

Water Center Institutional Effectiveness Report Compiled

2019-2020

Mission/Vision/Goal Statement

The mission of the Center for the Management, Utilization, and Protection of Water Resources is to support state and federal agencies, communities, and industry in solving water quality, biodiversity, and water security problems and advancing scientific understanding of all aspects of water science and engineering through basic and applied research. Center researchers study aquatic biodiversity and ecology from genes to ecosystems; address water quality challenges and develop better treatment technologies; and implement state-of-the-art technologies and tools for watershed sciences, modeling & simulation, data acquisition and geospatial analysis. The Center provides a strong water resources research infrastructure at Tennessee Tech by supporting faculty research, training and mentoring of future water professionals, and serving the citizens of the state of Tennessee.

- **Goal 1:** Increase recognition of the Center and its associated faculty through invited presentations, refereed publications, and other promotion initiatives. Produce a minimum of eight refereed publications per year and present at a minimum of 20 professional, regional, national or international meetings per year.

Intended Outcomes/Objectives

Objective 1.1. Produce a minimum of eight refereed publications per year.

Objective 1.2. Make a minimum of 20 professional regional, national or international meeting presentations per year.

Action Plan: Through refereed publications, continued external funding, focused research, and participation in professional organizations, associated faculty obtain state, regional and national recognition.

Goal 1 Results: This fiscal year, Center researchers produced 13 refereed publications and made 40 presentations.

- **Goal 2:** Increase externally funded research.

