BY THE COMPTROLLER GENERAL

Report To The Committee On Government Operations House Of Representatives OF THE UNITED STATES

Better Use Of Information Technology Can Reduce The Burden Of Federal Paperwork

The Federal Government has made significant progress in reducing the public's information reporting burden by simplifying and eliminating forms and by other means. Little is being done by OMB and Federal agencies, however, to use information technology to further reduce business and Government paperwork burden and reduce associated costs.

There are over 3,300 information reporting requirements levied on businesses by the Federal Government. GAO performed case studies of four of these. In each case, GAO found that submission of the required data through automated means such as magnetic tape, disk, or telecommunications would significantly reduce paperwork burden and improve the efficiency of the data collection operations. Strong leadership by the Office of Management and Budget and increased emphasis by Federal managers are needed to capitalize on the potential benefits of using information technology in Federal data collection activities.

GAO/GGD-83-39
APRIL 11, 1983

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

B-210393

The Honorable Jack Brooks
Chairman, Committee on Government
Operations
House of Representatives

Dear Mr. Chairman:

This report is one of a series resulting from your request of December 16, 1980. You asked us to identify, in selected agencies, where information technology can improve economy and efficiency. This report addresses the use of information technology in the transfer of data from private businesses to the Federal Government. Our report demonstrates opportunities to reduce information collection burdens and enhance agency operations through the use of information technology.

Our report uses case studies of reporting requirements placed on businesses by the Departments of Health and Human Services and Commerce and by the Commodity Futures Trading Commission. It also reviews efforts by the Office of Management and Budget to encourage use of information technology in data submission.

We made recommendations to the agency heads on how the collection of each particular reporting requirement can be improved and to the Office of Management and Budget on how to increase the use of information technology throughout the Government.

We did not obtain formal written agency comments. However, we discussed our findings, conclusions, and recommendations with appropriate agency officials and incorporated their views as appropriate. Unless you announce its contents earlier, we will send copies to interested parties and make others available upon request 30 days from the date of the report.

Sincerely yours,

Charles A. Bowsher

Comptroller General
of the United States

COMPTROLLER GENERAL'S
REPORT TO THE COMMITTEE
ON GOVERNMENT OPERATIONS
HOUSE OF REPRESENTATIVES

BETTER USE OF INFORMATION TECHNOLOGY CAN REDUCE THE BURDEN OF FEDERAL PAPERWORK

D I G E S T

For fiscal years 1981 and 1982, OMB and Federal agencies reported reductions in the public information burden totaling 246 million hours through eliminating, reducing the frequency of, or otherwise modifying hundreds of information requirements. However, little is being done to improve the submission and handling of required data through information technology.

GAO reviewed four data collection activities as case studies to determine the potential benefits associated with information technology. In addition, GAO assessed OMB's policies and procedures in this area. GAO found that increased use of information technology would reduce Federal paperwork burden and improve the efficiency of the data collection activities reviewed. While the extent of the potential benefits varied on a case-by-case basis, opportunities exist in all of the reviewed cases for better use of information technology. Some recent actions have been taken by Federal managers to realize these benefits, but more could be done.

INCREASED MANAGEMENT EMPHASIS NEEDED

GAO found that Federal managers at all levels need to be more attentive to the use of information technology as a means of reducing reporting and handling burdens. OMB needs to provide agencies with policy on the use of information technology and guidance for its implementation in their data gathering activities, as required under the Paperwork Reduction Act of 1980. Agency senior officials stated that the lack of guidance from OMB is one of the prime reasons individual agency policies and procedures have not been promulgated. OMB also needs to establish internal procedures to monitor and encourage Federal managers' commitment to the use of information technology. (See pp. 35 and 36).

GAO/GGD-83-39
APRIL 11, 1983

Tear Sheet

GAO found that agencies need (1) strategies to implement and control automated data submission programs, and (2) information and marketing analyses to realize the potential for increased automated submissions. None of the agencies, for instance, could tell GAO which respondents could most likely change to an automated submission. One agency could not provide a complete listing of its respondents, or identify those with the highest reporting volume. (See p. 29.)

Federal managers also have not maximized the benefits of automated programs once developed. One agency, for example, averaged less than 2 new participants each year for the last 7 years, even though there are over 62,000 respondents in a highly automated industry. In 1981 alone, about 30 respondents had inquired about program participation. (See p. 29.)

CASE STUDIES INDICATE POTENTIAL BENEFITS

GAO's analysis of four selected reporting requirements disclosed clear examples of situations where information technology could be used to make data submissions more timely and less costly for both the Government and respondent.

For example, of the 45 million Medicare bills submitted by health care institutions to insurance companies (called intermediaries) under contract with the Health Care Financing Administration, only about 7.3 million are submitted in automated form. At only nine intermediaries, GAO found that the number of automated claims could be increased by about 4 million. GAO calculates that the Health Care Financing Administration could save at least $1.3 million by automating these claims. (See pp. 11 to 17.)

In another case study, only 600,000 of the approximately 10 million Shipper's Export Declaration reports submitted to the Bureau of the Census are received in automated form. GAO found examples where the respondents preferred to submit automated data but could not get sufficient information from Census on what to do to make the change. After contacting

just 33 of over 62,000 respondents, GAO found that Census could almost double its volume of automated submissions and save about $183,000. (See pp. 17 to 20 and 29.)

GAO's review of the two remaining case studies at the Commodity Futures Trading Commission and the Food and Drug Administration also identified potential improvements through better use of information technology. (See pp. 20 to 25.)

CONCLUSIONS AND RECOMMENDATIONS

Although automated submissions are not feasible for all respondents of all reporting requirements, where they are possible, benefits will tend to outweigh costs. Managers at all levels (OMB, Federal agency, and respondent) must cooperatively explore the use of information technology, implement appropriate automated systems, monitor their effectiveness, and periodically update them. Proper use of information technology can save millions of dollars and increase data collection efficiency and effectiveness for both the Federal Government and respondents.

GAO recommends that the Director, Office of Management and Budget:

--Establish written policies on the use of information technologies as a means of reducing burden to the Government and public and improving the efficiency and effectiveness of agency operations. (See p. 39.)

--Amend the forms clearance process by requiring agencies, except under exigent circumstances, to determine whether an increase in automated submissions is feasible. If feasibility is established, the agency should submit a plan describing its anticipated actions. (See p. 39.)

--Direct the Office of Information and Regulatory Affairs, as part of its continuing oversight responsibilities of Federal information management activities, to periodically review Federal agencies' efforts to implement and reassess programs for increasing automated submission of required data. (See p. 39.)

GAO also recommends that the Secretaries of the Departments of Health and Human Services and Commerce, and the Chairman of the Commodity Futures Trading Commission take actions to further the use of information technology in the specific data collection activities reviewed. (See pp. 33 and 34.)

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This report results from a broad request by the Chairman, House Committee on Government Operations, that GAO review information management activities within the Federal Government. Using examples, the report addresses data collected from businesses and identifies opportunities to reduce information collection burdens and enhance agency operations through the use of information technology. GAO did not obtain official comments from agency officials on the findings, conclusions, and recommendations in this report. GAO, however, obtained unofficial oral comments from senior officials of the agencies whose activities are discussed, and has incorporated their views as appropriate.

Contents

ABBREVIATIONS

ADP	Automatic Data Processing
CFTC	Commodity Futures Trading Commission
FDA	Food and Drug Administration
GAO	General Accounting Office
GSA	General Services Administration
HCFA	Health Care Financing Administration
HHS	Department of Health and Human Services
OMB	Office of Management and Budget

CHAPTER 1

INTRODUCTION

The Federal Government imposes a tremendous paperwork burden on the general public. During the early 1970s this burden grew, virtually unchallenged, because of the increase in the number of Federal programs, and because Federal managers needed more information to make decisions. In the late 1970s, however, Federal managers began to respond to public and congressional outcries to reduce paperwork and the associated burden. According to Federal statistics, the public currently spends over 1.5 billion hours submitting paperwork required by the Government.

