




Federal Personnel Research Programs and Demonstration Projects

Catalysts for Change

*A Report Concerning Significant Actions
of the Office of Personnel Management*



A Report to the President and the
Congress of the United States by the
U.S. Merit Systems Protection Board





U.S. MERIT SYSTEMS PROTECTION BOARD
Washington, D.C. 20419

December 1992

The President
President of the Senate
Speaker of the House of Representatives

Sirs:

In accordance with the requirements of the Civil Service Reform Act (CSRA) of 1978, it is an honor to submit this Merit Systems Protection Board report entitled "Federal Personnel Research Programs and Demonstration Projects: Catalysts for Change."

The CSRA provided the U.S. Office of Personnel Management (OPM) and other Federal agencies the authority to conduct research programs and demonstration projects as a tool to stimulate constructive change in Federal personnel management. Under this authority, the Government is able to develop and test new and better ways to manage its human resources so as to provide needed services to the public as effectively and efficiently as possible.

This report reviews the significant actions taken by OPM in fulfilling its responsibilities under the research programs and demonstration projects authority. It examines the changes in Federal personnel management that have resulted from the use of the authority and discusses what could be done to make it an even more effective catalyst for change.

We believe that you will find this report useful as you consider issues concerning the future of the Federal civil service.

Respectfully,

Daniel R. Levinson
Chairman

Antonio C. Amador
Vice Chairman

Jessica L. Parks
Member

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of the U.S. Office of Personnel Management

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U.S. Merit Systems Protection Board

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Executive Summary

In the Federal Government as elsewhere, the workers, the workplace, and the work itself are changing dramatically. The Government needs to maintain a flexible and evolving Civil Service system so that it can aggressively and effectively meet the new and different demands constantly placed upon it. Recognizing that need, Congress included provisions for research programs and demonstration projects in the Civil Service Reform Act of 1978 (CSRA) so that the U.S. Office of Personnel Management (OPM) and other Federal agencies could test innovative approaches to personnel management. As stated in the act, the ultimate goal of these provisions is "to achieve more efficient management of the Government's human resources and greater productivity in the delivery of service to the public."

The U.S. Merit Systems Protection Board (MSPB or the Board), an independent Federal agency, has a statutory responsibility to provide the President and Congress with oversight reports on OPM's significant actions. This report deals with what OPM and the Federal agencies have accomplished under the research program and demonstration project authority since 1986. We examined how OPM has used that authority as a catalyst for change in Federal personnel management. The Board finds that beneficial changes have occurred as a result of the authority. The Board also finds that structural weaknesses in the authority and in its implementation have unnecessarily limited its benefits. This report discusses both the accomplishments and the weaknesses and concludes with recommendations for future actions.

The Authority

The CSRA provided OPM with two distinct mechanisms through which it could stimulate change: research programs and demonstration projects. These provisions are codified in chapter 47 of title 5, United States Code. Under chapter 47, a research program is a study to determine how well Federal personnel management policies and systems are operating and, more specifically, to examine improved methods and technologies. Such research is undertaken within the provisions of existing personnel laws and regulations. Because no waiver of law or regulation is involved, concepts being tested in a research program may be permanently adopted by the agency or OPM if found to be workable.

Congress also recognized, however, that some innovative approaches to personnel management could conflict with existing statutory or regulatory requirements. In order to allow the testing of these approaches as well, the CSRA contained provisions for a limited number of demonstration

projects. A key element of a demonstration project is that agencies are temporarily exempted from the coverage of particular personnel laws and regulations in order to test new ideas.

Because a demonstration project involves the temporary waiver of legal or regulatory requirements, the CSRA included some limitations to safeguard affected employees' rights and benefits. Specifically, OPM is prohibited from waiving laws and regulations regarding benefits, equal employment opportunity, and political activity, or regarding the merit principles and prohibited personnel practices. In addition, OPM may conduct only 10 demonstration projects at any one time; each project can cover no more than 5,000 employees and normally last no more than 5 years. OPM is also required to notify both Houses of Congress twice before a project is implemented. And, sponsoring agencies are required to consult or negotiate with and notify employees or recognized labor organizations before the start of the project. The concepts, policies, or procedures being tested in demonstra-

tion projects, and which require the temporary waiver of existing law and regulation, cannot be adopted permanently without a permanent change in legislation or regulation.

Summary of Major Findings

- **Research programs and demonstration projects have helped lead to beneficial changes in Federal personnel management.** For example, results from various research programs and demonstration projects were used, in part, to formulate some provisions of the Federal Employees Pay Comparability Act and develop the Administrative Careers With America examination.
- **OPM conducted or sponsored 53 specific research efforts from FY 1986 through FY 1991.** Three of these were conducted by other Federal agencies under agreement with OPM, eight were under contract or agreement with other organizations, and the rest were conducted by OPM itself. Of the 53 research efforts, 17 are still ongoing. Not surprisingly, the scope and complexity of the individual research efforts varied widely.
- **A total of six demonstration projects have been instituted during the 14-year period since passage of the CSRA; five are still ongoing while one has ended.** One of the five active demonstration projects was implemented before 1986 (the Navy's China Lake demonstration project), while the other four were implemented during the study period (an Air Force and Defense Logistics Agency demonstration project called PACER SHARE, a Department of Agriculture staffing demonstration project, a Department of Transportation/Federal Aviation Administration (DOT/FAA) pay demonstration project, and a congressionally mandated National Institute of Science and Technology (NIST) alternative personnel management systems demonstration project.) A demonstration project that ended during the study period was a DOT/FAA project involving its Airway Science Curriculum.
- **OPM received 25 formal and informal demonstration project proposals and approved 5 (only 3 were implemented) from FY 1986 through FY 1991.** A number of the proposals sought pay relief of some kind and were reminiscent of the China Lake and NIST demonstration projects already underway. Thus, OPM considered most of these projects of little potential value from a research point of view and discouraged agencies from pursuing the proposals or disapproved them. But by not allowing agencies to replicate demonstration projects, OPM runs into a problem of being unable to determine whether the concept being tested will work in other places.
- **OPM disseminates research and demonstration information to users through various mechanisms.** A dissemination program is required by the CSRA. Notable among the mechanisms OPM uses are its quarterly publications Personnel Research Highlights and Federal Staffing Digest, symposia and conferences, and formal presentations to professional organizations.
- **Most agencies believe that the research and demonstration authority has not been a truly effective catalyst in bringing about change in personnel management.** However, almost all agencies think that the research program and demonstration project authority is a potentially valuable tool in concept because it allows them to find and test new knowledge or ideas in personnel management. The impact of the authority is lessened by several factors including the restrictive nature of the statute with regard to demonstration projects; a cumbersome OPM-administered approval process for all demonstration projects and a few selected research programs; the sometimes considerable resource commitment required to conduct a program or project; and, for demonstration projects, the lack of a smooth transition mechanism at the mandatory conclusion of a successful project.

Recommendations

1. **OPM should take a strong leadership role by identifying and developing concepts for research and demonstration projects, in collaboration with other Federal agencies, and by soliciting agency sponsors to carry them out.** Adopting this suggestion could simplify at least part of the current lengthy and complicated planning and approval process. Agencies can participate by carrying out a project, assisting with one, or funding one. With respect to demonstration projects, one stronger leadership step we recommend is that OPM take fuller advantage of its CSRA authorization to request appropriations for demonstration projects. That is, OPM should request appropriations for possible reallocation to other Federal agencies involved in carrying out a demonstration project.
2. **OPM should aggressively promote research programs and demonstration projects, as one set of tools for bringing about change in Federal personnel management.** In promoting the program, OPM should clarify the distinction between research programs and demonstration projects. OPM should examine its approval processes with a view toward simplifying them wherever feasible. OPM has started and should follow through on its review of the Federal Personnel Research Agenda, the list of personnel management topics viewed to be in most need of research, to determine whether the list is in need of revision.
3. **OPM should improve the way it collects and disseminates research program and demonstration project information.** Specifically, OPM should identify the users of the information and their needs. Then OPM should tailor the information to those needs. Some direct followup or contact with the users would help ensure that the information provided is useful. The sponsoring of relevant conferences or seminars may also expand the utility of the information.
4. **As needed, OPM should encourage simultaneous testing of the same concept(s), or a variation of the same concept(s), through demonstration projects in more than one agency or installation; such replications could also be carried out through the use of multiple agencies or installations under a single project.** Replicating demonstration projects may be necessary to enhance the validity of results and to ensure that the concepts being tested could be applied to other occupations, locations, and management orientations.
5. **Congress may need to consider lifting the limit of 10 demonstration projects that can be conducted at any given time, or the limit of 5,000 employees involved in any given project, or both.** The current limitations would serve as stumbling blocks for OPM if it would approve more than one installation to test the same concept, or variations of the concept, in a number of agencies (see recommendation 4). Replicating demonstration projects could easily exceed the limits the law now imposes. Experience has shown that the OPM approval process provides an adequate control to ensure that the number of projects and the number of covered employees does not become excessive.
6. **Congress should consider changing the law to streamline legal requirements and expand the use of demonstration projects.** Some specific actions Congress could consider are the following:
 - a. **Retain the required second (90-day) notification of both Houses of Congress only if there has been substantial change on the project plan since the first (180-day) notification.** Currently, both Houses of Congress are notified twice regarding a proposed demonstration project: first for a 180 day period and, again, 90 days before the implementation of the project. Some agencies believe that the notification period is unnecessarily long and could be shortened without weakening congressional oversight.
 - b. **Allow demonstration projects on employee benefit issues.** The costs of employee benefits, especially health care, have risen steadily in the last 10 years.

The Government needs to explore ways in which it could make the benefits area become more cost effective; e.g., by exploring the feasibility of a "cafeteria benefits" approach.

- c. **Allow the testing site to permanently adopt, with OPM approval, the concept being tested if the evaluation has shown that the demonstration was successful.** An agency or agency installation involved in a demonstration project typically makes a major investment in time and resources to mount and carry out a project. Currently, the

only way the changes made at that installation can continue beyond the life of the project is if Congress makes a permanent change to the personnel law(s) that have been temporarily suspended. Obtaining such a legislative change is a very difficult and time-consuming proposition which serves as a disincentive for any agency considering a demonstration project. That disincentive can be countered by allowing the testing site, with OPM approval, to adopt and continue a successful change at the end of a demonstration project—regardless of whether an actual change in the law is forthcoming.

Introduction

*"History makes the point that the nation does not benefit from an inflexible civil service system. There must be processes in place to analyze the effectiveness of the system given the changing public need and the changing role of government. And then there must be the will to bring about change where that is necessary."*¹

Change. In the Federal Government as elsewhere, it appears that nothing is permanent but change. With the workers, the workplace, and the work itself constantly changing, the Government cannot afford to have an inflexible Civil Service system. To meet its mission and obligations, the Government must be able to change with the times the way it manages its resources, especially its human resources.

The Government significantly modified its personnel management systems in 1978, when it enacted the Civil Service Reform Act. The act became law 95 years after another major reform, the Pendleton Act of 1883. During the formulation of CSRA, Congress recognized that reforms ought not to occur once every hundred years but continually—as they are needed. Thus, CSRA provided a mechanism—the research programs and demonstration projects authority (codified at 5 U.S.C. ch. 47)—for the Federal Government to find and test new and better ways to manage its human resources.

Scope of Study

This report describes chapter 47 research program and demonstration project activities of the Office of Personnel Management and Federal agencies from the beginning of fiscal year 1986 through fiscal year 1991,² and evaluates how these activities meet the intent of the law. More specifically,

the report endeavors to answer these questions: What changes in Federal personnel management have been implemented as a result of the implementation of chapter 47? Has chapter 47 been an effective catalyst for change and can it be improved?

This study is in partial fulfillment of the Merit Systems Protection Board's legal mandate to provide an annual oversight report to the President and Congress on the significant actions of OPM.

Methodology

This report does not attempt to evaluate the success or failure of particular research programs or demonstration projects, or to analyze the strength or weakness of particular project designs. We used the data collected for this study as a general indicator of OPM's and agencies' experiences and views on research programs and demonstration projects. In preparing this report, we relied heavily on the following sources of information:

- Interviews with the staff of OPM's Office of Systems Innovation and Simplification (OSIS), personnel specialists from various agencies, members of labor organizations currently involved in demonstration projects, and some of the framers of the research program and demonstration project authority;

¹ Constance Berry Newman, "A Civil Service Rebuilding and Preparing for the 21st Century," in remarks to the Council for Excellence in Government, Washington, DC, Sept. 17, 1991.

