Introduction

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The following papers each address an aspect of the subject of the twenty-third
annual research policy retreat hosted by the Merrill Center: Challenges for Im-
plementation of Cross-Disciplinary Research in the Big Data Era. We are
pleased to continue this program that brings together University administrators and
researcher-scientists for informal discussions that lead to the identification of pressing
issues, understanding of different perspectives, and the creation of plans of action to
enhance research productivity within our institutions. This year the focus continues to
be on opportunities and challenges of big data for research in public universities.

Our keynote speaker for the event was Dr. Daniel Reed, Senior Vice Presi-
dent for Academic Affairs, the University of Utah. He called for an integrative, ho-
listic perspective on the challenges and opportunities of the explosive growth of
big data in our lives. Science, social struc-
tures, and commercial enterprise merge
in unprecedented ways that demand our
attention.

Benefactors Virginia and Fred Mer-
rill make possible this series of retreats:
The Research Mission of Public Universi-
ties. On behalf of the many participants
over two decades, I express deep grati-
tude to the Merrills for their enlightened
support. On behalf of the Merrill Ad-
vanced Studies Center, I extend my ap-
preciation for the contribution of effort
and time of the participants and in partic-
ular, to the authors of this collection of
papers who found time in their busy
schedules for the preparation of the ma-
terials that follow.

Nineteen administrators, faculty,
and students from four institutions in
Kansas, Arkansas and Nebraska attended
in 2019, which marked our twenty third
retreat. Additionally, a librarian from the
National Library of Medicine/National
Institutes of Health attended this year.
Though not all discussants’ remarks are
individually documented, their participa-
tion was an essential ingredient in the
general discussions that ensued and the
preparation of the final papers. The list of
all conference attendees is at the end of
the publication.

The inaugural event in this series of
conferences, in 1997, focused on pres-
sures that hinder the research mission of
higher education. In 1998, we turned our
attention to competing for new resources
and to ways to enhance individual and
collective productivity. In 1999, we exam-
ined in more depth cross-university alli-
ances. The focus of the 2000 retreat was
on making research a part of the public
agenda and championing the cause of re-
search as a valuable state resource. In
2001, the topic was evaluating research
productivity, with a focus on the very im-
portant National Research Council
(NRC) study from 1995. In the wake of
9/11, the topic for 2002 was “Science at a
Time of National Emergency”; participants discussed scientists coming to the aid of the country, such as in joint research on preventing and mitigating bioterrorism, while also recognizing the difficulties our universities face because of increased security measures. In 2003 we focused on graduate education and two keynote speakers addressed key issues about retention of students in the doctoral track, efficiency in time to degree, and making the rules of the game transparent. In 2004 we looked at the leadership challenge of a comprehensive public university to accommodate the fluid nature of scientific initiatives to the world of long-term planning for the teaching and service missions of the universities. In 2005 we discussed the interface of science and public policy with an eye toward how to move forward in a way that honors both public trust and scientific integrity. Our retreat in 2006 considered the privatization of public universities and the corresponding shift in research funding and infrastructure. The 2007 retreat focused on the changing climate of research funding, the development of University research resources, and how to calibrate those resources with likely sources of funding, while the 2008 retreat dealt with the many benefits and specific issues of international research collaboration. The 2009 retreat highlighted regional research collaborations, with discussion of the many advantages and concerns associated with regional alliances. The 2010 retreat focused on the challenges regional Universities face in the effort to sustain and enhance their research missions, while the 2011 retreat outlined the role of Behavioral and Social sciences in national research initiatives. Our 2012 retreat discussed the present and future information infrastructure required for research success in universities, and the economic implications of that infrastructure, and the 2013 retreat discussed the increasing use of data analysis in University planning processes, and the impact it has on higher education and research. The 2014 retreat looked at the current funding environment and approaches which could be used to improve future funding prospects. The 2015 retreat addressed the opportunities and challenges inherent in innovation and translational initiatives in the time of economic uncertainty that have an impact on goals to enhance research productivity. The 2016 retreat focused on the building of infrastructure to meet the changing needs in research. The 2017 retreat topic and discussions were on university research planning in the era of big data. The 2018 retreat topic and discussions were on rethinking and re-engineering incentives for scholarly activities across the research enterprise in an open access environment.

Once again, the texts of this year’s Merrill white paper reveal various perspectives on only one of the many complex issues faced by research administrators and scientists every day. It is with pleasure that I encourage you to read the papers from the 2019 Merrill policy retreat on: Challenges for Implementation of Cross-Disciplinary Research in the Big Data Era.