



United States
Department of
Agriculture

Research,
Education, and
Economics



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AGRICULTURAL RESEARCH SERVICE
NATIONAL INSTITUTE OF FOOD AND AGRICULTURE
ECONOMIC RESEARCH SERVICE
NATIONAL AGRICULTURAL STATISTICS SERVICE

USDA RESEARCH, EDUCATION, AND ECONOMICS





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Agricultural Preparedness Update

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Under Secretary for Research, Education, and Economics

President's Council of Advisors on Science and Technology (PCAST)

Public Meeting Agenda

September 30, 2016



Foundation for Food and Agricultural Research



- Established by 2014 Farm Bill
- Congress provided \$200 million for the Foundation, matched by mandatory non-federal funds
- Mission of the Foundation is to advance the research mission of the Department of Agriculture by supporting agricultural research activities focused on addressing key problems of national and international significance including:
 - plant and animal health
 - production and products
 - food safety, nutrition and health
 - renewable energy, natural resources and the environment
 - agricultural and food security
 - agriculture systems and technology
 - agricultural economics and rural communities

Key members of USDA leadership were appointed to the Foundation's Board including the Secretary, the Undersecretary for Research, Education and Economics, the Director of National Institute of Food and Agriculture, and the Administrator of the Agricultural Research Service.



Science Advisory Council

- National Agricultural Research, Extension, Education and Economics (NAREEE) Advisory Board established the Science Advisory Council in 2016
- Council will provide advice, guidance, on a scientific basis on the overall strength, practicality, and direction of agricultural research, including emerging technologies and scientific issues

First Three Topics the Science Advisory Council will advise on:

Rigor and
Reproducibility in
Science

Gene Editing and
New Plant Breeding
Techniques

Crowd Sourcing
and Citizen Science



Rebalancing Research Portfolio

NAREEE Advisory Board Report provides three recommendations for rebalance:

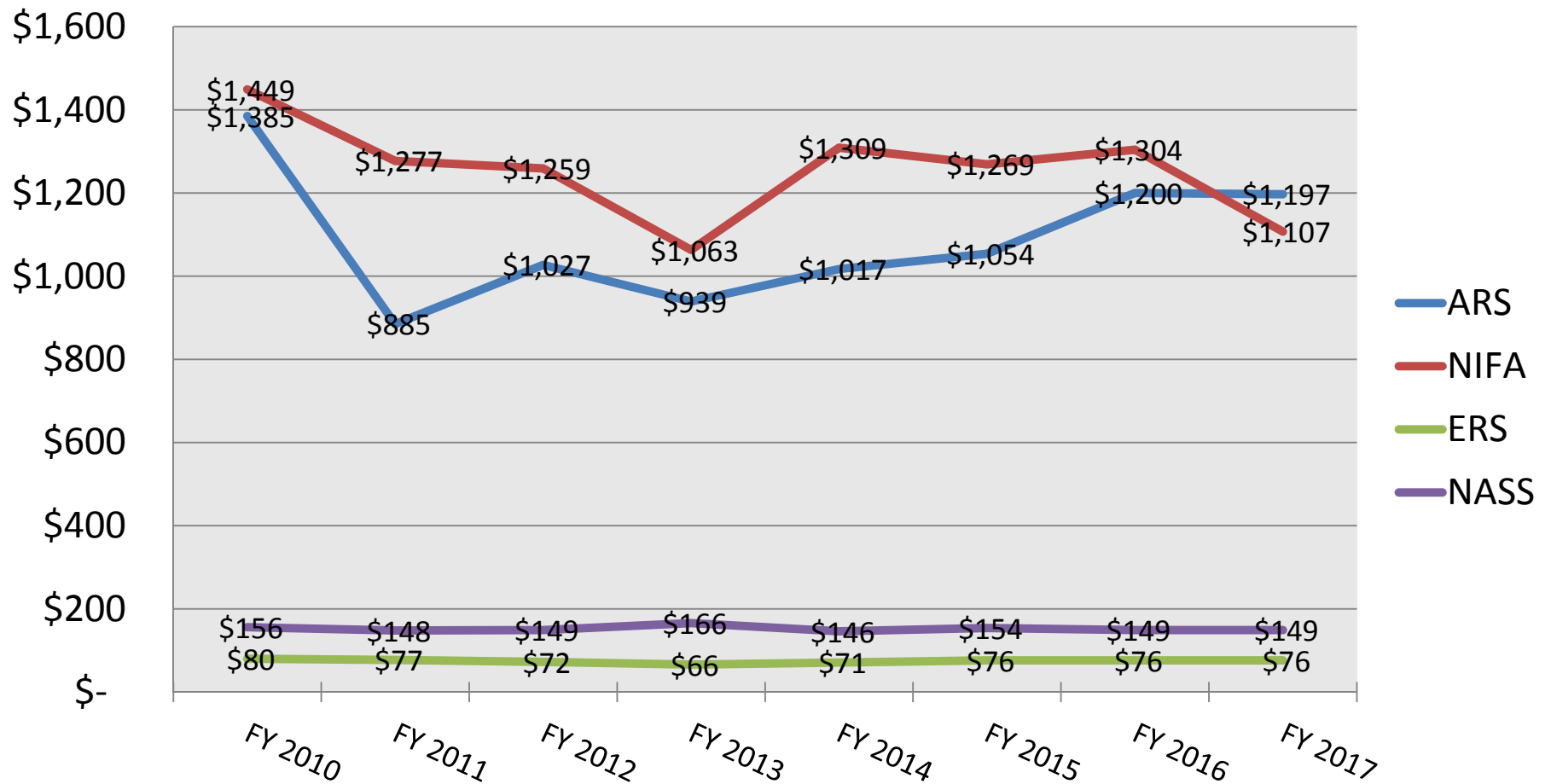
USDA should commission a set of studies to create an accurate and broad picture of current private and public funding of agricultural research.

