

**SUPPORTING STATEMENT
FELLOWSHIP MANAGEMENT SYSTEM**

This supporting statement is for a 3-year clearance for the collection of data electronically for CDC fellowships through the proposed Fellowship Management System (FMS). FMS would allow applicants to apply to fellowships on-line and would track fellowship applicants and alumni in one integrated database. The current data collection is manual, relies on the mail, and requires duplicate data collection. Applicants choosing to apply for these programs prepare and mail application packages, and when they apply to more than one fellowship, they must prepare similar packages containing duplicate information. Similarly, alumni voluntarily provide the same information again, for each fellowship they complete. The proposed system supports a centralized database that eliminates the need for duplicate data collection. FMS will provide an efficient and integrated system that will promote the use of secure data and information system standards to improve the timeliness, accuracy, completeness, and consistency of data collection.

A. JUSTIFICATION

A.1. Circumstances Making the Collection of Information Necessary

The mission of the Centers for Disease Control and Prevention (CDC) is to promote health and quality of life by preventing and controlling disease, injury, and disability. Two major challenges CDC faces in the future are protecting individuals against emerging infectious diseases including bioterrorism and improving people's health by putting science into action. To meet these challenges, the Office of Workforce and Career Development's (OWCD) Career Development Division (CDD) prepares the public health workforce of the future. The mission of OWCD is to improve health outcomes by ensuring a competent and sustainable workforce through excellence and innovation in workforce and career development. CDD creates and executes training and service programs that develop competent public health professionals in scientific disciplines such as epidemiology, public health informatics, prevention effectiveness (health economics/decision sciences, preventive medicine) and in policy, leadership and management.

CDD plans, manages and directs ten professional fellowships: Epidemic Intelligence Service, Preventive Medicine Residency Fellowship, Public Health Informatics Fellowship, Prevention Effectiveness Fellowship, Public Health Prevention Service, Emerging Leaders Program, Presidential Management Fellows Program, *The CDC Experience* in Applied Epidemiology for Medical Students, O. C. Hubert Fellowship in International Health, and Epidemiology Elective for Medical and Veterinary Students. Professionals in public health, epidemiology, medicine, economics, information science, veterinary medicine, nursing, pharmacy, public policy, the law, and related professions, and medical, veterinary, and graduate students seek opportunities to broaden their knowledge and skills in the science and practice of public health. Each year CDD receives approximately 685 application packages for review and selection of approximately 230 fellows, and each year, approximately 230 fellows graduate from these programs. Over the years, nearly 4,700 alumni have completed the fellowships.

Supporting Statement, Part A October 10, 2007

CDD is requesting a 3-year clearance for the proposed Fellowship Management System (FMS); to streamline its processes, reduce burden, and offer improved services to citizens. Fellowship applicants and alumni have requested an online system to reduce the time it takes to create, submit, and recreate their information. FMS is an efficient, integrated electronic system that will promote the use of data and information system standards to improve the accuracy, readability, timeliness, completeness, and consistency of data collection across CDC fellowships. CDD proposes to use FMS to collect data across the application, selection, and alumni tracking processes. Before the creation of FMS, CDD had not developed an online, web-based fellowship management system.

Currently, each fellowship manages its own application process. Potential candidates interested in applying access a given fellowship's website for instructions on application requirements. There is no standard application form. The current process relies on the mail system and applicants pay their own postage. Applicants are responsible for ensuring their application packages are complete and received by the required postmark date. They use telephones to contact a fellowship or program representative to find out if their applications are complete and often call several times. When applicants apply to other fellowships or reapply to the same fellowship the next year, they generally must complete the application process over again, even if their information has not changed. For instance, an individual may complete *The CDC Experience* and the Epidemiology Elective as a medical student and the Epidemic Intelligence Service and the Preventive Medicine Residency Fellowship as a physician. This example requires four separate application packages consisting of mostly the same data. Recreating and mailing the same information more than once places unnecessary burden on citizens and creates duplicate processing and additional work for the government.

FMS will provide a centralized and secure electronic application system similar to the systems fellowship applicants are accustomed to using when they apply to graduate and medical schools. When applicants apply to a fellowship through FMS, they will receive a secure and unique login and password and they will only have to enter their information once. They will have the opportunity to check on the status of their applications without having to call the government. If they apply to other CDC fellowships or apply to the same fellowship again in subsequent years, they will use the same login and password and will not have to input their information again. When fellows become alumni, they will use the same login and password they received as applicants and will update only information that changes.

