

## Report to the Congress

# STUDY TO IDENTIFY MEASURES NECESSARY FOR A SUCCESSFUL TRANSITION TO A MORE ELECTRONIC FEDERAL DEPOSITORY LIBRARY PROGRAM

As Required By  
Legislative Branch Appropriations Act, 1996  
Public Law 104-53



U.S. Government Printing Office  
Washington, DC 20401  
June 1996



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# TABLE OF CONTENTS

	Page
Executive Summary .....	i
Definitions .....	v
I. Introduction .....	1
II. Methodology .....	3
III. Principles for Federal Government Information .....	4
IV. Mission and Goals for the Federal Depository Library Program .....	5
V. Policy Issues That Impact Publishing Agencies, GPO, NARA, Depository Libraries, the Public and the Private Sector .....	7
VI. Comparison of the Historical FDLP With the Electronic FDLP as Envisioned in the Strategic Plan .....	11
Goal 1: Ensure equitable, no fee, local public access .....	11
Goal 2: Use new information technologies to improve public access .....	14
Goal 3: Provide information in formats appropriate to users and intended usage .....	17
Goal 4: Enable the public to locate information .....	18
Goal 5: Ensure both timely, current and permanent, future public access .....	19
Goal 6: Facilitate preservation of information through NARA .....	21
Goal 7: Ensure that the program is cost-effective for all parties .....	22
VII. Results and Conclusions .....	26
Attachments	
Attachment A: Legislative Requirements for the Study .....	A-1
Attachment B: Roster of Working Group Members, Advisors and Staff .....	A-7
Attachment C: List of Tasks .....	A-13
Attachment D: Task Force Reports .....	A-17
D-1 Task 1: Technical Analysis by a Federally-Funded Research and Development Center (FFRDC) .....	A-19
D-2 Task 2: Identification of Relevant Laws, Regulations and Policies Regarding Government Information Dissemination .....	A-23
D-3 Task 3: Bibliography of Information Relevant to the Study .....	A-35
D-4 Task 5: Evaluation of Incentives for Publishing Agencies to Migrate from Print Products to Electronic Formats .....	A-47

Attachments, continued

Attachment D: Task Force Reports, continued

D-5	Task 6: Evaluation of Current Laws Governing the Federal Depository Library Program and Recommendation of Legislative Changes .....	A-55
D-6	Task 7: Survey of Federal Agencies to Identify CD-ROM Titles Not Currently Included in the Federal Depository Library Program .....	A-63
D-7	Task 8A: Case Study on Congressional Bills .....	A-69
D-8	Task 8B: Case Study on the Congressional Serial Set .....	A-75
D-9	Task 8C: Case Study on the Department of Energy (DOE) Research Reports .....	A-83
D-10	Task 8D: Case Study on the Office of Technology Assessment (OTA) Reports .....	A-91
D-11	Task 9: Evaluation of Inclusion in Electronic Formats of Materials Not Traditionally Included in the FDLP in Either Paper or Microfiche .....	A-103
D-12	Task 9A: Case Study on Securities and Exchange Commission EDGAR Data .....	A-115
D-13	Task 9B: Case Study on Federal District and Circuit Court Opinions .....	A-121
D-14	Task 10A: Federal Programs Permitting or Requiring the Sale of Information to Recover Costs -- Case Study on STAT-USA Services .....	A-131
D-15	Task 10B: Federal Programs Permitting or Requiring the Sale of Information to Recover Costs -- Case Study on the National Library of Medicine MEDLINE Service .....	A-139
Attachment E:	National Commission on Libraries and Information Science (NCLIS) Principles of Public Information .....	A-147
Attachment F:	Title 44 United States Code Chapter 19--Depository Library Program .....	A-151
Attachment G:	Summary of Results from the 1995 Biennial Survey of Federal Depository Libraries .....	A-159
Attachment H:	Recommended Minimum Specifications for Public Access Workstations in Federal Depository Libraries .....	A-167
Attachment I:	Comments from U.S. Senators .....	A-173
Attachment J:	Minutes from Meeting of Working Group and Advisors on April 18, 1996 .....	A-181
Attachment K:	Comments from the Depository Library Council to the Public Printer .....	A-191
Attachment L:	Comments from the Information Industry Association .....	A-209

Attachments, continued

Attachment M: Comments from the Library Associations .....	A-219
Attachment N: Comments from the National Commission on Libraries and Information Science .....	A-253
Exhibit 1: Federal Depository Library Program: Information Dissemination and Access Strategic Plan, FY 1996 - FY 2001	
Executive Summary .....	E-i
Principles for Federal Government Information .....	E-iii
Mission and Goals for the Federal Depository Library Program .....	E-iv
Basic Assumptions for the Information Dissemination and Access Strategic Plan .....	E-v
Definitions .....	E-vi
I. Background .....	E-1
II. Approach to Electronic Dissemination and Access .....	E-2
III. Depository Library Roles and Service Expectations .....	E-8
IV. Administrative and Support Activities .....	E-11
V. Impact of this Plan on other SOD Programs .....	E-12
List of Appendices .....	E-15
Appendix A: Paper Titles in the FDLP--Core List .....	E-17
Appendix B: FDLP System Requirements for Electronic Access .....	E-19
Appendix C: Transition Chronology .....	E-21
Appendix D: Incorporating Agency Information Products in the FDLP .....	E-25



## Report to the Congress

# STUDY TO IDENTIFY MEASURES NECESSARY FOR A SUCCESSFUL TRANSITION TO A MORE ELECTRONIC FEDERAL DEPOSITORY LIBRARY PROGRAM

### EXECUTIVE SUMMARY

Emerging technologies afford tremendous opportunities for improved and enhanced public access to Government information. These opportunities bring new challenges that require the reevaluation of current information dissemination programs to take advantage of new opportunities and minimize disruption of public access during this period of rapid change. In August, 1995, the U.S. Government Printing Office (GPO), at the direction of Congress, initiated a cooperative study to identify measures necessary for a successful transition to a more electronic Federal Depository Library Program (FDLP). The study was concluded in March 1996, and a draft report was issued in order to provide an extended opportunity for public comment. This is the final report to Congress on the FDLP Study. In order to complete the study and prepare this report, it was necessary to establish definitions to clarify the meaning of several important words and phrases. These definitions are provided on page v of this report.

To implement the study, the Public Printer established a working group consisting of representatives from GPO, appropriate Congressional committees, the Congressional Research Service (CRS), the Office of Management and Budget (OMB), the National Archives and Records Administration (NARA), the Federal Publishers Committee (FPC), the Interagency Council on Printing and Publication Services (ICPPS), the Administrative Office of the U.S. Courts, and the depository library community. He also invited a number of organizations to identify representatives to serve as advisors to the working group. Comments from advisors are provided in Attachments J through N.

A substantial amount of useful information was gathered and numerous issues and alternatives were identified and examined during the course of the study. These are summarized in this report. A number of specific tasks were identified to provide information and alternatives for consideration. The preparation of the task force reports and the review of public comments resulting from their dissemination were the primary fact-finding activities of the study. The task force reports are included in Attachment D; they were the product of a substantial amount of effort on the part of the task leaders and participants.

Separately, a document entitled the *Electronic Federal Depository Library Program: Transition Plan, FY 1996 - FY 1998* was developed by GPO and included with its FY 1997 appropriations request. Public comments in response to this document also provided useful information to the study participants, and led directly to the development of the *Federal Depository Library Program: Information Dissemination and Access Strategic Plan, FY 1996 - FY 2001*, included with this report as Exhibit 1. The Strategic Plan proposes four ways in which GPO can bring electronic information into the FDLP:

- GPO can identify, describe and link the public to the wealth of distributed Government information maintained at Government electronic information services for free public use.
- GPO can establish reimbursable agreements with agencies that provide fee-based Government electronic information services in order to provide free public access to their information through the FDLP.

- GPO can "ride" agency requisitions and pay for depository copies of tangible electronic information products, such as CD-ROM titles, even if they are not produced or procured through GPO.
- GPO can obtain from agencies electronic source files for information the agencies do not wish to disseminate through their own Government electronic information services. These files can be made available through the *GPO Access* services or disseminated to depository libraries in CD-ROM or other tangible format.

Section V, Policy Issues That Impact Publishing Agencies, GPO, NARA, Depository Libraries, the Public and the Private Sector, summarizes the major issues identified in the course of the study process. While many of these issues are not new, this study has examined the issues in the new context of the rapid shift of the FDLP into a more electronic program.

The major conclusions of the study are summarized below:

**Scope of the FDLP:** There is widespread interest in expanding the content of the program to make it more comprehensive, and a great deal of optimism that the rapid expansion of agency electronic publishing offers cost-effective options to do so. Nevertheless, the highest priority remains the retention of information content that historically has been in the program and is rapidly leaving it as agencies move from print to electronic publishing or eliminate Government information products to save costs.

**Notification and Compliance:** The historical program relied heavily on the ability of the FDLP to obtain material as it was printed or procured through GPO. With the increasing emphasis on electronic dissemination and decreasing compliance with statutory requirements for agencies to print through GPO, identifying and obtaining information for the FDLP is becoming increasingly difficult. There must be new means to inform agencies of their responsibilities and to ensure compliance with agency FDLP obligations. There must be effective means for all three branches of Government to notify GPO of their intent to: (1) initiate, (2) substantially modify, or (3) terminate Government information products. This includes Government information products in all formats, including information available from Government electronic information services, such as agency World Wide Web sites.

**Permanent Access to Authentic Information:** The FDLP has the responsibility for providing permanent public access to the official Government information products disseminated through the program.<sup>1</sup> Historically, permanent access has been the role of the regional depository libraries, and this has been a cost-effective means of ensuring that Government information products remained available to the public indefinitely. Permanent access also is an essential element of the electronic depository library program, but it will be more difficult to attain. To ensure permanent public access to official electronic Government information products, all of the institutional program stakeholders (information producing agencies, GPO, depository libraries and NARA) must cooperate to establish authenticity, provide persistent identification and description of Government information products, and establish appropriate arrangements for its continued accessibility. This includes identification and implementation of standard formats for FDLP dissemination<sup>2</sup> and providing for the technological currency of the electronic information products available at GPO for remote access. In the case of tangible information products, permanent access will remain a

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<sup>1</sup>Permanent access is required by 44 U.S.C. §1911: "Depository libraries not served by a regional depository library, or that are regional depository libraries themselves, shall retain Government publications permanently in either printed form or in microfacsimile form, except superseded publications or those issued later in bound form which may be discarded as authorized by the Superintendent of Documents."

<sup>2</sup>Additional conclusions related to the requirement for assessment of standards for creation and dissemination of electronic Government information products are provided on the next page.

responsibility of regional depository libraries, while in the case of remotely accessible information products, it will be the responsibility of GPO, as the administrator of the FDLP, to coordinate a distributed system that provides continuous, permanent public access.

**Locator Services:** Together, the Cataloging and Indexing Program required by 44 U.S.C. §1710 and §1711 and the Locator Services required by 44 U.S.C. §4101 provide the statutory basis for GPO to assist depository libraries and the public to identify and obtain access to the full range of Government information. In a distributed environment, where libraries and users often access Government electronic information services rather than local collections, tools for identifying and locating information will be critical components of an effective program.

**Timetable for Implementation:** The *Transition Plan*, submitted with the GPO FY 1997 appropriations request, projected an ambitious, two and one-half year schedule for conversion to a more electronic FDLP (FY 1996 to FY 1998). Input from publishing agencies and depository libraries indicates a five to seven year transition would be more realistic and cost-effective since it would allow GPO to convert to electronic information at the same pace as publishing agencies can produce it and depository libraries can absorb it. It will be substantially more costly for GPO to convert agency print publications to electronic formats than it will be to work in partnership with the agencies, assisting them in accelerating their own electronic publishing initiatives. Consequently, the Strategic Plan attached to the report as Exhibit 1 proposes a transition period of FY 1996 through FY 2001.

