Sponsored Research: The University Faculty Perspective

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Research Grants: What and Why?

* U.S. University Faculty depend on grants for research funding:
  – students, staff, equipment, travel
  – own salary
    * "summer salary" for most sciences/engineering
    * "research time" for health/medical sciences
* U.S. Universities depend on grants too:
  – status of a well-funded research program
  – "indirect costs" to support infrastructure
    * libraries, buildings, operations

The Faculty Perspective

* I want to do research
  – my research needs people, equipment, etc.
* Government agencies such as NSF want to support research
* We both win!

But a Grant is not a Gift

* Grants come with accountability
  - proper conduct of research
  - proper use of research funds
  - adherence to terms of specific grant
    - reporting, flexibility in change of scope
* The result is a substantial administrative effort
  - for the agency, university, and faculty

Three Grantee Roles

* Pre-award (requesting funds)
  – submitting grants, budgets, negotiation
* Post-award (spending funds)
  – financial management, research and reporting
* System Compliance (across all awards)
  – oversight and auditing; review systems; rate-setting

Pre-Award
Univeristy of Minnesota (example)

- Faculty
  - develop ideas; assemble team; write proposal body; specify budget items; provide information on faculty, resources, etc.; response to reviews; negotiation of scope
- Department Staff
  - help with budget preparation/review, some help on maintaining faculty paperwork
- Department Heads and Deans
  - review and approve cost sharing, space, resources
- Central Staff (VP research; Sponsored Projects Admin.)
  - when limited opportunities, organize internal competition/review
  - review budgets; officially endorse application on behalf of university; check applications for compliance with agency rules

Post-Award
Univeristy of Minnesota (example)

- **Faculty**
  - carry out the research; research management (hire/train/evaluate staff, budget tracking/planning, overall research direction); technical reporting, reporting on student development; effort certification

- **Department Staff**
  - review/approval of spending (does spending conform with government rules?); processing of payroll, purchasing, and other business systems; help in management/oversight of budgets

- **Central Staff (VP research; Sponsored Projects Admin.)**
  - financial reporting; billing and collection; setup of accounts (and authorization of expense categories); institutional review and approvals for re-budgeting, extensions, etc.; manage communications with agency business office

System Compliance Univeristy of Minnesota (example)

* Faculty
  – regular training (responsible conduct of research); actual compliance during research activities; oversight/training of students and staff
    • human subjects; animal use; restricted materials/technology; intellectual property; visa issues
  – also participation in review of others' work (e.g., human/animal research)
* Central Staff (VP research, HR, and throughout University)
  – development and conduct of training programs; creating/organizing review boards (human subjects, animal use); systems for property tracking/inventory, financial management, personnel, visa tracking, sensitive materials and technogies; intellectual property protection
  – auditing (financial and policy compliance)
  – computer systems for all of the above (business operations with grants and government restrictions)
* Department Staff
  – support faculty in compliance; local approvals

To be honest ...

* There's a lot more than that!
    – "Indirect" administration of research costs about 25% of research budget
        * excluding facilites
        * excluding direct costs such as faculty administration time
* Take-away messages
    – It is worth being professional and efficient
   – It is also worth investing in reducing the amount of administrative work needed

What about the Faculty?

