Preparing Forms for Your ATE Proposal: Synergistic Activities

This instruction sheet is derived directly from the Preparing Personnel Budgets and Forms for your NSF ATE Proposal, presented on May 21, 2025. The full webinar is available for viewing at: https://tinyurl.com/MCFormsPersonnelWebinar. A comprehensive version of the Quick Reference Guide can be accessed at: https://tinyurl.com/MCPersonnelForms

Synergistic Activities: Synergistic activities augment the Biosketches by demonstrating the broader impact of an individual's professional and/or scholarly activities beyond the classroom and campus. Develop a list of up to five activities for each member of your Senior Personnel that involve collaborations, contributions, and impacts that align with the ATE mission. Save them as pdfs and upload them on the Control Page.

- Use action verbs. Start each bullet with a strong verb like *led*, *developed*, *collaborated*, or *disseminated* to convey active roles and impacts.
- List activities that demonstrate involvement in technician education, workforce development, or industry collaboration - core priorities of the ATE program.
- Give examples of impacts beyond your institution, i.e. sharing of expertise or resources with other institutions or community partners.
- Describe leadership or participation in relevant initiatives (e.g., curriculum development, outreach, professional development).

Here are some good examples of synergistic activities that tell reviewers not only about activities but also about the impact of those activities.

- Co-developed and led a regional industry-advisory board involving five advanced manufacturing companies. This effort aligned curriculum with real-time workforce needs and facilitated paid internships for over 50 students.
  Why this works: It highlights collaboration, direct workforce alignment, and applied student outcomes.
- Partnered with a local high school to implement a dual-enrollment course in robotics, which led to a 25% increase in high school students entering the college's engineering technology program.
  Why it matters: This shows meaningful outreach, early pipeline development, and a measurable impact on recruitment.
- Served as Co-PI on a prior NSF ATE grant focused on faculty professional development in cybersecurity, training over 60 instructors across 10 institutions.
  Why it stands out: This demonstrates leadership, broader educational impact, and relevant ATE experience.
- Created and maintained an open-access repository of electronics lab exercises, which has been downloaded over 3,000 times and adopted nationally.
  Why this is valuable: It illustrates innovation, effective dissemination, and measurable impact.

Some poor examples may help you avoid listing activities that do not meet the NSF criteria for Synergistic Activities.

- Served on multiple college committees.
  Why this doesn't work: It's considered routine academic service. It doesn't demonstrate collaboration beyond the institution, show dissemination, or indicate external impact.
- Used open-source resources in class.
  Why it falls short: Using open materials is good practice, but it is passive. Synergistic activities should show how you are actively contributing - such as creating, adapting, or sharing those resources with others.
- Mentored students in class projects.
  Why this is not enough: Mentoring students is an expected part of teaching. For it to be synergistic, mentoring should involve internships, undergraduate research, or outreach to underserved groups, with tangible outcomes or broader engagement.