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Report to the Chairman, Information, Justice, Transportation and Agriculture Subcommittee, Committee on Government Operations, House of Representatives

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COMPUTER MATCHING

Quality of Decisions and Supporting Analyses Little Affected by 1988 Act

GAO/PEMD-94-2

GAO
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Program Evaluation and
Methodology Division

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October 18, 1993

The Honorable Gary A. Condit
Chairman, Information, Justice,
Transportation and Agriculture Subcommittee
Committee on Government Operations
House of Representatives

Dear Mr. Chairman:

The Computer Matching and Privacy Protection Act, as amended, generally became effective on January 1, 1990. Concerned about how agencies have implemented the act, you requested that we evaluate how well federal agencies conduct computer matching programs. This report examines the planning and processing of computer matching programs and how the cost-benefit requirement for computer matches is being implemented.

As agreed with your office, we plan no further distribution of this report until 30 days from its date of issue, unless you publicly announce its contents earlier. We will then send copies to the Director of the Office of Management and Budget and the heads of other interested agencies. We will also make copies available to other interested parties upon request.

If you have any questions or would like additional information, please call me at (202) 512-2900 or Robert L. York, Director of Program Evaluation in Human Services Areas, at (202) 512-5885. Other major contributors to this report are listed in appendix VI.

Sincerely yours,

Eleanor Chelimsky
Assistant Comptroller General

Executive Summary

Purpose

Government agencies have conducted computer matching programs in recent years in an effort to stem fraud, waste, and abuse in federal benefit programs. These agencies justified their activities by estimating projected savings to be in the billions of dollars, but often lacked adequate data or analyses to support those estimates. To provide improved analyses of these programs and to protect individuals' privacy, the Congress passed the Computer Matching and Privacy Protection Act of 1988.

Concerned about how agencies have implemented the act, the Chairman of the Subcommittee on Government Information, Justice, Transportation and Agriculture of the House Committee on Government Operations requested that GAO determine how agencies have implemented the Computer Matching and Privacy Protection Act of 1988. To address this issue, GAO identified 71 computer matching programs at 14 federal agencies, involving 447 separate matching agreements. GAO reviewed 277 of these agreements in detail to determine whether they included elements required under the act. GAO specifically examined the cost-benefit analyses included in these agreements and assessed the quality of these analyses. In addition, GAO interviewed 54 officials from the affected agencies, including Board members, to gather information on how computer matches were processed, approved, and reviewed.

Background

Computer matching is the identification of similarities or dissimilarities in data found in two or more computer files. Agencies conduct computer matching for two main purposes: to establish or verify applicant and recipient eligibility for federal benefit programs and to recoup payments or delinquent debts under such programs. Matches have been hailed by proponents as a means of detecting and preventing fraud, abuse, and error in federal government benefit programs. Opponents of computer matches remain concerned about the conclusiveness of their findings, the quality of the analyses establishing their costs and benefits, the safeguarding of individual privacy, and the decision-making processes agencies employ in planning and processing matches.

GAO published two reports in 1986 that addressed cost-benefit analyses and the planning and processing of computer matches.[1] One of these reports provided conceptual criteria to assist agencies in identifying and estimating the costs and benefits that should be considered. The other

[1]See Computer Matching: Assessing Its Costs and Benefits (GAO/PEMD-87-2, Nov. 10, 1986) and Computer Matching: Factors Influencing the Agency Decision-Making Process (GAO/PEMD-87-3BR, Nov. 10, 1986.)

report documented the need for guidance in planning and processing computer matches.

Results in Brief

The quality of the cost-benefit analyses being performed needs improvement. In 41 percent of the matching agreements GAO reviewed, agencies either had not developed any estimates of costs and benefits or had estimated one but not the other. In cases where both costs and benefits were estimated, GAO found little support for the agencies' estimates. Where documentation was available, only some of the responsible agency's own direct, quantifiable costs and benefits were included. Accounts of costs and benefits to other agencies and to the public were often missing from the analyses, and qualitative costs and benefits (especially contributions to deterrence) were not well documented.

Although the act generally became effective on January 1, 1990, at the time of our review, the Office of Management and Budget (OMB) had not issued specific guidance to agencies on conducting cost-benefit analyses. As a result, agencies are using substantially different methodologies to identify and calculate costs and benefits.

To date, agencies have made changes in planning and processing computer matches through newly established Data Integrity Boards. However, despite these changes, agencies generally were not providing full and earnest reviews of proposed matches. In addition to the problems with cost-benefit analyses already cited, GAO did not find any instance in which a Board permanently canceled an ongoing matching program or refused to approve a newly proposed one as a result of this new process (although GAO did find one case in which a program was temporarily suspended) nor did GAO find evidence that the requirements of the act were used to determine if a match should be approved. Further, the implementation of these new procedures does not appear to have had major effects on the most important review process; that is, the decision to conduct the match. Most Boards initially met quarterly to ensure compliance with applicable laws and guidelines; they now meet less frequently, on an ad hoc basis, and tend to route correspondence to approve or review matching agreements, rather than meet face-to-face.

GAO's Analysis

Boards Approved Matches Lacking Adequate Analyses

GAO found that the Boards generally accepted agencies' and states' cost-benefit analyses despite their severe methodological flaws and lack of documentation. In 76 (or 27 percent) of the 277 computer matching agreements GAO reviewed, agencies made no attempt to estimate either the costs or benefits of the computer matches before approving them; in an additional 39 cases (14 percent), only costs or benefits were estimated. GAO did not find any evidence that the missing cost and benefit data were later made available for use by the Boards in considering whether to approve matching agreements. The federal agencies contacted had no documentation to support the analyses performed by states—which means that the Boards could not have adequately assessed the states' analyses before approving these matches.

There were some exceptions to this generally bleak cost-benefit environment. For example, the Department of Health and Human Services did provide supporting documentation showing retrospective evaluations of their matching programs, but it was the only agency to do so. Similarly, Treasury's Bureau of Public Debt was the only agency that provided us with documentation supporting the tracking and collection of overpayments.

Cost-Benefit Analyses Lacked Quality

In the 162 cases (59 percent) where both costs and benefits were estimated, not all reasonable costs and benefits were considered, inadequate analyses were provided to support savings claims, and no effort was made after the match to validate estimates. GAO found that federal agencies accepted states' claims in computer matching agreements at face value and did not collect and maintain supporting documentation for states' cost-benefit analyses. These facts are significant because only federal agencies are required to have Data Integrity Boards. GAO found that states are using a broad range of methodologies that varied in the number of cost and benefit elements identified. Further, the documentation often failed to show how costs and benefits were calculated or the time period for expected savings. In addition, the agencies did not discount the value of money over time and rarely estimated the most significant costs, such as collections and recovery of overpayments.

Data Integrity Board Operations

All 14 of the agencies that participate in computer matching programs have established Data Integrity Boards as required by the act. The Boards' primary purpose is to review and provide final approval of computer matching programs. Lower level staff conduct the actual planning of computer matches.

The system of planning and processing matches has seen such changes as standardization of language, establishment of Data Integrity Boards, and the inclusion of cost-benefit analyses. These changes, however, apparently do not represent a full and earnest review of matching agreements to determine whether to proceed with proposed matches, but rather a regularization of the approval process. For example, GAO found that no matches have been disapproved because of the act's cost-benefit requirements, even when those analyses were deficient or, as in the case of two matches in one state, clearly wrong. Given the apparently weak level of review in this area, it is logical to question the seriousness of reviews in other areas. Some proposed matches may have been dropped by staff before being submitted for Board review in anticipation of a negative decision, but GAO could not estimate the number of such cases.

Recommendations

GAO recommends that the Director of the Office of Management and Budget expedite the publication of minimum standard criteria for cost-benefit analyses and specify which cost and benefit elements must be included. Further, the Director should instruct agencies to establish procedures to track costs concurrently and measure costs and benefits retrospectively to determine whether estimated benefits are actually achieved.

Agency Comments

GAO received written comments from the Office of Management and Budget and informal comments from the other agencies mentioned in this report. OMB officials generally agreed with the recommendations and stated they "will soon undertake to prepare guidance on conducting cost-benefit analyses of matching programs." Technical comments from OMB and the other agencies were incorporated into this report where appropriate. A copy of OMB's comments is included as appendix V.

Contents

Tables

Abbreviations

AFDC	Aid to Families With Dependent Children
BENDEX	Beneficiary and Earnings Data Exchange
DIFSLA	Disclosure of Information to Federal, State, and Local Agencies
INS	Immigration and Naturalization Service
IRS	Internal Revenue Service
OMB	Office of Management and Budget
OTA	Office of Technology Assessment
SDX	State Data Exchange
SSA	Social Security Administration

Introduction

Background

Federal agencies have participated in dozens of computer matching programs in recent years, claiming that matches constitute an effective weapon in the battle against fraud, waste, abuse, and error in federal programs. Within the current climate of funding limits and tighter control of resources, more attention has been focused on whether program benefits are distributed appropriately to eligible program recipients. In 1986, we estimated that erroneous program benefit payments totaled several billion dollars annually.[1] The increased use of computer matching has been one response to this problem.

Reports of successful matches that provide figures on savings and avoidance of costs, or note large favorable cost-benefit ratios, help promote wider agency use of computer matching. These reports generate favorable publicity for computer matching that contributes to new matching initiatives.

However, opponents of computer matching remain concerned about the true size of benefits, the quality of cost-benefit analyses used to support proposed matches, the legality or constitutionality of matching (especially in regard to privacy protection and how agencies decide to conduct matches), and the decision-making processes agencies employ in planning and processing matches.

Definitions

Computer Matching

Computer matching is the identification of similarities or dissimilarities in data found in two or more computer files. It involves the computer-assisted comparison of two or more automated lists or files to identify inconsistencies or irregularities between the lists or files. For example, the Department of Education's list of delinquent student loans is cross-checked with lists of federal employees to identify student loan defaulters who work for the federal government. Comparisons can involve the matching of names, Social Security numbers, addresses, government contract numbers, or other personal identifiers.

Recipient and Source Agencies

Participation in computer matching programs involves both a recipient agency and a source agency. A recipient agency is one that receives information contained in a system of records from a source agency for use in a matching program. A source agency is one that discloses information

[1]See Computer Matching: Factors Influencing the Agency Decision-Making Process (GAO/PEMD-87-3BR, Nov. 10, 1986).

contained in a system of records to be used in a matching program. These entities may be federal, state, or local government agencies as well as contractors for such agencies.[2]

Statutorily Required and Self-Initiated Matches

Any agency, whether recipient or source, may be involved in two types of matching programs. The programs may be statutorily required, or they may be initiated by the agency. In the latter case, they are referred to as self-initiated matches. Although not specifically required by law, self-initiated matches are authorized by the responsible agencies in order to efficiently manage their financial resources. In some cases, self-initiated matches may be used to meet statutory requirements (for example, eligibility verification) for which computer matching, while not specifically required, is the most efficient method available. For the purposes of this study, we accepted the determination of the agencies and their legal counsels on whether or not a computer match was statutorily required.