- Professors are highly-trained scientists
  - and often not particularly well-trained or efficient at administration
- The degree to which administrative burdens fall on the faculty is likely a reduction in research they can achieve
  - FDP set out to study this question through a survey of faculty with research grants
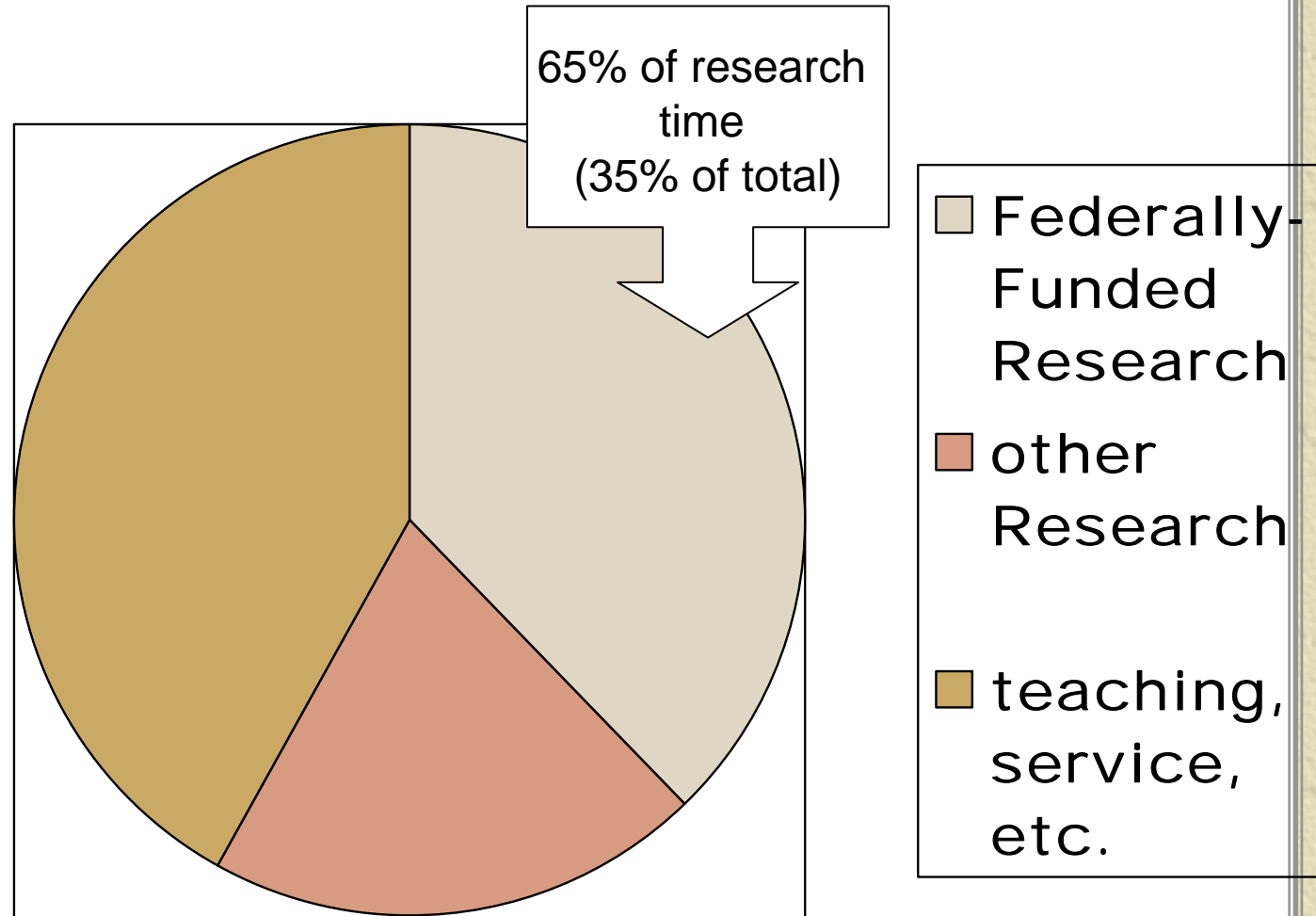
FDP Faculty Burden Survey

* Fall 2005 survey yielding 6,081 valid responses from FDP faculty
  - 90% PI; 10% co-PI only
  - mostly white, male, sciences,
    large research institutions
    * with affiliated med schools
* Tremendous statistical data in final report:
  www.thefdp.org
* Thanks to Bob Decker (PI), Leslie Wimsatt, Andrea Trice

