Demystifying the Academic Research Enterprise

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What is research and where does it take place?

Who funds research & sets priorities?

How is research perceived and used?

What about bias, integrity and ethics?

How do I protect my work while collaborating?

I see tons of rules and regulations. Help!

Where do I find funding and how do I obtain it?

Can I influence national research priorities?

How is my work scrutinized and evaluated?

I need expertise I don’t have. Help!

Who owns my research results?

I simply cannot understand how researchers think!

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Retirement

Other Roles in the Research Enterprise
Faculty or Research Position
Undergraduate & Graduate Education
Retirement
Building our research administrator workforce as our clinical and translational research programs become increasingly complex
Calvo Kayada, Philippe Jennifer, Burks Sandra and Rainer C. Johnston

Introduction
Research administrators (RAs) are critical members of the research ecosystem. They manage the full cycle of research, from planning to completion, and they need to develop, deploy, manage, and analyze the entire research process. In this article, we introduce the RA profession and highlight the importance of RA training and development programs available to research administrators. We discuss the role of RA training and development programs and their impact on the research enterprise and the institutions that support it. The article is divided into the following sections: RA Professional, RA Training and Development, and RA Retention and Development. The article concludes with a summary of the RA profession, RA training, and development programs, and the future of the RA profession.

Results
The results of the RA professional survey indicate that the RA profession is a fast-growing field with significant opportunities for career advancement. However, the survey also highlights the need for improved RA training and development programs to meet the demands of the increasing complexity of the RA profession. The results also indicate that RA training and development programs are critical for the success of the RA profession and the institutions that support it.
A new book for graduate and undergraduate students, post-docs and all faculty (especially early career)....and

...research administrators, program officers, policy makers and staffers, even the media!

Published by MIT Press

Open Access – FREE!!

ALL DISCIPLINES – Art to Zoology!

All types and sizes of institutions, especially MSIs, ERIs and PUIs

Specific guidance for those at underserved & underresourced institutions

Facilitator Guide
Not a how-to guide but an educational resource to give others benefits I and others of my generation didn’t have

Each chapter has...
- Overview and learning objectives
- Questions to assess comprehension
- Deep-dive exercises

Great resource for student and post-doc mentoring plans required by Federal funding agencies

Can use it in/as a course or as a reference

For hardcopies purchased, all author royalties go to the U of I General Scholarship Fund
A unique new course designed for all majors and disciplines

Obtain a CAREER'S WORTH of knowledge about the history, structure and function of the academic research enterprise in a single course.

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- No experience with academic research and creative activity is required
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Foundations of Academic Research and Creative Activity
SPRING 2024

UNIVERSITY OF ILLINOIS
URBANA-CHAMPAIGN
“This new book is a fantastic resource for helping next generation scholars gain a practical understanding of all facets of research and creative activity—knowledge that took me an entire career to acquire but which now is accessible to all in a single resource.”

—Jeff Kelly, Corix Chair in Environmental Sustainability and Professor of Biological Sciences, University of Oklahoma
Chapter 1: Deep in our Bones: Why and Where We Perform Research and Creative Activity

- Research ---> creative activity
- The spectrum of research
- Where research takes place
- Individuals, small teams, large centers
- Source of research funds
- Curiosity-driven vs use-inspired research
- Boundary-spanning problems
- University organizations that support scholarly work

AAAS (2018)
Structure of Academic Institutions

- Board of Trustees or Regents
- Chancellor or President (Campus, System)
- Provost/Senior VP for Academic Affairs
- Deans, Chairs, Directors, Heads
- Chief Legal Counsel
- Vice President for Student Affairs
- Vice President/Chancellor for Research
- Others....