Matching Agreements and Matching Programs

A matching agreement is the document that authorizes a match between the source and recipient agencies. A matching program is composed of one or more agreements to conduct a match for a specific purpose, such as establishing eligibility for benefits under a given program.

Increased Use of Computer Matching

The federal government conducted its first major computer matching program in 1977, although smaller efforts had occurred earlier. In that year, the Department of Health, Education, and Welfare used computer matching to detect overpayments in its Aid to Families With Dependent Children (AFDC) program. This effort, entitled "Project Match," compared the records of approximately 78 percent of all recipients of AFDC with payroll records of about three million federal employees to detect those who might be illegally drawing welfare payments. In the District of Columbia alone, this program identified over $330,000 in possibly incorrect payments being made to individuals.

After Project Match, inspectors general in various agencies adopted computer matching as an audit tool to detect fraud, error, or abuse in federal benefit programs. For example, the Inspector General at the Department of Agriculture conducted several computer matches of Food Stamp program records with other welfare benefit programs in selected states to determine whether ineligible individuals were receiving food stamps.

[2]See Public Law 100-503, section 5, subsections 9 and 11, Oct. 18, 1988.

Owing in part to new statutory provisions and in expectation of realizing program savings, both federal and state government agencies have dramatically increased their use of computer matching programs since 1980. Although the precise number of matches that have been conducted is difficult to determine because of the lack of a comprehensive reporting mechanism, the Office of Technology Assessment (OTA) testified that the number of computer matches nearly tripled between 1980 and 1983. OTA also conducted a survey on 20 percent of the federal-level computer matching programs that were carried out between 1980 and 1985. Even within that limited number of matching programs, agencies had exchanged 7 billion records. Moreover, as we reported in November 1986, estimates of the magnitude of computer matching benefits reported ranged from $4 to $54 for each $1 spent on a match.

Purposes of Matches

The overwhelming majority of computer matches today are done for debt collection purposes or to determine eligibility for federal or state benefit programs. Only 5 of the 446 matching agreements we identified were conducted for other reasons. The U.S. Postal Service conducts two matches to detect criminal activities of its employees, the Department of Defense conducts two matches to ensure that reservists who occupy critical positions as civilians are not selected for emergency mobilization, and the Department of Education conducts a match with the Selective Service System to ensure that Pell grants are not given to otherwise eligible individuals who have not met Selective Service registration requirements.

Legislation and Guidelines Affecting Computer Matches

In 1979, the Office of Management and Budget (OMB) issued guidelines for computer matching programs.[3] The guidelines were designed to help agencies relate the procedural requirements of the Privacy Act of 1974 to computer matching programs that involved the disclosure of personal records subject to the act. In addition to their extensive reporting requirements, the guidelines required the performance of a cost-benefit analysis before conducting a match.

OMB revised the guidelines in 1982 because inspectors general and others who performed matches subject to the guidelines argued that they were overly burdensome and unrealistic. OMB eliminated the cost-benefit analysis as a prerequisite to a match and streamlined the reporting requirements, reasoning that it was appropriate for agencies to conduct

[3]"Privacy Act of 1974: Supplemental Guidance for Matching Programs," 44 Fed. Reg. 23138 (1979).

cost-benefit analyses of matches but that these analyses should be viewed as only one of several components of decision-making.

In 1983, OMB developed a computer match checklist for agencies initiating matches subject to the Privacy Act. The primary purpose of the checklist was to ensure compliance with the procedural regulations of the Privacy Act. It included an item requesting an estimate of the likely costs and benefits of a match. The checklist did not identify the specific costs or benefits that should be included nor how they should be analyzed and reported.

By the time OMB had developed its checklist, the number of computer matching programs had increased substantially. Not only were agencies initiating matches on their own, but statutory provisions required agencies to exchange personal information. In most instances, these requirements were being accomplished through computer matching programs.

The most extensive matching program specifically authorized by the Congress is the Income Eligibility Verification System, mandated by the Deficit Reduction Act of 1984. (This eligibility verification system includes such programs as State Data Exchange (SDX), Beneficiary and Earnings Data Exchange (Bendex), and Disclosure of Information to Federal, State, and Local Agencies (DIFSLA).) Under this program, the Supplemental Security Income program of the Social Security Administration (SSA) as well as state agencies administering the AFDC, Food Stamp, Medicaid, federal unemployment compensation, and Social Security adult assistance programs, must request and use unearned income data from the Internal Revenue Service to determine the eligibility of applicants and recipients. States use this information to determine whether applicants or recipients have unreported assets or income earned in excess of the amounts allowed under federal benefit programs.

Finally, the Congress passed the Computer Matching and Privacy Protection Act of 1988 to regulate the use of computer matching by federal agencies. The act addresses the controversial topics identified in our earlier reports on computer matching by requiring that

- the privacy of data used in computer matches be protected;
- agencies complete cost-benefit analyses on all computer matches and report annually on their findings, unless the matches were exempted by law;

- Data Integrity Boards be established to approve and review computer matches; and
- OMB develop guidelines and regulations for computer matching programs.

The act also requires OMB to consolidate the information reported by agencies in a report to the Congress—annually for the first 3 years after enactment of the statute and then biennially. This report is to include detailed information about costs and benefits of matching programs and identify any waivers of cost-benefit analysis requirements. The act does not specify what cost and benefit elements should be included, but it does state that the matching agreements should include specific estimates of any savings. Moreover, in discussing this provision, a congressional committee report stated that the committee intended that certain criteria be used, to the greatest extent practical, in any cost-benefit analysis. The committee specified, for example, that "all identifiable cost elements should be included in the analysis," and that "a realistic assessment of the benefits—suitably discounted to reflect the time value of money—is also required."[4]

Objectives, Scope, and Methodology

The House Subcommittee on Government Information, Justice, Transportation and Agriculture of the Committee on Government Operations asked us to conduct a study to evaluate how well federal agencies conduct computer matching programs. Specifically, we were asked to address the following evaluation questions: (1) How have agencies implemented the Computer Matching and Privacy Protection Act of 1988 regarding the planning and processing of computer matching programs? (2) How are the Data Integrity Boards operating in agencies? (3) How have agency Boards implemented and reviewed cost-benefit analysis requirements for computer matches? (4) What is the quality of the cost-benefit analyses developed for use by the Boards? (5) As a result of cost-benefit analyses required by the act, have agencies identified any statutory or other computer matching programs that are not cost-beneficial? (6) How have agencies documented the deterrent effect of computer matching?

To accomplish our objectives, we reviewed the 1988 act, as amended, and OMB final guidance regarding the implementation of computer matching

[4]"Computer Matching and Privacy Protection Act of 1988," H.R. 100-802, Committee on Government Operations, July 27, 1988.

programs.[5] We also reviewed copies of our previous reports issued in this area and the House report cited above. In addition, by contacting each federal inspector general's office, we identified 71 separate computer matching programs, with a total of 447 matching agreements.[6] Of the 71 programs, 59 had one agreement for each program; the other 12 programs each had multiple agreements. Of the 59 single-agreement programs, 54 were between two federal agencies; the remaining 5 were between federal and nonfederal entities. Table 1.1 identifies the 447 matching agreements by source and recipient agency. (Appendix I lists the 71 matching programs, source and recipient agencies, number of matches, and whether or not they were statutorily required.)

Table 1.1: Number of Matching Agreements in Which Each Agency Was the Source or Recipient[a]

	Number of agreements	
Department or agency	Source agency	Recipient agency
Agriculture	3	0
Defense	6	22
Education	3	3
Health and Human Services	140	159
Housing and Urban Development	2	6
Justice	9	0
Labor	3	0
Office of Personnel Management	9	3
Postal Service	5	8
Railroad Retirement Board	4	46
Selective Service System	0	1
Small Business Administration	2	0
Treasury	63	0
Veterans Affairs	4	10
States and Territories	194	189

[a]In fewer than a dozen cases (including all six at Education), agencies disagreed about which was the source and recipient agency. We did not try to make a formal determination in these cases, and consequently, our allocation of the agreements into these two categories should not be regarded as definitive.

[5]See "Privacy Act of 1974: Final Guidance Interpreting the Provisions of Public Law 100-503, Computer Matching and Privacy Protection Act of 1988; Notices," 54 Fed. Reg. 25818 (1989).

[6]We counted BENDEX and SDX as separate agreements although they are included in the same agreement instrument with each state or territory.

We then obtained and reviewed copies of 277 of these matching agreements.[7] We used the data collection instrument shown in appendix II to systematically compare the requirements of the 1988 act with these agreements.

We also selected a stratified random sample of these computer matching agreements to determine the quality of cost-benefit analyses. For this sample, we asked the federal officials responsible for these matches to provide us with documentation to support the cost-benefit analyses that they had included in the computer matching agreements. However, the officials involved in federal-state matches told us they did not have that information. Consequently, we made the same request of the state agency officials, who provided us with those data. We also identified the computer matches for which agencies claimed a deterrent effect to examine the methodologies agencies used to document deterrence.

Additionally, we conducted interviews with 54 agency officials who served on Data Integrity Boards or who were directly responsible for the preparation of the cost-benefit analyses included in the computer matching agreements. We asked them (1) how they perceived the act had affected their matching programs; (2) if they had used criteria from the act or some other specific methodology to develop cost-benefit analyses and to provide supporting documentation; (3) if they had used retrospective studies to determine whether the expected savings outlined in the cost-benefit analyses had been realized; and (4) how they had ensured they were adequately implementing the other requirements of the act.

We discussed these topics with officials at the Departments of Agriculture, Defense, Education, Health and Human Services, Housing and Urban Development, Justice, Labor, Treasury, and Veterans Affairs, the Office of Personnel Management, the Postal Service, the Railroad Retirement Board, the Selective Service System, and the Small Business Administration, and we have addressed their comments and incorporated them in our report where appropriate. Our review focused on matches between federal agencies and matches between federal and state agencies that were effected after January 1, 1990 (the effective date of the act).

[7]The total number of matching agreements is 447; however, we reviewed only a model agreement for three programs: SSA/Prisoner match, SSA/Wage Unemployment Compensation match, and Health Care Financing Administration/Beneficiary State Tape match. Further, we received only one agreement for the SSA/Medicaid match and the HUD-OPM/3-state match. These programs account for 107, 33, 22, 5, and 3 agreements, respectively. Subtracting these 170 agreements from the total of 447 produces the 277 agreements we reviewed in detail.

Finally, we contacted officials at OMB and discussed their policies on computer matching. We specifically asked them how they interpret the 1988 act, as amended, and to describe what they considered their responsibilities to be under the act.

We conducted our field work in accordance with generally accepted government auditing standards between July 1991 and October 1992. We obtained written comments on a draft of this report from OMB and informal comments from the other agencies mentioned in the report.