² The U. S. General Accounting Office's report, "Federal Personnel: Status of Personnel Research and Demonstration Projects," GAO/GGD-87-116BR, September 1987, gives a detailed account of the activities that occurred before 1986.

- Responses to an MSPB questionnaire concerning research program and demonstration project issues from OPM's Associate Director, Personnel Systems and Oversight Group, and from the directors of personnel of the 21 largest Federal departments and agencies (the Department of the Treasury also submitted responses from 5 of its subordinate agencies).³ We received their responses during January-April 1992;
- Views and opinions of two employee organizations;⁴ and
- Review of relevant literature and evaluation reports on personnel research programs and demonstration projects, including OPM and General Accounting Office (GAO) reports on demonstration projects.

OPM Review

In response to our request for OPM to review an earlier draft of this report, the Assistant Director of the Office of Systems Innovation and Simplification made a number of comments and suggestions to improve the technical accuracy of the report. We considered these comments and made appropriate changes in preparing the final report.

³In addition to OPM, the following departments and agencies responded to our questionnaire: the Departments of Agriculture, the Air Force, the Army, Commerce, Defense (Office of the Secretary), Education, Energy, Health and Human Services, Housing and Urban Development, the Interior, Justice, Labor, the Navy, State, Transportation, and Veterans Affairs; and the Environmental Protection Agency, General Services Administration, National Aeronautics and Space Administration, Small Business Administration, Bureau of Engraving and Printing, Comptroller of the Currency, Financial Management Service, Inspector General of the Department of Treasury, and Internal Revenue Service.

⁴We invited comments from four labor unions and seven professional organizations representing Federal workers. We received responses from two organizations.

The Authority and Its Implementation

The Authority

"Title VI of the bill embodies the intent of Congress that continuing review with proper safeguards, of personnel techniques and systems is a vital aspect of civil service reform."⁵

Title VI of the Civil Service Reform Act of 1978 (5 U.S.C. ch. 47), which established the research and demonstration program, is a catalyst for change in Federal personnel management. Under this authority, OPM is authorized to:

- Establish, maintain, and assist in the establishment and maintenance of research programs to study improved methods and technologies in Federal personnel management;
- Conduct demonstration projects to determine whether a specified change in personnel management policies or procedures could lead to improved Federal personnel management;
- Evaluate research programs and demonstration projects (conducted under this authority); and
- Establish and maintain a program for the collection and dissemination of information relating to personnel management research.⁶

A research program is defined in CSRA as a "planned study of the manner in which public management policies and systems are operating, the effects of those policies and systems, the possibilities for change, and comparisons among policies and systems."⁷ Research can be undertaken only within the provisions of existing personnel laws and regulations. While conducting research and upon request, agencies may be exempted by OPM from certain OPM-imposed procedures or standards. Agencies, of course, can also waive their own internal personnel policies and procedures as long as they remain in compliance with the basic legal and regulatory requirements. Policies and systems being researched may be adopted permanently by the organization testing them or by other Federal organizations without additional legislation or a change in regulation since no waiver of law or regulation is involved. OPM considers any inhouse research it conducts to be under chapter 47, except when the research is mandated by other legislation.⁸

A demonstration project is "a project conducted by OPM, or under its supervision, to determine whether a specified change in personnel management policies or procedures would result in improved Federal personnel management."⁹ A key element of a demonstration project is that OPM may temporarily exempt agencies

⁵ Statement of Sen. Jim Sasser during Senate hearings on S. 2640, Aug. 24, 1978. Legislative History of the Civil Service Reform Act of 1978, vol. 2, Mar. 27, 1979, p. 1634.

⁶ The language of ch. 47 dealing with demonstration projects is quite specific regarding what can be done as part of a demonstration project. The language dealing with research programs is rather vague. A drafter of the legislation told us that the reason for this difference lay in the fact that the research language was added to the proposed law late in the drafting process at the suggestion of then-Civil Service Commission Chairman Alan Campbell. They expected that the general language of the research programs provision would be "fleshed out" during the congressional process but that never occurred.

⁷ 5 U.S.C. 4701(a)(5).

⁸ OPM reported having conducted during the study period two research projects in compliance with specific statutory requirements other than CSRA. Public Law 95-595 requires OPM to submit an annual report to Congress and the Comptroller General on the status of the Civil Service Retirement and Disability Fund. The "Federal Employee Substance Abuse Education and Treatment Act of 1986" requires OPM to submit an annual report to Congress on the Federal drug and alcohol programs set up for Federal civilian employees under the act. These two projects will not be covered further in this report.

⁹ 5 U.S.C. 4701(a)(4).

conducting demonstration projects from most personnel laws and regulations. But changes being tested with such exemptions cannot be adopted permanently without additional legislation or a change in regulation.

OPM may conduct personnel research directly or indirectly through agreement with Federal agencies or other public organizations. In addition, OPM may contract with private sector organizations to conduct research projects it deems necessary. Only OPM or other Federal agencies, by regulation, may conduct demonstration projects, but they may be assisted by public or private organizations, especially in developing research designs or conducting evaluations. Ideas for research programs and demonstration projects may emanate from OPM or from the agencies or other organizations.

Because a demonstration project carried out under Chapter 47 of title 5 involves the temporary waiver of Federal personnel law or regulation, each project proposed by a Federal agency must include a detailed plan for the project and must be approved by OPM. In a few cases, agencies may also seek OPM approval for a waiver of OPM guidance or standards (but not law or regulations) in order to test a particular concept or idea under the research program. Currently, however, most Chapter 47 research programs are conducted by or sponsored by OPM and do not require waiver of law, regulations, or standards and, therefore, do not involve a formal approval process.

In like manner, other personnel research efforts undertaken by Federal agencies within existing delegations of authority do not require OPM approval. For example, Army is conducting research to validate its selection instruments for its civilian managers and supervisors. This research is similar to research being conducted by OPM. But since Army is conducting the project under its own authority and has sought no OPM waivers, it did not require OPM approval. Other agencies reported that they are also conducting human resource management studies under their own authority or under separate legislation. Since these projects are not under chapter 47, they will not be covered in this report.

Legal Requirements for Demonstration Projects

For sponsoring agencies conducting demonstration projects, CSRA gave OPM the power to waive laws and regulations relating to:

- Recruitment and staffing;
- Classification and compensation;
- Disciplinary actions;
- Incentives;
- Labor and employee relations; and
- Reductions in force.

Because of the waiver authority, CSRA included some checks and balances to safeguard affected employees' rights and benefits. Specifically, OPM is prohibited from waiving laws or regulations regarding benefits, equal employment opportunity, or political activity, or regarding the merit principles and prohibited personnel practices.

To further protect employee rights, OPM is required to publish each demonstration project's plan in the Federal Register with a 60-day comment period; notify both Houses of Congress at least 180 days before the project is to begin; and report to each House of Congress the final version of the project at least 90 days before its implementation. Additionally, sponsoring agencies are required to consult or negotiate with recognized labor organizations, or consult with employees where there is no recognized labor organization, and notify these labor organizations or employees 180 days before the start of the project.

**** I propose modification *** [that] would limit the authority of this central personnel agency to conduct demonstration projects."¹⁰*

CSRA also puts limits on the number, coverage, and duration of demonstration projects. Congress may, however, waive these limits.¹¹ The limitations are that:

¹⁰Statement of Sen. Charles McC. Mathias, Jr., during Senate hearings on S. 2640., Aug. 24, 1978. Legislative History of the Civil Service Reform Act of 1978, vol. 2, Mar. 27, 1979, p. 1655.

¹¹For the Navy's China Lake demonstration project, Congress waived the 5,000-employee limit and extended the project twice as a rider on Defense's appropriation act.

- Only 10 active demonstration projects may be conducted Governmentwide at any one time;
- Each demonstration project may cover not more than 5,000 employees, excluding those in the comparison group; and
- Each demonstration project may last no more than 5 years. However, OPM may extend a project for as long as it deems necessary to validate the results of the project.

Approval of Research and Demonstration Projects

The process. OPM applies the same procedures in approving agency research and demonstration project proposals, except research proposals are not subject to the requirements concerning the limitations and public and congressional notification outlined above. Agencies wishing to conduct research or demonstration projects under chapter 47 may submit their proposals to OPM at any time. OPM may consider proposals submitted informally, but approval is granted only to proposals submitted formally. To assist agencies in developing proposals for research or demonstration projects, OPM published "Developing Research and Demonstration Projects: An Informational Guide" in 1986 (updated in 1989).¹² Additionally, members of OPM's Office of Systems Innovation and Simplification staff, the OPM office responsible for administering research and demonstration projects under chapter 47, are available to provide assistance to agencies trying to develop proposals.

Generally, a project undergoes five stages: conceptualizing, planning, implementing, evaluating, and reporting. Agencies may conceptualize a project without OPM assistance or approval. But for an agency to conduct a research or demonstration project under chapter 47, OPM must approve the project plan before implementation. Thus, agencies wishing to conduct such research or demonstration projects are required to submit a detailed project plan for OPM approval. But most

agencies, before submitting a detailed project plan, solicit OPM assistance while developing their idea and submit their proposal as a concept paper. (During this period of consultation, OPM attempts to help the agencies diagnose the underlying problem. This sometimes results in the identification of problems that can be dealt with quickly within the provisions of existing laws and regulations, thus eliminating the need to experiment.) Although not required, OPM encourages agencies to submit the concept paper first because it provides OPM with the general information needed to evaluate the idea's merit and potential for success. The concept paper serves as an effective and efficient way to evaluate ideas before substantial resources are expended in developing a detailed project plan.

After OPM agrees with the concept paper, the agency formally submits its project plan. The project plan is a more detailed version of the concept paper and must include enough detail to demonstrate a sound methodology and a rigorous evaluation plan for the project. The project evaluation plan should provide a basis for measuring results against stated objectives. Ensuring the validity of the project's results is critical because these results serve as the basis for determining whether permanent changes to personnel laws, regulations, policies, or systems should be made.

The criteria. In deciding whether to approve a proposed research or demonstration project, OPM uses several criteria. The most critical are:

- The relevance of the proposed changes to the short-term or long-term needs of policymakers within OPM and elsewhere in the Government;
- The potential applicability across all or a substantial portion of the Federal Government, based on the universality of the innovations to be tested and the variety of occupations and sites involved;
- The availability of measurable outcomes which can be attributed to specific concepts being tested; and

¹²OPM is in the process of revising the Guide in its efforts to redefine the research program and demonstration project process.

- The support of local and agency-level management, employees, and labor organizations, including assurance that sufficient resources can and will be committed for project development, implementation, and evaluation.

Given this context of how research and demonstration projects should be conceived, implemented, and evaluated, we now turn to the question of what has been accomplished.

Accomplishments

"It's only through a sound research agenda that this government will be able to establish a policy that will ensure that it is a government of excellence and a government that truly works in the public interest."¹³

Immediately after passage of CSRA, OPM actively implemented the research program and demonstration project authority. However, in the early 1980's as a result of a change in OPM leadership, the priorities of OPM changed and these projects were deemphasized. A change in OPM leadership occurred again in 1986 and with it the program was revitalized. Since 1986, some 53 research projects and four demonstration projects have been instituted. The scope and complexity of these projects varied widely.

As mentioned earlier, OPM has four specific responsibilities under the research program and demonstration project authority. In this section, we will discuss each of these responsibilities and what has been accomplished thus far. The next section will deal with some obstacles that we believe have hindered the full use of the chapter 47 authority.

Function 1: Establish and Maintain Research Programs

When OPM revitalized its research program in 1986, a notable change occurred: OPM began seeing itself as a broker for research. Instead of simply advocating research, OPM offered (1) to act as a conduit between researchers and agencies or other researchers studying Federal personnel management issues; (2) to assist researchers in

presenting and publishing their findings; and (3) to provide access to the database, the Central Personnel Data File, maintained by OPM that contains pertinent personal and employment information on all Federal employees. As we will discuss later in this report, this role of research broker has had an impact on how effectively OPM has met its mandate for developing a research program.