**Assessment of Standards for Creation and Dissemination of Electronic Government Information Products:** For the successful implementation of a more electronic FDLP, the Congress, GPO and the library community must have additional information about future agency publishing plans, as well as an expert evaluation of the cost-effectiveness and usefulness of various electronic formats that may be utilized for depository library dissemination or access. A central implementation issue is the identification and utilization of standards for creation and dissemination of electronic Government information products. These standards would enhance access to and use of Government information by both the Government and the public. The Government produces an enormous quantity and variety of information. The standards best suited for one type of data may be substantially less suited, or even entirely inappropriate, for another. Consequently, there is no single standard in which all Government information products can, or should, be created or disseminated. Nevertheless, it is in the best interests of the Government, and those who use Government information, to achieve a greater degree of standardization than now exists, and to develop recommended standards for each major type of Government information product in order to facilitate the exchange and use of that information.

To accomplish this, it is first necessary to know the range of formats Federal agencies currently use in the creation and dissemination of information and to assess the de facto or actual standards that are in use for each major type of data. It also is necessary to identify areas where there is no standardization, or such limited standardization that the effect is virtually the same. Finally, it would be useful to evaluate standards utilized by private sector and other non-governmental publishers. This information will provide the basis for an assessment, in consultation with the depository library community, of the usefulness and cost-effectiveness of various electronic formats for depository library dissemination or access. It also will be the basis for a dialog with the National Archives and Records Administration (NARA), the National Commission on Libraries and Information Science (NCLIS), the National Institute of Standards and Technology (NIST), and others with an interest in establishing and promulgating Government-wide standards for information creation and dissemination.

GPO is proposing to accomplish this data gathering and evaluation through a joint effort with NCLIS. As an independent Federal agency established to advise the President and the Congress on national policies related to library and information services adequate to meet the needs of the people of the United States, NCLIS is uniquely situated to coordinate this activity. While substantial changes are already underway, this assessment of standards for creation and dissemination of electronic Government

information products should proceed as rapidly as possible in order to assure a successful and cost-effective transition to a more electronic FDLP.

**Cost of Electronic Information Dissemination:** While there are many benefits inherent in the use of electronic information, including more timely and broader public access, there is no conclusive data at this time to support the assertion that it will result in significant savings to the program as a whole in the next few years. Based on comments received, electronic dissemination and access will shift the costs among the program participants. For example, GPO will incur additional, recurring costs to provide permanent public access through its electronic information services, as will other Government agencies that maintain information products through their own services. Costs for migration can be minimized by the adoption and use of open systems standards through the entire life cycle of information products--from the time the original source files are created by the publishing agencies to final preservation by NARA.

Similarly, depository libraries and their users will have to pay to print, or purchase printed copies of, information that is needed in print, but is no longer disseminated in the format through the FDLP. At the same time, depository libraries will have to provide specialized staff training, public access workstations, software and the related services necessary to connect the public to remotely accessible Government electronic information services. GPO will continue to monitor the technological capabilities of the depository libraries to provide cost-effective public access to electronic Government information products, particularly as it relates to the standards utilized by agencies in the creation and dissemination of electronic Government information products. GPO also will begin to monitor the costs to users for printing, downloading and similar services using depository library equipment.

GPO and other study participants have noted that there is a need for more in-depth and concrete data on the life cycle costs to the Government for creating, disseminating and providing permanent access to its information products, to depository libraries for providing public access to them, and to the public for using them. However, the transition to electronic dissemination of Government information is still in its early stages, so it is doubtful that reliable and conclusive data on life cycle costs could be gathered in this rapidly evolving period. Nevertheless, the assessment of standards proposed in this report is an essential first step toward the ultimate goal of collecting and analyzing information life cycle costs. It will provide a basis for further consultation with the library community and for discussions with publishing agencies concerning the appropriate standards for cost-effective dissemination of Government information products in formats appropriate to the needs of users and the intended usage. The assessment also will provide valuable information to Congress for the future development of appropriate and cost-effective Government information policies and programs.

**Legislative Changes:** Substantial changes in the FDLP already are underway within the context of the existing statute. Nevertheless, certain key legislative changes could be made in order to assure a successful and cost-effective transition to a more electronic FDLP. These changes are discussed in the report on Task 6 (Attachment D-5) and many of them are reflected in the preceding conclusions.

## DEFINITIONS

The following definitions are provided to clarify the meaning of several important words and phrases *as used in this report*. Unless otherwise noted, in this report "**Government**" always refers to the Government of the United States.

"**Agency**" means any Federal Government department, including any military department, independent regulatory agency, Government corporation, Government controlled corporation, or other establishment in the executive, legislative, or judicial branch.

"**Depository library**" means a library, designated under the provisions of 44 U.S.C. Chapter 19, which maintains tangible Government information products for use by the general public, offers professional assistance in locating and using Government information, and provides local capability for the general public to access Government electronic information services.

The "**Federal Depository Library Program**" is a nationwide geographically-dispersed system, established under the provisions of 44 U.S.C. Chapter 19 and administered by the Superintendent of Documents, consisting of libraries acting in partnership with the United States Government for the purpose of enabling the general public to have local access to Federal Government information at no cost.

"**Government electronic information service**" means the system or method by which an agency or its authorized agent provides public access to Government information products via a telecommunications network.

"**Government information**" means Government publications, or other Government information products, regardless of form or format, created or compiled by employees of a Government agency, or at Government expense, or as required by law.<sup>1</sup>

"**Government information product**" means a discrete set of Government information, either conveyed in a tangible physical format including electronic media, or made publicly accessible via a Government electronic information service.

"**Migration**" means both: (1) the periodic refreshing or transfer of Government information products from one medium to another in order to minimize loss of information due to physical deterioration of storage media and (2) the reformatting of information to avoid technological obsolescence due to software or platform dependence.

"**Permanent access**" means that Government information products within the scope of the FDLP remain available for continuous, no fee public access through the program.<sup>2</sup> For emphasis, the phrase "**permanent public access**" is sometimes used with the same definition.

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<sup>1</sup>"Government information" has a significantly broader meaning in the context of Federal records.

<sup>2</sup>Permanent access is required by 44 U.S.C. §1911: "Depository libraries not served by a regional depository library, or that are regional depository libraries themselves, shall retain Government publications permanently in either printed form or in microfacsimile form, except superseded publications or those issued later in bound form..." In the case of tangible information products, permanent access remains a responsibility of regional depository libraries, while in the case of remotely accessible Government information products, it is a responsibility of GPO to coordinate a distributed system that provides continuous, permanent public access.

**"Preservation"** means that official records of the Federal Government, including Government information products made available through the FDLP, which have been determined to have sufficient historical or other value to warrant being held and maintained in trust for future generations of Americans, are retained by the National Archives and Records Administration (NARA).

# Report to the Congress

## STUDY TO IDENTIFY MEASURES NECESSARY FOR A SUCCESSFUL TRANSITION TO A MORE ELECTRONIC FEDERAL DEPOSITORY LIBRARY PROGRAM

### I. INTRODUCTION

Emerging technologies afford tremendous opportunities for improved and enhanced public access to Government information. These opportunities bring new challenges that require the reevaluation of current information dissemination programs to take advantage of new opportunities and minimize disruption of public access during this period of rapid change.

The advent of electronic dissemination has brought with it a host of new problems and concerns unheard of, or less prevalent, in the paper-based model of Government information dissemination. In many cases, technology has outpaced efforts of the Government to accommodate and adjust to its development. Several legislative and administrative initiatives over the last decade, including the Paperwork Reduction Act of 1995, the Government Printing Office Electronic Information Access Enhancement Act of 1993, and the 1994 revision of OMB Circular A-130, have attempted to address and/or advance the shift in Government dissemination methods from paper to electronic.

The U.S. Government Printing Office (GPO), at the direction of Congress, initiated a cooperative study to identify measures necessary for a successful transition to a more electronic Federal Depository Library Program (FDLP). The study began in August 1995 and involved representatives from the legislative, executive, and judicial branches of the Government, as well as the depository library community, the national library associations, the information industry, and other appropriate Government and public entities.

In the Senate Report 104-114 to accompany H.R. 1854, the Legislative Branch Appropriations Act of 1996, the Committee stated that:

Public access to Government information is a basic right of every American citizen. The Committee recognizes the critically important service that the Government Printing Office and participating libraries in the Federal Depository Library Program provide to citizens throughout the country in furnishing timely, equitable access to Government information.

While acknowledging that recent advances in technology provide new opportunities for public access to Government information, the report stated that without careful analysis, planning, and a strongly coordinated effort, improvements to the FDLP would be delayed, costly, and might compromise the public's right to Government information. Since the increasing utilization of electronic technologies in support of dissemination programs by all three branches of Government necessitates analysis, planning and a probable restructuring of the FDLP, the Committee directed the Public Printer to initiate a study that:

- Examines the functions and services of the Federal Depository Library Program;
- Surveys current technological capabilities of the participating libraries in the Federal Depository Library Program;
- Surveys current and future information dissemination plans of executive branch agencies;

- Examines and suggests improvements for agency compliance of relevant laws, regulations, and policies regarding Government information dissemination;
- Identifies measures necessary to ensure a successful transition to a more electronically based program;
- Identifies the possible expansion of the array of Federal information products and services made available to participating libraries; and,
- Ensures the most cost effective program to the taxpayer.

The Senate report also directed that the study include a strategic plan that could assist the Congress in redefining a new and strengthened Federal information dissemination policy and program. That plan is attached as Exhibit 1. The final Study Report was to be made available to Congress by March 1996.

House Report 104-212 to accompany H.R. 1854 concurred with the Senate recommendation, and Public Law 104-53 (109 Stat. 533), the Legislative Branch Appropriations Act, 1996, included the following provision:

Sec. 210. The fiscal year 1997 budget submission of the Public Printer to the Congress for the Government Printing Office shall include appropriations requests and recommendations to the Congress that-

- (1) are consistent with the strategic plan included in the technological study performed by the Public Printer pursuant to Senate Report 104-114;
- (2) assure substantial progress toward maximum use of electronic information dissemination technologies by all departments, agencies, and other entities of the Government with respect to the Federal Depository Library Program and information dissemination generally; and
- (3) are formulated so as to require that any department, agency, or other entity of the Government that does not make such progress shall bear from its own resources the cost of its information dissemination by other than electronic means.

Appropriate sections from the House and Senate reports and from Public Law 104-53 are included in this report as Attachment A.

The provision from Section 210 of Public Law 104-53 resulted in the development and submission of the *Electronic Federal Depository Library Program: Transition Plan, FY 1996 - FY 1998* (Transition Plan) with the GPO FY 1997 appropriations request. Public comments in response to the Transition Plan led directly to the development of the *Federal Depository Library Program: Information Dissemination and Access Strategic Plan, FY 1996 - FY 2001* (Strategic Plan), included with this report as Exhibit 1.

The FDLP Study was concluded in March 1996, and a draft report was issued in order to provide an extended opportunity for public comment. This document is the final report to Congress on the FDLP Study. In order to complete the study and prepare this report, it was necessary to establish definitions to clarify the meaning of several important words and phrases. These definitions are provided on page v of this report.

## **II. METHODOLOGY**

To implement the study, the Public Printer established a working group consisting of representatives from GPO, appropriate Congressional committees, the Congressional Research Service (CRS), the Office of Management and Budget (OMB), the National Archives and Records Administration (NARA), the Federal Publishers Committee (FPC), the Interagency Council on Printing and Publication Services (ICPPS), the Administrative Office of the U.S. Courts, and the depository library community. He also invited a number of organizations to identify representatives to serve as advisors to the working group. A complete roster of working group members, advisors and GPO support staff is provided as Attachment B.

