

**Supporting Statement**  
**for**  
**CareerTrac**

**Paperwork Reduction Act Submission**

OMB NO.: 0925-0568  
Expiration: February 29, 2016

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## **Attachments**

Attachment 1. Screenshots of Data Collection forms used for Trainee Review/Updates

Attachment 2. Screenshots of the FIC CareerTrac database

Attachment 3. Screenshots of the NIEHS CareerTrac database

Attachment 4. Screenshots of the NIEHS Superfund (SRP) CareerTrac database

Attachment 5. Screenshots of the NLM CareerTrac database

Attachment 6. Screenshots of the NIGMS CareerTrac database

Attachment 7. Screenshots of the NCI CRCHD Program CareerTrac database

# Supporting Statement for CareerTrac

## Paperwork Reduction Act Submission

### Section A

#### Introduction

This is a revision request that seeks renewal of clearance (OMB NO.: 0925-0568 Expiration: February 29, 2016) for collecting career-related data for trainees funded or co-funded by the Fogarty International Center (FIC), National Institute of Environmental Health Sciences (NIEHS), National Institute of General Medical Science (NIGMS), National Library of Medicine (NLM) and National Cancer Institute (NCI). The data collection system provides a streamlined, web-based application permitting principal investigators and their administrators to record career achievement progress by trainee on a voluntary basis. FIC, NIEHS, NIGMS, NLM and NCI Program Officers will use this data to monitor, evaluate and adjust grants to ensure desired outcomes are achieved, respond to congressional inquiries, and inform future strategic and management decisions regarding the grants program.

#### A.1.Circumstances Requiring the Collection of Data

The request for information is authorized by 42 U.S.C 287b, 42 U.S.C 286b-3, 42. U.S.C 285k, and by 42 U.S.C 2851.

CareerTrac, first cleared for data collection by OMB in 2006, was the first system at NIH to provide a system for tracking international trainees, and is more comprehensive in its approach to tracking outcomes than IMPACII, NIH's main data system related to grants. The primary purpose of designing a robust trainee tracking system is to track and report short and long-term outputs, outcomes, and impacts of FIC, NIEHS, NIGMS, NLM and NCI, thereby making informed management decisions about health research training programs. Trainee tracking and evaluation are specific and critical components of the NIH and Institute-specific strategic plans.<sup>1</sup> FIC, NIEHS NIGMS, NLM and NCI train many different types of individuals but have similar tracking needs.

#### ***The Fogarty International Center (FIC) and the National Cancer Institute (NCI)***

FIC and NCI have a specific need to track international trainees funded in their extramural

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<sup>1</sup> HHS Strategic Plan: <http://www.hhs.gov/about/strategic-plan/index.html>;  
NIH Strategic Plan: <http://www.nih.gov/sites/default/files/about-nih/strategic-plan-fy2016-2020-508.pdf>;  
FIC Strategic Plan: <http://www.fic.nih.gov/about/pages/strategic-plan.aspx> ;  
NIEHS Strategic Plan: <http://www.niehs.nih.gov/about/strategicplan/>;  
NIGMS Strategic Plan: <http://publications.nigms.nih.gov/strategicplan/>;

program. International trainees differ greatly from U.S.-trainees and this creates additional data requirements to support appropriate analyses. 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 tracks 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 and bioinformatics) of research important to developing countries. The focus of these NCI and FIC 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. CareerTrac was initially developed by FIC after concluding that the NIH's primary administrative and reporting database, IMPAC II, would not fit its needs.

Since the last OMB clearance review for CareerTrac in 2013, NCI identified an additional tracking need. In alignment with both the HHS Action Plan and the Trans-NIH priorities, National Cancer Institute Center to Reduce Cancer Health Disparities (NCI CRCHD) strives to improve the recruitment and retention of individuals from diverse backgrounds underrepresented in cancer and cancer health disparities research, including persons from underrepresented racial and ethnic groups, people with disabilities, and people from disadvantaged backgrounds. NCI CRCHD supports a number of funding mechanisms that promote effective training of students and scientists from high school level through investigator level. In order to ensure that these programs achieve the intended goals, tracking and monitoring of the candidates' career and research progress are necessary and critical, and represent a key component of CRCHD's Strategic Plan.

