

**WRITTEN TESTIMONY OF
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OFFICE OF OCEANIC AND ATMOSPHERIC RESEARCH
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
U.S. DEPARTMENT OF COMMERCE**

**BEFORE THE
SUBCOMMITTEE ON FISHERIES AND OCEANS
COMMITTEE ON NATURAL RESOURCES
U.S. HOUSE OF REPRESENTATIVES**

APRIL 3, 2008

I am Dr. John T. Woeste, professor emeritus and retired Dean of the University of Florida's Institute of Food and Agriculture Sciences. I serve as Vice Chair of the National Sea Grant Review Panel, a Federal Advisory Committee comprised of 15 individuals who advise the Secretary of Commerce through the Under Secretary of Commerce for Oceans and Atmosphere, and the Director of the National Sea Grant College Program on scientific and administrative policy. The Panel functions as an advisory body in accordance with the Federal Advisory Committee Act (FACA). The National Sea Grant College Program is NOAA's primary university-based program in support of coastal resource use and conservation. Sea Grant's research, outreach and education programs promote better understanding, conservation and use of America's marine and coastal resources.

I am pleased to be here today to tell you about the National Sea Grant College Program. Specifically, I will discuss the role of the National Sea Grant Review Panel (Panel), Sea Grant's leadership and the program's return on investment, enhancements to Sea Grant's evaluation process, the importance of continuing this vibrant program, and the Panel's role in the future.

The Panel recognizes the vision and important role that past Congresses have played in enacting the Sea Grant Act and its subsequent reauthorizations. Thank you for your support of this program, for your recognition of the importance of sustainable coasts to the U.S., and for your confidence in Sea Grant as part of achieving that vision.

Establishment of the Sea Grant Review Panel

The Sea Grant Review Panel was established by the Secretary of Commerce as directed by Section 209 of the National Sea Grant Program Act of 1976. The Panel advises the Secretary of Commerce acting through the Under Secretary of Commerce for Oceans and

Atmosphere and the Director of the National Sea Grant College Program with respect to: Applications or proposals for, and performance under, grants and contracts awarded; the Sea Grant fellowship program; the designation and operation of Sea Grant Colleges and Sea Grant institutes, and the operation of Sea Grant programs; the formulation and application of the planning guidelines and priorities established by the Secretary; and other matters as the Secretary, Under Secretary, or Director refer to the Panel for review and advice. The body consists of fifteen voting members appointed by the Secretary.

The Panel, in its advisory role, worked closely with the National Sea Grant Office and the Sea Grant Directors, through the Sea Grant Association (SGA), to address areas of concern related to this reauthorization, and to seek consensus on the issues. A series of joint meetings and conversations helped to philosophically align Sea Grant's three leadership bodies and generate widespread consensus on proposed positions. The Panel also considered several reports relevant to the legislation: "Building Sea Grant: The Role of the National Sea Grant Office," a 2002 Panel report providing a review and analysis of the organization, administration, and management of the NSGO; and, the National Research Council (NRC) report, "Evaluation of the Sea Grant Review Process" (2006), which assessed the impact of Sea Grant's evaluation process and procedures on the organization as a whole. As the National Sea Grant College Program implements the NRC report and realizes its new national strategic plan, "NOAA National Sea Grant College Program, Strategic Action Agenda 2009-2013: Meeting the Challenge," collaboration among the three leadership bodies will be further enhanced, better positioning the program as a powerful and coordinated national leader in research and education for the sustainable development of Great Lakes, marine and coastal resources.

Sea Grant Leadership

The National Sea Grant College Program has become a leader in advancing the science and practice of managing our coastal and marine resources. The program last had its legislation reauthorized unanimously by Congress in November 2002 with a virtual doubling of its authorized appropriation.

In order to meet some of the greatest challenges confronting our nation—namely, urbanization and coastal development—Sea Grant has become strategically flexible, creating organizational adaptability and responsiveness through an open, empowered, distributed management structure focused on results and service to constituents. These management changes, implemented over the past decade, have enhanced Sea Grant's efficiency, effectiveness, overall performance and user input. There is now a mindset of accountability against exacting performance criteria. As a result, Sea Grant's reputation has grown accordingly. The organization's performance scores have demonstrably improved, indicating that Sea Grant is effectively getting resources to problems—the right problems as defined by both NOAA's mission and constituent input.