Most of These are Well Understood by Faculty

The VPR/VCR Position is Not Because it is Deployed in a Variety of Ways Across Institutions
The Broad Roles of the VCR/VPR

• Institutional Strategic Planning
• Research Leadership and Policy
• Research Development
• Research Administrative Services
• Internal Funding
• Economic Development, Technology Commercialization & Community Engagement
• Research Compliance and Integrity (includes Research Security)
• Promoting research and creative activity
Some of What Faculty Need

- Start-up funding
- Equipment
- Time
- Equipment maintenance
- Bridge funding
- Matching funds
- Book subvention funds
- Retention packages
- Graduate student funding
- Project management services
- Course development assistance

- Space
- Pre- and post-award support
- Career development support
- Proposal development support
- Compliance support
- IP/commercialization support
- Travel and publication funding
- Corporate partners
- Seed funding for career shifts/new ideas
- HR and IT services
- Research computing
Chapter 2: The Money Trail: Funding for Research and Creative Activity

- Entities that fund scholarly work (26 Fed agencies)
- How research budgets are determined
- R&D planning in the Federal budget

Figure Sources: See Chapter 2 of Droegemeier (2023)
Things have changed rather dramatically over the past several decades!

World War II spurred a great deal of basic and applied research, and development, in the Manhattan Project.

Numerous academics worked on it – left their institutions and went to Los Alamos, NM; Oak Ridge TN; and Hanford, WA.
The Allied war effort showed the value to society of academic R&D. Prior to WWII, academic R&D was funded mainly by tuition and philanthropy. After WWII, the Federal government started funding academic R&D – but many institutions didn’t want this money. NSF was founded in 1950. Federal funding to academia grew dramatically over time.
Current dollars are unadjusted for inflation. Constant dollars are adjusted for inflation and reflect actual spending power.

Note(s):
Gross domestic product deflators come from the Bureau of Economic Analysis and are available in Table 1.1.9 "Implicit Price Deflators for Gross Domestic Product" at https://www.bea.gov/Table/index_nipa.cfm (accessed September 2023).

Source(s):
Figure 2.7
Non-Defense Discretionary Spending
Fiscal year 2023

- Science, environment, and energy: 11%
- Economic security: 11%
- Transportation and economic development: 19%
- Veterans' medical care and services: 14%
- Education and training: 13%
- Health care and health research: 12%
- Law enforcement and governance: 10%
- Diplomacy and international affairs: 9%

Note: Does not add to 100% due to rounding.

Source: CBPP calculations using data from the Congressional Budget Office.
Figure 2.9
The process of developing the US federal R&D budget. CY and FY represent calendar and fiscal years, respectively, and X is a generic placeholder for any given year, such as 2022.
The Long Path to a Federal Budget

- **February**: House Budget Committee formsulates budget resolution
  - President submits budget proposal to Congress.
  - Senate Budget Committee formsulates budget resolution.

- **March**: House authorizing committees report changes in law to comply with budget resolution.
  - House votes.
  - Senate votes.

- **April**: Budget conference committee reports out the concurrent resolution of the budget.
  - Senate votes.

- **May**: House authorizing committees recommend budget.
  - House votes on 10 separate appropriations bills.
  - Senate votes on 12 separate appropriations bills.

- **June through September**: House votes on reconciliation.
  - Senate votes on conference report.

- **October**: President signs or vetoes appropriations bills.

Additional Notes:
- The president's budget is non-binding and is considered the administration's proposal and request. While it serves as a starting point for negotiations, Congress is not bound by the president's budget. The president's budget is generally submitted by the first Monday in February.
- The House and Senate Budget committees develop their own versions of a budget resolution. If the traditional schedule holds, both are developed by early April, and the budget conference committee meets and resolves any differences between the two versions. A conference committee of 13 members from each chamber, meeting at least once a week, attempts to reach a compromise by late April.
- Appropriations bills cover the discretionary portion of the budget and don't include entitlement programs such as Social Security and Medicare. Two or more of the appropriations measures can be lumped into a single omnibus appropriations bill. All of the bills must be signed by the president to become law.
- As another portion of the final steps, Congress may pass a continuing resolution to stay funding going until a deal is reached for the final spending bill. If all 13 appropriations bills aren't signed by Oct. 1, the start of the new fiscal year, Congress may pass a continuing resolution to fill the gap. If Congress fails to pass the resolution or the president vetoes it, nonessential activities in government are shut down until appropriations for these activities are enacted.

