Supporting Statement A for

Title of Study

CareerTrac, FIC and NIEHS

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Supporting Statement

for the
<mark>CareerTrac</mark>

Paperwork Reduction Act Submission

Section A

Introduction

This request seeks clearance for collecting career-related data for trainees funded <mark>on grants issued by the National Institutes of Health, Fogarty International Center (FIC) and National Institute for Environmental Health Sciences (NIEHS).</mark> The data collection system provides a streamlined, web-based application permitting principal investigators to record career achievement progress by trainee on a voluntary basis. FIC <mark>and NIEHS</mark> Program Officers will use this data to monitor, evaluate and adjust grants to ensure desired outcomes are achieved, comply with GPRA, OMB PART, respond to congressional inquiries, and as a guide to inform future strategic and management decisions regarding the grants program.

A.1.Circumstances Requiring the Collection of Data

There is currently no system available to track, in the short or long term, the complex indicators necessary for evaluating the effects of training on international research trainees or <mark>to track the long-term outcomes and impacts of domestic trainees</mark>. The primary purpose of designing a global trainee tracking system is to track and report short and long-term outputs, outcomes, and impacts of FIC international <mark>and NIEHS international and domestic trainees</mark> thereby making informed management decisions <mark>about health</mark> research training programs.

<mark>FIC and NIEHS train different types of students but have similar tracking needs. FIC has a specific need to track international trainees</mark>. International trainees differ greatly from U.S.-trainees. International trainees conduct their research in institutions abroad but can be trained in the United States and/or abroad. The degree, certificate, or training they are granted can be from an overseas or domestic institution and the degree or certificate earned may or may not differ from those granted in the United States. International trainees may participate with several different mentors, both domestic and international. Frequently, international trainees publish their results in important national, regional, or international journals that may or may not be familiar to U.S scientists or be listed in U.S.databases such as PubMed. International trainees may lack social security numbers, which are often used to track U.S. trainees.

International research training programs are structured to build research capacity by training individual researchers. This structure requires a database that will track complex metrics that indicate progress towards these program goals. Currently, several of FIC's international

training programs focus on both traditional (chronic and infectious diseases) and non-traditional areas (bioethics, bioinformatics and stigma).of research important to developing countries. The focus of these programs necessitates tracking traditional and non-traditional metrics such as publications, awarded degree, Institutional Review Boards (IRBs) formed, new databases developed, new curriculum initiated, new departments started, new career paths forged and new networks created. The Fogarty International Center's mission is "to advance the mission of the National Institutes of Health by supporting and facilitating global health research conducted by U.S. and international investigators, building partnerships between health research institutions in the U.S. and abroad, and training the next generation of scientists to address global health needs." Operationally FIC accomplishes its mission through both research and research-training programs. In order to make informed management decisions about its training programs and to demonstrate the outputs, outcomes and impacts of its training programs FIC must be able to track its trainees using an accurate and up-to-date system.

NIEHS needs to track outputs, activities and outcomes of trainees funded through its individual and institutional trainee grant programs. NIH captures pertinent data about these trainees during their training process using trainee appointment forms (form PHS2271). However, output, outcomes, and long term job information are not systematically captured by NIH data systems, despite the fact that institutional training grant programs are required to track trainees for 10 years after they complete the program. Currently information is submitted as a PDF, and thus cannot be used for evaluation purposes because it is not captured as structured data. The proposed system will allow principal investigators to use the system to track trainee information as required in their grants, and print the forms in the appropriate format to submit for progress reports and program analysis.

In the long term, NIEHS would like also to track trainees funded through other mechanisms (e.g. Superfund Program Trainees) that are not necessarily included in the IMPAC II database. Additionally, other NIH Institutes and Centers have trainees that follow both "models" (i.e. those tracked in IMPAC II and those that are not.) Therefore, a single system that allows NIEHS and, eventually other NIH Institutes and Centers, to track multiple types of trainees is desirable.

The legislation requiring this collection is the Government Performance and Results Act of 1993 (GPRA) and it supports the reporting requirements of OMB's Program Assessment Rating Tool (PART). The request for information is authorized by 42 U.S.C ' 287b and by 42 U.S.C 2851.