Following the initial meeting of the working group, a number of tasks were identified to provide information and alternatives for consideration. These tasks included:

- A technical analysis by a Federally-funded research and development center (FFRDC) to determine the most cost-effective way to provide electronic access through the FDLP;
- Identification of relevant laws, regulations, and policies regarding Government information dissemination, and evaluation of agency compliance in so far as they affect the FDLP;
- Identification, acquisition, and evaluation of available information relevant to the study;
- Identification of current and ongoing electronic information dissemination activities for the FDLP;
- Evaluation of incentives for publishing agencies to migrate from print products to electronic format;
- Evaluation of current laws governing the FDLP and recommendation of any legislative changes necessary for a successful transition to a more electronic program;
- A survey of Federal agencies to identify CD-ROM titles not currently included in the FDLP and reasons for both participation and non-participation in the program;
- Case studies of specific Federal electronic dissemination initiatives with respect to their costs, and impact on public access to information through the FDLP in comparison with present methods of dissemination;
- Evaluation of issues pertaining to inclusion in electronic formats of materials traditionally not included in the FDLP in either paper or microfiche; and
- A review of Federal programs permitting or requiring the sale of information to recover costs, and the effects on efforts to assure free public access through the FDLP.

The complete task list which identifies task leaders and specific case studies is included as Attachment C. Task force reports, including reports for each case study, were distributed to study participants and posted electronically to major Government document listservs for public comment. Task leaders reviewed the comments received and, when appropriate, incorporated these remarks into the final reports. The final task force reports are included as Attachments D-1 to D-15.

At Congressional direction, the FFRDC technical analysis was deferred until the information gathering from the other study tasks could be completed. The letter from the Joint Committee on Printing denying the initial GPO request for the FFRDC analysis is included as Attachment D-1. Task 2, which involved identification of laws, regulations, and policies regarding Government information dissemination, resulted in the compilation of more than 400 pages of statutory text. Rather than include the complete text

of this report, the index for this compilation is included as Attachment D-2. Task 4, which identified current GPO electronic initiatives, was accomplished through a series of demonstrations and presentations given to working and advisory group members; therefore, no report for this task is included in the attachments.

### **III. PRINCIPLES FOR FEDERAL GOVERNMENT INFORMATION**

The FDLP Study brought together representatives from a variety of organizations who share an interest in the continued dissemination of, and access to, Federal Government information through the Federal Depository Library Program. Despite differing viewpoints, agendas and responsibilities, study participants did reach consensus on several basic principles for Federal Government information. Over the years, these principles have been expressed by a wide variety of organizations many times and in many different ways. Last year, the National Commission on Libraries and Information Science (NCLIS) republished its principles for comment in the June 9, 1995 issue of the *Federal Register*. The NCLIS principles are included as Attachment E. The principles below, which are derived from the NCLIS principles, served as the underlying foundation for all study group discussion and activities.

#### **Principle 1: The Public Has the Right of Access to Government Information**

A cornerstone of every democratic society is the public's right of access to Government information. Open and uninhibited access to Government information ensures that the public has the opportunity to monitor and participate in the full range of Government activities. As Thomas Jefferson said in 1816, "If we are to guard against ignorance and remain free, it is the responsibility of every American to be informed." Access to Government information, except where restricted by law, is a basic right of every American citizen. It should not be format dependent, nor should it be compromised by the imposition of excessive fees, time delays or copyright-like restrictions imposed by the Government in a manner that hinders timely access, use or redissemination.

#### **Principle 2: The Government Has an Obligation to Disseminate and Provide Broad Public Access to Its Information**

The Government should not only allow public participation in the democratic process by providing access to its information, but should encourage public participation and use of Government information through proactive dissemination efforts that ensure timely and equitable public access. This principle was the basis for the establishment of the Federal Depository Library Program more than a century ago. It also is supported by hundreds of other Government statutes which prohibit the copyright of Federal information, mandate affirmative public dissemination of such information and assign dissemination functions to a variety of Federal agencies and Government-wide clearinghouses. This responsibility entails providing public access to Government information in such a way that even those citizens without special equipment or training can find, access, and use it. This principle covers access to both Government information products and the underlying data from which they are created.

**Principle 3: The Government Has an Obligation to Guarantee the Authenticity and Integrity of Its Information**

Government information is used in many ways, some of which affect the continued health and livelihood of the American public. Any corruption of Government information poses a serious and real threat to the common good. Therefore the Government has an obligation to protect its citizens by guaranteeing to the maximum extent possible the authenticity and integrity of its information. Due to the ease in which it currently is possible to manipulate electronic source files, the obligation to provide long range assurances of authenticity will become increasingly important as more Government information moves to electronic formats.

**Principle 4: The Government Has an Obligation to Preserve Its Information**

Government information is part of our national heritage. It documents the fundamental rights of American citizens, the actions of Federal officials in all three branches of our Government, and the characteristics of our national experience. Therefore, it is a Government obligation to guarantee the preservation of Government information for future generations of Americans. This principle applies to Government information that has been determined to have sufficient historical value or that provides significant evidence of the organizations, functions, policies, decisions, procedures, operations or activities of the Government. Despite changing times and technologies, public access to these types of Government information in a meaningful format must be maintained in perpetuity to ensure the continued accountability of the Government to its present and future citizens.

**Principle 5: Government Information Created or Compiled by Government Employees or at Government Expense Should Remain in the Public Domain**

Except where exempted by law, Government information created or compiled at Government expense or by Government employees as part of their official duties, regardless of the format in which it is published, is in the public domain. The Government is precluded by 17 U.S.C. Chapter 1 from holding copyright protection for its published and/or unpublished works. This prohibition on copyright should not be undermined by the Government's imposition of copyright-like restrictions on the use or reuse of Government information, such as the imposition of royalties, establishment of exclusive distribution arrangements, or denying timely access to underlying data.

#### **IV. MISSION AND GOALS FOR THE FEDERAL DEPOSITORY LIBRARY PROGRAM**

**MISSION:** The mission of the Federal Depository Library Program is to provide equitable, efficient, timely and dependable no-fee public access to Federal Government information within the scope of the program.<sup>1</sup>

The Government's transition to electronic dissemination requires improving the way the Federal Depository Library Program operates, redefining terms taken for granted in the print-on-paper publishing environment, finding ways to use new technologies both to sustain and increase the amount of information

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<sup>1</sup>For purposes of this report, Government information is defined as Government publications, or other Government information products, regardless of form or format, created or compiled by Government employees, or at Government expense, or as required by law. The scope of the FDLP is Government information products, except those determined by their issuing agency to be required for official use only or for strictly administrative or operational purposes which have no public interest or educational value and information classified for reasons of national security. A more complete list of definitions begins on page v at the front of this report.

in the FDLP, and exploring new methods for the delivery of information in timely, useful formats. However, the underlying mission of the program remains unchanged -- to provide equitable, efficient, timely and dependable no-fee public access to Federal Government information products that fall within the scope of the program. Fulfilling this mission in the rapidly-changing world of electronic information requires the renewed and expanded cooperation of Federal publishers, the Government Printing Office, depository libraries, the National Archives and Records Administration and other organizations both public and private that are committed to the dissemination of, and public access to, Government information.

The goals for an electronic FDLP reaffirm the traditional objectives of the program with a new emphasis that reflects the increasing amount of Government information in electronic formats.

**GOAL 1:** Ensure that the public has equitable, no-fee, local public access to Government information products through a centrally managed, statutorily authorized network of geographically-dispersed depository libraries.

This includes ensuring that depository libraries provide public access workstations and the related services necessary to connect the public to remotely accessible Government electronic information services and sufficient to assure equitable access to that information.

**GOAL 2:** Use new information technologies to improve public access to Government information and expand the array of Government information products and Government electronic information services made available through the FDLP.

This includes: (1) ensuring that Government information products traditionally included in the FDLP in print or microform remain available through the FDLP when converted to electronic format by publishing agencies; (2) converting appropriate Government information products to an electronic format when a suitable electronic format is not available from the publishing agency and conversion is a cost-effective means to disseminate the information to depository libraries; and (3) acquiring, or obtaining access for depository libraries to, electronic Government information products which have not been included in the FDLP in print or microform, but which can now be cost-effectively included through remotely accessible Government electronic information services.

**GOAL 3:** Provide Government information products in formats appropriate to the needs of users and the intended usage.

This includes establishing a reasonable number of standard formats for electronic information disseminated through the FDLP which depository libraries will be responsible for supporting.

**GOAL 4:** Enable the public to locate Government information regardless of format.

This includes: (1) participation in, and utilization of, the Government Information Locator Service (GILS) and (2) development of other locator services tailored specifically to the needs of the FDLP.

**GOAL 5:** Ensure both timely, current public access and permanent, future public access to Government information products at or through depository libraries, without copyright-like restrictions on the use or reuse of that information.

This includes assuring to the maximum extent possible that all Government information products within the scope of the FDLP, regardless of market value, are available for no fee public access through the FDLP. Although it is recognized that private sector publishers and other secondary disseminators of Government information will continue to provide high value, high interest information products, the purpose of the FDLP is to acquire and maintain access to the full range of Government information products within the scope of the program, without copyright-like restrictions on the use or reuse of that information.

**GOAL 6:** Facilitate preservation of Government information through the National Archives and Records Administration.

This includes the continued transfer to NARA of information disseminated to depository libraries by GPO, as well as the initiation of transfer to NARA of electronic information held by GPO for depository library access.

**GOAL 7:** Ensure that the program is cost-effective for all parties involved, including Government publishing agencies, GPO, depository libraries, and the public.

This includes a commitment to minimize costs to depository libraries as a result of changes in the FDLP in order to encourage continued participation in the program and thereby assure broad public access to Government information.

## **V. POLICY ISSUES THAT IMPACT PUBLISHING AGENCIES, GPO, NARA, DEPOSITORY LIBRARIES, THE PUBLIC, AND THE PRIVATE SECTOR**

The issues summarized below were identified during the course of the study. Many of them are explained in greater detail, with examples and alternative solutions, in the individual task force reports included as Attachments D-1 to D-15.

### **ISSUE 1: Redefinition of Terms; Authenticity of Information.**

The electronic publishing environment necessitates new definitions of terms such as "Government publication" to include "Government information product" and "Government electronic information service", as well as new means to identify and assure the authenticity of electronic Government information.

A. The scope of Government information products included in the FDLP, and the criteria for excluding information products from the FDLP, should be reaffirmed through revision of 44 U.S.C. §1901 and §1902. These sections should explicitly include all formats of Government information, including electronic information products. Since NARA accepts dissemination through the FDLP as one criteria for identifying information for preservation, this also will serve to define a body of electronic Government information products that should be transferred to NARA by GPO<sup>2</sup> or the publishing agencies for preservation, notwithstanding its continued availability through the FDLP.

B. Means should be found to assure the authenticity of Government information products in the FDLP, both for the current users and usage and for permanent public access and preservation. This may include the utilization of "signatures" on electronic Government information products (files) and the

establishment of a unique and permanent name or identification number for each file that is constant throughout its life cycle. Authentication efforts should assure the accuracy of the information content without imposing barriers to use or reuse.

### **ISSUE 2: Changing Roles for FDLP Participants.**

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<sup>2</sup>Currently GPO transfers to NARA only that information over which it has physical custody, i.e. information disseminated to depository libraries by GPO and information maintained at GPO for remote access. GPO can and will work with Federal publishing agencies to assure the transfer to NARA of other information that is within the scope of the FDLP, but never directly in the custody of GPO.

