

7.0 STUDENTS

An Investment in Florida's Future Through Sea Grant Sponsored Graduate Education

Introduction

At the heart of Florida Sea Grant's program are the scientific investigations that it supports. On an annual basis, at least 50 percent of Florida Sea Grant's core federal funding is used to support research. An annual goal is that at least 25 percent of research funds are used to support graduate student assistantships and other direct student involvement in research activity.

Investment in the future of Florida's coastal resources requires both capital and labor. It is critical that the labor force be highly trained and skilled. As a university- and issue-based research and education program, Florida Sea Grant draws upon its partnership of people, universities, governments and businesses to ensure that Florida has a technically trained work force and scientifically and environmentally informed citizens.

Through support to graduate education, Florida Sea Grant produces highly trained scientists, social scientists, engineers and other professionals that increase Florida's economic competitiveness both nationally and internationally, and who devise and lead creative management concepts to keep Florida's coastal environment sustainable for future generations.

The opening of new viewpoints and perspectives is one of the most important challenges to higher education. In addition to gaining scientific knowledge and research skills, students need to engage interdisciplinary and

multidisciplinary perspectives, use multiple contexts in solving problems, and communicate complex ideas well in work group settings.

Fostering these important skills requires a diversification of learning opportunities at the college or university level. Florida Sea Grant participates in various fellowship and scholarship programs and traditional research assistantships that serve to broaden the experiences of graduate students, and in some cases, undergraduates. Florida Sea Grant has provided substantial support to educating Florida's future marine scientists and environmental professionals by giving selected graduate students the opportunity to develop their research and analytical skills by assisting scientists with Sea Grant projects. These graduate students are then prepared to assume prominent positions where they can impact directly on the continued wise use, sustainable development, and conservation of marine and coastal resources. Florida Sea Grant will also continue to invest in its faculty and staff so they have the necessary skills and training to meet the long-term needs of the organization.

Florida Sea Grant funded graduate students apply their skills and training from over 30 disciplines in research on:

- Aquaculture
- Marine Biotechnology
- Fisheries
- Seafood Safety and Quality
- Water Dependent Businesses
- Coastal Water Quality
- Coastal Habitats
- Coastal Storms and Hazards

Florida Sea Grant Student Programs

Florida Sea Grant does not "teach" or "graduate" students in the tradition of an academic department. However, funding and support for graduate students in many academic departments statewide is provided through Florida Sea Grant research projects and with other student fellowship and scholarship programs. Students receive Florida Sea Grant support through both public and private sources of funds.

Florida Sea Grant Student Programs	
Public Funds	Private Funds
<ul style="list-style-type: none"> • Research Assistantships • Dean John A. Knauss Marine Policy Fellowships • Sea Grant Industrial Fellowships • National Marine Fisheries Service/Sea Grant Fellows in Marine Economics and Populations Dynamics • NOAA Coastal Service Center Coastal Management Fellowship 	<ul style="list-style-type: none"> • Aylesworth Foundation for the Advancement of Marine Sciences • Old Salt Fishing Club Scholarship • Charles Skoch Sea Grant Scholarship

Beginning in the early-1980s, a decline occurred in the number of students supported by federal Florida Sea Grant funds. This decline began and continued during the “tough” federal budget years for Sea Grant when overall federal Sea Grant appropriations were cut (1981) with recovery not really beginning until the mid-1980s. University funding in Florida also suffered during that time and faculty writing Sea Grant (and other granting agency) proposals included summer salaries to protect employment, at the expense of funding that was formerly used for graduate students.

Because of the high priority within Florida Sea Grant for student support, corrective action was taken to reverse the decline in student support.

Beginning in 1993, Florida Sea Grant adopted the policy that, at minimum, 25 percent of the Florida Sea Grant federal research budget would be used to support graduate students. Beginning in 1998, Florida Sea Grant research project funding guidelines indicated that the inclusion of graduate students in proposals would give the proposal a competitive edge, assuming all other review criteria were satisfactory. This policy has been followed since, and funding has been short of the goal only one time, in 1996 (see Table 1).