Report Structure

Our analysis of how agencies have implemented the act in terms of the planning and processing of matches and the operation of Data Integrity Boards forms the basis for chapter 2. Chapter 3 addresses how agencies have implemented and reviewed cost-benefit analyses and discusses their cost-beneficiality and deterrent effects. Chapter 3 also includes our conclusions and recommendations.

Planning and Processing of Computer Matches and Operation of Data Integrity Boards

In this chapter, we answer our first and second evaluation questions: (1) How have agencies implemented the Computer Matching and Privacy Protection Act of 1988 regarding the planning and processing of computer matching programs? and (2) How are the Data Integrity Boards operating in agencies?

Planning and Processing of Matches Under the Act

The act sets forth specific requirements for matching agreements. These include:

- a statement of the purpose and legal authority for the match;
- justification for the program and anticipated results, including a specific estimate of any savings (e.g., cost-benefit analysis);
- description and estimate of the number of records to be matched, along with starting and completion dates;
- procedures for providing notice to applicants and recipients;
- procedures for verifying information;
- procedures for retaining and destroying records;
- procedures for ensuring the physical security of records;
- prohibitions on duplication and redisclosure of records;
- procedures on use, return, and destruction of records;
- assessment of the accuracy of records; and
- access to records to verify compliance with the agreement.

These requirements are described in further detail in appendix II, which is a copy of our data collection instrument. Using this instrument, we compared all 277 computer matching agreements with the requirements set forth in the act. (We did not directly observe agencies' computer matching activities or verify the accuracy of their data.) We then interviewed agency officials and, based on our earlier analysis, compared implementation before and after passage of the act.[1]

While we found that all the agreements contained each of the required elements as outlined in the act (except for the cost-benefit analyses, as we discuss in chapter 3), we did not find evidence that these requirements were used to determine whether a match should be carried out.

Furthermore, we found no case in which implementation of the act has led to permanent discontinuance or major modification of a computer

[1]See Computer Matching: Factors Influencing the Agency Decision-Making Process (GAO/PEMD-87-3BR, Nov. 10, 1986).

matching program by any of the agencies.[2] In part, this reflects the fact that 64 matching agreements were regarded by agency officials as required by law. However, that still leaves 383 matching agreements in self-initiated programs. Continued approval of these matches may reflect the fact that most have been in effect for a number of years and are regarded as routine. In addition, the elements of these matches may have been modified in response to the requirements of the act, and other proposed matches may have been withdrawn before being presented to the Board.

Overall, we found that the most notable effects of the act on the planning and implementation of computer matches across the agencies appear to be: (1) the standardization of language in computer matching agreements; (2) the addition of Data Integrity Boards as part of the review process; and (3) the inclusion of some cost-benefit analysis information in the matching agreements. However, the implementation of these procedures does not appear to have had major effects on the most important outcome of the review process; that is, the decision to conduct the match. It is possible that some agencies did not propose matches because they anticipated a negative decision, but we did not identify any such cases.

Operation of Data Integrity Boards

The 1988 act, as amended, requires that every federal agency participating in a computer matching program establish a Data Integrity Board to oversee computer matching activities. The act requires that the Board be composed of senior officials designated by the head of each agency. The duties of the Board include:

- review, approval, and maintenance of all written agreements for receipt or disclosure of agency records under computer matching programs;
- review of all matching programs in which the agency participated during the year, either as source or recipient; determination of compliance with applicable laws, regulations, guidelines, and agency agreements; and assessment of the costs and benefits of such programs;
- review of all recurring matching programs for continued justification for such disclosures; and
- compilation of an annual report describing the matching activities of the agency.

[2]The Department of Justice Data Integrity Board withheld approval of a matching agreement between the Immigration and Naturalization Service (INS) and the Department of Education because the proposed agreement did not provide for the 30-day notice and opportunity to contest adverse results of the match. The Board also suspended operation of an ongoing match between the INS and the Massachusetts Department of Employment and Training because certain procedural and administrative steps had not been met. Both matching programs were subsequently approved, after the act's requirements were met.

As the agency responsible for implementing the act, the Office of Management and Budget (OMB) has issued guidance for other federal departments and agencies to follow. These guidelines implement statutory provisions requiring the Boards to serve a coordinating function at the departmental level and to be staffed by senior personnel. Only two members are required to serve on the Board: the inspector general, if any, and the senior official responsible for the implementation of the Privacy Act. The inspector general may not serve as the chairman of the Board. OMB recommended, but did not require, that the Privacy Act officer serve as the Board secretary.

According to OMB officials, much of the work of the Board and its operation may be delegated to less senior members, but the final approval of matching agreements may not be delegated. Further, the Board members should meet often enough to ensure that the agency's matching programs are carried out efficiently, expeditiously, and in conformance with the Privacy Act, as amended.

Under OMB guidelines, the review of computer matching agreements is the foremost responsibility of the Data Integrity Boards. The Boards are responsible for approving or disapproving matches based upon their assessment of the adequacy of these agreements, which are to be reviewed at the time they are proposed and 3 months before an allowable 12-month extension.

Data Integrity Boards vary widely in size, composition, and volume of work. For example, table 2.1 shows that the number of members of the 14 Boards we reviewed varied from 3 to 10. Four agencies did not include the inspector general as a member; in each case, a senior manager in the inspector general's office was designated as a Board member. (For an indication of differences in the volume of work, see table 1.1 in chapter 1.)

Table 2.1: Summary of Data Integrity Board Organization

Department or agency	Number of Board members[a]	Inspector general serves as Board member
Agriculture	3	Yes
Defense	10	No[b]
Education	5	No[b]
Health and Human Services	7	No[c]
Housing and Urban Development	8	Yes
Justice	3	Yes
Labor	6	Yes
Office of Personnel Management	5	Yes
Postal Service	5	Yes
Railroad Retirement Board	3	Yes
Selective Service System	5	Yes
Small Business Administration	4	Yes
Treasury	7	No[c]
Veterans Affairs	4	Yes

[a]The number of Board members excludes the secretary and any other representative who is a nonvoting member.

[b]The assistant inspector general is the Board member.

[c]The deputy inspector general represents the inspector general.

OMB guidelines do not describe how the Boards are to operate. At the time of our work, they generally did not meet as a group to plan and approve computer matching agreements. Such meetings were held initially, but Board secretaries told us that at a number of agencies, proposed computer matching agreements are now often routed to individual Board members for review and checked for compliance with the act. In any case, at the agencies we examined, the actual planning and processing of matches were performed by staff, rather than the Board members. Generally, the Board served as a final check to ensure that computer matching agreements complied with applicable laws and regulations.

We found that, in general, the Boards provide a less than full and earnest review of the matching agreements. This appears to be the case especially for evaluating the cost-benefit analyses that accompany matching agreements. The act requires each federal agency, source or recipient, to assess the costs and benefits of computer matches. However, most Boards

have interpreted this as the responsibility of the recipient agency alone when both agencies are not receiving benefits.

The problem of adequate review is even more pointed in those cases where a match was conducted between a federal source agency and a state recipient agency. In such cases, the federal agency's Board may not assess the cost or benefit data the state agency provides, and the state may not provide such a review either. For example, in one case we examined, a state submitted cost-benefit analyses claiming benefits of $227 million from an SDX match and $130 million from a BENDEX match. Since these numbers looked very high relative to other states' estimates for the same programs, we contacted officials at the state to confirm the validity of these estimates. We were eventually told that the estimates were in error and that the corrected figures should be $3.2 million and $1.5 million, respectively. Program staff recognized the implausibility of the original estimates, so the request was submitted to the Board without them. The request was, however, approved by the Board. This example raises questions about the reliability of the cost-benefit estimates included in the computer matching agreements and the extent to which the Board reviews those estimates.

Similarly, according to Internal Revenue Service officials, the Data Integrity Board does not question cost and benefit figures recipient agencies provide for the DIFSLA matching program. Such lack of oversight in this area has allowed recipient agencies to report erroneous cost and benefit estimates. For example, one state reported a non-cost-beneficial return of $1.4 million in one section of its matching agreement and a cost-beneficial return of $34,000 on a different page of the same matching agreement. State officials could not provide an explanation for the different figures or provide correct figures. Internal Revenue documents show that the Board approved the matching agreement without questioning state officials about the inconsistent figures.

Summary

The Computer Matching and Privacy Protection Act of 1988 has brought about a number of changes in the planning and processing of computer matches by federal agencies. These changes are primarily in the areas of standardization of language, establishment of Data Integrity Boards, and the inclusion of a cost-benefit analysis. However, in general, these changes apparently do not represent a full and earnest review of matching agreements to determine whether to proceed with proposed matches.

Cost-Benefit Analyses for Computer Matches

In this chapter, we answer our remaining four evaluation questions: (1) How have agency Data Integrity Boards implemented and reviewed cost-benefit analysis requirements for computer matches? (2) What is the quality of the cost-benefit analyses developed for use by the Boards? (3) As a result of cost-benefit analyses required by the Computer Matching and Privacy Protection Act of 1988, have agencies identified any statutory or other computer matching programs that are not cost-beneficial? and (4) How have agencies documented the deterrent effect of computer matching?

Conducting Cost-Benefit Analyses

Background

The requirement that federal computer matching programs include a cost-benefit analysis did not start with the 1988 act. Before 1982, OMB guidelines required such analyses for computer matches. However, inspectors general and others performing computer matches argued that OMB's requirements for cost-benefit analyses were overly burdensome and unrealistic, and OMB consequently eliminated the requirement. It was reinstated in 1988 with the enactment of the Computer Matching and Privacy Protection Act. The act requires that cost-benefit analyses be performed in conjunction with computer matching agreements, with two exceptions: (1) the first time a statutorily required match is reviewed by a Data Integrity Board, and (2) under the (presumably) rare circumstances in which a Board determines in writing that such an analysis is not required.

OMB states in its guidelines that the 1988 act requires that a cost-benefit analysis be part of an agency's decision to participate in a matching program. Noting that the statute provides a mechanism for waiver of the cost-benefit analysis, OMB's final guidelines caution that the Congress expected that such waivers would be used sparingly. Further, while the statute waives the cost-benefit analysis for the first review of a statutorily required match, this exclusion does not extend to matches undertaken at the discretion of the agency; that is, self-initiated matches. Further, the guidelines require that when statutorily required matches are renegotiated, a cost-benefit analysis covering the preceding matches must be conducted.

Guidelines

The agencies we evaluated have set up review procedures to ensure that their matching agreements address the cost-benefit analysis requirement, but the quality of these analyses is problematic, in part reflecting the lack of standard guidelines. Both federal and state agencies use different methodologies to calculate costs and benefits, thus preventing comparisons or summaries of cost-benefit analyses across agencies and states.

Although it requires that agencies must eventually develop a cost-benefit analysis for each matching program, the act, itself, does not specify what cost or benefit elements should be included. Although OMB guidance outlines, in a general way, what costs and benefits should be considered in agencies' analyses, its only source specifically cited for information about conducting cost-benefit analyses for computer matching programs was one of our earlier reports.[1]

This report stated that a cost-benefit analysis should include all costs and benefits, both quantitative and qualitative. These are summarized in table 3.1, which lists potential elements that may be included in a cost-benefit analysis. This list is not all-inclusive, nor is it expected that every element in the table be included in every cost-benefit analysis.