The Paperwork Reduction Act of 1980 reflected the concerns of both the Congress and the public. It mandated specific burden reduction goals and assigned specific responsibilities to the Office of Management and Budget (OMB) and Federal agency officials. Since passage of this act, Federal agencies, in cooperation with OMB, have significantly reduced Federal paperwork. In its 1982 report to the President, OMB reported a 17-percent reduction--246 million hours--in the paperwork burden known to exist in 1980. This reduction was achieved primarily by eliminating and/or simplifying reporting and recordkeeping requirements. The Administration also has reduced the paperwork burden by simplifying numerous Federal regulations.

One of the purposes of the Paperwork Reduction Act was to ensure that automatic data processing and telecommunications were used by Federal managers to reduce the paperwork burden on both the public and the Government. OMB and Federal agencies did not consider this a priority during the first 2 years of the act. Consequently, Federal agencies have not stressed the submission of required data in machine readable [1]/ rather than paper form. This report discusses (1) current efforts by Federal agencies to use technology in their data collection activities, (2) examples where information technology could lessen paperwork and the cost of data collection for both the Government and respondents, and (3) the overriding need for Federal managers throughout Government to become more committed to developing, implementing, and periodically reassessing programs which allow the public to submit required data in machine readable form.

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[1]/Information received by media such as magnetic tape, magnetic disk, or through telecommunications.

CHARACTERISTICS OF FEDERAL PAPERWORK REQUIREMENTS

The Federal Government collects information for a variety of reasons. In fiscal year 1982, 78 percent of the paperwork was for regulatory or compliance purposes, 13 percent for applications, 5 percent for program evaluation or research, 3 percent for program management, and 1 percent for general statistical purposes. Of this amount, 75 percent is mandatory, 19 percent is required to obtain or retain a benefit, and 6 percent is voluntary.

The paperwork burden falls on all segments of society, but most heavily on businesses. In fiscal year 1982, 57 percent of the total burden rested on businesses and other institutions. Of the remaining 43 percent, 32 percent fell on individuals and households, 10 percent on State and local governments, and 1 percent on farms.

THE PAPERWORK REDUCTION ACT OF 1980

This report is one of several ongoing efforts by GAO to assess how well Federal managers are complying with the provisions of the Paperwork Reduction Act of 1980. Essentially, the act's objectives are to improve Federal information policymaking, better manage information resources, and reduce the burden and costs associated with collecting, using, and disseminating Federal information. The act, which became effective on April 1, 1981, has six major purposes:

--To minimize the Federal paperwork burden for individuals, small businesses, State and local governments, and other persons.

--To minimize the cost to the Federal Government of collecting, maintaining, using, and disseminating information.

--To maximize the usefulness of information collected by the Federal Government.

--To coordinate, integrate, and make uniform Federal information policies and practices.

--To ensure that the Federal Government acquires and uses automatic data processing and telecommunications technologies in a manner which improves services and program management, increases productivity, reduces waste and fraud, and reduces the information processing burden for the public and the Federal Government.

--To ensure that the Federal Government collects, maintains, uses, and disseminates information in accordance with laws relating to confidentiality, including the Privacy Act (5 U.S.C. 552a).

The act gives prominent roles for paperwork reduction to three Federal agencies--OMB, the General Services Administration (GSA), and the Department of Commerce. It establishes a broad mandate for agencies to manage their information activities efficiently, effectively, and economically. When carrying out their activities, agencies are to comply with the policies, principles, standards, and guidelines prescribed by the OMB Director and administered through OMB's Office of Information and Regulatory Affairs. One of the areas for policysetting and oversight is the use of automatic data processing (ADP) and telecommunications in data collection activities.

GSA and Commerce also have responsibilities under the act. GSA is required to provide advice and assistance to OMB in conducting reviews of agency information management activities and in developing standards for records retention requirements imposed on the public. Commerce's National Bureau of Standards is responsible for developing and recommending Federal information processing standards, conducting research in computer technology, and providing scientific and technical advice to both OMB and GSA in support of ADP policy development.

In March 1982, draft legislation was submitted jointly to the Senate by the Secretary of Commerce and the Administrator of GSA which would eliminate Commerce's role under the Paperwork Reduction Act by consolidating the functional elements of the Federal Government's ADP program within GSA. The proposed legislation was introduced in both the Senate and the House of Representatives, but no action was taken by the last Congress. The bill had not been reintroduced as of January 1983.

OBJECTIVES, SCOPE, AND METHODOLOGY

We evaluated the information management activities at OMB and three Federal agencies to determine how effectively these agencies use technology to collect information from the private business sector. We focused on whether Federal managers are adequately identifying opportunities for economies and efficiencies through increased technology applications. We restricted our review to reporting requirements placed on

businesses because (1) businesses bear the largest portion of the total Federal reporting burden and (2) businesses would more likely have the information technology capabilities, and thus the opportunity, to save time and money through their use in reporting activities. Specifically, we

--interviewed agency officials and reviewed agency policies, regulations, procedures, and practices for administering data collection activities;

--reviewed current and planned efforts to employ information technology to reduce the public's paperwork burden and improve operations;

--developed cost data for collection activities and identified savings associated with automated data collection; and

--identified and evaluated barriers which prevented the increased use of information technology.

We selected our sample agencies after performing a detailed analysis of each Federal agency's business reporting requirements from information contained in OMB's files. We did not necessarily select agencies imposing the highest number of reporting requirements or the most time-consuming reports to complete. Instead, we selected agencies imposing both large and small amounts of paperwork to demonstrate the range of applicability information technology may have. The three agencies selected however, still accounted for 9.5 percent of the total time businesses spend in completing reporting requirements, as well as 18.8 percent of the total number of required forms sent to the Government by businesses. We used burden estimates provided by OMB and the agencies.

We selected data collection requirements imposed by each of these agencies as case studies to analyze current and potential uses and benefits of information technologies. We judgmentally selected specific reporting requirements to include (1) some collection activities where respondents were already providing information in machine readable form to determine if Federal managers had maximized technology utilization and (2) some activities where no automation was being used but where we might identify high potential for technology applications. The four data requirements selected accounted for about 21.5 percent of the reporting burden imposed on businesses by the three agencies.

We contacted 88 respondents to the selected reporting requirements. We generally visited respondents who have a relatively high volume of responses annually, and who gave us good geographic coverage. We also gave consideration to our time and travel budget constraints when selecting site locations to visit. Both automated and nonautomated respondents were selected to identify the cost differences, if any, between paper and machine readable submissions. In determining estimated unit cost savings, we used figures developed from our evaluation and analysis of financial and cost/benefit data provided by the agencies and industry representatives. Where our analysis indicated a range of potential cost savings, we used the most conservative documented figure. In some instances, estimated total cost savings may be offset by initial start-up costs to automate, but these amounts could not be quantified.

We conducted our review at the Office of Management and Budget, the headquarters of the Health Care Financing Administration, the Food and Drug Administration, the Bureau of the Census, and the Commodity Futures Trading Commission; and selected agency regional offices in New York, Chicago, Denver, and Los Angeles in those instances where the regional offices had primary responsibility for the data collection activities. The details and a brief description of data collection activities and associated forms which we reviewed are in the table on page 6. The statistics are on an annual basis.

Because we reviewed operations at only three agencies, the results of our review cannot be statistically projected to all Government data collection activities. Also, because we visited a limited number of respondents, we have not attempted to statistically project the results of the respondent reviews over the entire reporting requirement. To be able to statistically project our results would have increased the job scope beyond reasonable budget limitations without, in our opinion, a concomitant increase in precision. However, when the agency had information which provided an overall perspective by agency or data requirement, we used it in our analysis.

This audit was performed in accordance with generally accepted Government auditing standards.

SUMMARY OF DATA COLLECTION ACTIVITIES REVIEWED

Agency	Activity and Form	Responses	Respondents	Burden Hours
HHS				
Health Care Financing Administration (HCFA)	Medicare forms used by institutional health service providers to bill HCFA for services rendered to Medicare beneficiaries.	45,000,000	12,600	12,400,000
Food & Drug Administration (FDA)	Drug product listing forms used by drug manufacturers to report new, changed, and discontinued drug products to FDA for inclusion into a comprehensive listing of commercially marketed drug products.	14,245	23,000	3,000
Commerce				
Bureau of the Census	Shipper's export declaration forms used by exporters and freight forwarders to report export statistics to Census for compilation in a monthly report on the U.S. Balance of Trade.	10,000,000	62,000	1,670,000
CFTC				
Commodity Futures Trading Commission	Activity reports used by futures traders to report accounts with high volume sales and/or purchases to CFTC for market surveillance purposes.	406,000	400	32,460

CHAPTER 2

INFORMATION TECHNOLOGY CAN IMPROVE DATA COLLECTION AND SAVE TIME, MONEY, AND EFFORT FOR BOTH THE GOVERNMENT AND RESPONDENTS

Most of the data the Federal Government collects from businesses is in paper form. With some notable exceptions, Federal managers are not taking advantage of opportunities to collect such data more efficiently and economically through information technology. Consequently, the Government is incurring unneccessary costs in collecting and handling this data, and the burden placed on business respondents is greater than it should be.