A major report from the Pew Oceans Commission (2003) noted, "...a growing crisis in America's oceans and along our coasts," and identified nine major threats to oceans—several of which Sea Grant is well-positioned to address. The National Sea Grant Law

Center contributed its legal expertise to the Commission, and several Sea Grant studies are also cited in the report.

The environmental challenges and Sea Grant's role in the emerging U.S. ocean agenda were also well defined in the U.S. Commission on Ocean Policy (USCOP) report published in late summer of 2004. Sea Grant received almost 50 citations in the USCOP report, including a specific call for increases in budget and high praise for Sea Grant's educational activities. Sea Grant was also one of the few programs named in the President's 2005 Ocean Action Plan in response to that report. This recognition is eloquent testimony to Sea Grant's growing impact on national ocean policy and research.

As you are well aware, the National Ocean Research Priorities Plan (ORPP) and Implementation Strategy issued by the National Science and Technology Council's Joint Subcommittee on Ocean Science and Technology on January 26, 2007, identified research priorities and called for the engagement of a broad array of ocean science sectors to address high priority research needs and opportunities. Sea Grant is ideally suited to implement regional ORPP and national priorities. Presently, Sea Grant is developing regional research plans to support these priorities. These regional research and information planning efforts will consider the full scope of issues outlined in the U.S. Ocean Commission Report and Ocean Research Priorities Plan and will include other local, state, regional, federal, and non-governmental agencies.

Sea Grant's scientific capabilities and forward-thinking, innovative, stakeholder-focused organizational culture, coupled with performance-based accountability, have earned it a reputation as a highly effective national program. Strong leadership and an ability to develop partnerships and coalitions among federal, academic and private sector organizations to address critical, complex issues, characterizes the Sea Grant program, and resides at the core of this nation's ability to manage our coastal resources as we confront unprecedented population growth and development.

Sea Grant's Program Evaluation Process and Return on Investment

In 1994, the National Research Council (NRC), which functions under the auspices of the National Academy of Sciences, reviewed the National Sea Grant College Program. The NRC recommended several actions, including carrying out systematic, periodic reviews of the individual programs. In response, Sea Grant developed an evaluation process that relied heavily on detailed site reviews carried out by an external Program Assessment Team every four years, beginning in 1998.

The NSGO, in consultation with the National Sea Grant Review Panel and the Sea Grant programs, implemented this new program evaluation protocol. From 1998 through 2007, the Panel conducted 59 program reviews and provided over 500 review recommendations designed to enhance and improve the performance of each Sea Grant program. At present, the Panel is pleased to report that approximately 95% of the program review recommendations have been implemented, resulting in a healthy, relevant, rigorously assessed and highly productive National Sea Grant College Program.

This program evaluation process, together with the successful implementation of program review recommendations, has produced, and continues to produce, substantial improvements in the design, direction, operation and management of the individual state Sea Grant programs that comprise the National Sea Grant College Program. The Panel's intensive, on-site reviews of every program have affirmed our belief in the quality of the Sea Grant programs, and formed a solid basis for our conviction that Sea Grant's work is relevant and indispensable to achieving the nation's vision for the future.

There is now greatly increased accountability and a strong commitment to continuous program improvement. The organization's capacity to produce quality science and to support informed decision-making with research information is formidable and demonstrative of Sea Grant's commitment to relevant service in the interest of our nation.

Performance metrics based on impacts provide accountability for Sea Grant's research, education and outreach programs. Sea Grant's commitment to engaging the best scientific expertise within coastal and Great Lakes states and regions has resulted in exemplary performance and results. As a result, Sea Grant impacts have brought meaningful benefits to the nation, and they have demonstrated a significant return on the federal dollar. One recent example, among many, makes the point. A protective mesh for clams developed by Sea Grant researchers and applied by the industry has resulted in an increased yield valued at almost \$40 million per year to the New England clam industry.

Most impressive, however, is Sea Grant's return on investment to U.S. taxpayers. Sea Grant has long been known for its economic contributions and positive return on investment. The organization's non-federal matching requirement results in substantial leveraging of additional effort. Each Sea Grant program must generate matching funds equal to at least 50 percent of the federal investment. The Sea Grant programs' ability to consistently produce match funding is a testament to their responsiveness as well as to their relevance to the needs of stakeholder and interest groups. Additional financial leverage is achieved through cooperative partnerships with federal and state agencies. This ability to leverage resources and engage issues in partnership with other entities, is, we believe, unparalleled in government.

