Supporting Statement A for

CareerTrac (FIC, NCI, NIDDK, NIEHS)

OMB# 0925-0568 and expiration date April 30, 2021

Date: February 12, 2021

Check off which applies:
- New
- X   Revision
- Reinstatement with Change
- Reinstatement without Change
- Extension
- Emergency
- Existing w/o OMB approval

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A. Justification

This is a revision request that seeks renewal of clearance (<mark>OMB NO.: 0925-0568 Expiration: April 30, 2021)</mark> for collecting career-related data for trainees funded or co-funded by the Fogarty International Center (FIC), National Cancer Institute (NCI), National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), and National Institute of Environmental Health Sciences (NIEHS). The data collection system (CareerTrac) provides a streamlined, web-based application permitting principal investigators and their administrators to record career achievement progress by trainee on a voluntary basis. FIC, NCI, NIDDK, and NIEHS 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 Making the Collection of Information Necessary

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, 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.[1] FIC, NCI, NIDDK, and NIEHS 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 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. Several of FIC's international training programs focus on both traditional (chronic and

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[1] 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/;

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.

The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

The NIDDK supports institutional training and research education through institutional National Research Service Awards (T32s) and Research Education (R25) programs. In fiscal year 2020, the NIDDK supported 440 trainees through T32s and 43 R25 programs—mostly for short-term summer research experiences for undergraduate students. A key component of NIDDK's core values is to support foster exceptional research training and promote a steady and diverse pool of talented new investigators. These institutional training and education programs are fundamental to supporting this principle.

While program directors on T32s are required to track appointed trainees for a total of 15 years after their appointment termination, this information has not been readily available to extramural program staff for evaluation purposes. The information is captured in a .pdf table supplied with every competing renewal and non-competing application and is limited to current position and funding support. While the transition to xTract will facilitate the capture of this information as structured data, additional evaluative data will not be obtained. These include publication history post-training, participation in professional societies, and contextual and mediating factors are not capture by important to evaluate the ability of this program to train the next generation of researchers. Our short-term R25 participants also require long-term follow-up data not currently captured in existing forms and data systems. Lastly, the Division of Kidney, Urologic, and Hematologic Diseases within the NIDDK has launched a new institutional training program, the Institutional Network Award (PAR-20-220, U2C/TL1) that supports additional professional development, trainee networking, and outreach activities that will need to be measured for program evaluation. CareerTrac would permit capture of these data and more robust evaluations of NIDDK's institutional training and education programs.

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 supports trainees from 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 and Superfund Research Program (SRP). CareerTrac can provide NIEHS with an integrated database of all trainees supported by both intramural and extramural programs. Training is a major component of our 2018-2023 Strategic Plan and these data will provide NIEHS leadership with information about our progress in addressing training needs.

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). Use of xTRACT to prepare the required data tables for NIH Grant Research Performance Progress Reports (RPPRs) for pre- and postdoctoral research training grants began on October 1, 2019 (FY 2020).

Prior to these new requirements from NIH, CareerTrac allowed principal investigators to use CareerTrac to complete three of twelve required reports. Since its inception, the CareerTrac team has worked with NIH developers to integrate data from IMPAC II (including xTRACT) to maximize re-use of data and eliminate any duplication of data entry for principal investigators and trainees. Only unique data is collected and maintained in CareerTrac. A more detailed discussion of the potential overlap between CareerTrac and xTRACT for T32 programs is provided in section A.4 below, (Exhibit 2). NIEHS also supports several R25 programs, focused on undergraduate education and we have added these grants and trainees to CareerTrac.

The NIEHS Superfund Research Program (SRP) has supported more than 2,300 trainees throughout its 33-year history. Appointment forms are not used in this program, so without the CareerTrac system there is no systematic way to track SRP trainees. Training outcome data in CareerTrac helps 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).

Several additional NIEHS programs have also come forward to express interest in tracking trainees in the CareerTrac system. It is our intent that this clearance now include T32 Institutional Training grants, Superfund research grants, the T15 continuing education training grants, R15 Academic Research Enhancement Award (AREA) grants, supplement programs, summer training programs, R25 education grants, Outstanding New Investigator Awards, the R35 Revolutionizing Innovative, Visionary Environmental Health Research award and the Virtual Consortium for Translational/Transdisciplinary Environmental Research (ViCTER) awards.

