

## Fiscal Year 2017 NMFS-Sea Grant Fellowships in Population and Ecosystem Dynamics

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## ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

## EXECUTIVE SUMMARY

Federal Agency Name(s): Oceanic and Atmospheric Research (OAR), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Fiscal Year 2017 NMFS-Sea Grant Fellowships in Population and Ecosystem Dynamics

Announcement Type: Initial

Funding Opportunity Number: NOAA-OAR-SG-2017-2005039

Catalog of Federal Domestic Assistance (CFDA) Number: 11.417, Sea Grant Support

Dates: Applications are due to the State Sea Grant Program in your state by 5:00 PM, local time on January 27, 2017. If your state does not have a Sea Grant Program, please check Section VII, Agency Contacts located in the Full Funding Opportunity and <http://seagrants.noaa.gov/WhereWeWork/SeaGrantPrograms.aspx> for information on contacting a Sea Grant program. The Sea Grant Program must transmit the application via Grants.gov so that it is received by the National Sea Grant Office (NSGO) by 5:00 pm, Eastern Time February 24, 2017. A date and time receipt indication will be included and will be the basis of determining timeliness.

Please note: Validation or rejection of your application by Grants.gov may take up to 2 business days after submission. Please consider this process in developing your submission timeline.

Funding Opportunity Description: The Fellowship Program expects to award at least three new PhD Fellowships in 2017 to students who are interested in careers related to marine ecosystem and population dynamics, with a focus on modeling and managing systems of living marine resources. The emphasis will be on the development and implementation of quantitative methods for assessing marine ecosystems, for assessing the status of fish, invertebrate, and other targeted species stocks and for assessing the status of marine mammals, seabirds, and other protected species.

Fellows will work on thesis problems of public interest and relevance to National Marine Fisheries Service (NMFS) under the guidance of NMFS mentors at participating NMFS Science Centers or Offices. The NMFS-Sea Grant Fellowship in Population and Ecosystem Dynamics meets NOAA's Healthy Oceans goal of "Marine fisheries, habitats, biodiversity sustained with healthy and productive ecosystems".

The expected annual award per Fellow will be \$46,000 (federal plus matching funds), jointly funded by NOAA Fisheries and Sea Grant.

## FULL ANNOUNCEMENT TEXT

## I. Funding Opportunity Description

## A. Program Objective

The National Sea Grant Office (NSGO) and the National Marine Fisheries Service (NMFS) support a PhD Graduate Fellowship Program in Population and Ecosystem Dynamics. The intent of the Program is to award a limited number of Fellowships each year to students who are interested in careers related to population and ecosystem dynamics with applications to living marine resources. Candidate projects will focus on at least one of the following: 1) the population dynamics of living marine resources; 2) stock assessment methodologies; 3) marine ecosystem modeling; 4) integrated ecosystem assessments; and 5) ecosystem-based management of marine ecosystems.

This announcement is to solicit applications for Fellowships in Population and Ecosystem Dynamics. There is a parallel and similar announcement soliciting applications for Fellowships in Marine Resource Economics (NOAA-OAR-SG-2017-2005041).

The goals of the Program are to 1) encourage qualified applicants to pursue careers in population and ecosystem dynamics related to living marine resources; 2) increase available expertise related to quantitative ecology for systems of living marine resources; 3) foster closer relationships between academic scientists and NMFS; and 4) provide real-world experience to graduate students and accelerate their career development. The Fellowship covers both population and ecosystem dynamics to ensure support for Fellows who conduct research in support of assessments of living marine resource stocks as well as conduct broadly-scoped ecosystem assessments, implement ecosystem-based management, and evaluate system-level considerations of living marine resources. As both ecosystem and population dynamics rely heavily on quantitative marine ecology methods and skills, this announcement reflects that underlying commonality.

The Fellowships can provide support for up to three years for highly qualified graduate students working towards a PhD in quantitative ecology, ecosystem ecology, population dynamics or related fields of study such as wildlife biology, fishery biology, natural resource management, marine biology, quantitative ecology applied mathematics, applied statistics, or simulation modeling, or study. Each Fellow will be required to work closely with an expert (mentor) from NMFS who may provide data for the Fellow's thesis, serve on the Fellow's committee, and host an annual summer internship at the participating NMFS facility. Mentors will be from participating NMFS Science Centers or Offices.