Sea Grant also mobilizes volunteers to participate in efforts such as beach clean-ups, aquatic invasive species awareness programs and water quality monitoring efforts. In one state alone, Sea Grant saved taxpayers \$120,000 in the annual Beach Sweep/River Sweep litter cleanup program. Over the past 14 years, more than 75,000 volunteers have collected 728 tons of trash and have saved state taxpayers more than \$1.6 million as part of that effort. Collectively, thanks to Sea Grant extension efforts in 2007, 15 Sea Grant programs worked with citizens in their communities who generated a total of 32,205 volunteer hours.

The Panel is proud that the National Sea Grant College Program is one of few federal programs to have implemented such a rigorous and progressive evaluation protocol—a protocol that both promotes accountability and ensures ongoing and continuing improvement—and a protocol so esteemed that it has significantly influenced internal

evaluation procedures currently utilized by several other federal programs. Through this evaluation process and its advisory oversight, the Panel has sought to ensure that Sea Grant investments address the ever-emerging needs of the United States public and of the ecosystems in which they reside.

National Research Council Review (2006)

The National Sea Grant College Program Act Amendments of 2002 (P.L. 107–299) directed the National Oceanic and Atmospheric Administration (NOAA) to contract with the NRC a second time, ten years after its 1994 report, to conduct a review of the evaluation process and make appropriate recommendations to improve its overall effectiveness.

The subsequent NRC report, “Evaluation of the Sea Grant Review Process” (2006), assessed the impact of the new procedures and evaluation process on Sea Grant as a whole. Among the areas considered were: the quality of work produced by the program; its responsiveness to national, regional and local needs; and, the quality of its leadership, management and reputation. The NRC committee was also asked to make recommendations for improving the overall effectiveness of the evaluation process to ensure fairness, consistency and enhancement of performance. The NRC report includes recommendations that guide the improvement of an already successful evaluation program.

The NRC concluded “real improvements have occurred” in the National Sea Grant College Program since changes instituted after the last NRC evaluation in 1994. The NRC further stated that the program evaluation process established in 1998 “has led to improvements to the overall program.”

Sea Grant’s Response to the NRC

In response to the set of 24 NRC recommendations, Sea Grant is developing a five-year national strategic plan and an Integrated Planning, Implementation and Evaluation (PIE) System. The PIE system reflects substantial input from the Panel and the Sea Grant network through a variety of formal and informal processes.

The new integrated planning and assessment system is strongly endorsed by the Panel, in large part because it not only builds upon the former program assessment process, but it introduces several new concepts designed to better integrate Sea Grant planning and management to produce significant outcomes, fulfill program accountability expectations and retain the initiative for continued program improvement. In keeping with the NRC’s intent, the Panel strongly agrees that a rigorous and competitive program evaluation process is critical to Sea Grant’s success as a strong, vibrant and accountable program.

The National Sea Grant College Program has long placed a premium on careful planning and rigorous evaluation at the state program level to ensure that Sea Grant would have the greatest impact at the constituent level. By developing a system that capitalizes on

these capabilities at the national level, Sea Grant will be able to enhance its impact as a national program. The Panel also feels that better integration of planning, implementation and evaluation activities will maximize Sea Grant's efficiency at all levels, making the best use of limited resources and providing increased benefits to the public. More specifically, the new system is intended to separate aspects of the evaluation process focused on program improvement from those designed to rate performance, to encourage collaboration, to reward performance, to provide accountability, to retain program flexibility to address local issues, and to increase efficiency.

Ranking Sea Grant Programs

The NRC expressed concern about the narrow focus on ranking programs and distributing competitive funds as impediments to the NSGO's oversight role in improving individual programs. The Panel agrees with the NRC's conclusions and invites Congress to consider removing the statutory provisions for "ranking" programs as directed in Section 1123, National Sea Grant College Act Amendments of 2002 (P.L. 107-299) ("rate the programs according to their relative performance into no less than 5 categories, with each of the 2 best-performing categories containing no more than 25 percent of the programs.").

The ranking component included in the current legislation needs to be eliminated because it has had the unintended consequence of providing a powerful disincentive for collaboration within the Sea Grant network. We are also concerned that the requirement could impede desired regional and national cooperation.

Sea Grant's Buying Power

The Panel also wishes to express concern over another impediment to Sea Grant's success. Despite rigorous reviews and accountability measures, and a strong, proven program that represents a sound investment of public funds, Sea Grant's buying power continues to erode. If this trend continues, the promise and potential of Sea Grant's contributions to our nation will rapidly diminish.

