

This is a section of [doi:10.7551/mitpress/14740.001.0001](https://doi.org/10.7551/mitpress/14740.001.0001)

Demystifying the Academic Research Enterprise

Becoming a Successful Scholar in a Complex and Competitive Environment

By: Kelvin K. Droegemeier

Citation:

Demystifying the Academic Research Enterprise: Becoming a Successful Scholar in a Complex and Competitive Environment

By: Kelvin K. Droegemeier

DOI: [10.7551/mitpress/14740.001.0001](https://doi.org/10.7551/mitpress/14740.001.0001)

ISBN (electronic): 9780262377201

Publisher: The MIT Press

Published: 2023

The open access edition of this book was made possible by generous funding and support from The MIT Press Frank Urbanowski Memorial Fund



The MIT Press

Acronyms

2 C.F.R. § 200	Title 2 of the US Code of Federal Regulations, Part 200
AA	American Airlines
AAALAC	Association for Assessment and Accreditation of Laboratory Animal Care
AAHRPP	Association for the Accreditation of Human Research Protection Programs
AAMC	Association of American Medical Colleges
A&M	Agricultural and mechanical
AAU	Association of American Universities
ACE	American Council on Education
ADVANCE	Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers
AIRI	Association of Independent Research Institutes
APC	Article processing charge
APLU	Association of Public and Land-grant Universities
AUTM	Association of University Technology Managers
BAA	Broad agency announcement
BRAIN	Brain Research through Advancing Innovative Neurotechnologies
CAPS	Center for Analysis and Prediction of Storms
CARR	Coordinating Administrative Research Requirements
CBR	Congressional Budget Resolution
CITI	Collaborative Institutional Training Initiative
COGR	Council on Governmental Relations
COI	Conflict of interest
COMPETES	Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science
CoR	Council on Research

CORD-19	COVID-19 Open Research Dataset
COVID-19	Coronavirus disease
CR	Continuing Budget Resolution
CRS	Congressional Research Service
CUI	Controlled Unclassified Information
CY	Calendar year
DBER	Discipline-based education research
DHHS	Department of Health and Human Services
DNA	Deoxyribonucleic acid
DOD	Department of Defense
DOE	Department of Energy
D/PU	Doctoral/Professional Universities, Carnegie Classification of Institutions of Higher Education
EHSO	Environmental Health and Safety Office
EPSCoR	Established Program to Stimulate Competitive Research
ERI	Emerging research institution
EU	European Union
FAIR	Findability, accessibility, interoperability, and reuse of digital assets
F&A	Facilities and administrative costs
FDP	Federal Demonstration Partnership
FFRDC	Federally Funded Research and Development Center
FTE	Full-time equivalent
FY	Fiscal year
GDP	Gross domestic product
GPS	Global positioning system
GRANTED	Growing Research Access for Nationally Transformative Equity and Diversity
GUIRR	Government-University-Industry Research Roundtable
HBCU	Historically Black College and University
HIPAA	Health Insurance Portability and Accountability Act
HSI	Hispanic Serving Institution
IACUC	Institutional Animal Care and Use Committee
IBC	Institutional Biosafety Committee
I-Corps	Innovation Corps
IG	Inspector general
IP	Intellectual property
IR&D	Internal research and development
IRB	Institutional Review Board

JCORE	Joint Committee on the Research Environment
M1	Master's Colleges and Universities—Larger programs, Carnegie Classification of Institutions of Higher Education
M2	Master's Colleges and Universities—Medium programs, Carnegie Classification of Institutions of Higher Education
M3	Master's Colleges and Universities—Smaller programs, Carnegie Classification of Institutions of Higher Education
MSI	Minority Serving Institution
NASA	National Aeronautics and Space Administration
NASEM	National Academies of Science, Engineering, and Medicine
NCA	National Council on the Arts
NCURA	National Council of University Research Administrators
NEA	National Endowment for the Arts
NEH	National Endowment for the Humanities
NIH	National Institutes of Health
NIST	National Institute of Standards and Technology
NOAA	National Oceanic and Atmospheric Administration
NORDP	National Organization of Research Development Professionals
NPRM	Notice of Proposed Rulemaking
NSB	National Science Board
NSC	National Security Council
NSF	National Science Foundation
NSPM	National Security Presidential Memorandum
NSTC	National Science and Technology Council
OECD	Organisation for Economic Co-operation and Development
OIRA	Office of Information and Regulatory Affairs
OMB	Office of Management and Budget
ORI	Office of Research Integrity
OSP	Office of sponsored programs
OSTP	Office of Science and Technology Policy
PCAST	President's Council of Advisors on Science and Technology
PD	Project director
PHI	Personal health information
PI	Principal investigator
PPP	Purchasing power parity
PUI	Primarily Undergraduate Institution
PYI	Presidential Young Investigator
QA	Quality assurance

QC	Quality control
R1	Doctoral Universities—Very high research activity, Carnegie Classification of Institutions of Higher Education
R2	Doctoral Universities—High research activity, Carnegie Classification of Institutions of Higher Education
R2O	Research to operations
R&D	Research and development
RAS	Research administrative services
RCN	Research Coordination Networks program
RCR	Responsible conduct of research
RD	Research development
RDT&E	Research, development, test, and evaluation
RECR	Responsible and ethical conduct of research
RFI	Request for Information
ROW	Rest of world
SBIR	Small Business Innovation Research program
SEI	Science and Engineering Indicators
SETI	Search for Extraterrestrial Intelligence
SRAI	Society of Research Administrators International
SRO	Senior research officer
STEAM	Science, technology, engineering, arts, and mathematics
STEM	Science, technology, engineering and mathematics
STTR	Small Business Technology Transfer program
STW	Skilled technical workforce
TCU	Tribal College and University
TED	Technology, Entertainment and Design
UIDP	University-Industry Demonstration Partnership
US	United States
USPTO	United States Patent and Trademark Office
VC	Venture capital

© 2023 Massachusetts Institute of Technology

This work is subject to a Creative Commons CC-BY-NC-ND license.
Subject to such license, all rights are reserved.



The MIT Press would like to thank the anonymous peer reviewers who provided comments on drafts of this book. The generous work of academic experts is essential for establishing the authority and quality of our publications. We acknowledge with gratitude the contributions of these otherwise uncredited readers.

This book was set in Times Roman by Westchester Publishing Services, Danbury, CT.

Library of Congress Cataloging-in-Publication Data

Names: Droegemeier, Kelvin, 1958– author.

Title: Demystifying the academic research enterprise : becoming a successful scholar in a complex and competitive environment / Kelvin K. Droegemeier.

Description: Cambridge, Massachusetts : The MIT Press, [2023] | Includes bibliographical references and index.

Identifiers: LCCN 2022062131 (print) | LCCN 2022062132 (ebook) | ISBN 9780262547079 (paperback) | ISBN 9780262377218 (epub) | ISBN 9780262377201 (pdf)

Subjects: LCSH: Universities and colleges—Research—United States. | Research—Moral and ethical aspects—United States. | Research—Methodology. | Learning and scholarship—United States.

Classification: LCC LB2326.3 .D76 2023 (print) | LCC LB2326.3 (ebook) | DDC 378.0072—dc23/eng/20230512

LC record available at <https://lcn.loc.gov/2022062131>

LC ebook record available at <https://lcn.loc.gov/2022062132>