

IMPROVEMENTS TO DATA DISSEMINATION FOR ECONOMIC PROGRAMS

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ABSTRACT

With CD-ROMs, online services, multimedia, and the Internet becoming a large part of the public's information toolkit, data users are seeking an increasing amount of information in electronic form. However, it is no longer enough to simply make the data available electronically. Today's data user requires a system that produces timely data, is easy to use, is pleasant to look at, and that is complex enough to fulfill their data needs. To address these needs, the Census Bureau's Economic Programs area, within the oversight of the Data Access and Dissemination System (DADS) group, plans to substantially reduce its paper publications and release the majority of the 1997 Economic Census data via improved electronic dissemination techniques on the Internet and CD-ROMs. This paper has three main objectives: to outline what today's data user wants in terms of online data dissemination; to show what steps the Economic Programs are taking to fulfill these needs; and to compare the Economic Programs system proposal with some of the other online data systems developed by other countries and government agencies.

KEY WORDS

Electronic data dissemination, Internet, data user requirements

USER REQUIREMENTS

Surveys of the Economic Programs customers show that data users expect timely data and most cannot understand why it takes so long to produce census results, especially in the information age. Our users indicate they also want online data products that are easy to use and provide user-friendly functionality such as point and click windows-based software.

Based on feedback we have received in connection with customer surveys,¹ advisory group meetings, and ongoing customer contact, it is our perception that most users of the Economic Programs data from the Census Bureau have several major common categories of needs with regard to using these data. These needs include:

- The provision of timely data, particularly electronic data available immediately on the day of release
- The capability to easily combine data from across several economic sectors or survey time periods for designated geographic areas

- The capability to easily determine what Economic Programs data and related data are available from the Census Bureau and other sources
- The provision of documentation on how the different data sets interrelate as well as information on their characteristics and limitations
- Easy access to free data sets as well as the capability to “test drive” nonfree data sets and related software prior to purchasing it
- Easy and electronically secure ordering methods for purchasing data/software products

ECONOMIC PROGRAMS’ APPROACH TO FULFILLING USER REQUIREMENTS

To better satisfy user requirements for timely data, the 1997 Economic Census will make electronic, not printed data products, the initial and primary means of data dissemination, entailing nothing less than a complete refocus in our approach to disseminating the Economic Programs data. Building on the Economic Programs’ contribution to the Census Bureau’s award winning Internet site, we plan to strengthen existing links among textual profiles, data tables, and other documentation of various data available from the public and private sectors. The Economic Programs also are taking steps to structure files and provide software that will enable our users to more easily extract data for more than one economic sector as well as to combine data from several censuses or survey time periods for historical comparisons.

Provision of timely data. So far, we have made great strides in using the Internet for data dissemination. We developed and implemented the “Economy” area on the Census Bureau’s web site, including real-time provision of the highlights from our latest economic indicator reports (e.g., Manufacturers’ Shipments, Inventories, and Orders; Advance Monthly Retail Sales; Housing Starts; U.S. International Trade in Goods and Services). Users perceive the timely provision of data a particular strength of selecting data on the Internet. Statistics released today in Washington can be instantly available to Internet users worldwide.

Along with our expedited release of current surveys statistics on the Internet, we are attempting to decrease the time between the internal approval of the tabular 5-year economic census data and its release to the public. To reduce the time required for review, acceptance, and issuance of public data, we plan to eliminate printed versions of most state-specific and industry-specific tables (both preliminary and final) and many subject reports, all of which comprises about two-thirds of the previously printed pages.² Those reports likely to be retained in print are limited to selected tables from the United States Summaries of geographic area data for each of the sectors; general summaries of industry data for manufactures, minerals, and construction; and merchandise line sales. Further, working together with the Administrative and Customer Services Division (ACSD) and their vision for a Census Bureau information and dissemination system, we have developed preliminary plans for issuing our electronic data products in portable data format (PDF) files, enabling users to view photocomposed electronic table images and print selected data “pages” on demand. This production system will support the generation of more timely economic products. As we do for the economic indicator reports, we anticipate immediately providing data from the 5-year economic census on the Internet on the day of release.