The need for tracking alumni in the form of a secure, online directory is threefold. First, in the event of a national public health emergency or to meet an urgent public health need, the agency will have readily accessible contact information for alumni trained by the agency and possessing mission-critical skills. This supports CDC's future challenge of protecting individuals against emerging infectious diseases including bioterrorism. Preparedness and rapid response to public health emergencies is integral to the overall mission of CDC and is authorized by the Public Health Service Act (42 USC 301) found in **Attachment 1**. Second, the information entered by alumni will be used to document the impact of the fellowships on the career paths of participants, and thus, on the science and practice of public health.

Supporting Statement, Part A October 10, 2007

Finally, alumni will have the benefit of maintaining their professional networks for finding jobs, staffing jobs, and for collaborating and interacting with their fellow alumni. Alumni value their networks and the relationships they established during their fellowships. Alumni will have the opportunity to update their professional activities, credentials, qualifications, and skills on an as needed basis. They will have two options for the level of information they wish to be visible to other alumni of their fellowship, that of displaying only their name and fellowship year or all of their information. The default will be to display their name and their fellowship year, information already in the public domain.

Of the 2,700 existing Epidemic Intelligence Service (EIS) alumni, 380 are also alumni of the Division's Preventive Medicine Residency Fellowship (PMR/F). EIS staff currently maintain EIS and PMR/F alumni data in a database within the CDC firewall (M:\DAPHT\EIS Directory Database\). Existing EIS and PMR/F alumni data will be migrated to the proposed FMS database and the alumni will be asked to update their information when it changes. No other existing fellowship alumni will be asked to update their information. EIS alumni will be encouraged to update their information when it changes; for example, when they move, change jobs, or gain additional qualifications and skills. The EIS Alumni Association will send out periodic announcements and reminders and the EIS Bulletin will include reminders for alumni to update their information when it changes. All announcements and reminders will include a link to the alumni directory to facilitate participation. Participation in the online directory will be voluntary and it will be up to the alumni to keep their information current.

A.2. Purpose and Use of the Information

The information requested of applicants will be used by the fellowship staff in the selection process and will provide data to determine the qualifications of the candidates and their potential for success in the fellowships and their ensuing careers. Information updates requested of alumni will allow CDC to maintain a current, centralized electronic database that includes email and other contact information, professional responsibilities, certifications, qualifications, and scientific skills in the event that it becomes necessary to contact alumni or current fellows possessing mission-critical skills to meet a national public health emergency or an urgent public health need. Scientific skills and qualifications of current fellows and alumni will reside in one database, eliminating duplicate information. When an urgent need for specific skills or qualifications occurs, a search of the database will generate the required information. Alumni data will also be used to document the impact of the fellowships on the career paths of participants, and thus, on the science and practice of public health, and by the alumni for maintaining their professional networks for finding jobs, staffing jobs, collaborating, and interacting with their fellow alumni.

Alumni will have two options for the level of information they wish to be visible to other alumni of their fellowship. They will have the option of displaying only their name and fellowship year or all of their information. The default is to display only their name and fellowship year. This information is already in the public domain.

A.3. Use of Improved Information Technology and Burden Reduction

Supporting Statement, Part A October 10, 2007

CDD will use the information collected through the proposed password- and firewall-protected Fellowship Management System for efficient processing of application data, improved selection of qualified candidates, maintaining a current alumni database, and generating ad hoc queries using available data elements of FMS, as seen in Appendix C. FMS will be inaccessible to, and will not burden the general public. The proposed data collection is found in **Attachment 3**. Sample screens are found in **Attachment 4**

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

Information collected and maintained in the FMS database will serve as a centralized, integrated system. The transition to FMS will eliminate the need for duplicate reporting of information for applicants who apply to more than one fellowship or to the same fellowship more than one time and for alumni who update their information in the directory. Alumni of more than one fellowship will only update their information once. This information is not readily accessible nor available from any other source. FMS will decrease the duplication of reporting through its use of a secure, single integrated database – avoiding duplicate data collection. It will reduce the personnel resources required for processing applications and selecting qualified candidates. The standardized data that are required for the Fellowship Management System are only provided to CDD. No other CDC component requests this information. CDD provides required information to the Atlanta Human Resources Center to facilitate the hiring process for candidates who become fellows.