OPM also established the Office of Systems Innovation and Simplification in 1986, to serve as the focal point for OPM's research program and demonstration project activities.¹⁴ In 1988, OSIS developed the Federal Personnel Research Agenda (hereafter referred to as the Research Agenda) in collaboration with agency personnel officials, unions, academicians, congressional staffs, and professional associations.¹⁵ The Research Agenda is a list of personnel management topics viewed to be in most need of research and "provides a framework for brokering common interests, for focusing future research, and for sharing results."¹⁶ Additionally, OSIS uses the Research Agenda to direct academic and Federal researchers to the areas in public personnel management in most need of research.

Figure 1 shows, ironically, that a little over one-fourth of the research projects undertaken during the study period were in the area of employee selection, a topic that is not specifically included

¹³ Constance Berry Newman, in her opening address at OPM's 1989 Personnel Research Conference, Chevy Chase, MD, Aug. 16, 1989.

¹⁴ Although the Office of Systems Innovation and Simplification has the functional responsibility to administer chap. 47 research programs, it does not review or approve research programs carried out by other OPM offices.

¹⁵ The Research Agenda includes the following seven topics: compensation, diversity, participation, performance management, recruitment and retention, training and development, and workforce demographics.

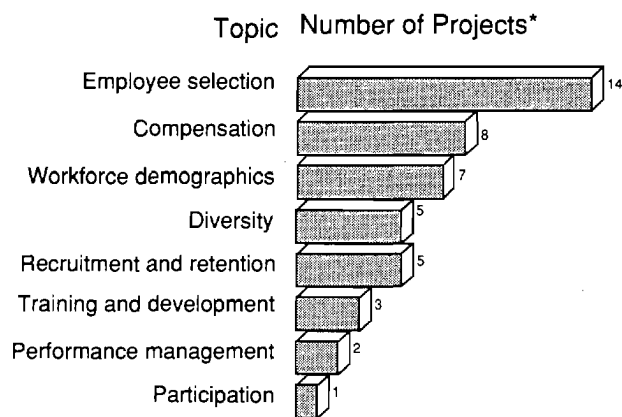
¹⁶ U.S. Office of Personnel Management, "Personnel Research Highlights," Washington, DC, February 1990, p. 21.

in the Research Agenda. These research projects on employee selection were necessary to enable OPM to rigorously develop and validate entry-level examinations, which we will later discuss. In addition to research on employee selection, major research initiatives were undertaken in such areas as workforce demographics, quality assessment, and compensation. Studies in these areas were instrumental in bringing about Governmentwide changes that are discussed later in this report.

OPM reported conducting or monitoring 53 research projects from the beginning of FY 1986 through FY 1991. Three of these were conducted by other Federal agencies (two by Defense and one by Labor) under agreement with OPM; eight were under contract or agreement with private organizations; and the rest were conducted by OPM. Appendix A describes the 53 research projects conducted during the study period.¹⁷ Of the 53, 17 are ongoing.

Table 1 shows that numerous functional offices within OPM conducted or monitored research during the study period.¹⁸ The Office of Personnel Research and Development actually conducted 62 percent of OPM's inhouse research.

Figure 1 -- Number of CSRA Research Projects, by Topic, FY 1986-91



*Thirty-seven conducted by OPM and 8 by private organizations under contract. Additionally, 8 other research projects were carried out but did not fall under any of the 8 topics; 3 of the 8 were conducted by Federal agencies and 5 by OPM.

Table 1--Number of CSRA Research Projects, by OPM Office Conducting or Monitoring the Project, FY 1986-91

OPM Office Name	Number of Projects*
Career Entry Group	1
Office of Personnel Research and Development	26
Office of Affirmative Recruiting and Employment	1
Human Resource Development Group	2
Retirement and Insurance Group	7
Personnel Systems and Oversight Group	
Office of Labor Relations and Workforce Performance	2
Office of Compensation Policy	3
Office of Systems Innovation and Simplification	8
Office of Classification	3
TOTAL	53

*Forty-two conducted by OPM, 3 by Federal agencies, and 8 by private organizations under contract.

¹⁷The list and descriptions given in app. A were provided by OPM as part of its response to the Board's questionnaire. We edited them for brevity.

¹⁸Research programs conducted by OPM's Office of Personnel Research and Development meet the mandates of both chap. 47 authority for research programs and chap. 33 authority for examination, selection, and placement.

Function 2: Conduct Demonstration Projects

As in its research program, OPM has tried to adopt the role of broker in its demonstration project efforts. Actually, however, in all but one instance, OPM has waited for agencies to submit their proposals and then worked with them in developing the proposals. This reactive style may have partly worked to keep the number of demonstration projects implemented during the period as low as it was.

OPM received 25 demonstration project proposals from the beginning of fiscal year 1986 through fiscal year 1991. Table 2 lists the agencies that submitted them. Of the 25 proposals, OPM approved 5—although only 3 were implemented. In addition, a fourth demonstration project was authorized by Congress. One approved proposal dealing with pay was held in abeyance by the proposing agency in order to see whether the flexibilities allowed by the then-upcoming pay reform would solve the agency's pay problems. Another approved proposal was not implemented because of internal reorganization and downsizing of the sponsoring agency.

Many of the 25 demonstration project proposals OPM received were reminiscent of the Navy's China Lake and the National Institute of Science and Technology's demonstration projects already underway. Thus, OPM considered these proposals of little potential value from a research point of view and discouraged agencies from pursuing the proposals or disapproved them.

There are currently five active chapter 47 demonstration projects: one implemented before 1986 (the Navy's China Lake project); the three approved by OPM during the study period (the Air Force's and Defense Logistics Agency's PACER

SHARE demonstration project; the Department of Agriculture's staffing demonstration project, and the Department of Transportation/Federal Aviation Administration's pay demonstration project); and the one authorized by Congress (NIST's alternative personnel management demonstration project).¹⁹ A total of six demonstration projects have been instituted since the passage of CSRA: five are ongoing while one has ended. A brief description of them can be found in appendix B.

Function 3: Evaluate Research Programs and Demonstration Projects

OPM is required to evaluate its research program and to evaluate demonstration projects to determine their impact on improving public management. Depending on the research or demonstration project plan, evaluation may be conducted by

Table 2--Number of CSRA Demonstration Projects Proposals Submitted to OPM, by Agency, FY 1986-91

Agency	Number of Proposals Submitted
Army	5
Air Force	4
Navy	3
Agriculture	2
Transportation	2
Defense Logistics Agency	1
Interior	1
Health and Human Services	1
Environmental Protection Agency	1
General Services Administration	1
National Aeronautics and Space Administration	1
National Capital Planning Commission	1
Securities and Exchange Commission	1
Veterans Affairs	1
TOTAL	25

¹⁹ The Federal Bureau of Investigation (FBI) is conducting a demonstration project under a different law. The project is similar to that of the DOT/FAA pay project and covers employees assigned to the FBI's New York office. Although the project was jointly developed by OPM and the FBI, the project is not counted as a ch. 47 demonstration project. CSRA excludes the intelligence community from ch. 47. This project will not be covered further in this report.

OPM or by the sponsoring agency. CSRA does not specify the timing or frequency of evaluations, but OPM prefers annual evaluations of demonstration projects.

Evaluation of research programs. Since the beginning of FY 1986, OPM has not conducted a comprehensive evaluation of its research program, although it has made some efforts to evaluate aspects of the program through a customer satisfaction survey. OPM's Office of Systems Innovation and Simplification administered the survey to the readership of OPM's Personnel Research Highlights in 1990. In conjunction with this survey, OSIS also conducted structured interviews with officials of other OPM functional offices and a focus interview with members of the Federal personnel community. Based on the data gathered from the survey (which OSIS acknowledged is not statistically valid) and from the results of the interviews, OSIS found that its customers appear to be satisfied.

Additionally, in late 1991, OSIS reviewed numerous chapter 47 and other research projects and compiled a summary of them. Like the Research Agenda, the summary was a collaborative effort between OPM and the Federal personnel community. This summary includes both Federal and non-Federal research projects conducted since FY 1986 which are pertinent to the Research Agenda. According to OPM, this compiled summary called Federal Personnel Research Agenda Update will serve as a centerpiece of its efforts to reshape the Research Agenda by identifying areas where research had or had not been done. OPM planned to publish the summary in the fall of 1992.

Evaluation of demonstration projects. OPM evaluates demonstration project results, or contracts for their evaluation, to determine whether the changes being tested are feasible for permanent adoption in the sponsoring agency or other Federal organizations. The external evaluators and a summary of key findings for the four projects with published evaluations can be found in appendix C. Evaluations for two of the projects have not been published.

Function 4: Collect and Disseminate Research and Demonstration Information

OPM collects and publicly disseminates information relating to personnel management research and demonstration projects through publications, OPM-sponsored symposia and conferences, and other presentations. Each of these vehicles for disseminating information is discussed below.

OPM publications. Personnel Research Highlights is a quarterly newsletter distributed to approximately 1,400 individuals and organizations. It includes summaries of current research studies conducted by OPM or other parties (not necessarily under contract or agreement with OPM). During July 1989-July 1991, OPM published 46 summaries in the newsletter; 11 were of OPM studies. OPM uses Highlights to encourage and facilitate the exchange of information by including the name and telephone number of the researcher for people to contact for more information or discussion. The "Bulletin Board," a section of Highlights, advertises other reports and studies pertinent to the Research Agenda. Highlights is mailed to individuals listed in OPM's Agenda Coordination and Tracking Systems database who have contacted OPM about undertaking research related to the Research Agenda or who are interested in obtaining information about the agenda.

The Federal Staffing Digest is a quarterly newsletter mailed to 20,000 subscribers that provides information on planning, recruiting, and staffing a quality workforce. In addition, updates on changes in workforce supply and demand, information on new OPM policies and procedures, and descriptions of related research developments are covered in the Digest. Articles on successful staffing practices in the Federal sector can also be found in this publication.

OPM also collects and disseminates a list of bibliographies related to the Research Agenda. A "Personnel Research Bibliography" on job evaluation and job analysis and another on retention and turnover have been published and advertised through the Highlights' "Bulletin Board."

One of OPM's links with Federal agencies is the Interagency Advisory Group, which is made up of the personnel directors of all the major executive departments and agencies. OPM has targeted this group for disseminating research information by creating the Interagency Advisory Group Personnel Research Information Exchange newsletter. This quarterly newsletter highlights some important research and development projects being conducted by OPM on applicant testing and assessment.²⁰

OPM regional offices in Dallas and Atlanta maintain electronic bulletin boards that also provide information on OPM's research initiatives. The Dallas bulletin board (which requires access authorization from OPM) has 2,000 users per month, while the Atlanta system (which is open to all) averages 800 callers a month.

The above-mentioned publication mechanisms are, to a small degree, also used to disseminate information concerning the demonstration projects. In addition, OPM distributes demonstration project plans and evaluation reports to the Office of Management and Budget, Members of Congress representing the participating sites or serving on committees with relevant interests, and employee unions. Both the Office of Systems Innovation and Simplification and OPM regional offices disseminate information on demonstration projects in response to inquiries from other Federal agencies and any other interested parties.²¹

OPM-sponsored symposia and conferences.

OPM convened a 2-day personnel research conference in August 1989 which was attended by individuals from the Federal and non-Federal personnel community, by researchers, and by academicians. Work on three OPM research initiatives was presented at the conference: a study on compensation conducted by the Wyatt Company under contract with OPM; a special report on Federal workforce demographics; and a research program on measuring Federal workforce quality. Also in 1989, OPM held a

Classification Conference and presented the results of the various demonstration projects underway.

OPM also conducted two symposia in 1990: the Personnel Research Symposium on Quality Service and the Symposium on Employee Turnover and Retention. In early 1991, OPM conducted another symposium on employee turnover and retention.

Other presentations. When opportunity allows, OPM researchers formally present research and demonstration project results at meetings of professional organizations such as the International Personnel Management Association, the American Psychological Association, the Academy of Management, the Society for Industrial-Organizational Psychology, the American Society for Training and Development, and the Classification and Compensation Society. OPM researchers also provide detailed briefings and memoranda on their findings to the Interagency Advisory Group.

In addition to those listed above, OPM uses a variety of other mechanisms to encourage and facilitate the exchange of research information among interested parties. For example, through the Office of Workforce Information, OPM provides data from its Central Personnel Data File to any party conducting research projects sponsored by OPM or other Federal agencies. Most data are provided for a fee, although OPM may provide the data free of charge for studies that meet OPM's Research Agenda.

