

Energy
Information
Administration

Energy
Quality
Award
Application
1998



*On-line and Off-the-shelf, EIA
is the first place to go for
the last word in energy information.*

Energy Information Administration 1998 Energy Quality Award Application

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ORGANIZATIONAL OVERVIEW

The Energy Information Administration (EIA) was established in October 1977 as a quasi-independent agency in the Department of Energy (DOE). The agency's sole purpose is to provide reliable and unbiased energy information. EIA systematically collects data directly from 120,000 respondents through 83 scientifically designed surveys and indirectly from other sources. EIA analyzes energy issues and makes forecasts using its National Energy Modeling System and 18 other special purpose models. EIA's scope includes all energy types (petroleum, natural gas, coal, electricity, nuclear, renewables), energy stages (production, conversion, distribution, supply, consumption, price), and impacts (technical, economic, environmental). EIA information is disseminated in over 50 hard-copy publications (250,000 copies distributed last year), electronically (4.5 million Web site downloads and 800,000 Listserv mailings last year), through Congressional testimony and topical briefings to policymakers, and by personal customer response via phone, mail and fax (over 30,000 responses last year from our National Energy Information Center). Our principal customers are industry, research and academia, government, finance, media, private citizens, and others. EIA's budget for FY1998 is \$67 million, covering 375 Federal employees and 300 contractors. Virtually all our revenue comes from Congressional appropriations, with a very small amount from other Federal agencies for special information products or services.

1 Organizational Summary

1.a Mission, Vision, Products and Services

MISSION: EIA is a leader in providing high quality, policy-independent energy information to meet the requirements of Government, industry, and the public in a manner that promotes sound policymaking, efficient markets, and public understanding.

VISION: On-line or off-the-shelf, EIA is the first place to go for the last word in energy information.

EIA's product is energy information. In the early years, EIA products were primarily publications mailed to customers which contained energy data (compiled from EIA surveys and other sources), analytical articles and forecasts. Additionally, we directly served customers who called in or sent letters requesting specific information. As information technology advanced, we routinely began collecting and disseminating data electronically. We also began producing brochures in layman's terms, summarizing important aspects of our more detailed products. In 1995, as the Internet became more widely used, EIA went on-line (<http://www.eia.doe.gov>) with

one of the first government Web sites (later praised by the Vice-President). While still providing our customers with hard-copy products, electronic dissemination of information products has grown dramatically and most of our products are now available through our Web site. Information is also disseminated through electronic publication using a dial-in modem (called EPUB), CD-ROMs, Listservs (e-mail distribution lists), fax and telephone hotlines. Our information products can be divided into four groups – Data, Analyses, Forecasts, and Metadata.

Data Products: Compilations of survey data collected from respondents, processed by EIA and augmented by data from other sources (e.g., Census Bureau, Weather Service.) Data products by various fuel types, geographical areas, and reference periods provide comprehensive coverage of energy resources, reserves, production, conversion, consumption, prices and related energy industry financial data. Text accompanies tabular data summaries, highlighting key facts. Our most popular data products in 1997 were the *Monthly Energy Review*, *Natural Gas Monthly*, *Electric Power Monthly*, *Petroleum Supply Monthly*, *Quarterly Coal Report*, and the *Weekly Petroleum Status Report*.

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Analysis Products: Technical reports and articles which analyze issues relating to energy including economics, technology, production, prices, distribution, storage, consumption, and environmental effects. About 3 dozen analysis reports and articles are released each year. Two of the most popular last year were *Electricity Prices in a Competitive Environment* and *Natural Gas 1996: Issues and Trends*.

Forecasting Products: Forecasts of energy variables in the short-term (0-2 years) and the near and mid-term (2-20 years) spanning all energy types and including national prices, supplies and consumption and international oil prices, energy supplies and consumption. Some forecasting models are available on-line for users who develop their own forecasts and all files are on our Web site. Our major forecasting products last year were the *Short-Term Energy Outlook*, the *Annual Energy Outlook*, and the *International Energy Outlook*.

Metadata Products: Descriptions of EIA information products to help customers find what they need. They include directories of all our survey forms, publications, electronic products, models, new releases, energy education resources, EIA contacts, and our *Annual Report to Congress*.

1.b Business Area

EIA is a Federal statistical agency, similar to the Census Bureau and the Bureau of Labor Statistics in our data collection function, but generally performing more analysis and forecasting. EIA was established by Congress as a quasi-independent DOE unit whose information products were mandated to be policy-neutral. To meet this requirement, we do not seek DOE or Administration approval of our products, although we follow DOE's administrative requirements. Our core business processes are: (1) survey and data operations, (2) data integration, (3) analysis, (4) forecasting, (5) dissemination, (6) resource management, and (7) technical support.

1.c Employee Profile

At the start of the 1980's, EIA had over 700 employees, but our workforce was down to 384 employees by the beginning of 1998 (31 managers, 353 non-managers) and our personnel ceiling for the end of 1998 is 361 employees. EIA non-management employees are represented by Chapter 213 of the National Treasury Employees Union. Our Administrator is a Presidential appointee who reports to the Secretary of Energy; all other employees are career civil servants ranging from grade GS-2 through Senior Executive Service. They represent a variety of disciplines, with an emphasis in the quantitative and systems analysis areas. The staff range in education from stay-in-schools to doctorates and comprise a diversity of ethnicities. We also utilize about 300 contract personnel to carry out our mission. At the beginning of 1998, EIA personnel were housed in three locations: DOE Headquarters in Washington, DC - 284 employees; 950 L'Enfant Plaza (near DOE HQ) - 86 employees; and Dallas, TX - 14 employees. About two-thirds of the staff participate in alternate work schedule programs (8 9-hour workdays and 1 8-hour workday every two weeks, or 4 10-hour workdays per week) and about 25 employees work off-site (e.g., home) up to one day per week.

1.d Equipment, Facilities and Technologies

EIA's core business is information production. Our principal equipment consists of computers and printers, communications equipment, and software. Technologies include statistical data collection and processing, economic modeling, analysis, and forecasting systems. Virtually every employee has a PC and printer. Information processing work is done on PC's, servers, and a mainframe computer. We operate our own Local Area Network, e-mail system, Internet, and Intranet sites.

2 Customer Requirements

2.a Principal Customers

EIA's principal customers are industry (supplier/manufacturer, energy industry, other), research and academia (university, student,

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professional society, nonprofit, private consultant/researcher, trade association), government (Congress, White House, DOE and its laboratories, other Federal, State/Local), finance (banker, investor), and others (media/press, international organization, law firm, library, repackager/reseller, and private citizen). Our customers use our energy information for a variety of purposes, most significantly in debates on national energy and environmental legislation and during energy emergencies. A *Washington Post* editorial (July 28, 1995) opposing further reductions of our budget summed up the reasons for EIA: *“When the markets are calm, as they currently are, few people other than specialists pay much attention to these statistics. But the Energy Information Administration exists because the country discovered, in the two big oil crises of the 1970’s, the horrendous costs of inadequate statistical intelligence.... The Energy Information Administration also collects some of the data needed for environmental policy - the figures, for example, on which the decisions about global warming are to be based.... The budget of this small numbers agency has been trimmed, and taking another \$15 million would do real harm to the quality of its work. That’s a small amount compared with the costs of mistakes.”*

2.b Quality Requirements for Major Products and Services

Quality requirements for our products are expressed in terms of their availability, timeliness, accuracy, comprehensiveness, and relevance. Because of the diversity of our customers, we provide information through many media and across all fuel types, various geographical areas, time-frames, economic sectors, and levels of aggregation. Customer service requirements include ease of contact, courtesy, familiarity with our information, understanding customers’ requests, and promptness.

3 Supplier Requirements**3.a Principal Suppliers**

EIA’s main suppliers are in three basic groups: (1) survey respondents and other information providers, (2) contractors (support and vendors) and (3) other government offices (primarily DOE’s Office of Human Resources and Administration (HR)).

3.b Special Supplier Relationships

The quality of our data is dependent on our survey respondents. Although respondents are generally required by law to respond, partnering has helped us to gain their greater cooperation and their recognition of the need for EIA data. We have focused on making their reporting easier, more timely and more accurate. Also, we have recently reconfigured our contractor arrangements, consolidating many contracts into an omnibus procurement. This change will allow us to reduce costs and processing times associated with maintaining multiple contracts. Because we are a small DOE agency, we depend a great deal on support from DOE HR. Generally, we have been successful in building a collaborative partnership with HR in recent years. For example, together we improved review and approval times for getting the new omnibus contract in place and for processing contract task orders.

4 Competitive Factors

While there are private groups that collect and sell energy information, EIA is the only source recognized as independent and comprehensive. The overlap in data coverage with these other groups is minimal and, in fact, many of them include EIA data in their products. There are a number of private groups that also sell energy forecasts and analyses of energy issues, but EIA is the only analytical organization required by law to be policy-neutral. In attracting and maintaining customers who could purchase energy information from private sources, our competitive edge is based on our proven credibility and our market position as the low cost provider.

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5 Other Important Factors

5.a Laws and Regulations

The primary law affecting EIA is the Department of Energy (DOE) Organization Act (1977), which established EIA as the single government authority for energy information and gave it independence from the rest of DOE with respect to data collection and from the whole of government with respect to the content of its reports. It continued a requirement for EIA to report to Congress annually and it established requirements for an annual survey of energy industry financial data and an annual survey and analysis of U.S. oil and gas reserves. Other laws confer on EIA specific mandatory data collection and analysis requirements, such as the Powerplant and Industrial Fuel Use Act (1978), the Paperwork Reduction Act (1980 and 1995 revision), the Energy Emergency Preparedness Act (1982), the Nuclear Regulatory Commission Authorization Act (1983), the Energy Policy and Conservation

Act (1985), the Omnibus Budget Reconciliation Act (1986), and the Energy Policy Act of 1992.

5.b New Thrusts and Challenges

Revolutionary advances in information technology are providing EIA tremendous opportunities to dramatically improve our delivery of products and services, while downsizing our workforce and funding base. Concurrently, major energy industry changes (e.g., the restructuring of the U.S. electric power industry) and the worldwide focus on the environmental effects of energy (e.g., greenhouse gases) have created major new technical challenges and opportunities for EIA. In meeting these challenges, we have been and will be increasing both our knowledge base and our customer base.

5.c Current Organizational Structure

Shown in Figure O-1.

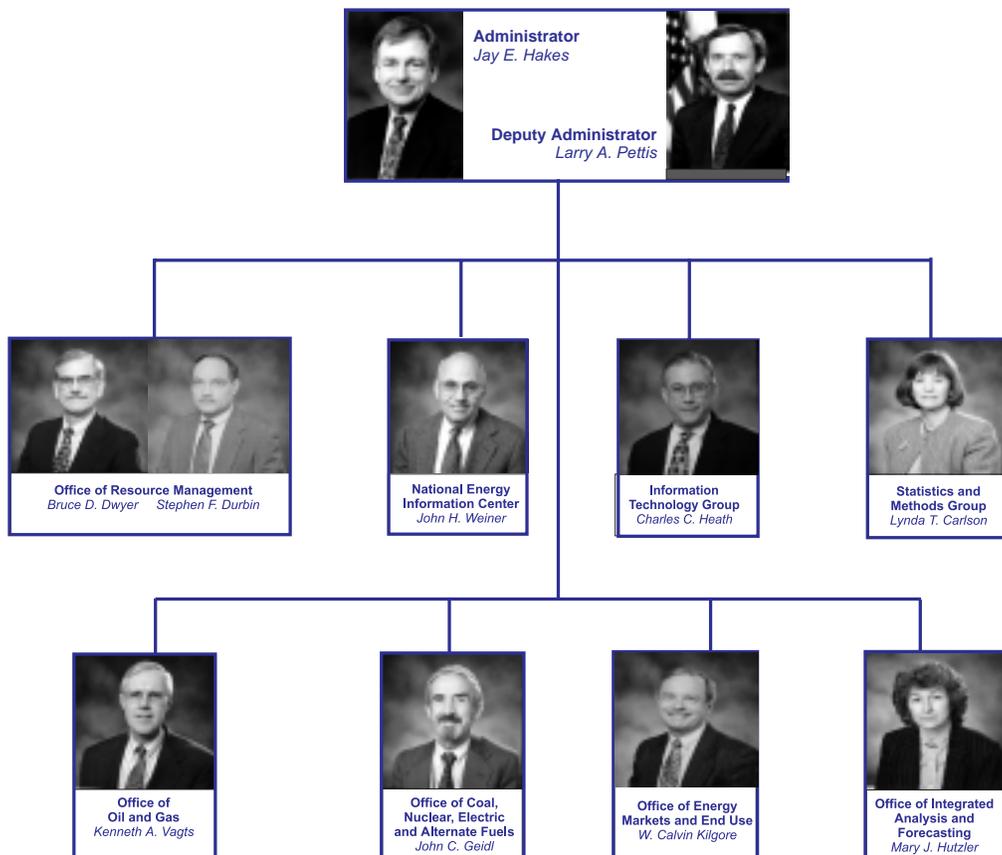


Figure O-1: EIA Organization Structure

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1 Leadership

From its creation in 1977 through the early 1990's, EIA's leaders followed a traditional hierarchical management approach. This model provided an organized framework for carrying out a set program under stable conditions with plentiful resources. During those years, EIA developed high standards of product quality, monitored performance statistics at the individual survey level, made major strides in automating processes and built partnerships with respondents. Individual effort, professionalism and dedication to customer service were highly valued in the culture. However, a hierarchical management structure also creates compartmentalization and competition among organizational units and does not encourage corporate-level planning and collaboration. When faced with impending drastic budget and staff reductions five years ago, our current leaders realized that EIA's traditional management model had to change. We became one of the first DOE Headquarters' units to embrace the "quality" movement and we undertook many initiatives in the name of quality - some successful, others not. EIA's various offices pursued their early improvement activities independently and at varying levels of commitment.