A.5. Impact on Small Businesses or Other Small Entities

Physicians, veterinarians, nurses, educators, pharmacists, and attorneys are part of the target audience of CDD fellowships. The information requested of them is required for those who choose to apply to a fellowship and is voluntary for the alumni directory.

A.6. Consequences of Collecting the Information less Frequently

The timeliness of data collected during the application process is critical for an applicant to become a candidate for a fellowship. Each fellowship has an annual process that includes a start date, when applications will first be accepted, and a cut-off date, when applications will no longer be accepted for a given fellowship year. If applications are not received by fellowship program staff during the stated application period, a new class of fellows will not be able to start. Application data will be collected through FMS once per respondent and applicants will have the opportunity to update their information in the event that they apply to other fellowships or to the same fellowship again in subsequent years.

Timeliness of data collected through the alumni tracking process is not as critical. It is estimated that alumni will update their data the first time upon graduation and every three years thereafter.

There are no legal obstacles to reduce the burden.

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

Supporting Statement, Part A October 10, 2007

This request fully complies with the regulation.

A.8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

The agency's notice of proposed data collection was printed in the Federal Register on October 27, 2006 (Volume 71, Number 208, page 63013 in **Attachment 2**). One public comment was received in response to the notice. No changes were made to the proposed project based on this response, as the public comment did not relate to the utility and scope as proposed.

CDC enlisted BearingPoint, Inc., a consulting firm with expertise in system architecture design, to develop specifications and code and to manage the project. BearingPoint's headquarters are located at 1676 International Drive, McLean, VA. 22102 and its local office is at 115 Perimeter Center Place, Suite 380, Atlanta, GA 30346. David Friedman is the point of contact at BearingPoint and can be reached at david.friedman1@bearingpoint.com.

Within CDC, fellowship and training program staff, OWCD and CDD directors, education specialists and evaluators, fellowship alumni working at CDC, and OWCD's IT department were consulted regarding business information requirements and the design and use of the application.

A.9. Explanation of any Payments or Gifts to Respondents

There are no payments or gifts to respondents.

A.10. Assurance of Confidentiality Provided to Respondents

This submission has been reviewed by staff in the CDC Information Collection Request Office who determined that the Privacy Act applies. The applicable System of Records is 09-20-0161, "Records of Health Professionals in Disease Prevention and Control Training Programs," last published in entirety in the Federal Register, Vol. 51, No. 226, November 24, 1986, pp. 42485-87 and last updated in 1994.

Data will be password protected and reside on a server managed by CDC's Information Technology Services Office (ITSO) under strict physical security. ITSO Data Center personnel will have access to the physical server. Registrant data will not be sold, rented or shared with third parties for their promotional use. All data will be maintained behind a strict firewall with security protection.

All modules in FMS are front-end web pages with a backend database, automating existing manual processes accessed by applicants for Fellowship program slots. The applications are submitted through the Internet. All modules of FMS run on IIS web servers supported by ITSO. FMS modules are developed with Active Server Pages (ASP). FMS modules will use a firewall permit in order for the application to

Supporting Statement, Part A October 10, 2007

access stored procedures and data on a Microsoft SQL Server running in a Designated Server Site (DSS).

Data will be stored on a secure Microsoft SQL Server database located behind the CDC firewall. Access to information on the CDC Microsoft SQL Server database is available only through the proposed FMS application to CDD administrative personal and OWCD IT staff. Security provisions for data storage meet all requirements established by CDC's Information Council Executive Committee (CICEC). The Privacy Act statement will be included on all screens stating "furnishing the information requested is voluntary."

A.11. Justification for Sensitive Questions

No questions of a sensitive nature will be asked of respondents.

A.12. Estimates of Annualized Burden Hours and Costs

The only cost to the respondent is the time involved to enter the data. For an applicant, one response will be received each year requiring an average of 40 minutes each to complete the application. The fellowships receive an average of 685 application packages each year. For an alumnus, one response will be requested approximately every three years requiring approximately 15 minutes each to update existing data. Approximately 230 fellows become alumni each year and EIS and PMR/F have approximately 2,700 alumni; for a total annual respondent burden of 740 hours.

