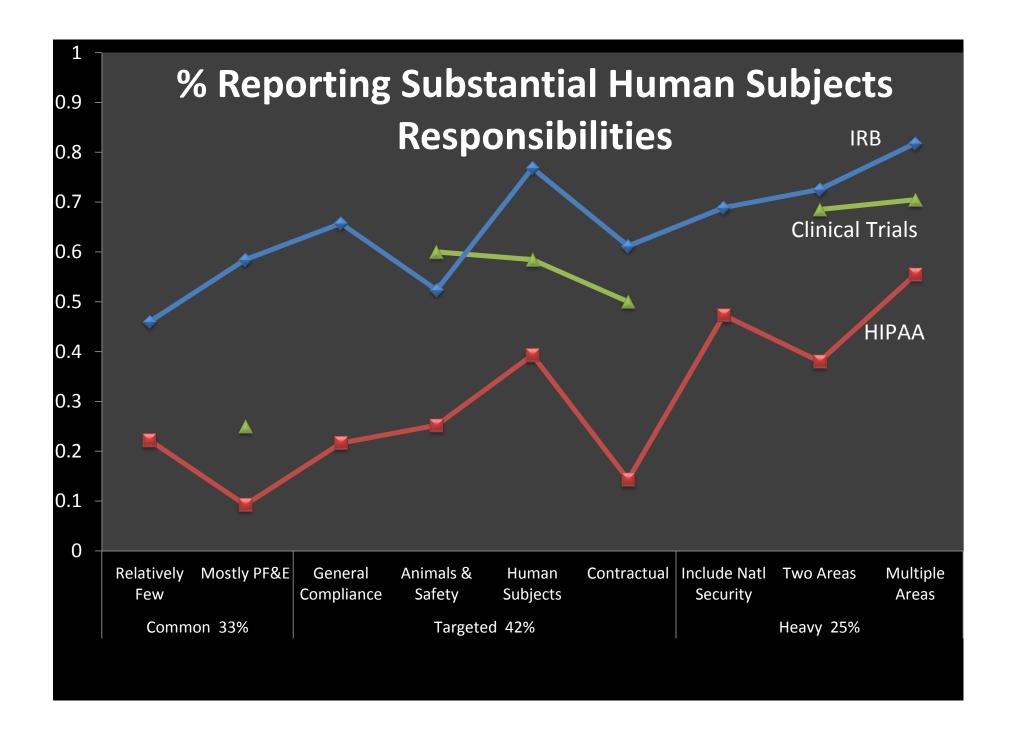
Those experiencing targeted General Compliance or Human Subjects workload responsibilities estimate greater benefits from assistance than those experiencing Animals & Safety or Contractual workload responsibilities.

Question: Can workload profiles help us understand aspects of administrative burden?