How research priorities are determined and how researchers can influence them

- Federal agencies have strategic plans and advisory bodies with broad representation
- The White House also has a lot to say about agency directions
- Agencies fund workshops, proposed by academics and others on various topics that often become agency priorities
- Researchers can also meet with Members of Congress to suggest/support priorities
MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: SHALANDA D. YOUNG
DIRECTOR
OFFICE OF MANAGEMENT AND BUDGET

DR. ALONDRA NELSON
DEPUTY ASSISTANT TO THE PRESIDENT
PERFORMING THE DUTIES OF THE DIRECTOR
OFFICE OF SCIENCE AND TECHNOLOGY POLICY

SUBJECT: Multi-Agency Research and Development Priorities for the FY 2024 Budget

The United States has long enjoyed broad bipartisan support for Federal investment in science and technology. This ongoing support helps to ensure American leadership in discovery, care, and solutions for decades to come. The Biden-Harris Administration will continue to propose investments that will define America’s next generation of global leadership in innovation, while infusing the work of government with greater equity, and the scientific research and technologies being developed with more durable benefit for all.

Federal funding for research and development (R&D) is essential to maximize the benefits of science and technology that advance health, tackle the climate crisis, and bring prosperity, security, environmental quality, and justice for all Americans. In addition to supporting R&D, agencies should make use of research results to carry out their own missions and ensure that the results of Federally funded research are made widely available to the public to facilitate understanding, participation, and inclusive decision-making; to other scientists to promote the exchange of ideas that is key to the advancement of knowledge, and, to innovators and entrepreneurs in every region of the United States, who will translate the research into world-leading businesses employing American workers. Equity should be the touchstone for all of these investments, including a deliberate emphasis on Historically Black Colleges and Universities, Tribal Colleges and Universities, Minority Serving Institutions, rural communities, and other disadvantaged communities that have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. And, as we seek to make our supply chains more resilient, these R&D investments should protect intellectual property developed in the United States and help create products that are made by U.S. workers.

This memorandum outlines the Administration’s multi-agency R&D priorities for formulating fiscal year (FY) 2024 Budget submissions to the Office of Management and Budget (OMB). The priorities covered in this memo will require Federal investments in R&D, actionable and equitable measurement of program outcomes, science, technology, engineering, and mathematics (STEM) education, engagement, and workforce development; research infrastructure; public access to Federally funded research; and, technology transfer and commercialization. These priorities should be addressed within the FY 2024 Budget guidance levels provided by OMB. Agency budget submissions should note when they address these priorities. Agencies engaged in complementary activities should consult with one another during the budget planning process to coordinate resources, maximize impact, and avoid unnecessary duplication. Agencies should include summaries of these consultations—including through National Science and Technology Council bodies—in their OMB budget submissions. As in previous years, the investments supported by the Budget for the R&D priorities listed below will be highlighted in the FY 2024 Analytical Perspectives Volume.

Multi-Agency Priority Guidance

FY 2024 Budget submissions should invest in the fundamental infrastructure—the knowledge, institutions, places, networks and people—that makes science possible. There should be a coherent commitment to building a robust and inclusive ecosystem for American science and technology. To do so, agencies must focus on evidence-based, promoting practices and mechanisms for fostering, conducting, using, and sharing the fruits of research. Examples of such practices include easy disclosure practices for Federal grants through use of a persistent digital identifier, reducing administrative burdens while improving scientific integrity, evidence-based professional development and mentoring structures, robust anti-harassment and anti-discrimination policies, and full activation of our domestic talent, including through more inclusive national engagement. All of these practices are part of reimagining how the Federal science agencies drive equitable innovation. Furthermore, agencies should seek collaborations with private industry, mission-aligned non-profits, and other external stakeholders who can help make these significant investments more sustainable. Towards this end, agencies should prioritize investments that modernize Federal laboratory, testing, and prototyping infrastructure and, where possible, share that infrastructure with universities, non-profits, and the private sector to promote discovery, education, training, and commercialization.