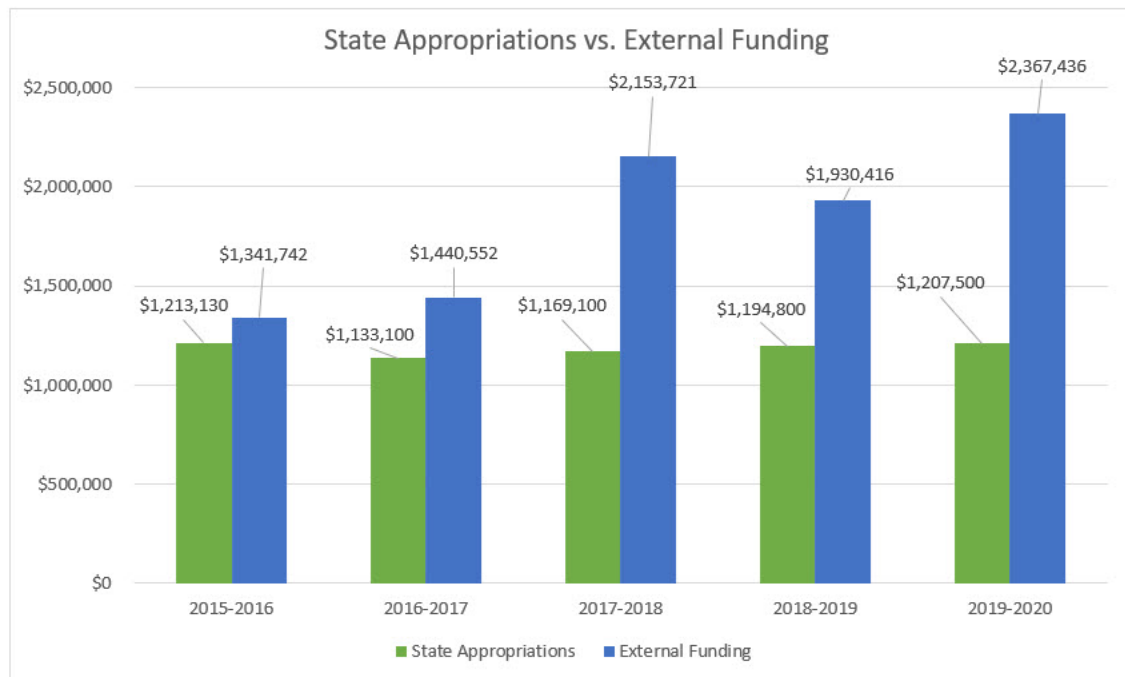
Intended Outcomes/Objectives

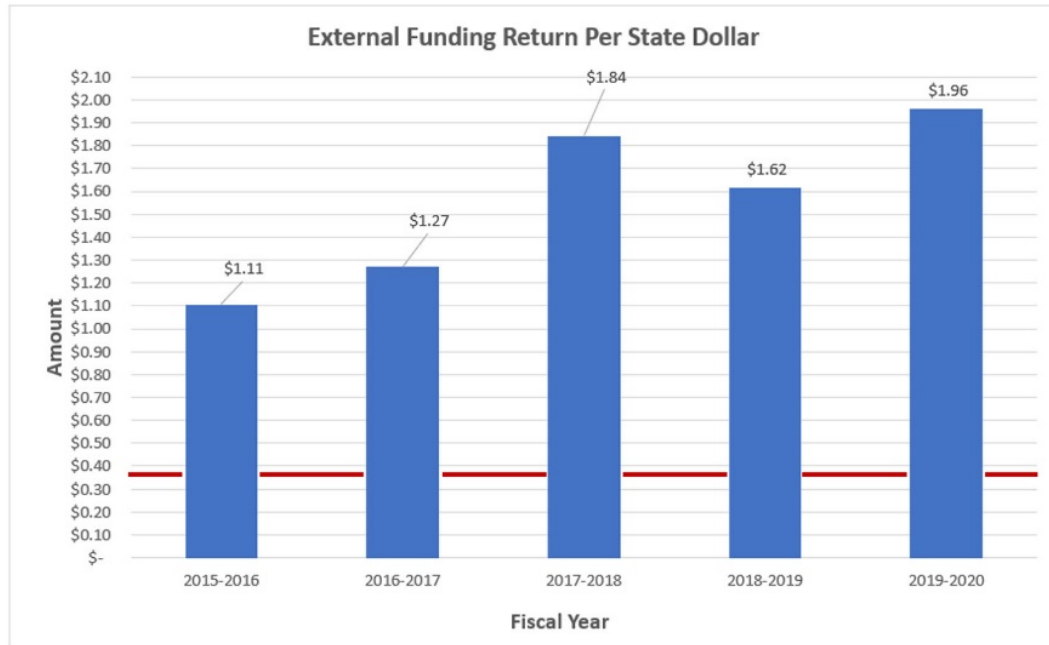
Objective 2: Increase externally funded research, which addresses the diverse water-related problems in Tennessee, the nation and the world. Toward this goal, the Center strives to increase external funding to 100% of state appropriations.

Action Plan: Strategic focus areas have been established by Center faculty and faculty associates. A portion of Center funds is being invested in selected high-return, research focus areas. Priority for the remaining research funds will be given to projects with potential to secure additional related external funds. The Center annually supports faculty who seek external

research funds by: reviewing proposals prior to their being sent off campus; providing travel funds to support PIs meeting with agency program directors to discuss research opportunities; keeping faculty informed about research opportunities; bringing faculty together to develop interdisciplinary research proposals; and providing essential matching funds and student research support. The Center is working with the university administration to keep Tennessee's Congressional delegation informed about research findings and new emerging areas of research.

Goal 2 Results: Water Center faculty and associate faculty secured more than \$2.3 million (including indirect costs) from local, state and federal agencies to seek solutions to that state's environmental problems. The direct monetary return on the State's investment is \$1.96/State-allocated dollar. This is a 76% increase from just five years ago. Our current external funding level trend emphasizes the growing research productivity of our faculty. Center external research funding has shown a steady growth with a five-year running average of \$1,846,773, and a three-year running average of \$2,150,524.

