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# Public funding for university agricultural re

by Dale Colyer and Virgil Norton

Figure 1. Real levels of agricultural research funds by source (1993 prices)

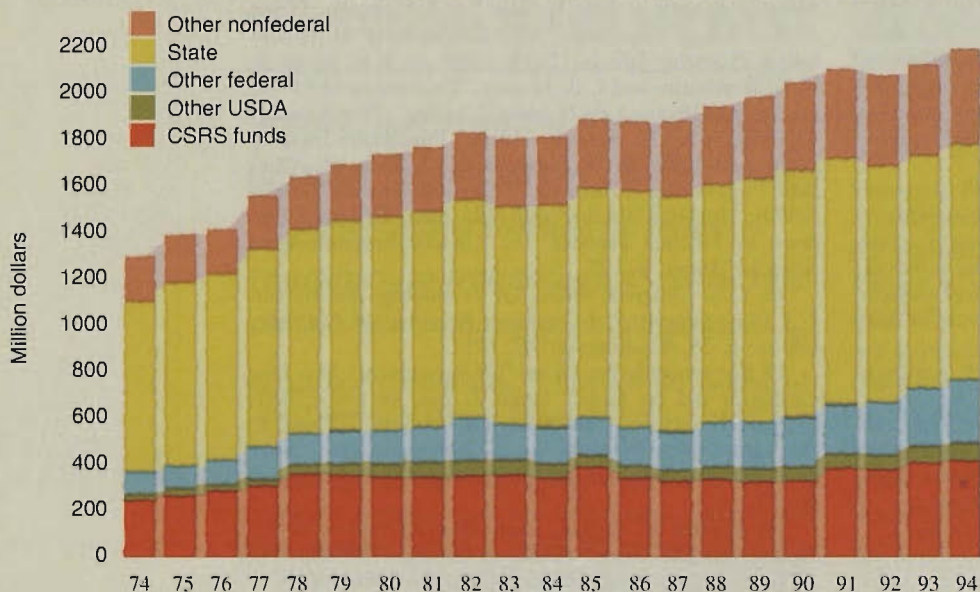
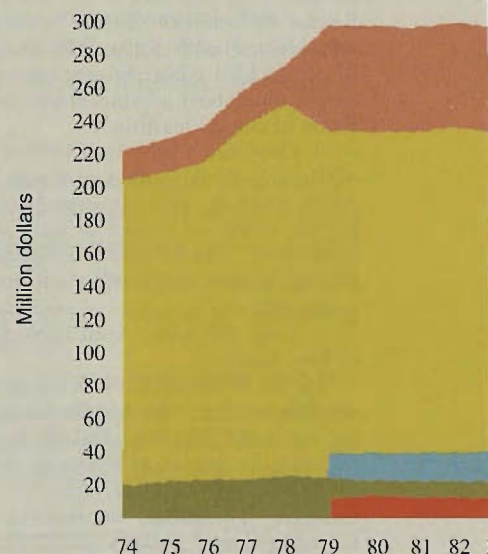


Figure 2. Real CSRS formula fu



Public funding for agricultural research in the United States has generated a highly productive and efficient food and fiber sector and is playing an important role in addressing environmental and natural resource problems that result from sectoral activities. This research process has evolved over the past century since the Hatch Act established agricultural experiment station research programs at the nation's land grant colleges and universities in 1887. Changes during the first seventy years were relatively minor but in recent decades have become more frequent and influential. Proposed reductions by the U.S. House of Representatives for the fiscal year 1996 budget will, if enacted, have a significant impact on agricultural research funding.

## Research funding—sources and trends

Agricultural research funding at land grant universities emanates from a multitude of federal, state, and private sector programs and activities. While a linchpin of agricultural research, Hatch Act and related federal programs administered by the USDA's Cooperative State Research Service (CSRS) are not the largest sources of research funds (figure 1). States provided 47 percent of the funds in 1994, followed by other nonfederal sources (industry, foundations, etc.) with 19 percent, CSRS with 17 percent, non-USDA federal

agencies with 13 percent, and other USDA entities with 4 percent. The corresponding percentages in 1974 were 56, 15, 19, 7, and 2.

Total funding across the nation for university agricultural experiment station research increased more rapidly than inflation from 1974 to 1994 (figure 1). Nominal funding levels grew by nearly five times while the research cost index went up by only about three times, resulting in an increase of real funds for research in 1994 of 1.6 times the 1974 level.

## CSRS funds

The primary components of CSRS support of university agricultural experiment station research are formula funds, competitive grants, and special grants.

## Formula funds

The largest program administered by CSRS is that provided through congressionally appropriated funds to agricultural experiment stations on a formula basis. The Hatch Act accounted for about 76 percent of all formula funds in 1994 (figure 2), a drop from around 94 percent of the total in 1974 when the only other formula-funded research was the McIntire-Stennis program for forestry research. In 1978, the Evans-Alan program for 1890 land grant institutions and an animal health and disease program were added. Total formula funding has barely kept pace with inflation since 1974.