Furthermore, OPM established the Federal Personnel Research Network to encourage the sharing of research information. This group, which is composed of heads of personnel research activities in various Federal agencies, meets two or three times a year to share and exchange information on research initiatives being conducted by their agencies, to avoid duplication of research efforts. And within OPM, OSIS has organized the OPM Research Exchange. The

²⁰ A few of OPM's inhouse research projects completed during the study period did not have results which were formally published, because they were intended for internal OPM use only. However, results of some of these projects were published in professional journals and results of others are available for purchase from the National Technical Information Service.

²¹ OPM has reported that two of its regional offices also disseminate research and demonstration information to their line managers in the regions. The San Francisco Region disseminates information through presentations to a wide variety of management organizations as well as through its publication called Innovation and Evaluation Newsletter. And the Chicago Region issues periodic personnel management "briefs" in nontechnical language to its key agency managers.

exchange is composed of personnel staff from the different OPM research offices who meet to discuss ongoing and planned research projects, and share ideas about research methodology.

Agencies' Views of OPM's Role

We asked the 21 largest departments and agencies to share their views on OPM's role in the CSRA-mandated research and demonstration program. However, because of varied experiences that agencies have had with the program, some agencies were not able to respond to all of our questions.

For example, a majority of the agencies could not respond to our question, "How adequate or inadequate has OPM's overall support been to your agency's research and demonstration project activities since the beginning of FY 1986?" because they do not have ongoing research or demonstra-

tion projects. The agencies that had such projects, however, were fairly positive about OPM's support. Most agencies conducting demonstration projects, for example, expressed praise for the knowledge, skill, and assistance they received from OSIS. Table 3 shows how agencies responded to our question concerning OPM support.

When we asked agencies to rate OPM's leadership in research or demonstration projects, we received a wide range of opinions, as can be seen in table 4.

Table 3--Number of agencies choosing the indicated response to: "How adequate or inadequate has OPM's support been to your agency's research and demonstration projects activities since the beginning of FY 1986?"

Degree of Support	Number of Agencies	
	Research Programs	Demonstration Projects
Very Adequate	1	6
Generally Adequate	5	2
Neither Adequate nor Inadequate	-	1
Generally Inadequate	-	1
Very Inadequate	-	-
Can't Judge	2	1
No Ongoing Project	14	11
TOTAL	22	22

Table 4--Number of agencies choosing the indicated response to: "How adequate or inadequate has OPM's leadership been in the area of research and demonstration projects since the beginning of FY 1986?"

Rating	Number of Agencies	
	Research Programs	Demonstration Projects
Very Adequate	-	5
Generally Adequate	7	7
Neither Adequate nor Inadequate	3	2
Generally Inadequate	3	4
Very Inadequate	-	1
Can't Judge	9	3
TOTAL	22	22

Table 4 shows that five agencies found OPM to exercise "very adequate" leadership in demonstration projects. Of those agencies offering an opinion on OPM's leadership in the research area, a little over half found OPM exercising "generally adequate" leadership. Overall, OPM received a more favorable rating on its leadership in demonstration projects than on its operation of the research programs.

We also asked agencies about the quality of any oral or written guidance they received from OPM on how to apply for approval of a demonstration

project. Eleven agencies that received guidance found it "useful," while three agencies found it "not useful at all." Of those who thought the guidance was useful, some found the approval process bureaucratic but believed the problems were alleviated somewhat by the assistance they received from the OSIS staff. A comment from the Internal Revenue Service (IRS) reflects this view:

Although the restrictive and bureaucratic nature of the authority and the application process are generally counterproductive, OPM did a fine job of explaining them and advising us on how best to deal with them.

Thus, agencies who had dealt with OPM on research and demonstration projects were fairly positive concerning their experiences.

Governmentwide Changes

Some personnel concepts tested under chapter 47 research programs or demonstration projects have led to changes in Federal personnel administration.

In that regard, the locality pay provisions of the Federal Employees Pay Comparability Act (FEPCA) were derived, in part, from the pay research conducted by the Wyatt Company and OPM, and from various demonstration projects. For example, new flexibility in setting starting salaries can trace its origin to the China Lake, NIST, and PACER SHARE demonstration projects. Also, results of the China Lake, NIST, Agriculture, and DOT/FAA demonstration projects dealing with recruitment and relocation bonuses and retention allowances provided a basis for other FEPCA provisions. Although all of FEPCA's provisions will not be in effect until 1994, early reactions to the law have been very positive. The law is intended to close the dispar-

ity between public and private sector pay in comparable locations, which should make Federal employment more competitive with private industry.

The implementation of Administrative Careers With America (ACWA), which replaced the Professional and Administrative Career Examination, is another potentially successful initiative.²² The limited data available suggest that ACWA may be a successful method of testing potential candidates for over 100 entry-level administrative Federal jobs. The ACWA is a two-part examination made up of a cognitive ability test (testing, for example, vocabulary, reading comprehension, and arithmetic reasoning) and the Individual Achievement Record (IAR). ACWA was based on extensive research efforts by OPM. OPM's research on logic-based measurement was the basis for the cognitive ability test portion of the ACWA, while research on biographical inventory (also known as biodata) provided the basis for the IAR. Overall, the Merit Systems Protection Board believes the ACWA would be a useful tool in selecting quality employees because, as we said in 1990, "written tests have the potential to be among the most efficient and least expensive way of making selections, * * * when hiring a large number of employees from among a large number of applicants."²³

Still another OPM research project that has had a significant impact on personnel policies Governmentwide was the research on workforce demographics. As a requirement to OPM's 1988 appropriations, Congress mandated OPM to submit a report on the long-term workforce needs of the Government. In June 1988, the Hudson Institute, commissioned by OPM to undertake the study, issued the report "Civil Service 2000." The report has called attention to the issue of workforce diversity, among other things. Although the validity of some of the report's trend predictions is being questioned by different

²² MSPB published two reports that intensively dealt with both PACE and ACWA. In "In Search of Merit: Hiring Entry-Level Federal Employees," Sept. 15, 1987, pp. 1-20, the Board discussed why PACE was abolished and discussed various hiring alternatives used in lieu of PACE; and in "Attracting and Selecting Quality Applicants for Federal Employment," April 1990, pp. 21-31, the Board partly discussed ACWA and other hiring alternatives adopted by OPM.

²³ U.S. Merit Systems Protection Board, "Attracting and Selecting Quality Applicants for Federal Employment," Washington, DC, April 1990, p. 24.

research organizations,²⁴ the Board believes that the report has heightened the Government's awareness of workforce diversity issues.

The ACWA examination and the FEPCA legislation are among the most visible evidence of the impact of research programs and demonstration projects conducted under chapter 47. In addition, there are major research initiatives underway that are likely to lead to other major policy or program changes. For example, six of the seven research projects on health benefits programs in the public and private sectors have already provided substantial background information which is being used in the drafting of health care reform proposals. Also, demonstration projects that included classification and performance management innovations are being used in exploring alternative systems that could be adopted by the Government.

Agency-Specific Changes

We asked agencies about changes they may have adopted within their own organizations as a result of CSRA research programs or demonstra-

tion projects. A few of the agencies reported implementing changes based on their own research or research conducted under the provisions of chapter 47. For example, the Department of Defense (DOD) reported that as a result of its Experimental Personnel Office Research Project (EXPO), some DOD organizations have streamlined personnel documentation (combining position description, job analysis, and performance standards when establishing a position) and some have delegated classification authority to line managers. DOD is also carrying out the concepts of EXPO, including pay banding and pay for performance, in its nonappropriated funds (NAF) organizations, because radical changes in NAF organizations are easily accomplished since the organizations' employees are not in the competitive service. And, Navy reported that the Naval Supply Center in Norfolk, VA, which conducted research under chapter 47 on an automated classification system, has adopted the system it studied. In addition, the Department of State reported using the results of Navy's pay-banding initiative (being tested in San Diego and China Lake) in developing a new Foreign Service secretarial career path. As with NAF organizations, the Foreign Service secretarial positions are not in the competitive service.

²⁴U.S. General Accounting Office, "The Changing Workforce: Demographic Issues Facing the Federal Government," GAO/GGD-92-38, Washington, DC, March 1992. This report, which included a review of pertinent demographic data and literature, questioned the magnitude of the projected labor shortages and skills mismatches in "Civil Service 2000." The reports of research organizations that have also questioned some of "Civil Service 2000's" predictions are reviewed in this GAO report.

Areas of Concern

The CSRA research program and demonstration project authority infers that an almost unlimited number of research projects and a steady flow of up to 10 demonstration projects every 5 years would be carried out by OPM and the Federal agencies. Clearly, the intent was for the Government to have a mechanism to continually explore new and better ways to manage its human resources.

In 1989, MSPB reported that the impact of the research programs and demonstration projects "has been limited and far short of original expectations."²⁵ However, in recent years, there have been improvements. During the period under study in this report, OPM conducted or sponsored numerous research projects, and four demonstration projects were implemented. Findings from these research programs and demonstration projects were used to bring about change in Federal personnel management, such as in FEPCA and ACWA. But the Board believes more research and demonstration projects could have been instituted, which in turn could bring more changes in personnel management. The full force of the law as an agent for change is weakened somewhat by some structural, procedural, and other obstructions that have hindered full use of the authority. The Board is concerned about those problems, which are discussed below.

Evaluation

As discussed above, OPM is required to conduct an evaluation of its overall research program. However, we found that OPM has not conducted such an evaluation on any formal basis. Such an evaluation would help to determine whether the research program is achieving its objectives and

whether the Research Agenda is still pertinent. Most of the research projects reported by OPM were in employee selection, which is not a topic specifically included in the Research Agenda. And yet, two topics in the Research Agenda, Performance Management and Participation, had very limited activity.

A review of a draft of the Research Agenda Update, which is a compilation of research abstracts found to be relevant to the Research Agenda, shows that the update alone will not result in reshaping the Research Agenda. While of some value, the update does not critically examine whether the research already completed is sufficient to address the personnel management research needs of the Government, nor does it address the critical question of the relevance of the Research Agenda. Are the seven research areas identified as critical in 1988 still critical almost 5 years later? And critical to whom?

The lack of a formal OPM evaluation of its research program may partly be due to the vagueness of the language of chapter 47. The provisions on research programs did not specify the timing or the depth of the evaluations or the standard by which OPM may gauge the success or failure of meeting its overall program objectives.

We also stated above that OPM is required to evaluate demonstration projects, directly or through an arrangement with the sponsoring agency. We found that OPM has met this requirement. However, some agencies have expressed some frustrations with the evaluation process and other observers questioned the validity of project results.

²⁵ U.S. Merit Systems Protection Board, "U.S. Office of Personnel Management and the Merit System: A Retrospective Assessment," Washington, DC, June 1, 1989, p. 26.

Procurement of contracts to evaluate the projects also puts an unnecessary strain on some sponsoring agencies. For example, during an interview for the study, a project manager of one of the demonstration projects remarked that the protracted budget negotiations for FY 1990 put a freeze on all contracts, thus delaying implementation of the evaluation process. Preparing work statements for the contract is also demanding, requiring much time and effort of agency personnel.

Since a rigorous evaluation is the most important part of any high-quality demonstration project, it is important here to acknowledge the difficulty of obtaining such an evaluation. One scholar is of the opinion, that the idea of experimenting with Civil Service procedures was based on the naive assumption that demonstration projects would be straightforward and would provide clear-cut results.²⁶ That ideal is somewhat unrealistic considering that a demonstration project is implemented in a dynamic organization and will thus encounter unavoidable changes—such as reorganization, turnover of key players, or change in management philosophy—and these will affect the outcome of a project. Such changes can wreak havoc on the “laboratory-like” condition of the experiment and cast doubt on the validity of results. In light of this, OPM has found that some policy officials and outside evaluators have difficulty accepting the wide applicability of results from demonstration projects.²⁷ The Board recognizes that OPM’s efforts to bring about change in personnel management through the use of demonstration projects are made especially difficult by uncontrollable dynamics occurring at demonstration sites and the problems it has experienced in gaining acceptance for wide applicability of project results.