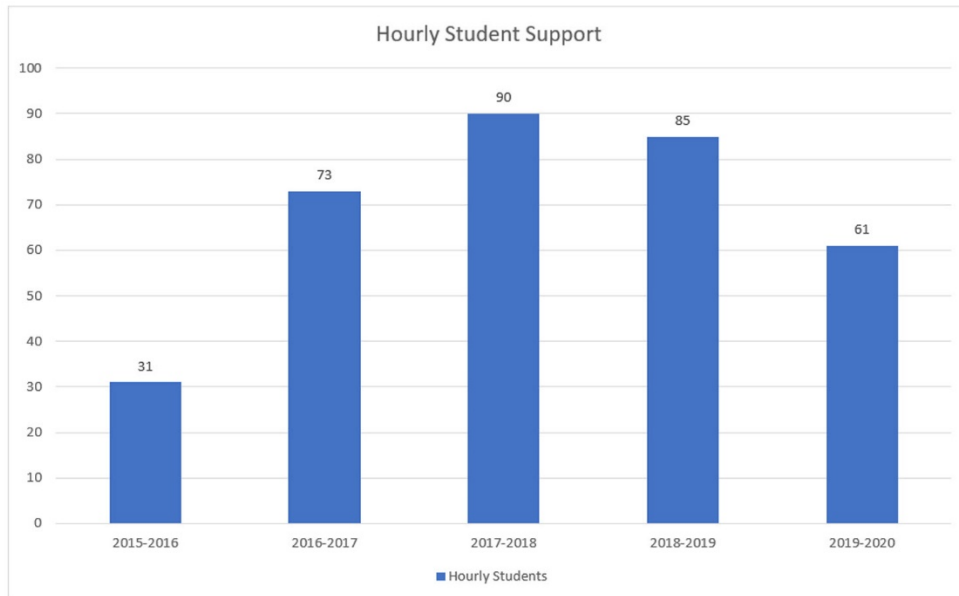
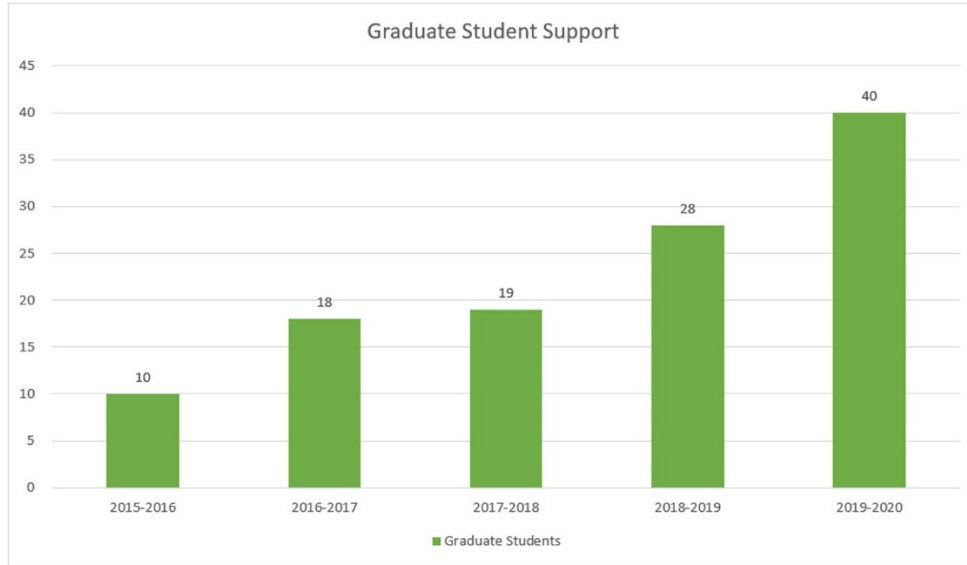




The Center also partnered with the following agencies through externally funded research projects:

1. Missouri Department of Conservation
 2. The National Park Service
 3. National Science Foundation
 4. Oak Ridge National Lab
 5. Tennessee Wildlife Resources Agency
 6. University of Tennessee, Tennessee Water Resources Research Center
 7. Upper Cumberland Development District
 8. U.S. Department of Agriculture/Agricultural Research Service
 9. U.S. Department of Agriculture/Natural Resources Conservation Service
 10. U.S. Fish and Wildlife Service
 11. U.S. Geological Survey
 12. Virginia Department of Game and Inland Fisheries
- **Goal 3:** Increase the number of graduate students supported by the Center.

Goal 3 Results: The Center supported 40 graduate students this year, a 43% increase from the previous year, as well as 61 hourly students, a 28% decrease.



Assessment Method: Tracking Number of Graduate Students Supported

The Center will continue to increase its initiative to support graduate students in their environmental science/engineering related research. Annually, the Center will assess how many students have been supported.

Assessment Method: Faculty Evaluations and Annual Reports

Annual faculty achievement reports contain information on scholarly works. This information is compiled and analyzed annually.

Modifications and Continuing Improvement to Goals/Objectives/Outcomes

The Center will not be modifying its assessment methods for the coming year.

Improvement to Assessment Plan

The Center has decided to keep its current assessment methods for the next fiscal year.