One major set of funding mechanisms are the Administrative Supplements which support one candidate per supplement, including Diversity, Re-entry and CRCHD-specific Continuing Umbrella of Research Experiences (CURE) Supplements. Currently the RPPR

Section B3 titled “Competitive Revisions/Administrative Supplements” only collects very limited information including supplement number, title, specific aims and an open text box accomplishment section limited to 700 characters. CareerTrac will help CRCHD collect structured information that is specific to the requirements of CRCHD programs and reflect the outcome metrics used to assess the effectiveness of the programs. This information is currently not available within IMPAC II database. Additional programs may be added later to CareerTrac.

### ***The National Institute of Environmental Health Sciences (NIEHS)***

NIEHS needs to track outputs, activities and outcomes of trainees funded through its individual and institutional trainee grant and contract programs. NIEHS trainees are a range of intramural and extramural training programs, such as the Ruth L. Kirschstein National Research Service Award (NRSA) Institutional Training Grant program (known as the T32 program), undergraduate research education programs, Intramural Research and Training Award (IRTA) and Superfund Research Program (SRP). CareerTrac can provide NIEHS with an integrated database of all trainees supported by both intramural and extramural programs. Our Director will have the “big picture” of training, which is a critical component of the Institute’s Strategic Plan (2012).

For extramural trainees, NIH captures pertinent data about trainees during their training process using trainee appointment forms (form PHS 2271). This information is captured electronically through the NIH’s xTrain interface. However, until recently, limited output, outcomes, and long term job information were captured by NIH data systems. At the same time, however, institutional training grant programs have been required to track trainees for 15 years after their appointment to a training grant. Until very recently, outcomes information provided by principal investigators in progress reports was only submitted as a PDF, and thus could not be used for evaluation purposes because it was not captured as structured data. In October 2016, NIH released new reporting requirements for T32 grants and progress reports and a new electronic interface (called xTRACT). The new requirements are required for competing applications due in May 2016. xTRACT is currently an optional interface that collects some outcome data. NIH anticipates that xTRACT will be required in the future but has not said when.

Prior to these new requirements from NIH, CareerTrac allowed principal investigators to use CareerTrac to complete three of twelve required reports. CareerTrac is now working with NIH to transfer relevant data from CareerTrac to xTRACT, update our reports to remove the now outdated report formats, and maintain only unique data in CareerTrac. A more detailed discussion of the potential overlap between CareerTrac and xTRACT for T32 programs is provided in section A.4 below, (Table 2). NIEHS also supports several R25 programs, focused on undergraduate education. We intend to add these grants and trainees to CareerTrac in 2016.

The NIEHS Intramural program is interested in tracking its trainees so that they can understand broad programmatic accomplishments, alongside extramural trainee accomplishments. CareerTrac provides a robust interface for Intramural PIs to record trainee achievements both during and after training. Having this information readily available will be particularly helpful for PIs to demonstrate their mentorship of trainees

during Board of Scientific Counselor Reviews. Intramural PI's and program staff are interested in using the data both to evaluate training programs, and to expand the trainee network.

The NIEHS Superfund Research Program (SRP) has supported nearly 1400 trainees throughout its 25 year history. Appointment forms are not used in this program, so there was no systematic way to track SRP trainees prior to CareerTrac. Training outcome data in CareerTrac will help SRP improve their training programs and demonstrate an important component of their training mandate (as authorized in the Superfund Amendments and Reauthorization Act of 1986).

***The National Institute of General Medical Sciences (NIGMS)***

NIGMS, the NIH Institute responsible for the most trainees, joined the CareerTrac team. The Bridges to Baccalaureate and Bridges to Doctorate programs have been added, and NIGMS plans to add the Research Initiative for Scientific Enhancement (RISE) Program as well. Initially, some of the trainees were appointed using xTrain, and now all trainees are appointed using CareerTrac. Additional programs may be added in the future.

***The National Library of Medicine (NLM)***

NLM is tracking biomedical informatics trainees funded on the T15 mechanism (who are appointed in X-Train).