The focus of the FDLP is changing, with GPO providing more electronic access and less physical distribution, and depository libraries providing connections to remotely accessible Government electronic information services, rather than building collections in their own facilities.

A. The role of GPO, as the agency responsible for administration of the FDLP, will include the establishment of official arrangements for depository library access to information available directly from Federal agencies or other organizations, with the appropriate provisions for permanent access to and through the FDLP. This will assure that GPO, and the depository libraries, can rely on access through these distributed sources, rather than collecting the information for a single, central computer system operated by GPO or requiring libraries to maintain extensive local collections of electronic Government information products.

B. The role of depository libraries will include requirements to serve as local providers of public access workstations and the related services necessary to connect the public to remotely accessible Government electronic information services. This redefinition will result in different types of resource and training requirements that the libraries will have to meet in order to assure equitable access to Government information.

C. Means should be found to assure that publishing agencies in all three branches of the Federal Government provide notification to GPO, as the administrator of the FDLP, before they initiate, substantially modify, or terminate Government information products. This would include notification of removal, or change of location, of information products on a Government electronic information service when availability through that service is the means by which the agency fulfills its FDLP responsibilities. The Paperwork Reduction Act establishes a notification requirement for publishing agencies in the executive branch, but it does not explicitly identify GPO as one of the entities that must be notified. There is no comparable statutory requirement for notification of affected parties for legislative and judicial branch publishers. It is insufficient to establish the obligation; there must be means to assure compliance if the FDLP and other affected parties are to rely on this notification.

### **ISSUE 3: Permanent Access and Preservation.**

The requirements for permanent access to and preservation of electronic Government information products necessitate a reevaluation of the life cycle of that information. The best time to assure preservation of official electronic Government information is at the time it is prepared, when the originator can certify its authenticity.

For purposes of this report, "permanent access" means that Government information products within the scope of the FDLP remain available for continuous, no fee public access through the program,<sup>3</sup> and "preservation" means that official records of the Federal Government, which have been determined to have sufficient historical or other value to warrant being held and maintained in trust for future generations of Americans, are retained by the National Archives and Records Administration (NARA).

A. NARA and GPO should establish an official relationship to assure that electronic Government information products disseminated to depository libraries by GPO, or held by GPO for depository library access, are transferred to NARA for preservation in formats acceptable to NARA.<sup>4</sup>

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<sup>3</sup>In the case of tangible information products, permanent access remains a responsibility of regional depository libraries, while in the case of remotely accessible information products, it is a responsibility of GPO to coordinate a distributed system that provides continuous, permanent public access through the FDLP.

<sup>4</sup>The historical and future roles of GPO in the transfer of Government information products to NARA for preservation are addressed in the discussion of Goal 6 on page 21.

Ideally, this should be done in a manner that meets the publishing agencies' requirements for deposit with NARA, so that duplicative preparation and transfer of such information is eliminated. Currently GPO transfers to NARA only that information over which it has physical custody, i.e. information disseminated to depository libraries by GPO and information maintained at GPO for remote access.

B. The requirement for permanent access at or through depository libraries necessitates: (1) the creation of information in formats that resist technological obsolescence due to software or platform dependence; and/or (2) the migration of the information to new media or new formats. In this context, migration means both: (1) the periodic refreshing or transfer of Government information products from one medium to another in order to minimize loss of information due to physical deterioration of storage media and (2) the reformatting of information to avoid technological obsolescence due to software or platform dependence.

C. As the volume of electronic Government information products increases, it is essential to collect more in-depth and concrete data on the life cycle costs to the Government for creating, disseminating and preserving them, to depository libraries for providing public access to them, and to the public for using them.

#### **ISSUE 4: Standards.**

The requirements for timely access to current Government information products within the scope of the FDLP, and for permanent access to and preservation of these products, necessitate the identification and implementation of Government-wide standards for the creation and dissemination of electronic Government information products.<sup>5</sup> Where adequate standards do not already exist, standards must be developed by and for the agencies that create and disseminate the products.

A. Broad utilization of Standard Generalized Markup Language (SGML) in the preparation of Government information products will facilitate the exchange, dissemination and preservation of that information; however, it will take many years for this to be broadly accepted throughout the Government.

B. GPO needs to establish a range of preferred file formats, including SGML, for use in the FDLP and should recommend (but not require) that Federal publishing agencies use one of those formats when submitting electronic Government information products to GPO for FDLP dissemination. Whenever possible, open systems and formats compliant with Federal Information Processing Standards (FIPS) and other national or international standards should be used to assure that the format of the information is not a barrier to FDLP or public use. Such standardization is essential to assure that depository libraries have the hardware, software and training necessary to assist the public in the utilization of information made available through the FDLP.

C. When agencies cannot, or do not, use one of the preferred formats, GPO will need to convert agency supplied electronic Government information to one of the preferred formats if that is necessary to assure that the information product is appropriate to the needs of users and the intended usage. The formats utilized for FDLP dissemination must be appropriate for the program's intended audience, representing a broad cross-section of the general public. If the format utilized by the publishing agency is not suitable for public access through the FDLP, GPO should convert, reformat or scan the information product for distribution through the FDLP. For example, depository libraries cannot have available the software for every word processor or desktop publisher used by a Government agency to create documents, so GPO might accept documents from agencies in a wide variety of formats and convert them into one or more standard formats for depository library access or distribution. This will not restrict

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<sup>5</sup>The proposal for an Assessment of Standards for Creation and Dissemination of Electronic Government Information is described on page 28 in the Results and Conclusions.

creation or dissemination by Federal agencies in the formats which they feel best serve their needs and those of their primary constituencies, but rather will supplement agency dissemination efforts by assuring availability to a wider range of users through the FDLP.

D. Whenever possible, the standard formats utilized by the FDLP should be platform independent and either non-proprietary or open in order to assure the widest possible use of the information and to avoid copyright-like restrictions resulting from software licensing. For example, the Government is distributing a significant amount of information using CD-ROM. Most CD-ROM titles include retrieval and display software, and often this software requires formatting the information in specific ways that can only be accessed through that software. This imposes copyright-like restrictions on those who want access to the underlying data and can preclude future use due to dependency on specific computer operating systems or other technology that may become obsolete.

E. Where paper and microfiche are formats that do not face technological obsolescence, many electronic information formats are software or platform dependent, necessitating the periodic review and, when necessary, migration of that information to newer media and or alternative file formats. Creation in, and certification of, information in standard formats that are not technologically dependent is the best way to assure that Government information products remain permanently accessible through the FDLP and are preserved by NARA.

F. The use of standards in the preparation and dissemination of Government information products also will facilitate incorporation in value-added information products from the private sector and assure a diversity of both public and private sources for Government information.

#### **ISSUE 5: Locator Services.**

With the proliferation of remotely accessible Government electronic information services, and the necessity to link or direct depository libraries to those services, rather than duplicating them, the provision of comprehensive finding aids and indexing (locator) services is essential. This includes full participation in and utilization of the Government Information Locator Service (GILS), as well as development of other locator services tailored specifically to the needs of the FDLP.

#### **ISSUE 6: Inclusion of Fee-Based Services in the FDLP.**

The principles for Government information, and many of the laws and policies implementing them, recognize the need for assuring broad access to the public. The statute authorizing the FDLP specifically requires no-fee public access; however, this requirement is often in conflict with statutes establishing sales programs and fee-based Government electronic information services. Purchase of access to fee-based Government information services for the FDLP is one means to reduce this conflict. This would require the establishment of a basis for determining appropriate fees for depository access and the restrictions, if any, that such services should be able to place on access to the services. Another alternative would be for Congress to require publishing agencies operating under fee-based requirements to provide this information to the FDLP without charge. In either case, such access should not restrict the use and reuse of information provided to the public through the FDLP.

#### **ISSUE 7: Avoidance of Copyright-Like Restrictions.**

Government information must be available without copyright-like restrictions to assure broad public access and a diversity of dissemination sources. When publishing agencies impose, or permit others to impose, copyright-like restrictions on information created or compiled by Government employees or at Government expense, the effect is to restrict public access to that information. This violates the intent, if not the specific provisions, of the laws and policies precluding copyright on Federal information, including the Paperwork Reduction Act and OMB Circular A-130. Nevertheless, budget constraints, requirements for

operating cost-recovery information services, and other factors are encouraging agencies to treat Government information as a commodity whose economic value can only be preserved by the imposition of such restrictions. Excessive fees, exclusive arrangements, royalty fees, and restrictions on the use or reuse of Government information are examples of copyright-like restrictions that must be avoided. The utilization of proprietary data formats also may impose copyright-like restrictions by requiring users to obtain software licenses in order to access or reproduce the information.

**ISSUE 8: Incentives for Agency Compliance with FDLP Requirements.**

GPO should inform publishing agencies of their obligations to the FDLP. The Office of Management and Budget and the Congress should assist GPO in making sure that agencies understand the requirements for participation in the FDLP and comply with them. GPO should have the ability to offer incentives for participation and to assure publishing agency compliance with statutory obligations to the FDLP.

**VI. COMPARISON OF THE HISTORICAL FDLP WITH THE ELECTRONIC FDLP AS ENVISIONED IN THE STRATEGIC PLAN**

The Federal Depository Library Program has been in existence for more than 150 years. The program has stood the test of time, providing equitable, efficient, timely and dependable no-fee public access to Federal Government information products in print and microform, and more recently in electronic formats. It has proven to be a well-designed and well-balanced program, with clearly defined roles and responsibilities for Federal agencies, GPO and the depository libraries. However, the advent of electronic dissemination has introduced a host of new problems and concerns unheard of, or less prevalent, in the print-based model of Government information dissemination. This study is part of the process for informing the Congress about the issues and alternatives that should be considered for a successful transition to a more electronic FDLP.

As part of the study, a Strategic Plan was prepared to describe the anticipated evolution of the program through FY 2001. This plan is attached as Exhibit 1. This section of the report provides a comparison of the historical FDLP with the electronic FDLP as it is envisioned in the Strategic Plan. The comparison is made in the context of how the program has met and will meet the goals presented in Section IV of this report.

**Goal 1:** Ensure that the public has equitable, no-fee, local public access to Government information products through a centrally managed, statutorily authorized network of geographically-dispersed depository libraries.

## Historical Model

For more than a century, the Federal Depository Library Program has served the Government and its citizens by providing a national network of libraries through which Government information is made available to the people of the United States, without geographic, economic or administrative barriers. The scope of the program as defined in 44 U.S.C. §1902 includes all "publications except those determined by their issuing components to be required for official use only or for strictly administrative or operational purposes which have no public interest or educational value and publications classified for reasons of national security."<sup>6</sup>

There are currently 1,382 depository libraries located throughout the country, one in almost every Congressional district, as well as in the U.S. territories and possessions. Designation of a depository library is made by a Senator or Member of Congress or by law. Regardless of whether a citizen lives in a poor district in the inner city, a wealthy suburb, or a rural area, Government information products are accessible to each citizen at a depository library in the local area. Depository libraries are required by 44 U.S.C. §1911 to make the publications distributed to them through the FDLP "available for the free use of the general public."

GPO delivers Government publications to depository libraries primarily in print and microfiche. However, an increasing number of Government information products are being distributed in both physical and electronic format, such as CD-ROM, and through Government electronic information services, such as *GPO Access*. Although the amount and type of information obtained through the FDLP and the type of facilities vary by depository, traditionally the only equipment depository libraries needed to provide equitable public access to non-print Government information products was a microfiche reader or reader/printer. This equipment is relatively inexpensive and simple to operate, and microfiche does not require special training or expertise to use. In recent years, as CD-ROM discs have become a popular medium for the dissemination of Government information, many depository libraries have acquired computer workstations with CD-ROM drives, and some have even offered remote access to CD-ROM discs through their library networks. Currently 1,140 (83.1%) depository libraries have CD-ROM drives available for use with their Government information collections.<sup>7</sup> A workstation equipped with a CD-ROM drive and a printer is more expensive than a microfiche reader/printer and requires additional training and expertise, particularly given the wide variety of software and data formats used by Federal agencies in their CD-ROM publishing.