## B. Program Priorities

The National Sea Grant College Program (Sea Grant) is seeking applications for this Fellowship program to fulfill its broad educational responsibilities and to strengthen the collaboration between Sea Grant and the NOAA Fisheries Service (NMFS). Fellows will work on thesis problems of public interest and relevance to NMFS and work with NMFS mentors at participating NMFS Science Centers or Offices. The program priorities for this opportunity support NOAA's Healthy Oceans goal of "Marine fisheries, habitats, biodiversity sustained with healthy and productive ecosystems."

Population and Ecosystem Dynamics Fellows are encouraged to spend 10-20 days at sea per year learning about sampling techniques and problems, commercial fisheries, recreational fisheries, oceanography, trophodynamics, living marine resource biology, or local and regional issues of importance to living marine resource ecosystem-based management. Fellows may also work, as necessary, at the participating NMFS facility during some or all of the academic year at the mutual discretion of mentor, major professor, and Fellow.

## C. Program Authority

Authority for the Population and Ecosystem Dynamics Graduate Fellowship Program is provided by 33 U.S.C. 1127(a).

# II. Award Information

## A. Funding Availability

The Graduate Fellowship Program expects to award at least three new PhD Fellowships each year to students who are interested in careers related to population and ecosystem dynamics of living marine resources and/or marine ecosystem dynamics.

The award for each Fellowship, contingent upon the availability of Federal funds, will be a multi-year cooperative agreement in an amount not to exceed \$38,333 in Federal funds per year. Matching funds of at least 20% of the total Federal request are required, as described in section III.B.

Continued support after the first year will be contingent upon the availability of Federal funds and satisfactory performance by the Fellow.

## B. Project/Award Period

Award will commence August 1, 2017 and will provide support for up to three years,

contingent upon the availability of Federal funds and satisfactory performance by the Fellow.

#### C. Type of Funding Instrument

The award will be a cooperative agreement because of substantial involvement by NMFS in mentoring and hosting successful applicants. This involvement may include serving for 10-20 days aboard a research or commercial vessel during a scientific survey or experimental activity. Additionally, the Fellow may work on his/her thesis research or related activity at a participating NMFS facility. The Fellow's work will be overseen by a NMFS mentor who will provide advice and guidance.

### III. Eligibility Information

#### A. Eligible Applicants

Prospective Fellows must be United States citizens. At the time of application, prospective Population and Ecosystem Dynamics Fellows must be admitted to a PhD degree program in population dynamics, ecosystem dynamics, or a related field such as wildlife biology, fishery biology, natural resource management, marine biology, quantitative ecology, applied mathematics, applied statistics, or simulation modeling at an institution of higher education in the United States or its territories, or submit a signed letter from the institution indicating provisional acceptance to a PhD degree program conditional on obtaining financial support such as this Fellowship. Applications must come from Sea Grant programs and must be submitted through [www.Grants.gov](http://www.Grants.gov).

#### B. Cost Sharing or Matching Requirement

Each application must propose matching funds equal to at least 20 percent of the requested Federal funds each year. For example, if \$38,333 in Federal funds is requested (the maximum allowable annual request), matching funds must be at least \$7,667.

#### C. Other Criteria that Affect Eligibility

N/A

### IV. Application and Submission Information

#### A. Address to Request Application Package

Application information may be found at [Grants.gov](http://Grants.gov), at <http://www.grants.gov/web/grants/search-grants.html>, searching for Funding Opportunity

number NOAA-OAR-SG-2017-2005039. It may also be obtained from Sea Grant College Program Directors. The addresses of the Sea Grant College Program directors may be found on Sea Grant's World Wide Web home page (<http://seagrant.noaa.gov/WhoWeAre/Leadership/SeaGrantDirectors.aspx>) or may also be obtained by contacting the Agency contact listed in Section VII.

#### B. Content and Form of Application

Applications must adhere to the provisions under "Required Elements" below. Failure to follow these requirements will result in applications being rejected without review.