Faculty Time

9% Research Service

58% Research

- Research
- Teaching
- Research Service
- Other Service
- Misc
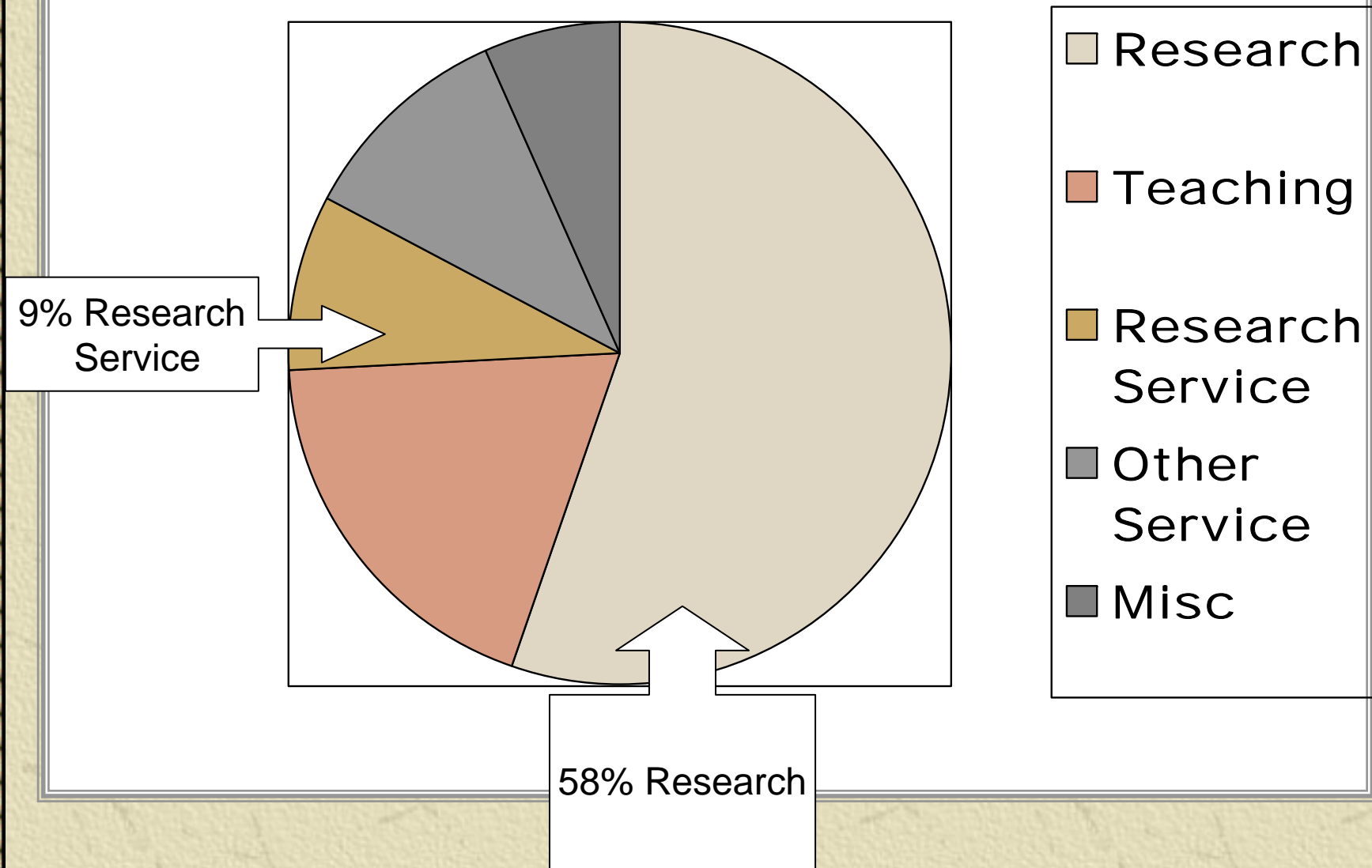
Drilling Down:

How much research time is on federally-funded projects?

65% of research time
(35% of total)

Federally-Funded Research

other Research

teaching, service, etc.

