

A Conversation on *Restoring the Foundation*: The Important Role of Central and Southern Plains Institutions in Driving National Change

On May 28, 2015, the Academy convened a workshop in Chicago to discuss how a regional working group of state, local, and university leaders from the plains states could help implement the recommendations from the Academy's recent report *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream*. The primary objective was to identify a clear plan of action for how such a working group could collaborate to communicate the importance of the nation's science and engineering research enterprise to policy-makers.

The participants included twenty-two vice presidents and vice chancellors for research; five deans, provosts, and vice provosts; and six state EPSCoR (the National Science Foundation's Experimental Program to Stimulate Competitive Research) directors and associate directors, along with economic development and government relations officials. EPSCoR's mission is to strengthen science and engineering research states that are underrepresented in the National Science Foundation's funding portfolio. Of the twenty-eight states that currently qualify for the program, twelve were represented at the meeting.

These twelve states – from Louisiana and New Mexico to Iowa and the Dakotas – represent 20 percent of the nation's population and 25 percent of its federally supported scientific research. The plains states share a broad range of common research interests, particularly those related to rural concerns such as rural health and agriculture, as well as the food-energy-water nexus. Articulating

the role of research in these areas to regional stakeholders, especially governors and local businesses, will be integral to advancing the recommendations in *Restoring the Foundation*.

Joining Forces in the Plains States

The workshop, cochaired by Kelvin Droegemeier (Vice President for Research at the University of Oklahoma and Vice Chair of the National Science Board) and Kelly Rusch (Vice President of the Office for Research and Creative Activity at North Dakota State University and EPSCoR State Project Director for North Dakota EPSCoR), provided a venue for participants to discuss their common interests, challenges, resources, and capabilities. As Droegemeier said, "we can do more together than we can apart."

Rusch affirmed this observation, saying that, "Within our individual states, we are concerned about our day-to-day struggles with our own state governments. But collectively, as these twelve states,



Neal Lane (Rice University) speaks to university vice presidents of research and state and local leaders about *Restoring the Foundation*.

Successfully Navigating New Waters: Excerpts from a Speech Delivered by Sally Mason

Sally Mason is President Emeritus of the University of Iowa.

The uncertainties and challenges facing higher education are not the same as those we faced ten, twenty, or even one hundred years ago. But our public universities are one of the great achievements of American society, and today, as a century ago, they are at the very core of the American Dream.

Let me here emphasize that I don't believe that student success, teaching, economic development, and research are mutually exclusive. Even in tough economic times, we don't need to sacrifice one for the other. Rather, as in any period of change, adaptability and flexibility are key. There are ample opportunities at our institutions to implement change – even to do so quickly – despite the seemingly overwhelming nature of the task.

But in these uncertain times, how can we reimagine our approaches to the research enterprise? To begin, universities must diversify their research portfolios. This challenge requires that we build new partnerships outside of traditional government and in industry, increase interdisciplinary approaches, and better incorporate our research expertise into our core missions of undergraduate education and public engagement.

You never know when or where you might find an interesting partner. Let me encourage you not only to work with businesses in your states, but to continue to work with as many different

groups as you possibly can. We must reach out and make certain that we break down the silos that have been built within our institutions. Businesses and nonprofits reach out all the time; we as research universities must do so as well. Our systems may not incentivize it, and institutional barriers (even interinstitutional barriers) may make it challenging to work together. But it behooves us: the more we can work together, the better off we all will be.

Change is daunting; there is no doubt about it. But change has always been a fundamental part of the university: the very essence of discovery is the new. Public universities are difficult ships to steer, but if we are doing our jobs right, we as teachers, researchers, and administrators will always be directing them to new and unexplored waters. That territory must include not only the subjects we want to explore, but also the new ways in which we go about our work.

Our institutions would not be what they are today had we not planned and innovated in uncertain times. So do not let that be a stumbling block. After all, what times are not uncertain? Our public universities have successfully navigated new waters since the very beginning; indeed, that has always been our stock-in-trade.

the plains states, we are a very strong group. The question is, how do we take our individual strengths within our states, and our collective strengths, and create one voice?"

University of Iowa President Sally Mason also challenged the group to build new partnerships, while acknowledging the barriers posed by current incentive structures and institutional boundaries. She urged university vice presidents and vice chancellors for research to work with their institutions to review promotion and tenure policies and to foster a fresh research culture that encourages collaboration and rewards shared credit.

Strengthening the partnership among universities, industry, and the government is a core recommendation from *Restoring the Foundation*. The report also highlights the need for sustainable federal investments in research and for implementing policy reforms to increase the efficiency and effectiveness of America's research system.

Restoring the Foundation cochair Neal Lane (Senior Fellow at Rice University's Baker Institute, former Science Advisor

to President William J. Clinton, and former Director of the National Science Foundation) stressed the importance of gaining the attention of policy-makers across America. He urged the participants to begin with leaders in their own states: "We really must get the conversation going so that the public, their elected representatives, and leaders in all sectors understand why steady, sustainable investment and policy change are so important. The people who represent your states are in key positions right now, and if they hear from you and your colleagues, your business leaders, your university leaders, that makes a difference. Those voices are important."

Taking Action Together

One participant observed that universities from the central and southern plains operate too often like "felons on a raft," working together for immediate survival but then parting ways once the destination has been reached. Instead, they should identify the unique and enduring characteristics that bind their organizations,

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and then consider how to leverage those strengths to help lift the nation amid a rising tide of global competition.

The workshop reinforced this goal through a series of small-group discussions on challenges facing America's research enterprise, including STEM education; intellectual property and tax laws; the government-university-industry partnership; national science and technology policy; faculty workload; and the benefits of finding common cause on research issues.

These breakout discussions produced consensus agreement on a set of seven actions that would establish a unified sense of purpose for central and southern plains institutions within the national conversation. But as Droegemeier stressed, "We're not here just to talk; we're here to act." Participants thus pledged to carry out these actions on their own campuses, including:

1. signing the recent public statement "Innovation: An American Imperative" in support of several recommendations from *Restoring the Foundation* (available at www.innovation-imperative.us);
2. developing a concise and consistent message to use in encouraging sustained federal support for basic research;
3. enlisting two to four major companies in each participant's state to help communicate the value of basic research to governors, state legislators, and Congressional delegations;
4. coordinating with national university organizations to identify mechanisms for removing roadblocks to IP negotiations, and to explore their implications for both public universities and private companies;
5. in collaboration with local industry and considering the unique research challenges and institutional resources of the Midwest, summarizing successful research stories in a report that supports *Restoring the Foundation*, catalyzes collaboration in the central and southern plains, encourages state legislatures and Congress to support basic research, and fosters a greater understanding of how basic research ultimately leads to local and regional economic development;
6. engaging successful alumni in an effort to communicate the findings in *Restoring the Foundation* to state and national policymakers; and

7. identifying specific examples of how federally supported basic research at each institution is making a difference at the local, state, regional, or national level.

By establishing a unified voice among research institutions in the central and southern plains region, these actions will add considerable strength to the recommendations from *Restoring the Foundation*. The Academy is now working with the participating institutions to implement these actions and extend them to other states and regions.

More information about *Restoring the Foundation* may be found on the Academy's website at www.amacad.org/restoringthefoundation. ■