Table 3.1: Potential Computer Matching Cost and Benefit Elements

Parties involved	Costs	Benefits
Recipient	Salaries, fringe benefits, travel, materials, and facilities; lowered staff morale; reduced service delivery; degraded client relationships	Avoid overpayments, recover overpayments and debt, improve law enforcement, increase deterrence, improve management, increase public confidence and program support, improve staff morale
Source	Same as costs to recipient agency	Similar to recipient agency's if match is intended to be mutually beneficial
Law enforcement agency	Salaries and fringe benefits, materials, facilities	Improve law enforcement, increase deterrence
Client	Time, materials, professional services, erroneous termination from program rolls, invasion of privacy	Improve service delivery, increase resources, provide less of a participation stigma, identify underpayments
Third party	Salaries and fringe benefits, materials, facilities	
General public	Invasion of privacy, discouragement of legitimate clients	Improve program efficiency

[1]See Computer Matching: Assessing Its Costs and Benefits (GAO/PEMD-87-2, Nov. 10, 1986.)

In general, a cost-benefit analysis estimates the relationship between expected net program costs or inputs (both direct and indirect) and expected net program benefits or outcomes (both direct and indirect). Typically, the process of performing cost-benefit analysis involves seven steps:

1. analysis of all direct costs (inputs);

2. analysis of all indirect costs (inputs);

3. aggregation of all direct and indirect costs to derive total costs;

4. analysis of all direct benefits (outcomes);

5. analysis of all indirect benefits (outcomes);

6. aggregation of all direct and indirect benefits to derive total benefits; and finally,

7. comparison of total costs against total benefits to determine the cost-to-benefit ratio.

In principle, many of the common cost-benefit elements are quantifiable in monetary terms. The cost of personnel time spent in making a computer match and the benefit from recovering overpayments are examples that are easily measured in dollars. Other cost and benefit elements are quantifiable, but the units of measurement may not be converted into dollars easily. For example, survey techniques can be used to measure the level, and changes in the level, of public support for a program, but transforming this into a dollar value is difficult. Other potential cost and benefit elements can be quite difficult to quantify. Elements such as the value of law enforcement are inherently qualitative, and any quantification of them will be controversial. The presence of qualitative cost and benefit elements for which measurement is conceptually either not feasible or impractical does not mean that cost-benefit analysis should be abandoned, nor does it imply that these factors should be stricken from consideration. Such elements should be identified in the analysis along with the elements that can be quantified.

In 1989, OMB officials stated in the Federal Register that they would use the GAO report as one source to develop and provide to agencies a cost-benefit

analysis checklist for their matching programs.[2] But more than 3 years later, agencies were still waiting for that checklist. Moreover, at present, costs are not measured consistently across government programs and activities.

In the absence of OMB guidance, some agencies have attempted to provide interim guides for cost-benefit analysis. The most comprehensive such guide that we identified, which includes virtually all the conceptual criteria originally published in our earlier report, was the Social Security Administration's "Guide for Cost/Benefit Analysis of SSA Computer Matches" in March 1990. This guide is reproduced as appendix III.

However, all the Data Integrity Boards have recognized that they need assistance in preparing cost-benefit analyses and told us that they have requested further guidance from OMB. For example, in a letter written to OMB on June 21, 1991, the chairman of the Board at the Department of Justice stated, "I am writing to convey our concern that OMB's guidance on cost-benefit methodology has not yet been released. . . . we urge OMB to issue the promised guidance at the earliest possible date." In the interim, Justice published minimal standards for agencies to follow when participating in a match with them. Without standardization, Justice found it difficult to analyze the cost-benefit analyses agencies were conducting because of the widely varying methodologies used to estimate costs and benefits and the lack of consistency in the types of costs and benefits that were identified.

Quality of Cost-Benefit Analyses

We found many problems with the quality of agencies' cost-benefit analyses. In the first place, many matching agreements did not have any data on costs and benefits. Table 3.2 identifies the number of matching agreements with analyses that contained estimates of both costs and benefits, either costs or benefits, and neither costs nor benefits. While 86 percent of the statutorily required matching agreements provided

[2]"Privacy Act of 1974: Final Guidance Interpreting the Provisions of Public Law 100-503, Computer Matching and Privacy Act of 1988; Notices," 54 Fed. Reg. 25818 (1989).

analyses with both costs and benefits, only half of the self-initiated matching agreements contained both.[3]

Table 3.2: Cost and Benefit Data for Matching Agreements

Agreement	Total[a]	Both costs and benefits estimated	Either costs or benefits estimated	Neither costs nor benefits estimated
Statutorily required	64	55	5	4
Self-initiated	213	107	34	72
Total	**277**	**162**	**39**	**76**

[a]The total number of agreements is 447; in 170 cases, however, the agencies did not provide us with the agreements.

Of the 277 matching agreements we reviewed, agencies had provided estimates of neither costs nor benefits in 76 cases.[4] These agencies completed none of the seven steps for conducting cost-benefit analyses outlined above. In an additional 39 cases, only costs or benefits were estimated. This means agencies did not conduct steps 1 through 3 or steps 4 through 6, which precludes the agencies from developing a cost-benefit ratio (step 7) and completing the analysis.

The remainder of this section is based on the 162 matching agreements that did include estimates of both costs and benefits. Even in these cases, we found that, in general, agencies cited direct costs or benefits only for the agency that received the benefits of the match (usually the recipient agency). In very few instances were the costs and benefits for source agencies documented, especially when they were not the primary beneficiary of the match. According to some agency officials, this practice is reasonable because the costs and benefits to the source agency are often minimal. Additionally, we identified virtually no cases where the indirect costs and benefits (steps 2 and 5 above) were explicitly estimated as part of the cost-benefit analysis. This weakens the value of the aggregated cost and benefit estimates (steps 3 and 6) and thus raises

[3]Other research in this area supports this finding. A paper presented to the American Political Science Association states that "the cost-benefit requirement of the [Computer Matching and Privacy Protection Act] does not appear to have strengthened the quality of analyses done by the agencies." The paper notes that part of the difficulty of conducting cost-benefit analyses can be attributed to a lack of "an accepted methodology for what should be included as costs and benefits and how to quantify each." (Priscilla M. Regan, "Data Integrity Boards: Institutional Innovation and Congressional Oversight." Paper presented at the annual meeting of the American Political Science Association [Chicago: Sept. 3-6, 1992].)

[4]According to the 1988 act, the Boards can waive the cost-benefit analysis for self-initiated matches if they follow OMB guidance and provide a written explanation for their decision. However, waivers were given for only two of these agreements.

questions about the meaning and utility of the computed cost-to-benefit ratios (step 7).

Comparison of Federal and State Cost-Benefit Analyses

In cases where the cost-benefit analysis was conducted by states (as the recipient agencies), costs and benefits were itemized far more frequently than was the case for federal agencies. This largely occurred because the Internal Revenue Service (IRS), which had 52 matching agreements with nonfederal agencies, provided the recipient agencies with a standard form asking for estimates of salaries, fringe benefits, computer costs, overpayments, and debt recovery. (See appendix IV for a copy of the IRS form.)

However, even where cost and benefit information was provided, we determined that little documentation was included to support the costs and benefits claimed. We conducted a stratified random sample from our universe of computer matches, contacted the Boards, and requested whatever documentation they possessed to support the cost and benefit estimates. We were able to gather only limited information on how the estimates were calculated for matches between federal agencies.

We found that for matches where states were the recipients (beneficiaries), the Boards did not have any supporting documentation for state agencies' claims. We then sampled 24 agreements with states and contacted the agencies directly, gathering further supporting documentation for 21 analyses. (In the remaining three instances, however, state officials told us that they had no documentation whatsoever to support their estimates.) While some of these state analyses clearly showed how their cost and benefit estimates were derived, many appeared to be "back-of-the-envelope" estimates. As mentioned in chapter 2, we contacted one state to verify the benefits being claimed and found that benefits had been grossly overestimated.

Costs of Eligibility Verification and Collection

Among these 162 matching agreements, the most costly portions of the matching process—that is, verification of eligibility and debt collections—generally were not submitted. Some officials argued these costs were not unique to computer matching programs and therefore did not need to be included in the cost-benefit analyses. Since verification and collection costs would be incurred no matter what method was used to identify cases, these officials believed such costs should not be included in the cost-benefit analysis for a computer match. The equivalent logic

dictates, however, that avoidance of overpayments and debt collections also could be achieved by means other than computer matching. If these are to be counted as benefits of computer matching programs, it seems reasonable to count the related verification and collection expenses as costs of those programs. Otherwise, the value of benefits would be exaggerated in relation to costs. In the absence of guidance, agencies have made their own determinations on how to deal with this matter.

Discounting Costs and Benefits

In none of the 162 agreements were the monetary value of costs or benefits discounted to take account of the time over which they could be expected to accrue, as called for by the House Government Operations Committee (in H.R. 100-802). Such discounting is standard practice in cost-benefit analysis to provide estimates of the present value of costs and benefits, without which meaningful cost-benefit ratios cannot be calculated. In these computer matches, many of the reported costs presumably would occur very early, but the benefits (especially in the case of collections) could take a long time to be realized. Without time discounting, the comparison of costs and benefits may be rendered meaningless, and in these cases, would tend to inflate the ratio of benefits to costs because costs tend to accrue earlier than benefits. Again, lack of guidance on how to conduct cost-benefit analyses properly may have contributed to this problem.

Identification of Non-Cost-Beneficial Matches

The 1988 act mandates that, except upon initial approval of statutorily required matches or other special circumstances, matching agreements must include a cost-benefit analysis. As we have just discussed, the completeness and quality of the cost-benefit data submitted were poor, making it difficult to determine whether there were non-cost-beneficial matches being conducted. However, based on the data reported by the agencies, table 3.3 identifies those among the 162 matching agreements including both costs and benefits in their analyses that appeared to be either cost-beneficial or non-cost-beneficial.

Table 3.3: Apparent Net Cost-Benefit Status of Matches

Agreement	Statutorily required	Self-initiated
Cost-beneficial	37	96
Non-cost-beneficial	18	11
Total	**55**	**107**

Statutorily Required Matches

Among the 55 statutorily required matching agreements we reviewed, agency data indicated that 18 were not cost-beneficial. All of these 18 cases were among the 52 matches—under DIFSLA—between the IRS and state agencies. However, a review of the documentation supporting these 18 cases suggests that the results may reflect erroneous comparisons of cost and benefit data. The worksheets IRS supplied to the states appear to ask for annual data except for one benefit item—savings from disqualification of program participants—where monthly figures are called for. Thus, in most cases apparently showing non-cost-beneficial results, monthly benefits may have been compared to annual costs, distorting the results. In only one non-cost-beneficial case is there a clear comparison of annual data on both costs and benefits in which the costs exceed the benefits. Of course, as we noted above, in no cases were the estimates time discounted, nor were costs of recovery accounted for, so we cannot conclude how many, if any, matching agreements were non-cost-beneficial.