Our leaders learned from those pioneering efforts and the flurry of early activity soon evolved into a more mature corporate approach. Today our leaders drive performance excellence initiatives through a fully-vetted corporate strategic plan using a process that has been refined over four cycles. Leadership mechanisms are now in place which implement innovations and fine tune business practices more systematically. A seminal event in the maturing of our leadership team occurred in 1995 when virtually all EIA managers attended DOE's three-day "Leaders for a Customer Driven Organization" workshop conducted by the Federal Quality Consulting Group (formerly Federal Quality Institute). Our Administrator and Deputy Administrator each championed a session, and the results were pivotal in starting to change

from a competitive culture towards a more collaborative culture. The two-day "EIA Collaborative Management" Workshop, held in late 1996, was the next event at which our management practices were reviewed and refocused. Two major outcomes were "EIA Principles of Collaborative Management" (Figure 5-1) and a refocusing of the 40 cross-organizational teams then existing. We now have less than a dozen cross-organizational teams.

1.1 Leadership System

EIA's strategic plan is the primary mechanism through which our leaders set the agency's overall direction. It drives Office and Group operational plans which underlie our core business activities. Our Administrator's vision is incorporated into our strategic plan and Office Directors' and Group Leaders' visions for their units are incorporated into their plans, in alignment with the corporate plan. The Administrator, his Deputy and their direct reports are personally involved in the strategic planning process, which has evolved over four cycles into an EIA-wide collaborative effort. Preliminary results for corporate performance measures were available for the first time in 1997 - following a two-year development process - so our leadership incorporated the quantitative measures into the corporate strategic plan, supplementing them with qualitative measures. These measures have also been incorporated into individual Office plans. Leaders met personally with employees in all-hands meetings and smaller group meetings to discuss the plan, and copies were disseminated both electronically and in hard copy to every employee. In this way our leaders set and communicated the strategic direction and priorities for EIA.

As Figure O-1 shows, EIA's leadership team consists of Administrator Jay Hakes, Deputy Administrator Larry Pettis and the leaders of our eight principal units - collectively referred to as the "EIA Senior Staff." Along with the Senior Staff,

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Figure 1-1 Leadership/Management Responsibilities

there are three other key corporate-level groups comprising our leadership system: the EIA Quality Council, the Business Reengineering (BR) Steering Committee, and the EIA/NTEU Partnership Council (Figure 1-1). The activities of these four groups are as follows:

1. Senior Staff

The Senior Staff are EIA's top-level managers. They meet every other week and the minutes of their meetings are posted electronically on the Administrator's bulletin board for all employees to read. At these meetings, Jay and Larry lead discussions of current DOE policies, requirements, plans and activities affecting EIA and participants discuss current plans, programs, resource allocations and operational results. Managers conduct their own staff meetings, cascading important information down to all employees either orally or electronically, or both. Each of the principal units maintains its own bulletin board, posting meetings, minutes, notices and concerns

accessible to all employees. For the last five years, Jay and Larry have used a non-prescriptive, lead-by-example approach, role-modeling and teaching their leadership approaches while encouraging managers to develop their own strategies and plans that link to and support the corporate strategic plan.

In advance of each fiscal year, Jay and Larry work with the Senior Staff to allocate EIA's resources (staffing levels and contract, training and travel funds) through the Annual Operating Plan (AOP) process. This provides each operating unit its budget allocations. Managers monitor progress against performance objectives weekly, monthly and annually according to the schedules of their work unit's principal activities. The 44 performance measures in the strategic plan (Figure 2-3) provide the basic evaluation criteria for this ongoing process. Senior leaders' annual performance reviews are based not only on performance results, but also on their personal

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behaviors such as demonstrable support of our corporate goals and core values, designed to encourage movement towards a collaborative culture.

2. EIA Quality Council

Started in 1994 and meeting monthly, its purpose is to initiate and champion EIA's efforts in customer service, process improvement, performance measurement, collaboration, employee well-being and training, and other crosscutting activities at a corporate level. Minutes of Quality Council meetings are posted on EIA's Vision 2000 bulletin board. Chaired by the Deputy Administrator, it is composed of 15 management and non-management personnel (including union representation and a customer focus advocate) serving on a rotational basis. Both Jay and Larry serve on the Subgroups of the Council, as do many other Senior Staff. The three Quality Council Subgroups are:

- **Customer Survey Subgroup:** provides leadership for EIA's **Customer Survey Committee**. Survey results are presented to senior staff and all employees in special briefings and posted on the Announcements bulletin board.
- **Self Assessment Subgroup:** provides leadership for our **Performance Measures Implementation Team**, our self assessment activities and, in 1998, our application for the Energy Quality Award.
- **Organizational Climate Survey Subgroup:** provides leadership for EIA's organizational climate survey, analyzes results and recommends improvement actions.

3. Business Reengineering Steering Committee

Created following EIA's major business process reengineering project in 1995-1996, this management team (with union participation) guides implementation of specific major reengineering innovations and monitors their

progress. Jay, Larry and other leaders participate actively on this committee. Information is communicated to employees through the Business Reengineering bulletin board, including minutes of the meetings, and through cascading by senior management.

4. EIA/NTEU Partnership Council

Its purpose is to ensure close labor-management collaboration on issues affecting employee well-being. Members are Jay, Larry, the NTEU Chapter 213 President, other EIA managers and union representatives. EIA has included union representation in its major planning activities for the last four years and union representatives routinely attend most work-unit staff meetings. This has resulted in early identification and resolution of many labor-management issues.

The Administrator or the Quality Council charters corporate teams with specific functions. Currently, the following corporate teams exist in addition to those highlighted above:

- The **Analysis Review Board** conducts customer outreach and oversees the analysis proposal process resulting in recommendations to the Administrator about which energy analysis issues and projects EIA should perform in the coming year.
- The **EIA Diversity Advisory Committee** provides recommendations and conducts programs on all aspects of diversity within EIA.
- The **Common Data Definitions Team** ensures that EIA has common definitions, identifies and resolves multiple definition issues and ensures consistency for new energy-related terms.
- The **Information Product and Services Committee** oversees development of our Web site and related activities.

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- The **Rent Avoidance Team** evaluates our space requirements and recommends space reallocations to minimize rent costs.

In 1997 EIA leaders and employees frequently met with customers (e.g., Congressional staff, media, energy analysts, etc.) and suppliers (e.g., respondent groups, contractors) to make sure that customer needs and expectations were included in our planning process, as well as to provide EIA information products to them. Our leaders and employees delivered speeches and briefings to customers, represented EIA at meetings with them, conducted seminars for them, and talked to them on the telephone throughout the year. For example, the Administrator chaired two Customer Roundtables in 1997 (government and non-government energy experts) in order to learn public concerns over energy issues which we might address in our analysis program. Because the restructuring of the electric power industry was the leading topical issue of 1997, one Division Director conducted a series of high-level educational briefings for Congressional and other customers (e.g., three for the Senate Energy and Natural Resources Committee, one for the House Energy and Power Subcommittee). We also sponsored 11 formal customer focus groups in 1997 to learn their preferences for electricity information. The results of these customer meetings are communicated back to employees through summaries posted on our bulletin boards.

The Administrator has led EIA employees in looking for opportunities to work with the media to get our information out to the greatest number of customers. He considers this initiative so important that it is included in our strategic plan with measurable goals of increasing the number of citations in the overall print media, in major newspapers, and on television and radio. This initiative has other benefits: it has a very positive effect on employee morale when they see the results of their efforts quoted in newspapers and on television and it provides us feedback about whether our products are understandable by non-technical audiences, a growing customer

group. The Administrator has envisioned analogous goals and benefits for our Web site work.

In order to continually communicate his vision and plans, our Administrator maintains an active dialogue with employees via e-mail, conducts employee seminars and has authored 9 articles in *EIA Today* (the EIA monthly newsletter) on topics such as effective communications, change management, performance measurement, process mapping, and outputs vs outcomes. During "EIA Communications Day" (sponsored by EIA's Diversity Advisory Committee) Jay conducted a seminar on "Government in the 21st Century" and Larry conducted one on "The Future of EIA." During the year, they conducted four employee discussion groups on strategic issues and used the results in the strategic planning process. In the Organizational Climate Survey, the statement "Management effectively communicates the agency's mission to employees" was agreed to by EIA employees more than by employees in other statistical agencies (Figure 7.3-2).

EIA's leadership practices are evaluated and improved through several mechanisms:

1. They were reviewed formally twice at off-site retreats (in 1995 and 1996) which involved all managers. Action plans for improvements were developed at those retreats and many have been successfully implemented (e.g., collaborative management principles.)
2. Ongoing discussions at the biweekly Senior Staff meetings produce continual fine-tuning of EIA management processes.
3. Individual leaders' practices are reviewed by senior management annually as part of EIA's performance evaluation process.

Our leaders have often gone beyond what is required in striving for performance excellence. This is exemplified by Jay's support of EIA's development of performance measures well in advance of the requirements in the Government

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Performance and Results Act (GPRA). He also provided our chief statistician to teach development of performance measures to other DOE headquarters offices. Our early work in performance measures allowed us to become one of the 20 GPRA pilot agencies in the Federal government. When DOE began sponsoring "Seven Habits of Highly Effective People" workshops in 1993, Jay and Larry funded supplementary EIA workshops so that more EIA employees could participate sooner. Other EIA leaders have followed Jay and Larry's lead by supporting and extending their leadership behaviors. Examples:

1. **Ken Vagts**, Director of the **Office of Oil and Gas**, established a collaborative, team-based approach to plan the Office's reorganization, in order to implement Business Reengineering innovations, gain efficiencies and lower the manager/non-manager ratio. The planning process took almost a year to complete because all employees participated and their many concerns were addressed and resolved ahead of time. The reorganization was approved in October, 1997 and has been implemented successfully.
2. Following the elimination of the SES position in the Office of Planning, Management and Information Services in 1996, its three subgroup leaders **John Weiner**, **Bruce Dwyer** and **Steve Durbin** proposed a shared leadership/team approach, to pilot test the Business Reengineering recommendation for more shared leadership positions, which was approved. John now leads the **National Energy Information Center**, which focuses on customers. Steve and Bruce co-lead the **Resource Management Office**, which focuses on employees and suppliers, following "EIA Principles of Collaborative Management" by involving all staff in the training and planning to transform the group into three self-directed teams. The results of this pilot effort will be evaluated this year.
3. **Lynda Carlson** became Director of the **Statistics and Methods Group (SMG)** in February, 1997 and immediately began to create a new vision and mission for the unit. Formerly as the Office of Statistical Standards, the group was viewed as EIA's internal auditor, checking on others' work. The group now works collaboratively with its EIA customers to assure that performance excellence is built into programs from their inception, rather than "blowing the whistle" at the end of a project. The group is now partnering with units throughout EIA on electricity deregulation, natural gas survey coverage trends and modeling issues.
4. **Cal Kilgore**, Director of the **Office of Energy Markets and End Use**, saw the potential of electronic dissemination well in advance of its popular acceptance and encouraged the development of a corporate EIA strategy for utilizing CD-ROMs and the Internet. His pioneering efforts, strongly encouraged by the Administrator, have placed us in a leadership role among government information providers and have resulted in a dramatic increase in EIA's customer base.
5. When Congress mandated a 70% reduction in the contract budget for the **Office of Integrated Analysis and Forecasting** in FY1996, Office Director **Mary Hutzler** immediately began a collaborative zero-based budgeting process in which staff proposals were evaluated and prioritized by Office managers and then discussed with staff at an all-hands meeting. While the drastic resource reduction resulted in the loss of many projects and lowered morale, the open and collaborative process that Mary started helped staff to acclimate to the new realities while enhancing the reputation of the Office's main product, the *Annual Energy Outlook*.
6. When EIA's first employee Culture Climate survey was completed, **John Geidl**, Director of the **Office of Coal, Nuclear, Electric and Alternate Fuels**, set up eight discussion

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groups between staff and managers to pursue areas for improvement revealed by the survey results. Based on the information gathered at these sessions, three teams were set up to improve recognition, training and information circulation within the Office. In addition, seven other initiatives were undertaken to improve operational processes. All of these efforts developed recommendations which have now been implemented.