Modern information technology, such as magnetic media and teleprocessing, has often proven to be a powerful means of reducing the costs and burden associated with data collection activities for both collector and the respondent. In addition, such data transfer technologies offer intangible benefits, such as better compliance with program mandates, better workload distribution, and more efficient use of resources. Even though the automated submission of data may not be feasible for all data collection activities, Federal managers have overlooked numerous opportunities to increase the use of technology and thus reap the associated benefits.

If the Government realized just the opportunities we identified, it could save about $1.5 million annually and reduce the respondents' related costs by about $5.9 million. Agency and industry officials said that these potentials for improvement were similar to their expectations for the universe of respondents, and therefore the potential benefits of fully successful automation programs for these requirements could be as high as $7.1 million to the Government and $40.7 million to the respondents. Considering that these reporting requirements are just a few of many, the Government-wide potential for savings through technology is tremendous.

GOVERNMENT-WIDE POTENTIAL IS UNDETERMINED BUT APPEARS HIGH

No Government-wide estimate exists on the percentage and cost effectiveness of automated versus hard copy submission of data to the Federal Government. In those instances where technology has been used, however, the benefits to the Government have been impressive--illustrating the potential technology has to offer Federal agencies.

In fiscal year 1981, businesses spent over 478 million hours--and billions of dollars [1]/ --to submit forms in compliance with about 3,300 Federal reporting requirements. This amounted to over 1.2 billion forms being received by agencies Government-wide. Data on the number of these reports received in paper versus automated form does not exist. One OMB official said, however, that the number of reports received in hard copy form is unacceptably high. Similarly, Government-wide accurate data is unavailable on the cost to handle and process data received in automated versus hard copy form. It is generally accepted throughout the Government, however, that automated data is less burdensome and less costly to handle and process.

Although relatively few examples exist, those that do clearly demonstrate that the submission of machine readable reports offers tremendous cost savings potential to the Federal Government. Two of these examples are cited below.

--Since 1971, the Internal Revenue Service has formally encouraged employers and financial institutions to submit wage, interest, and dividend information in several automated forms. Information returns received on paper cost the Service more than 50 times as much to process as those received on magnetic media.

--The Department of the Treasury allows financial institutions to submit savings bond sales information on magnetic tape. Treasury estimates that for every one million transactions reported on magnetic tape, it saves approximately $20,000. In fiscal year 1981, Treasury saved $800,000 through this use of technology.

CASE STUDIES ILLUSTRATE THE POTENTIAL FOR GREATER USE OF INFORMATION TECHNOLOGIES

Our analysis of about one-fifth of the total responses to four selected information requirements showed that respondents could increase automated data submissions from 15.8 to 55.5 percent. On this basis, we estimate potential savings of about $1.5 million to Federal agencies and $5.9 million to respondents annually. (The table on page 10 presents a summary of our findings by case.) Unquantifiable, intangible benefits are also possible, and in many instances, these are more of an incentive for automation than are the anticipated cost savings.

Information obtained from agency and industry officials supports the possibility that the results of our sample may be representative of the total universe of responses for two of

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[1]/In 1977, the Federal Paperwork Commission estimated annual costs of Federal paperwork to private industry to be $25 billion to $32 billion.

these reporting requirements. Under such an assumption, the total percentage of automated data submissions could increase by about 40 percent and could save the Federal Government $7.1 million annually. At this level of automation respondents could save $40.7 million.

Many of the respondents who submit hard copy forms said they were willing and able to provide their responses in automated form if permitted to do so. Specifically, some respondents now

--create the required hard copy form from their computerized files necessitating re-entry at the Federal agency (one respondent was doing this for between 200,000 and 300,000 forms annually);

--use teleprocessing systems for related internal purposes but complete their Federal reporting requirement in hard copy form; and

--use service bureaus which accumulate the data in a computerized data base but report to the Federal agency in paper form.

As a result, Federal agencies incur unnecessary and redundant costs to manually handle data which could be submitted in automated form. Census, for example, spends about one-sixth of its entire Foreign Trade Division operating budget to enter data from hard copies, many of which are computer generated. Agency officials said, and our analysis confirmed, that Census could save 30 cents for each record submitted in automated form. The automation of just the 610,920 forms we identified as having potential for automated submission could save the agency about $180,000 in data entry costs.

In addition to citing cost savings, many respondents also noted intangible benefits to automated reporting. They consistently mentioned the reduced management oversight and involvement required with the preparation of the reports, and the more efficient use of limited resources.

Agency officials cited intangible benefits to the Government as well. These included: better workload distribution, more efficient program operations, and better interagency sharing of information.

Because the results of our sample are not statistically projectable, we cannot say how representative our sample results are of the universe of respondents. Agency, respondent, and industry officials said, however, that our results

Potential for Automation and Estimated Cost Savings By Sample Case

Case study	Volume represented (number of reports)	Percent automated (note a)	Potential percent automated (note a)	Additional volume which could be automated (note b)	Estimated cost savings (note c) Respondent	Agency
HCFA	10,218,184	15.3	53.1	3,865,224	$2,800,000	$1,300,000
Census	1,068,853	21.0	78.2	610,920	3,054,600	183,276
CFTC	[d]/4,215	11.6	83.6	[d]/3,036	(f)	(g)
FDA	702	0	37.3	262	(f)	(g)
Total	[e]/11,291,954	15.8	55.5	4,479,442	$5,854,600	$1,483,276

[a]/Percentages have been rounded.

[b]/Additional volume which could be automated is computed by multiplying the total volume by the difference between the percent automated and the percent which could potentially be automated.

[c]/Savings are discussed on pages 15, 16, and 19.

[d]/This represents an average of daily reportable accounts.

[e]/This represents about 20.4 percent of the total volume of responses for all four cases.

[f]/Estimates not provided because other benefits were more important.

[g]/Estimates not available.

are probably indicative of the universe for these requirements. If so, the potential Federal savings would increase to $7.1 million and the respondent savings potential to $40.7 million, as shown in the table on page 12.

While we cannot statistically project our sample, we believe that the savings potentials in the table are realistic. The results of our sample alone account for about 20 percent of the additional potential automated volume of reports. In addition, HCFA officials believe that 55 percent is a feasible figure for the levels of automated Medicare responses. Furthermore, export industry officials, citing the highly automated capability within the industry, estimate that 70 to 75 percent of all Shipper's Export Declarations could be submitted in automated form.

The following sections describe in detail opportunities where information technology could reduce respondent burden and improve agency efficiency and effectiveness.

The Health Care Financing Administration could significantly increase its savings by automating the submission of more Medicare claims

Only about 7.3 million of the almost 45 million Medicare claims submitted annually by health care institutions are in machine readable form. In our judgmentally selected sample of over 10 million Medicare claims, the volume of automated claims could be increased by at least 50 percent [1]/ and could potentially save the Federal Government about $1.3 million. In addition, increased automated claims submissions could result in cost savings at health care provider institutions [2]/ (herein called providers) and could produce other benefits, such as improved cash flow and improved control over data.

HCFA officials agreed that our sample results were probably indicative of the universe of claims. If true, the level of automated claims could increase from 7.3 million to 23.9 million, resulting in a savings of $5.4 million to HCFA, and $12.1 million to Medicare providers.

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[1]/From 7.3 million to 11.2 million, on the basis of actual visits made at only 9 of 80 intermediaries.

[2]/Provider institutions include hospitals, nursing homes, and home health agencies.