A12-A. Estimates of Annualized Burden Hours

Fellowship Management System Respondent Burden

Both fellowship applicants and alumni respond to the same instrument in the Fellowship Management System.

Type of respondents	Number of respondents	Frequency of Response	Average annualized burden per response	Average total response burden in hours
Fellowship applicants	685	1	40/60	457
New fellowship alumni and EIS-PMR/F alumni*	1130	1	15/60	283
Total	1815			740

*Includes 230 new fellowship alumni and 900 (2,700 annualized over three years) EIS and PMR/F alumni. Some alumni are deceased or cannot be located. Response burden assumes response from an individual alumnus, on average, every 3 years.

The estimates of time are based on a pilot test conducted with 5 respondents. The average time to input application information by an applicant is 40 minutes and the average time for an

Supporting Statement, Part A October 10, 2007

alumnus to update information is 15 minutes.

Average time to input application by applicant	40 minutes
Average time to update information in alumni directory	15 minutes

A-12B. Estimates of Annualized Cost Burden

The estimates of annualized cost burden for applicants was developed by first calculating the number of applicants who apply to each fellowship and the salaries of those applicants when they apply, next determining the percentage of applicants for each fellowship to the total number of applicants to all fellowships, and then taking a weighted average of applicant salaries across the fellowships. The estimates of annualized cost burden for alumni was developed by first determining the average salary of alumni for each fellowship and then taking a weighted average of alumni salaries across the fellowships.

The following sources were used to determine the average salaries of fellowship applicants and alumni:

- Graduate Student Intern Salaries in USA, <http://www.indeed.com/salary?q1=GRADUATE+STUDENT+INTERN&l1=US>
- Association of American Medical Colleges (AAMC) 2006 Survey of Housestaff Stipends, Benefits, and Funding: hss2006report
- Salary Table GS, 2006: <http://www.opm.gov/oca/06tables/indexGS.asp>
- US Department of Labor, Bureau of Labor Statistics http://www.bls.gov/oes/current/oes_nat.htm

Fellowship Management System Respondent Cost

Type of respondents	Number of respondents	Frequency of Response	Average time per Response	Average Hourly Wage Rate	Total Respondent Cost
Fellowship applicants	685	1	40/60	\$17.33	\$7,919.81
Fellowship alumni*	1130	1	15/60	\$29.34	\$1137.34
Total	1815				\$9057.15

*Includes 230 new alumni each year and 2,700 total EIS and PMR/F alumni, some of whom are deceased or cannot be located. Response burden assumes response from an individual alumnus, on average, every 3 years.

A.13. Estimate of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no other capital or maintenance costs to respondents.

A.14. Annualized Cost to the Government

The estimated cost to develop and maintain the system over three years is \$808,500. The annualized cost to the government is \$269,500. Annualized cost to develop the system is

Supporting Statement, Part A October 10, 2007

\$212,000 and annualized operations and maintenance cost is \$57,500.

Item	Cost Categories	Annualized Cost to Federal Government
Development Cost	Project Management*	\$60,000.00
	Business Analyst*	\$32,500.00
	Programming & QA*	\$50,000.00
	ITSO Infrastructure*	\$6,000.00
	C&A* ** + CPIC* ****	\$50,000.00
	CDC FTE Costs	\$13,500.00
Total Development Cost		\$212,000.00
Operations & Maintenance Cost	Project Management*	\$12,500.00
	Business Analyst*	\$12,500.00
	Programming & QA*	\$12,500.00
	ITSO Infrastructure*	\$5,000.00
	C&A* + CPIC*	\$12,500.00
	CDC FTE Costs	\$2,500.00
Total O&M Cost		\$57,500.00
Total Annualized Cost		\$269,500.00

*Contractor Costs

** Certification and Accreditation (C&A)

*** Capital Planning Investment and Control (CPIC)

A.15. Explanation for Program Changes or Adjustments

This is a new data collection.

A.16. Plans for Tabulation and Publication and Project Time Schedule

Ad hoc queries will be generated using available data elements of FMS. Data elements can be seen in Appendix C.