7. One EIA leader supported the change process by providing partial funding for one employee to obtain an advanced degree in Organizational Development. Also two Offices have individuals dedicated solely to quality management and organization improvements.

1.2 Company Responsibility and Citizenship

1.2.a Societal Responsibilities

EIA has a tradition of sensitivity about the impacts of its actions on others, in both how it collects information (input) and how it disseminates information (output). On the input side, we are very sensitive to the effect of our actions on our survey respondents. We are a strong supporter of Federal initiatives to control the burden of our data collections on our respondents (Paperwork Reduction Act). This minimization of burden translates into reduced costs for business in completing our survey forms. We also respect the nature of company-level data and protect the confidentiality of sensitive data provided by our 120,000 respondents so as not to jeopardize their competitive positions. We use aggregation procedures refined over two decades which protect sensitive company-level data from disclosure. Aggregations that might inadvertently reveal company information are not published. We are active on an intergovernmental team that reviews techniques to protect confidentiality.

On the output side, we take numerous steps to avoid the harmful effects of incorrect or biased information or information leaking prior to release.

Our data collection activities are scientifically designed so that our information is accurate and reliable—a major concern because EIA information is routinely used in public debate on far-reaching energy, financial and environmental issues. We seek out best practices and assess the technical aspects of our statistical programs with the American Statistical Association Committee on Energy Statistics, an advisory committee created specifically to evaluate EIA's statistical activities. We take very seriously our mandate to provide "policy-neutral" information for the benefit of the public at large, independent of the political party in power. To protect our neutrality, we do not provide our information or analysis results to Administration officials for approval prior to their release to our customers. To ensure that our energy data are unbiased by any employee connections to outside groups, we adhere to more stringent standards of conduct regarding travel reimbursement and attendance at conferences than are required by DOE. Realizing the far-reaching impact that our information can have on energy and financial markets, we prevent its premature release with "information embargoes." We produce many information products specifically designed to provide American citizens with useful information about energy consumption, prices and supplies. Our easy-to-use Web site allows a high-school student in Boise or a small-business owner in Topeka to have ready access to the same energy information as a professional energy analyst in New York.

1.2.b Support of Key Communities

One of our most important actions in support of communities is providing special information support to people experiencing energy emergencies or unforeseen price increases, including on-site support staff, 24-hour hotlines and survey forms pre-cleared by OMB for emergency use. In 1996, DOE's Office of Emergency Management, EIA and the National Association of State Energy Officials agreed to establish a communications system to be used during energy emergencies. Each State was asked to designate an Energy Emergency Information Coordinator; EIA/DOE sets up and maintains

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communications during an energy emergency. To date, 53 of 55 States, territories, and commonwealths are participating, most using the Internet to exchange information with EIA. Also, to assist in energy emergencies, EIA supported DOE's Heating Fuels Monitoring Committee—set up during the unusually cold winter of 1996/97—by providing special information to help affected communities.

Our leaders have sponsored a number of other programs of direct benefit to communities, including donation of 25 surplus computers to John Eaton Elementary School in Washington, DC; sponsorship of two student interns at Howard University (\$50,000 per year); assistance to Historically Black Colleges and Universities and Hispanic Serving Institutions – \$88,000 was claimed in FY97 for donated computer equipment and \$62,000 was paid for student fellowships and internships; preparation of energy educational materials for primary and secondary school students; distribution of Energy Awareness

brochures to households; setting up an EIA booth at the Boy Scout National Jamboree; providing EIA judges for DOE's National Science Fair; providing speakers on energy topics for community and trade group events; supporting the "Stay In School" program - which has provided part-time jobs for local high school and college students; sponsoring EIA summer jobs for young people; and hiring 4 people in the "Welfare to Work" program (for which EIA received a Vice-Presidential citation.)

In 1997, the Administrator, along with the Secretary of Energy, co-chaired the Combined Federal Campaign for the Department of Energy. EIA staffers helped him by designing and implementing systems to carry out the campaign more efficiently and quickly (one month instead of the usual three). Through EIA's efforts, DOE's 1997 participation rate increased to 63% (from 59% in 1996) - one of the highest of any major Federal agency. DOE's average gift per employee in 1997 was \$169 (up from \$148 in 1996) - the highest of any major U.S. Department.

Some Of Our Publications



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Highlights

Growth in energy use is projected worldwide through 2020. The demand for electricity in homes, business, and industry is growing in all regions, as is the demand for petroleum-powered personal transportation.

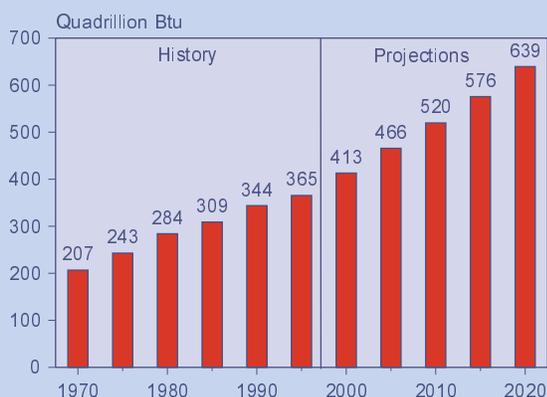
The *International Energy Outlook 1998 (IEO98)* reference case forecast indicates that by 2020, the world will consume three times the energy it consumed 28 years ago in 1970 (Figure 2). Much of the projected growth in energy consumption is attributed to expectations of rapid increases in energy use in the developing world—especially in Asia. Although the economic downturn in Asia that began in mid-1997 and continues into 1998 has lowered expectations for near-term growth in the region, the forecast still suggests that almost half the world's projected increase in energy consumption will be in developing Asia (Figure 3). Strong long-term economic growth in the Asia Pacific is expected to result in improved standards of living which, in turn, will mean increased use of energy for a variety of residential and commercial purposes and for personal transportation. By 2020, the projected energy consumption in developing Asia (including China and India, but excluding Japan, Australia, and New Zealand) surpasses that of all North America by more than 50 quadrillion Btu (36 percent).

Total world energy consumption in the *IEO98* reference case is projected to reach 639 quadrillion Btu in 2020, an increase of almost 274 quadrillion Btu (75 percent) over

1995 levels (Figure 2). The developing world will account for 174 quadrillion Btu (64 percent) of the world's increment in energy use. In 1995, energy consumption in the industrialized countries exceeded that in the developing countries by 86 quadrillion Btu (76 percent), but by 2020 the developing countries surpass the industrialized countries by 16 quadrillion Btu (6 percent) (Figure 4). Developing Asia accounted for only 20 percent of the world's energy use in 1995, but its share grows to over 30 percent by 2020 in the *IEO98* reference case (Figure 5), with an increment of 128 quadrillion Btu (178 percent) projected for the countries of that region over the forecast.

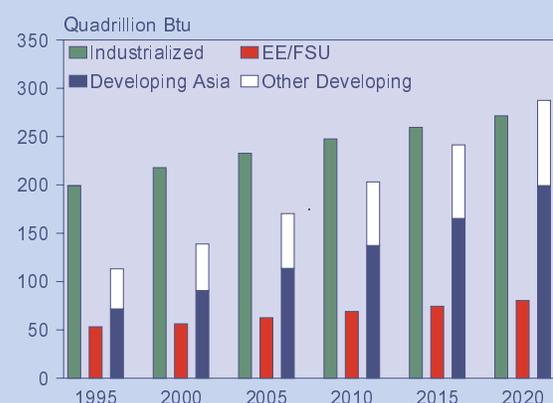
Two developments in 1997 may substantially impact future energy demand levels: the deep economic recession in Southeast Asia and the potential consequences of the Kyoto Climate Change Protocol. The Asian economic downturn has resulted in some short-term reductions in expectations for the energy use there. No adjustments were made to the projections to account for the effects of the Kyoto Protocol, however, because the *IEO98* forecast is based on current laws and regulations.

Figure 2. World Energy Consumption, 1970-2020



Sources: **History:** Energy Information Administration (EIA), Office of Energy Markets and End Use, *International Energy Statistics Database and International Energy Annual 1996*, DOE/EIA-0219(96) (Washington, DC, February 1998). **Projections:** EIA, World Energy Projection System (1998).

Figure 3. World Energy Consumption by Region, 1995-2020



Sources: **1995:** Energy Information Administration (EIA), Office of Energy Markets and End Use, *International Energy Annual 1996*, DOE/EIA-0219(96) (Washington, DC, February 1998). **Projections:** EIA, World Energy Projection System (1998).

A typical page from an EIA hard-copy publication (*International Energy Outlook 1998*).

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2 Strategic Planning

EIA's current strategic planning process started in 1994 and has been refined over four cycles. Prior to 1994, we developed and implemented annual and multi-year operating plans around individual programs, without a corporate perspective. Our present strategic planning process uses corporate-wide operational, customer and employee information and specifies corporate-wide performance measures and performance goals. In 1997, the Strategic Plan was also made available to the public, both in hard-copy and on our Web site.

2.1 Strategy Development Process

In 1997, we used a five step process to develop and deploy the corporate strategic plan and the program office action plans, as shown in Figure 2-1. There were six significant innovations this year; two were structural and four were process improvements. The structural changes were (1) expanding the planning horizon to 2002 and (2) incorporating EIA's corporate performance measures into the plan.

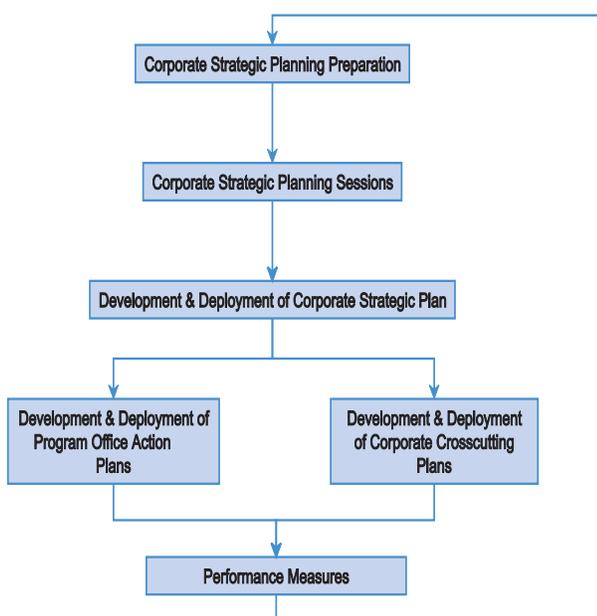


Figure 2-1 EIA Strategic Planning Process

The process improvements occurred in the steps identified in Figure 2-1. The **first** significant process improvement was the systematic compilation of input data for use in the corporate strategic planning sessions (Corporate Strategic Planning Preparation). The data compilation effort provided the participants in the strategic planning process with key information in five major areas: customer feedback, employee perceptions, agency capabilities, status of major work efforts and five-to-ten-year trend and risk projections. Feedback from customers was compiled from systematic surveys of our telephone, Listserv and Web site customers. Information on human resources, specifically employee perceptions and suggestions, was available from the organizational climate survey, from the results of four discussion groups conducted by Jay and Larry specifically for this purpose, and from a special survey fielded by the strategic planning staff. These discussion groups were designed to obtain employees' and managers' perceptions of our progress towards fulfilling our previous strategic goals and the priorities we should place on each of them in the next five years. The special survey of all employees (Federal and contractor) was intended to gain the same information from a wider selection of employees.