Agencies should balance priorities to ensure that resources are allocated for agency-specific, mission-driven R&D, including discovery-oriented research and use-inspired research, while at the same time focusing resources, where appropriate, on the following multi-agency R&D and STEM education activities that cannot be addressed by a single agency.

- Preparing for and preventing pandemics
- Reducing the death rate from cancer by half
- Tackling climate change
- Advancing national security and technological competitiveness
- Innovating for equity
- Cultivating an equitable STEM education, engagement, and workforce ecosystem
- Promoting open science and community-engaged R&D

The following sections describe in greater detail the motivation and priorities within these seven domains.

Preparing for and preventing pandemics

The COVID-19 pandemic has claimed an unparalleled number of lives and cost the U.S. and global economy trillions of dollars, demonstrating our continued vulnerability to current and future biological threats. As COVID-19 variants and other pathogens like influenza and monkeypox spread globally, we must work with renewed urgency to accelerate development of needed scientific capabilities that can stop outbreaks before they become epidemics or pandemics, regardless of natural, accidental, and deliberate origin. Almost every agency has a role in pandemic preparation and prevention, and budget submissions should expand upon previous pandemic preparedness and biodense R&D investments to address priority areas for fundamental science and technological innovation in support of the American Pandemic Preparedness: Transforming Our Capabilities plan (a
This budget is very detailed for each agency but usually **never sees the light of day!!**

Not on same page with Congress!!

Academic professional societies **advocate** for the budget and/or various parts of it

- This includes multi-institutional consortia as well as disciplinary societies

Examples of major consortia (often creating joint letters)

- Association of American Universities (AAU)
- Association of Public and Land-grant universities (APLU)
- Association of American Medical Colleges (AAMC)
- American Council on Education (ACE)
- Council on Governmental Relations (COGR)
December 14, 2022

The Honorable Nancy Pelosi
Speaker
United States House of Representatives
Washington, DC 20515

The Honorable Charles Schumer
Majority Leader
United States Senate
Washington, DC 20510

The Honorable Kevin McCarthy
Minority Leader
United States House of Representatives
Washington, DC 20515

The Honorable Mitch McConnell
Minority Leader
United States Senate
Washington, DC 20510

Dear Speaker Pelosi and Leaders Schumer, McCarthy, and McConnell:

On behalf of the Association of American Universities (AAU), which represents America’s leading research universities, we are encouraged by yesterday’s announcement of a bipartisan framework for FY23 appropriations. Punishing for another year would do irreparable harm to our nation, and we urge passage of an omnibus bill before the new year that makes crucial investments in student aid, scientific research, economic growth, and national security. The letter stressed that “punishing for another year would do irreparable harm to our nation,” especially “as competitor nations continue to invest more in science and innovation.”

A year-long continuing resolution (CR) would be harmful to our nation. As competitor nations continue to invest more in higher education, science, and innovation, we simply cannot afford to freeze federal investments in student aid and scientific research for another year. Similarly, our nation’s scientific and innovation enterprise cannot afford another year of delay and interruption in the kind of crucial research that helped us mitigate the COVID-19 pandemic and pass a milestone in nuclear fusion. Static federal investments and delayed federal funding decisions for student aid and research programs create uncertainty and impede innovation critical to our nation’s health, competitiveness, and security.