Moreover, we plan to issue a new economic-wide report series for the 1997 Economic Census. Tentatively, our plans call for the Core Business Statistics Series to be comprised of three major components, the Advance Report, the Preliminary Report, and the Final Report, each including 1997 summary basic data items common to all subject areas (establishments, sales/receipts/revenue/shipments, annual payroll, and employment) on a new North American Industry Classification System (NAICS) basis at the United States and State levels.³ It also will include 1997 and 1992 summary basic data items on an old SIC basis at the United States and State levels. We plan to release the Advance Report in the first calendar quarter of 1999, followed by the Preliminary Report which will replace data previously issued in the Advance Report, although with additional NAICS and SIC detail. The Preliminary Report will be issued in the first quarter of the year 2000, followed in the first quarter of 2001 by the Final Report. The Final Report will replace the data previously issued in the Preliminary Report and will also include “bridge tables” to enable the performance of time series analysis.

Easy access to multisector data. The Economic Programs area is taking steps to structure files and provide software that will help our customers use data to more easily meet their needs for profiling the economic performance of particular geographic areas. In addition to the aforementioned Core Business Statistics Series, we plan to present manipulatable summary data files including the capability of displaying geographic area profiles for the four basic data items common to all subject areas from the census on a new NAICS basis or the capability to display data from the Economic Programs’ County Business Patterns (CBP) Series (available for all economic trade areas) on an old SIC basis for each year 1992 through 1997. CBP data will be available on a number of establishments, annual payroll, and employment for the United States, States, and counties. A new feature will include giving data users the capability to download all or portions of the data from the Internet into a software package of their choice. In addition, there will be up-to-date software available online and on CD-ROMs that will allow data users to view the data in a tabular format and manipulate the data to create tables or files of their own design.

Historical comparisons. With the introduction of the new NAICS for the 1997 Economic Census, there will admittedly be a significant time series break in census data provided below the State level. In these times of budget stringency, the provision of comparable historic data for substate geographies has, necessarily, had to be a secondary priority in relation to the introduction of a new order of classification. However, although not a component of the 1997 Economic Census, CBP summary data, supplementing the Census data, will be available for each year 1992 through 1997 as described above. The CBP data can be used as a substitute for the Census data to provide historical data at the county level. In addition, the Core Business Statistics Series, Final Report will present the aforementioned “bridge tables” to enable links to be made between the old SIC data and the new NAICS data. The bridge tables will provide 1997 data the United States level showing the distribution of new NAICS-based industries among SIC-based industries, as well as 1997 data showing the distribution of SIC-based industries among NAICS-based industries.

Easy determination of what data and related data are available from the Census Bureau and other sources, how they interrelate, and what are their characteristics and limitations.

We plan to extend our offerings of electronic reference materials beyond the many currently available on the “Economic Topics” section of the Census Bureau’s web site. Economic Topics currently includes online census and survey profiles with links to corresponding data tables, papers

on the NAICS conversion, and links to other data sources related to economic data from the Census Bureau and other agencies such as STAT-USA (offered by the Economics and Statistics Administration within the Department of Commerce) or the Oregon State Government Information Sharing Grant Project (providing basic data access routines to the 1992 Economic and Agriculture Censuses statistics).

Further, to make it easier for data users to find what data are available, to determine their characteristics and limitations, and understand how the different data sets are interrelated, we are in the process of developing user interfaces that employ state-of-the-art menuing and display techniques that maximize the amount of information imparted to users on each screen regarding the availability of various data. We will strengthen existing Internet links among textual profiles, data tables, and other documentation on various data topics available from public and private sources. We also plan to include easy ordering methods for CD-ROM and other products, including the use of encryption software necessary to ensure secure processing of credit card orders online.

Moreover, as we upgrade our electronic data products to feature user-friendly interfaces including point and click and windows-based software, we are developing an integrated toolset for accessing data and documentation on our CD-ROMs and Internet offerings. These will include hypertext links, key word searches, and data extraction tools. Further, our electronic data products will enable users to view photocomposed electronic table images and print selected data tables on demand.

Easy access to free data sets and the capability to “preview” “for fee” data sets. We plan to develop our Internet and CD-ROM products with a common look and feel. Updated regularly to include recent releases from economic indicator surveys and census programs, free data products on the Internet will continue to include economic indicators plus free sample data sets of the comprehensive census reports contained on CD-ROM and the Internet. These free sample data sets will comprise press release type data as well as newly included features such as data sets and accompanying software enabling data users to preview and evaluate various product demonstrations prior to either purchasing the comprehensive CD-ROM product (updated quarterly), downloading a selected file and/or software for a fee, or subscribing to areas of the Census web site containing comprehensive data detail on the Internet. Although all levels of summary data will be available on the Internet, we will restrict access to the various levels of this data by external users based on their status as subscribing/paying customers.