The strategic planning staff organized the collection and reporting of agency capabilities and the status of major work efforts from the agency's cross-functional work teams and committees. This collection and reporting effort also provided the teams and committees with the opportunity to provide input to the strategic planning process about issues they felt the planners needed to address. Concurrently, an update on the status of strategic corporate initiatives from the prior year's strategic plan was prepared and a group led by Jay identified the major political, economic, financial, technological, competitive and societal trends and risks that will affect EIA during the next five to ten years (Figure 2-2).

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Major Political Trends:

- Balanced budget by 2002
- Attempts to abolish the Department of Energy
- Privatization
- Government reinvention/customer service
- Government Performance and Results Act (GPRA)
- FTE allocation.

Major Economic Trends:

- Energy crisis
- Possibility of increased price volatility due to lower fuel inventories
- Deregulation of electric utilities
- Carbon mitigation
- Merger of energy companies
- Economic stability
- Economic growth & emissions.

Major Technological Trends:

- Rapid change in information technology
- Rate of technology-induced changes
- Centralization versus decentralization
- Change versus resource availability
- Training
- Transition from pull to push technology
- Virtual communities
- Automation-productivity enhancement.

Major Social Trends:

- Workplace issues of telecommuting, diversity and downsizing
- Retail energy choices/competition
- Role in customer/consumer education
- Terrorism
- Technology-induced social change.

Figure 2-2 Major Trends Affecting EIA

These results were consolidated and presented to all strategic planning participants for a critical issue review prior to actual planning, the **second** process innovation initiated during this cycle. In prior years, this step had been conducted during the planning session, but by doing it in advance, we found that participants were better prepared and able to be more productive sooner. The strategic planning participants were Jay, Larry, the directors of EIA's eight Offices, the budget officer, the quality coordinator, two union representatives and a staff support group. During three working sessions occurring within a month and a half, the participants reconfirmed the mission, vision and strategic goals of EIA, redefined the strategic objectives, approved performance measures and linked them to the objectives. During this phase the **third** significant process innovation occurred. Midway through the sessions, the Office Directors personally took the draft strategic objectives and performance measures to small groups of employees at all levels of their organizations to receive in-process feedback from employees, which was then used to refine the plan. The performance measures and strategic objectives

were also reviewed by our Performance Measures Committee for appropriateness.

Once the Strategic Plan was completed, it was distributed to every employee (Federal and contractor) in hard copy and summary card form and posted on EIA's Intranet site. Our senior management met with all employees at all-hands and other meetings to explain the plan. Copies were delivered to senior DOE officials, the Office of Management and Budget, several key staffers in Congress and interested parties in academia and the plan was made available to the general public in hard copy and on EIA's Internet site. Even though not specifically required by GPRA, we voluntarily submitted a copy of the Strategic Plan to the U.S. General Accounting Office for its review. GAO noted that while EIA was not required to develop a strategic plan, the plan included three of the six elements required by the GPRA. GAO positively reviewed EIA's goals, objectives and performance measures and highlighted areas to address in the future.

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2.2 Agency Strategy

2.2.a Strategy and Action Plans

Our Strategic Plan (1998-2002) is summarized in Figure 2-3, which shows its five strategic goals, their associated objectives and performance measures. (Measures with quantitative goals are highlighted in blue.) It embodies our commitment to become ever more customer-driven, more performance-based and more technically innovative. The Plan quantifies our important customer-based performance criteria: product quality, timeliness, relevance and ease of access.

As a direct result of listening to our customers, our strategy is to maintain the present quality of our products and services, while improving their

timeliness. We plan to achieve that goal through increased use of enterprise-wide information technology and electronic collection and dissemination. To become more performance-driven, we will continue to refine our performance measures and increase the personal accountability of supervisors by putting plans for measurable accomplishments in their performance standards. We will continue EIA's emphasis on human resource development through use of systematic workforce planning, appropriate training and encouragement of diversity in the workforce.

The creation of program office action plans was the **fourth** process innovation instituted this cycle.

Figure 2-3 Elements of EIA's Strategic Plan (1998-2002)

Strategic Goal 1. We will work together to achieve the full potential of a diverse workforce.	
Objectives	Measures
1.1 EIA teams will acquire and use effective team-building skills in carrying out team-related work by 2000.	1.1.1 Combined score on the organizational climate survey questions related to teamwork. 1.1.2 Number of multi-office analysis proposals and the number of multi-office funded projects.
1.2 EIA will support its employees in acquiring the training necessary for them to do their jobs well between 1998 and 2000.	1.2.1 Combined score on the organizational climate survey questions related to training. 1.2.2 Number of internal seminars and courses and the sum total of attendees at these seminars and courses. 1.2.3 Percent of employees attending at least one course requiring the use of training funds. 1.2.4 Qualitative assessment of the percent of Federal employees that have completed or have the skills related to the EIA recommended core competencies.
1.3 EIA will have highly qualified staff in permanent senior positions in each of its primary workforce disciplines by 2002.	1.3.1 Qualitative discussion of EIA's actions and the associated results.
1.4 EIA will increase the representation of qualified minorities and women in senior positions (both technical and management) between 1998 and 2002.	1.4.1 Progress in achieving this objective will be measured in the annual EIA Equal Employment Opportunity Report.
1.5 EIA will employ systematic workforce planning techniques by 1999 to guide its staff and managers in achieving its human resource objectives.	1.5.1 Qualitative discussion of EIA's actions and the associated results.

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Figure 2-3 Elements of EIA s Strategic Plan (1998-2002) (continued)

Strategic Goal 2. EIA will assure its data, analyses and forecasts are of the highest quality.	
Objectives	Measures
2.1 EIA will improve customer satisfaction with the accuracy of its data and analyses between 1998 and 2002.	<p>2.1.1 Increase the share of customers who are very satisfied (the highest rating on a scale of five) with the accuracy of EIA information from the 1995 base of 51% to a 2002 goal of 60%.</p> <p>2.1.2 Maintain the 1997 base of 95% of customers who are either satisfied or very satisfied (the highest two ratings on a scale of five) with the accuracy of EIA information.</p>
2.2 Data accuracy will remain stable, or improve over time, as EIA improves the timeliness of its data and analysis products between 1998 and 2002.	2.2.1 Data accuracy will be measured at the survey level, with up to five elements per survey, by percent sampling error, percent non-sampling error, revision error rates.
2.3 Forecast credibility will remain stable, or improve over time, as EIA improves the timeliness of its products between 1998 and 2002.	<p>2.3.1 Compare the percent difference between actual and forecast for 10 key values for EIA short-term models.</p> <p>2.3.2 Conduct a comparison of domestic mid-term model forecasts of key variables with historical data and prepare a qualitative discussion of factors that led to differences.</p> <p>2.3.3 Conduct a comparison of international mid-term forecasts of total world energy consumption and world consumption by fuel with historical data in 5-year increments beginning with the availability of 1995 international data and prepare a qualitative discussion of factors that led to differences.</p>
Strategic Goal 3. EIA will assure its products and services are relevant to the needs of its customers.	
Objectives	Measures
3.1 EIA will improve customer satisfaction with relevance between 1998 and 2002.	<p>3.1.1 Increase the share of customers who are very satisfied with the relevance of EIA information from the 1995 base of 60 % to a 2002 goal of 70%.</p> <p>3.1.2 Maintain the 1997 base of 99% of customers who are satisfied or very satisfied with the relevance of EIA information.</p>
3.2 EIA will increase the number of citations of energy information attributed to EIA in the news media between 1998 and 2002.	<p>3.2.1 Increase citations in the overall print media by an average of 10% per year.</p> <p>3.2.2 Increase citations in major newspapers by an average of 10% per year.</p> <p>3.2.3 Increase citations on television and radio broadcasts by an average of 10% per year.</p>
3.3 EIA will increase its customer base between 1998 and 2002.	<p>3.3.1 Increase of the number of unique daily users of EIA's Internet site by an average of 25% per year.</p> <p>3.3.2 Increase the downloads of the electronic file versions by an average of 25% per year.</p>

CRITERION 2. STRATEGIC PLANNING

Figure 2-3 Elements of EIA s Strategic Plan (1998-2002) (continued)	
3.3 EIA will increase its customer base between 1998 and 2002 (continued).	<p>3.3.3 Increase the number of Energy InfoDiscs sold by an average of 5% per year.</p> <p>3.3.4 Achieve an annual subscription renewal rate for the Energy InfoDisc of an average of 50% by 2002.</p> <p>3.3.5 Select, corporately, one or more customer segments each year and attempt to increase the number of users in those segments by at least 25%.</p> <p>3.3.6 Increase the number of briefings given to senior executives and Congressional policy makers by an average of at least 20% per year.</p>
3.4 EIA will improve the design and delivery of EIA products and services between 1998 and 2002 to take full advantage of electronic dissemination of energy information to our customers.	<p>3.4.1 Annually conduct customer surveys, customer discussion groups, and Internet response analyses and provide qualitative discussion of EIA's actions and the associated results.</p> <p>3.4.2 Provide a qualitative discussion of EIA's actions to reduce the number and size of paper publications and the redesign of the remaining paper publications and the results of these actions.</p>
3.5 Each EIA office will eliminate its lease relevant energy information products and services and reallocate the resources to emerging energy issues and enhanced product delivery between 1998 and 2002.	3.5.1 This objective will be measured at the office level and be presented as a qualitative discussion of EIA's actions and the associated results.
Strategic Goal 4. EIA will provide its customers with fast and easy access to public energy information.	
Objectives	Measures
4.1 EIA will improve customer satisfaction with overall service between 1998 and 2002.	<p>4.1.1 Increase the share of customers who are very satisfied with overall service from the 1995 base of 68% to a 2002 goal of 80%.</p> <p>4.1.2 Maintain the 1997 base of 99% of customers who are either satisfied or very satisfied with overall service.</p>
4.2 EIA will improve customer satisfaction with timeliness between 1998 and 2002.	<p>4.2.1 Increase the share of customers who are very satisfied with timeliness from the 1995 base of 32% to a 2002 goal of 50%.</p> <p>4.2.2 Increase the share of customers who are either satisfied or very satisfied with timeliness from the 1995 base of 73% to a 2002 goal of 80%.</p>
4.3 EIA will improve customer satisfaction with ease of access between 1998 and 2002.	<p>4.3.1 Increase the share of customers who are very satisfied with ease of access from the 1995 base of 64% to a 2002 goal of 70%.</p> <p>4.3.2 Maintain the 1997 base of 92% of customers who are either satisfied or very satisfied with ease of access.</p>

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Figure 2-3 Elements of EIA's Strategic Plan (1998-2002) (continued)	
4.4 EIA will improve the timeliness of its products between 1998 and 2002.	<p>4.4.1 The median for electronic release of data from EIA annual publications will be 165 days after the close of the reference period. The median for release of printed EIA annual publications will be 180 days after the close of the reference period.</p> <p>4.4.2 The median for electronic release of data from EIA quarterly publications will be 75 days after the close of the reference period. The median for release of printed EIA quarterly publications will be 90 days after the close of the reference period.</p> <p>4.4.3 The median for electronic release of data from EIA monthly publications will be 30 days after the close of the reference period.</p>
Strategic Goal 5. As a performance-driven organization, we will conduct our business in an efficient and cost-effective manner.	
Objectives	Measures
5.1 All new and revised EIA data, model, analysis, information technology, and management systems will have quality performance measures built into their designs.	5.1.1 This objective will be measured by a qualitative narrative report on implementation actions taken by each office. The quality performance measures include edit checks, imputation flags, cost per unit, follow-up attempt records and peer reviews. These measures will be used as a basis for ongoing improvements.
5.2 EIA offices will sustain or improve their level of service between 1998 and 2002 without budget adjustments for the rates of inflation experiences in recent years.	<p>5.2.1 This objective will be measured by a qualitative narrative by each office. Budgets will not be given any upward adjustments to account for inflation.</p> <p>5.2.2 Combined score on the organizational climate survey questions related to innovation and change.</p>
5.3 Senior Executive Service and full supervisors will be responsible for measurable accomplishments in support of EIA's Strategic Plan beginning in 1998.	5.3.1 The basis for annual performance awards will include measurable accomplishments in support of the Strategic Plan and be presented as a qualitative discussion of EIA's actions and the associated results.
5.4 EIA will use performance measures to evaluate progress throughout the organization beginning in 1998.	5.4.1 Each EIA Office will have established performance measures that are consistent with EIA's performance measures and be presented as a qualitative discussion of EIA's actions and the associated results.
5.5 EIA will make intelligent use of technology, including use of off-the-shelf software wherever practicable, to provide better service at lower cost.	5.5.1 The Information Technology Group will monitor EIA's actions to implement this objective and provide a qualitative discussion of the results.