##### Application Required Elements

Applications must include the following twelve elements:

1. Signed title page: The title page must identify the prospective Fellow, be signed by the faculty advisor and the institutional representative, and provide complete contact information. The proposal title should include "NMFS/Sea Grant Population and Ecosystem Dynamics Graduate Fellowship (full name of student)" as a prefix. The total amount of Federal and matching funds being requested for each project year must be listed.
2. Project summary: The project summary should concisely describe the activity being proposed and the impact that would result from its successful completion. Applicants must use the Sea Grant Project Summary Short Form 90-2 (OMB Control No. 0648-0362), available at <http://seagrant.noaa.gov/FundingFellowships/SeaGrantFormsandTemplates.aspx>. The project summary should include:
  - a. Title: Use the exact title as it appears in the rest of the application.
  - b. Investigators: List name and affiliation of the prospective Fellow's faculty advisor/major professor as the Principal Investigator. List the prospective Fellow, and any other investigators who will significantly contribute to the project, as co-PIs.
  - c. Funding request for each year of the Fellowship, including matching funds.
  - d. Project period: Start and completion dates. Applications for FY 2017 should request a start date of August 1, 2017 and an end date of no later than July 31, 2020.
3. Project proposal: The project proposal is intended to describe the proposed dissertation or the general intended area of study. It must be written by the prospective Fellow and include the following elements: a) A brief summary of the work to be completed; b) Rationale for the proposed activity; c) The scientific or technical objectives and/or hypotheses to be tested; d) Appropriate details on methodology; e) Relevance of results. The proposal itself must not exceed five (5) pages. References and figures do not count towards the five page limit.

Format requirements for the project proposal are: 1) standard 8.5" x 11" page size; 2) 12-point, Times New Roman font for main text (10-point font may be used for references, footnotes, figure captions and text within figures); 3) 1" margins on all sides; 4) single spaced or greater line spacing.

4. Budget and budget justification: There should be a separate budget for each year as well as a cumulative budget for the entire period of the proposed Fellowship. The SF-424A must be used to include annual and cumulative budget. The Sea Grant Budget Form 90-4 must also be used (OMB Control No. 0648-0362), available at <http://seagrant.noaa.gov/FundingFellowships/SeaGrantFormsandTemplates.aspx>. Sub-contractors, if any, should have a separate budget page. Indirect costs are not allowable for either the Fellowship or for any costs associated with the Fellowship [15 CFR 917.11(e), Guidelines for Sea Grant Fellowships]. Matching funds equivalent to 20 percent of the requested Federal funds must be provided. Source of matching funds must be specified in the budget and may consist of up to one month's salary per year for the faculty adviser, waived tuition, equipment and supplies, and any other costs typically used as matching funds. In addition to stipend and tuition for the applicant, the budget must include funds for travel to the annual Fellows meeting and should include funds for equipment, supplies, and discretionary travel (see "Award Information" above).

5. Curriculum vitae of the student, the faculty advisor, and the NMFS mentor (2 page maximum per individual).

6. Signed letter of commitment from the prospective NMFS mentor. If more than one mentor is involved, please provide a letter of commitment from each individual. In addition to noting the NMFS staff member's commitment to serve as a mentor, the letter should briefly address the relevance of the research to NMFS.

7. Official transcripts or copies of all official undergraduate and graduate student transcripts. When possible, Sea Grant programs should redact all Personally Identifiable Information (PII) such as social security numbers and birth dates.

8. Summary of academic training in quantitative methods: Please provide a summary (max 5 sentences) of your academic training in quantitative methods, a listing of your top five classes, in quantitative methods already taken, and classes you intend to take over the spring 2017 semester. Class listings should include course name (though course number e.g., MA 551 can be excluded) and a short description of content covered in course (not to exceed 3 sentences per class.)

9. Education and career goal statement [not to exceed two (2) pages] from the student indicating the number of years for which Fellowship support is being sought and the student's interest in quantitative marine ecology, with a focus on one or more of the following: modeling and managing systems of living marine resources; development and implementation of quantitative methods for assessing marine ecosystems; ecosystem-based management; marine population dynamics; or the development and implementation of quantitative methods for assessing stock status of living marine resources. Format requirements for the education and career goal statement are: 1) standard 8.5" x 11" page size; 2) 12-point, Times New Roman font; 3) 1" margins on all sides; 4) single spaced or greater line spacing.