In the long term, FIC, NIEHS, NIGMS, NLM and NCI would also like to track trainees funded through other mechanisms (e.g. Superfund Program Trainees) that are not 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 FIC, NIEHS, NIGMS, NLM, NCI, and eventually other NIH Institutes and Centers, to track multiple types of trainees is desirable.

**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, NIEHS, NIGMS, NLM, and NCI grants, including career accomplishments achieved during or post training. Program officers will use the data to report on, analyze, and modify training programs; FIC, NIEHS, NIGMS, NLM, and NCI 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. Additionally, the evaluation officers and staff 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. CareerTrac users are also interested in facilitating partnerships, further training opportunities, and other networking.

**Major changes to the CareerTrac system since last OMB submission** (Note: All these changes were to administrative features, response options for previously approved questions or reports based on data already collected):

- Per a request from the NIH Office of Extramural research, we altered the appointment process for trainees. We now take advantage of the new NIH requirement for each trainee to have an NIH Commons ID and were able to reduce burden on PIs.
  - We no longer collect gender, race and ethnicity fields for new trainees appointed in CareerTrac because that information now comes from IMPAC II Commons account data.
  - We allow users to search eRA Commons and import relevant education and employment records for a given trainee.
  - We allow PI's to link a NIH Commons ID to all pre-existing trainees.
- We completed an overhaul of the reporting infrastructure in CareerTrac, which led to the development of more than 25 reports. Before this change, the user had to use a cumbersome and non-intuitive search tool. The canned reports that we developed are much more responsive to user needs.
- We improved data collection forms to allow trainee entry of data and to reduce burden for PIs (See Attachment 1). These forms allow a user to send the trainee an excel spreadsheet that displays information from the CareerTrac database (easing right of review burden for PIs).
- We added several administrative functions that do not change burden on respondents:
  - Administrators can now add institutions into CareerTrac (developers not required to make changes)
  - Administrators can view and edit import rules for grants included the system
- We added visual cues to signal different types of data sources in the system

### **A.3. Use of Information Technology to Reduce Burden**

**CareerTrac**, a web-based application, is in production and being used by FIC, NIEHS, NIGMS, NLM and NCI. 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. **Extensive help files, tool tips and Frequently Asked Question pages provide clear instructions for providing information.**

Optional data collection forms allow PIs to share what data are stored in CareerTrac for an individual trainee, and prompt the trainee to make updates that can easily be added to the system by the PI or his/her administrator (see Attachment 1). This is intended to promote data quality and completeness and also makes it much easier for the PI to give the trainee his/her right to review the data.

In addition, a PIA was completed for the joint CareerTrac application (NIEHS and FIC). The SORN is 09-25-0014 and the NIH Senior Official for Privacy last approved the PIA in February 2012 (at the time of the last OMB Clearance). An updated PIA was submitted and in the process of being approved as of February 2016.

#### **A.4. Efforts to Identify Duplication**

The initial OMB and renewal applications for CareerTrac (2006, 2009) did not identify any duplicate efforts. The initial system was developed for FIC's international programs. International trainees are still not tracked in any other system at the NIH. Further, the diverse range of long-term trainee outcomes, both domestic and international, are not tracked in any other system at the NIH. Subsequently, databases with overlap have been identified, as described below.

Prior to developing CareerTrac, FIC found a trainee tracking system at the US Agency for International Development (USAID). That system served as a model for the original CareerTrac design.

Some NIH trainees are tracked during their training experiences in IMPAC II. However, very little information about the trainee is maintained in IMPAC II during their training. In 2008, a training reporting module was created in IMPAC II to provide reports of trainees during their training (counts, degree type, grant, tuition costs and stipend information is tracked.) Additionally, links to any subsequent grant applications and awards are provided, allowing analysis of two measures of trainee success. Since the 1970s the IMPAC II system has captured previous education; race, ethnicity; gender; disability; Ph.D. completion. More recently NIH has begun tracking non-PI roles on NIH and other PHS grants.