Summary: FIC, NCI, NIDDK, and NIEHS all need to track trainees, many of whom are not included in the xTRACT system. In the 14 years since the initial OMB clearance approval, we have found it very useful to work collaboratively on a single system that allows track a robust set of indicators for many different types of trainees.

A.2   Purpose and Use of the Information Collection

NIH needs to understand the long-term outcomes of its substantial investment in trainee development. CareerTrac collects and facilitates analyses of the career achievements of trainees funded by FIC, NCI, NIDDK, and NIEHS grants, including career accomplishments achieved during or post training. Program officers use the data to report on, analyze, and modify training programs; FIC, NCI, NIDDK, and NIEHS 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 use the data to report to NIH

and HHS administration. Additionally, the evaluation officers and staff use the collected data to help analyze and evaluate programs. Trainee data are used for bench marking and comparisons across programs or ICs. Submission of this data is voluntary.

In addition, the CareerTrac database of international trainees facilitates the 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.

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 CRCHD R25, F, K, and other R grants were added in 2018, based on the success of CareerTrac to date. <mark>This clearance request includes the addition of the NCI/CRCHD U45 programs.</mark>

Major changes to the CareerTrac system since last OMB submission

- <mark>We are adding a series of questions to the program information section (details provided in section A.15) that provides NIH staff with the ability to better understand the content and quality of training approaches provided by the grantees. These changes have emerged directly from discussions with the CRCHD principal investigators during conversations about how best to measure their programmatic outcomes.</mark>
- <mark>The National Institute of General Medical Sciences (NIGMS) has left the CareerTrac partnership, no NIGMS trainees will be represented in the system after June 30, 2020.</mark>
- <mark>NIDDK has joined the CareerTrac partnership. These responses have been added to the appropriate tables.</mark>

A.3   Use of Information Technology and Burden Reduction

CareerTrac, a web-based application, is actively being used by FIC, NCI, NIDDK, and NIEHS. The system supports the collection and reporting of career outcome 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 lists 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 entering information.

In past years, CareerTrac has included optional Data Collection Forms that PIs can use to share data with individual trainees to assist in collecting updates that can easily be added to the system by the PI or his/her administrator. In 2021, we intend to release a secure portal designed specifically for trainees to access, review and edit their own records and send them electronically for their PI to review (see Attachment VI). This trainee portal will replace the Data Collection Forms when it is completed. As much information as possible is leveraged from existing NIH Data sources and easily made available for confirmation. Thus, trainees update only data unique to CareerTrac. This portal continues to reduce overall burden for trainees and PIs by eliminating external emails and the need for copy/paste from email to CareerTrac. The new portal is anticipated to promote data quality and completeness as well as make it much easier for the PI to give the trainee his/her right to review the data. All fields in the trainee portal were approved in the previous Clearance application.

CareerTrac is covered by SORN 09-25-0014 Clinical Research: Student Records. The last PIA for CareerTrac was approved 10/22/2013. PIA ID: P-3996611-590386. An updated PIA was submitted for review in XXXX (No. XXXX) and is under review at NIEHS (see Attachment VII).

A.4   Efforts to Identify Duplication and Use of Similar Information

The first few 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 (prior to 2016 tracking was required for only 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. The goal is to

reduce duplication of effort as much as possible, without sharing data inappropriately across platforms.

CareerTrac has overlap with two active databases, as described below (Exhibits 1 and 2):

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 (https://www.training.nih.gov/alumni OMB No. 0925-0299) 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).

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). Their request covered revised data tables that applicants and grantees need to submit for certain kinds of trainees supported by NIH. Included in the request was a new system called xTRACT, which provided 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 worked closely with OER to ensure that there is no duplicate data collection. Beginning with RPPRs due on or after October 1, 2019 T32 grantees must create the required progress report training data tables via the xTRACT system. xTRACT developers ultimately decided not to upload the data into IRDB. Therefore, the CareerTrac system is unable to pull data from xTRACT into CareerTrac.