10. Three signed letters of recommendation, including one from the student's faculty advisor. Please note that the letter of commitment from the NMFS mentor does not count towards the three signed letters of recommendation. If the applicants want the proposed NMFS mentor to also provide a letter of recommendation it should be separate from the letter of commitment.

11. Proof of acceptance (or provisional acceptance), and enrollment in a graduate program in population dynamics, ecosystem dynamics, or related fields of study. For students who have not yet enrolled in the PhD program, the program's acceptance letter is adequate. For students who are already enrolled, a letter from the faculty advisor or university registrar's office is acceptable.

12. Data sharing plan not to exceed two (2) pages is required as an appendix. (See Section VI.C below for more information on a data sharing plan). If your project falls under a larger project for which your faculty advisor has already submitted a data sharing plan and you intend to follow the same plan, you may submit that plan for your data sharing plan requirement. If your research will not generate any environmental data, an acceptable data sharing plan is the sentence, "This project will not generate any environmental data." See Section VI C. Reports of this announcement for more details.

Applicants are not required to provide a NOAA NEPA Questionnaire with their applications.

#### C. Unique Entity Identifier and System for Award Management (SAM)

To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act of 2006, to the extent applicable, any proposal awarded in response to this announcement will be required to use the System for Award Management (SAM), which may be accessed online at <https://www.sam.gov/portal/public/SAM/>. Applicants are also required to use the Dun and Bradstreet Universal Numbering System and will be subject to

reporting requirements, as identified in OMB guidance published at 2 CFR Parts 25, 170 (2013), which may be accessed at [http://www.ecfr.gov/cgi-bin/textidx?SID=1ccffb4c1d4de03add6a041113460f9&mc=true&node=se2.1.200\\_1300&rgn=div8](http://www.ecfr.gov/cgi-bin/textidx?SID=1ccffb4c1d4de03add6a041113460f9&mc=true&node=se2.1.200_1300&rgn=div8)

#### D. Submission Dates and Times

Applications are due to the State Sea Grant Program in your state by 5:00PM, local time, January 27, 2017. If your state does not have a Sea Grant Program, please check "VII. Agency Contacts" and <http://seagrant.noaa.gov/WhereWeWork/SeaGrantPrograms.aspx> for information on contacting a Sea Grant program.

The Sea Grant Program must transmit the application via Grants.gov APPLY such that it is received by 5:00 pm, Eastern Time February 24, 2017 by the National Sea Grant Office (NSGO). A date and time receipt indication will be included and will be the basis of determining timeliness. Applications received after the deadline will not be reviewed.

#### E. Intergovernmental Review

Applications under this program are not subject to Executive Order 12372, Intergovernmental Review of Federal Programs.

#### F. Funding Restrictions

Indirect costs are not allowable for either the Fellowship or for any costs associated with the Fellowship including waived indirect costs as match (15 CFR 917.11(e), "Guidelines for Sea Grant Fellowships").

#### G. Other Submission Requirements

Applications must come from Sea Grant programs and must be submitted through [www.Grants.gov](http://www.Grants.gov).

### V. Application Review Information

#### A. Evaluation Criteria

##### A. Evaluation Criteria

The evaluation criteria and weighting of the criteria are as follows:

Academic record and statement of career goals of the student. For the NMFS-Sea Grant Fellowships in Population and Ecosystem Dynamics the academic record is important, especially evidence of quantitative coursework (30 percent), as is the statement of Education

and Career goals (10 percent). (40 percent total)

Quality of project and applicability to program priorities. For the NMFS-Sea Grant Joint Graduate Fellowship Program the Project Summary should provide evidence of important and innovative research and relate that research to relevant agency priorities. (30 percent)

Recommendations and/or endorsements of student. For the NMFS-Sea Grant Joint Graduate Fellowship Program the expertise of major professor and proposed NMFS mentor will be taken into account. (20 percent)