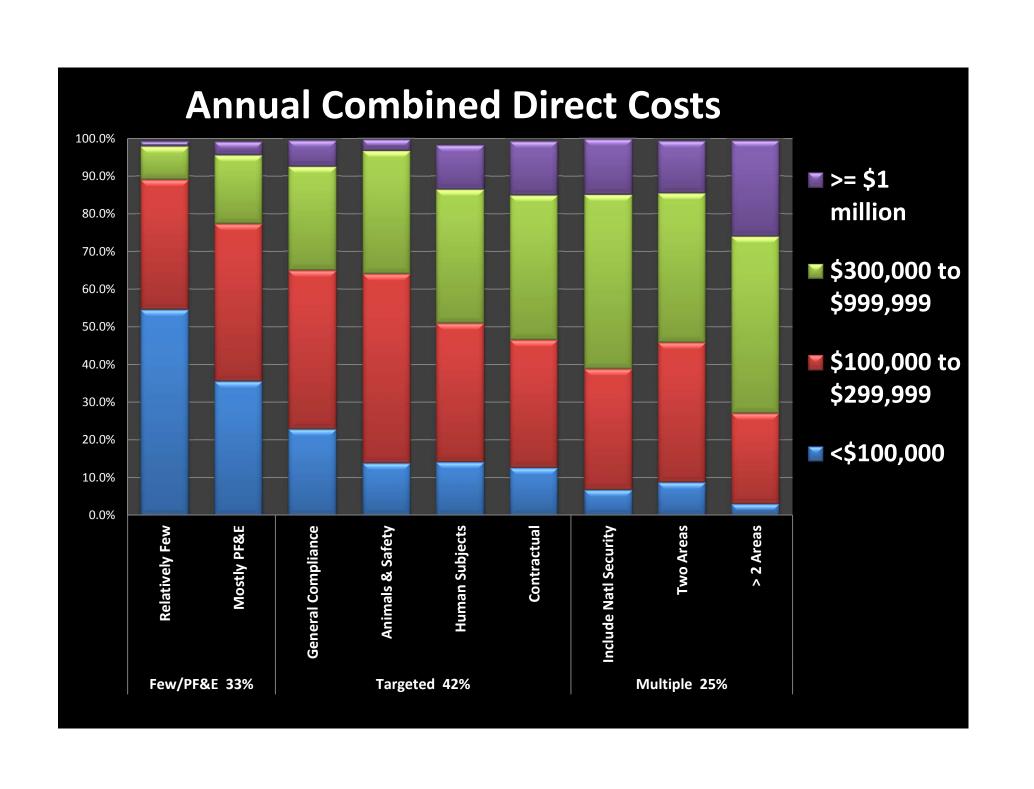
Example: Burden Intensity



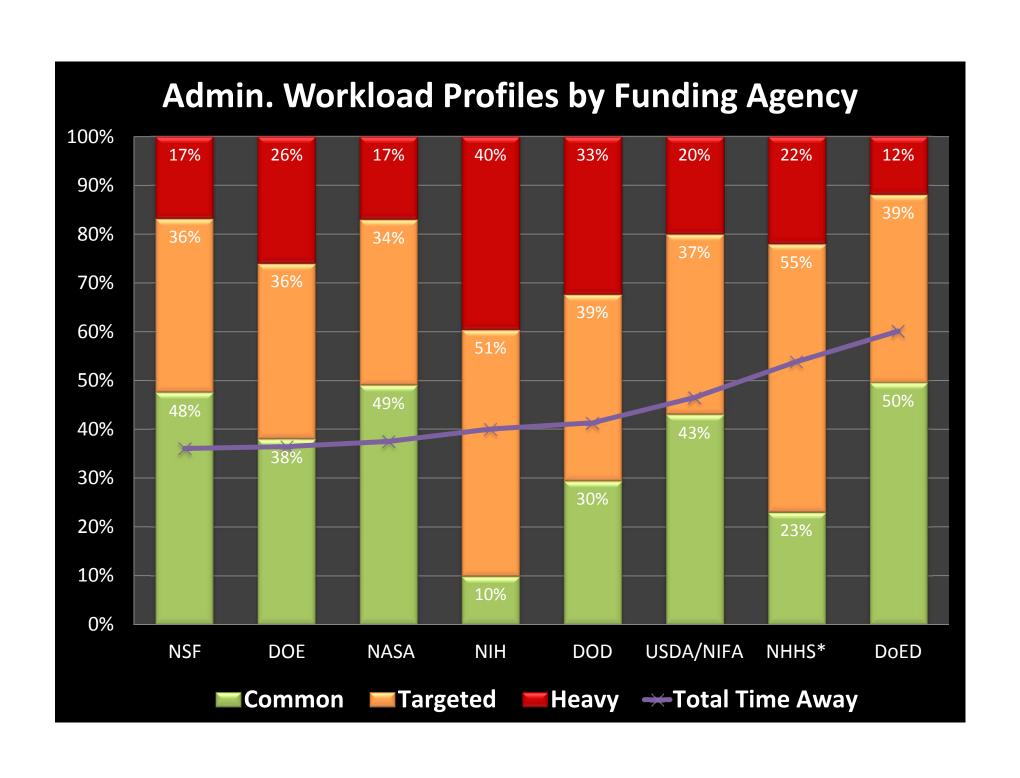




Example: Total Direct Costs



Example: Funding Agencies



Example: Institution Type

Rough Ordering of Lowest to Highest Time Away:

VHR Private

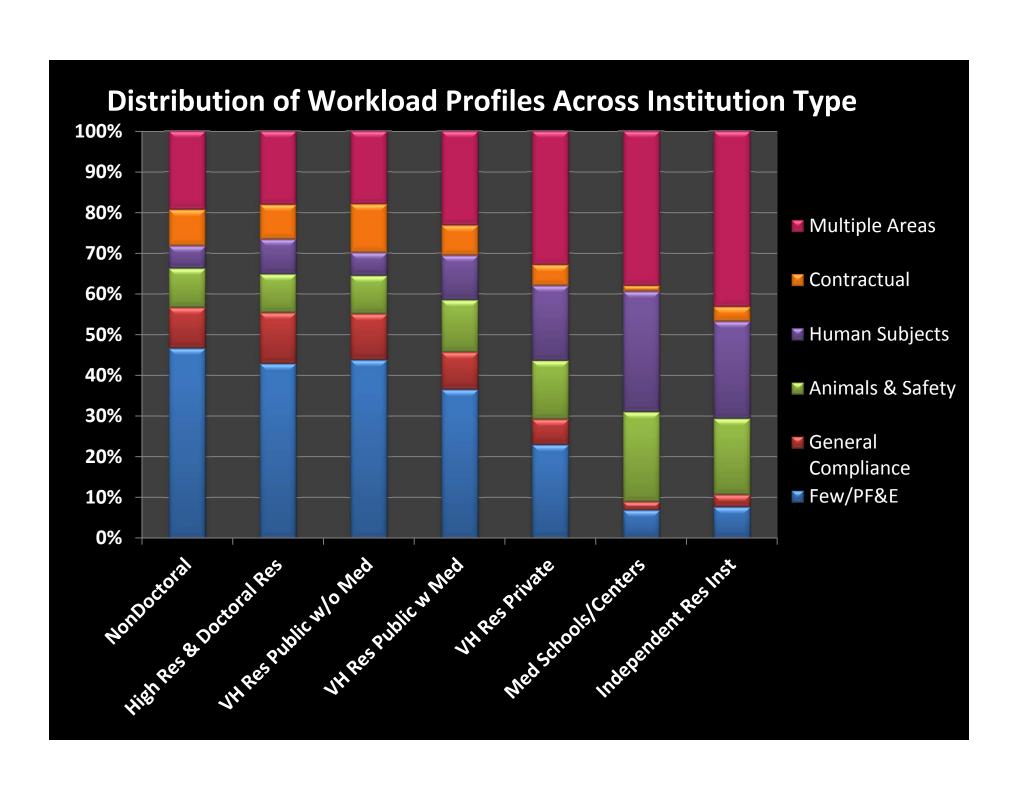
Indep. Research Institutes

VHR Public

Special Focus – Medical

HR & DR

Non-Doctoral



There are many areas in which additional analysis are likely to bring further insight.

Question: What about the general opinions of PIs about the current research/regulation climate?

Sample Research Workload Opinion Items	2012 %Agree
Administrative workload associated with federally-	
funded research grants has increased in the last 5 or 6	
years.	68%
The federally-mandated requirements for research	
accomplish their intended goals.	26%
The time spent meeting federal requirements for	
research provides benefit worth the cost.	21%
Because of research administrative workload, I am	
generally less willing to submit federal grant proposals	
than in the past.	26%
When I have questions about federal regulations related	
to research, obtaining answers is straightforward.	21%

Question:	Anything else?

A Missing Piece...

How does PI administrative workload relate to an institution's research administration resources (personnel, systems, policies and practices)?

Example: ARRA reporting impact on PIs

Preliminary next step:

- Access data from 2010-11 FDP ARRA Administrative Impact Survey
- Correlate reported institutional investments in ARRA-related research administration (time and money) with FWS-reported impact of ARRA reporting on faculty workload.

Example Next Steps:

Question: How does IRB-related administrative workload differ across Exempt, Expedited, and Full Review research projects? Medical versus non-medical research?

Question: How does IACUC-related administrative workload differ across projects requiring different species? Medical versus non-medical research?



Concluding Comments

Goals of the FWS:

- To increase the likelihood of efficient and effective demonstration projects
- Provide information to FDP and federal agencies to facilitate targeted reduction of administrative burden

There is a wealth of information from the survey that can be used to help guide efforts in streamlining.

The FDP, with its institution and federal agency partnership, and the contributions of research administrators, technicians, federal representatives, and faculty, provides an ideal context for exploring what can be done to foster efficient and effective federally-funded research.