Case Study Results Applied to Universe of Responses

Case study	Fiscal Year 1981 volume	Percent automated	Potential percent automated	Potential automated volume added	Potential cost savings (note a) Respondent	Agency
HCFA	45,000,000	16.3	53.1	16,560,000	$12,088,800	$5,382,000
Census	10,000,000	6.0	[b]/63.2	5,720,000	28,600,000	1,716,000
CFTC	406,000	8.4	(c)	-0-	(d)	(e)
FDA	14,245	-0-	(c)	-0-	(d)	(e)
Total	55,420,245	14.4	54.6	22,280,000	$40,688,800	$7,098,000

a/Savings are discussed on pages 17 and 20.

b/Potential percent automated has been adjusted downward from 78.2 for our sample to 63.2 for the universe in order to reflect the difference between the percent of automation in our sample and the percent of automation for the universe.

c/Insufficient information available with which to make an estimate.

d/Estimates not provided because other benefits are more important to the respondents.

e/Estimates not available.

Background

HCFA pays medical and other health service costs for Medicare beneficiaries. Most Medicare benefit claims are submitted by providers to private insurance companies called intermediaries. These intermediaries are normally reimbursed by HCFA for their services on a reasonable cost basis.

Some intermediaries began processing Medicare claims submitted in machine readable form in the late 1960s. It was not until August 1980, however, that HCFA established standards and began promoting the use of automation for Medicare claims submission. HCFA first began keeping statistics in 1979, when almost 10 percent of the Medicare claims volume was submitted in machine readable form. Since that time, the annual increase in program participation has been between 3 and 4 percent--to the current 16.3 percent level.

National Statistics for Automated Medicare Billings--Fiscal Years 1979-1981

	Machine readable claims	
Fiscal year	Volume	Percent of total
1979	3,757,179	9.9
1980	5,827,959	13.9
1981	7,318,032	16.3

Machine readable claims submissions are far below their potential

Our review at 9 intermediaries and 27 providers showed a high potential for increasing the number of Medicare bills submitted in machine readable form. At the nine intermediaries, the level of automated submission could be increased by about 38 percent. Furthermore, despite the capability and willingness of all 27 providers to submit their claims using some form of automation, only 6 submitted claims in machine readable form. These providers alone account for about 9 percent of the machine readable claims potential.

The following shows the potential for automated billing of those intermediaries we visited.

Intermediary	Fiscal year 1981 level of automated claims		Potential based on our review	
	Volume	Percentage	Volume	Percentage
A	0	0	1,048,787	81.4
B	0	0	1,011,236	53.0
C	0	0	215,183	48.6
D	89,543	19.2	278,557	59.7
E	5,465	.4	490,182	35.9
F	398,518	22.2	977,865	54.5
G	0	0	180,340	25.6
H	559,603	36.9	708,234	46.9
I	507,647	69.3	515,616	70.4
Total	1,560,776	15.3	5,426,000	53.1

The 3.9 million potential increase in volume of automated submissions consists of claims

--printed by the providers' computers onto hard copy Medicare forms (2.4 million);

--created by service bureaus that used teleprocessing or other computer technology to communicate billing information between the provider and the service bureau (0.8 million); and

--submitted by a provider that used computer technology to submit private, but not Medicare claims (0.7 million).

Following are some specific instances for potential increases in automated submissions:

--At one intermediary, providers submitted over 85 percent of the hard copy forms on computer-generated forms. This totaled about 1 million forms annually.

--At another intermediary, 90 providers used a network system to communicate billing information with the intermediary but did not use the system to submit Medicare claims. Instead, over 440,000 claims annually were submitted in hard copy form.

--For another intermediary, service bureaus submitted 573,000 claims a year in hard copy instead of using available computer technology (either magnetic tape or teleprocessing) which was used in communicating the billing information back to the provider.

Of 27 providers reviewed all had the capability and the interest to submit their claims in machine readable form. Their data was typically computer based providing them with the capability to transmit, either directly or through a service bureau, claims to the intermediary in a machine readable form. However, only six used this capability for some Medicare billing. The 21 remaining providers were restricted because their intermediaries could not accept claims in the media preferred by the providers. For example, some hospitals had the capability to submit on magnetic tape, but their intermediaries either could not accept any automated claims or could accept only teleprocessed claims. We estimated the annual potential for automating additional claims at the 27 providers to be about 350,000.

Automated claims are cost effective

The submission of Medicare bills in machine readable form is cost effective. HCFA saved over $3.6 million in reimbursements to intermediaries in fiscal year 1981, and we estimate an additional $1.3 million could have been saved for the cases we reviewed. Also, providers using automated billing systems have, in some cases, experienced direct cost savings--in addition to improved cash flow [1]/ and claims accuracy.

HCFA officials estimate that using machine readable media saves a minimum of 50 cents per claim. On this basis, HCFA saved $3.6 million in fiscal year 1981 in intermediary reimbursements. Of this, HCFA's own Office of Direct Reimbursement saved about $804,000 processing 1.3 million automated claims.

HCFA's savings could have been greater, based upon the financial reports of intermediaries which have automated their private claims and available cost/benefit studies on the automation of Medicare claims. Our review at nine intermediaries indicated that they could have saved an average of 32 cents per claim through automated claims submissions. Savings would occur as a result of reduced data entry costs, improved claims handling, reduced mailing costs, and increased claims accuracy. Applying this savings figure (which is conservative compared to HCFA's 50 cents per claim estimate) to the 3.9 million claims that could have been automated, we estimate that HCFA could have saved an additional $1.3 million. This figure does not consider initial start-up costs which may reduce the short term savings potential to some intermediaries.

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[1]/Improved cash flow to the provider could actually result in revenue losses to the Government in the form of reduced interest earned on those funds.

The potential cost benefits to the Government associated with automated claims submission are further demonstrated by comparing the average unit costs of intermediaries by levels of automated claims.

Percent of claims received in machine readable form	Number of intermediaries (note a)	Average cost per claim (in dollars) (note b)	Per claim cost savings due to automation (in dollars) (note c)
None	36	3.77	-
0.1 to 24.9	20	3.51	.26
25 to 49.9	6	3.42	.35
50 or Greater	8	3.15	.62

a/Only includes 70 intermediaries because 2 had not reported comparable data, and 8 reported their costs as 1 intermediary.

b/As adjusted by HCFA to exclude administrative costs related to provider reimbursement, provider audit, non-recurring costs, professional standards reviews, and Health Maintenance Organizations.

c/Savings are differences between average cost at each level of automation and the average cost of those intermediaries with no automation.

As can be seen in the table, the cost incurred by intermediaries to process Medicare claims decreases as the level of machine readable bills increases. Intermediaries with better than a 50-percent level of machine readable claims had adjusted average unit costs of about $3.15, or 62 cents per claim lower than those intermediaries with no automated claims. Although other factors may contribute to the magnitude of this cost differential, it is clear that machine readable claims affect administrative costs.

Providers have also documented significant benefits through automated billings. For example, 10 of the 27 providers had estimated the cost effectiveness of automated claims submissions. Actual experience of 2 providers showed that an average of 73 cents per claim could be saved by submitting claims in automated form. Applying this to the 3.9 million additional machine readable claims which could be automated, the savings could be as high as $2.8 million.

More important to some providers, however, were numerous other improvements made by the automation of claims. The most common intangibles cited were improved cash flow and more efficient use of resources. For instance, five of the six providers who submit some automated claims stated that improved cash flow--faster turnaround of claims--was probably

the most significant advantage to automated submissions. In fact, some nonautomated providers contacted believed that improved claims turnaround was a major incentive to automate claims. Other benefits to automated claims submissions cited by providers included: (1) improved housekeeping and control over claims submissions, (2) increased management convenience, and (3) easier tracing and access to claims data bases.

In addition, providers mentioned that claims were more accurate when submitted in machine readable form. Providers reasoned that because of the reduced level of human involvement in preparing and processing such claims, there was less chance of errors. The Office of Direct Reimbursement's error rate in fiscal year 1981 illustrates the dramatic difference in error rates for automated versus hard copy claims. Overall, the error rate for automated claims was about six times better than that for hard copy claims.

Office of Direct Reimbursement Error Rates For Hard Copy Versus Machine Readable Claims

	Claims received	Claims requiring resubmission	Error rate
Hard copy	1,085,290	219,551	20.2%
Machine readable	1,293,184	44,309	3.4%

HCFA officials concurred with our sample findings and in fact stated that it was not too unlike what they expected of the entire Medicare claims universe. HCFA considers that 50 to 55 percent (our review found 53.1 percent) of the Medicare claims is a reasonable goal for automated claims volume. If a 53.1 percent figure were ever achieved, the potential volume of automated claims could reach 23.9 million, with an additional savings potential for HCFA of $5.4 million, and savings to respondents of $12.1 million.