A.2.Purposes and Uses of the Data

NIH needs to understand the long term outcomes of its substantial investment in trainee development. The system will collect and facilitate analysis of the career achievements of trainees funded by FIC and NIEHS grants, including career accomplishments achieved during or post training. Program officers will use the data to report on, analyze, and modify training programs; FIC and NIEHS will use this data to inform management decisions about its health

research training programs and to report on the outputs, outcomes and impacts of its programs; Evaluation and Policy officers will use the data to report to NIH and HHS administration, as well as to Congress (GPRA) and OMB (PART). Additionally, the evaluation officer will use the collected data to help analyze and evaluate programs. Trainee data may be used for bench marking and comparisons across programs or ICs. Submission of this data is voluntary.

In addition, it is envisioned that by developing a database of international trainees accessible to NIH program officers, the system may also facilitate implementation of global scientific projects by allowing Program Officers to identify international partnership opportunities, particularly for U.S. PIs or program alumni who desires collaboration with an individual who has expertise in a specific scientific area, international site or institution.

Major changes to the system since last OMB submission:
- New server location: CareerTrac application has been migrated from developer's server to CIT and recently, has been migrated to NCI server
- External SSL Certificate: We have added a new public trust certificate for the CareerTrac website
- CareerTrac Roll-out: CareerTrac is out of the piloting mode and has been opened up to most of the PIs that have FIC training grants
- Privacy Act Disclosure Form: The system has an inbuilt privacy form that the trainee can view and approve
- Look and Feel of the system: The system has enhanced look and feel and is more user-friendly
- Archive Data has been updated in the system. This accounts to about 2000 trainees
- FAQ: This module has been constantly updated based on the helpdesk questions that the team gets

A.3. Use of Information Technology to Reduce Burden

A web-based application with a minimum number of required fields is currently in production at FIC. The system supports the collection and reporting of this data, significantly reducing the burden of maintaining paper-based files and manually collating data for reporting. All PIs with access to the Internet are able to access the system from anywhere at any time. Drop-down selection list and radio button selections are leveraged to streamline and standardize the data collection.

In addition, PIA was completed for CareerTrac application. Attached are the details –
SORN 09-25-0156
NIH Senior Official for Privacy approval of PIA - 9/3/08

A.4. Efforts to Identify Duplication

This collection does not gather data that duplicates other efforts. International trainees are not tracked in any other system at the NIH. Further, the long-term outcomes of trainees, both

domestic and international, are not tracked in any other system at the NIH. To develop this system NIH searched for similar systems to track international trainees throughout the government. It found such a system at the US Agency for International Development (USAID). USAID tracks its international trainees to monitor training costs and results for all USAID funded training activities occurring in the U.S. and abroad. The USAID collection was reviewed extensively by NIH-FIC for applicability. Several discussions were held with USAID and NIH in 2003 and 2004 prior to NIH embarking on a new data collection. It was determined that the NIH collection would not duplicate USAID Efforts and that the USAID automated system could be adopted as a baseline tool for the NIH-FIC collection.

NIEHS trainees on institutional training grants (T32) are tracked during their training in IMPAC II. However, very little information about the trainee is maintained in IMPAC II during their training. Recently, a training reporting module was created in IMPAC II to provide reports of T32 trainees during their training (counts, degree type, grant, tuition costs and stipend information is tracked.) Additionally, links to any subsequent grant applications are provided, allowing analysis of this single measure of trainee success. PI's of institutional training grants are required to track trainees for 10 years after program completion. The tracking data are not submitted in a structured format (i.e. it is submitted as a PDF table), and thus it is impossible to analyze in any systematic way. CareerTrac will provide PI's with a system that tracks their trainees in a way that NIH can analyze the data much more efficiently. CareerTrac will allow us to track alternative metrics of long term success, such as working in a non PI capacity in academia, in a government science, health or regulatory agency, or in a related industry. CareerTrac is designed to integrate with existing IMPAC II data as much as possible, and provide an opportunity to collect new, relevant trainee outcome data, and thus is not a duplicate system.

A.5. Small Business

No small businesses will be involved in this collection.

A.6. Consequences of Not Collecting the Information

Without regular, periodic updates to trainee data, NIH will not be able to document the impacts and outcomes of awarded grants. Meeting regulatory compliance requirements and responding to Congress in an accurate and timely manner will be difficult. Ultimately, FIC and NIEHS will be unable to make informed management decisions about its grants programs without this data.