PI's of institutional training grants (T32s) are required to track trainees for the previous 15 years (this policy was recently increased from 10 years). When CareerTrac was created, PIs submitted required data as a table embedded in a PDF, which did not allow any systematic analysis or facilitate evaluation. CareerTrac provided PI's with a system that tracked their trainees in a way that we could analyze the data much more efficiently. CareerTrac allows NIH to track an expanded set of outcomes beyond research faculty appointment, such as working in a non PI capacity in academia, in a government science, health or regulatory agency, or in a related industry. Other outcome metrics related to non-NIH fellowships, patents, policies and publications can be captured easily in CareerTrac.

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. CareerTrac staff are making every effort to ensure that any existing data stored in IMPAC II are automatically populated into CareerTrac. CareerTrac substantially reduces effort on the part of NRSA PIs, who currently have to maintain data that can be readily extracted from IMPAC II in external spreadsheets that require cumbersome manual updates. The goal is to reduce duplication of effort as much as possible, without sharing data inappropriately across platforms.



CareerTrac has overlap with three different databases, as described below (see Exhibit 1):

In roughly 2010, the National Institute of Neurological Disorders and Stroke (NINDS) developed a data collection tool that assists Institutional Training Grant Directors (the “T32 program”) in collecting and storing the data needed to complete Tables required for applications, progress reports and competitive renewals. TTS has been retired.

In 2011, a database was developed by the NIH Office of Intramural Training and Education to track NIH trainees from multiple Institutes and Centers. This Trainee Alumni Database (OMB No. 0925-0299, Expiration Date 08/31/2016) encourages trainees to voluntarily provide contact information, NIH training history, education and employment information. As of 2015, the alumni database is still operational and remains substantially different from CareerTrac.

**Exhibit 1.**

Difference	NIH Alumni Database	CareerTrac
Data source	Former/Current Trainees enter data into database (voluntary)	Pulls data from existing personnel records. Intramural PIs enter information on behalf of trainees.
Outcome/Achievements	Captures employment, subsequent education and networking contact information	Additionally captures other outcomes such as publications, fellowships, and narrative accounts of training impacts. CareerTrac is also hoping to link trainees to subsequent applications and awards sought by linking them to data in IMPAC II.
Scope	Is designed for intramural fellows, no extramural training alumni captured.	Allows NIEHS to analyze and report achievements across all its trainee programs in a single integrated database, giving us unprecedented information to evaluate our training programs as a whole.

In 2014, the NIH Office of Extramural Research (OER) initiated an OMB renewal request for applications and progress reports (OMB 0925-0001 and 0925-0002, expiring 10/31/2018). The request covers revised data tables that applicants and grantees need to submit for certain kinds of trainees supported by NIH. Included in the request is a new system called xTRACT, which provides the option of collecting training-related data for applications and progress reports electronically. xTRACT primarily facilitates completion of the training grant application/progress report tables. The CareerTrac partners participated in the design of xTRACT and are working closely with OER to ensure that there is no duplicate data collection. Any data that the new xTRACT system will collect that is currently collected in CareerTrac, will be phased out of the CareerTrac data collection system after xTRACT is fully launched. These data will include information on Publications, Mentor, Project Title, Employment,

Education/Prior Degree Info, and Source of support. Unique outcome data will continue to be collected in CareerTrac.

Key system differences are described in below (see Exhibit 2):