We understand that an additional short-term continuing resolution (CR) beyond December 16th is necessary to complete work on a FY23 appropriations package. As you work to finalize a bill, we urge the inclusion of House and Senate proposals to increase federal investments in student aid and research. For example, both propose a $500 increase to the annual Pell Grant maximum award as well as increases for other student aid programs, the National Institutes of Health, the National Science Foundation, the Department of Energy’s Office of Science, the Department of Defense’s Science and Technology programs, NASA, and other critical higher education and research agencies and programs.

Moreover, while the bipartisan CHIPS and Science Act was a monumental policy achievement for our nation’s scientific research enterprise, it only authorized additional investments in its “Science” provisions. Actual appropriations are still necessary. If funded at the authorized levels in FY23 and beyond, the law’s science provisions – including funding for NSF, the DOE Office of Science, and NIST – will help ensure that our nation remains the world leader in scientific research and innovation and help bolster our economic

AAU President Barbara R. Snyder sent a letter urging House and Senate leaders to avoid a year-long continuing resolution and to pass “an omnibus bill before the new year that makes crucial investments in student aid, scientific research, economic growth, and national security.” The letter stressed that “punishing for another year would do irreparable harm to our nation,” especially “as competitor nations continue to invest more in science and innovation.”
Congress has the “power of the purse”
Authorization
Appropriation
Appropriators have a great deal of power in Congress – in fact, they are called “cardinals!”
● **House Science, Space and Technology Committee (HSST)** is the authorizing and oversight committee for
  - National Aeronautics and Space Administration (NASA)
  - National Science Foundation (NSF)
  - National Oceanic and Atmospheric Administration (NOAA)
  - National Institute of Standards and Technology (NIST)

● **House Appropriations Subcommittee on Commerce, Justice, Science and Related Agencies (CJS)** is the appropriations committee

● The Senate has its authorizing and appropriation counterparts
Passing all 12 appropriation bills by the start of a fiscal year (October 1) is RARE and getting more rare!

Figure 2.11
Percentage of stand-alone appropriations bills enacted by the US Congress on or before October 1 of each federal fiscal year. Source: Desilver (2018).
Directed Spending – The “earmark”

December 12, 2010

Banning Congressional Earmarks Would Cost Colleges Billions
By Kevin Kiley

Washington

Colleges stand to lose billions of dollars for research, facilities, and other purposes if Congressional leaders hold firm in their pledge to ban earmarks, the spending that individual members direct to their home states and favorite projects outside of the competitive processes.
Finding money

NUMEROUS mechanisms exist and most are online

Federal agencies

- Can sign up for announcements based upon stated interest areas
- Visit the particular agency website
- Grants.gov is a wonderful resource for opportunities across ALL agencies – very powerful search capabilities

Also Broad Agency Announcements (BAAs) for basic & applied research
• Private foundations
  – Sometimes issue calls for proposals
  – VERY specific areas and priorities

Program strategies

We support new ideas to address obstacles that stop people from living their best lives. Some projects we support will not succeed. We not only understand that, we anticipate it. Philanthropy means taking chances on solutions that governments and businesses cannot afford to take. As we discover which risks pay off, we adapt our strategies and share the outcomes for everyone’s advantage.

- Gender Equality
- Global Development
- Global Growth and Opportunity
- Global Health
- Global Policy and Advocacy
- U.S. Program
Private companies

- They are not research funding organizations so they don’t issue solicitations or calls for proposals
- One has to develop working relationships with companies and that process is addressed in Chapter 13
Chapter 3: Perception and Reality: Public Attitudes, Understanding, and Use of Research

- Social compact with taxpayers
- Public attitudes
- Progress balanced with belief systems and ethics
- Use and misuse of research results in policy
- Roles of research and creative activity in society
Chapter 4: **Essential Concepts:** Performing Research and Creative Activity

- General framework of research
- Scientific method
- Indigenous method
- Historical method
- Citizen science
- Research + education
- Serendipity in research
- Reproducibility
Chapter 5: Becoming a Detective: Finding What You Need and Using it Effectively