The Panel believes that Congress got it right in 2002 when it last authorized the Sea Grant program at its 2008 authorized amount, which totals \$103,000,000 (Section 1131{a}). The Panel believes that this amount is necessary to meet our nation's ever growing marine and coastal needs, and to realize Sea Grant's promise as a leader in helping our citizens address the issues with science-based information and useful technologies. We note, Madam Chairwoman that the current appropriation is \$57,100,000, and that the appropriation has been no greater than \$61,889,000 since the 2002 Reauthorization.

To illustrate the long term erosion of Sea Grant's buying power, I refer you to three charts at the end of this document that show Sea Grant's funding history since 1970. Chart 1 shows Sea Grant's appropriated funds per year, and except for the past three years the data depicts a modest rise in Sea Grant's appropriations over this 38-year

period. Chart 2 shows Sea Grant's annual appropriations in 2007 dollars after adjusting for inflation by applying the Consumer Price Index (CPI). By adjusting for inflation, Chart 2 shows a modest but steady decline in Sea Grant's buying power since 1980. Most analysts agree that the deflator for research and development has risen faster than the CPI. Chart 3 shows Sea Grant's appropriations in 2007 dollars by using a CPI plus 2% deflator, which represents a hypothetical but realistic deflator for research and development expenditures. Chart 3 more clearly illustrates the serious and significant decline in Sea Grant buying power since 1980. Currently, Sea Grant would require a \$190,000,000 appropriation to have the level of buying power it had in 1972, its peak year when adjusted for inflation. As a result of recent in-depth analysis, the Panel has become very concerned about the trends, contributing factors and appropriate measures to reverse these declines in the face of mounting concerns for our nation's coastal and marine resources.

Strong National Leadership

This disappointing fiscal trend has limited Sea Grant's ability to apply its unique combination of resources to address the ever-growing challenges facing the marine and coastal environment and the coastal economies dependent on this environment. Additionally, because of the 5% legislative cap on the administration of programs imposed by current legislation, the National Sea Grant Office currently has 40% fewer staff than it had in 1991 (29.0 vs. 17.4 Full-Time Equivalents).

The Panel reviewed the role of the National Sea Grant Office twice since 2002, (Duce, 2002; and, Heath, in preparation for implementation of the national strategic plan and PIE system). Both reviews concluded that staff erosion has seriously diminished the NSGO's ability to provide the national leadership necessary to adequately support the Sea Grant network, and to represent the network within NOAA and at the national level. The Panel's analysis shows that an increase in the cap on the administration of programs from the current level of 5% to the higher level of 7% is necessary to enable the NSGO to effectively fulfill its program leadership and inter-agency coordination roles. Shorting those roles, we fear, misses opportunities for the meaningful linkage of federal agency resources with optimum program integration and partnership efforts and opportunities addressing pressing national concerns.

Sea Grant must increase its participation and leadership for ocean and coastal issues at the national level—a fundamental responsibility of the NSGO. Over the past several years, the NSGO has been unable to initiate and maintain the same level of strategic partnerships with other federal agencies and NGOs as in years past. If Sea Grant's "beltway" presence continues to diminish, the Panel is concerned that significant opportunities to leverage resources will be lost, and that in the long-term, Sea Grant's visibility, reputation and capacity will suffer.

Enhancing the NSGO's capabilities is not possible with the current 5% cap. In order to provide strategic leadership and effective program administration and support, Sea Grant's stature and participation at the national level must be enhanced significantly. As

Sea Grant implements its new national strategic plan and the recommendations of the NRC, there will be strategic focus areas that require national leadership and coordination, and a rigorous evaluation process to oversee and manage—roles that will require attention by specialized NSGO staff, often on a daily basis, and with appropriate level of expertise.