Collection and Dissemination of Information

It appears there is a lack of organized distribution of research program and demonstration project information or results to Federal agencies. For

example, when we asked agencies whether they regularly receive copies of OPM reports or other OPM publications on the results of research and demonstration projects, we learned the following: one agency reported not receiving any materials at all, 18 reported receiving them (but 9 stated only on an irregular basis), and 2 were unsure about whether they had received any materials.

The finding that agencies are not regularly receiving information about research programs and demonstration projects from OPM is partly due to an uneven distribution of its reports. For example, the quarterly Personnel Research Highlights and the evaluation reports on demonstration projects are geared to a limited group of constituencies, mainly personnel specialists and researchers. Two regional OPM offices reported that they disseminate information to agency line managers within their regions. However, it appears that other line managers and supervisors receive research program and demonstration project information indirectly, through their personnel office staff and the union.

Of some concern, also, is what agencies think of the content of these reports and other OPM publications. We asked agencies to evaluate the usefulness of these materials in helping them develop their own research ideas or demonstration projects and in formulating changes in their personnel policies and systems. Although most agencies that received OPM materials found them useful in developing project proposals, they did not find the materials helpful in coming up with new ideas or in formulating changes in their personnel policies and systems.

In addition, some find the evaluation reports on demonstration projects technical in content and style, as though intended solely for readers with technical or research backgrounds. Although some technical treatment is undoubtedly necessary for project managers, OPM, and other researchers, such information overload is not necessary for program managers and personnel specialists. The Board agrees with the Department of Housing and Urban Development’s

²⁶ Carolyn Ban, “QED: The Research and Demonstration Provisions of the Civil Service Reform Act,” *Policy Studies Journal*, Winter, 1988-89, p. 422.

²⁷ In 1987, OPM submitted a legislative proposal—the Civil Service Simplification Act (CSSA)—based on the findings from the China Lake project. Under the CSSA, agencies would have had the option of implementing pay banding, simplified classification, and pay for performance. The legislation did not pass. Also, in 1988, the Senate proposed the Defense Industry and Technology Act (S. 2254). The proposal would have enabled DOD to apply concepts being tested in the China Lake project to its acquisition and logistics organizations. The proposal was not adopted.

(HUD) comment that OPM reports would be more useful if "presented in plain English" since HUD staff have "neither the luxury of time nor the expertise to plow [their] way through lengthy, ponderous tomes detailing every aspect of the study."

Personnel Research Highlights, an OPM publication that summarizes current research studies conducted by the public or private sector, draws heavily from research conducted by the academic community. More often than not, the research is academic and has limited relevance to the day-to-day operations of Government. The Staffing Digest is probably a more practical source of information for personnel practitioners, but it does not extensively deal with information gleaned from OPM research and demonstration project initiatives. Furthermore, the Interagency Advisory Group Research Information Exchange newsletter extensively covers applicant testing and assessment and hardly covers other research topics.

Project Approval Process

As noted previously, OPM provides agencies some written guidance on its process for approving research or demonstration projects. And although the written guidance, which is presently being revised, is not always seen by agencies as particularly helpful, the assistance of the Office of Systems Innovation and Simplification staff usually is. Nonetheless, the process itself is a fairly complex one, and some agencies have faced many frustrations when trying to work through it.

The Informational Guide developed by OPM does not contain specific requirements for a concept paper and a project plan for research and demonstration projects. Agencies said this lack of specificity gives them the impression that OPM "creates" requirements (which change as the process goes along). Some agencies have been asked to provide detailed statistical information concerning projected project parameters and outcomes at the concept paper stage of the process. The Informational Guide, however, would lead one to believe such detailed data would not become necessary until later in the process. Thus, some agencies have gone back and

forth with OPM, collecting extensive data only to see their ideas die in the concept paper stage of the process. Hence, many agencies may become so frustrated by the seemingly "overly-bureaucratic process" that they choose not to pursue any more research or demonstration projects in the future.

This problem is illustrated by what happened when Army submitted a concept paper for a demonstration project. The concept submitted by Army included a simplified classification system, which OPM disapproved, using career paths and pay bands much like those being tested in China Lake and NIST. Army reported that—

Although the administrative and regulatory requirements for a concept were met in the initial submission * * * in 1989, OPM requested repeated revisions and modifications (to include a pay model developed by a consultant through an expensive contract) over a 2-year period. These requirements were imposed, although the project did not progress beyond the concept stage.

Funding

*"Over and above its scientific trappings, * * * research is a money game."²⁸*

It is costly to carry out a demonstration project; thus, the framers of CSRA included language in the law specifically to ensure that a project will not be discontinued because of lack of funds. The legislation allows OPM to allocate funds to any agency that is conducting or assisting in demonstration projects. Further, such funds allocated must be "no-year" money, meaning that (1) funds are not appropriated year by year but rather are appropriated and provided in advance, and (2) they will remain available for the period specified in the appropriation act. In addition to ensuring the continuance of the project, the funds were intended to be used to cover startup costs and to defray an agency's costs of complying with OPM requirements, including those for project evaluation.

We asked OPM whether it has requested line item appropriations for demonstration projects. OPM said it had not done so for any year in the period FY 1986-FY 1991. Instead, OPM asked for and

²⁸ David Meister, "Behavioral Research and Government Policy—Civilian and Military R&D," Pergamon Press, New York, 1981, p. 53.

received through its appropriations, funding for the salaries and expenses of OSIS staff. OPM believes that the funding level it has received for OSIS has been sufficient to allow OPM to exercise its demonstration project responsibilities.

We also asked agencies that are conducting demonstration projects whether OPM had offered to fund all or part of the projects. With one exception, the sponsoring agencies of the demonstration projects discussed in this study reported that they had not received funding for all or part of their projects. The exception was NIST, whose enabling legislation required OPM to fund the evaluation phase of its CSRA demonstration project. On another front, Navy is reimbursing OPM for the evaluation OPM performs for China Lake. And the Air Force has paid OPM for its support, as indicated in the following Air Force statement:

Not only did OPM not offer any funding assistance for the [FACER SHARE] project, they requested, and we paid, \$100,000 in both FY 1986 and 87 for their support. OPM wanted payments to continue after the project was implemented [but we] refused to provide

additional funds on the basis that conducting demonstration projects is part of OPM's mission for which they are funded.

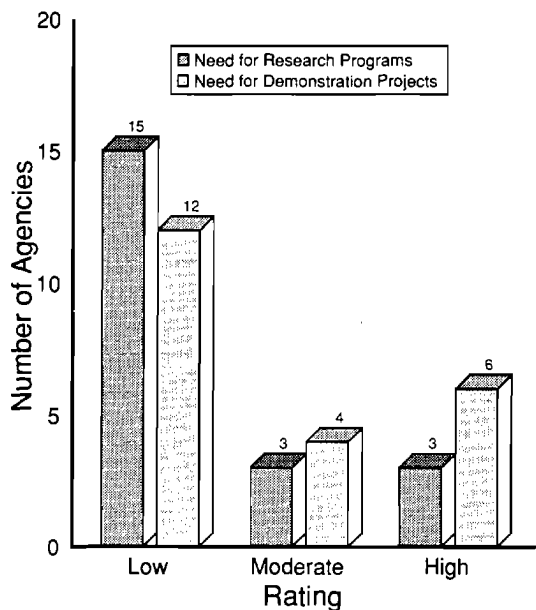
In addition, we asked those agencies not doing demonstration projects whether OPM funding would induce them to conduct a demonstration project. Based on agency responses to our questionnaire, funding, per se, does not currently appear to be a major deterrent to conducting demonstration projects. In fact, of those agencies not doing a demonstration project, only two reported that they might be induced to conduct one with funding from OPM. A deterrent that agencies did acknowledge, however, is a lack of sufficient agency staff resources and expertise to see a project through, from start to finish.

Agencies' Interest in Research Programs and Demonstration Projects

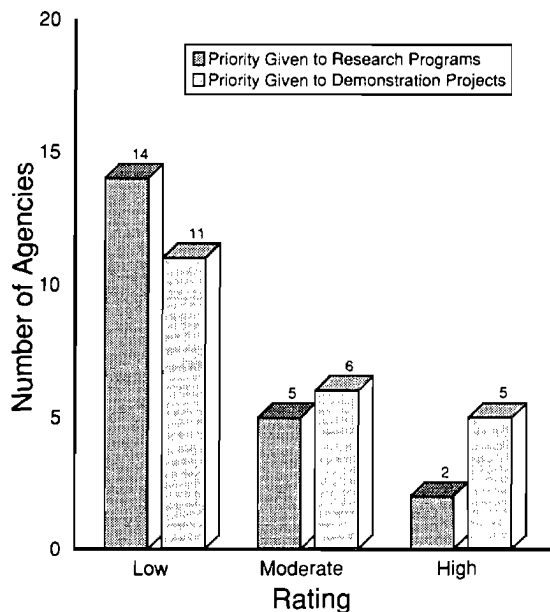
In this era of great change and expectations, any effort to develop innovative ways to manage Federal personnel or improve current personnel management practices should be most welcome. Personnel management is becoming more complex. The Government needs to find new and

Figure 2 -- Agencies' Needs for and Priority Given to Research Programs and Demonstration Projects

Q: "How much of a need does your agency have for CSRA research and demonstration projects authority?"



Q: "Considering your agency's resources (time, money, and personnel), how would your agency rate research and demonstration projects in priority?"



better ways to manage its personnel. Unfortunately, few agencies assign a high priority to this program, as can be seen in figure 2.

Four agencies (Agriculture, Navy, DOT, and IRS) reported a high need for the demonstration project authority and also gave it high priority in devoting more resources to it. Agriculture, Navy, and DOT are all currently conducting demonstration projects; thus, their high-need, high-priority rating is understandable. Of special note, however, is IRS. IRS reported it has a high need for the demonstration project authority and gave it high priority, but IRS is not currently conducting any demonstration project. The agency is looking at redesigning how work is performed and has recently established a Work Systems Design Group to do just that. The agency has assigned a staff to coordinate this effort, which may lead to ideas whose exploration may require a demonstration project.

Overall, therefore, most Federal agencies assign a low priority to the conduct of research programs and demonstration projects. Certainly, as previously discussed, the sometimes heavy resource commitment required and the rigorous approval process are part of the reason for the reluctance of agencies to assign a higher priority to these activities. We believe there are some other reasons as well.

First, agencies do not have the same "agenda" for conducting either research or demonstration projects that the research program and demonstration project authority envisioned. While it is true that Title VI was written to help agencies more effectively and efficiently manage human resources, the framers of the law were seeking answers to questions or problems shared by many agencies. Individual agencies (who would be doing the research or demonstration), on the other hand, are first concerned with solving their own problems—regardless of whether those problems are shared by other agencies. Thus it is not surprising to find that when a number of agencies came to OPM with proposals that addressed particular problems they faced, OPM disapproved (or at least discouraged) pursuit of the proposals because of their limited added value Governmentwide.

And second, many agencies simply have not seen the need to be involved with research programs and demonstration projects. The following are factors that could affect such a perception about need:

- OPM has not effectively promoted the program as a means of finding solutions to personnel management problems. In fact, OPM is currently downplaying the role of demonstration projects because of the costs involved in conducting them. Perhaps because of this lack of promotion, the program is not well understood by agencies, with research being the less understood of its two aspects. For example, few agencies connected the Federal Employees Pay Comparability Act legislation and the Administrative Careers With America examination with the research program. One agency clearly showed this lack of understanding when it wrote, "The distinction between "research" and "demonstration" projects * * * escapes us; all the projects we are aware of have been demonstration projects." Such lack of understanding is further shown by the agencies' erroneous belief that only through OPM initiation or additional legislation can they permanently implement any change suggested by the results of a research program. To the extent that demonstration projects test concepts that require waiver of law, they are accurate in such an assessment. However, concepts being tested under research programs normally can be permanently implemented without additional legislation.
- Finally, as one agency put it, "Simply stated, there have been no researchable issues worthy of the investment of resources * * *." OPM confirmed that agencies appear to believe that only a limited number of researchable issues exist. Many of the proposals it received during the study period "tended to be reminiscent of the Navy (China Lake) and NIST projects and were generally not considered to have great potential from a research point of view." Perhaps this is because so many agencies saw compensation as their most troubling problem in personnel management (prior to the passage of FEPCA), and, to many, concepts tested in China Lake and NIST appeared to offer some relief.