Although the amounts and types of equipment vary by library, the formats currently used for dissemination do not preclude depository libraries from selecting the Government information products they feel are needed to best serve their communities. Under the traditional FDLP model, the only major resource limitations on depository selection of Government information products are available shelf space (or microfiche cabinets) and support staff.<sup>8</sup>

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<sup>6</sup>There is an additional exclusion in 44 U.S.C. §1903, based not on the content of Government information products, but on their source of funding, for "so-called cooperative publications which must necessarily be sold in order to be self-sustaining."

<sup>7</sup>This information is based on data from the 1995 Biennial Survey of Depository Libraries, with all but 10 libraries responses received. A summary of the survey results is available as Attachment G.

<sup>8</sup>Selection of information products available through Government electronic information services is discussed in more detail under Goal 2 on page 14.

## Strategic Plan

Congress has already authorized GPO to disseminate electronic information to depository libraries through the *GPO Access* legislation (44 U.S.C. §4101). Ensuring equitable public access in an electronic dissemination environment will require two changes to the FDLP. The first involves reaffirmation that the scope of the program includes a comprehensive range of publishing formats. The current scope of the program refers to distribution of Government "publications." The term "publications" implies information published in a static, physical medium. However, electronic information can be dynamic and changeable, and often does not lend itself to physical dissemination. Therefore, the Strategic Plan proposes elimination of the term "publications" where it is used in 44 U.S.C. §1901 and §1902 to define the scope of the program and substitution of the more generic term "information products." This term encompasses both traditional products in physical formats and new electronic information available through Government electronic information services.<sup>9</sup>

The second significant change will take place in the depository libraries themselves. With the amount and type of electronic information in the program growing rapidly, it will be incumbent upon depository libraries to expand their capabilities at a local level for public access to remotely accessible Government electronic information services. Despite the increasing amount of Government information available for free public use on the Internet, studies have shown that a significant majority of Americans still lack the necessary equipment, skills, or Internet connections to access remote Government electronic information services. A recent Nielsen survey found that only 17 percent of the public has access to the Internet, whether at home, in the classroom, at the office or through a friend's computer.<sup>10</sup> In addition, the complexity of the distributed information environment has created new problems for the public, eroding the ability of even experienced users to locate the information they need. Depository libraries located in most Congressional districts can meet the needs of this large segment of the American public which has not yet acquired the equipment or expertise necessary to locate and access Government information directly from their home, classroom, or office.

The Strategic Plan recognizes that in order to provide equitable public access to Government information in an electronic environment, depository libraries will have to accelerate their plans to obtain public access computer workstations, and satisfy the demand for local printing and downloading. According to the 1995 Biennial Survey, only 32 percent of responding depositories currently provide the kind of robust workstation configuration necessary to provide equitable public access to Government information through the Internet.<sup>11</sup>

The Strategic Plan recognizes that in a more electronic FDLP, all depository libraries will have to provide at least one public access workstation with a graphical user interface, CD-ROM capabilities, Internet connections and the ability to access, download, and print extensive products. In addition to hardware and software, depositories will need to provide assistance to patrons in the use of electronic Government information products which employ a variety of search engines, user interfaces, and software packages. These requirements are defined in the Recommended Minimum Specifications for Public Access Workstations in Federal Depository Libraries, which are scheduled to become requirements effective October 1, 1996, and are provided as Attachment H. Acquiring this technical expertise and providing user support for electronic depository collections will require additional depository training and

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<sup>9</sup> A more complete list of definitions begins on page v at the front of this report.

<sup>10</sup> The CommerceNet/Nielsen Internet Demographics Survey. [New York]: CommerceNet Consortium/Nielsen Media Research, 1995. [URL: <http://www.commerce.net/information/surveys/>]

<sup>11</sup> More detailed information from the Biennial Survey is available as Attachment G.

support staff. As a result, depository libraries will have to balance the resource requirements necessary to support electronic information products with those necessary to provide access to the Government information products in their print and microfiche collections.

The Strategic Plan also suggests that, in the transition of the FDLP from a series of local repositories to a network of local access points, many depositories may find that they lack the necessary public or private funding to achieve the minimal level of electronic capability they will need. The plan proposes that GPO provide up to \$25,000 per library in technology grants to those depositories that demonstrate need and stipulate that no other public or private funding source is available for this purpose. These would be one-time grants, available for a single year and totalling no more than \$500,000 per year. In addition, the Strategic Plan envisions an expanded role for GPO in providing support services to depositories including, but not limited to, locator services, user support, training, and documentation.

**Goal 2:** Use new information technologies to improve public access to Government information and expand the array of Government information products and Government electronic information services made available through the FDLP.

#### Historical Model

As the primary provider of printing services for the Government, GPO is able to identify and acquire information for the FDLP when publishing agencies submit printing requisitions to GPO in the course of printing or contracting for the printing of their publications. The number of copies needed for depository distribution is added to the agency's printing requisition as a "rider." Therefore, GPO's integral role in the production process has ensured that publications are identified and acquired for the FDLP, without agencies having to be aware of their obligations to the program. With the vast amount of Government information products flowing through the GPO print production process, and thereby being acquired for the FDLP, expanding the array of Government information products available for public access was never a primary concern for the program.

In the historical model for the FDLP, paper was the primary format used for dissemination of Government information. Advances in printing technology over the years have changed the production process for Government publications, but they have not changed the way in which Government information products are distributed or made available to the public through depository libraries. Before the advent of electronic dissemination, the only technology that significantly impacted FDLP dissemination was micrographics. The FDLP began using microfiche as a format for dissemination in the early 1970's. The use of micrographics allowed GPO to distribute a slightly greater amount of material to depositories at a significantly lower cost to the Government. No major changes to the FDLP distribution system were needed because microfiche was a physical format. Depository libraries purchased microfiche readers or reader/printers in order to provide public access to microfiche information.<sup>12</sup> Depository library patrons could access the exact graphical image of a printed publication simply by placing a sheet of microfiche in the microfiche reader; therefore no special training or user support was needed to use information in this format.

Due to the vast quantity of Government information products disseminated through the program, and the physical limitations of depository libraries for storing print and microfiche, the historical model for the FDLP necessitated a distinction between "selective" depository libraries and "regional" depository libraries. Selective depositories pre-select the type of publications they wish to receive based on the specific needs and interests of the communities they serve. Fifty-three "regional" depository libraries receive everything that is distributed through the program. If users do not find the information they need at

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<sup>12</sup>While comparable in cost to public access workstations acquired for the CD-ROM titles and other electronic Government information products, the microfiche equipment has a much longer useful life.

a selective depository library, they can arrange for an inter-library loan from another depository that does elect to receive that information or from a regional library. While this is not as timely as on demand access from an electronic information service, the delay is not so lengthy that it significantly impedes public access.

Government information products in paper or microfiche are available at depository libraries for on-site use by members of the public. Users can borrow material to read at home, in the classroom, or in the office, or they may elect to pay to copy or print it out in order to have their own copy. When Government CD-ROM titles were included in the FDLP, depository libraries began to add public access workstations equipped with CD-ROM drives. Since the initiation of the *GPO Access* electronic information services, authorized by 44 U.S.C. §4101, the public has had free use of a variety of databases through public access workstations equipped for Internet access. This was quickly expanded to offer users the option of access from their home, classroom or office through one of several depository library gateways or direct access from GPO.

### Strategic Plan

The electronic Federal Depository Library Program as outlined in the Strategic Plan will take advantage of the increasing amount of Government information available in electronic format to expand and enhance the array of Government information products available to the public. An increasing amount of Government information is available from agency publishers in electronic formats. This information falls into three categories: (1) information products that are currently included in the FDLP in print, but not in electronic formats, (2) information products that previously were included in the FDLP in print, but that are no longer included in the program since the publishing agency converted to electronic information products, and (3) information products that have never been a part of the program for various operational or financial reasons. Often this information is more timely, useful, and less expensive in electronic format than it is in print.

The Strategic Plan proposes four ways in which GPO can bring these electronic information products into the FDLP:

- GPO can identify, describe and link the public to the wealth of distributed Government information products maintained at Government electronic information services for free public use.
- GPO can establish reimbursable agreements with agencies that provide fee-based Government electronic information services in order to provide free public access to their information through the FDLP.
- GPO can "ride" agency requisitions and pay for depository copies of tangible electronic information products, such as CD-ROM discs, even if they are not produced or procured through GPO.
- GPO can obtain from agencies electronic source files for information the agencies do not wish to disseminate through their own Government electronic information services. These files can be made available through the *GPO Access* services or disseminated to depository libraries in CD-ROM or other tangible format.

GPO's ability to provide timely and comprehensive access to Government electronic information products will be dependent on the receipt of timely notification from publishing agencies when they initiate, substantially modify, or terminate an information product. Both the Paperwork Reduction Act and OMB Circular A-130 require executive agencies to provide such notice to affected parties. The proposed revisions to 44 U.S.C. §1902 presented in the report for Task 6 (Attachment D-5) establish a specific

requirement for notification of GPO by all branches of Government. The proposal suggests the following language:

Agencies shall notify the Superintendent of Documents of their intent to initiate any Government information product and shall notify the Superintendent of Documents at such time as they substantially modify or terminate a product available via a Government electronic information service.

The task force report also proposes an addition to 44 U.S.C. Chapter 19 that would require agencies to provide the Superintendent of Documents with timely notice of any tangible electronic information product produced or procured outside of GPO, so that the Superintendent of Documents can make arrangements to ride the agency requisition for depository copies on an incremental cost basis.

Several benefits will be realized from the inclusion of more electronic information in the FDLP. When mounted to an online service, electronic information can be accessed simultaneously from multiple sites located across the country within minutes of its creation. This means that Government information products like agency press releases can be made accessible at or through depository libraries when public interest in the information is at its peak, whereas previously weeks would pass before the printed press releases arrived in a depository shipment.

Another major benefit of electronic information is the ease in which it can be manipulated and searched. Unlike paper or microfiche, electronic information is dynamic. For example, locating agency regulations on toxic waste management published in the paper *Federal Register* required a user to scan through indices and pages of text manually. This was a very time-consuming and labor-intensive process. The same search on the electronic *Federal Register* database can be done in seconds with a simple search that locates and ranks all references to toxic waste management in the *Federal Register* over a specified period of time. After viewing relevant passages on the screen, the user can "paste" those passages of text into word processing software, download and save the entire file for use at a later time, or print out selected pages.

Use of information technology not only will enhance public access to Government information by improving its timeliness and utility to the user, but will make access to certain types of Government information more widely available. Currently, shelf and cabinet space restrict the amount and type of print and microfiche materials depository libraries select. As more information is included in the FDLP through access to Government electronic information services, depository libraries will be able to access a wider range of Government information products because the responsibility for providing access to the information will rest increasingly with publishing agencies and GPO, instead of with each individual library.<sup>13</sup>

The Strategic Plan notes that in FY 1997 depository libraries will be required to meet minimum specifications for public access workstations which include capabilities for accessing Government electronic information services.<sup>14</sup> This will mean that the full range of Government information products remotely accessible through the FDLP will be available for public use at or through any depository library within the next year. In addition, users who have the necessary hardware, software and expertise will

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<sup>13</sup>This does not mean that all of the information products provided to GPO by agencies will be maintained at GPO. Some Government information products will be in facilities, such as depository libraries, that establish contractual arrangements with GPO to house the information for depository library access. These alternatives are discussed more fully under Goal 5.