The Bureau of the Census could double the volume of automated Shipper's Export Declaration reports and reduce costs significantly

In fiscal year 1981, Census received only 600,000 of the approximately 10 million Shipper's Export Declaration reports in automated form. We identified an additional 610,920 reports which could be automated at an additional savings of about $3.1 million to the respondents and $183,276 to Census. Industry officials have stated that the potential for automating the entire universe of declaration reports is similar to the rate we found in our sample. If such a rate were possible, Census could save an additional $1.7 million, and the respondents about $28.6 million.

Background

Census' Foreign Trade Division collects information on U.S. exports as part of its Foreign Trade Statistics program. Approximately 62,000 exporters, freight forwarders, and shippers (carriers) provide the information on the declaration reports and spend approximately 1.7 million hours in preparing about 10 million forms.

To reduce the reporting burden and improve the efficiency of agency operations, Census developed an automated reporting system in 1969 which allows respondents to provide the required information on magnetic tape. Although the automated program offers the potential to save time and money, only 39 of the 62,000 respondents participate. Census data entry costs for the nonautomated reports received annually is about $2 million of the Foreign Trade Division's $12 million operating budget. Census officials stated they can save 30 cents for each automated report received. Our analysis of Census cost records and other financial data substantiated that estimate.

Many respondents are interested in and capable of automating their reports

We contacted 33 respondents with an annual volume of 1,068,853 reports. Five of the 33 respondents are participating in the automated program. A summary of our work at the 28 nonparticipating respondents follows.

	Number	Annual volume
Respondents not currently participating	28	843,920
Of those not participating:		
Those interested and capable of participating (note a)	12	595,920
Those interested but not immediately capable	2	15,000
Those not capable and probably not interested	14	233,000

[a]/By capable we mean that the respondents stated that there would be no problem in meeting Census' specifications.

As shown on page 18, 12 nonparticipants had the capability and interest in submitting automated reports. Two additional nonparticipating respondents were interested in the program, but would not be capable immediately because they were in the process of automating all of their export documentation. The annual volume of reports submitted by these 14 respondents totaled 610,920, which if automated, would about double the current level of automated submissions.

In many instances where the respondents expressed both the interest in and capability of participating in the automated program, the report preparation was already automated. Unfortunately, a computer printed the form on hard copy instead of in a machine readable medium. Some specific instances follow.

--One highly automated freight forwarder submits between 200,000 and 300,000 reports annually on behalf of many exporters. These reports are prepared manually, although all the necessary data for the preparation is computer-based. The forwarder is capable of automating the reports but disliked changes Census made in the automated submission program.

--Another respondent prepares the report manually from a computerized printout of information stored in its data base. This respondent, which submits 6,600 reports annually, expressed a willingness to automate the submissions.

Significant benefits are possible through automated preparation of the reports

Both the Federal Government and respondents have tremendous cost savings potential through the automated submission of the reports. Census has reported that in fiscal year 1981 about $180,000 was saved in data entry costs because of the automated submission of 600,000 reports. In addition, respondents participating in the automated program estimated that they have reduced their per report costs by about $5.00. Furthermore, for the cases we reviewed, we estimate that Census could save an additional $183,276 and respondents $3.1 million, as shown in the following analysis.

Category	Volume	Estimated savings Respondent (note a)	Census
Those interested and capable of participating	595,920	$2,979,600	$178,776
Those interested but not immediately capable	15,000	75,000	4,500
Total savings potential		$3,054,600	$183,276

[a]/Savings based on 30 cents per report for Census and $5.00 per report for the respondent.

In addition to the cost savings, several respondents cited other benefits to the automated program. One freight forwarder, for instance, noted the difficulty of manually filling out forms when trying to ensure the timeliness of shipments. The automated program provides the needed flexibility to take care of business first and complete the necessary forms on a monthly basis. Several other respondents cited the increased accuracy and control of export documentation as a major incentive to program participation. Finally, two exporters stated that the automation of the data enabled them to make export market analyses which help in making management decisions.

Over 78 percent of the reports in our sample could be automated. Although we cannot statistically project this figure to the universe, officials from a national association for the export industry believe that probably 70 to 75 percent of all reports preparation could be automated given the level of automated capability in the industry. If Census were to achieve this level of automation, the added overall savings would be substantial--$1.7 million for Census and $28.6 million for the respondents.

The Commodity Futures Trading Commission could significantly increase automated trade data

CFTC has been able to accept high volume futures trading data in an automated form since 1972, yet only 3 of over 400 respondents have automated their submissions. Most respondents we visited were capable of and interested in automating their reports, because it was more efficient for management--not necessarily because it was cost effective. More importantly, CFTC could improve the timeliness of its surveillance of the commodity futures market--a criticism of CFTC in the past--if more reports were filed in machine readable form.

Background

CFTC is an independent Federal regulatory agency responsible for overseeing the trading of commodity futures contracts at 12 futures exchanges nationwide. CFTC monitors these markets to identify and prevent manipulative or disruptive commodity activity by any one interest. CFTC collects the information necessary to perform this surveillance daily. The data is collected primarily from future traders known as Futures Commission Merchants, clearing members, or foreign brokers. Because of the importance of its surveillance, CFTC must receive and analyze the information quickly. The respondents submit 406,000 reports annually on about 1.8 million reportable accounts. CFTC estimates the respondent burden to be about 32,460 hours.

Around 1972, CFTC began a program allowing respondents to submit the data in machine readable form. CFTC allows three types of automated media: punch cards, magnetic tape, and magnetic disk. Three participants, the first which began around 1978, submit their data (about 156,000 accounts annually) on magnetic tape.

Futures Commission Merchants are capable of submitting machine readable information

Of the 400 respondents, we contacted 19 who reported an average of 4,215 accounts daily. Of the 17 who do not participate in CFTC's automated program, 12 are capable of and interested in reporting their data in machine readable form. The 12 respondents either have inhouse capability or they use a service bureau which has the capability to report on magnetic media on their behalf.

Discussed below are specific illustrations of the existing capability of nonautomated reporting respondents we contacted. Some respondents appear in more than one illustration.

--Three respondents, with a daily volume of 800 reportable accounts, had tape capability which did not match CFTC's requirements. However, CFTC is capable of converting this tape format to its required specifications and, in fact, it does so for one of the automated respondents.

--Three respondents, with a daily volume of about 900 reportable accounts, could have used telecommunications to submit their data. Respondents would incur some cost since modification would be necessary to generate their reports in the required reporting format. CFTC was incapable of receiving reports via telecommunications until recently.

--One respondent, with a daily volume of 175 reportable accounts, uses a software package developed especially for Futures Commission Merchants and includes all required processes for automating the reports. This system can be made compatible with CFTC's reporting specifications at a small cost to the respondent.

Benefits are more intangible than tangible

Although some respondents documented savings, many agreed that the main benefit to their participation in an automated reporting program would be efficiency of operations. Some Government cost savings potential was evident, but the primary benefit of increased automated submissions was CFTC's ability to perform its market surveillance faster.

The respondents we contacted disagreed on whether cost savings would result by changing to machine readable reporting. Some estimated small cost savings ranging from about $5.50 per day's reporting to $18.00 per day. Many respondents indicated that machine readable reporting may not be cost effective but had little data to support their opinion. However, some believed that, despite the cost, automation would be beneficial because it would increase the efficiency of their operations.

CFTC officials said that increased automated reporting would reduce CFTC's costs, but they were unable to estimate by how much. They concurred, however, that increased automated reporting could improve their market surveillance function. With automated reporting, data entry and verification could be completed the day after the trading was performed. This time reduction could be crucial to the effectiveness of their market surveillance activities.

In a recent report to the Congress [1]/ we found that the large trader reporting system must provide accurate and timely data in order to effectively prevent futures market manipulation. We noted that CFTC's current system has problems providing surveillance economists with prompt and useful data. A full day's trading has occurred before CFTC is able to find out what traders' positions were on the preceding day. When hard copy inputs are received from respondents, they must be reviewed, keypunched, run, edited, printed, and then distributed to an economist. Our report concludes that automated input to CFTC would eliminate some of these time-consuming steps and significantly improve surveillance through more timely data.