OPM's Leadership

Since 1986, OPM has seen its role as one of brokering research programs and demonstration projects. But OPM has not done as much brokering as could have been expected. Instead, OPM has done most of the research inhouse (over 75 percent of the research projects reported were conducted directly by OPM). Although such effort is commendable, we are concerned that OPM is spreading itself thin since its research staff is limited and will be unable to carry out as much research as is needed.

Furthermore, OPM has adopted a reactive stance by waiting for agencies to come up with proposals for demonstration projects. Further, when agencies have come in to OPM with a proposal, OPM has not brought any of these agencies together to conduct demonstration projects to test the same concepts. On the contrary, proposals that would replicate a project already underway are simply not approved. But replication of demonstration projects may be necessary to validate the applicability of the concept on different workforce populations in different settings at different times.²⁹ By seeing the similarity of the proposals as a negative rather than as a positive advantage for the demonstration program, OPM appears to have an unresolved conflict regarding its self-defined brokering role.

Problems Inherent in the Law

****[T]he current demonstration project authorities are too restrictive for the purposes of ***experimentation.”³⁰*

Almost all agencies that we surveyed think that the research program and demonstration project authority is a potentially valuable tool because it allows them to find and test new knowledge or ideas in personnel management. Most agencies, however, believe that the authority is not very effective in bringing about change in Federal personnel management policies and systems. Our discussion will focus on demonstration projects

since the authority imposed numerous legal requirements on demonstration projects but not on research.

a. The notification process

As noted previously, a notification process was enacted by Congress to ensure that abuses of the demonstration project authority are avoided. Before a project is implemented, both Houses of Congress must be notified of the plan 180 days and, again, 90 days before implementation. Additionally, an agency must consult or negotiate with any labor organizations and employees affected by the project prior to undertaking a demonstration project. The whole notification process could extend to a year or more and is seen as a burden by some agencies. For example, Veterans Affairs commented as follows:

****[T]he effectiveness of this authority may be diminished by the protracted time involved in required Congressional, labor organization, and public notification responsibilities *** and [the] preparation/approval of implementing regulations. These processes may serve as disincentives by substantially extending the time period between conceptualization of project proposals and ability to test them in practical situations.*

Because of the protracted notification process, some issues could become obsolete by the time a project is implemented.

b. Limitations in the law

The limitations imposed by the law (listed earlier under the section titled "Legal Requirements for Demonstration Projects") were put in place to allay concerns of labor and employee organizations about potential management abuses. None of the evaluation reports of the demonstration projects reported any management or OPM abuses. Even a local labor union representative we interviewed who was involved in a demonstration project stated that he has not seen the management abuses that the union was concerned about at the start of the project.

²⁹ U.S. General Accounting Office, "Federal Personnel: Observations on the Navy's Personnel Management Demonstration Project," GAO/GGD-88-79, Washington, DC, May 1988.

³⁰ Pay-For-Performance Labor-Management Committee, "Strengthening the Link Between Pay and Performance," Washington, DC, November 1991, p. 31.

To recap, the law imposed limitations on project duration, the number of employees each project may cover, the personnel functions that can be tested, and the number of projects that can be conducted at any given time. Our concern is with the last two limitations.

- **The personnel programs that may be tested.** The law prohibits experimentation in the areas of employee benefits, equal employment opportunity, the political activities of employees, or those involving the merit principles and prohibited personnel practices.

Although the limitations in certain areas may be necessary, the restrictions on testing changes in employee benefits hinder experimentation in an area where the Government needs to be innovative. For example, costs to the Government of insuring health care for its employees have been steadily increasing. The Office of Management and Budget projected that the Government's total health fund contributions would reach \$10.5 billion in fiscal 1992, up from \$8.5 billion in fiscal 1990.³¹ The restriction in the law that prohibits OPM from conducting a CSRA demonstration project in the benefits program area hinders OPM from exploring ways to make the program more cost effective.

- **The 10-demonstration project limit.** To enhance the validity of demonstration project results, it may be necessary to replicate the projects on different workforce populations in different settings at different times. If this limitation remains, it would serve as a stumbling block should OPM determine that it would be useful to replicate a demonstration project.

c. How to terminate a demonstration project.

A demonstration project is allowed to run for 5 years, but OPM or the sponsoring agency may terminate it before the end of the 5-year period "if * * * the project creates a hardship on, or is not in the best interest of, the public, the Federal Government, employees, or eligibles."³² However, the law did not provide any guidance on how to end a project. What is the role of OPM and of agen-

cies in terminating a demonstration project? What needs to be done to end it? And what are the options of the sponsoring agency when it does not want to end a successful project?

Sponsoring agencies are often reluctant to end their demonstration projects, while those agencies not conducting them often view them negatively as never-ending. Most of the sponsoring agencies believe it is unreasonable to end a project and go back to the old system when the evaluation shows that the interventions are working and do not have an adverse impact on employees. Currently, sponsoring agencies can adopt the concept they are testing only after legislation is passed allowing them to do so. Obtaining legislative change, however, is not an easy task.

Several questions arise from this situation. How will a project be terminated if the concept being tested is not adopted into law? Does it serve the best interests of the Government and the public to have a sponsoring agency revert to the traditional way of doing business? What about employee morale?

Lastly, what are the options for an agency when the legislative change differs somewhat from the concepts in the demonstration project? Currently, for example, recruitment and retention bonuses are being tested in various demonstration projects (see app. B). Both of these concepts are now allowed by the Federal Employees Pay Comparability Act of 1990. Agencies testing these concepts, however, are reluctant to end their demonstration projects dealing with the concepts because they believe the new pay law really did not address their problems. Thus, before terminating a project, OPM should reconcile chapter 47 requirements with those of the agencies who feel that the adopted feature is not exactly as they have tested it.

Demonstration projects should not continue indefinitely, but a smooth transition to a post-demonstration operation is necessary. Chapter 47 does not provide for such a transition. The current situation is not a positive incentive for agencies to exercise creativity and experiment with different personnel management approaches.

³¹ The Bureau of National Affairs, Inc., "Federal News," Government Employee Relations Report, Washington, DC, Feb. 11, 1991, p. 151.

³² 5 U.S.C. 4703(e).

Conclusions and Recommendations

The CSRA research program and demonstration project authority was instituted as a public personnel policy tool. Based on the results of successful research programs or demonstration projects, changes in personnel management policies or systems would be instituted. Is the authority the effective policy tool the law envisioned?

Our study shows that it is, at least in some respects. Many improvements in Federal personnel management have occurred since enactment of the CSRA in 1978. In part, the impetus for a good number of them has come from ideas explored in research and demonstration projects under the act. More changes can be expected from projects underway—for example, in health care, performance management, and classification. The Board believes this very positive outcome is consistent with the goals of the drafters of CSRA, who saw research programs and demonstration projects as catalysts for change.

As effective as the research programs and demonstration projects have been, there are problems. Some of these are structural—fears about possible demonstration project abuses led to an unnecessarily restrictive statute. Some stem from the difference in agencies' "agendas" compared with OPM's. And some are caused by OPM procedures as well as by the reactive leadership role that OPM has taken. In sum, the effectiveness of research programs and demonstration projects as catalysts for change could be improved. To this end, we offer the following recommendations or suggestions:

1. OPM should take a strong leadership role by exploring all feasible avenues to realize the full potential of the authority in bringing about change in personnel management. Some of the actions they can take are:

- a. Developing concepts for research programs and demonstration projects, in collaboration with other Federal agencies, and soliciting agency sponsors to carry them out. The staff of OPM should be used proactively not only to develop research program and demonstration project proposals, but also to encourage agencies to participate in the program by carrying out a project, assisting with one, or funding one.
- b. OPM and the involved agency should consider creating a joint project management team. Such a team would be overseen by OPM and would be responsible for developing the project design and the evaluation plans. The group's responsibility would include developing work statements for contracting out the evaluation phase of the project. A project management team could better direct and coordinate the project, and could better bring together resources to assist with difficult tasks.
- c. In addition, OPM's stronger leadership role should include taking fuller advantage of its CSRA authorization to request appropriations for demonstration projects than it has to date. Agencies have indicated that they were discouraged from carrying out a project by their lack of sufficient agency resources and expertise to see a project through, from start to finish. However, OPM may request funding for possible reallocation to other Federal agencies, but has not done so to date. We believe, OPM should request such appropriations to fund agencies that assist OPM in carrying out a demonstration project. By

the same token, OPM should consider reimbursing agencies that are conducting research for OPM.

2. OPM should aggressively promote research programs and demonstration projects as tools for bringing about change in Federal personnel management. In promoting the program, OPM should clarify the distinction between research programs and demonstration projects. OPM should examine its approval processes with a view toward simplifying them wherever feasible. And, OPM should follow through on the review it has started of the Research Agenda, to determine whether the categories are still relevant to the needs of the intended users.

In reviewing its Research Agenda, OPM should first develop clear objectives as to what it wants to accomplish under the research programs and demonstration projects authority. The Research Agenda should be regularly updated to ensure that the topics are still relevant. At the same time, OPM should set up a desired timetable for completing the research or demonstration effort on each topic. The plan should be communicated to the agencies and OPM should encourage them to participate in its accomplishment. Lastly, OPM should conduct a periodic evaluation of its overall program to check whether the research programs and demonstration projects are meeting the stated objectives.

3. OPM should improve the way it collects and disseminates information. Specific actions OPM could take are as follows:
 - a. Identify the users of the information and their information needs. The research program and demonstration project authority was intended to "help *** managers manage well."³³ OPM should endeavor to find what, if any, information Federal managers want and need.
 - b. Avoid information overload. Disseminate selective information geared to the needs of the intended users. Several agencies surveyed for this study

criticized research program and demonstration project reports as being overly technical. Not only should the information be selectively disseminated but also it should be written in a manner tailored to the intended users. For the information to be useful, it should explain to the users how they might apply the findings to a particular situation.

- c. Deal more directly with the intended users of the information. The mere availability of information does not cause its transfer or use. Some direct followup or contact with the intended users is necessary. For example, OPM might convene a conference or a seminar on research programs and demonstration projects intended for program managers. The presentations should be geared to this audience by emphasizing the practical applications of the findings of research programs and demonstration projects to their day-to-day operations.
4. OPM should allow testing of the same concept(s), or a variation of the same concept(s), in demonstration projects in more than one agency or installation. Replicating demonstration projects is necessary to enhance the validity of results and to ensure that the concepts being tested could be applied to other occupations, locations, and management orientations.
5. Congress may need to consider lifting the limit of 10 demonstration projects that can be conducted at any given time, or the limit of 5,000 employees involved in any given project, or both. The current limitations serve as stumbling blocks for OPM in approving the testing of a concept, or variations of the same concept, in a number of agencies (see recommendation 4). Replicating demonstration projects could easily exceed the limits the law now imposes. Experience has shown that adequate controls are in place; i.e., OPM's approval process, to provide assurance that the number of projects or the number of covered employees would not be excessive.

³³ The President's Reorganization Project, "Personnel Management Project," Final Staff Report, vol. 1, sec. 5, Washington, DC, December 1977, pp. 105-145.

6. Congress should consider changing chapter 47 to streamline the legal requirements and expand the use of demonstration projects. Some specific actions Congress could consider are:
 - a. Retain the required second (90-day) notification of both Houses of Congress only if there has been substantial change on the project plan since the first (180-day) notification. Currently, both Houses of Congress are notified twice on a proposed demonstration project: for a 180-day period and, again, 90 days before implementation of the project. Some agencies believe that the notice period is unnecessarily long and could be shortened without weakening the Congressional oversight.
 - b. Allow demonstration projects on benefits. For example, MSPB's most recent report on balancing work responsibilities and family needs identified "cafeteria benefits plans (or flexible benefit plans)" as an option worth pursuing because it would be cost effective and would give Federal employees flexibilities comparable to those in private industry.³⁴
 - c. Allow the testing site to permanently adopt, with OPM approval, the concept being tested if the evaluation has shown that the demonstration was successful. An agency or agency installation involved in a demonstration project typically makes a major investment in time and resources to mount and carry out a project. Currently, the only way the changes made at that installation could continue beyond the life of the project is if Congress makes a permanent change to the personnel law(s) that have been suspended to allow the demonstration to take place. Obtaining such a legislative change is a very difficult and time-consuming proposition which serves as a disincentive for any agency considering a demonstration project. That disincentive can be countered by allowing the testing site, with OPM approval, to adopt and continue a successful change at the end of a demonstration project—regardless of whether an actual change in the law is forthcoming.