Key system differences for the NIH Alumni Database and xTRACT are described below (Exhibit 2).

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.

Exhibit 2.

Difference	xTRACT	CareerTrac
Purpose	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.
User base	Currently required for certain types of NIH training grant mechanisms: T32, TL1, T90, R90, and T15.	Only one CareerTrac tenant (NIEHS-T32 program) has any overlap with xTRACT.
Data sources	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. New data is available from xTRACT in IMPAC II database is leveraged to the maximum extent possible and is not collected in CareerTrac
Unique outcome data	Employment classification: principal activity (i.e., primarily research, primarily teaching, primarily clinical, research-related, further training, unrelated to research) **Initially, xTRACT included the principal activity, and in 2020 added a question about workforce sector (i.e., academia, government, for-profit, nonprofit, other)	• Multiple Employment classifications: Sector (Government, Academia, Industry); Tenure status, Postdoc (yes/no); Research Emphasis (Research, Teaching, Clinical, etc). • Scientific & Technical Emphasis (tenant specific fields to characterize research more deeply than trans-NIH method • Career Highlight (narrative) • Policies & Products • Honors • Posters • Students of former trainees
Data Analysis Capability	No data analysis capability in system; records are intended to be available through an NIH database called IRDB but are not yet available.	Provides ability to query and filter data, as well as export all data into excel files for easy data analysis by all users
Reporting	Only a limited number of specific table outputs are available – designed mainly for grant review and progress report purposes.	Provides versatile and robust 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. Since xTRACT was made available in 2016, we have worked to

transfer existing data from CareerTrac to xTRACT and then to leverage xTRACT data for CareerTrac. Some challenges with interoperability have been identified, but we will continue to leverage xTRACT and all other NIH data sources to the maximum extent possible. This reduces data entry burden for our PI users.

A.5 Impact on Small Businesses or Other Small Entities

No small businesses will be involved in this collection.

A.6 Consequences of Collecting the Information Less Frequently

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, NCI, NIDDK, and NIEHS will be unable to make informed management decisions about its grants' programs without this data.

A.7 Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

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.8.1 Comments in Response to the Federal Register Notice

This proposed information collection was previously published in the **Federal Register,** Vol. 85, No. 238, on December 10, 2020, page 79493- 79494 and allowed 60 days for public comment. No public comments were received.

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

A.8.2 Efforts to Consult Outside Agency

The system has been in full production with FIC PIs since December 2008. The PIs from all tenants 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 Explanation of Any Payment of Gift 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 Assurance of Confidentiality Provided to Respondents

The NIH Privacy Officer has reviewed CareerTrac and determined that the system does collect PII and therefore is subject to the Privacy Act. The Privacy Act Memo is included as Attachment VIII.

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 select "not agree" as a response to the whether they would like 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, NCI, NIDDK, and NIEHS, 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.

This statement is provided pursuant to the Privacy Act of 1974 (5 U.S.C. § 552a): The information requested in this documentation is authorized to be collected pursuant to 5 U.S.C. 301; 42 U.S.C. secs. 217a, 241, 242, 248, 281, 282, 284, 284a, 285, 285b, 285c, 285d, 285e, 285f, 285g, 285h, 285i, 285j, 285k, 285l, 285m, 285n, 285o, 285p, 285q, 285r, 285s, 285t, 286, 287, 287b, 287c-21, 287d, 288, 35 U.S.C. 200-212, 48 CFR Subpart 15.3 and 37 CFR 401.1-16; and42 U.S.C. 217a, 241, 282(b)(6), 284a, and 288. Providing the requested information is voluntary. The principal purpose for which the information will be used is to evaluate NIH Training program outcomes. The information you provide will be included in a Privacy Act system of records, and will be used and may be disclosed for the purposes and routine uses described and published in the following System of Records Notice (SORN): 09-25-0036 Extramural Awards and Chartered Advisory Committees (IMPAC 2), Contract Information (DCIS), and Cooperative Agreement Information https://www.federalregister.gov/documents/2002/09/26/02-23965/privacy-act-of-1974-annual-publication-of-systems-of-records and 09-25-0225 NIH Electronic Research Administration (eRA) https://www.federalregister.gov/documents/2019/09/20/2019-20423/privacy-act-of-1974-system-of-records.