Self-Initiated Matches

In our review of the self-initiated matches, we found that agency data indicated that 11 agreements in two matching programs were not cost-beneficial. The two programs were the Social Security Administration's SDX and BENDEX programs. Both are conducted to determine eligibility for certain benefit programs, such as Food Stamps, Medicaid, and Aid to Families With Dependent Children. Agency documentation indicates that 4 (of 33) SDX and 7 (of 37) BENDEX matching agreements showed costs exceeding benefits. However, these 11 cases may reflect nothing more than incomplete or inaccurate data. Table 3.4 shows, by agency, that of 213 self-initiated matches, only about half (107) provided both cost and benefit data. Furthermore, lack of information on time discounting and costs of collection and enforcement prevent us from being able to conclude which matches, if any, were non-cost-beneficial.

Table 3.4: Self-Initiated Matching Agreements

Recipient agency	Total	Both costs and benefits estimated	Either costs or benefits estimated	Neither costs nor benefits estimated
Agriculture	0	0	0	0
Defense	21	15	4	2
Education	3	1	2	0
Health and Human Services	9	5	4	0
Housing and Urban Development	3	2	0	1
Justice	0	0	0	0
Labor	0	0	0	0
Office of Personnel Management	3	0	3	0
Postal Service	8	4	4	0
Railroad Retirement Board	46	5	4	37
Small Business Administration	0	0	0	0
Selective Service System	0	0	0	0
Treasury	0	0	0	0
Veterans Affairs	8	1	5	2
Nonfederal agencies	112	74	8	30
Total	**213**	**107**	**34**	**72**

As matching programs continue, we would expect the applicable cost-benefit ratios to decline and that entire matches could become non-cost-beneficial. This is because, over time, the number of "hits" would decline as noneligible recipients were taken off the rolls. Furthermore, if in fact computer matches have at least some deterrent effect, this can be expected to contribute further to a decline in measured cost-beneficiality.

Deterrence

Deterrence is a potential benefit of computer matching. The concept of deterrence is based on an expectation that as the probability of detection is perceived to be high or the severity of the penalty for wrongdoing is perceived to be sufficiently great, the option of compliance becomes increasingly attractive. If the computer match detects noncompliance and if the subsequent sanctions for this behavior are perceived to be both substantial and likely to be enforced, then future noncompliant behavior may be curtailed.

Documenting Deterrence

In our 1988 report, we noted that while anecdotes of changes in the behavior of beneficiaries were presented by agencies to support claims of deterrence, systematic efforts to demonstrate the existence and magnitude of such changes were limited. In fact, deterrence generally was treated only cursorily in cost-benefit analyses.

Our examination of 277 matching agreements shows that this situation has not changed in any substantial way. Nineteen of these agreements indicated the match was expected to have a deterrent effect, but only one of them provided documentation or support, either quantitative or qualitative beyond anecdotal evidence, for such an assertion. In January 1992, the Danville Redevelopment and Housing Authority in Virginia sent 1,100 letters to residents of public and Section 8 housing, informing them of a coming computer match to identify underreporting of income, which could result in evictions or other legal actions. The letter also promised amnesty to those who voluntarily reported such income. In response to the letters, about 500 tenants made inquiries. This resulted in the identification of two Section 8 tenants who signed repayment agreements totaling $4,732 and 15 public housing tenants who owed $6,053 in rent. Six of the 15 public housing tenants signed repayment agreements totaling $2,829, and six public housing tenants paid $614 without signing repayment agreements. However, while these results appear to demonstrate the deterrent effect of computer matching, the reported data do not allow us to rule out completely other explanations, such as random fluctuation or some other intervention.

In the remaining 18 cases where deterrence was claimed as a benefit, the agencies did not document deterrence at all. For example, as part of the its Systematic Alien Verification for Entitlements program, the Immigration and Naturalization Service participated in a computer match with the California Departments of Health Services and Social Services as part of the statutorily required program, whose purpose is to prevent ineligible aliens from receiving benefits such as Medicaid. Although both participating entities in this match clearly expected a deterrent effect, neither agency provided documentation for this assertion. Similarly, the Social Security Administration participated in a match with the Missouri Department of Social Services to determine eligibility for Social Security benefits or Supplemental Security Income payments. Although SSA expected the match to have a deterrent effect, no documentation whatsoever was provided for this assertion.

One of the 19 matching agreements claiming deterrence provided no justification for the match other than a claim of deterrence (including monetary savings resulting indirectly from deterrence and the dismissal of employees who pose a threat to postal revenue and properties). On July 31, 1990, the Postal Service Data Integrity Board approved a computer matching agreement with the Colorado Bureau of Investigation. The Postal Service Board initially waived the cost-benefit analysis requirement for this matching agreement. This lack of cost-benefit analysis and other legal issues prompted the Senate Subcommittee on Federal Services, Post Office, and Civil Service of the Committee on Governmental Affairs to express its concern over the appropriateness of this match in a letter to the Postal Service dated August 23, 1990. Nonetheless, the Postal Service Board extended the match on March 2, 1992, for another 12 months, again without conducting a cost-benefit analysis. The Postal Service did report to the Congress the matching results to that date.

The Postal Service justified this match by claiming that its purpose was to "deter any postal employee identified in this match from engaging in criminal, dishonest, or similar conduct prejudicial to the Postal Service as set forth in published standards of conduct; and to identify any postal employee found to be a fugitive wanted by a state or local agency, and notify the appropriate agency so they could effect arrest."[5]

The Postal Service Data Integrity Board did not require documentation for this expectation of deterrence and at the time of our work had not yet assessed the extent to which deterrence has subsequently occurred. However, the Postal Service did report that this match served to identify a total of 950 individuals (out of 12,706 records) who met the matching criteria; that is, Postal Service employees living or working in Colorado who have been arrested by local or state law enforcement officials for violations that potentially relate to postal offenses. Further review is being given to 61 of the most serious cases. One of these "hits" involved a postal employee who previously had been arrested for selling drugs. Based on this information, postal inspectors purchased drugs from this individual as a part of an undercover operation and then had the employee removed from Postal Service employment.

Methodological Problems of Measuring Deterrence

The fact that only one of the agencies attempted to quantify the deterrence they identified as an objective may be, at least in part, a reflection of some

[5]"Memorandum of Agreement Between the United States Postal Service and the Colorado Bureau of Investigation," p. 1, para. C, Mar. 2, 1992.

of the methodological problems inherently associated with the measurement of deterrence. While several approaches can be used to measure deterrence from a computer match, there are a number of difficulties associated with using these approaches, either individually or collectively, if the intent is to establish a cause-and-effect relationship between computer matching and a change in compliance behavior. One problem is that compliance behavior may reflect not only changes resulting from the deterrent effect of the match, but also changes resulting from other factors, not related to the match. This increases the difficulty of differentiating the contribution of computer matching from other deterrence-oriented activities such as the influence of other government programs.

However, it is not difficult to establish whether, in fact, a change in the number of compliance problems has occurred that would be consistent with a deterrent effect. The fact that we did not find even such analyses tends to weaken the plausibility of methodological problems as a reason for the failure to support deterrence claims.

Summary and Conclusions

Although the act and OMB guidelines require that a cost-benefit analysis be part of a matching agreement, most such agreements do not contain a complete analysis and many provide no analysis at all. The quality of the analyses that do exist varies considerably, but in general, is poor. Agencies use different methodologies to identify and calculate costs and benefits, and the quality of these analyses needs improvement. Agency officials cite the lack of guidance as a major reason for this poor quality. However, even with OMB guidance, agencies still would need to develop specific cost and benefit measures for their own programs and use their own in-house expertise to conduct and review cost-benefit analyses. This suggests that even in the absence of OMB guidance, they could be doing a better job in this area.

Agencies identified 29 (of 162) matching agreements that were non-cost-beneficial. However, we could not verify how many, if any, actually were non-cost-beneficial because the necessary data were either not collected or of poor quality. Additionally, over half the agencies we examined claimed that at least one match had a deterrent effect. But only one agency provided any empirical documentation of such an effect, and in no case did we find a methodologically sound analysis to support claims of deterrence.

Recommendations

We recommend that the Director of the Office of Management and Budget (1) expedite the publication of minimum standard criteria for cost-benefit analyses, identifying which specific cost and benefit elements must be included, and (2) direct agencies to establish procedures to track costs concurrently and measure costs and benefits retrospectively to determine whether estimated benefits are actually achieved, especially in cases where costs are high in relation to benefits or for those matches where the benefits appear to be the greatest.

Agency Comments

We received written comments from the Office of Management and Budget and informal comments from the other agencies mentioned in this report. OMB generally agreed with the recommendations and indicated quidance on conducting cost-benefit analyses would be forthcoming. OMB disagreed with our interpretation that agencies were not providing full and earnest reviews of proposed matches. They argued that we had not shown that agencies were failing to carry out elements of the matching agreements and that dubious matches were being "weeded out" before reaching the Boards. However, we clearly documented that agencies were failing to carry out adequate cost-benefit analyses, raising questions about what other elements of the agreements were subjected to less than thorough reviews. Moreover, while some proposed matches may have been withdrawn before reaching the Boards, we could not document any such cases.

OMB agreed with our conclusion that the quality of cost-benefit analyses was low and suggested that this could be because the wrong units within agencies were performing them. The assignment of these responsibilities differed among agencies; however, it was beyond the scope of this study to determine which units were, or should have been, preparing these estimates.

Technical comments from OMB and the other agencies were incorporated into this report where appropriate. A copy of OMB's comments is included as appendix V.