The Food and Drug Administration could significantly reduce the volume of drug listing reports through the use of automated alternatives

This case is somewhat different from the others and, as discussed on page 4, was deliberately chosen to illustrate the benefits of using information technology even though the overall reporting burden was relatively small. We found that instead of using information technology to transfer the required data from the respondents, automated alternatives such as turnaround documents [2]/ and data base printouts could be used to reduce the number of forms submitted. Such reductions would decrease the paperwork costs to both the Government and respondents, yet not hinder the accomplishment of FDA's responsibilities.

Background

FDA enforces the Federal laws and regulations to protect the health of the Nation against impure and unsafe foods, drugs, and cosmetics. Congress enacted the Drug Listing Act of 1972 which requires drug manufacturers to provide an up-to-date listing of their commercially marketed drug products. In implementing the act, FDA requires drug manufacturers to submit a Drug Product Listing report on all new drug products, changes to existing products, and discontinued products. The forms are to be submitted within 5 days after

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[1]/"Commodity Futures Regulation--Current Status and Unresolved Problems," (GAO/CED-82-100, July 15, 1982).

[2]/When the respondent periodically receives a copy of the information in FDA's files and updates it rather than initiating a new report on each change, the document received by the respondent is referred to as a turnaround document.

beginning commercial distribution for new drugs, or every June and December for drug changes or discontinued drugs. FDA received about 14,245 Drug Product Listing reports from a potential universe of approximately 23,000 manufacturers during fiscal year 1981, imposing a reporting burden of about 3,000 hours on the respondents.

FDA regulations allow drug manufacturers to submit Drug Product Listing reports on magnetic tape, but according to FDA officials, only one manufacturer has explored this possibility. FDA does not advocate tape submissions because it makes needed additions and corrections to the forms before they are entered into FDA's data base. As a result, all manufacturers submit the reports in hard copy.

Respondents are interested in reporting alternatives to hard copy submissions

We contacted nine drug manufacturers which spent up to 24 staff days a year completing the required drug reports. Many of the manufacturers wanted more efficient alternatives to the current method of reporting, particularly for reports on drug changes.

Three manufacturers, for example, were interested in magnetic tape reporting. Two of these already had the necessary data in their computer data bases and could comply with FDA's tape requirements. The third was revising its data files to include all the necessary information. Two of these manufacturers would not estimate the cost of developing the software to generate a tape which would meet specifications, but they believed that it would be cost effective and would therefore like to participate. The other manufacturer estimated that the initial program development costs would be about $5,500, with annual recurring costs of about $2,000. Although tape reporting would substantially reduce the time spent by two employees in preparing these reports, this manufacturer was reluctant to offer an opinion on its overall cost effectiveness.

Six manufacturers did not have the data base in place, so they were less interested in automated reporting. However, some still believed that their reporting of drug changes could be more efficient and less burdensome.

GAO believes that a reporting alternative to the current method of reporting changes would be more efficient. Under the turnaround concept, for instance, FDA would periodically

send a computer-generated report of the data included in FDA's data base for update by the drug manufacturer. This update would be the only submission required for drug changes. This procedure could have eliminated about 34 percent of the reports received in 1982. Reports on new drugs and discontinued drugs would still be filed according to current FDA regulations.

FDA officials agreed that the accuracy of drug change reports would be improved because of the less frequent manual handling of the data. Also, they agreed that the burden would be significantly reduced for both FDA and the manufacturers because a large portion of these change reports (22 percent) are too insignificant to be entered into FDA's data base.

In addition to this turnaround document, one of three manufacturers who were interested in automated reporting supported the idea of a computer-generated printout in lieu of manually prepared forms (for new drugs), as long as the manufacturer had the capability to do so. If it contained the information which FDA requires, this would have the same advantages of automated reporting while complying with FDA's need to review the data before entering into the data base.

CONCLUSIONS

Modern information technology offers significant benefits to both Federal agencies and business respondents. The use of technology in data collection can provide cost savings, more accurate and timely reports, and reduce the burden to both parties. We recognize, however, that automated submission may not be feasible for all respondents to all reporting requirements. As shown in the case studies, problems sometimes exist, such as computer incompatabilities and prohibitive initial cost outlays, which outweigh the benefits. Even though the advantages of automation must be considered on a case-by-case basis, we believe that the potential demonstrated by our case studies is illustrative of that which may exist throughout the Federal Government when collecting data from businesses.

CHAPTER 3

MANAGEMENT NEEDS TO EMPHASIZE INFORMATION TECHNOLOGY TO IMPROVE DATA COLLECTION ACTIVITIES

Federal managers have had limited success in improving data collection activities through the use of information technologies. Government-wide, information technology has had a low priority as a means of reducing paperwork. Similarly, the three agencies we reviewed showed little support for increasing the effectiveness of automated data submission programs. None had developed plans or marketing strategies for the effective implementation of those programs.

INFORMATION TECHNOLOGY AS A MEANS OF REDUCING PAPERWORK HAS HAD A LOW PRIORITY GOVERNMENT-WIDE

Federal agencies, in cooperation with OMB, have made some impressive reductions in the paperwork burden over the last 2 years primarily through report elimination and simplification. Federal managers must also look for more efficient ways of collecting the vast amounts of data still required--specifically through the use of information technology.

Congress acknowledged this need by making a stated purpose of the Paperwork Reduction Act to ensure that the Government uses automatic data processing and telecommunications to reduce the information processing burden to both the Government and respondents. Agencies, however, have thus far shown little commitment to the use of information technology as a means of reducing paperwork. OMB's fiscal year 1981 report to the Congress on burden reductions achieved by Federal agencies (Information Collection Budget) showed no major paperwork burden reductions due to the increased use of information technology; the fiscal year 1982 report included only a 300,000 hour reduction by one agency (Department of the Interior). A breakdown follows of the burden reductions and how they were achieved.

Major Burden Hour Reductions (in millions)			
Method of Reduction	FY 81	FY 82	Total
Simplification of Form	17.0	40.5	57.5
Elimination of Form	1.2	48.6	49.8
Completion of Purpose (note a)	33.8	0.0	33.8
Legislative Action	0.0	18.2	18.2
Change in Frequency of Form	1.3	0.1	1.4
Use of Information Technology	0.0	0.3	0.3
Other (note b)	12.0	35.8	47.8
Total	65.3	143.5	208.8

a/Such as the decennial census collection form.

b/Unidentifiable methods.

FEDERAL MANAGERS MUST MAKE BETTER USE OF EXISTING INFORMATION TECHNOLOGY CAPABILITIES

Federal managers at the three agencies we reviewed were successful in eliminating 28.1 million hours 1/ of paperwork requirements in the last 2 years. Only recently, however, have these managers recognized the potential for using information technology in data collection activities.

HCFA has exercised little control over its automated bills program

Although HCFA has had an automated submission program since August 1980, it has done little to effectively implement it and ensure its success. HCFA has not

--enforced intermediary requirements designed for effective program implementation,

--evaluated intermediaries on their program effectiveness, or

--provided clear guidance to regional staff on their role in monitoring and marketing the program.

1/In addition, 33.8 million hours were eliminated by Commerce because of the completion of elements of the census, and 5.2 million hours were eliminated by HHS because of legislative action.

In August 1980, HCFA issued instructions to the intermediaries requiring them to have the capability of accepting Medicare billings in a specified magnetic tape format by March 1982. HCFA, however, has not monitored or enforced intermediary compliance with this requirement. In an association survey of 57 intermediaries conducted for GAO and issued in January 1982, 22 of the intermediaries reported that they did not have this capability, and 6 did not have plans to develop it.

HCFA also requires intermediaries to survey their providers to identify automated capabilities and assess the cost effectiveness of developing a capability to "talk" with the providers' systems. HCFA officials could not determine how many surveys were performed, whether anything was done with those which were performed, or how meaningful they were. Furthermore, HCFA's survey, initiated during our review, of provider and intermediary capabilities yielded little useful information because not all surveys were complete.