Additional relevant experience related to diversity of education; extra-curricular activities; honors and awards; and interpersonal, written and oral communication skills. (10 percent)

Financial need of student. The NMFS-Sea Grant Joint Graduate Fellowship Program does not use this criterion. (0 percent)

#### B. Review and Selection Process

An initial administrative review is conducted to determine compliance with requirements and completeness of the application. Applications will be individually ranked in accordance with the above criteria and assigned scores by an independent review panel. Panel members will provide individual evaluations of each applicant, and their ratings will be used to produce a rank order of the applications. The selecting official shall award in the rank order within each discipline unless the application is justified to be selected out of rank order based upon any of the selection factors provided below. The selecting official shall make final recommendations for award to the Grants officer who is authorized to obligate the funds and execute the award.

#### C. Selection Factors

The Selecting Official shall award in the rank order unless the proposal is justified to be selected out of rank order based on any of the following factors:

1. Balance/Distribution of funds:
  - a. Across academic disciplines
  - b. By types of institutions
  - c. Geographically
2. Availability of funds
3. Program-specific objectives
4. Degree in scientific area and type of degree sought

For Factor 3, program-specific objectives are listed in Section I.A. Program Objective, above.

#### D. Anticipated Announcement and Award Dates

Subject to the availability of funds, funds are expected to be awarded by approximately August 1, 2017. This is the start date that should be used on the Application for Federal Assistance (Form 424).

### VI. Award Administration Information

#### A. Award Notices

The notice of award is signed by the NOAA Grants Officer and is the authorizing document. The National Sea Grant Office (NSGO) will notify each unsuccessful applicant by informing the state Sea Grant Program through which the application was submitted in writing, via e-mail. The state Sea Grant Programs will, in turn, formally notify each unsuccessful applicant and forward the summary comments provided by the NSGO.

Statutory and National Policy Requirements. To enable the use of a universal identifier and to enhance the quality of information available to the public as required by the Federal Funding Accountability and Transparency Act of 2006, to the extent applicable, any proposal awarded in response to this announcement will be required to use the System for Award Management (SAM), which may be accessed online at <https://www.sam.gov/portal/public/SAM/>. Applicants are also required to use the Dun and Bradstreet Universal Numbering System and be subject to reporting requirements, as identified in OMB guidance published at 2 CFR Parts 25, 170 (2013), [http://www.ecfr.gov/cgi-bin/text-idx?SID=1ccffb4c1d4de03addd6a041113460f9&mc=true&node=se2.1.200\\_1300&rgn=div8](http://www.ecfr.gov/cgi-bin/text-idx?SID=1ccffb4c1d4de03addd6a041113460f9&mc=true&node=se2.1.200_1300&rgn=div8)

#### B. Administrative and National Policy Requirements

The portion of the award provided to each Fellow for salary (stipend), living expenses (per diem), tuition (unless waived), health insurance and other institution fees, will be determined and distributed by the institution in accordance with its guidelines. It is expected that each Fellow will attend the Annual Graduate Fellows Seminar each spring and will make at least one visit per year to the mentor's NMFS facility.

Department of Commerce Requirements. The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 30, 2014 (79 FR 78390) are applicable to this solicitation and may be accessed online at <http://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf>.

**Limitation of Liability.** Funding for programs listed in this notice is contingent upon the availability of continuing Congressional appropriations. Applicants are hereby given notice that funds have not yet been appropriated for the programs listed in this notice. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs. Publication of this announcement does not oblige NOAA to award any specific project or to obligate any available funds.

**National Environmental Policy Act (NEPA).** As defined in Sections 5.05 and Administrative or Programmatic Functions of NAO 216\_6, 6.03.c.3, this is a Fellowship project for which there are no cumulative effects. Thus, it is expected that Fellowship awards made under this FFO will be categorically excluded from the need to prepare an Environmental Assessment.

**Paperwork Reduction Act (PRA).** This notification involves collection of information requirements subject to the Paperwork Reduction Act. The use of Sea Grant Project Summary Form Forms 90-2 and 90-4 has been approved by the Office of Management and Budget (OMB) under Control No. 0648-0362. Estimated time to fill out these forms: 90-2: 20 minutes, 90-4: 15 minutes. Notwithstanding any other provision of law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the PRA unless that collection of information displays a currently valid OMB control number.