³⁴U.S. Merit Systems Protection Board, "Balancing Work Responsibilities and Family Needs: The Federal Civil Service Response," Washington, DC, November 1991, pp. 59-62.

Appendix A: Research Projects Conducted Under Chapter 47, FY 1986-91

Workforce Demographics

Civil Service 2000. A followup by the Hudson Institute to the Department of Labor's Workforce 2000 report. It looked at the Government's long-term workforce needs, outlined the effects of projected demographic changes on the Government over the next decade, and recommended responsive policies. (Contact: Career Entry Group.)

Management Excellence Framework. A multipurpose occupational study that is examining Federal supervisory, managerial, and executive competencies needed for successful performance in Federal service that would serve as the conceptual groundwork for selection and training and development for these positions. (Contact: Office of Personnel Research and Development.)

Saturday Academy. An enrichment program that emphasizes mathematics, science, communications, and computer science to prepare urban youth for entry-level positions. (Contact: Office of Personnel Research and Development.)

Clerical Apprentice Program. A cooperative program of the Department of Labor and other Federal agencies that provided 1 year of training in communications, office skills, and work ethics to prepare participants for clerical employment in the Government. (Contact: Office of Personnel Research and Development.)

Survey of Deaf Employees. A nationwide survey that examined the status of deaf Federal employees relative to reasonable accommodation on the job. (Contact: Office of Personnel Research and Development.)

Workplace Basic Skills Test. A literacy assessment instrument being developed to measure whether Federal workers have the basic skills needed to perform job activities. The results will be compared and linked to results of the Department of Education's 1992 Nationwide Adult Literacy Survey. (Contact: Office of Personnel Research and Development.)

Quality Assessment Program. A series of studies begun in 1989 to compare Federal workforce quality over time; the program has been expanded to also look at the quality of service provided to the public and the impact of organizational factors on quality. As of summer 1992, a data base had been created on more than 400,000 applicants for over 200 different Federal occupations, and targeted studies have been conducted on more than 48,000 employees in over 200 different occupations. A pilot study is collecting private sector quality data for comparison purposes. (Contact: Office of Personnel Research and Development.)

NOTES:

1. Unless indicated otherwise, OPM conducted the research itself.
2. In addition to these research projects, OPM's San Francisco Region has completed a Total Quality Management (TQM) survey, which surveyed all Government installations in the San Francisco Region with 100 more employees on the extent and nature of TQM program implementation.

Recruitment and Retention

Quality of Job Information Centers. A client survey that assessed the quality of services provided by OPM's 43 Federal Job Information Centers nationwide. (Contact: Office of Personnel Research and Development.)

Career America: College Relations and Recruitment Study. Three surveys to help policymakers establish a new recruiting strategy. The first surveyed Federal personnel officials responsible for college recruitment programs; the second surveyed selected college placement directors; and the third surveyed Federal hires who received a bachelor's degree or higher in the last 5 years. (Contact: Office for Affirmative Recruiting and Employment.)

Flexible Benefits Programs in the Public and Private Sector. A study that included a review of the literature on flexible benefits plus interviews with State government and fairly large private employers about their experience with flexible benefits. (Contact: Retirement and Insurance Group.)

Federal Employee Worksite Health Promotion Case Study Project. A study undertaken to determine the most effective way to (1) furnish health protection and promotion to Federal employees; (2) encourage good health habits; (3) reduce health risks; and (4) enhance employees' productivity and reduce health-related liability through comprehensive occupational health programs. (Contact: Office of Labor Relations and Workforce Performance.)

Study of Federal Work and Family Programs. A survey of Federal agencies that is assessing their use of work and family programs. (Contact: Office of Labor Relations and Workforce Performance.)

Compensation

Study of White-Collar Pay System. A major OPM-commissioned study by Wyatt Company that explored alternative approaches for setting Federal white-collar pay that would be more responsive to labor market conditions. The study led to reform of the Government's white-collar pay system. (Contact: Office of Compensation Policy.)

Longitudinal Study of Federal Employees Pay Comparability Act of 1990 (FEPCA) Effectiveness. A longitudinal evaluation of FEPCA to determine whether FEPCA is helping the Government to be a more competitive employer. All analyses will consider the impact of the economy. Since FEPCA will not be completely phased in until 2002, the final study plan provides for a 12-year study over the period 1991-2013. (Contact: Office of Systems Innovation and Simplification.)

Health Care Occupations: Pay and Job Evaluation. An examination (under sec. 105 of FEPCA) of what changes, if any, are needed to solve problems in recruiting and retaining health care workers. (Contact: Office of Compensation Policy.)

Law Enforcement and Protective Occupation Research Initiative. A study (under sec. 412 of FEPCA) of a plan for a separate pay and classification system for Federal law enforcement officers by January 1, 1993. The project also includes a study of the possibility of separate systems for protective employees under the authority of section 105 of FEPCA, which authorizes the President's Pay Agent to establish a special pay and classification system for any occupation or group of occupations if necessary for good administration. (Because of the relationships between law enforcement and protective occupations, OPM decided to consolidate these two studies.) (Contact: Office of Compensation Policy.)

Study of the Federal Employees Health Benefits Program. An OPM-commissioned study by Towers, Perrin, Forster, and Crosby which identified some major problems in the program's structure and operation and presented an alternative for Congress and the Administration to consider. (Contact: Retirement and Insurance Group.)

Federal Employees Health Benefits Programs: A Survey of Attitudes. An OPM-commissioned study by Science Management Center that surveyed Federal employees' and annuitants' attitudes about the program. (Contact: Retirement and Insurance Group.)

Review of Private Sector Health Benefits Programs Practices. A survey of private sector employers that assessed how they work to control escalating health care costs while ensuring that quality care is available. (Contact: Retirement and Insurance Group.)

FEHBP: An Analysis of the Health Care Provider Market and Some Related Program Issues. An OPM-commissioned study by Lucy Johns (in connection with the FEHB reform initiative) that analyzed (1) the nationwide availability of managed care delivery systems to participate in a "triple-option" program structure and (2) the capacity of third-party administrators to manage and assume some financial risk under a self-insured Federal program. (Contact: Retirement and Insurance Group.)

Performance Management

Pay for Performance: Evaluating Performance Appraisal and Merit Pay. An OPM-commissioned study by the National Research Council of the National Academy of Sciences that analyzed contemporary research on job performance assessment and on the effectiveness of performance-based pay systems. The report served as a basis for the policy recommendations of the Pay-for-Performance Labor-Management Committee and the Performance Management and Recognition System Review Committee. (Contact: Office of Systems Innovation and Simplification.)

Performance Appraisal Research. A study to examine the comparability of summary administrative performance ratings to appraisals conducted for research purposes only. (Contact: Office of Personnel Research and Development.)

Diversity

Flexible Workplace Pilot Study ("Flexiplace"). An 18-month project that is examining the feasibility and desirability of alternative workplace arrangements in the Government. (Contact: Office of Personnel Research and Development.)

Modernizing Federal Classification: An Opportunity for Excellence. A study of the Federal classification system by the National Academy of Public Administration (NAPA). Based on the results, NAPA proposed an alternative classification system based on broad occupational families and pay bands. (Contact: Office of Classification.)

Classification Focus Groups. A study that explored perceptions of the Federal classification system to validate and expand upon recent NAPA efforts to identify problems associated with the system. (Contact: Office of Systems Innovation and Simplification.)

Alternative Classification Systems Review. A study that examined non-Federal and non-U.S. classification systems as alternatives to the current Federal classification system. (Contact: Office of Classification.)

Automation Technology for Job Classification Review. A study that examined automated classification systems in use by Federal agencies, as well as expert system technology with the potential to facilitate automation of Federal job classification. (Contact: Office of Classification.)

Training and Development

Federal Executive Institute Curriculum Evaluation Study. A study that is evaluating the revised curriculum of the training and development program for the Senior Executive Service. (Contact: Office of Personnel Research and Development.)

Training Return on Investment. Pilot projects being carried out to develop assessment tools for agencies to measure the value and cost-effectiveness of training. (Contact: Human Resources Development Group.)

"Skills Clinics" Survey. A survey that collected information from Federal agencies on the essential components of skill clinic services (assessment, referral, and career counseling) available to agency employees. (Contact: Human Resources Development Group.)

Participation

President's Award Survey. A new machine-scorable survey that was developed to assess an office's, department's, or agency's commitment to Total Quality Management. (Contact: Office of Personnel Research and Development.)

Employee Selection

Administrative Careers With America Examinations. A new examining program (implemented by OPM in May 1990) for entry into more than 100 key Government administrative and professional white-collar occupations. (Contact: Office of Personnel Research and Development.)

Federal Police and Guard Examination. A new police and guard examination that includes a biodata portion and a written test of job-relevant reasoning abilities. (Contact: Office of Personnel Research and Development.)

Apprentice Test Battery. A new Apprentice Test Battery in use for over 20 skilled blue-collar occupations. (Contact: Office of Personnel Research and Development.)

Scientific Aide and Technician Battery. A new examination for all Federal scientific aide and technician occupations for which hiring is done at GS-2 through GS-4. (Contact: Office of Personnel Research and Development.)

Border Patrol Artificial Language Study. A study that determined the validity of artificial language tests in predicting Spanish language training performance among Border Patrol Agents. (Contact: Office of Personnel Research and Development.)

Alternatives Research. A major set of studies that evaluated the effectiveness of alternatives to written tests in the selection of people for Federal employment. (Contact: Office of Personnel Research and Development.)

Supervisory Training and Evaluation Program (STEP). An examination for selecting participants for the STEP in the Office of Retirement Programs in OPM's Retirement and Insurance Group. STEP is used in selecting GS-9 and GS-11 candidates for supervisory positions. (Contact: Office of Personnel Research and Development.)

DEA Promotion Examination and Career Development Program. A new promotion examination and career development program that was developed for Special Agents of the Drug Enforcement Agency. (Contact: Office of Personnel Research and Development.)

Quality Profiles: Additional Occupations. Profiles that represent a set of characteristics that successful employees exhibit on the job and that have been developed using data collected in the Quality Assessment Program incumbent studies for various occupations; e.g., Investigator, Physical Scientist, Engineer. These profiles are being incorporated into current examinations, on an experimental basis, to enhance prediction of successful performance by assessing a greater number of job-relevant attributes. (Contact: Office of Personnel Research and Development.)

Total Assessment Research. Expansion of OPM's testing program to incorporate a broader spectrum of individual skills and abilities such as social skills and motivation, into the currently used cognitive ability tests. As a first step, an experimental "Social Skills Inventory" has been developed to measure the skills an individual needs as a team member and leader. (Contact: Office of Personnel Research and Development.)

Construct Validation Research. A compilation of all that is known about ability constructs for personnel selection, published by OPM in its publication "The Psychometric History of Selected Ability Constructs." (Contact: Office of Personnel Research and Development.)

Logic-Based Measurement (LBM). A significant advance in personnel testing that allows the construction of much more effective reasoning procedures and enables users to make more precise distinctions between good and poor prospective job applicants in terms of their job-relevant reasoning abilities. Current efforts in LBM include research on illogical biases, reported immediately below, and the construction of diagnostic reasoning tests for use in training needs assessment. (Contact: Office of Personnel Research and Development.)

New Research on Illogical Biases. Research based on findings regarding illogical biases, which are prevalent fallacies of reasoning. Research has shown that using illogical biases as incorrect response choices in test questions enhances the identification of sound reasoners among job applicants. OPM is designing a scoring system for logic-based reasoning tests whereby test-takers would be given credit for rejecting incorrect answers as well as for choosing correct ones. (Contact: Office of Personnel Research and Development.)

Biodata Research. A multiphase research program to clarify job-relevant qualities other than those measured by traditional written tests of cognitive abilities. (Contact: Office of Personnel Research and Development.)

Other Topics

Meta-Analysis Research. Research on validity generalization; it allowed for the summarization of research results across studies and samples. (Contact: Office of Personnel Research and Development.)