**Exhibit 2.**

<b>Difference</b>	<b>xTRACT</b>	<b>CareerTrac</b>
<b>Purpose</b>	Provide electronic data entry for the new training data tables required for applications and progress reports. Captures only the data needed for the grant application and progress report tables.	Provide electronic data entry for a range of trainee outcomes and impacts to allow for program evaluation and improvement. Does not duplicate data entry for information collected in NIH Commons or the xTRACT module. Provides robust, structured framework for grantees to track trainee outcomes and achievements. Focuses on long term outcomes.
<b>User base</b>	Currently relevant for certain types of NIH training grant mechanisms: T32, TL1, T90, R90, and T15	Only some CareerTrac tenants (NIEHS-T32 program and NLM T15 programs) have any overlap with xTRACT.
<b>Data sources</b>	Pulls data from IMPAC II whenever possible; Users add other data required for NRSA Tables	Pulls data from IMPAC II whenever possible; users add long term outcome information. When new data is available from xTRACT in IMPAC II databases, it will be leveraged and any duplicated data entry in CareerTrac will be removed
<b>Unique outcome data</b>	<ul style="list-style-type: none"> <li>Single Employment classification: research-intensive, research-related, additional training, other</li> </ul>	<ul style="list-style-type: none"> <li>Multiple Employment classifications: Sector (Government, Academia, Industry); Tenure status, Postdoc (yes/no); Research Emphasis (Research, Teaching, Clinical, etc).</li> <li>Scientific &amp; Technical Emphasis (tenant specific fields to characterize research more deeply than trans-NIH method</li> <li>CareerHighlight (narrative)</li> <li>Policies &amp; Products</li> <li>Honors</li> <li>Posters</li> <li>Students of former trainees</li> </ul>
<b>Data Analysis Capability</b>	No data analysis capability in system	Provides ability to query and filter data, as well as export all data into excel files for easy data analysis by all users
<b>Reporting</b>	In its first iteration, only a	Provides versatile and robust

Difference	xTRACT	CareerTrac
	limited number of specific table outputs are available – designed mainly for grant review and progress report purposes.	reporting/exporting functionality for all data elements in the system.

In summary, some data that CareerTrac collects are collected in other systems, but we are making every effort to leverage these data as appropriate. For example, in the past year we have worked to link to and incorporate more data from individuals’ NIH Commons accounts into CareerTrac. We will continue to do this as xTRACT data becomes available. This reduces data entry burden for our PI users.

**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, NIEHS, NIGMS, NLM and NCI 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**

This proposed information collection was previously published in the **Federal Register, Vol. 80, No. 241**, on December 16, 2015, page 78243 -78244.

**No comments** have been received from this notification regarding the cost and hour burden estimates.

The system has been in full production with 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. **Our strategy has been to continually involve users from all**

tenants to provide feedback and help improve the system. Tenant administrators at each IC work with users to provide updates to help files, FAQs and collect ideas for improvement. Feedback from these grantees is regularly incorporated into the system as well.

### **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.

### **A.10. Assurances of Privacy**

The NIH Privacy Officer has reviewed CareerTrac and determined that the system is subject to the Privacy Act.

CareerTrac falls under the NIH System of Records Notice (SORN) 09-25-0014, Federal Register Notice Vol. 67, No. 187, September 26, 2002. The trainees are informed about the nature and usage of the data collected. While PIs enter the data into CareerTrac, they may contact trainees to obtain information about their professional accomplishments. Trainees provide the data voluntarily and can opt to decline to provide the requested information.

CareerTrac data is available to PIs, Principal Investigator Administrators (PIA), Project Officers (PO), and other NIH staff, such as Evaluation Officers. The following information may be disclosed individually or in aggregate for "routine uses": current training status, returned to home country, area of training, country of origin, work e-mail, degrees earned through NIH 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). Gender and minority status will not be disclosed on an individual basis. Trainees who are not appointed using the X-Train data interface 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. The following CareerTrac information will not be made publicly available: employment status, phone, fax, year of birth, or biographical data.

### **Routine uses of records maintained in the system include, but are not restricted to the following categories of users and purposes:**

1. FIC, NIEHS, NIGMS, NLM and NCI, 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 is hosted in NIEHS's data center, which is certified and accredited for moderate risk applications and includes several processes for securing and protecting the individually identifiable data. 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 Individually Identifiable Data will be adhered to. All confidentiality controls for Moderate Risk systems from the NIST 800-53 are followed. The system has a current and active accreditation. Information on specific IT security controls may be obtained from the IT Security Plan for the NIEHS General Support System. Listed below are some of the key security controls employed:

- Card reader access is required for access to the NIEHS Data Center.
- All doors are alarmed for breakage or tampering.
- The data center is monitored 24x7.
- Visitors are logged and escorted at all times by an authorized person while in the data center.
- Procedures are in place to renew all data center access on a quarterly 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.
- 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 data center network detect and defend against Denial of Service (DoS)
- A combination of incremental backups and snapshots of data foremost systems with an identified need 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 no longer collects sensitive data.