These plans, developed by the offices, were linked to the corporate strategic plan through congruent performance measures. Prior to 1997, only corporate level action plans were developed, which generally included only actions that cut across functions and organizations, leaving

responsibility for major office-level portions of the plan unspecified. Now, through office-level plans aligned with it, the corporate strategic plan is fully deployed throughout EIA. Individual office plans vary in format, content and emphasis, a conscious decision reflecting our leaders' non-prescriptive

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management philosophy. OO&G and CNEAF both vetted their action plans with employees in much the same manner as the corporate strategic plan was, and their plans are regularly reviewed and updated.

EIA is pursuing a twin-track resource allocation strategy. At the office level the resource allocation strategy is to eliminate the least relevant products and services and reallocate resources to emerging energy issues and enhanced product delivery (Objective 3.5 in Figure 2-3). Relevance will be decided primarily by input from customers. As an example, we are presently deciding whether to keep our public electronic bulletin board (EPUB) or to merge it into our Web site. At the corporate level, our resource allocation strategy is focused on obtaining additional resources to work on emerging energy issues, such as greenhouse gases and the restructuring of the electric power industry.

2.2.b Performance Projection

Of the 44 performance measures in the Strategic Plan, 22 have quantitative performance goals established for 2002. These performance goals are considered achievable and we project that they

will be met, some ahead of schedule. For example, goal 4.2.2 (increase the share of customers satisfied with timeliness to 80% by 2002) was met this year, four years ahead of schedule. As we accumulate more data with sufficient trend history, we will develop additional quantitative performance measures and associated goals.

We will continue to compare our performance levels to those of other organizations. Currently our membership on the Interagency Council of Statistical Agencies and the Task Force on One-Stop Shopping for Federal Statistics provides us natural opportunities to benchmark our performance to that of similar organizations. For example, we were one of 9 statistical agencies using the same organizational climate survey, so we were able to compare our results directly to 8 other organizations (Section 7.3). Through the Task Force we helped create the FedStats Web site, which provides us information about comparable Web sites. Customer satisfaction levels is another group of performance measures for which we have benchmark information (Section 7.1) and we will continue to use these sources of benchmark information to calibrate the goals in our strategic plan.



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3 Customer and Market Focus

EIA’s main business is the collection, analysis and dissemination of *energy* information and our expertise in survey design and data analysis transfers to the collection of *customer* information as well. We are very much aware of our vast customer base and very sensitive to their diverse needs and expectations. We are continually talking with customers, attending and conducting meetings, receiving electronic feedback, and fielding customer satisfaction and market research surveys to improve the quality, timeliness, comprehensiveness, and dissemination systems of our information.

classifications: (1) mode of access (e.g., paper publications, electronic, telephone); (2) type of organization they work for (e.g., government, industry, finance, academia); (3) how they use our information (e.g., research, forecasting, analysis, policy formulation, answering questions); and (4) type of data used (e.g., electricity, petroleum, international, forecasts). Within these diverse groups, EIA recognizes even deeper customer diversities: technical and nontechnical, ongoing and new, public and private, paying and nonpaying, domestic and international. Most of our customer survey work and analysis has been conducted based on the customer access mode. EIA’s customers by mode of access and type of organization are shown in Figure 3-1.

3.1 Customer and Market Knowledge

Using information from thousands of contacts each year, EIA segments customers using four

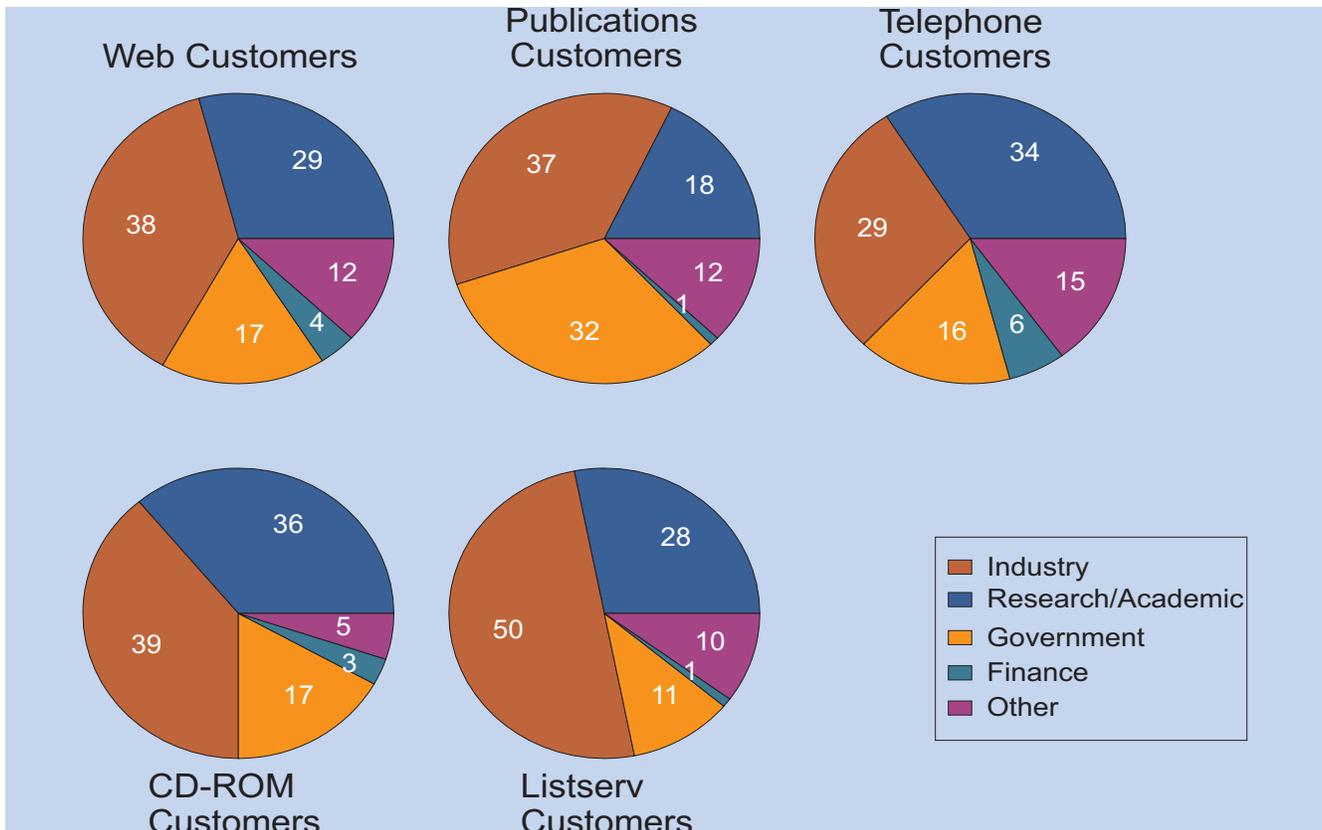


Figure 3-1 EIA Customer Groups by Mode of Access (%)

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Our largest group of customers overall is industry (29-50%) with research and academia second (Figure 3-1). Different approaches are used to gather information from different customer groups. Customer surveys have been conducted via telephone, on the Web, by mail and through e-mail, depending on the access method chosen by the customer to obtain information from EIA. The main purposes of these surveys are to measure customer satisfaction overall and satisfaction with different product and service attributes, and to determine the value to customers. Overall satisfaction and certain product features, such as timeliness and accuracy, are targeted for all customers. In addition, because one important issue facing EIA in the near term is the extent to which we can move away from paper publications to a much greater reliance on electronic dissemination, nearly all customer surveys seek customers' preferences in the area of access type to help shape future products and distribution. Questions unique to each customer group also are asked. For example, CD-ROM customers are asked about ease of loading the disc; Web site

customers are asked about whether the site is easy to use; telephone customers are asked about staff courtesy.

To determine and project customer profiles, requirements and satisfaction levels, EIA has established three main critical corporate-level processes. The **first** of these processes, which provides customer opinion data, is run by the Customer Survey Committee, a cross-organizational team chartered by the Quality Council to conduct systematic surveys of the various customer groups, addressing all of EIA's products. The Committee designs, fields, tabulates, and analyzes customer responses to these organization-wide surveys by customer access mode. The surveys further segment the customers within the survey group targeted and ask customers to rate their satisfaction with specific product and service aspects and ask which product and service attributes are the most important. This tells us where our efforts are most important in the eyes of the customers. As shown in Figure 3-2, it is clear that our customers use

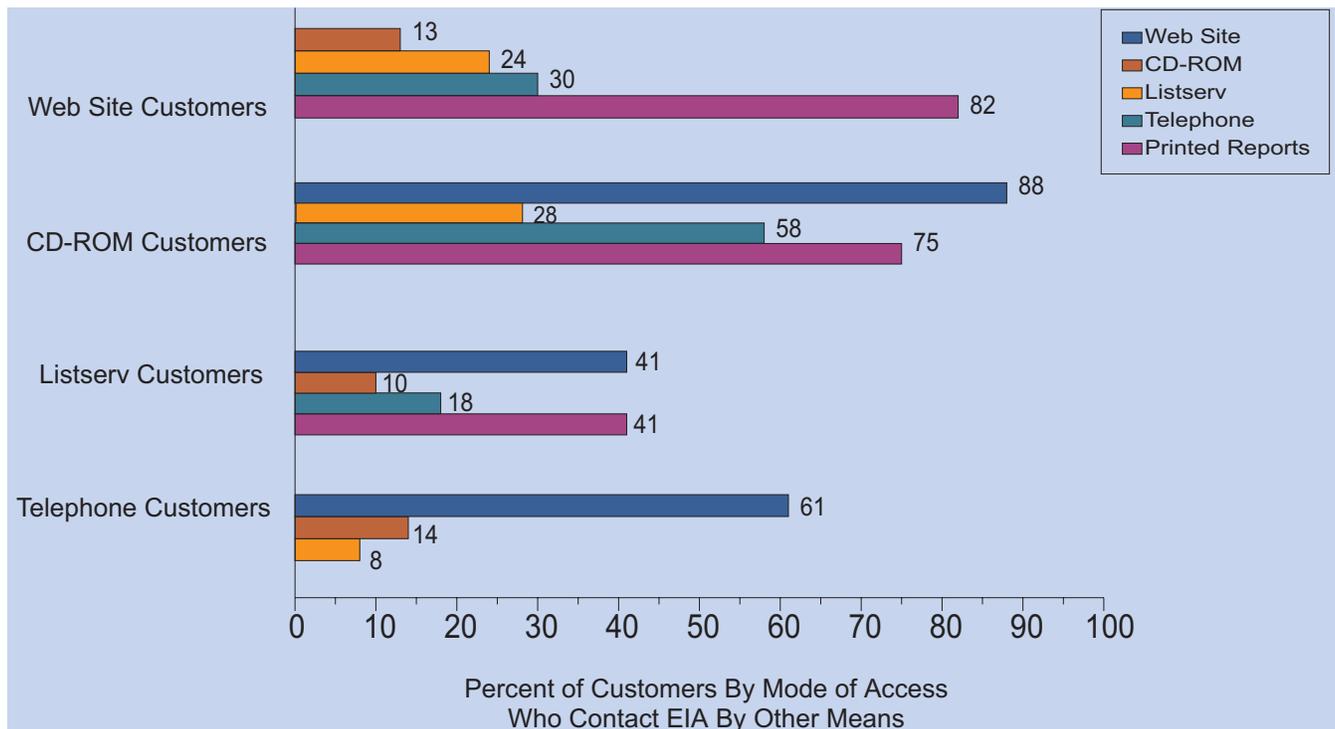


Figure 3-2 Customer Preferences For Alternative Modes of Access

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more than one type of access. For example, the largest percent of telephone and CD-ROM customers also use the Web site, while Listserv customers also use both the Web site and printed publications the most. On the other hand, Web customers also are heavy users of paper publications.