A.11   Justification for Sensitive Questions

CareerTrac does not collect sensitive data.

A.12.1 Estimates of Hour Burden Including Annualized Hourly Costs

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 well under 40 minutes, including time to gather the required data. A few records may be more complex and require additional time.

Table 12-1 Estimated Annualized Burden Hours

Form Name	Type of Respondents	Number of Respondents	Number of Responses per Respondent	Average Burden Per Response (in hours)	Total Annual Burden Hours
A	FIC Grantee	90	20	40/60	1,200
B	NIEHS Grantee	60	45	40/60	1,800
C	NCI CRCHD Grantee	244	22	40/60	3,579
D	NCI D43 Grantee	20	22	40/60	293
E	Superfund Grantee	30	105	40/60	2,100
F	NIDDK Grantee	30	20	40/60	400
G	Trainees	5,000	1	40/60	3,333
TOTAL		5,474	19,058		12,705

A.12-2 ANNUAL COST TO RESPONDENT

Table 12-2 Annualized Cost to Respondents

Type of Respondents	Total Annual Burden Hours	Hourly Respondent Wage Rate*	Respondent Cost
FIC Grantee	1,200	$26.83	$ 32,198
NIEHS Grantee	1,800	$26.83	$ 48,296
NCI CRCHD Grantee	3,579	$26.83	$ 96,020
NCI D43 Grantee	293	$26.83	$ 7,871
Superfund Grantee	2,100	$26.83	$ 56,346
NIDDK Grantee	400	$26.83	$ 10,733
Trainees	3,333	$13.00	$ 43,336
TOTAL	18,458		$ 32,198

*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 grantee rate was obtained from the Bureau of Labor Statistics: First-Line Supervisors of Office and Administrative Support Workers rate from the http://www.bls.gov/oes/2018/may/oes_nat.htm#00-0000.

The trainee wage rate was obtained using the 2020 NIH predoctoral stipend level from https://grants.nih.gov/grants/guide/notice-files/NOT-OD-20-070.html. Many of our trainees are in High School or College, some are predocs and some are postdocs. We chose the $25,320 predoctoral stipend as a conservative average; and this translates to $13.00/hour.

A.13   Estimate of Other Total Annual Cost Burden 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   Annualized Cost 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 10-year life expectancy for the application, with technology refreshes accounted for in the annual cost to maintain the data collection system.

Cost Descriptions*	Grade/Step	Salary	% of Effort	Fringe (if applicable)	Total Cost to Gov't
Federal Oversight					
NIEHS Project Director	GS15-6	153,740	10%		$15,374
NIEHS Support Staff	GS9-1	54,976	10%		$5,498
NIEHS Tenant Admin	GS12-2	82,383	8%		$6,591
NIEHS PO	GS14-10	145,634	2%		$2,913
NIEHS PO	GS14-6	130,698	2%		$2,614
NIEHS PO	GS14-5	126,964	5%		$6,348
FIC Business Owner	GS14-5	137,491	3%		$4,125
FIC CT Admin	GS12-1	86,335	11%		$9,497
FIC PO	GS14-10	157,709	3%		$4,731
CRCHD CT Admin	GS14-1	121,316	8%		$9,705
CRCHD PO	GS13-5	116,353	3%		$3,491
SRP Admin	GS12-9	100,989	10%		$10,099
SRP PO	GS13-5	107,445	3%		$3,223
NIDDK Analyst	GS12-2	82,383	10%		$8,238
Total					$92,446
Contractor Cost					
Project manager		100,000	100		$100,000
Developers (1 at 80%; 1 at 20%)		200,000	100		$200,000
Travel					**$2,500**
Other Cost					
					$394,946

A.15   Explanation for Program Changes or Adjustments

In our last clearance, burden estimates totaled 16,154 hours and an associated cost of $611,160. Our current submission requests approval for 12,705 burden hours and associated costs of $394,946.

A large reduction to cost and burden is the withdrawal of NIGMS from the partnership, saving about $240,000. Other reductions to burden include lower costs used for salaries, as our experience shows administrators, not PIs, are responsible for entering the majority of data into the system.