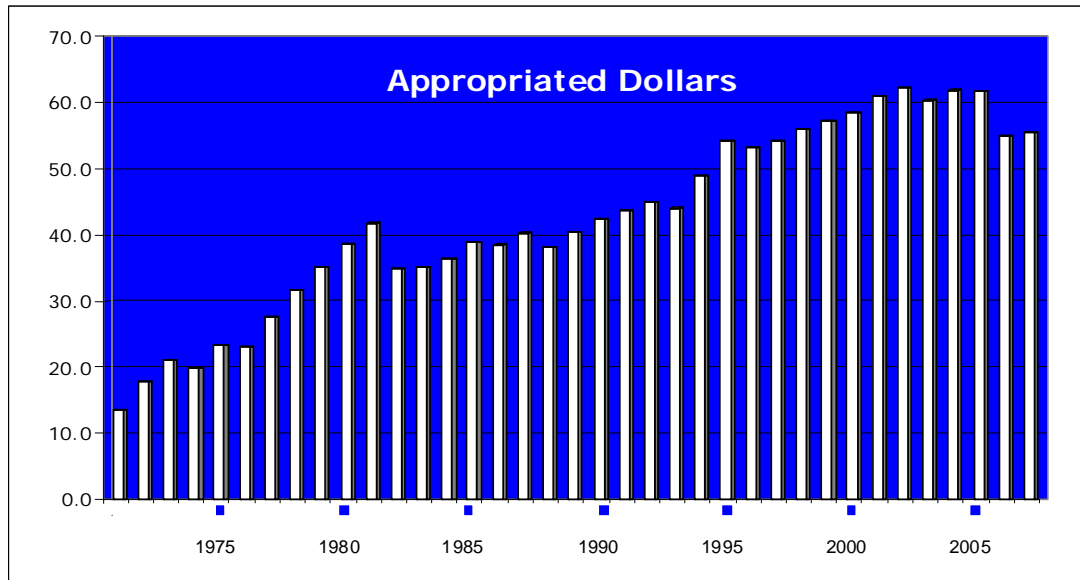
The Panel's Role in the Future

The Panel is currently revisiting its operational focus and mission in order to evaluate relevant, appropriate and emerging challenges, and to determine how to position Sea Grant to meet these challenges. As part of this process, the Panel will transition into an even stronger advisory role, bringing the significant knowledge and prominent expertise of its members to bear on issues critical to Sea Grant's success. We are particularly interested in examining how Sea Grant can use its unique capabilities to further the national interest. To answer this question, the Panel is examining several issues of importance to Sea Grant as part of its portfolio. These issues include: how to strengthen Sea Grant's research capabilities, how to couple Sea Grant's outreach capabilities with NOAA's climate applications programs and how to further the use of social sciences to solve coastal problems. Over the coming year, as Sea Grant begins implementation of its national strategic plan and enhances its robust program evaluation system, the Panel will be involved in an advisory capacity—serving on strategic plan focus area teams, participating in program site reviews, and offering high-level guidance and expertise in areas critical to Sea Grant's mission. Integral to this process, is sufficient “hands on” Panel engagement to facilitate a well-informed understanding of the goals, operations, issues and accomplishments of the network programs.

Conclusion

In closing, we believe that Sea Grant is vital to NOAA's mission, to U.S. ocean science and to our nation's vision. This is an efficient and effective program, offering a proven place-based infrastructure, and engaging the academic capacity of our universities and colleges in generating products and science-based solutions needed by our nation's citizenry. Sea Grant engages our youth in exploration of the marine sciences, supports advanced academic training for a cadre of future professionals, and provides exceptional opportunities for early career leadership development. The Panel would like to thank the House for holding this hearing. We are grateful for your support of and confidence in the National Sea Grant College Program. We urge you to consider raising the administrative cap. This concludes my remarks, Madam Chairwoman and members of the Subcommittee. Thank you for the opportunity to be here today. I would be pleased to provide additional information and to answer any questions you may have.