The **second** process provides actual usage statistics of EIA's information products - counts which are maintained on an ongoing basis. These hard customer data reinforce our customer preferences measured by the surveys by showing what the customers actually choose. The statistics by access type and data type include: Web site hits, hotline phone counts, hard copy subscriber counts, electronic Listserv subscriber counts, CD-ROM subscriber counts, and Electronic Publication (EPUB) usage counts.

The **third** process provides the ongoing feedback solicited electronically on the Web site, which is received by designated staff daily, responded to within 24 hours, directed to the appropriate staff and managers for information, summarized monthly and provided to all staff on an electronic bulletin board. In addition, in 1997 EIA established two new staff positions to focus on customers, one to collect and analyze customer feedback, and the second to conduct marketing and customer outreach efforts to existing and potential customers.

The process of eliminating a product or service in EIA involves examining not only usage statistics, but also analyzing the customer base. For example, the number of our EPUB users has been dropping with the introduction of the Web site. EPUB is an early technology that we introduced in 1984, well before the widespread availability of the Internet, to disseminate information electronically. Our first assumption was that the Web technology was overtaking EPUB. However, a customer survey of EPUB users showed that many of the remaining customers were taking advantage of the high downloading speed not available through the Web. While this information complicates the decision, it allows us to address

these customers' requirements before making a unilateral decision that could adversely affect them.

EIA also has different approaches to listening to and communicating with different customer groups. Besides corporate-level, formal surveys, EIA has targeted specific customer groups to determine products and features by: conducting briefing sessions for Congressional customers on the changing structure of the electric power industry; sponsoring annual conferences in specific areas of interest, such as the National Energy Modeling System/Annual Energy Outlook Conference, the Winter Fuels Conference, and the State Heating Oil and Propane Conference; holding focus groups with specific customer groups to gather input on specific requirements; arranging formal written agreements through "Memoranda of Understanding" with particular customers, such as the National Association of State Energy Offices, the Interstate Commerce Commission and the Bureau of Labor Statistics; and attending specific energy industry conferences to determine developing or changing customer needs.

EIA's approach to listening to and learning from customers has been refined over many cycles and is always being improved. Our customer surveys and survey processes are evaluated and improved each time. This evaluation and improvement process has been used most extensively by the Customer Survey Committee to improve the telephone survey, which is now in its fourth year. The upcoming customer survey for mail subscribers went one step further in evaluating the survey instrument. A recognized expert, external to EIA, reviewed the instrument and survey process and made recommendations based on previous controlled studies.

To keep current with changing needs, customer input is directly integrated into the strategic planning process each year. The preplanning notebook assembled for planners in 1997 contained a section on customer feedback results to define and focus on areas needing improvement.

CRITERION 3. CUSTOMER AND MARKET FOCUS

Customer feedback is the driving force for three of our five strategic goals: fast and easy access to public energy information; high quality information; and relevant products and services (Figure 2-3). Challenging but attainable performance goals and targets for year 2002 were established by studying satisfaction levels over the past three years. As the strategic plans, objectives, and measurement change, the customer surveys are reviewed to incorporate the relevant questions necessary to provide the measures.

3.2 Customer Satisfaction and Relationship Enhancement**3.2a Accessibility and Complaint Management**

Customer contact requirements vary by customer segment, particularly by type of access. Customers can contact us by telephone, letter, e-mail, fax, Internet, or in person. The first point of contact for our customers is usually the National Energy Information Center (NEIC), staffed with 11 knowledgeable information specialists whose primary responsibility is to respond to customer inquiries, particularly telephone calls and walk-ins. New information specialists receive hands-on training in customer service and meeting customer requirements from a senior information specialist. EIA's information specialists take pride in their service, and their dedication is reflected in their very high ratings for customer service (Figure 7.1-1). NEIC employees developed a detailed procedures book that documents how the Center provides service to its customers.

The Center also includes a public reading area with all major EIA publications clearly displayed. In addition, EIA makes it easy for customers to call employees directly in parts of the organization outside the Information Center. Specific contact information is provided in all of our publications, along with the NEIC telephone number and Web site address. Using the feedback button on the EIA home page, customers can communicate their requirements and concerns to EIA. Feedback received on the Web site is responded to quickly by designated staff and only transferred to other people to answer when necessary. The Web

comments also are forwarded by the Internet coordinator to the appropriate author, supervisor, and/or industry specialist so they are specifically made aware of the customer feedback in their area and are posted monthly on the bulletin board so all staff can benefit from the feedback. EIA realizes that feedback won't be heard and used systematically unless it is easily available to all employees. Summaries of complaints (from the Web feedback and from answers to open-ended questions and answers to probe questions on dissatisfaction on the telephone surveys) are provided to help planners shape future directions.

Rather than having one central "complaint" desk, EIA has used a decentralized approach in which each employee is empowered to resolve customer problems through one-on-one communications. Many "complaints" received by EIA are actually requests for information that are beyond our scope or information that cannot be released to the public in that it is confidential information about individual energy companies which must be protected. A number of other complaints are about prices of energy which EIA does not determine or regulate. About two-thirds of EIA employees have attended a two-hour training session on customer service which covered topics including empathetic listening and recovering from a mistake. This type of training prepares us to deal with both the real complaints about our products and services and those complaints over which we have no control.

We also make ourselves more accessible to customers by attending conferences, seminars, and meetings throughout the year. EIA's traveling display booth informing customers about our products and services appeared at 10 conferences throughout the country during 1997. We often distribute information and publications and conduct laptop demonstrations of electronic services and other capabilities at these conferences. We have developed two useful pocket-sized products to help customer reach us: An InfoCard that has important summary energy information, NEIC phone numbers and Web site address, and a QuickGuide (a "credit card") that lists our phone, fax and TTY numbers, as well as

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Web site addresses. More than 12,000 cards were distributed to customers in 1997.

3.2.b Customer Satisfaction Determination

In 1995 and 1996, EIA conducted surveys of our telephone customers. In 1997 we conducted 4 major customer surveys: (third annual) telephone, CD-ROM, Web site, and Listserv (electronic mail). We ask customers how satisfied they are overall and with five specific aspects of our service (ease of access, courtesy, familiarity with our information, understanding the customers' requests, and promptness in responding) and five specific aspects of our information products (availability, relevance, accuracy, comprehensiveness, and timeliness). Customers are asked to rate their satisfaction with all of EIA's products and services with respect to these aspects using a 5-point scale. Customers responding with low ratings are asked to explain why they aren't satisfied. Core questions on satisfaction are contained in all the surveys, but questionnaires vary by customer segment, tailored to the particular access type. More recent surveys ask customers to indicate which product attribute is most important to them, so we can focus our efforts in these areas (Figures 7.1-10 and 7.1-11). In addition, because of the importance of access to our products, subscription renewal cards sent to more than 12,000 paper publication customers asked if they would still want the paper copy if the products they needed were available electronically. Satisfaction results from our various surveys compare the share of customers who are *satisfied* with the share who say they are *very satisfied*. Our goal is to keep dazzling those customers giving us the highest rating and move more of the satisfied customers into the "dazzled" category (Figures 7.1-1 and 7.1-4).

EIA is viewed as a benchmark by other government agencies in conducting customer surveys. EIA is the organization within DOE with the authority to review all DOE customer surveys before they are sent to OMB for clearance. Staff members have presented papers at the American Statistical Association and the Washington Statistical Society on our survey design, fielding methods, and results. In 1997, EIA was contacted

by the General Accounting Office, the Environmental Protection Agency, and the National Center for Education Statistics, among other organizations, to discuss our customer survey experiences. Results of our Web site customer survey were highlighted in a National Performance Review report as an example of an agency on the right track providing good service. EIA seeks out available results from customer satisfaction surveys conducted by similar organizations to compare satisfaction results, survey processes, and questions asked. EIA compares its courtesy satisfaction ratings that were highlighted in the National Performance Review report with six organizations. Overall satisfaction results from surveys conducted by the Office of Energy Research, the National Center for Education Statistics (NCES) and BLS also are compared. NCES used our telephone customer survey as a model for their 1997 customer survey. Finally, EIA compares its satisfaction to other parts of DOE (Figures 7.1-2 and 7.1-3).

3.2.c Relationship Building

EIA's mission is to provide high quality, policy-neutral energy information in a manner that promotes sound policymaking, efficient markets, and public understanding. Our customers trust our data because of our track record for accuracy, performance excellence, and lack of bias. On the customer survey conducted in January 1997, respondents said they trust EIA (completely or to a great extent) to provide high quality energy information (Section 7.1). EIA builds customer loyalty by listening to its customers and providing the products and services the customer wants. For example, on our CD ROM survey, customers said they were relatively less satisfied with the features of our search mechanisms and the databases. Using this feedback, the CD developers proposed 10 improvements. A letter to the subscribers was included in the next CD edition, along with some of the changes effective in that edition, informing customers of these implemented and proposed improvements, based on their input.

CRITERION 3. CUSTOMER AND MARKET FOCUS

Specific customer relationships are formally built for long-term partnerships, and less formally for more short-term relationships (such as in a cold spell when energy prices tend to rise). At the personal level, employees spend large amounts of time building personal relationships at conferences, meetings, press conferences, Congressional briefings, on the telephone, and online. Most subject matter experts in EIA have personal relationships with many customers who have come to count on them for reliable and accurate information. This is the core of our customer relationships.

EIA's customer service standards were published in Vice President Gore's National Performance Review report in October 1995 titled *Putting Customers First '95: Standards for Serving the American People*. These 12 standards (Figure 3-3) cover the five important aspects of EIA service (ease of access, courtesy, familiarity with the information, understanding customer requests, and promptness). EIA tracks performance against these standards by continuously measuring customer satisfaction with the specific attributes.

EIA's process for determining customer satisfaction, providing access and building relationships has been evolutionary. The Customer Survey team recognized that EIA had a diversity of customers and a single survey of all customers would be both inappropriate and unwieldy to field. The team decided to begin with telephone customers first, and then build on that base with other access types. In 1997, the team expanded customer coverage to include separate surveys for CD-ROM, Web site, and Listserv customers as well. Publication subscribers are scheduled to be added in 1998. Our current process targets a specific segment to be surveyed, samples the segment, compiles, analyzes, and releases results to the leaders and staff for that segment, and then cycles through remaining customer segments.

EIA Customer Service Standards

- Provide service through knowledgeable employees who will treat you with courtesy, dignity, and respect every time you do business with EIA.
- Follow standard statistical practices to ensure the accuracy and reliability of our data, and we will document everything we publish.
- Provide you with our best estimate of the time needed to complete your request and fully explain any delays.
- Offer options to service.
- Resolve customer needs through single-point contact whenever possible.
- Distribute our information in a format that fits your needs as resources allow.
- Provide instructions for accessing electronic information.
- Respond to written inquiries within five business days.
- Answer each customer telephone call within one business day, providing the requested information whenever possible.
- Write and speak in language that you can understand — free of government jargon, acronyms, and technical terms.
- Include a contact name and telephone number on every document and letter.
- Deliver services without discrimination on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, marital or family status, and organization size or name.

Figure 3-3 EIA Customer Service Standards

EIA Quick Guide

The image shows two reference cards. The top card is titled "Energy Information Administration" and features a globe with arrows pointing to it. To the right of the globe is a list of energy sources: PETROLEUM, NATURAL GAS, COAL, NUCLEAR, ELECTRIC, and RENEWABLE ENERGY. Below the globe is the address "Washington, DC 20585". The bottom card is titled "Quick Guide" and contains the following information:

EIA Web Site	www.eia.doe.gov
EIA FTP Site	ftp.eia.doe.gov
Federal Statistics	www.fedstats.gov
Energy InfoDisc (CD-ROM)	Order Through STAT-USA Toll Free 1 (800) STAT-USA
National Energy Information Center, 81-38	
Energy Information Administration	
U. S. Department of Energy	Telephone: 202-596-8900
Washington, DC 20585	FAX: 202-596-8727
	TTY: 202-596-1181
	E-Mail: info@eia.doe.gov

EIA's Quick Guide is a handy reference card staffers distribute at conferences and seminars.