<sup>14</sup>The current requirements are provided in Attachment H: Recommended Minimum Specifications for Public Access Workstations in Federal Depository Libraries. These specifications are revised periodically to reflect changes in computer technology and software.

continue to access an expanding array of electronic information available through the FDLP directly from their home, classroom or office using depository library gateways or by connecting to GPO electronic information services directly.

While every depository library will be able to access all of the available remotely accessible Government electronic information services, each library will continue to determine the appropriate levels of service for the various types of information. For example, a depository library in a law school will have public access workstations that can be used to access remote scientific and technical information, but it is not likely to offer any reference service to support the use of that information since it is outside of the scope of its collection and expertise. On the other hand, a law library may offer substantially better assistance for legal and regulatory materials than a public library that has limited experience with this type of information.

**GOAL 3:** Provide Government information products in formats appropriate to the needs of users and the intended usage.

#### Historical Model

The historical model for the FDLP involved dissemination of information primarily in two physical, static formats: paper and microfiche. GPO also has distributed a substantial number of CD-ROM titles to depository libraries, and a limited number of videos, slides, and floppy diskettes. The CD-ROM discs have conformed to the international standards for CD-ROM media and file layout, but have presented a challenge to the libraries due to the wide range of retrieval software and file formats on the discs. Depository libraries have had access to electronic files in a variety of formats on the Federal Bulletin Board since 1992, including ASCII text, various word processing files, dBase databases, Lotus 123 spreadsheets, PostScript files, and Adobe Acrobat Portable Document Format (PDF) files. *GPO Access* began providing depository libraries with online databases in 1994, offering the *Congressional Record*, the *Federal Register*, the *Congressional Record Index* and *Congressional Bills*. There are now more than 65 databases available online via *GPO Access*. All of the databases from *GPO Access* are available as ASCII text files. ASCII files with a print equivalent are also available as PDF files, with graphics imbedded. For databases without a print equivalent, graphics are provided as individual Tagged Image File Format (TIFF) files, and the ASCII text files contain notations to identify each graphic.

Under the historical model for the FDLP, the availability of electronic information has been used to supplement, but not replace, dissemination of the same information in paper or microfiche. Therefore, while the Federal Bulletin Board and *GPO Access* online service are heavily used by depository libraries, 52% of depository libraries have not yet registered for the Federal Bulletin Board and 40% indicated that they do not yet offer *GPO Access* online databases.<sup>15</sup> The paper and microfiche versions of the *Federal Register* and *Congressional Record* continue to be selected by more than 1,000 depository libraries.

The assessment of user needs and the intended usage of Government information products is essential if GPO is to provide the information in formats that can be utilized by the public at or through depository libraries. This is not a new goal, but rather the adaptation of long-standing practices for electronic information dissemination. For example, GPO has established criteria that control when a paper document can, or cannot, be converted to microfiche. If the intended use is "ready reference" then it may need to remain in print; if it contains four-color graphics that cannot be reproduced in microfiche without loss of content, then it remains in print. Similarly, the *GPO Access* legislation requires GPO to create electronic information services, and that clearly includes designing databases. *GPO Access* has certain capabilities, and GPO has established certain "standard" ways of displaying and tagging information.

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<sup>15</sup>This information is based on data from the 1995 Biennial Survey of Depository Libraries, with responses received from all but 10 libraries. A summary of the survey results is available as Attachment G.

Within those constraints, GPO designs its databases in consultation and cooperation with the publishing agencies. However, the FDLP is the primary customer for *GPO Access*, and that requires GPO to consider depository needs, as well as agency preferences, when selecting and designing databases.

## Strategic Plan

In the future, Federal agencies will continue to have a number of publishing alternatives available for their needs, and many Government information products will continue to be printed. However, it is expected that electronic formats will become the Federal publishing media of choice, and virtually every printed publication will have an electronic counterpart. Unfortunately, at present no Government-wide standard formats have been established for electronic information, although GPO currently uses a few "preferred" formats for electronic source files, including ASCII, dBase, PDF, PostScript and Standard Generalized Markup Language (SGML). The Strategic Plan suggests that the identification of standard formats be determined through an assessment of standards for creation and dissemination of electronic Government information products.<sup>16</sup> The assessment would be a joint project between GPO and NCLIS.

Following successful completion of the assessment, GPO will make every reasonable effort to provide meaningful public access to Government electronic information by converting, repackaging or scanning agency-produced information products for distribution or access through the FDLP in one of the standard formats identified by the assessment as being useful and cost-effective. This will not restrict Federal agencies from creating or disseminating information in any format that suits their own needs and mission, but rather, will supplement existing agency dissemination efforts (often tailored to the needs of specific constituencies) and assure broad public access. Regardless of which formats ultimately are utilized, GPO will continue to provide a text-only interface for its online databases in order to maintain compliance with the Americans with Disabilities Act (ADA) and to assure access to users with limited technological and communication capability. As of December 1995, 40% of the use of the *GPO Access* databases was through the Simple WAIS (SWAIS) text-based interface. While this percentage is declining, there is still a substantial requirement for this type of access.

**GOAL 4:** Enable the public to locate Government information regardless of format.

## Historical Model

Historically, GPO has facilitated the identification and location of Government information through its Cataloging and Indexing Program (CIP). This program is authorized by 44 U.S.C. §1710 and §1711. GPO's statutory mission is to provide bibliographic control for all Government documents. GPO fulfills this mission by preparing, publishing, and distributing the *Monthly Catalog of U.S. Government Publications* (*Monthly Catalog*) and a comprehensive index of public documents at the close of each regular session of

Congress. A complete and authoritative description for each Government information product is prepared by GPO in accordance with nationally accepted cataloging standards and practices. The *Monthly Catalog* and other finding aids are used by depository librarians to help the public identify Government information.

Electronic access to the *Monthly Catalog* has been available through the GPO Web site since June 1995. Records in the *Monthly Catalog* database are linked to depository item selection, so a user can identify a Government information product in the database and then locate nearby depository libraries that have that product available for public use. This is part of GPO's implementation of the requirement for an electronic directory, or locator service, under the *GPO Access* legislation (44 U.S.C. §4101).

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<sup>16</sup>This assessment replaces the Technical Implementation Assistance proposed in the draft FDLP Study Report. The assessment is described in more detail on page 26 in the section on Results and Conclusions.

GPO has been cataloging Federal CD-ROM titles for inclusion in the *Monthly Catalog* for several years. Recently titles on Government electronic information services also have been included in the CIP. GPO continues to be an active participant in the Government Information Locator Service (GILS) initiative, serving in the GILS advisory group and acting as the host for the GILS records of approximately 25 agencies.

## Strategic Plan

The Strategic Plan recognizes that meaningful public access will be possible only if GPO continues to develop appropriate finding aids to assist depository libraries and the public in identifying information available from the Government, regardless of its format or location. Therefore, the plan proposes that GPO accelerate development of Pathway locator services (Pathway). These services will use advanced indexing, search, and retrieval tools to identify, describe, and link users to electronic Government information, whether it is held by GPO or at other sites. Pathway will be developed using open systems standards and will be compatible with complementary initiatives such as the GILS.

GPO intends to provide records in machine-readable cataloging (MARC) format, following the *Anglo-American Cataloging Rules, 2nd Edition (AACR2)*, for all appropriate Government information products, whether in physical format or available through Government electronic information services. GPO cataloging will continue to emphasize information products which are not brought under bibliographic control by another Government agency. GPO cataloging records that include references to electronic information products available from Government Internet sites will include the Uniform Resource Locator (URL). The URL will be displayed in the *Monthly Catalog* records at the GPO Web site, and will be "hot linked" to the actual electronic content.

**GOAL 5:** Ensure both timely, current public access and permanent, future public access to Government information products at or through depository libraries, without copyright-like restrictions on the use or reuse of that information.

## Historical Model

For more than a century, information delivery through the FDLP has been a linear model: a chain beginning with the publishing agency, linking through GPO and the depository libraries and ultimately reaching the public. Responsibility for public access in the historical model correlates directly to the actual creation, transfer and possession of physical information products. Publishing agencies are responsible for the collection of data and the creation of information products. GPO acquires the information through the print production process, determines independently of the publishing agency whether to distribute the information in paper or microfiche, and ships authentic Government publications to depository libraries. Depository libraries assume custody of the information upon receipt and then are responsible for processing and storing the Government publications for no-fee public access, use, and reuse without copyright restrictions.

As required by law, selective depository libraries hold the information they receive for at least five years. Fifty-three regional depository libraries hold all Government publications distributed to them through the FDLP, except superseded publications or those issued later in bound form, in perpetuity.<sup>17</sup> This means that Government information products published today will be available for the researcher, scholar, or

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<sup>17</sup> Permanent access is required by 44 U.S.C. §1911: "Depository libraries not served by a regional depository library, or that are regional depository libraries themselves, shall retain Government publications permanently in either printed form or in microfacsimile form, except superseded publications or those issued later in bound form which may be discarded as authorized by the Superintendent of Documents."

student a hundred years from now, just as documents dating back to the Civil War are available to the public through depository libraries today. Government information products available through the FDLP are free from copyright and can be used or redisseminated by the public as it so chooses.

## Strategic Plan

The Strategic Plan proposes a new FDLP model that allows the traditional partners in the program to interact in new ways and which defines the various partners in the process by the services they provide rather than by the actions they perform. Publishing agencies, GPO, and depository libraries will be expected both to perform their current functions and assume new responsibilities that were previously the sole province of one of the other partners in the FDLP model.

Agencies will remain responsible for the collection of data and the creation of information products. According to the Strategic Plan, the next step in the process will involve proactive negotiation and coordination between GPO and the issuing agencies regarding appropriate formats for immediate and permanent public access and custody of the information.<sup>18</sup> The issuing agency will determine the format used in the dissemination of the information for their own purposes and for dissemination to depository libraries when depository access is provided directly through the agency's own site. When agencies choose to transfer their electronic information to GPO for the FDLP, GPO will determine the most appropriate format for dissemination or access, as authorized under 44 U.S.C. §1914, which says that GPO can determine the "measures [it] considers necessary for the economical and practical implementation of [the Federal Depository Library Program]."

Previously these measures were limited by the number of formats available for dissemination. However, information technology now provides GPO with a wide range of dissemination options, many of which will cast GPO in the roles of disseminating agent and "publisher" of Government information products. For example, an agency might issue weekly press releases through its own Internet site. At the end of each year it might remove these releases from the agency site and pass them to GPO for permanent access through the FDLP. Instead of remounting the releases to the Internet through *GPO Access*, GPO may decide it is more economical to pack and publish the press releases on a CD-ROM for distribution to depository libraries. In this context, although the agency is still responsible for the information content, GPO acts as the publisher of a Government information product through its creation and production of this annual compilation.

In the historical model, information products would move forward through distribution channels to the point of access, depository libraries, where they would ultimately reside for both immediate and permanent public access. In the new FDLP model, forward movement of information products can stop at any one of the points in the dissemination process: the point of creation (the issuing agency), the point of coordination (GPO), or the point of local access (depository library). Nor will Government information products always reside at the same location both for immediate and permanent access. Some agencies may decide to fulfill their obligations for public and depository access through their own electronic information services for the short term, only to pass responsibility for the information on to GPO for permanent access through the FDLP. Under other partnering arrangements, depository libraries may accept responsibility for permanent public access to some types of Government information products. The party that retains physical custody of the information for on demand depository access will be responsible for the information's authenticity, storage and maintenance. Using GPO sponsored finding aids, depository libraries will have to assist members of the public in determining at which point(s) in the new FDLP model the Government information product relevant to their needs resides, whether it was published ten days or ten years ago.