HCFA's inadequate evaluation of intermediaries' performance contributes significantly to the lack of program control. Currently, HCFA considers factors such as cost and timeliness of bill processing when evaluating intermediaries. However, intermediaries are not evaluated on their compliance with requirements under the automation program nor on their effectiveness in encouraging automated bill submissions by providers. Because intermediaries are not held accountable for regulation compliance and effective program implementation, the success of HCFA's automated billing program is left entirely to the intermediaries themselves.

HCFA has also not provided clear guidance to HCFA regional staff on their role in implementing this program. HCFA officials said that program responsibility was carried out primarily in the regional offices. Two of the three regions we visited, however, did not monitor the promotional activities of the intermediaries. In addition, HCFA officials advised us that the regions had not enforced the survey requirements, did little to guide and advise the intermediaries' automated program, and maintained little or no contact with providers. Without such contact, HCFA has no basis for understanding problems and identifying solutions to increase automated billings. For example, although headquarters officials stated that regional staff were responsible for monitoring and analyzing the intermediary surveys, regional officials said they received no instructions on what their enforcement role was or what to do with survey results. Consequently, survey results were sent to headquarters without analysis or followup. In addition, HCFA officials said that some intermediaries were granted exemptions from completing the surveys without any documented justification.

Census needs a stronger implementation strategy

Census' Shipper's Export Declaration requirement provides another illustration of the need for management's attention to information technology. Census has had only limited success with its automated reporting program because it has not

--analyzed its respondent population to determine capability and interest in program participation, or

--provided adequate resources to promote and market the program and its benefits.

When we began our review, Census officials could not identify the high volume respondents because they had never analyzed the respondent population. In fact, Census did not have a list of respondents. Such information is necessary for an effective program because it shows an agency where to market the program and what technological capabilities may maximize program participation. After our request for volume information, Census attempted to identify the high volume reporters but still did not know their automated capabilities.

Census' automated program has not been supported with adequate resources for the effective promotion and marketing of its benefits. Because of the effort needed to bring a respondent into the program, the limited Census staff can realistically work with only one or two candidates at a time. Consequently, many respondents expressing interest (about 30 last year) receive only a form letter accompanied by a program booklet aimed at the ADP technician but not the appropriate decisionmaking officials. Consequently, numerous inquiries over the last several years from potential program participants have gone without any personal contact or real marketing effort by Census. We believe this is the primary reason why only 12 of the 39 respondents who currently submit automated data have joined the program in the last 7 years.

CFTC had no knowledge of respondent capabilities and technology preferences

CFTC's program has not been effective because it was not responsive to respondent preferences and capabilities to submit automated data. Prior to our review, CFTC allowed only magnetic tape submissions with particular tape specifications. CFTC had limited knowledge of the desires and capabilities of some respondents to submit their data in other media. For example, respondents and service bureaus who have respondents

for clients were often more interested in using diskette, telecommunications, or a more flexible tape format when reporting this required data. After our review began, CFTC surveyed selected respondents and began expanding its program to include provisions for accepting diskette and telecommunications data. CFTC reocognizes the need for, but has yet to develop, a marketing strategy to publicize these new capabilities to ensure maximum respondent awareness and participation.

FDA did not address the details of program implementation

Although FDA regulations permit automated submissions of drug listing data, FDA officials have not formulated program specifications nor developed an implementation strategy. This inaction was primarily because FDA believes, and we agree, that automated submission of data is generally not feasible because of the additions and corrections to the data which FDA must make. However, FDA officials could have explored automation alternatives such as turnaround documents for submitting drug changes, and/or manufacturer computer-generated printouts in lieu of forms for new drugs. Our review showed that respondents were very receptive to these alternatives.

RECENT AGENCY ACTIONS SHOULD IMPROVE DATA COLLECTION

During the course of our review, each agency has made or proposed improvements in the collection of data from the private sector through the use of automation. We generally agree with the actions taken or planned but believe more should be done to improve their effectiveness.

HCFA

HCFA plans to put more effort into increasing machine readable billing. For example, HCFA has recently proposed revision to its intermediary instructions to be effective April 1, 1983 to:

(1) Allow intermediaries and providers to negotiate mutually agreeable procedures for provider electronic billing. If this is not possible, the provider can require the intermediary to accept the standardized tape format.

(2) Freeze standardized tape specifications and format for at least 3 years.

(3) Establish a national goal for expanding machine readable billings and goals for individual intermediaries to help obtain that goal. (HCFA's target projections are for a 10-percent increase in automated submissions in each of the next 2 fiscal years.)

(4) Stress that intermediaries give payment priority to electronically submitted bills.

HCFA is also considering revising its evaluation program to reflect intermediaries' level of automation--specifically to evaluate intermediaries' performance in achieving the automation goals set by the HCFA offices.

In addition, HCFA in May 1982 requested funds of $5 million in fiscal year 1983 and $1 million in fiscal year 1984 to promote automated billings. Intermediaries will use most of the funding to work with providers to increase the use of automated billings. HCFA plans to complement intermediary actions by:

--Publicizing policy and program objectives to providers, provider associations, carriers, intermediaries, and software development companies.

--Conducting an industrywide briefing on the automated billing program requirements and market potential to include software application development companies and hardware vendors as well as carriers and intermediaries.

--Establishing mechanisms for feedback on industry implementation results and issues.

As a result of this effort, HCFA expects to save $1 million in fiscal year 1983, $17.5 million in fiscal year 1984, and $17 million in fiscal year 1985.

We believe HCFA's plans are appropriate and if successful would substantially improve the effectiveness of the automated program. In addition, however, we believe HCFA needs to aggressively enforce intermediary requirements and provide clear guidance on regional office responsibilities.

Census

Census recently identified the highest volume filers of Shipper's Export Declarations. Also, in October 1981, Census expanded the automated reporting program to include freight forwarders and carriers in addition to exporters. Because freight forwarders handle the preparation of the declaration reports for a number of exporters, Census feels that pursuing a number of large forwarders will be more fruitful than recruiting individual exporters. In addition, Census has

added submission by diskette and telecommunications to its acceptable media for automated submissions. We believe these are appropriate actions which will enhance the automated program, but only if Census increases its own commitment to program implementation and marketing.

CFTC

CFTC's recent actions to increase its capabilities to accept automated data submissions and its recognition of the need to more effectively market the program are important steps toward effective use of information technology. CFTC must, however, promote these additional capabilities to increase automated submissions.

FDA

FDA has agreed in principle with our belief that (1) a turnaround document for drug changes and (2) a manufacturer-produced computer printout in lieu of a form for new drugs are logical ways to decrease costs and burdens for both the Government and respondents. FDA officials have agreed to test the latter concept with three manufacturers who have the data in their computers.

CONCLUSIONS

The use of information technology to improve agency operations and reduce paperwork burden has had a low priority Government-wide. Federal programs permitting the use of information technology in the transfer of data have had limited success because Federal managers have not adequately planned their implementation and promotion. Inadequate commitment and marketing strategies by program managers have been major reasons for the tremendous untapped cost savings and burden reduction potentials identified in the four cases. Specifically:

--The success of the Health Care Financing Administration automated bill submissions program has been limited because (1) intermediaries are not held accountable for noncompliance with program requirements and objectives, and (2) the responsibilities of regional staff for program monitoring have not been clearly established.

--The Bureau of the Census has not supported its program for automated submission of Shipper's Export Declaration reports. Census could not identify the target population or their capabilities and did not adequately market program benefits and characteristics.

--The Commodity Futures Trading Commission has not worked with respondents to identify their automated capabilities or their interest in program participation. In addition, CFTC has not publicized its full range of capabilities to receive data submissions.

--The Food and Drug Administration has overlooked reporting alternatives that would use existing technology of FDA and respondents.

We believe that, at least for the agencies reviewed, Federal managers are beginning to recognize the potential benefits of successful information technology programs and the need for increased management commitment to ensure their success. To assist them in their efforts to improve program effectiveness, we are making the following recommendations.

RECOMMENDATIONS

We recommend that the Secretary of HHS, to provide better management and control of the automated Medicare bills program, direct the Administrator of the Health Care Financing Administration to:

--Revise its Medicare regulations to require intermediaries to accept submissions of Medicare claims in an automated form where it is cost effective to the Medicare program.

--Clarify the roles and responsibilities of regional staff to ensure intermediaries' compliance with information technology guidelines and regulations.