CRITERION 3. CUSTOMER AND MARKET FOCUS

Our Web Site

The example shown is the home page for the *Short-Term Energy Outlook*, allowing users to access all parts of the document.

Short-Term Energy Outlook
U. S. Energy and World Oil Forecasts Through 1999
 EIA Energy Information Administration

March 6, 1998 Release (Next Update: April 8, 1998)

March 1998 Table of Contents
 March 1998 Highlights

[Feature Analysis Articles](#)

If you would like to be automatically notified of updates to the Short-Term Energy Outlook, simply click here, put in your e-mail address, and check the box labeled "Short-Term Energy Outlook Summary" on the list of products.

File last modified: March 6, 1998

Contact: David Costello
 dave.costello@eia.doe.gov
 Phone: (202)586-1468
 Fax: (202)586-9753

URL: <http://www.eia.doe.gov/emeu/steo/pub/contents.html>

If you are having technical problems with this site, please contact the EIA



CRITERION 4. INFORMATION AND ANALYSIS

4 Information and Analysis

4.1 Selection and Use of Information and Analysis

In EIA we use three primary information modes for tracking, analyzing and improving our culture, processes and results: performance measures (work-unit and corporate), the Automated Tracking System and the Annual Operating Plan. Since the creation of EIA in 1977, we have used in-process performance measures in work units to track the receipt and processing of data from all of our surveys. These measures include response rates, incoming data attributes, error flags, revision errors, sampling errors, time of receipt and cycle time (Section 6.2). Today some of these measures are built into the data processing software for many of the surveys and are available to process managers.

The ultimate outcomes associated with our mission (sound policymaking, efficient markets and public understanding) are difficult to measure, but measures associated with our outputs (energy data, analysis and forecasting reports) are more easily defined and tracked. For example, we use product timeliness, accuracy and relevance - and our customers' satisfaction ratings for these attributes - to measure individual product results (Section 7). At a corporate level, we use overall usage and customer satisfaction levels as proxies for the harder-to-measure outcomes listed above. We believe that if many customers are using our products on a continual basis and their satisfaction levels are high, our products must be helping them achieve the outcomes sought in our mission statement.

In 1994 we formed EIA's first corporate-level Performance Measurement Development Team. Using the Sink and Tuttle model, the team developed an input/output chart for EIA, identified quantitative and qualitative performance measurement categories and produced a list of 14 performance measures. In the intervening years, these measures have been revised through several

cycles and now our Strategic Plan contains 44 quantitative and qualitative performance measures which we track (listed in Figure 2-3). In particular, they define data requirements for: (1) workforce potential (teamwork, training, diversity, etc.); (2) accuracy of our information products measured directly and as perceived by our customers; (3) relevance of our products and services (citations, usage statistics, subscription renewals, external briefings, etc.); (4) fast and easy access to our products (customer satisfaction with timeliness and ease of access, time to release/cycle times); and (5) efficient and cost effective business operations (information product quality measures, employee perceptions on innovations, qualitative reports and discussions).

The Automated Tracking System is our management information system used to keep track of information products in the development pipeline. It is used to find out what products are being planned and the status of a particular product as it goes through our peer review process. As projects are approved for inclusion in EIA's yearly Analysis Agenda, for example, they are logged into ATS and tracked through their life cycle.

The Annual Operating Plan contains personnel and contract allocations disaggregated by work unit and by function. Related information is compiled from a variety of DOE sources and made available to managers and employees. For example, our Office of Resource Management maintains a strength report (derived from DOE HR reports) which is posted every 2 weeks on the "Changing \$\$ and FTE's" bulletin board. This report shows the number of full-time employees, pending terminations, projected full-time employee targets and the shortfall/overage.

In order to make both corporate and work-unit performance measures easy to maintain and access, a local area network-based performance

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measures database is currently being populated. Both pre-programmed reports and ad hoc reports are available from the system. Performance measurement results are communicated through electronic bulletin boards, management briefings and reports, our monthly newsletter *EIA Today*, brown bag lunchtime seminars, displays in the hallways, staff presentations, and even speeches to outside groups which are posted on the bulletin board. Individual office performance measures results are displayed in work units to communicate results (Section 7) and create intra-agency benchmarks. Corporate performance results are analyzed and acted upon by the Senior Staff and the Quality Council. Work-unit performance results are monitored continuously and acted upon promptly.

4.2 Selection and Use of Comparative Information and Data

In order to learn how employees feel about working in EIA, we have conducted a survey of employee perceptions (culture or organizational climate) each year since 1994. In its first two years, the survey was administered by the firm Coopers and Lybrand and it allowed us to compare ourselves to both typical and best-in-class companies in the firm's database. However, in an effort to obtain better comparative statistics, in 1996 we became part of a group of other Federal statistical agencies measuring organizational climate using a survey implemented by the Joint Program on Statistical Methodology at the University of Maryland. Because nine Federal agencies participate, we can compare our results to the average of the eight other Federal statistical agencies (results in Section 7.3), which include the Census Bureau, National Agricultural Statistics Service, and National Center for Educational Statistics.

The organizational climate joint survey addressed 14 topic areas such as teamwork, communication and information sharing, top level management, innovation and change, mission and goals, customer service, rewards and recognition, and training, which correspond to goals, objectives and

measures in our Strategic Plan. In addition, other key data required by the performance measures, such as customer satisfaction data, are targeted for comparison. These data are gathered from Web sites, publications and by talking to other agencies.

EIA has a long history of comparing our key energy data, analysis and forecasting products to comparable products available from external sources. For example, we compare our energy forecasts with those of DRI McGraw-Hill, Wharton Energy Forecasting Associates, Gas Research Institute, International Energy Agency, Petroleum Economics, Ltd., NAC International, Energy Resources International, Inc. and Petroleum Industry Research Associates, Inc. (Figure 7.9). We compare our survey information to that of the American Petroleum Institute, The Oil and Gas Journal, Bureau of Labor Statistics, Department of Transportation, Lundberg Survey, and American Automobile Association. Many of the results are presented in our publications or in-house documents. Several private organizations use EIA data and forecasts as their benchmarks.

4.3 Analysis and Review of Agency Performance

Our mission is to produce energy information products that promote sound policymaking, efficient markets and public understanding. To assess our progress in creating these outcomes, we measure and analyze our product usage and customer satisfaction levels to assess our performance. Because we consider employees to be our most valued resource, we also measure our perceptions of ourselves, our leaders and our workplace. These measures (product usage, customer satisfaction levels and employee perceptions) are the bases upon which we assess our corporate-level performance results.

Each objective in the Strategic Plan is measured by one or more corporate performance measures. Currently, these performance measures cover employee and customer opinions, data accuracy and timeliness, forecast accuracy, Internet and

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CD-ROM usage, and media citations. While most of the corporate performance measures are gathered and analyzed by the Performance Measures Team, two exceptions are the customer data, which are compiled and analyzed by the Customer Survey Committee, and the employee perception data, analyzed by the Organizational Climate Survey Team. A summary report of performance measures is presented quarterly to Senior Staff and the Quality Council. The first integrated report of results was prepared in 1997.

The findings of each customer survey are presented to the Senior Staff and Quality Council shortly after the survey has been completed. If a specific team is involved with the product, such as the Web site or the CD-ROM, that team is also briefed directly. The information is also distributed throughout the agency through posting on the electronic bulletin board and in written articles. Managers meet with their work units to go over the results and plan follow-up actions.

Specific human resource information, such as current and projected personnel ceilings and number of employees by office, is tracked biweekly and posted electronically. Contractor costs are analyzed monthly at two levels of the organization: 1) the task monitor level responsible for directing the work, and 2) the contracting officer representative level in the Office of Resource Management. At the close of the task, a final evaluation is performed by the contracting officer (Figures 7.4-1 and 7.4-2). Other operational costs such as telephones and space are reviewed and analyzed by the Office of Resource Management on a regular basis (Figures 7.2-7 and 7.2-8).

Comparisons of our energy information products are also made at the program level and significant results provided to our customers. At regular intervals, usually every three years, our plans for energy data collection surveys are formally reviewed by OMB, which ensures the validity and value of the surveys, the minimization of respondent burden, an understanding of our customer needs, and lack of duplication with other

government data collections. The OMB review provides an independent assessment of our data surveys.

Our Administrator and Deputy Administrator have shown a great personal interest in performance measures. They have personally championed the effort, have attended meetings of the Performance Measures Team, and have taken active roles in promoting their use. Jay has given lectures on performance measures to outside groups, highlighting the differences between outputs and outcomes. Review of performance measures is also an important part of the agenda for the Quality Council and Senior Staff. The effectiveness of our approach for review and analysis of corporate performance is illustrated by the citation of EIA's approach to performance measures in the third edition of a major text, *Public Administration: An Action Approach*, by Robert B. Denhardt.

Review of all of the performance measures and other data is a critical component of the strategic planning process for the agency. As described in Section 2.1, these data are an input to the Corporate Strategic Planning Preparation phase during which all of the goals are reviewed, objectives are redefined (with their associated measures), progress is evaluated, and new goals are established.

An example of a measure that has been identified for improvement is the timeliness of EIA data. In an effort to provide our product sooner, new procedures (e.g., estimation techniques) have been developed to allow release of our products even before receipt of all respondent data or by releasing just the critical components of the product once derived. The results of this initiative will be carefully monitored not only for improvements in timeliness but also to ensure that accuracy, an equally important product attribute to our customers, is maintained.

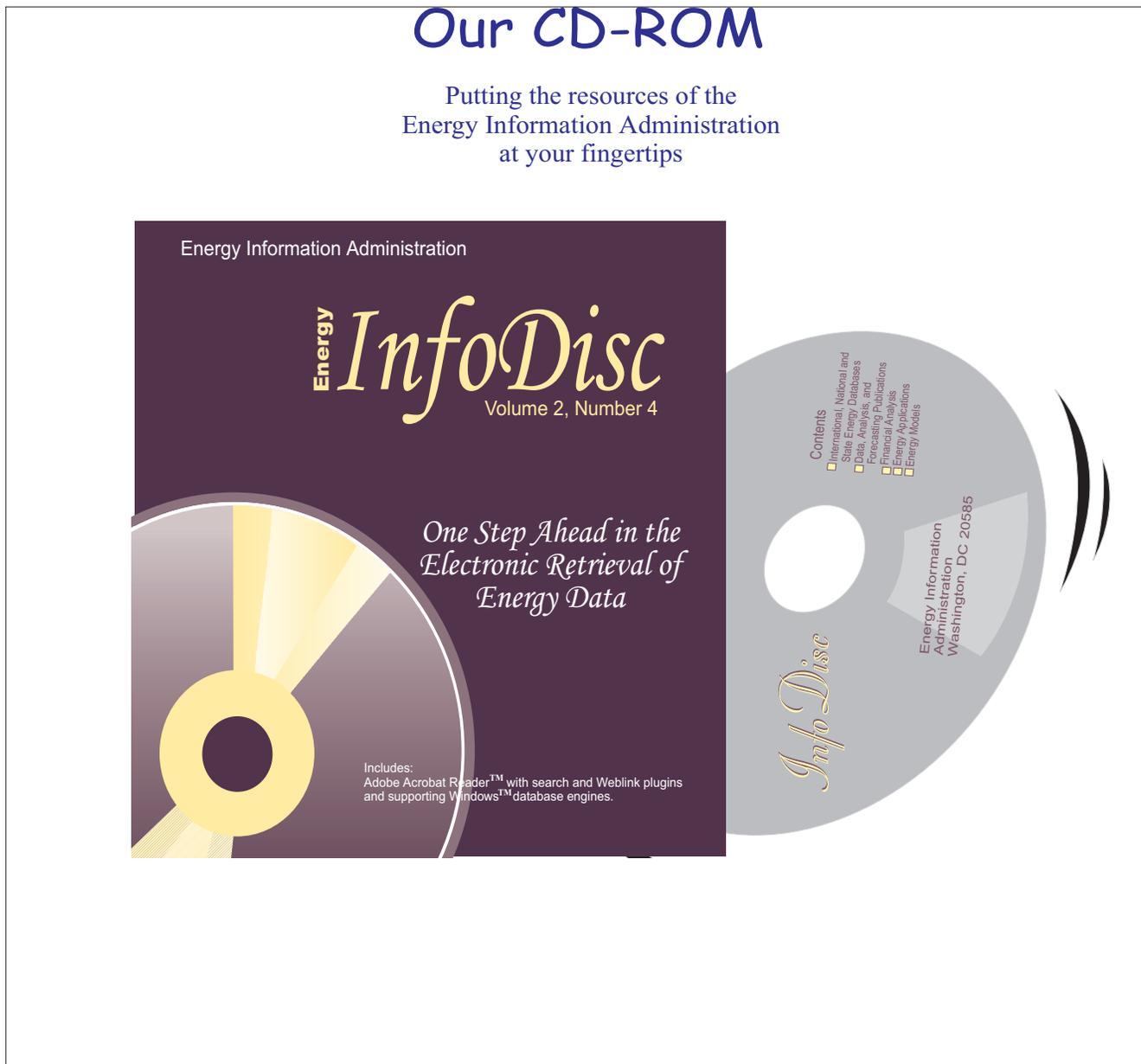
A second example concerns the method by which we distribute our products. In the last few years, we have been moving from paper publications to electronic dissemination, which allows us to