Drilling Down Further:

How is that time spent?

pre-award
22% of FRT
8% of total

post-award
19% of FRT
7% of total

active
58% of FRT
21% of total

- Pre-Award Res. Admin.
- Post-Award Res. Admin.
- Active Research
- other Research
- teaching, svc. etc.
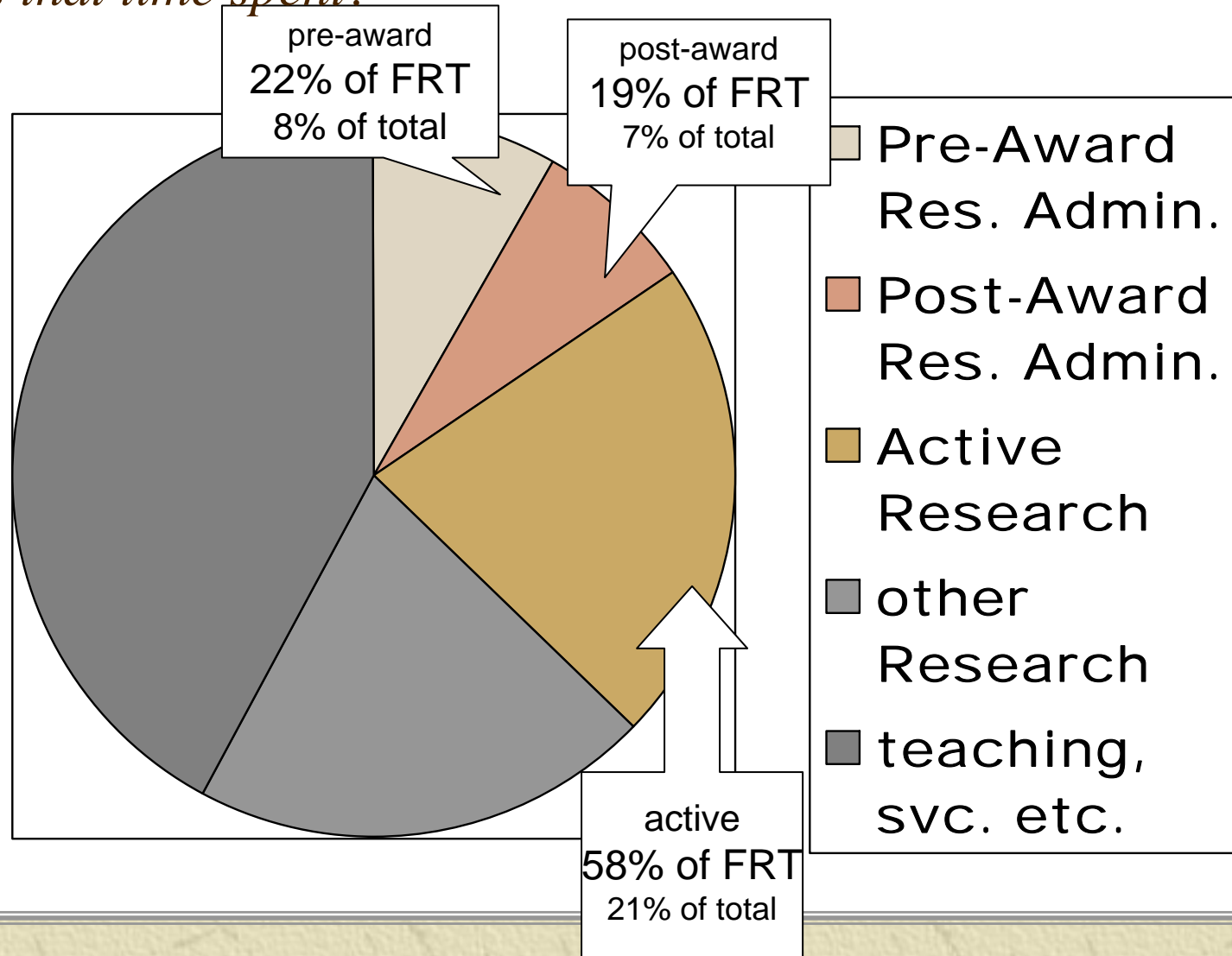
No Single Culprit

* Burdens come from many sources
  – federal regulations
  – agency implementations of regulations
  – institutional implementations of regulations
  – fear of audits; lack of consistency
  – inherent part of doing research
  – lack of project-specific research administration support

What did we Learn?