--Revise its intermediary performance evaluation criteria to reflect an intermediary's contribution to the increased use of automation in Medicare billing.

The Secretary of HHS should also direct the Commissioner of the Food and Drug Administration to:

--Establish procedures to use a turnaround document to collect drug product listing changes, instead of using forms.

--Revise procedures for collecting data for new drugs to allow submission of a computer printout of the data, instead of a form, for drug manufacturers with this capability.

We recommend that the Secretary of the Department of Commerce direct the Bureau of the Census to:

--Conduct a detailed survey of at least the high volume Shipper's Export Declaration respondents to determine capability and interest in the automated program.

--Prepare promotional literature for managers detailing the program's technology options and the benefits of program participation.

--Aggressively promote the automated program through personalized followup of inquiries made by respondents and by contacting potential candidates identified through the survey.

We recommend that the Chairman of the Commodity Futures Trading Commission

--promote and publicize the automated program and its varied capabilities to receive data in machine readable form, and

--contact industry service bureaus and encourage program participation on behalf of their clients.

CHAPTER 4

THE OFFICE OF MANAGEMENT AND BUDGET SHOULD EMPHASIZE THE BENEFITS AND USES OF INFORMATION TECHNOLOGY

The Paperwork Reduction Act represents a congressional effort to stimulate the use of information technology to reduce Federal information processing costs as well as the costs to the private sector of providing required information. The act requires the Office of Management and Budget to lead the Federal effort in realizing these potentials. Although Federal paperwork burden has been reduced by hundreds of millions of hours, OMB has not fulfilled its leadership role in advocating technology as a means of reducing paperwork and information processing burden. Specifically, OMB has not

--issued policies, procedures, or guidelines on the use of information technology to improve agency operations and reduce the cost of Federal paperwork; or

--used established internal procedures to facilitate and monitor the actions and commitment of Federal managers to information technology.

As a result, the potential which technologies offer has not been fully recognized and agencies have done little to exploit technology opportunities.

OMB SHOULD FORMULATE GOVERNMENT-WIDE POLICY AND GUIDANCE ON THE USE OF INFORMATION TECHNOLOGY

To fully implement the Paperwork Reduction Act, OMB needs to take a more active role in promoting the use of information technology as a means of paperwork reduction. As a first step, OMB should issue Government policy and guidance on the subject. We believe that without such a policy, there is no assurance that the agencies will do any more than they have done in the past to promote the use of information technology as a means of improving the efficiency and effectiveness of their data collection activities.

OMB's paperwork reduction actions in the first 2 years under the act have been to eliminate unnecessary reports, change report frequencies, and reduce the respondent population. All of these efforts are commendable; however, OMB has been inactive in the technology area. (Another GAO review is more fully addressing OMB's compliance with the entire Paperwork Reduction Act.)

The Paperwork Reduction Act clearly sets out OMB's role in furthering the use of information technology in reducing paperwork burden. Specifically, the act states that the OMB Director shall:

> "* * * develop and implement Federal information policies, principles, standards, and guidelines and shall provide direction and oversee the * * * acquisition and use of automatic data processing, telecommunications, and other technology for managing information resources."

OMB has not issued any policies on the use of information technology. During the course of our review, OMB officials stated that each agency has the responsibility to develop and use information technology as it deems necessary. OMB viewed its role as monitoring what the agencies are doing on their own and reacting to each individual situation as necessary. OMB's position was that Government-wide policy should be promulgated only when there is overwhelming evidence that such policy is necessary.

GAO believes that central leadership, in an area such as information technology, is necessary to ensure its proper and consistent use. In addition, the act clearly establishes OMB's responsibility to develop and implement Federal information policies and to guide the acquisition and use of technology for managing information resources. Agency responsibilities under the act center on establishing the framework for effective implementation of information policies set by the Director.

The lack of OMB policies and guidance has affected agency officials' attention and commitment given to information technology. The agencies we visited, for instance, had developed little guidance, regulations, or formal statements on the role and use of information technology as a means of improving the operation and data collection activities of their agencies. In fact, officials at all three agencies stated that the lack of OMB guidance on the use of technology, combined with OMB's emphasis on report elimination and consolidation, were the major reasons for their inattention to technology. In essence, OMB gave each agency a quota of burden hours to reduce, which the agency then divided by department and office. The method of reductions was secondary to meeting the quota. These senior officials agreed that OMB needs to provide some guidance on the role of information technologies as part of data collection activities in order for agencies to address technology potentials consistently.

EXISTING OMB PROCEDURES COULD ENCOURAGE TECHNOLOGY USE AND MONITOR FEDERAL AGENCY PROGRESS

OMB's leadership role in the technology area should also involve efforts to encourage agency commitments to technology use and monitoring their progress. OMB's internal forms clearance and program review procedures could help in this regard but they have not been used for these purposes. We believe that such an approach would raise the agencies' awareness and commitment toward furthering information technology.

The OMB forms clearance process offers a simple, yet comprehensive, system under which OMB can gauge the actions and commitment of Federal managers to the use of information technologies in their data collection activities. In addition, the clearance process could provide OMB a means of reassessing Government-wide policy and guidance on the use of information technology.

Under the act, OMB must approve all new information collection requests involving identical questions or recordkeeping requirements with 10 or more respondents, and re-approve all requirements as their clearance expires (usually after 3 years). Currently, OMB reviews the requirements to ensure that the need for the information is justified; that the number of respondents, frequency of filing, and number of data elements collected are reasonable and practical; and that the information required does not impose an unrealistic burden on the respondent compared to the benefit it will provide the Government. This clearance process, however, does not address whether the agency has considered the benefits and practicality of allowing the use of technology in the transfer of the required data.

By adding a stipulation that agencies discuss the current and potential uses of information technology as part of their requests for clearance for each data collection activity, the agencies would be forced to look at technology as a means of reducing burden and improving agency operations. Because of the expiration dates for approved forms, all data collection activities would be reviewed every 3 years. Such a procedure would provide OMB with the means of (1) monitoring agency use of information technologies, (2) identifying successful applications of technology which could have Government-wide applicability, and (3) formulating and revising Government-wide policy on the use of information technology. Under exigent circumstances, OMB could make exceptions to the requirement for the technology application review by an agency.

Another existing procedure which could improve OMB's technology assessment function is the triennial review of agencies' management information activities as required by the Paperwork Reduction Act. Currently OMB uses these reviews to monitor agency information resource management activities and reports the results to the Congress. OMB could also use these reviews to help identify additional uses for automation.

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OMB officials agreed that the use of information technology can play an important role in reducing the costs and burden for both the Government and respondents, and that the results of our case studies were significant. They also stated that our recommendations are reasonable, feasible, and consistent with OMB's goal to reduce burden.

CONCLUSIONS

Although OMB has accomplished some significant reductions in paperwork burden, little has been done to make the submission and handling of required data more efficient and effective to both the respondent and the Federal Government. The Congress specifically cited the need for increased use of automation in the Paperwork Reduction Act. The potential benefits are great, but OMB and Federal managers are not sufficiently committed to identifying and promoting uses of information technologies in collection of business data from the public. OMB needs to provide Government-wide guidance to agencies to stress the use of automation in reducing respondent burden. Also, through existing internal procedures OMB can require agencies to consider the use of information technology in the collection of data and determine a plan to implement automated data collection.

Change from a manual to an automated system requires managers at all levels (OMB, agency, and respondent) to cooperatively explore the use of information technology, implement automated systems when feasible, monitor the effectiveness of the system, and update the system. As we showed in chapters 2 and 3, there is significant potential in the business community to increase the percentage of submissions in automated media. Proper use of information technology can save millions of dollars and increase efficiency for both the Federal Government and respondents.

RECOMMENDATIONS

We recommend that, to increase automated submissions throughout the Federal Government, the OMB Director:

--Establish written policies encouraging the use of information technologies as a means of reducing burden on the Government and the public and improving the efficiency and effectiveness of agency operations.

--Amend the forms clearance process so that, except under exigent circumstances, agencies must consider whether an increase in automated submission is feasible and cost effective. If so, the agency should submit a plan describing how such an increase would be accomplished.

--Direct the Office of Information and Regulatory Affairs, as part of its continuing oversight responsibilities of Federal information management activities, to periodically review Federal agencies' efforts to implement and reassess programs targeted at increasing automated submission of required data.

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