List of Computer Matches

Match number	Recipient agency	Source agency	Number of agreements	Statutorily required
1	Defense	Treasury	1	N
2	Defense	Defense	1	N
3	Defense	Treasury	1	N
4	Defense	Defense	1	N
5	Defense	Defense	1	N
6	Defense	Defense	1	N
7	Defense	Education	1	Y
8	Defense	Health and Human Services	1	N
9	Defense	Housing and Urban Development	1	N
10	Defense	Office of Personnel Management	1	N
11	Defense	Office of Personnel Management	1	N
12	Defense	Office of Personnel Management	1	N
13	Defense	Railroad Retirement Board	1	N
14	Defense	Small Business Administration	1	N
15	Defense	Health and Human Services	1	N
16	Defense	Agriculture	1	N
17	Defense	Postal Service	1	N
18	Defense	Postal Service	1	N
19	Defense	Postal Service	1	N
20	Defense	Veterans Affairs	1	N
21	Defense	Veterans Affairs	1	N
22	Defense	Defense	1	N
23	Education, District of Columbia, states	Justice	8	Y[a]
24	Education	Justice	1	N
25	Education, Housing and Urban Development, Health and Human Services, Railroad Retirement Board, Veterans Affairs	Treasury	5	N
26	Selective Service System	Education	1	Y
27	Postal Service	Education	1	N
28	Florida	Office of Personnel Management	1	N
29	Postal Service	Florida	1	N
30	Health and Human Services	Treasury	1	N
31	Health and Human Services	Railroad Retirement Board	1	N
32	Postal Service	Health and Human Services	1	N

(continued)

Match number	Recipient agency	Source agency	Number of agreements	Statutorily required
33	Housing and Urban Development	Office of Personnel Management, states	4	N
34	Postal Service	Housing and Urban Development	1	N
35	New York	Office of Personnel Management	1	N
36	Office of Personnel Management	Labor	1	N
37	Office of Personnel Management	Health and Human Services	1	N
38	Office of Personnel Management	Health and Human Services	1	N
39	Railroad Retirement Board	Health and Human Services	1	N
40	Railroad Retirement Board	Health and Human Services	1	N
41	Railroad Retirement Board	Various states	43	N
42	Postal Service	Small Business Administration	1	N
43	Health and Human Services	Treasury	1	N
44	Health and Human Services	Labor	1	N
45	Health and Human Services	Treasury	1	N
46	Health and Human Services	Various states	6	N
47	Health and Human Services	Various states	107	N
48	Health and Human Services	Office of Personnel Management	1	N
49	Health and Human Services	Pennsylvania	1	N
50	Health and Human Services	Railroad Retirement Board	1	Y
51	Health and Human Services	Railroad Retirement Board	1	Y
52	Health and Human Services	Veterans Affairs	1	N
53	Housing and Urban Development	Agriculture	1	N
54	Postal Service	Agriculture	1	N
55	Colorado	Postal Service	1	N
56	Postal Service	Postal Service	1	N
57	Veterans Affairs	Defense	1	N
58	Veterans Affairs	Labor	1	N
59	Veterans Affairs	Treasury	1	N
60	Veterans Affairs	Office of Personnel Management	1	N
61	Veterans Affairs	Office of Personnel Management	1	N
62	Veterans Affairs	Health and Human Services	1	Y
63	Veterans Affairs	Health and Human Services	1	N
64	Veterans Affairs	Health and Human Services	1	N
65	Postal Service	Veterans Affairs	1	N
66	Various states	Health and Human Services	22	N
67	Health and Human Services, Veterans Affairs, nonfederal agencies	Treasury	52	Y
68	Nonfederal agencies	Health and Human Services	53	N

(continued)

Match number	Recipient agency	Source agency	Number of agreements	Statutorily required
69	Various states	Health and Human Services	6	N
70	Nonfederal agencies	Health and Human Services	49	N
71	Health and Human Services	Various states	33	N

[a]Seven of these agreements are statutorily required. The agreement with Education is self-initiated as the department was granted a waiver by the Congress.

Data Collection Instrument for Matching Agreements

DCI FOR MATCHING AGREEMENTS[a]

Specification

Agencies Involved:

_____

_____

Agreement Date:_____

Agreement Complies With Law

Yes No Comments

Matching Agreements.--No record which is contained in a system of records may be disclosed to a recipient agency or non-Federal agency for use in a computer matching program except pursuant to a written agreement between the source agency and the recipient agency or non-Federal agency specifying--

1. (a) The purpose and_____
   (b) legal authority for conducting the program_____

2. (a) The justification for the program and_____
   (b) the anticipated results,_____
   (c) including a specific estimate of any savings_____

3. (a) A description of the records that will be matched,_____
   (b) including each data element that will be used,_____
   (c) the approximate number of records that will be matched,_____
   (d) and the projected starting and completion dates for the matching program_____

4. (a) Procedures for providing individualized notice at the time of application, and_____
   (b) notice periodically thereafter as directed by the Data Integrity Board of such agency (subject to guidance provided by the Director of the Office of Management and Budget pursuant to subsection (v)), to_____

[a]Retyped from original.

Specification	Agencies Involved:		
	_____		
	_____		
	Agreement Date: _____		
	Agreement Complies With Law		
	Yes	No	Comments
(1) applicants for and recipients of financial assistance or payments under Federal benefit programs, and			
(2) applicants for and holders of positions as Federal personnel			
that any information provided by such applicants, recipients, holders, and individuals may be subject to verification through matching programs			
5. Procedures for verifying information produced in such matching programs as required by subsection (p)			
6. Procedures for the retention of and timely destruction of identifiable records created by a recipient agency or non-Federal agency in such matching program			
7. Procedures for ensuring the administrative, technical, and physical security of the records matched and the results of such programs			
8. Prohibitions on duplication and redisclosure of records provided by the source agency within or outside the recipient agency or the non-Federal agency, except where required by law or essential to the conduct of the matching program			

Specification	Agencies Involved: _____ _____ Agreement Date: _____ Agreement Complies With Law Yes No Comments
9. (a) Procedures governing the use by a recipient agency or non-Federal agency of records provided in a matching program by a source agency,	
(b) including procedures governing return of the records to the source agency or	
(c) destruction of records used in such a program	
10. Information on assessments that have been made on the accuracy of the records that have been used in such matching program	
11. That the Comptroller General may have access to all records of a recipient agency or a non-Federal agency that the Comptroller General deems necessary in order to monitor or verify compliance with the agreement	

SSA Guide for Cost-Benefit Analysis

GUIDE FOR COST/BENEFIT ANALYSIS

OF

SSA COMPUTER MATCHES

Office of the Chief Financial Officer
Office of Program and Integrity Reviews
Operations Research and Match Evaluation Staff
March 1990

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GUIDE for COST/BENEFIT ANALYSIS of SSA COMPUTER MATCHES

I. Background

The Computer Matching and Privacy Protection Act (CMA) of 1988, Public Law 100-503, requires a cost/benefit analysis as part of an agency decision to conduct or participate in a matching program. Cost/benefit data are included in the Social Security Administration's (SSA) submittal to the Department of Health and Human Services (HHS)/Data Integrity Board (DIB) for approval of matching agreements and will be reported to Congress and to the Office of Management and Budget (OMB).

II. Purpose of This Guide

Neither the CMA nor the OMB implementing guidelines specify the costs or benefits that should be included in the analysis or how to perform the analysis. OMB has indicated that a checklist providing a methodology for accomplishing the cost/benefit analysis will be forthcoming. In the meantime, the Office of Program and Integrity Reviews (OPIR) has developed this guide for match managers to use as a basis for determining costs and benefits of computer matching programs that SSA conducts.

As analyses for all SSA matches covered by the CMA will be reported to the HHS/DIB, it is important that the evaluations be uniformly conducted (i.e., all evaluations should collect and analyze the same types of data using similar methodology), as well as be comprehensive, accurate, and systematic.

III. Cost/Benefit Analysis Framework

A cost/benefit analysis should measure all the costs and benefits associated with a matching operation to determine if (or how much) the benefits outweigh the costs. The following section sets out some concepts that apply to cost/benefit evaluations. To assure consistency among evaluations, these premises should serve as the framework for your analyses.

A. Goal of Matching

The goal of matching is to minimize misspending of funds (i.e., to prevent overpayments and underpayments) in Federal benefit programs.

B. Benefits of Matching

1. **Payment Accuracy** - the amount of underpayments identified and corrected.

2. **Restitution** - the amount of retroactive overpayments identified through matching and subsequently recovered.

3. **Prevention** - the amount of future program dollars saved by removing nonentitled beneficiaries from the rolls.

4. **Reductions** - the amount of future program dollars saved by decreasing benefit/payment amounts through monthly benefit reductions.

5. **Nonquantifiable Benefits** - elements that cannot be measured and included in a cost/benefit ratio, but that still deserve consideration (e.g., the deterrent effect, management improvements).

C. Whose Costs and Whose Benefits Are Measured

The costs and benefits to the following entities should be considered when evaluating a match:

1. The matching (or recipient) agency that initiates the match (i.e., SSA).

2. The source organization providing the data to be matched (e.g., a county, State, another Federal agency, or SSA).

3. The program recipients or applicants.

4. Third parties who are asked to provide collateral or verifying information (e.g., banks or employers).

IV. Checklist of Cost/Benefit Data Items

You should consider the following basic items in each category of cost and benefits. Keep in mind that not all items may apply to your particular match. On the other hand, your match may have cost or benefit items not listed here, but that still should be considered for the cost/benefit analysis.

A. Cost Items (Include both direct and indirect costs.)

1. SSA Systems Costs

a. Computer Time

b. Programming Costs

c. Facilities and Materials Costs

2. Source Agency Costs (Only count unreimbursed amounts that are not accounted for in item 3.)

a. Computer Systems Costs

b. Programming

c. Postage or Delivery Costs

d. Other Miscellaneous Costs

3. SSA Regional Office (RO) and Central Office (CO) Coordination Costs

a. Coordination With Source Agency to Set Up Match

b. Writing Instructions

c. Coordination with Field Offices (FO)

d. Screening and Controlling Alerts

e. Reimbursements to Source Agency

4. Program Service Center (PSC) Processing Costs

Developing and processing alerts or matched items.

5. FO Development Costs

a. Processing Alerts, Including Updating SSA Records

b. Developing and Processing Overpayments

c. Waiver Decisions

6. Overpayment Recovery Costs

a. Systems Costs

b. Cost of Processing Refunds and Installment Payments

c. Cost of Collection Efforts

7. Other SSA Costs

a. Postage

b. Verification Charges Paid to Third Parties, Such As Banks

8. Nonquantifiable Costs

a. Time and reporting burden to recipients who must provide rebuttal information for incorrect matches.

b. Time and reporting burden on third parties (e.g., employers who must provide information).

B. Benefits

1. Number and amount of underpayments corrected as a result of the match.

2. Correction of records to prevent future underpayments.

3. Number and amount of overpayments detected and recovered by the match.

4. Number of, and dollars saved from, cases terminated or put into a nonpayment status as a result of the match.

5. Number and amount of monthly payment reductions as a result of the match.

6. Nonquantifiable benefits.

V. Sources for Obtaining Cost/BenefitData

A. Automated Data Collection

OMB expects agencies to design their programs to ensure that accurate cost/benefit data are available. You should explore the systems data produced and use data readily available from automated sources. Particularly in cases where alerts are not produced (e.g., direct electronic updating of SSA records), it is better and easier to use systems-produced data on payment adjustments rather than to collect sample data.

In situations where automated data collection has not been implemented, you will have to conduct special studies or apply standard formulas, as described in parts B. and C. of this section.

B. Special Studies

If automated data collection has not been implemented, develop data on matching costs and benefits through special studies. Guidelines for conducting special studies to obtain necessary information are included in appendix 1.

C. Standard Formulas

OPIR has acquired some standard formulas for developing SSA costs and benefits. Other data or formulas will have to be obtained directly from the source.

NOTE: If the match evaluation is based on sample data (i.e., a sample of alerts), all findings must be weighted to the universe of alerts produced during the fiscal year. Contact OPIR if assistance is needed in weighting study data.

VI. Method for Developing Costs

Consider all items listed in Section IV.A., Cost Items, to determine total match costs. Your evaluation report should break out individually the cost for each item incurred for your particular match. If you find that your match incurred costs not on the list, describe these additional costs and include them with the other costs.