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<sup>18</sup>For purposes of this report, permanent access means that Government information products within the scope of the FDLP remain available for continuous, no fee public access through the program.

As with the historical model, any Government information product provided to the public under the auspices of the FDLF will remain free of copyright or copyright-like restrictions, regardless of its format or physical location. For example, the report on Task 9 (Attachment D-11) describes one alternative by which GPO would negotiate an agreement to purchase access for depository libraries when agency information is available electronically for a fee. The alternative states that "the agreement may include limitations on numbers of users or on remote access via library networks, but will not include any copyright-like restrictions on the use or reuse of the information." Unfortunately, there are instances when copyright-like restrictions cannot be avoided. For example, many of the CD-ROM titles distributed to the depository libraries include retrieval and display software that format the information in specific ways that can only be accessed through that software. This imposes copyright-like restrictions on those who want access to the underlying data and can preclude future use due to dependency on specific computer operating systems or other technology that may become obsolete. GPO will not refuse to accept such CD-ROM titles for depository distribution, but GPO will continue to work with publishing agencies to encourage publication in a manner that avoids copyright-like restrictions.

**GOAL 6:** Facilitate preservation of Government information through the National Archives and Records Administration.

#### Historical Model

The National Archives and Records Administration (NARA) is the repository for the preservation of the Government's permanent records. These are records that have been appraised by NARA as having sufficient historical or other value to warrant continued preservation beyond the time they are needed for administrative, legal, or fiscal purposes.<sup>19</sup> No more than 5 percent of the records created by the Federal Government fall into this very select category, but this has traditionally included all formal publications of Federal agencies.

In addition to any agency transfer of publications, NARA accepts for deposit from GPO one copy of every publication cataloged through the Cataloging and Indexing Program and/or distributed by GPO through the Federal Depository Library Program. GPO transfers a full collection to NARA after the completion of each four-year Presidential term. These procedures have resulted in the granting of preservation status within NARA to all Government information products in the CIP or FDLF as part of the definitive official collection of U. S. Government publications. At present this status is extended to all paper and microfiche publications and to all electronic products that are in formats acceptable to NARA for archival purposes (36 CFR 1228.188). Recently NARA has begun to accept for reference purposes only, without accessioning for preservation, CD-ROM discs and other electronic products that are software dependent and, therefore, not in archival format.<sup>20</sup>

#### Strategic Plan

GPO will continue to transfer to NARA a collection of the information it disseminates to depository libraries or holds for depository library access. Whenever possible, electronic information will be transferred to NARA in formats acceptable for archival purposes. When that is not possible, GPO will

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<sup>19</sup>For purposes of this report, preservation means that official records of the Federal Government, including Government information products made available through the FDLF, which have been determined to have sufficient historical or other value to warrant being held and maintained in trust for future generations of Americans, are retained by the National Archives and Records Administration.

<sup>20</sup>NARA accepts such materials for reference purposes only and maintains them for public use so long as the technology and software permit. However, NARA does not take extraordinary measures to ensure long-term access or preservation of the content, and such a transfer does not meet the publishing agency's obligation for transfer of the information to NARA for preservation.

continue to provide NARA with copies for reference purposes. Ideally, legislative or regulatory changes could be made so that transfers from GPO to NARA in suitable archival formats can be recognized as meeting publishing agencies' archival requirements with respect to NARA. This would eliminate duplicative preparation, transfer and accessioning of such information. Transfer of depository material to NARA will not preclude continued maintenance of the information by, or under the authority of, GPO for permanent access through the FDLP.

**GOAL 7:** Ensure that the program is cost-effective for all parties involved, including Government publishing agencies, GPO, depository libraries, and the public.

#### Historical Model

The FDLP exemplifies how a Federal program can provide an essential public service with a modest investment that is returned many fold by the participation of partners in the communities that benefit from the service. In this instance, the partner libraries share the responsibilities and the costs to assure broad public access to Government information products in their local communities.

In the traditional FDLP model, there are a variety of costs associated with providing public access to Government information products. The Government bears only a small portion of these costs when it pays for the printing, distribution, and cataloging of publications and information products to depository libraries. The division of production costs for depository copies of Government print publications is clearly defined in 44 U.S.C. §1903. It states that:

The cost of printing and binding those publications distributed to depository libraries obtained elsewhere than from the Government Printing Office, shall be borne by components of the Government responsible for their issuance; those requisitioned from the Government Printing Office shall be charged to appropriations provided the Superintendent of Documents for that purpose.

The division of production costs for electronic information products are not specifically addressed in 44 U.S.C. Chapter 19 because these costs are not associated with "printing and binding." However, GPO handles the replication of CD-ROM discs, and the payment for software licenses associated with CD-ROM titles, in a manner consistent with this provision.

Most of the material distributed to depository libraries in print and microfiche is produced or procured by Federal agencies through GPO. The centralized production and distribution of depository materials through GPO offers significant economies of scale. For example, in FY 1995 GPO distributed

more than 16.7 million copies of 44,734 different titles, at an average cost of \$1.36 per copy. Centralized funding of the FDLP also facilitates Congressional oversight of the program, thereby deterring misuse or mismanagement of appropriated funds.

Depository libraries, composed of both public and private institutions, bear the bulk of the costs for public access to Government information. They supply the funds for the processing, use, storage and housing of depository information products. This includes providing support staff, facilities, equipment, and telecommunications. Depository libraries typically spend three to five times the dollar value of the Government information products they receive in support of public access to their depository collections.<sup>21</sup>

#### Strategic Plan

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<sup>21</sup>Robert E. Dugan and Ellen M. Dodsworth, "Costing Out a Depository Library: What Free Government Information?" *Government Information Quarterly*, Volume 11, Number 3 (1994), pages 261-284.

GPO and other study participants have noted that there is a need for more in-depth and concrete data on the life cycle costs to the Government for creating, disseminating and providing permanent access to its information products, to depository libraries for providing public access to them, and to the public for using them. However, the transition to electronic dissemination of Government information is still in its early stages, so it is doubtful that reliable and conclusive data on life cycle costs could be gathered in this rapidly-evolving period. Nevertheless, the assessment of standards proposed in this report is an essential first step toward the ultimate goal of collecting and analyzing information life cycle costs. It will provide a basis for further consultation with the library community and for discussions with publishing agencies concerning the appropriate standards for cost-effective dissemination of Government information products in formats appropriate to the needs of users and the intended usage.

There is no doubt that the transition to electronic dissemination of Government information products changes the costs associated with the administration of, and participation in, the FDLP. Based on the limited data that currently is available concerning life cycle costs, the Strategic Plan outlines a new direction for the program that looks to balance dissemination based on paper and microform with that based on electronic information products, while seeking to maintain a reasonable distribution of costs among publishing agencies, the Government Printing Office, depository libraries and the public.

In some instances, the transition to electronic dissemination will provide savings for one of these parties at the price of incurring new costs for another, thus shifting costs between the parties involved rather than reducing costs overall. One example of this shift is the costs associated with providing permanent access to electronic Government information products for public use. In the historical model, the primary cost incurred by regional depository libraries for permanent access to print publications was providing adequate storage space. In the electronic environment, information can be stored more easily and cost-effectively on a computer. However, unlike physical print products that remain relatively stable over long periods of time, electronic information must be migrated to new and different media to prevent deterioration, avoid technological obsolescence, and assure information integrity and quality.

This migration requires significant financial resources which, according to the Strategic Plan, are costs for ensuring permanent public access to Government information products that the Government Printing Office and Federal publishing agencies, as well as those depository libraries that choose to act as their partners, will share.<sup>22</sup> Costs for migration can be minimized by the adoption and use of open systems standards through the entire life cycle of information products--from the time the original source files are created by the publishing agencies to final preservation by NARA. At the same time, depository libraries and their users will have to pay to print, or purchase printed copies of, information that is needed in print, but no longer disseminated in that format through the FDLP.

The Strategic Plan proposes retention of the current level of FDLP funding through the GPO Salaries and Expenses (S&E) appropriation. According to the plan, with adequate agency notification, GPO will continue to "ride" and pay for depository copies for tangible electronic information products, whether or not they are produced or procured through GPO. In addition, Task 9 (Attachment D-11), Task 10A (Attachment D-14) and Task 10B (Attachment D-15) all discuss alternatives through which GPO would purchase access to agency electronic information services when an agency is required by law to recover costs for such services. In such scenarios, there will be no copyright-like restrictions on the use or reuse of the information content, but gateway access to the fee-based information services through depository libraries may be restricted or prohibited in order to safeguard the publishing agencies' ability to recover operating costs. Publishing agencies also will be able to transfer to GPO information for which they can no longer support public access on their own electronic information services. GPO will pay to mount, convert

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<sup>22</sup>For purposes of this report, migration means both: (1) the periodic refreshing or transfer of Government information products from one medium to another in order to minimize loss of information due to physical deterioration of storage media and (2) the reformatting of information to avoid technological obsolescence due to software or platform dependence.

and maintain this information on *GPO Access* for permanent public access or to convert it to CD-ROM or another tangible format for distribution to depository libraries. GPO also may establish partnerships with depository libraries to retain and provide permanent public access to certain types of information. This range of funding options will make electronic dissemination through the FDLP cost-effective for publishing agencies.

GPO will realize savings from a reduction in printing and distribution costs associated with the paper and microfiche versions of products it makes available electronically through the FDLP. Funding estimates for the next three to five years indicate that these savings will be sufficient to cover most of the costs for the transition to a more electronic FDLP. Although no one can accurately project today the long-term costs for maintaining permanent access to the electronic information through the FDLP, the assumption remains that new technology will provide more efficient and effective means to disseminate and access this information in the future.

The report on Task 10B (Attachment D-15) provides one example of savings that can be projected for the next few years. Providing access to MEDLINE and eliminating paper distribution of just three NLM products to depository libraries could result in annual savings to GPO of more than \$338,000, less whatever amount would be paid to NLM for depository access. Similarly, if GPO eliminated paper distribution of the Congressional Serial Set to selective depository libraries and replaced it with a quarterly CD-ROM as discussed in the report on Task 8B (Attachment D-8), the agency could realize cost savings of more than \$1 million. However, a CD-ROM version of the Serial Set is feasible only if Congress requires that the component Documents and Reports that are not typeset at GPO be provided to GPO in usable electronic format. Currently up to 80% of the documents and 20% of reports are received by GPO as camera copy. Scanned images created from the camera copy are not consistently searchable and create large files with low resolution quality.

There is no conclusive data at this time to support the assertion that electronic dissemination will always save the Government money. As shown in the report on Task 8A (Attachment D-7), there will be times when the cost to the Government for providing permanent public access to electronic Government information products exceeds the one-time costs associated with producing and distributing the same information in print or microform. However, as explained above, there are many instances when dissemination is more cost-effective in electronic format than in paper or microfiche, and even more instances where the information is more timely and/or more useful. The more electronic FDLP as proposed in the Strategic Plan will seek to identify and cultivate those instances when information technology can be used to save the Government money and to enhance and expand public access.