Easy and electronically secure ordering methods. Easy and secure ordering methods for CD-ROMs and other electronic products will be available throughout the Internet offerings. We are working with our ACSD to integrate these capabilities as part of the Census Bureau’s subscription/product ordering system. Also related to these efforts are plans for tracking our customers’ use of these products and services.

Access by internal users. The ability to restrict access to various levels of data will enable the use of the same access system by external and internal users alike. This access system will include, for internal users, all data, metadata, and software available to subscribing external customers. Internal users will be able to use this same data/software for fulfilling customer service requirements.

Next Steps. Using our set of organizational assumptions (**Attachment A**) and an iterative prototyping plan (**Attachment B**) to create data products to satisfy customer needs, we are endeavoring to fulfill these user requirements by empowering a cross-disciplinary team to build a series of iterative prototypes for external and internal user evaluation and testing. This team is working closely with internal Census Bureau partners such as the ACSD and the DADS staffs. They also may partner with external organizations through joint ventures or contracting out to build portions of these prototypes. The first prototypes are due by June 1996.

COMPARISONS WITH OTHER ORGANIZATIONS' DISSEMINATION SYSTEMS

During the design phase of the Economic Programs dissemination system, we are undertaking an ongoing review of data product features included in data dissemination systems used by a cross-section of other organizations. We have examined existing features in data products of other U.S. statistical agencies as well as Statistics Canada and Statistics Netherlands. These data product features typically include elements such as photocomposed report formats, bookmarks and hypertext links, keyword searches, and manipulatable data files, including query-based data extraction and the ability to build user-defined tables from micro-and/or macrodata files. Other functionalities we have compared among the various systems include built-in capabilities for creating spreadsheets, graphs, or maps, or creating ASCII files for use with other software.

The fast pace of technological advances in the data delivery arena is making it quite difficult to keep pace with software applications available for disseminating products. Equally difficult is keeping current with what other data disseminators are doing in this arena. Conversely, these same difficulties indicate that the potential benefits for technology sharing and transfer have never been greater.

See **Table 1** for an evaluation of the presence and functionality of important attributes of selected electronic data products disseminated by a variety of statistical agencies and organizations. We acknowledge that these comparisons are dated and incomplete and most likely do not represent the current planning initiatives, which are changing almost daily. However, from these comparisons, we can surmise that a wide variety of data disseminators are successfully exploiting advanced dissemination techniques to meet the data requirements of today's data user and are making plans to further upgrade their data products.

Notes

¹Summary of Users of 1992 Economic and Agriculture Census Data, Final Report, January 1996, Dickinson, J., Bureau of the Census. Also see "Consolidated Comments from the Business/Economic External Focus Group, held August 30, 1995."

²The U.S. Government Printing Office, Superintendent of Documents, Library Programs Service issued on December 14, 1995, a document entitled "The Electronic Federal Depository Library Program: Transition Plan, FY 1996 - FY 1998." A basic assumption stated in the report for the transition to an electronic Federal Depository Library Program (FDLP) is that, based on direction from Congress, they expect that nearly all of this information provided through the FDLP will be electronic by the end of fiscal year 1998. Typically, the information provided through the FDLP

will be electronic, with the exception of a few select titles which must be available in paper as well as electronically.

³NAICS is being developed in cooperation with Statistics Canada and Mexico's Instituto Nacional de Estadística, Geografía e Informática (INEGI). The new NAICS system provides common industry definitions for Canada, Mexico, and the United States to facilitate economic analyses that cover the economies of the three North American countries. The three country collaboration on an industry classification system for North America was announced for public comment in the Federal Register, July 26, 1994, pp. 38092-38096. A final Federal Register notice, to be published this spring (1996), will include the entire NAICS structure for public comment. NAICS is organized in a hierarchical structure much like the existing SIC. The first 2 digits of the NAICS code designates the sector (analogous to the old SIC "trade area" or "All" -e.g., Retail Trade). The code also designates 2-digit subsectors, 3-digit industry groups, and 4-digit industries. To illustrate, a NAICS code at the "All", 4- and 5-digit levels corresponds to a level of detail previously published on the SIC basis at the trade area, 2- and 3-digit levels.