- Sources of data/information
- Primary and secondary sources
- Source validation, QA and QC
- Information synthesis
Components of grant proposals
The art of writing a competitive proposal
Sharing the costs of research
Facilities and administrative costs (F&A) – DEEP DIVE!
Chapter 6: Diving into the Pool: Research Proposals, Evaluation Processes, and Project Management

- Merit review
  - Federal agencies
  - Private foundations
- Project management
Chapter 7: The Give and Take of Criticism: Subjecting Research to Scrutiny via Peer/Merit Review

- Importance and mechanisms
- Principles of peer review
- Examples
- Strengths and weaknesses
- Alternative models
- Use of professional critique

- Weaknesses
  - Slow!
  - Flaw identification
  - Not transparent
  - Subjective
  - Bias
  - Interdisciplinary work
  - Conservative

- Strengths
  - Use of Experts
  - Anonymity
  - Helpful insight
  - Accountability

- Alternatives
  - Double-blind
  - Open
  - Fully open/public
  - Consultative
Chapter 8: We See the World Differently: Bias and Differing Views

- We all have biases! Some good, some bad!
- Bias and discrimination – similar but different, good and bad
- Bias can determine behavior – and that’s when we become aware of it
- Numerous types of bias exist, both conscious and unconscious
  - Design bias
  - Sampling bias
  - Participant bias
  - Historical bias
  - Cultural bias
  - Procedural bias
  - Analysis bias
  - Confirmation bias
  - Interpretation bias
  - Anchoring bias
  - Publication bias
  - Bias in peer/merit review
Chapter 8: We See the World Differently: Bias and Differing Views

- Shows up in reviews of our work and proposals, evaluations, applications, publishers
- Great deal of scholarly work being done to better understand and mitigate it
- Views of research differ widely
  - COVID Pandemic
  - Golden Fleece Awards, Federal Fumbles, etc.
Chapter 9: Honesty is the Best Policy: Ethical Conduct and Research Integrity

- Importance of responsible and ethical conduct
  - Trust
  - Standards for behavior and process
  - Accountability
  - Public support
  - Freedom from political or other influence
- The importance of values!
Chapter 9: Honesty is the Best Policy: Ethical Conduct and Research Integrity

- Ethics and morality
- Research misconduct and associated consequences
- How to develop and maintain an ethical program of scholarship
Chapter 9: Honesty is the Best Policy: Ethical Conduct and Research Integrity

Both OPEN And SECURE

Image Credit: National Science Foundation
Chapter 10: **Better Safe than Sorry: Research Compliance**

- And you thought the real universe was big and complex!!
- Goal is to know rules, how to follow them, and consequences for not!
- The universe of research compliance
  - Human & animal subjects
  - The research environment
  - Materials used in research
  - Grant proposals, contracts, other instruments
  - Reporting
  - Conflicts of interest and commitment
  - Protection of sensitive information/processes

Federal Demonstration Partnership (2014)
Chapter 11: **Show Time**: Making Your Work Known to Multiple Audiences

- Research and creative activity are about the generation AND dissemination of new knowledge
- Communicating WITH both expert and non-expert audiences is key
- Learning this early is VERY important
- New modes of communication – OPEN AND PUBLIC ACCESS, OPEN SCHOLARSHIP

https://www.uzh.ch/blog/ub/2023/03/02/the-snsf-new-open-access-regulations/?lang=en
Chapter 12: Yours, Mine and Ours: Ownership of Research Outcomes

- Super important topic in all disciplines!!
- Many in the arts and fine arts fall prey to unscrupulous agents
- Need to know this before it’s too late!
- What is intellectual property (IP) and how is it protected?
Boundary-Spanning Problems

- Physical, Natural and Life Sciences
- Technology and Engineering
- Humanities
- Policy
- Social, Behavioral and Economic Sciences
Boundary-Spanning Problems
Chapter 13: I Need You and You Need Me: Collaboration, Multidisciplinary Inquiry, and Academic-Corporate Partnerships

- Uni-Disciplinary
- Multi-Disciplinary
- Interdisciplinary
- Transdisciplinary
Why do we Collaborate/Partner?