Retirement Client Satisfaction Survey. A survey of 2,778 Federal annuitants and survivor annuitants that was conducted to determine their level of satisfaction with OPM service, to identify areas that need improvement, and to provide a baseline from which to assess future progress. For internal use. (Contact: Retirement and Insurance Group.)

Study of Wellness Programs in the Private Sector. A study by Foster Higgins (commissioned by OPM and others) that gathered data on (1) whether programs to stimulate healthy lifestyle habits among private and public sector employees reduce health costs, (2) what type of programs have the biggest impact, (3) what cost savings might be expected if such programs were instituted for Federal employees, and (4) what incentives are most successful in inducing people to participate in these programs. (Contact: Retirement and Insurance Group.)

Productivity Study. A study of Federal workforce productivity mandated by FEPCA. OPM is to report to Congress by November 5, 1992. (Contact: Office of Systems Innovation and Simplification.)

Survey of Federal Employees (SOFE). A Governmentwide survey of Federal employees—OPM's first since 1983—that addressed various policy concerns, such as work and family conflicts, Federal productivity, and pay for performance. Findings will be fed into two congressionally mandated reports on Federal productivity improvement and on flexibilities to help employees balance work and family responsibilities; will contribute to an assessment of the impact of recent pay reform on employees' perceptions about pay; and will provide a better understanding of how employee values differ, how they cluster, and the extent to which they fit with the values embedded in Federal personnel policies. In addition, SOFE data will be used to measure bottom-line outcomes from OPM's Strategic Plan for Federal Human Resources Management. (Contact: Office of Systems Innovation and Simplification.)

Computer Specialist, GS-0334, Occupational Analysis Research Project. An occupational analysis to identify the knowledge, skills, and abilities required for the study occupation in order to provide a basis for recruitment, selection, placement, training, advancement, and other personnel functions. Begun by a contractor for the Department of Labor (DOL), the project was ended after 1 year when an advisory group of DOL, other Federal agency, and OPM representatives established to monitor and oversee the project determined that it was not producing results that would make continuation worthwhile. (Contact: Office of Systems Innovation and Simplification.)

The Experimental Personnel Office Research Project. A 3-year DOD project which explored ways to improve productivity within the civilian personnel system. Streamlined personnel office procedures tested included a core document combining position description, job analysis, and performance appraisal for the position; one-stop service centers where line managers and employees could obtain information or assistance from one source; delegation of classification authority to line managers; and a number of other procedures. The project was tested in 34 Navy, Army, Air Force, and Defense Logistics Agency organizations in the United States and Europe. (Contact: Office of Systems Innovation and Simplification.)

The Automated Classification System Research Project. A Naval Supply Center project in Norfolk, VA, that tested an automated classification system, the delegation of classification authority to supervisors, and the substitution of generic classification standards for traditional, occupation-specific standards. The project's purpose was to improve management efficiency, effectiveness, and involvement in and control over personnel management. (Contact: Office of Systems Innovation and Simplification.)

Appendix B: Active and Terminated Demonstration Projects, FY 1986-91

Active projects:

1. Navy Personnel Management Demonstration Project ("China Lake")

This Navy demonstration project, begun in 1980, is being conducted at the Naval Weapons Center, China Lake, CA, and the Naval Oceans Systems Center, San Diego, CA. In 1984, Congress waived the 5,000-employee limit, and the project now covers almost 8,000 white-collar employees. The project was extended twice, the last time in 1988 to run until 1995. The project's focus is to simplify personnel management and make line managers the primary decisionmakers for major personnel management issues, such as classification, compensation, and performance appraisal. Navy hopes to enhance the effectiveness and productivity of its laboratories through this simplification and increased management involvement. To achieve the project goal, the demonstration project tests:

- A simplified classification system that consolidates job series into five career paths and combines several GS grades into broad pay bands (up to six);
- A performance appraisal system that links pay to performance;
- Higher than the minimum starting salaries for new hires;
- Recruitment bonuses;
- A system which encourages changes in behavior for employees experiencing drug and/or alcohol problems by suspending penalties for misconduct and poor performance; and
- Modified lay-off procedures where performance is the primary criterion for retention.

2. PACER SHARE: A Federal Productivity Enhancement Program

PACER SHARE was implemented in February 1988 by the Air Force's Directorate of Distribution at Sacramento Air Logistics Center, McClellan Air Force Base, CA, and is slated to run until February 1993. In 1991, the project was amended because the Directorate reorganized, a step that brought approximately 60 percent of the 1,700 participating employees under the management of Defense Logistics Agency. The goals of the project are to increase organizational productivity and enrich the quality of worklife by adopting the principles of total quality management espoused by Dr. W. Edwards Deming. The concepts being tested are as follows:

- A simplified classification system that consolidates 66 job series into 6 broad categories and combines white-collar and blue-collar pay grades into 4 broad pay bands;
- A group performance rating instead of the individual performance rating;

- An incentive system that motivates and rewards organizational productivity by sharing any cost savings realized equally between the agency and employees (cost savings are only realized if the same work is performed for fewer labor dollars or more work is performed for the same labor cost);
 - A flexible on-call employment program geared to adjust to changing workload and budgets; and
 - Revised supervisory grading criteria which reflect job responsibilities and the difficulties of carrying them out instead of the number and grades of subordinates.
3. **The Department of Transportation/Federal Aviation Administration Demonstration Project (DOT/FAA)**

This DOT/FAA project—implemented in June 1989 and scheduled to run until June 1994—covers 2,100 white-collar employees in several air traffic control facilities in the Chicago, New York City, Oakland, and Los Angeles areas. It tests the use of retention allowances or bonuses of at least 20 percent of base pay, to attract and retain well-qualified, full-performance level personnel to control air traffic, operate and maintain airway facilities, and certify and inspect aircraft and operators in the four hard-to-fill locations.

4. **Alternative Personnel Management System at the National Institute of Standards and Technology (NIST)**

Congress directed OPM and NIST (formerly known as the National Bureau of Standards) to jointly design a demonstration project to be conducted by the director of NIST. Covering slightly over 2,500 white-collar employees in Gaithersburg, MD, the project was implemented on January 1, 1988, and was scheduled to run until December 31, 1992. However, in December 1991, OPM granted a 33-month extension because NIST radically revised its performance management system. Because the other features of the project hinged on the performance management system, all but one were extended as well to permit collection of enough data for adequately evaluating the results. The project was designed to improve hiring and retention of high-quality personnel by adopting such approaches as total compensation comparability (TCC) to private industry (“compensation” includes basic pay, bonuses, allowances, retirement benefits, health and life insurance benefits, and leave benefits). The director of NIST never exercised TCC. With respect to pay, the director opted to adjust pay based on the general Federal cost-of-living pay increases, since TCC would make salaries of some covered positions above the going market rate. Because TCC wasn’t exercised, OPM did not extend the TCC part of the study, which will end in December 1992. NIST is conducting the project on a cost-neutral basis (that is, the costs of salary increases would not exceed the costs NIST would incur with the usual Federal pay increases). NIST is testing:

- A simplified classification system that combines job series into four career paths and consolidates GS and GM grades into five broad pay bands;
- Examination of the applicants’ qualifications and their employment without going through the OPM hiring process;
- A performance appraisal system that links pay to performance;
- Pay differentials for supervisors;
- Recruitment and retention bonuses;
- A flexible probationary period for scientists and engineers; and
- Sabbaticals for scientists and engineers.

5. Department of Agriculture Demonstration Project

The Agriculture project was implemented in July 1990 and is scheduled to run until July 1995. Its purposes are to test a flexible and responsive recruitment and selection program for new hires that will facilitate the attainment of a diverse, well-qualified workforce and increase the reliability of decisions to grant career tenure to scientists. To meet these goals, the project is testing:

- A streamlined examining and selection system featuring category groupings instead of numerical rating and ranking;
- Authority to hire for locally identified shortage occupations without going through the OPM hiring process;
- Discretionary use of modified qualification standards;
- Recruitment incentives, including cash payments and reimbursements for relocation travel and transportation expenses; and
- A 3-year probationary period for scientists to allow managers to fully assess employee performance before granting tenure.

The Department of Agriculture projects that over the life of the project, 5,000 new hires—including white-collar and blue-collar positions at randomly selected units of the Forest Service and the Agricultural Research Service—will be covered by the demonstration project.

Terminated project:

DOT/FAA Airway Science Curriculum Demonstration Project

Implemented in 1982 and extended once in 1987 (for the purpose of validating the results), the project was terminated in 1991 by mutual agreement of FAA and OPM when it became clear that the FAA would not be able to hire enough candidates and obtain meaningful data to validate the results. The project, which was implemented immediately after the air traffic controllers' strike and subsequent dismissal in 1981, tested an alternative selection process for four major FAA occupations: air traffic controller, aviation safety inspector, electronics technician, and computer specialist. The purpose was to facilitate the rebuilding of FAA's workforce after the strike. The project tested the use of an FAA-developed Airway Science curriculum (which was being offered by some colleges and universities) as an alternative to the traditional testing process conducted by OPM. The performance of graduates of the Airway Science curriculum was to be compared to that of traditional hires to determine whether Airway Science graduates perform better in their jobs.

Appendix C: Evaluations of Demonstration Projects, FY 1986-91

1. Navy Personnel Management Demonstration Project ("China Lake")

The University of Southern California's Graduate School of Public Administration developed the original evaluation plan but Coopers and Lybrand were contracted to do the first evaluation. OPM took over as the outside evaluator in 1982 and is being paid by the Navy for the service. Fourteen reports have been published to date.

The evaluations were unable to measure whether the labs' productivity and efficiency have been enhanced by the demonstration project. However, the evaluations showed that pay banding is a workable concept. Some key findings are as follows:

- The classification system is simpler and less time-consuming, permitting managers to take a more active role;
- Starting salaries for scientists have increased substantially;
- Large pay increases for good performance have greatly strengthened the link between performance and pay;
- Turnover among high performers has decreased;
- Supervisors believe they are more empowered to make personnel decisions; and
- Employee approval of the project has reached an all-time high, with 70 percent favoring the project.

2. Alternative Personnel Management System at the National Institute of Standards and Technology (NIST)

The enabling legislation required OPM to fund and conduct the evaluation; OPM contracted out the evaluation aspect to the University Research Corporation (URC). After URC issued two reports, OPM replaced the corporation with HumRRO International, Inc., as outside evaluator in 1990. (NIST conducted one internal evaluation.) These evaluations found that:

- NIST exclusively hired candidates without going through the OPM hiring process, a step that shortened hiring time;
- Time to classify jobs was reduced;
- Employees viewed the adjectival "fully successful" rating negatively, resulting in significant changes to the performance appraisal system;

- The quality of scientists and engineers hired remained unchanged; i.e., NIST consistently hired quality employees before and after implementation of the project; and
- Turnover was never a problem before or after the implementation of the project.

3. PACER SHARE: A Federal Productivity Enhancement Program

The Defense Manpower Research Center, a component of RAND's National Defense Research Institute, was the outside evaluator for the first 3 years of the project. For the remainder of the project, the Navy Personnel Research and Development Center will be the external evaluator. OPM published an Implementation Report in August 1989, while RAND published its baseline report in 1990 and the first-year evaluation in 1991.

Because of downsizing at DOD, PACER SHARE is now jointly administered by Air Force and DLA. Some key findings for the first year are as follows:

- Employee morale worsened during the first year of the project. The low morale was attributed to uncertainty about how pay and promotions were to be determined under pay banding and the inability of the sponsoring organization to pay productivity gainshares;
- No conclusive evidence was found that PACER SHARE led to cost savings (the cost/benefit aspect of the project was the main focus of the evaluation for the first year); and
- Error rates in shipping orders were maintained during the first year (a period of great change because of the project's implementation as well as DOD's downsizing), but it took longer to ship the orders. The decline in timeliness was partly attributed to difficulties in implementing a new automated warehouse system at the time.

4. The Department of Transportation/Federal Aviation Administration Demonstration Project

FAA is responsible for conducting the evaluation, closely monitored by OPM; FAA has contracted with Research Management Consultants, Inc. (RMCI) to perform this function. RMCI has published one report. After 1 year of testing, the staffing level of air traffic controllers increased, but the results were not conclusive for the other occupations (i.e., personnel hiring for flight standards and airway facilities did not significantly increase). It appears that the retention allowance is a factor when employees decide to transfer to the covered facilities.

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