A.7. Special Circumstances Justifying Inconsistencies with Guidelines in 5 CFR 1320.6

This project fully complies with all guidelines of 5 CFR 1320.5 (Controlling Paperwork Burdens on the Public General Information Collection Guidelines). There are no circumstances that require deviation from these guidelines.

A.8. Consultation Outside the Agency

Included as an attachment is the Federal Register Notice 60 Day Notice, May 12, 2009, page 22172.
60-day notice is still active, because it was published in Federal Register on May 12th 2009. Hence there are no comments yet to report on.
No comments were received from this notification regarding the cost and hour burden estimates.

The system has been open to FIC PIs since December 2008. The PIs have been asked to comment on the system several times. Their comments regarding the ease of use of the system and the type of data being collected have been incorporated into enhancements of the application.

A.9. Payments or Gifts to Respondents

Respondents will not be paid for participating in this collection and will not receive any gifts in return for participation. Participation is completely voluntary. Rather than a monitory award we intend to give an "achievement award" each year, based on data on former trainees in the CareerTrac system. FIC and NIEHS are considering recognizing up to 5 of the best trainees (at various Career stages) and their PIs each year for their outstanding track record and accomplishments. This should act as an incentive for the PIs to keep updating the data in the database.

A.10. Assurance of Confidentiality

A System of Records, FIC003-TraineeTracking, is being created under the Privacy Act. The authorizing legislation for this collection is the Government Performance and Results Act of 1993 (GPRA) and it supports the reporting requirements of OMB's Program Assessment Rating Tool (PART). The trainees are informed about the nature and usage of the data collected. Trainees provide the data voluntarily and can opt to decline to provide the requested information. The CareerTrac system automatically generates a privacy act disclosure statement that can be verified online by the trainees. Once the privacy act disclosure statement is reviewed and submitted by the trainee, FIC and the PI are notified through an e-mail and verification is noted in the system.

Unless legally mandated, Fogarty will not disclose any of the following information: employment history, phone, fax, year of birth, biographical data. The following information maybe disclosed individually or in aggregate for "routine uses": trainee's name, gender, minority status, current training status, returned to home country, area of training, country of origin, work e-mail, degrees earned through Fogarty funded programs, accomplishments that are public products, and trainee career highlights. Datasets stripped of personal identifiers may be created for NIH evaluation purposes (similar to the concept of "public use datasets" for

hospitalization data). Trainees may elect to "not agree" to be tracked in the database. In that case, their information will be filed as "anonymous" and they will not be tracked as an individual.

Routine uses of records maintained in the system include, but are not restricted to the following categories of users and purposes:
1. FIC, NIEHS, NIH, HHS and Congress for reporting and evaluation purposes;
2. The PI and Collaborators for the purpose of monitoring the program, submitting progress reports and grant applications, and writing journal articles describing the programs;
3. FIC and NIEHS co-funding partners and co-sponsors of FIC and NIEHS programs for the purpose of reporting progress and conducting evaluations of the programs; and
4. Interested public, for example, for the purpose of convening a scientific meeting in a particular country to which former trainees will be invited.

The application will be hosted in NIH's machine room that is certified and accredited for moderate risk applications and includes the following processes for securing and protecting the IIF: Due to the long-term, on-going nature of this program, records may be maintained indefinitely. All existing NIH guidelines for retention and destruction of IIF will be adhered to. The data collection system will contain the following general assurance of confidentiality:

- Card reader access is required for access to the NIH Machine Room.

- All windows are alarmed for breakage or tampering.

- The machine room is manned 24x7.

- Occasional visitors are escorted at all times by an authorized person while in the machine room.

- Procedures are in place to renew all machine room access on a yearly basis.

- Procedures are in place for deactivating card reader access for terminated employees/contractors.

- Procedures are in place to remove terminated employee/contractor IDs on all systems.

- NetIQ is used to monitor all servers for intrusions.

- Virus scanning software is installed on all servers and is continuously executed.

- File system access control lists are restrictive to prevent unauthorized access.

- Firewalls restrict access to servers.

- Strong password controls are enforced.