Appropriated dollars



**Chart 1: National Sea Grant College Program
Appropriations
by Year (1970-2007)**

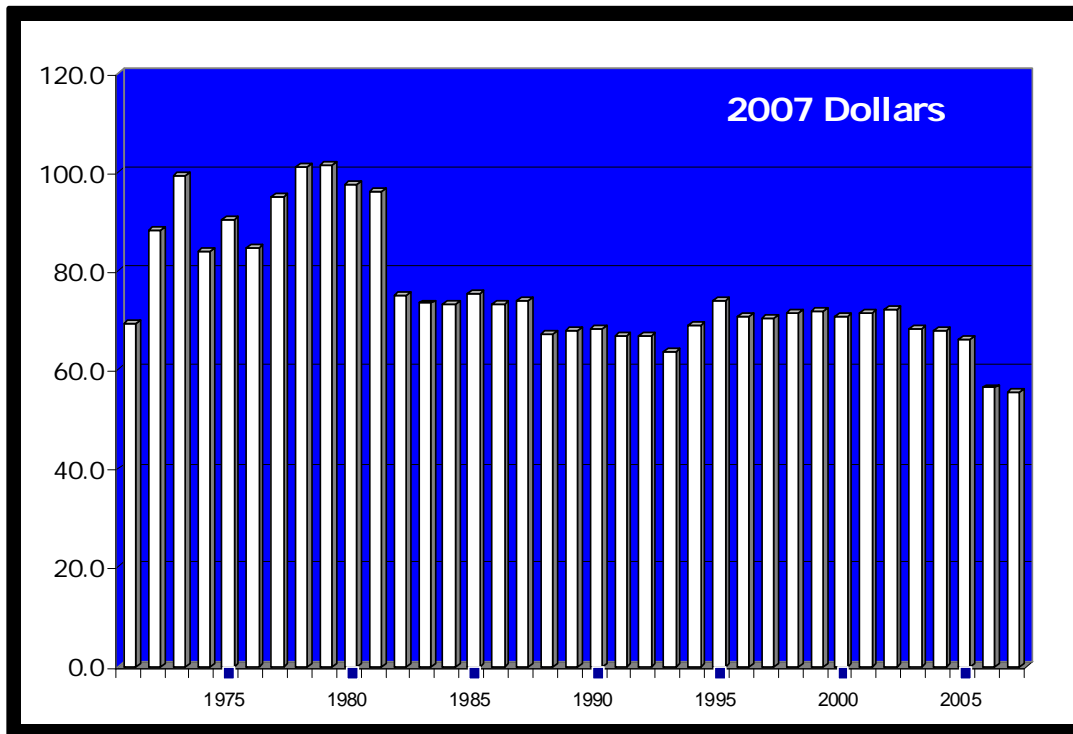


Chart 2: National Sea Grant College Program Appropriations by Year (1970-2007), adjusted for inflation using the Consumer Price Index

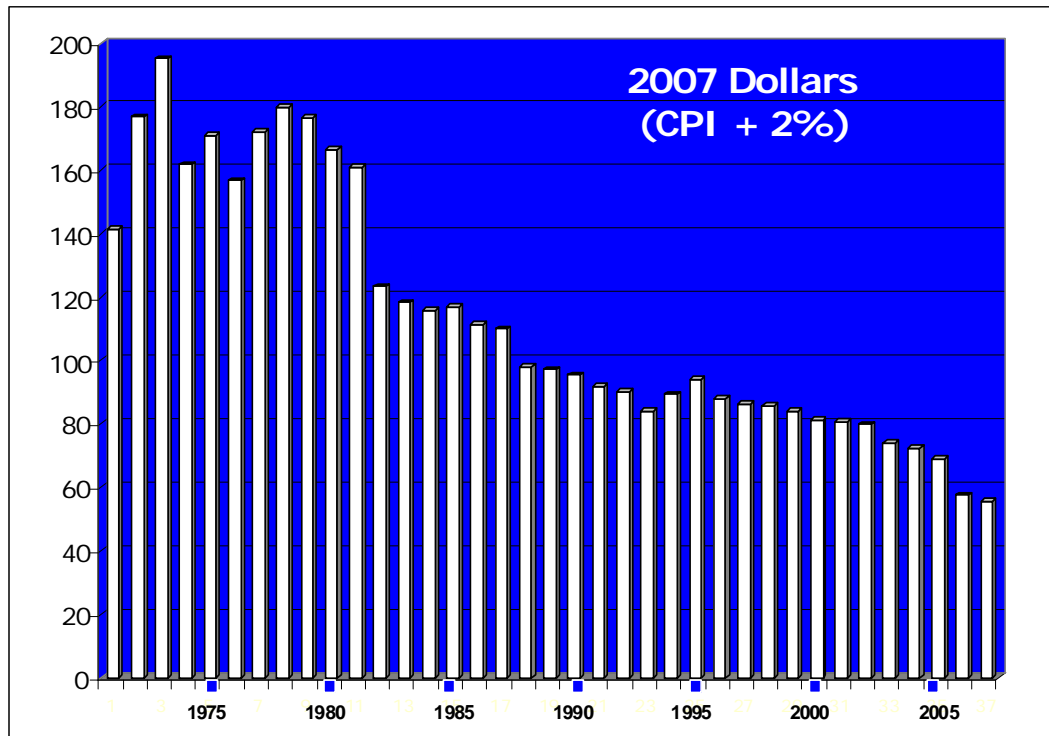


Chart 3: National Sea Grant College Program
 Appropriations by Year (1970-2007), adjusted for
 inflation using the Consumer Price Index plus 2%, a
 rough proxy for science and technology inflation