

## *Chapter 6: Service and Outreach*

The College of Engineering is an important contributor to CSU's mission to provide service and outreach to the State of Colorado, the nation, and the world. Engineering faculty, staff and students:

- ✘ Contribute to CSU's Cooperative Extension Service (CES),
- ✘ Conduct research that supports the agricultural industry,
- ✘ Educate K-12 teachers with expertise in the STEM disciplines, and
- ✘ Provide workforce development through distance and continuing education programs.

COE faculty and students conduct research through the Agricultural Experiment Station (AES) in areas such as:

- ✘ Developing continuous measurement methods for assessing air quality impacts of confined animal feeding operations,
- ✘ Developing and analyzing climatic data applications for irrigation scheduling and water conservation, agriculture and natural resources,
- ✘ Understanding the critical groundwater link between irrigated agricultural water use and fish habitats in the Arikaree River basin,
- ✘ Estimating nutrient loads for water quality management,
- ✘ Improving drainage of agricultural land to mediate the salinity problem in the Lower Arkansas valley,
- ✘ Understanding the role of animal waste composting protocols in minimizing the impact of agricultural antibiotics on humans and the environment, and
- ✘ Predicting the severity of low flows and droughts for agricultural systems in Colorado.

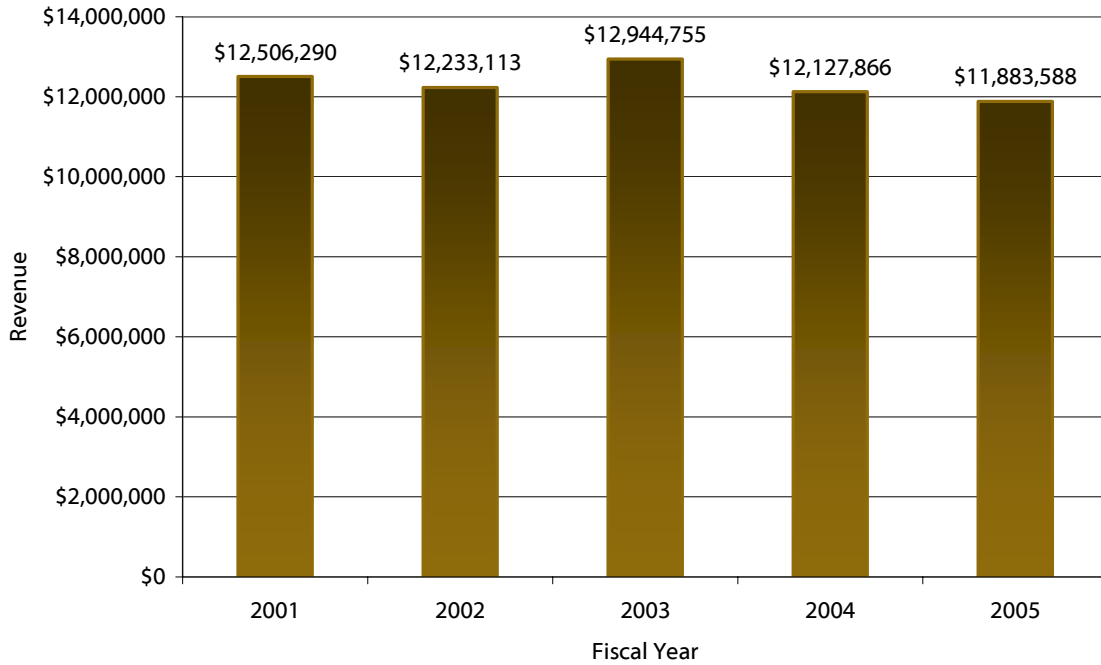
Resources for Colorado State University's Cooperative Extension and the Agricultural Experiment Station have declined in recent years. For example, total AES revenues have been reduced \$622K or 5.0% since 2001 (Figure 6.1). While AES and CES budget reductions were significant and many important CES and AES programs were protected, the College of Engineering experienced disproportionate funding reductions (Figure 6.2). AES and CES funding to the College of Engineering have been cut by 50% and 38%, respectively during the four year period between FY'01 and FY'05. In many cases, withdrawal of AES or CES funding from activities conducted by tenured faculty required the COE to backfill those cuts, magnifying budget reductions to the College of Engineering.

As AES and CES budgets recover from cuts, it will be important to reinvest resources in the College of Engineering to meet Colorado's needs. As those reinvestments occur, the College of Engineering will work with the Vice Provost for Outreach and the Dean of Agricultural Sciences to continue to focus our efforts in areas that are most beneficial to our stakeholders and to develop strategic plans for those initiatives.

Given the massive reductions in CES and AES funding to the COE, this chapter will focus on the College's contributions to teacher education (Chapter 6A) and its workforce development initiative (Chapter 6B). These activities relate most directly to CSU's objectives to prepare teachers for success in Colorado schools (Goal 28) and to provide opportunities

for lifelong learning (Goal 29). The College of Engineering has addressed Goal 30, alumni involvement, within its development and advancement program in Chapter 7.

**Figure 6.1 AES Total Revenue** (CSU Fact Book 2005/2006)



**Figure 6.2 Trends in CES and AES Funding in the COE**