Table 1. A Comparison of a Cross-section of Economic Programs Electronic Dissemination Systems Employed by Selected Statistical Agencies

(CD-ROM and Internet)	Statistics Canada <u>Energy Handbook</u>	Statistics Netherlands <u>Stat Line 3.0</u> , Beta 1.3	Oregon State University Government Information Sharing Grant Program (Online)	Bureau of Transportation Statistics <u>The Smart Project</u>	Energy Information Administration <u>The Energy Information Highway (Beta version)</u>	Bureau of Economic Analysis <u>Survey of Current Business</u> (CD-ROM)	U.S. Census Bureau Economic Programs (CD-ROM/Online)
Graphical user interface Drop down menus, buttons, bars, windows Applets (Java) Supplier independent Mac support Key word/synonym searches Can create user-defined hypertext links Can add user-defined notes/comments	yes no yes yes yes yes	yes no no yes no no	yes DK 	yes no yes no 	yes no yes-planned no 	GUI-yes no yes yes no no	yes considering considering yes considering considering
Photocomposed report formats Viewable file formats Allowances for enhanced tabulation and formatting features Bookmarks, thumbnails	yes yes yes	no yes no	no no no	yes yes yes	yes yes yes	PDF no yes	yes yes yes
Print-on-demand High quality (publication quality) tables Low quality (some or no formatting) tables Maps	no yes no	no yes yes	no yes yes	yes yes yes	yes yes yes	yes yes no	yes yes yes
Hypertext links to expanding electronic warehouse of data/information Metadata Online help Related data Within CD-ROM From CD-ROM to related data on the Internet	yes yes no no yes	yes yes no no no	some yes NA NA		yes-PDF yes yes no	yes yes yes no	yes yes yes yes yes
Manipulatable data files Data bases Proprietary Open Query-based extractions (greater than, less than, etc.) Can build user-defined tables, geographic areas and thematic variables within viewer From microdata files From macrodata files Rank/sort data within geographic level Can specify items Can specify items' order and format Automatic creation of reusable user-defined census variables Built-in capability for: Spreadsheets Graphical presentation Mapping		yes no no yes no yes no yes no no yes yes yes yes yes	no no no no no no no no no no no no no no	NA NA NA NA NA NA NA NA NA NA NA NA NA NA	yes yes yes no yes DK yes yes no no no no no no	no no no no no no no no no no no no no no	yes yes yes yes yes yes yes yes yes yes yes yes yes yes
Inclusion of historical census data bases and linking of those data bases for the purpose of historical comparison	no	yes		NA	yes	no	yes
Can export files in a choice of commonly used formats, (ASCII, x-base) for easy import into user provided packages (to enable users to create and/or incorporate data in other formats for user-defined uses) with capability for creating: Spreadsheets Word processing Graphs Maps Data bases	yes yes yes yes yes	* yes yes yes yes yes	no no no no no	NA NA NA NA NA	yes yes yes yes yes	no (cut to clipboard available)	yes yes yes yes yes

(CD-ROM and Internet)	Statistics Canada Energy Handbook	Statistics Netherlands Stat Line 3.0 , Beta 1.3	Oregon State University Government Information Sharing Grant Program (Online)	Bureau of Transportation Statistics The Smart Project	Energy Information Administration The Energy Information Highway (Beta version)	Bureau of Economic Analysis Survey of Current Business (CD-ROM)	U.S. Census Bureau Economic Programs (CD- ROM/Online)
Multimedia (CD-ROM and Internet)	no	no	no	yes	no	no	yes-some
Order entry and inventory system Automated product cost calculation Can preview products prior to ordering Automated collection of product and customer information		DK DK DK	no no no	no no no		no no no	planned planned planned
Production system System contingencies	planned	yes	DK	no	no	no	planned
Customer service Timeliness of product delivery from time ordered Automated job processing (retrieval, tabulation, non-disclosure protection, formatting)	DK DK	DK DK	DK DK	DK DK	DK yes	good DK	planned planned

DK = don't know NA = not applicable * = also provides SPSS and SAS

ECONOMIC DIRECTORATE ELECTRONIC PRODUCT DISTRIBUTION SYSTEM

Product development for the 1997 Economic and Agriculture Censuses will consist of developing, testing, and evaluating a series of user interface prototypes beginning in early 1996. We may enlist the assistance of selected external data users in this process. We may pursue joint ventures, contracting out, and/or plan to work closely with the DADS development staff and the ACSD during this process. Work will be completed by late 1997.