- No single dominant burden
  - burdens varied by field, agency
  - large burdens overall[*] included: reporting, personnel, project revente management, equipment/supplies
  - large burdens for specific faculty: human-subjects review and training, medical records, security
- Three themes emerged
  - faculty need professional help in managing grants, especially large and complex ones
  - some burdens make little sense (federal and university)
  - need for standardization/best practices

But the effect adds up …

Considering the respondents alone:

- a total of over $97 million spent per year on faculty salaries for time devoted to research administration tasks
  - a shared expense of institutions, agencies
  - an expensive way to get tasks done, when there is a cheaper alternative
- Remember, this is *only* the research administration effort undertaken by the faculty – not the work performed by institution staff.
- And this report underestimates the burdens associated with proposal preparation

... *and Faculty Know It*

- 84% agree that research administration burden associated with federal grants has increased in recent years

- 62% find that students are less likely to pursue academic research careers now than in the past

- 95% say they could increase time spent on research if they had trained support personnel to help with research project management

Faculty, Universities, and the FDP

Why Universities Join FDP

- A place to interact with:
  - Federal agency staff (program and admin)
  - Technical staff (electronic research admin)
  - Each other (admin, faculty, and staff)
- A place to work on making grant administration more efficient
- Keep up-to-date on latest developments
- Participate in demonstrations
- FDP Terms and Conditions

Why Faculty Participate

- Service to faculty collectively
  - often same faculty who serve on research committees at their institutions
- Rare chance to work together across institutions, disciplines, and with others
- Commitment to the future of government-funded research
- They are asked to!

How is this participation structured?

- Each university has:
  - an official administrative representative
  - an official faculty representative
- At any given meeting (3 per year), the university may also send:
  - other staff/faculty, technical representatives
- The real work happens in committes

FDP Committees

* Administrative Process
  – Research Administration
  – Finance/Audit/Costing
* Faculty
* Electronic Research Administration

  – Most committees are co-chaired by an institutional member and an agency member

Faculty "Representatives"

* Who do faculty represent?
  - their institution?
  - faculty at their institution?
  - faculty in their specialty?
* How are faculty selected?
  - some are selected by their VP Resarch or Sponsored Projects office
    * this office pays travel costs for nearly all of them too
    * but faculty time is generally volunteered (and not billable!)
  - some serve as part of another role (associate VP; chair of a research committee; etc.)
  - some "came with the building!"

How do faculty connect with others?

* Many models
  – faculty reports to research committees
  – faculty "newsletter" messages to research-active faculty at their institution
  – faculty collectively communicate with professional societies
  – faculty involvement in surveying others at their institution
  – direct faculty collaboration with administrators
  – no single model; some are more active, some less

The benefit of many voices ...

* There is a natural 3-way interaction
  - faculty + admins vs. agencies
    * don't you see that these different rules and systems are causing us lots of work?
  - faculty + agencies vs. admins
    * don't you see that your internal processes are the problem?
  - admins + agencies vs. faculty
    * don't you realize these are serious requirements?

And more voices are better ...

* Technical representatives
  – tremendous gains in electronic research administration, in part due to interactions
* Auditors
  – less immediate success, but continually working on mutual education/understanding

Closing thoughts ...

✷ FDP has been a worthwhile effort

– it has made faculty more productive

– it has made universities and agencies more
  productive

✷ It is wonderful that you are exploring how
to achieve the same goals here in Japan

Closing thoughts ...

* In the U.S., we have learned the value of professional research administration staff
  – both centrally and within departments
  – if anything, we feel we need more such staff
* In the U.S., we also have a very different governmental structure (our OMB can more easily dictate rules to agencies)
  – this may make the inter-agency communication role of FDP even more valuable in Japan!

Thank You

- I am honored that you have invited me here to speak with you.
- I am greatful to my colleagues at NSF with whom I've coordinated this talk.
- I would be happy to answer any of your questions.