The list in part B. of this section provides a suggested source or method for computing each cost item.

A. Start-up Versus Ongoing Costs

If the match being evaluated is a new matching operation, there is an additional consideration:

> When obtaining costs, try to separate out the one-time start-up costs. For example, CO may have incurred a $4,000 cost to develop Program Operations Manual System instructions for FO handling of the alerts. However, next year the instructions would need only a relatively inexpensive modification costing about $1,000 (one analyst for 1 week). The $4,000 is a start-up cost, whereas, the $1,000 is the periodic cost to update the instructions once the match becomes a routine operation. Your evaluation should include all costs (one-time and ongoing), but you should keep track of costs that would be omitted or reduced in future years. (The cost data summary on the summary sheet breaks out the total costs and the ongoing costs, so that the first year's cost can be computed separately from the expected costs for future runs of the same match.)

B. Collecting Cost Data

1. SSA and PSC Systems Costs (See item A.1. of the checklist.)

Source: Office of Systems Requirements

2. Unreimbursed Source Agency Costs (i.e., where SSA is not the source of the data) (See item A.2. of the checklist.)

Source: You should estimate these. Do not contact the source agency for an estimate.

3. SSA RO and CO Coordination Costs (See item A.3. of the checklist.)

Source: The RO and CO components involved should provide an estimate as to the

number of hours expended by grade level. Compute total costs by multiplying the number of hours for each grade level by the current hourly salary shown in the Federal pay schedule. Adjust this cost by applying the inflation factor for indirect and overhead costs. (Obtain the inflation factor from the Office of Financial Operations (OFO). To determine amounts paid to the source agency for data, use the figure on the HHS-393.

4. PSC Processing Costs (See item A.4. of the checklist.)

This is the cost of PSC processing of the alerted item (usually a retirement and survivors insurance [RSI] or disability insurance [DI] case).

Source: Check with OFO to determine if a cost figure is available for this item. Alternatively, the match manager can include time analysis as part of the data collection form, where the PSC staff would record their processing time for each case. (If time is collected this way, contact OFO to convert the minutes to a cost, including indirect and overhead costs.)

5. FO Development Costs (See item A.5. of the checklist.)

This is the FO cost to develop the alerted item.

Source: OFO may have already collected such data. Alternatively, you can collect time data during the evaluation using a special data collection form. Inflate this cost by applying the inflation factor for indirect and overhead costs. Obtain the inflation factor from OFO.

6. Overpayment Recovery Costs (See item A.6. of the checklist.)

This is the unit cost of recovering overpayments identified by the match.

Source: Match manager to consult with OFO.

7. Other SSA Costs (See item A.7. of the checklist.)

Source: You should obtain data on any other costs applicable to the particular match.

8. Nonquantifiable Costs (See item A.8. of the checklist.)

These are costs or burdens (e.g., paperwork burden) to parties who are required to provide information to SSA in order to process the alert. While we may not be able to assign a dollar figure to the costs, they should still be considered. For example, if the match has only a 70-percent accuracy rate, 30 percent of the recipients are being contacted needlessly and may have to spend time documenting a rebuttal.

Source: The match manager should contact FO staff to obtain information specific to the issues raised by each particular match.

VII. Computing Benefits

As stated earlier, there are six major benefit components:

A. Identification of past (retroactive) underpayments;

B. Correction of records to prevent future underpayments;

C. Recovery of past (retroactive) overpayments;

D. Savings from removing beneficiaries/recipients from the program;

E. Payment amount reduction; and

F. Nonquantifiable benefits.

The section below discusses how to translate these benefits into dollars.

A. Identification of Retroactive Underpayments

1. Determine the total number of cases for which the match identified SSA program underpayments.

2. For the cases identified in 1. above, compute the total retroactive underpayment to be paid upon correction of SSA records and project the sample data to the universe.

B. Correction of Records to Prevent Future Underpayments

1. Identify the alerted cases which were shown to have ongoing monthly underpayments.

2. Compute the total monthly amount of payment increase to be made upon correction of the records.

3. Estimate the average number of future months that the underpayments would have continued had the match not detected the underpayments. (The match manager should rely on program experience to estimate the number of months of prospective underpayment months avoided and consult with OPIR if none is available.)

4. Multiply the monthly payment increase by the average number of months of underpayment correction to derive the total benefit from correcting the ongoing underpayment. Project the sample data to the universe.

C. Recovery of Retroactive Overpayments

1. The total dollar amount of retroactive overpayments shown on the data collection forms should be projected to the universe of alerts to obtain the potential total amount of overpayments detected by the match.

2. SSA experience shows that only a percentage of the overpayments detected are eventually recovered. For match evaluation purposes, match managers should compute the amount of restitution by applying a percentage collection rate to the amount of retroactive overpayments detected.

The collection rates should be supplied by the match managers, as they may vary depending on the type of match. If the figure cannot be derived from available past or present data, match managers should use the standard figure shown below developed by the Office of the Chief Financial Officer in 1989:

- 95 percent for title II RSI;
- 46 percent for title II DI; and
- 46 percent for title XVI.

D. Savings from Removing Beneficiaries or Recipients from Pay Status (Includes withdrawals/suspensions from the program due to failure to cooperate; e.g., N20 for the supplemental security income [SSI] cases)

When development of the alert results in full ineligibility (i.e., payment status before development was current pay and after development is nonpay), each month of future nonpayment represents savings. The amount of savings is the amount of payment avoided due to the case terminations. The future nonpayment months are the number of months the case can be expected to remain in nonpayment. The average number of future nonpayment months (i.e., prospective overpayments avoided) should be based on the component's experience or on other studies. The match manager should determine the time period that makes sense for the match in question. The basis for the estimate should be shown in the cost/benefit analysis.

Calculate this portion of the match benefit by multiplying the estimated number of months of future nonpayment and the total projected monthly amount of savings from case terminations. (The projected monthly savings is the sum of the predevelopment payment amounts for cases that go into nonpay, projected to the universe of cases.)

E. Savings from Payment Reductions

Compute the savings due to payment amount reduction by summing the changes in monthly payment amount for overpaid cases that remain in current pay status. As in section B. above, the match manager should rely on program experience to estimate the number of prospective overpayment months avoided and consult with OPIR if none is available.

F. Nonquantifiable Benefits

Some benefit items are not amenable to precise measurement. However, the CMA legislation is clear that such items should still be included in the evaluation and should be considered in the final

determination of benefits which includes both quantitative and nonquantitative benefits.

Nonquantifiable benefits include such items as:

1. **Deterrent effects** - recipient behavior that is influenced by the knowledge that nonreporting and underreporting are detected by electronic matching activities;

2. **Management improvements** - more streamlined program operations, strengthened internal controls, reduction in manual verification, and exploratory collateral contacts;

3. **Increased staff morale** - due to a feeling of greater control over and knowledge of the beneficiary's/recipient's circumstances and access to more comprehensive and reliable data regarding the individual's eligibility factors;

4. **Improvements in service delivery** - prompt adjustment of payments to avoid the hardship of repaying overpayments or the time consuming task of resolving underpayments; and

5. **Greater public confidence and program support** - a computer match may increase public confidence in a program, if the match is perceived as promoting program integrity to assure that only the deserving individuals are allowed program benefits.

These and any other nonquantifiable benefits that are factors in the match should be covered in the evaluation report and summary form. Pay particular attention to benefits specific to the particular match, rather than generic benefits applicable to all matches.

VIII. Cost/Benefit Comparison

Add the results of the benefit components A., B., C., D., and E. from the "Computing Benefits" section above to determine the total program savings from the match. (Do not net underpayment benefits against overpayment savings. Rather, add the numbers together without regard to whether they represent an outlay or savings of program dollars.) The benefit-to-cost ratio is computed by dividing total match benefits by total match costs.

APPENDIX 1

IF YOU HAVE TO DO A SPECIAL STUDY

I. Steps Involved in Cost/Benefit Studies

There are a number of steps required to obtain cost/benefit data. For this discussion, we will assume that all necessary arrangements with the source agency to obtain the particular data base have been completed and the actual match has been or soon will be conducted by either the source agency or SSA. The following actions (not necessarily in the order listed) must be taken to obtain the data necessary for a cost/benefit analysis of a match.

A. *Determine sample size and selection methodology.* You may contact the Operations Research and Match Evaluation Staff (ORMES) in OPIR (FTS 625-2819) for assistance in determining the appropriate sample size and selection methodology; i.e., whether the sample selection should be simple random, stratified, or clustered.

B. Obtain necessary clearances from SSA operational components. Check with the Office of Human Resources to determine if the Union must be notified regarding nonroutine work (such as completing the special study forms).

C. Design a data collection form. (This is discussed in detail in the next section.)

D. Develop study procedures and instructions which should be discussed with ORMES prior to distribution.

E. Alert the Office of Regional Operations of the FOs or PSCs that will be participating in your study and your study's timeframe, to assure that FO workloads are not adversely affected by numerous simultaneous studies.

F. Release study package to operational components and arrange for training.

G. Select sample cases. Obtain match alerts and control listings for sample cases. Arrange for any manual screening necessary and release sample alerts to components for development.

H. Collect completed data collection forms and review for accuracy and completeness. (The CO match manager may want to appoint regional coordinators to control and review the forms before sending them to CO.)

I. Compile summary statistics on match costs and benefits after an acceptable percentage (preferably 90 percent or more) of the sample cases have been developed. Complete the form, "SSA Computer Match Cost/Benefit Summary" (attached), for the match and send it to OPIR.

J. *Write a report on study findings,* including cost/benefit analysis and any recommendations for subsequent matching. Use the General Accounting Office (GAO) checklist, "Conceptual Criteria for Reviewing Computer Match Cost-Benefit Analysis 1/," (Appendix 3) to review the report for completeness.

II. Data Collection Forms for Special Studies

You must design a data collection form for the particular match being studied. The employee(s) developing the alert(s) must complete the form for each study case. The data collection forms must capture at least the following items:

A. *Match name and number.*

B. Office code (FO/RO, or PSC, etc.) of employee completing form.

C. Identifying numbers (housed under number, Social Security number [SSN], common accounting number, or beneficiary's own account number, as appropriate).

1/ U.S. GAO, "Computer Matching: Assessing Its Costs and Benefits," GAO/PEMD-87-2, Washington D.C. (November 1986).

D. Type of alert (e.g., title XVI wage, title XVI unemployment compensation, title II DI wage).

E. Amount of retroactive underpayment identified from match.

F. Amount of retroactive overpayment identified from match (subject to administrative finality rules).

NOTE: For SSI cases, overpayment and benefit amounts should include Federal plus federally administered State dollars.

G. Amount of change in monthly benefits after results of alert development have been input to the supplemental security record or the master beneficiary record (or other appropriate record).

H. Payment status code or ledger account file code before and after alert development.

I. If no overpayment was discovered, reason why (e.g., wrong SSN, income already reported to SSA, case in nonpay status).