The Economic area's primary products for the 1997 censuses will be Portable Data Format (PDF) table files and manipulatable summary statistics files. Electronic issuance and distribution of these products (on the Internet and on CD-ROMs) will be the focus of the Economic area. Resources will be devoted to developing and maintaining this production system, accordingly. Working with the ACSD, the production system will be structured to take into account the peak output periods. Contingency plans will be developed in terms of data product priorities, and ensuring that adequate backup personnel are available at early phase of the development and production process.

Assumptions

The ACSD is responsible for publications. The PDF table files will be the primary source of fulfilling print-on-demand data requests, allowing the user to print as much or as little as required. Economic subject divisions should have input on how the PDF files are created, bookmarks, etc. Links can be provided in multiple ways. It should be the ACSD's responsibility to coordinate these links based on coordinated input from the subject divisions.

The Economic area will use the ACSD's customer contact system (one point of contact for the Census Bureau). The ACSD will coordinate referral contacts within the Economic divisions. The ACSD will be responsible for fulfilling print-on-demand data requests--either in-house or through outsourcing (e.g., through the National Technical Information Service). Working with the ACSD, the Economic area will develop guidelines for the distribution of products and services through the Regional Offices, State Data Centers, and Business and Industry Data Centers.

The Economic area will use Census Bureau-developed pricing, charging, and revenue policies and collection systems for subscriptions and individual orders which will be linked to the order entry and inventory system components of the CAMS.

The Economic area will use Census Bureau-developed archiving - or the individual divisions will be responsible for maintaining backup copies of all products that are electronically distributed.

All product data held for electronic distribution will be "read only." No update capabilities will be designed within the distribution system. (New information will completely replace, not update, existing offerings.) All standard data products will be loaded to the electronic shelf and will include a print-on-demand function.

Only presuppressed data or data not requiring disclosure avoidance will be included in system. Data products and services will include standard data (including microdata where feasible, metadata (reference products), geography, custom tabulations (where practicable), and analytical information (also where practicable).

Interactive products (for the 1997 censuses) will be Windows based (compatible with the most commonly used current systems). Support for MAC and UNIX is desirable, but not a high priority.

The Economic area will utilize hardware for the electronic distribution system that is a “bureau-wide” resource, in order to avoid hardware redundancy wherever possible.

The Economic area will maintain (purchase and manage) a UNIX test machine for development and testing of in-house written software.

The Economic area will cooperate with the DADS development effort and will share ideas/code/delivery systems whenever possible.

The Economic area will not develop software with functionality that is commercially available at a reasonable cost (i.e., spreadsheets, word processing, web browsers) or that serves a highly specialized audience (i.e., mapping, graphics).

The Economic area will develop software that presents files to the public in viewable formats and permits exporting in a choice of commonly used formats for easy import into a user provided packages (spreadsheets, word processors, data bases).

The Economic area will develop interface system(s) for all data that will be electronically distributed through Internet or CD-ROM; the interface(s) will have a common “look and feel” in both data format and presentation (for ease of use by our customers).

The Economic area will adhere to the Economic Products Strategy Team functional requirements and priorities connected with them in developing data products for the 1997 Economic and Agriculture Censuses.

ITERATIVE PROTOTYPING - 1997 ECONOMIC AND AGRICULTURE CENSUS DATA PRODUCTS

Based on ongoing data product tasking, computer, and syntax requirements obtained from our major Federal users and other major user groups through the DADS focus groups and Economic Programs initiated customer survey and contacts, Economic Programs will create a series of iterative prototype data products for CD-ROM and the Internet as part of the process of creating data products that better fit our customers' needs than do the existing products. These prototypes will model the basic user interfaces we will use to allow data users to interact with data from the 1997 Economic and Agriculture Censuses on CD-ROMs and on the Internet. The user interfaces for these two media should be as similar as possible and employ state-of-the-art menuing and display techniques that maximize the amount of information made available to users on each screen about the availability of various data. We will provide windows-based software, for selecting, viewing, and manipulating data in PDF and non-PDF files, that replaces existing EXTRACT and GO software. Coordination with the DADS staff concerning all phases of these Economic Programs prototypes will be ongoing as part of the DADS prototype effort for the 2000 Decennial Census.