- Others bring something to the table we don’t have
  - Ideas
  - Capabilities
  - Technologies
  - Prestige
  - Funding
  - Linkages
- Expands our opportunity space
- Allows us to tackle problems beyond our expertise
- Creates new approaches and even disciplines
Challenges of Collaboration Involving Multiple Disciplines

- Finding people
  - Similarities
  - Constructive differences
  - Getting them interested
  - Communication barriers/lexicon
- Incentives and rewards – different disciplines have different models
- Venues for communicating outcomes
- Promotion and tenure
But the REWARDS are Tremendous!
The Challenge of Preventing Tornado-Related Deaths and Injuries: The Year is 1953 (519 Deaths)
The Challenge of Preventing Tornado-Related Deaths and Injuries: The Year is 2011 (550 Deaths)
Chapter 14: A Glass Half Empty or Half Full: Challenges and Opportunities for the U.S. Academic Research Enterprise

- Lots of challenges, lots of opportunities (see the book!)

- Challenges
  - Funding and maintaining global leadership in key technology areas
  - Support for arts, fine arts and humanities
  - Promotion of and adherence to scholarly values and ethical principles
  - Educational attainment and student capabilities
  - Diversity, equity, inclusion, belonging
  - Balancing security with an open scholarly enterprise
Chapter 14: A Glass Half Empty or Half Full: Challenges and Opportunities for the U.S. Academic Research Enterprise

- Opportunities
  - Tackling immensely important problems such as climate change, disease, poverty, justice, feeding the world
  - Joining all sectors together (academia, industry, non-profits, government)
  - Dramatically reducing administrative workload – COVID pandemic was the proof of concept
  - The BIGGEST OPPORTUNITY is for emerging scholars, and those who support them, to HELP SHAPE the future and engage MUCH SOONER because they have learned what took others ENTIRE CAREERS to learn!!
A Special Feature – Chat Assistant Customized for Topics in the Book!!

- Using technology developed by the UIUC Center for Artificial Intelligence Innovation, a chat assistant customized for the book is available!
- It has been trained using the book as well as numerous relevant URLs
- Simply type in a question or text and it will return an answer
- [https://www.uiuc.chat/ATMS491SP24/chat](https://www.uiuc.chat/ATMS491SP24/chat)
how can the research administrative workload on faculty be reduced?

The research administrative workload on faculty can be reduced through several strategies. Firstly, it is suggested that compliance regulations should be thoughtfully conceived, appropriately structured and implemented, and shown to be achieving the intended purpose. Additionally, it is recommended to eliminate or modify ineffective regulations, harmonize and streamline requirements, and increase university efficiency and effectiveness.

The National Science Board (NSB) has also provided recommendations for reducing investigators' administrative workload for federally funded research. Furthermore, the Federal Demonstration Partnership (FDP) has conducted surveys to understand the workload of principal investigators and has found that the workload has increased over time due to compliance and proposal preparation activities.

Efforts to reduce the research administrative workload should also include eliminating compliance rules and regulations that have outlived their purpose or are providing no practical benefit, and others should be streamlined and unified to minimize the time burden for researchers.

Relevant Sources:
Afterword

- Research and creative Activity Accomplish 3 Important Things
  - Inspire Us
  - Unite Us
  - Guide Us

- I believe the scholarly enterprise is one of the last social systems in which the values we cherish – both as members of society and as scholars – are practiced, modeled and preserved

- We must remain the North Star for humanity and show how people of vastly difference characteristics can come together and make the world a better place. We do it all the time. Let’s make sure it’s noticed!
THANK YOU, FDP, for the great work you do!!