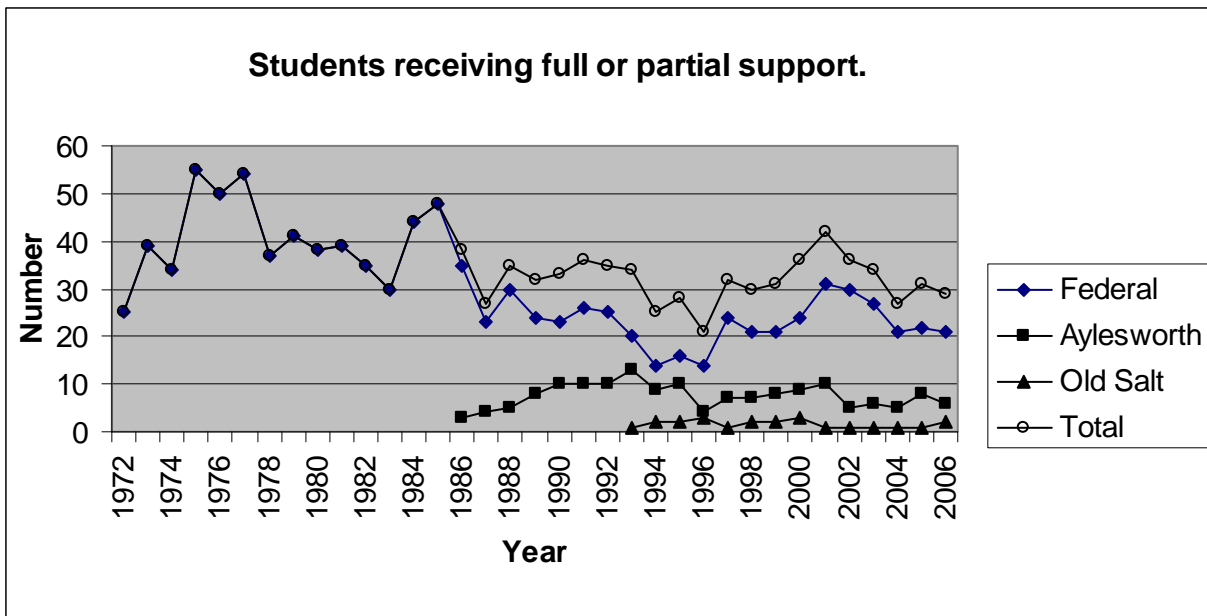
Table 1. Florida Sea Grant core federal funds used for graduate student support, 1993-2006.

Graduate Student Funding	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
As Percent of Research Funds	40	31	31	24	27	36	30	30	27	40	43	38	39	30
As Percent of All Funds	19	13	13	12	13	17	15	14	14	21	22	20	17	15

Beginning in 1986, Florida Sea Grant also initiated private support for Sea Grant sponsored students. The Aylesworth Foundation for the Advancement of Marine Sciences was formed with a major portion of its funding devoted to Florida Sea Grant scholarships. The Old Salt Fishing Club also created a scholarship program for students with both scholarship programs conducted in partnership with the Florida Sea Grant Program. The Charles Skoch Sea Grant Scholarship Program was created in 1997.

- FSG assisted the Aylesworth family, St. Petersburg, Florida, in the establishment of this private foundation in 1986. An annual FSG competition is held statewide to select scholarship recipients. As of January 2007, 86 students in 12 Florida universities have received scholarships averaging \$5,476 for a total of \$470,974 in support. Eighty-one completed scholarships by early 2007.
- FSG and the Aylesworth Foundation also administer a scholarship program using funds generated by the Old Salt Fishing Club of St. Petersburg, Florida, for students at the University of South Florida. Since 1993, 15 students have received scholarships totaling \$37,850, or \$2,523 per student.
- In 1997, the Charles Skoch Family of Boynton Beach, Florida, created a Florida Sea Grant endowment at the University of Florida that funds a \$1,000 per year scholarship to a high school senior that is selected through competition in the Florida Annual State Science and Engineering Fair. Nine annual scholarships have been awarded through 2006.

The overall impact of these efforts has been to cause an increasing trend in the total number of graduate students supported since 1996 (the lowest year ever). During 2006, a total of 31 graduate students received some form of Sea Grant support (see Figure 1).



Student Program Analysis

An exhaustive student tracking and analysis of Florida Sea Grant student programs was begun in early 2001, completed during 2002 and the results published in November 2002. That report was updated in 2004 in Sea Grant Technical Paper 140, “An investment in Florida’s future: Sea Grant sponsored graduate education, 2004.” A summary of key highlights from that document was included in the 2004 annual report and the complete document is available on the Florida Sea Grant website. The tracking continues and an updated summary will be completed in the future.