Depository libraries will realize cost savings through the reduction in the number of Government information products that they must house and maintain. For example, whereas depository libraries once had to have several shelves of space for the United States Code in print, this same information now is available on a single CD-ROM or online from *GPO Access*. However, depository libraries will incur new costs for ongoing acquisition and upgrade of software and computer systems, specialized training for staff, and connections to telecommunications networks.<sup>23</sup>

The Strategic Plan suggests several ways in which GPO can ease the financial burden of the transition on depository libraries. One of these is the establishment and promotion of a limited range of standard formats for FDLP use. This will minimize the costs to depository libraries by reducing the range of platforms and software that the libraries must acquire and support. An assessment to determine appropriate and cost-effective standards for the creation and dissemination of Government information products will be accomplished through a joint project involving GPO and NCLIS. The Strategic Plan also

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<sup>23</sup>While the initial costs for a well-equipped public access workstation are comparable to those for a microfiche reader/printer, the personal computer technology is changing rapidly, forcing frequent replacement or upgrading of equipment and software.

proposes that GPO provide \$500,000 in assistance to financially needy depository libraries through one-time technology grants of up to \$25,000 per library in FY 1997. In addition, the Strategic Plan proposes in FY 1997 an increase of \$20,000 in the statutory limit on Salaries and Expenses Appropriation (S&E) travel and reallocation of a substantial portion of the funds currently used for library inspections in order for GPO to devote additional resources for training and continuing education opportunities for depository librarians.

GPO will continue to monitor the technological capabilities of the depository libraries to provide cost-effective public access to electronic Government information products, particularly as it relates to standards utilized by agencies in the creation and dissemination of electronic Government information products. This will include gathering information about the costs of equipment, telecommunications, software, staff training and other depository library expenses for accessing and utilizing electronic Government information products through the FDLP.

Users can browse Government information products in any depository library without charge and, in some libraries, users can check out books or CD-ROM titles for short term use at home, in the classroom, or in the office.<sup>24</sup> Currently most users must pay to photocopy documents in depository libraries or to print images from microfiche if they wish to obtain their own copies of Government information products. Electronic Government information products may increase the costs to users as fewer items are available for reading in the library without the necessity of paying to print the information first or to obtain diskettes on which to download and save electronic information for later use. Limitations on the time that an individual user can spend at a public access workstation are common and restrict the user's ability to browse Government information products at the computer terminal. These limitations, and delays when a workstation is not available, cost users both time and money. For this reason, GPO also will begin to monitor the costs to users for printing, downloading and similar services using depository library equipment.

Finally, while computer literacy is increasing dramatically, many depository library users are not yet conversant with computer technology or are frustrated by the variety of software they must master to utilize electronic Government information. This lack of computer skills delays the user's access to the information and requires additional assistance from library staff.

## VII. RESULTS AND CONCLUSIONS

A substantial amount of useful information was gathered and numerous issues and alternatives were identified and examined during the course of the study. These are summarized in this report. A number of specific tasks were identified to provide information and alternatives for consideration. The preparation of the task force reports and the review of public comments resulting from their dissemination was the primary fact-finding activity of the study. Each task force report is included as an attachment and is the product of a substantial amount of effort on the part of the task leader and participants.

Separately, a document entitled the *Electronic Federal Depository Library Program: Transition Plan, FY 1996 - FY 1998* was developed by GPO and included with its FY 1997 appropriations request. Public comments in response to this document also provided useful information to the study participants, and led directly to the development of the *Federal Depository Library Program: Information Dissemination and Access Strategic Plan, FY 1996 - FY 2001*, included with this report as Exhibit 1. The Strategic Plan proposes four ways in which GPO can bring electronic information into the FDLP:

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<sup>24</sup> Loan policies vary from library to library. Many depository libraries lend Government documents, and some lend CD-ROM titles.

- GPO can identify, describe and link the public to the wealth of distributed Government information products maintained at Government electronic information services for free public use.
- GPO can establish reimbursable agreements with agencies that provide fee-based Government electronic information services in order to provide free public access to their information through the FDLP.
- GPO can "ride" agency requisitions and pay for depository copies of tangible electronic information products, such as CD-ROM discs, even if they are not produced or procured through GPO.
- GPO can obtain from agencies electronic source files for information the agencies do not wish to disseminate through their own Government electronic information services. These files can be made available through the *GPO Access* services or disseminated to depository libraries in CD-ROM or other tangible format.

Section V, Policy Issues that Impact Publishing Agencies, GPO, NARA, Depository Libraries, the Public and the Private Sector, summarizes the major issues identified in the course of the study process. While many of these issues are not new, this study has examined the issues in the new context of the rapid shift of the FDLP into a more electronic program.

The major conclusions of the study are summarized below:

**Scope of the FDLP:** There is widespread interest in expanding the content of the program to make it more comprehensive, and a great deal of optimism that the rapid expansion of agency electronic publishing offers cost-effective options to do so. Nevertheless, the highest priority remains the retention of information content that historically has been in the program and is rapidly leaving it as agencies move from print to electronic publishing or eliminate Government information products to save costs.

**Notification and Compliance:** The historical program relied heavily on the ability of the FDLP to obtain material as it was printed or procured through GPO. With the increasing emphasis on electronic dissemination and decreasing compliance with statutory requirements for agencies to print through GPO, identifying and obtaining information for the FDLP is becoming increasingly difficult. There must be new means to inform agencies of their responsibilities and to ensure compliance with agency FDLP obligations. There must be effective means for all three branches of Government to notify GPO of their intent to: (1) initiate, (2) substantially modify, or (3) terminate Government information products. This includes Government information products in all formats, including information available from Government electronic information services, such as agency World Wide Web sites.

**Permanent Access to Authentic Information:** The FDLP has the responsibility for providing permanent public access to the official Government information products disseminated through the program.<sup>25</sup> Historically, permanent access has been the role of the regional depository libraries, and this has been a cost-effective means of ensuring that Government information products remained available to the public indefinitely. Permanent access also is an essential element of the electronic depository library program, but it will be more difficult to attain. To ensure permanent public access to official electronic Government

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<sup>25</sup>Permanent access is required by 44 U.S.C. §1911: "Depository libraries not served by a regional depository library, or that are regional depository libraries themselves, shall retain Government publications permanently in either printed form or in microfacsimile form, except superseded publications or those issued later in bound form which may be discarded as authorized by the Superintendent of Documents."

information products, all of the institutional program stakeholders (information producing agencies, GPO, depository libraries and NARA) must cooperate to establish authenticity, provide persistent identification and description of Government information products, and establish appropriate arrangements for its continued accessibility. This includes identification and implementation of standard formats for FDLP dissemination<sup>26</sup> and providing for the technological currency of the electronic information products available at GPO for remote access. In the case of tangible information products, permanent access will remain a responsibility of regional depository libraries, while in the case of remotely accessible information products, it will be the responsibility of GPO, as the administrator of the FDLP, to coordinate a distributed system that provides continuous, permanent public access.

**Locator Services:** Together, the Cataloging and Indexing Program required by 44 U.S.C. §1710 and §1711 and the Locator Services required by 44 U.S.C. §4101 provide the statutory basis for GPO to assist depository libraries and the public to identify and obtain access to the full range of Government information. In a distributed environment, where libraries and users often access Government electronic information services rather than local collections, tools for identifying and locating information will be critical components of an effective program.

**Timetable for Implementation:** The *Transition Plan*, submitted with the GPO FY 1997 appropriations request, projected an ambitious, two and one-half year schedule for conversion to a more electronic FDLP (FY 1996 to FY 1998). Input from publishing agencies and depository libraries indicates a five to seven year transition would be more realistic and cost-effective since it would allow GPO to convert to electronic information at the same pace as publishing agencies can produce it and depository libraries can absorb it. It will be substantially more costly for GPO to convert agency print publications to electronic formats than it will be to work in partnership with the agencies, assisting them in accelerating their own electronic publishing initiatives. Consequently, the Strategic Plan attached to the report as Exhibit 1 proposes a transition period of FY 1996 through FY 2001.

**Assessment of Standards for Creation and Dissemination of Electronic Government Information Products:** For the successful implementation of a more electronic FDLP, the Congress, GPO and the library community must have additional information about future agency publishing plans, as well as an expert evaluation of the cost-effectiveness and usefulness of various electronic formats that may be utilized for depository library dissemination or access. A central implementation issue is the identification and utilization of standards for creation and dissemination of electronic Government information products. These standards would enhance access to and use of Government information by both the Government and the public. The Government produces an enormous quantity and variety of information. The standards best suited for one type of data may be substantially less suited, or even entirely inappropriate, for another. Consequently, there is no single standard in which all Government information products can, or should, be created or disseminated. Nevertheless, it is in the best interests of the Government, and those who use Government information, to achieve a greater degree of standardization than now exists, and to develop recommended standards for each major type of Government information product in order to facilitate the exchange and use of that information.

To accomplish this, it is first necessary to know the range of formats Federal agencies currently use in the creation and dissemination of information and to assess the de facto or actual standards that are in use for each major type of data. It also is necessary to identify areas where there is no standardization, or such limited standardization that the effect is virtually the same. Finally, it would be useful to evaluate standards utilized by private sector and other non-governmental publishers. This information will provide the basis for an assessment, in consultation with the depository library community, of the usefulness and cost-effectiveness of various electronic formats for depository library dissemination or access. It also will

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<sup>26</sup> Additional conclusions related to the requirement for assessment of standards for creation and dissemination of electronic Government information products are provided on the next page.

be the basis for a dialog with the National Archives and Records Administration (NARA), the National Commission on Libraries and Information Science (NCLIS), the National Institute of Standards and Technology (NIST), and others with an interest in establishing and promulgating Government-wide standards for information creation and dissemination.

GPO is proposing to accomplish this data gathering and evaluation through a joint effort with NCLIS. As an independent Federal agency established to advise the President and the Congress on national policies related to library and information services adequate to meet the needs of the people of the United States, NCLIS is uniquely situated to coordinate this activity. While substantial changes are already underway, this assessment of standards for creation and dissemination of electronic Government information products should proceed as rapidly as possible in order to assure a successful and cost-effective transition to a more electronic FDLP.

**Cost of Electronic Information Dissemination:** While there are many benefits inherent in the use of electronic information, including more timely and broader public access, there is no conclusive data at this time to support the assertion that it will result in significant savings to the program as a whole in the next few years. Based on comments received, electronic dissemination and access will shift the costs among the program participants. For example, GPO will incur additional, recurring costs to provide permanent public access through its electronic information services, as will other Government agencies that maintain information products through their own services. Costs for migration can be minimized by the adoption and use of open systems standards through the entire life cycle of information products--from the time the original source files are created by the publishing agencies to final preservation by NARA.

Similarly, depository libraries and their users will have to pay to print, or purchase printed copies of, information that is needed in print, but is no longer disseminated in the format through the FDLP. At the same time, depository libraries will have to provide specialized staff training, public access workstations, software and the related services necessary to connect the public to remotely accessible Government electronic information services. GPO will continue to monitor the technological capabilities of the depository libraries to provide cost-effective public access to electronic Government information products, particularly as it relates to the standards utilized by agencies in the creation and dissemination of electronic Government information products. GPO also will begin to monitor the costs to users for printing, downloading and similar services using depository library equipment.

GPO and other study participants have noted that there is a need for more in-depth and concrete data on the life cycle costs to the Government for creating, disseminating and providing permanent access to its information products, to depository libraries for providing public access to them, and to the public for using them. However, the transition to electronic dissemination of Government information is still in its early stages, so it is doubtful that reliable and conclusive data on life cycle costs could be gathered in this rapidly evolving period. Nevertheless, the assessment of standards proposed in this report is an essential first step toward the ultimate goal of collecting and analyzing information life cycle costs. It will provide a basis for further consultation with the library community and for discussions with publishing agencies concerning the appropriate standards for cost-effective dissemination of Government information products in formats appropriate to the needs of users and the intended usage. The assessment also will provide valuable information to Congress for the future development of appropriate and cost-effective Government information policies and programs.

**Legislative Changes:** Substantial changes in the FDLP already are underway within the context of the existing statute. Nevertheless, certain key legislative changes could be made in order to assure a successful and cost-effective transition to a more electronic FDLP. These changes are discussed in the report on Task 6 (Attachment D-5) and many of them are reflected in the preceding conclusions.