The largest increases in burden and cost are mainly driven by the addition of NIDDK and the increase in the average response time from 30 to 40 minutes to accommodate the addition of new programmatic questions. It is our intent to enable each responding principal investigator to answer these questions for multi-trainee grants.

We are seeking approval to create four new modules as part of the Program Information Screen: Education Products, Teacher Participants, Outreach Activities, and Collaboration Efforts. We describe the questions to be included in each of these modules below.

- *Education Products:*
    - o *Product Name*. Unstructured data (required)
    - o *Type*. Tenants customize dropdown list (required)
        - ▪ *Adopted by Institution or School*. Radio button options include yes/no, only if "Curriculum" is selected (required)
    - o *Format*. Tenants customize dropdown list (required)
    - o *Target audience*. Tenants customize dropdown list (required)
    - o Population-specific? Radio button options include yes/no (required)
        - ▪ *Population*. Tenants customize dropdown list, (required only if "yes" is selected)
    - o *Availability*. Tenants customize dropdown list (required)
        - ▪ *Description*. Unstructured data (required only if "Shared locally" or "Other" is selected)
    - o *Cancer Health Disparities*. Radio button options include yes/no (required)
    - o *Quantitative Sciences*. Radio button options include yes/no (required)
        - ▪ *Type*. Tenants customize dropdown list, (required)
    - o *Duration (if applicable)*. Unstructured data for numerical data, with dropdown list to select Day(s), Month(s), Year(s). (optional)
    - o *Usage or attendance during the fiscal year*. Unstructured data for numerical data (required)
    - o *Brief description of product*. Unstructured data (required)
- *Teacher Participants*:
    - o *Number*. Unstructured data for numerical data (required)
    - o *Academic Level*. Tenants customize dropdown list, (required)
    - o *Curriculum/Classroom Activity Development*. Radio button options include yes/no (required)

- - - **Expert Guided.** Radio button options include yes/no (required only if "yes" is selected)
      - **Brief Description.** Unstructured data (required only if "yes" is selected)
    - o *Other Professional Development Activities.* Unstructured data (required)
- **Outreach Activities:**
  - o *Overall goal.* Unstructured data (required)
  - o *Is there a CHE involved?* Radio button options include yes/no (required)
    - *Type.* Tenants customize dropdown list (required only if "yes" is selected)
    - *Role and activities.* Unstructured data (required only if "yes" is selected)
  - o *Activity name.* Unstructured data (required)
  - o *Type of Activity.* Tenants customize dropdown list (required)
  - o *Format.* Tenants customize dropdown list (required)
  - o *Target audience.* Tenants customize dropdown list, (required)
  - o *Population-specific?* Radio button options include yes/no (required)
  - o *Target population/Audience.* Tenants customize dropdown list (required)
    - *Other.* Unstructured data (required only if "Other" is selected)
  - o *Brief description.* Unstructured data (required)
  - o *Purpose.* Unstructured data (required)
  - o *Number of participants.* Unstructured data for numerical data (required)
  - o *Is there associated evaluation?* Radio button options include yes/no (required)
    - Description. Unstructured data (required only if "yes" is selected)
  - o *Outcomes.* Unstructured data (required)
  - o *Is this activity connected to an outreach research project?* Radio button options include yes/no (required)
    - *Which Project?* Unstructured data (required only if "yes" is selected)
  - o *Describe connection.* Unstructured data (required only if "yes" is selected)
- **Collaboration Efforts:**
  - o *Number.* Unstructured data for numerical data (required)
  - o *Brief Description.* Unstructured data (required)
  - o *Outcome.* Unstructured data (required)

We also propose adding a new field to the Trainee Portal data form:

- *Career Stage.* Tenant customize dropdown list (required)

A.16   Plans for Tabulation and Publication and Project Time 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 - 1 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.
Record Trainee Data in CareerTrac	Immediately after OMB approval; at least annually thereafter.

A.17   Reason(s) Display of OMB Expiration Date is Inappropriate

OMB Expiration Date will be displayed on the survey instruments.

A.18   Exceptions to Certification for Paperwork Reduction Act Submissions

None.