- Procedures are in place to apply patches when vulnerabilities and fixes are published.

- Routers and firewalls on the machine room network detect and defend against Denial of Service (DoS)

- Backups of all systems are made daily.

- Server configuration standards, general operating procedures, maintenance procedures, software/hardware change control procedures are documented online.

A.11. Questions of a Sensitive Nature

CareerTrac collects the name and gender of the trainee that can be classified as PII. While answering the gender question, the trainees can "choose not to specify"

A.12. Estimates of Response Burden

Hour burden estimates are based upon beta testing conducted using test versions of the data collection system. Typical users can complete a record entry in 30 minutes or less, including time to gather the required data. A few records are more complex and require additional time. No record entry required more than 45 minutes.

A.12.1. Number of Respondents, Frequency of Response, and Annual Hour Burden

A.12.1 Estimates of Hour Burden:

A.12-1 Estimate of Hours Burden				
Type of Respondents	Number of Respondents	Response Frequency	Average Time per Response*	Annual Hour Burden
Principal Investigators	275	1	7.5	2062.5
Total	275			2062.5

* Please note that every respondent has to enter upto 15 trainee's data and each trainee data entry may take up to 30 minutes

A.12.2. Hour Burden Estimates by Each Form and Aggregate Hour Burdens
NA: A single form is used.

A.12.2 Estimates of Annualized Cost:

A.12-2 Annualized Cost to Respondents

Type of Respondents	Number of Respondents	Response Frequency	Average Time per respondent	Hourly Wage Rate	Respondent Cost
Principal Investigators	275	1	7.5	$40	$82,500
Total	**275**	**1**	**7.5**	**$40**	**$82,500**

A.12.3.Estimates of Annualized Cost to Respondents for the Hour Burdens

A.13.Estimate of Total Capital and Startup Costs/Operation and Maintenance Costs to Respondents or Record Keepers

There are no Capital Costs or Operating and Maintenance Costs to report. The data collection system is a web-based application available to respondents at no cost using their existing desktop hardware and software.

A.14.Estimates of Costs to the Federal Government

The costs below are the additional costs required supporting this data collection. Existing computer facilities and equipment are being utilized at no additional cost to NIH. The estimated cost to develop, test and implement the data collection system assumes a minimum ten-year life expectancy for the application, with technology refreshes accounted for in the annual cost to maintain the data collection system.

A.14 Annualized Cost to the Federal Government	
Cost to develop, test and implement the data collection system (Annualized over an estimated 10-year life)	$34,000
Annual cost to maintain the data collection system.	$60,000
Total Annualized Cost	**$94,000**

A.15.Changes in Burden

FIC is partnering with the NIEHS to develop a unified CareerTrac system. Since the system caters to two ICs, the number of respondents has increased. Also, the CareerTrac team has determined during the initial production phase that administrators, not PIs, are entering data into the system.

A.16.Plans for Publication, Analysis, and Schedule

FIC Program managers will use the data collected in this system for program analysis and to produce annual management reports, with the objective of verifying and demonstrating that program objectives are being achieved. The results of this analysis and supporting reports will be published annually in Program Reports. The types of reports for each program include:
- Awarded degrees (by Grant, Program, Country, Region, Discipline)
- Type of training (by Grant, Program, Country, Region, Discipline)
- Trainee Return Rate by Grant , Program, Country, Discipline

- <mark>Trainee Accomplishments: Publications, Presentations, Policy, Products, Employment, Leadership, teaching, new funding, further education</mark>

This information collection will not employ statistical methods.

A.16 Project Time Schedule	
Activity	**Time Schedule**
Record Trainee Data in CareerTrac	<mark>Immediately</mark> after OMB approval; at least annually thereafter.
Validate record entries	<mark>3</mark> months after OMB approval; at least annually thereafter.
Review program results	<mark>6</mark> months after OMB approval; at least annually thereafter.
Prepare management reports	9 months after OMB approval; at least annually thereafter.
Publish reports	10 months after OMB approval; at least annually thereafter.

A.17. Approval to Not Display Expiration Date

OMB Expiration Date will be displayed on the survey instruments.

A.18. Exceptions to Item 19 of OMB Form 83-I

No exceptions are sought from the Paperwork Reduction Act or from form 83-I.