**Unpaid or Delinquent Tax Liability.** In accordance with current Federal appropriations law, NOAA will provide a successful corporate applicant a form to be completed by its authorized representatives certifying that the corporation has no Federally-assessed unpaid or delinquent tax liability or recent felony criminal convictions under any Federal law. If a form is provided, an award may not be issued until it is returned and accepted by NOAA.

**Review of Risk.** After applications are proposed for funding by the selecting official, the Grants Office performs administration reviews. These may include financial stability of an applicant, quality of the applicant's management systems, history of performance, and the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities. Also, review of these factors, if appropriate, special conditions that correspond to the degree of risk may be applied. Applicants may submit comments to the Federal Awardee Performance and Integrity Information System (FAPIIS) about any information included in the system about their organization for consideration by the awarding agency.

**Freedom of Information Act (FOIA).** In the event that an application contains information or

data that you do not want disclosed prior to award for purposes other than the evaluation of the application, mark each page containing such information or data with the words "Privileged, Confidential, Commercial, or Financial Information - Limited Use" at the top of the page to assist NOAA in making disclosure determinations. DOC regulations implementing the FOIA are found at 5 U.S.C 552, which sets forth rules for DOC to make requested materials, information, and records publicly available under FOIA. The contents of funded applications may be subject to requests for release under the FOIA. Based on the information provided by you, the confidentiality of the content of funded applications will be maintained to the maximum extent permitted by law.

### C. Reporting

Fellows will be expected to present a review of the progress on their research during the Annual Graduate Fellows Seminar held each spring. Financial reports are semi-annual and performance reports are annual and should be submitted electronically via Grants Online.

The Federal Funding Accountability and Transparency Act of 2006 includes a requirement for awardees of applicable Federal grants to report information about first-tier subawards and executive compensation under Federal assistance awards issued in FY 2011 or later. All awardees of applicable grants and cooperative agreements are required to report to the Federal Subaward Reporting System (FSRS) available at [www.FSRS.gov](http://www.FSRS.gov) on all subawards over \$25,000.

#### Data Sharing Plan.

1. Environmental data and information collected or created under NOAA grants or cooperative agreements must be made discoverable by and accessible to the general public, in a timely fashion (typically within two years), free of charge or at no more than the cost of reproduction, unless an exemption is granted by the NOAA Program. Data should be available in at least one machine-readable format, preferably a widely-used or open-standard format, and should also be accompanied by machine-readable documentation (metadata), preferably based on widely used or international standards.

2. Proposals submitted in response to this Announcement must include a Data Management Plan of up to two pages describing how these requirements will be satisfied. The Data Management Plan should be aligned with the Data Management Guidance provided by NOAA in the Announcement. The contents of the Data Management Plan (or absence thereof), and past performance regarding such plans, will be considered as part of proposal review. A typical plan should include descriptions of the types of environmental data and information expected to be created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content;

methods for providing data access; approximate total volume of data to be collected; and prior experience in making such data accessible. The costs of data preparation, accessibility, or archiving may be included in the proposal budget unless otherwise stated in the Guidance. Accepted submission of data to the NOAA National Centers for Environmental Information (NCEI) is one way to satisfy data sharing requirements; however, NCEI is not obligated to accept all submissions and may charge a fee, particularly for large or unusual datasets.

3. NOAA may, at its own discretion, make publicly visible the Data Management Plan from funded proposals, or use information from the Data Management Plan to produce a formal metadata record and include that metadata in a Catalog to indicate the pending availability of new data.

4. Proposal submitters are hereby advised that the final pre-publication manuscripts of scholarly articles produced entirely or primarily with NOAA funding will be required to be submitted to NOAA Institutional Repository after acceptance, and no later than upon publication. Such manuscripts shall be made publicly available by NOAA one year after publication by the journal.

## VII. Agency Contacts

Contact OAR.SG.Fellows@noaa.gov; 301-734-1067.

## VIII. Other Information

Sea Grant Program information collection and reporting requirements in this notice are authorized by the Office of Management and Budget under Control No. 0648-0362.