Funding by type of formula (1993 prices)

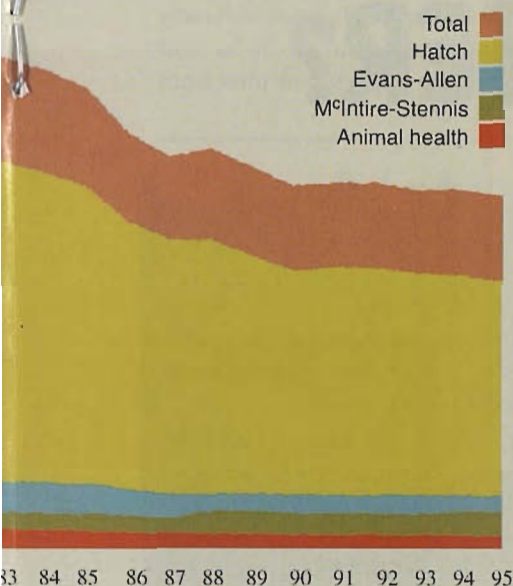
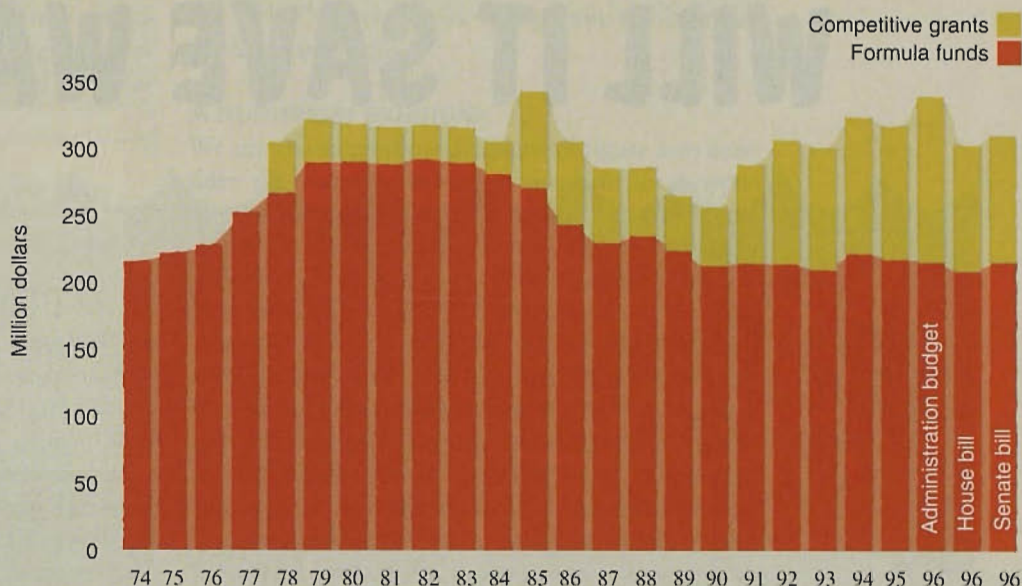


Figure 3. Real formula and competitive grants funding (1993 prices)



Real levels of formula funds increased in the 1970s, but since then they have declined, due primarily to a reduction in the real levels of Hatch funds.

## Competitive grants

As a result of criticisms of formula funding for agricultural research, a competitive grants program was added in 1978 to the pantheon of agricultural research funding. This CSRS program has grown during the last two decades and, while still smaller than formula funding, now stands at about 50 percent of the level of formula-dispersed funds (figure 3).

## Special grants

Congressionally earmarked grants for special projects administered by CSRS grew from 1974 to 1994, but have dropped substantially over the past two years (figure 3).

President Clinton proposed a fiscal year 1996 increase in competitive grants, while holding formula funds constant and decreasing special grants. Under H.R. 1976, passed in July, all three funds will be decreased from fiscal year 1995—the formula program by \$7 million, competitive grants by over \$4 million, and special grants by \$21 million. All fiscal year 1995 levels were down from those of 1994. The final bill PL 104-37 restored some of the cuts to the formula funds but decreased competitive grants by a small amount.

## For more information

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Weaver, R.D., ed. *U.S. Agricultural Research: Strategic Challenges and Options*. Bethesda MD: Agricultural Research Institute, 1993.

The primary source of information for this study is a large data set obtained from the Current Research Information Systems (CRIS) of the USDA. Dennis C. Unglesbee, computer systems analyst, provided the data, which cover all experiment station research projects for the years 1974-94 (the latest available at this time) by state, institution, type and amount of funding, disciplines, and research program areas. Additional data for figures 2 and 3 were obtained from CSRS reports and legislation passed by Congress.

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