J. Number of minutes to process the alert (if staff processing information is not obtained through a cost formula). Include all staff involved in handling, development, coordination, recording, data entry, recovery, etc. Provide timesheet, if necessary.

K. Other optional information at the discretion of the match manager.

NOTE: You can add additional questions to your data collection forms, but our experience has been that it is best to limit the data collected to essential items.

APPENDIX 2

SSA COMPUTER MATCH COST/BENEFIT SUMMARY

A. Identifying Information

1. Match Title: _____ No. _____
2. Prepared By - Name: _____ Ext.: _____
   Component: _____ Date: _____
3. This summary is based on match runs performed during the period _____ to _____.
4. Number of cases alerted during this period _____.
5. Estimated number of cases to be alerted for current FY: _____.
6. Number of sample cases selected for review: _____.
7. Number of sample cases developed and data collection sheets completed for this analysis: _____.

B. Summary of Cost Data (Projected to the universe of alerts)

	Full cost (one-time plus ongoing)	Estimated ongoing cost
1. SSA Systems Costs:	$_____	$_____
2. Source Agency Costs:	$_____	$_____
3. SSA RO/CO Coordination Costs:	$_____	$_____
4. PSC Processing Costs:	$_____	$_____
5. FO Development Costs:	$_____	$_____
6. Overpayment Recovery Costs:	$_____	$_____
7. Other SSA Costs (describe at end):	$_____	$_____
Total Costs:	$_____	$_____

C. **Summary of Benefit Data** (Projected to the universe of alerts)

1. Underpayments Corrected

   a. Number of underpaid cases identified: _____

   b. Total amount of retroactive underpayments paid: $_____

   c. Total amount of monthly payment increases (i.e., total amount of correction of ongoing underpayments): $_____

2. Recovery of Retroactive Overpayments

   a. Number of cases with retro overpayments: _____

   b. Total amount of retro overpayments detected: $_____

   c. Recovery rate: _____%

   d. Amount expected to be recovered: $_____

3. Savings from Case Terminations

   a. Number of cases terminated: _____

   b. Total amount paid to cases in 3(a) for month before termination month: $_____

   c. Estimated average number of months cases in 3(a) will remain in nonpay status: _____

   d. Total O/P's Prevented [3(b) times 3(c)]: $_____

4. Savings from Payment Reductions

   a. Number of cases with a reduced payment due to match: _____

   b. Total amount of monthly payment reduction for cases in 4(a): _____

   c. Estimated number of months payment reduction will continue: _____

   d. Savings from payment reduction [4(b) times 4(c)]: $_____

Total Benefit: $_____

D. **Benefit/CostRatio:** (total benefits divided by total costs) _____
(Compute benefits from the following items in section C. above:
1.b. plus 1.c. plus 2.d. plus 3.d. plus 4.d.)

For matches with one-time or nonrecurring costs, also show the expected benefit/cost ratio using ongoing cost only (i.e., without the one-time costs): _____

Explanation for items in B.7 (if needed):

_____

_____

_____

_____

Explain any unusual or atypical costs or benefits of this period's match: (For example, if this was an initial match, do you expect benefits to decline in future matches?

_____

_____

_____

List and explain any nonquantifiable benefits or costs accrued by this match:

_____

_____

_____

_____

APPENDIX 3

Conceptual Criteria for Reviewing Computer-Match Cost-benefit Analyses

Completeness	Does the cost-benefit analysis report adequately describe the objectives, design, scope, and perspective of the study; its assumptions and their rationale; the resources and time needed to perform the study; and the costs and benefits included and not included in the analysis?
Verifiability	Did the cost-benefit analysis have adequate supporting documentation? Can parts of the study be independently corroborated? Is the information provided sufficient to permit a check or recomputation of figures under the same or other assumptions?
Technical Adequacy	Did the analysis address the objectives of the study? Were the study methods and procedures selected and applied appropriately? Are the data that were collected reliable and appropriate? Are the findings and recommendations supported by the analysis? Is the report well organized, logical, and internally consistent? Were the measures or procedures for estimating costs and benefits appropriate? Are significant or quantifiable costs or benefits not reported or not acknowledged?
Validation	To what extent were prematch analyses followed up with postmatch results? To what extent were interim analyses updated? To what extent has the analysis been replicated? Have the results been discussed?
Utilization	Is there a plan for distributing the information in the analysis? How available is the analysis? How relevant is the analysis to computer-match decisionmakers? What effect has the analysis had on current and future computer-match operations?

IRS Worksheet for Disclosure of Information to Federal, State, and Local Agencies

IRS COMPUTER MATCHING PROGRAM[a]

BENEFIT/COST ANALYSIS

Period Covered: July 1, 1990 to June 30, 1991.

Name of Agency:

Benefits:

- Recovered overpayments and debts _____
- Amounts collected as fines and penalties _____
- Amounts saved monthly as a result of disqualification from the benefit program (measured from month of disqualification _____
- Administrative savings such as personnel and program costs resulting from disqualification (measured from month of disqualification) _____
- Other (please list) _____

Total _____

Costs:

- Salaries, fringe benefits, and other personnel costs in administering the matching program _____
- Computer costs _____
- Costs associated with the verification process _____
- Costs for "safeguarding" tax information _____
- Costs associated with appeal process _____
- Costs for forms, postage, duplication, etc. _____
- Other (please list) _____

Total _____

[a]Retyped from original.

Comments From the Office of Management and Budget

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

RECEIVED
AUG 5 1993
GAO/PEMD

Ms. Eleanor Chelimsky
Assistant Comptroller General
General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

JUL 21 1993

Dear Ms. Chelimsky:

This is in response to your letter of May 25, 1993 asking for the Office of Management and Budget's (OMB) comments on a draft report entitled "Computer Matching: Quality of Decisions and of Supporting Analyses Little Affected by the 1988 Act." The Act to which the title refers is the Computer Matching and Privacy Protection Act of 1988 which amended the Privacy Act of 1974 to address concerns about the automated comparison of Privacy Act records.

The report contained two recommendations for OMB:

- that OMB "expedite publishing minimum standard criteria for cost-benefit analyses, identifying which specific cost and benefit elements should be included;" and

- that OMB "should direct agencies to establish procedures to retrospectively measure costs and benefits to determine whether estimated benefits are actually achieved, especially in cases where costs are high in relation to benefits or for those matches where the benefits appear to be the greatest."

We generally agree with these recommendations, and will soon undertake to prepare guidance on conducting cost-benefit analyses of matching programs that amplifies the guidance we published in 1989. [See "Final Guidance Interpreting the Provisions of Public Law 100-503," 54 Federal Register at 25828, June 19, 1989.]

I have enclosed additional specific comments on the report. Please direct any questions about this response to Robert N. Veeder of my staff. He can be reached at 202-395-3785.

Sincerely,

Sally Katzen
Administrator
Office of Information
and Regulatory Affairs

Enclosure

ENCLOSURE

Comments on General Accounting Office Draft Report, "Computer Matching: Quality of Decisions and of Supporting Analyses Little Affected by the 1988 Act."

The report refers to concerns about the "legality or constitutionality of matching" raised by matching opponents. We presume these are references to the use of §(b)(3) of the Privacy (Act), a "routine use," to transfer records among matching agencies and assertions of Fourth Amendment violations resulting from electronic searches. GAO may wish to note that no court has found such routine use data transfers to be in violation of the Act nor have electronic searches been held to be in violation of the Constitution.

Although GAO collected a great deal of information from the agencies, the conclusions reached are not always supported by the data gathered. For example, in examining the matching agreements required by the Act, the report finds them to be complete ("all the agreements contained each of the required elements"), but then goes on to speculate that "the apparent completeness of the agreements may reflect no more than pro forma compliance." A plausible alternative finding would be that the completeness of the agreements demonstrates that the goal of the framers to bring procedural regularity to the exchange of data for matching was being met. Indeed, in writing our original guidance, OMB deliberately did not provide a model matching agreement for agencies to use because we feared that they would turn it into a "fill in the blanks" exercise. Had the report shown that agencies were not carrying out elements of the agreements, one might make an assertion that they were acting in a pro forma way. No such evidence was presented.

In another example, the report asserts that since Data Integrity Boards (DIB) rejected no agreements, they must not be doing an effective job in monitoring agency practices--"We determined that DIBS may be serving only a pro forma function." Our own experience in reviewing agency matching reports suggests a different conclusion. Once an agreement or a report reaches a senior review level, it has passed through many levels of review and consultation. Dubious proposals are weeded out in this process. Thus, because they are never actually presented to the Board, they are never formally rejected. We do not agree that a low rejection rate, therefore, means the Boards are not doing a diligent job in reviewing matching proposals.

The chapter of the report on cost-benefit analysis raised some interesting questions. Its finding that the quality of such analyses is generally low is consistent with our experience in reviewing agency matching reports under our 1989 guidance which also required cost-benefit analysis. We believe, however, that the reason for the lack of quality may be not so much a lack of criteria for doing such an analysis but rather that the wrong part of the organization is being tasked to do the work. It is the program offices, not the Privacy Act or data processing staffs, that have the expertise and incentive to produce high quality analysis; yet the report does not indicate that program staffs were consulted to determine whether they had, in fact, prepared such analyses. Also, in the context of the Privacy Act, cost-benefit analysis should be confined to determining whether computer matching is cost-beneficial when compared with some other method of determining benefit eligibility, identifying overpayments, or verifying compliance with statutory or regulatory requirements. This is an area we will explore with the agencies as we develop additional guidance on conducting matching programs in compliance with the Act.

Major Contributors to This Report

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Denver Regional Office	Arthur Gallegos, Regional Management Representative Ricki Earl Brown, Project Manager Christopher R. Moos, Member

Glossary

Computer Matching	The identification of similarities or dissimilarities in data found in two or more computer files.
Data Integrity Board	The Computer Matching and Privacy Protection Act requires that every agency conducting or participating in a matching program establish a Data Integrity Board to oversee and coordinate among the various components of the agency the implementation of this section. The act further mandates that the Board consist of senior officials designated by the head of the agency and include any senior official designated by the head of the agency as responsible for implementation of this section and the inspector general of the agency, if any. The inspector general may not serve as Board chairman.
Deterrence	A potential, qualitative benefit of computer matching. The concept of deterrence is based on an expectation that as the probability of detection is perceived to be high or the severity of the penalty for wrongdoing is perceived to be sufficiently great, the option of compliance becomes increasingly attractive. If the computer match detects noncompliance and if the subsequent sanctions for this behavior are perceived to be substantial, then future noncompliant behavior may be curtailed.
Hit	Information on one or more data elements in two or more automated files that appear to be identical or similar (name, Social Security number, address, date of birth, and the like).
Recipient Agency	Any agency, or contractor thereof, receiving records contained in a system of records from a source agency for use in a matching program.
Source Agency	Any agency that discloses records contained in a system of records to be used in a matching program, or any state or local government, or agency thereof, that discloses records to be used in a matching program.

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