#### **A.12 Estimates of Response Burden**

Hour burden estimates are based on feedback from users. Respondents are expected to enter data for various numbers of trainees. 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.

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

Estimated Annualized Burden Hours				
Type of Respondents	Number of Respondents	Number of Responses per Respondent	Average Time per Response (in Hrs)	Annual Hour Burden
FIC Grantee	50	90	30/60	2250
NIEHS Grantee	60	45	30/60	1350
NCI Grantee	240	22	30/60	2640
NIGMS Grantee	50	150	30/60	3750
Superfund Grantee	20	105	30/60	1050
NLM Grantee	16	135	30/60	1080
<b>Total</b>	196	24,240		12,120

#### A.12.2. Estimates of Annualized Cost to Respondents for the Hour Burdens

The CareerTrac team has determined that in most cases, administrators, not PIs, are responsible for entering the majority of data into the system. Therefore, the \$40 hourly wage rate reflects the wage estimate for administrative staff rather than scientific staff. We used the median annual salary for a Large Department Business Manager from HigherEdJobs.<sup>2</sup>

<sup>2</sup> <https://www.higheredjobs.com/salary/salaryDisplay.cfm?SurveyID=33>

**A.12-2 Annualized Cost to Respondents**

Type of Respondents	Number of Respondents	Number of Responses per Respondent	Average Time per respondent	Hourly Wage Rate	Annual Hour Burden	Respondent Cost
FIC Grantee	50	90	30/60	\$40	2250	\$90,000
NIEHS Grantee	60	45	30/60	\$40	1350	\$54,000
NCI Grantee	240	22	30/60	\$40	2640	\$105,600
NIGMS Grantee	50	150	30/60	\$40	3750	\$150,000
Superfund Grantee	20	105	30/60	\$40	1050	\$42,000
NLM Grantee	16	135	30/60	\$40	1080	\$43,200
<b>Total</b>	196	24,240			12,120	<b>\$484,800</b>

**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.

<b>A.14 Annualized Cost to the Federal Government</b>	
Cost to develop, test and implement the data collection system (Annualized over an estimated 10-year life)	<b>\$125,000</b>
Annual cost to maintain the data collection system.	<b>\$75,000</b>
<b>Total Annualized Cost</b>	<b>\$200,000</b>

**A.14. Annualized Cost to the Federal Government**

<b>Cost Descriptions</b>	<b>Grade/Step</b>	<b>Salary</b>	<b>% of Effort</b>	<b>Fringe (if applicable)</b>	<b>Total Cost to Gov't</b>
<b>Federal Oversight</b>					
Project Director	GS15-6	141,240	15%		21,186
NIEHS Support Staff	GS7-4	29,193	10%		2,919
NIEHS Tenant Admin	GS12-2	75,683	5%		3,784
NIEHS PO	GS14-10	133,796	2%		2,676
NIEHS PO	GS14-6	120,072	2%		2,401
NIEHS PO	GS14-5	116,641	5%		5,832
FIC Business Owner	GS14-5	123,406	3%		3,702
FIC CT Admin	GS12-1	77,490	11%		8,524
FIC PO	GS14-10	141,555	3%		4,247
NIGMS CT Admin	GS14-5	123,406	10%		12,341
NIGMS Business Owner	GS15-10	160,300	2%		3,206
NIGMS PO	GS14-5	123,406	3%		3,702
CRCHD CT Admin	GS14-1	108,887	8%		8,711
SRP Admin	GS12-9	92,773	5%		4,639
SRP PO	GS13-5	98,709	3%		2,961
				<b>Total</b>	<b>90,831</b>
<b>Contractor Cost</b>					
Project manager		100,000	100		100,000
Developers (1 at 80% 1 at 20%)		200,000	100		200,000
					<b>300,000</b>
Travel					<b>2,500</b>
Other Cost					
					<b>478,500</b>

At a minimum there should be federal oversight costs. Fill others as applicable. Highlighted shaded areas are exempt from data entry.