Timeline of Key Events following Receipt of OMB Clearance

Key Events				Timeline
Receive OMB clearance				
Start collecting information from EIS alumni				1 week after receipt of OMB clearance
Start collecting application information for all fellowships				6 months after receipt of OMB clearance
Fellowship	Start Collection of Application Data	End Collection of Application Data	Check applications for Completeness	
EIS	Aug 1	Sep 15	8/1-9/15	

Supporting Statement, Part A October 10, 2007

PMR/F	May 1	Oct 15	5/1-10/15	
PHPS	Oct 1	Feb 15	10/1-2/15	
PEFP	Oct 1	Feb 1	10/1-2/1	
PHIFP	Jul 1	Dec 15	6/1-12/15	
<i>The CDC Experience</i>	Sep 1	Dec 15	9/1-12/15	
Epidemiology Elective, Fall Rotations	Jan 1	Mar 30	1/1-3/30	
Epidemiology Elective, Spring Rotations	Mar 1	May 30	3/1-5/30	
Start collecting information alumni information from all fellowships				12 months after receipt of clearance
Check alumni data for completeness				12 months after receipt of clearance and every 3-months after
End data collection				3 years after receipt of OMB clearance

A.17. Reasons Display of OMB Expiration Date is Inappropriate

CDC is not requesting an exemption from displaying the expiration date.

A.18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to certification for Paperwork Reduction Act Submissions anticipated.

B. Collections of Information Employing Statistical Methods

The collection of information does not employ statistical methods.

B.1. Respondent Universe and Sampling Methods

The respondent universe consists of professionals in public health, epidemiology, medicine, economics, information science, veterinary medicine, nursing, pharmacy, public policy, and related professions, and medical, veterinary, and graduate students. No sampling methods will be used.

B.2. Procedures for the Collection of Information

Respondents will enter information required to complete an application for a fellowship or training program into the proposed system once, although they will have the ability to update their data if they apply to other fellowships or the same fellowship again in subsequent years. Alumni will be encouraged to update their information every three years. Fellowship alumni associations and the fellowship newsletters will remind and encourage their alumni to participate. Announcements and reminders will include a link to the alumni directory to facilitate participation. For example, the EIS Alumni Association will send out announcements and reminders to EIS alumni with a link to the EIS directory and the EIS Bulletin will include reminders for alumni to keep their information current with a link to the directory. CDD administrative staff will monitor the directory every three months to determine the rate of completion.

B.3. Methods to Maximize Response Rates and Deal with Nonresponse

Although participation in the fellowships and programs is voluntary, a complete application is necessary to be considered for selection. Participation in the alumni tracking directory is voluntary and respondents will be encouraged to participate. Fellowship alumni associations and the fellowship newsletters will remind and encourage their alumni to participate. Announcements and reminders will include a link to the alumni directories to facilitate participation. For example, the EIS Alumni Association will send out announcements and reminders to EIS alumni and the EIS Bulletin will include reminders for alumni to keep their information current. These announcements and reminders will include a link to the EIS directory. CDD administrative staff will monitor the directory every three months to determine the rate of completion. Participation will provide alumni the opportunity to maintain their professional networks for finding jobs, staffing jobs, collaborating and interacting with their fellow alumni. Alumni value their networks and the relationships they established during their fellowships. Participation will allow current fellows and alumni, if called upon, to assist in responses to national public health emergencies or urgent public health needs.

B.4. Tests of Procedures or Methods to be Undertaken

A pilot test has been conducted to improve FMS usability.

B.5. Individuals Consulted on Statistical Aspects and Individuals Collecting and/or Analyzing Data

Designated fellowship staff, all of whom are CDC employees, will collect and/or analyze the data for completeness. They will review the applications throughout the application period noting applications that are incomplete and they will review alumni directory data every three months for completeness.

B.6. CDC Contacts

Elinor Greene, Ph.D.
Career Development Division

Supporting Statement, Part A October 10, 2007

Office of Workforce and Career Development
Centers for Disease Control and Prevention
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Attachments

Attachment 1 Public Health Service Act

Attachment 2: Federal Register on October 27, 2006 (Volume 71, Number 208, page 63013)

Attachment 3: Proposed data to be collected through the Fellowship Management System

Attachment 4: Sample screen shots of the Fellowship Management System