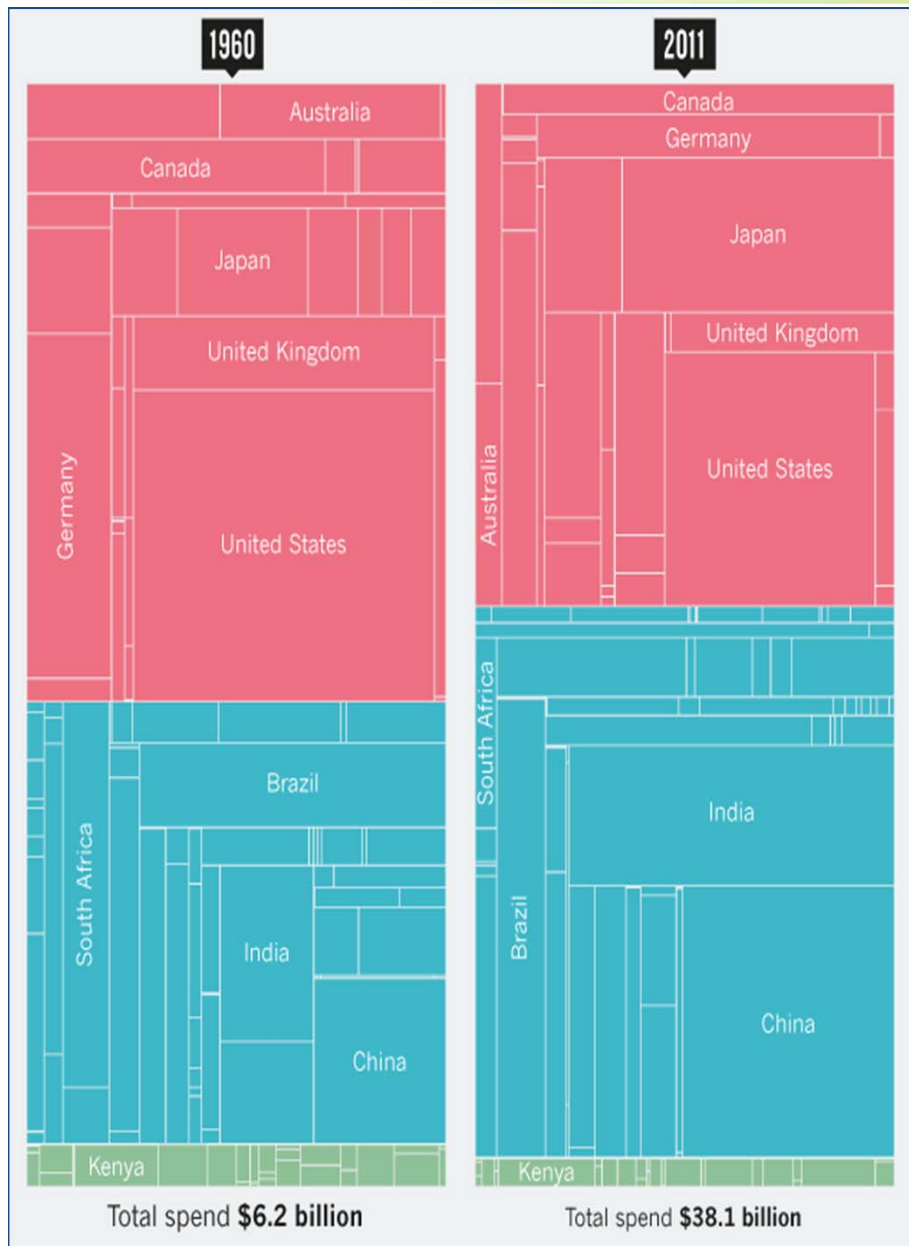
USDA should host various regional listening sessions to assess public opinion on the issue of rebalancing private versus public funding of agricultural research.

USDA should host an annual meeting of a research roundtable for the express purpose of sharing research focus and research needs across public and private entities.



Decline in REE Funding: Real, inflation-adjusted appropriations





FEEDING THE WORLD

More than 50 years of data show major shifts in who is spending what on food and agricultural research and development (AgR&D). For all countries, spending in local currencies is converted to dollars using 2009 purchasing power parity (PPP) exchange rates.

■ Low income ■ Middle income ■ High income

SHIFTING RANKS

For the first time in modern history, middle-income countries are investing more in public-sector AgR&D than are high-income ones.

INDUSTRY-LED

In both high- and middle-income countries, the share of AgR&D by private companies is increasing relative to that pursued by universities and government agencies.

▨ Public AgR&D ■ Private AgR&D



WORLDS APART

The gap between poor and rich countries in per capita spending on public AgR&D widened from 7.7-fold in 1980 to 11.7-fold in 2011.