**A.15.Changes in Burden**

FIC and NIEHS are partnering with NIGMS, NLM and NCI to develop a unified CareerTrac system. Since the system will now serve five ICs, the number of respondents has increased. The previous number of burden hours approved was 365 respondents with a total of 5,460



burden hours. The current request is for 683 respondents with a total of 8,714 burden hours, reflecting the addition of the new ICs who are using the system.

Changes also reflect a new requirement from NIH OER to collect data for 15 years not 10.

Changes proposed for the system during the next approval period (2016-2019) include:

Changes to the overall CareerTrac system, applicable to all tenants:

- With the advent of the trans-NIH Trainee system called xTRACT and an anticipated change in the tables required for progress reports and applications, the NRSA tables will also likely be removed in the next 6-12 months.
- Expanding database links to records NIH grants applied to or obtained after training for reporting purposes and to reduce duplication of effort.
- Considering ways to leverage sensitive CommonsID data to evaluate outcomes for underrepresented sectors (or by race, gender, ethnicity) (will require major discussion with the NIH Office of Extramural Research and a potentially a modification to this OMB Clearance).
- Incorporating new CareerTrac tenants: other NIH Institutes and Centers have expressed interest in developing pilot projects. As they come on board, this clearance will be modified accordingly.
- Exploring the potential for developing greater interoperability and data exchange with the new xTRACT data system, in development at NIH.
- Added (or adding?) several new data fields to the accomplishments collected for trainees. Data fields are applicable to all tenant data entry screens. New data fields are as follows:
  - *Mentor Role* added (dropdown options: Primary Mentor, Co-Mentor, Consultant) (optional)
  - *Mentor Degree* added (dropdown contains a list of ~20 different degree types, ranging from Associates Degree, to MPH, to MD to Ph.D.) (optional)
  - *Career Highlights/Leadership Accomplishment Type* added. Dropdown box includes Peer Review, Committees, Boards, Professional Membership, Other. (optional)
  - *Fellowship Name* added. Tenants can provide dropdown list, e.g. Diversity Supplement, Re-entry supplement, CURE Supplement, etc. (optional)
  - *New Competitive Funding Applied to Type* added. Dropdown menu includes F, K, R21, R01, Other NIH, Non NIH Federal, Non-Federal and Other. (optional)
  - *New Competitive Funding Awarded* added. Dropdown menu includes yes/no. (required) (Nesting details of awards to appear only if Yes selected in this box.)
  - *Posters/Presentations Meeting Title* added: Unstructured data (required)
  - *Posters/Presentations Meeting Type of Presentation* added: (dropdown = oral/poster) (required)
  - *Posters/Presentations Meeting Scope* added: Dropdown menu includes Local, National, International (optional)
  - *Commons ID* (required for new entries into CareerTrac and for those imported via xTRAIN, optional for legacy trainees)

Expansion of the NIGMS tenant to include the RISE program...

Expansion of the NIEHS tenant to include R25 undergraduate Research programs.

NCI is proposing using their clearance for this data collection effort to collect data from domestic trainees supported by the Center for Cancer on Research Health Disparities (CRCHD). Proposed changes that are specific to the CRCHD programs include:

- Expanding the NCI clearance to include data collection for CRCHD.
- Developing tool tips and help documents specific for CRCHD system users.
- Adding several Custom Fields for NCI's CRCHD:
  - o *Geographical Management of Cancer Health Disparities Program (GMAP)* Region ID will be added to trainee records (derived not entered but it is a new field element) (required)
  - o *Research Project Details* section will be added to collect open ended data about Goals and Aims; Research Activities, Key findings and Impact of Findings.
  - o *Training activities* section will be added to collect unstructured data about Didactic Activities and structured data about Career Skills (dropdown options: Grantsmanship, Communication Skills, Writing Skills, Time Management, Job Search, Leadership, Broaden Perspectives, Other) (optional)

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

NIH 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. Examples 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
- Trainee Accomplishments: Publications, Posters, Policy, Products, Employment, Career Highlights, teaching, new funding, further education

This information collection will not employ statistical methods.

A.16 Project Time Schedule	
Activity	Time Schedule
Record Trainee Data in CareerTrac	Immediately after OMB approval; at least annually thereafter.
Validate record entries	3 months after OMB approval; at least annually thereafter.
Review program results	6 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.