Features and functions we plan to develop, test, and evaluate (via continuing user feedback) for these prototypes include:

PROTOTYPE SERIES 1 - CD-ROM Data Products

- 1) Ability to select **predefined summary data tables** and the ability to create **simple user-defined tables** from across existing predefined summary publication tables files from any published item; from user-defined fields derived using simple mathematical functions; from user-selected time periods, geography, and industry; containing modifiable default headers and stubs; containing user-defined output labels; presented in user-defined order; and with features including:
 - a) Ability to download in a file format that is importable into commonly used user-owned software (spreadsheets, word processors, etc.)
 - b) Hypertext links to metadata (including self documenting online help/documentation and information file formats) and to an expanding electronic warehouse of census data and related data both within the CD-ROM and outside of the CD-ROM on the World Wide Web
 - c) Print-on-demand capability to a file/printer
 - d) Ability to search to locate data (build lists of tables where requested data exists) based on terms in the various subject glossaries and based on key word/synonym look up

- e) Ability to select and view predefined summary publication table files in viewable table file formats of publication level quality (PDF files using TIPS images processed through the Adobe Acrobat distiller) with bookmarks and thumbnails and hypertext links to the PDF file and to data files
 - f) Ability to run canned queries (“profiles” at progressively greater levels of geographic, industry, or product detail)
 - g) Ability to browse freely while maintaining current context (the ability to move from a particular kind of business for a specific geography to the particular kind of business across all similar geographies as now exists in GO92 software)
 - h) Ability to change geographic levels
 - I) Ability to sort/rank
 - j) Ability to save output in a format that allows further manipulation in the system
 - k) Ability to save user-defined procedures
 - l) Ability to preview table set-up prior to retrieving data and tables with retrieved data and prior to printing or downloading
 - m) Selected multimedia features
- 2) Data files for input to PROTOTYPE SERIES 1:
- a) Manufacturing Product Statistics file (including 4-, 5-, and 7-digit product detail for 1992 and 1987 at the U.S. level)
 - b) Retail Geographic Area Series “file 1” for California (including 1992 basic statistics only)
 - c) Economic General Summary Statistics file (including existing test file of 1992 data for several economic sectors for California used in FERRET research)
 - d) 1993 County Business Patterns file for California

- 3) First deliverable by June 1996, with iterations extending through July 1997

PROTOTYPE SERIES 2 - Internet Data Products

- 1) Ability to access the data included in Prototype Series 1 (CD-ROM version) **using a user interface as similar as possible to the CD-ROM version** with features including:
 - a) Software functionalities replicating the CD-ROM functions wherever beneficial (advancing Internet technology may allow us **more** functionality with the Internet products) or practicable
 - b) Ability to restrict (prevent) access to various levels of data - this will enable the use of the same access system by external and internal users alike. This access system will include all data, metadata, and software available to subscribing external customers with this same data/software available also to internal users for data analysis and customer service. The restrictions apply to the external availability of selected data/software to a fee only basis for subscribing/paying external users
 - c) Ability to preview selected restricted data levels (restricted to only selected data samplers or teasers, per b, above) prior to ordering CD-ROM data or subscribing to our Internet online products
- 2) Data files for input to PROTOTYPE SERIES 2 will be the same as those used for PROTOTYPE SERIES 1
- 3) First deliverable by September 1996, with iterations extending through October 1997

What We Hope to Accomplish: Developing, testing, and evaluating these prototypes is an essential component of implementing our product strategy for the 1997 Economic and Agriculture Censuses. Through these efforts, we will:

- Participate as partners with the DADS staff in building DADS prototypes using Economic Programs data - promoting consistent user interfaces for all census data products
- Determine the basic user interfaces for electronic products (i.e., buttons and bars, pull down menus)
- Acquire developmental and programming skills for building and/or overseeing the development of windows-based data products for CD-ROMs and the Internet - as recommended by the Economic Product Strategy Team Subgroup 2

- Develop working relationships with various areas involved in data product development, dissemination, and customer service (DADS, ACSD, Economic Statistical Methods and Programming Division, Economic Planning and Coordination Division, Systems Support Division, subject divisions, Customer and Product Development Office, CAMS, the Internet Steering Committee, and outside contractors), serving as the basis for forming a new dynamic organizational membership for implementing and maintaining an improved economic programs data dissemination system for 1997 and beyond - fulfilling a key recommendation of the Economic Product Strategy Team Subgroup 1
- Determine more clearly what skills and data product components we can develop in-house and those for which we should contract out
- Generate a series of tangible prototypes on which we can solicit valuable external and internal user feedback via hands-on usage, for use as integral input to building data products that deliver the desired customer outcomes in terms of what they would like to do with the data and information we provide