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provide our products more quickly and cheaply. We are actively seeking input from our customers by asking about their electronic capabilities, as well as their preferences, in our customer surveys (Section 7.1). The move from paper to electronic is being measured and evaluated at both the work unit and corporate level.

looked at differently given the high ratings levels we have achieved. In many cases, maintenance is not considered sufficient, and many of our stretch goals are now aimed at increasing the percent of our customers who are “dazzled” (very satisfied), not just simply “satisfied” (Figures 7.1-1 and 7.1-4).

Review of agency performance has changed how we assess ourselves and how we set stretch targets. For example, customer satisfaction results are now



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5 Human Resources

5.1 Work Systems

5.1.a Work Design

EIA's workforce at the beginning of 1998 consisted of 31 managers and 353 technical and administrative staff, from GS-2 to Senior Executive Service, from high school students to doctorates. In the past, our work systems had been designed mostly by supervisors, not surprising with a staff to supervisor ratio of about 3 to 1. However, at the beginning of 1998, that ratio was over 11 to 1 (Figure 7.3-1) and our smaller number of supervisors now focuses on setting direction, planning, removing barriers, and coaching employees. Team leaders focus on directing technical work without the supervisory burdens associated with administrative and employee conduct responsibilities. Team members focus on getting the work done and looking for ways to improve work processes. Employees understand the importance of EIA and the significance of their jobs (Box in this section and Figures 7.3-2 and 7.3-3).

Since 1993, EIA leaders have made major efforts to move our organizational work culture from one of control and competition to one of cooperation and collaboration. This was manifest in 1995, when we undertook an agency-wide year-long effort to reengineer the work processes associated with our most costly core business processes. Dozens of employees at all levels - managers and non-managers - and from all units and disciplines participated in this effort. In addition to the technical outcomes, which were significant, the reengineering process itself was a major success in changing how we design, manage and improve our work processes. Employees shared their knowledge and skills across traditionally stove-piped work units in ways that changed EIA fundamentally. At the 1996 leadership retreat, EIA leaders reaffirmed their commitment to move EIA towards a collaborative work culture and the participants developed a clear set of definitions

describing how we would operate using principles of collaborative management (Figure 5.1).

All eight EIA program offices have now reorganized to implement teams as their basic work unit and to reduce the number of supervisors, as called for by the National Performance Review. Most employees are no more than two layers of management away from the Administrator and his Deputy. Employee recommendations to consolidate all information technology work in a single group were adopted, along with a recommendation to consolidate work units dealing with data operations at the office level after a pilot effort did not demonstrate significant advantages for corporate consolidation. The reorganizations of the program offices were

EIA Collaborative Management Principles

- High levels of interaction and communication among team members,
- Mutual support and responsibility among team members,
- Decisions pushed down as far as possible,
- Regular feedback between supervisors and team members,
- Supervisors working with teams on clear goals and objectives for the production and improvement of products,
- Team's participation in determining how best to achieve those goals,
- Supervisors over time being able to shift time currently spent on checking to planning and coaching,
- Achievement of goals assessed by performance measures in order to encourage continuous self-improvement,
- Recognition of the diversity of skills needed to produce quality products and services,
- An environment that encourages team members to develop multiple skills,
- Design of work so that resources can be made available for crosscutting team activities from time to time,
- Flexibility in the assignment of teams members to encourage the right mix of skills and personalities, and
- Availability of training for teams where such training can improve team performance.

Figure 5-1 Collaborative Management Principles

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strongly influenced by extensive employee input, results from organizational climate surveys, employee discussion groups and bulletin board responses to plans.

Motivated by the principles of collaborative management (Figure 5-1), we are working together in exercising both individual and team initiatives to continuously improve our work processes and products, as illustrated in the following cases:

- The Information Technology Group (ITG) has one full manager for 38 staff. This structure allows rapid creation, expansion, or termination of teams to meet changing customer or operational needs. Use of generic position descriptions facilitates movement between teams, allows individuals to develop special qualifications and has allowed EIA staff to take over technical leadership previously held by contractors; all done seamlessly with the cooperation of management and the union, and without formal paperwork.
- In response to customers' needs and strategic plan goals, a statistician in CNEAF performed a process mapping of the collection cycle for the annual uranium survey to learn how to publish data sooner and a team leader in EMEU did the same thing for the Financial Reporting System survey.
- In the current work environment in which information technology is freeing up people's time, the secretaries in Oil and Gas formed a team to reconfigure their jobs to be able to perform more professional duties with the saved time, which would also qualify them for professional job series. They have implemented innovative ways to perform traditional administrative functions by sharing duties across organizational units. A corporate group of secretaries is currently working with ORM to find similar improvements agency-wide.

- An energy analyst, concerned about our being able to maintain analytical capability with declining resources, designed the curriculum for an in-house 12-week Energy Industry Study Program in 1996 to broaden the knowledge of analysts beyond their single subject matter expertise and will run the third session in early 1998. This allows our analysts to improve their skills and the organization to reduce its dependence on more costly contractors.

5.1.b Compensation and Recognition

The Federal pay and job classification systems set EIA's compensation structure and allow only limited discretion for monetary awards and promotions. Most employees (365) are on the General Schedule (GS), while the Administrator, fourteen senior executives, and four senior level technical staff are on separate systems with salaries about 20 percent higher than the maximum available for general employees. Bonuses for senior EIA managers are proposed by leaders based on annual performance plans and evaluations, and approved by a board composed of their peers from across DOE. Advisory 360 degree reviews are used in the evaluation process. For GS employees, bonuses are paid annually for outstanding and highly successful performance. Currently, our leaders set the size of the bonus pool based on their general assessment of organizational performance, effectively tying individual rewards to organizational results. For example, in 1996 and 1997, the size of the pool was doubled to three percent of total salaries to reflect our leaders' perceptions that EIA performed extremely well in getting its products out on time despite the disruptions of multiple government shutdowns and the EIA 17% budget cut that year.

Team efforts and truly exceptional work are recognized with special act awards ranging from \$500-\$2,000 and on-the-spot awards of \$50-\$300. These awards are usually initiated by supervisors, but cross-organizational team awards can be initiated by a management group. For example, the Quality Council recognizes corporate teams

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with monetary awards. Certificates of appreciation, plaques, EIA T-shirts and mugs are also given to show appreciation of good work and quality actions.

Additionally:

- CNEAF, SMG, and ITG celebrate accomplishments at an “Alfresco Team Building and Awards Meeting” (picnic).
- ORM holds an “End of the Fiscal Year Party” to celebrate closing the year’s financial books.
- OIAF awards major staff contributors bound copies of its major annual publication.
- Accomplishments are publicized in the internal *EIA Today* newsletter monthly.
- The Administrator treats the winners of the annual graphics contest to lunch.
- The names of authors and subject matter experts appear in publications and on the Web site, giving them public recognition and the opportunity to deal with and receive feedback directly from their customers.

Conversely, there were two examples of employees recognizing managers: the staff of one EIA manager asked the DOE Assistant Secretary for HR to publicly recognize their boss as a quality manager, and the EIA Diversity Advisory Committee threw a surprise all-hands party to honor Jay and Larry for leading us towards performance excellence.

EIA employees scored high on pay and benefits in the organizational climate survey, but were significantly less satisfied with awards. An EIA Quality Council subgroup is currently analyzing the use of rewards and will recommend improvement actions. EIA employees were more satisfied than employees at other statistical agencies on all three of these measures (Figure

7.3-5 for awards and Figure 7.3-6 for employee survey results).

5.2 Employee Education, Training, and Development

Our training efforts are designed to support the needs of the organization for particular skills as well as the needs of individuals to grow intellectually and develop their careers. Training activities have been affected by the current downsizing environment. For example, we have not hired a new full-time employee in over three years, so we do not have current new employee orientation or training programs. On the other hand, training of current staff has taken on increased importance as we have to replace skills lost through attrition. Promotions above the journeyman level have been frozen for 3 years, which could lead employees to question the need for training if they do not see it as leading to career advancement. Despite this uncertain environment, our employees rate their experience of training and career development positively (Figures 7.3-7 through 7.3-9). Training is delivered in three basic categories:

- Corporate training for all staff to reinforce minimum competencies and culture change.
- Corporate specialized training for staff to remain current in subjects of common interest in several organizational areas.
- Job-specific training tailored to match the skills of individuals with the mission requirements of the work unit.

About 300 EIA staff attended “Seven Habits of Highly Effective People” and “Moving Through Change” workshops. Managers received Federal Quality Consulting Group training in 1995 to be “Leaders for a Customer-Driven Organization”. The Diversity Committee sponsors annual communications workshops for the whole staff. In 1995 the Corporate Training Team identified 5 key corporate core competencies for which courses are still being offered to all staff.

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Specialized training requirements are determined and the delivery designed by teams from across EIA. ITG holds periodic classroom training on technical subjects (e-mail, use of desktop applications, Internet and Intranet technology, security) to support our core competencies and in response to user demand and changing technology. SMG sponsors workshops on designing surveys to improve the quality and timeliness of our data to meet strategic plan objectives. SMG also sponsors workshops to advance the state of applied economic analysis in EIA. Customer focus advocates provide training on EIA's different customer groups, ways to improve service, effective listening techniques, and recovering from mistakes. EIA Contracts Management staff holds periodic workshops for contract technical monitors, and recently arranged training on performance-based contracting prior to our awarding a major new contract. Last year, there were 20 participants in a structured mentoring pilot program. Jay and Larry encourage staff to apply for new leadership training programs.

On-the-job training takes many forms. In survey work units, staff visit respondents to see actual energy facilities and get feedback from the people who fill out the survey forms. The Analysis Review Board sponsors author briefings to give staff experience in giving oral presentations, to share their findings with other EIA staff, and to get feedback to improve their analysis products. In the business reengineering pilot, employees from different parts of the organization taught one another their best practices in conducting surveys. In ITG, staff use computer-based training to earn Microsoft certification. With fewer layers of formal organizational structure, employees have more opportunity to move from one team to another to broaden the perspectives of their work. Many employees keep abreast of developments in their fields through membership in professional societies such as the American Statistical Association and the Operations Research Society. We support active participation in professional groups by encouraging the writing of papers and funding travel to meetings to deliver papers.

Developmental assignments are encouraged and many EIA employees participate in or lead interagency efforts in areas such as developing strategic planning performance measures and performance-based contracting guidance for statistical work. This provides an opportunity for effective external reinforcement of knowledge and skills. Managers and employees are encouraged to complete Individual Development Plans to record and review progress in career development.

5.3 Employee Well-Being and Satisfaction**5.3.a Work Environment**

DOE's Office of Human Resources (HR) provides our physical facilities and maintains a safe and healthful work environment for us, and EIA managers believe HR has been responsive to our needs and problems. We are working successfully with HR to upgrade our office space (improved layout, new carpet and fresh paint) even as our overall space needs are decreasing. Our Rent Avoidance Team was convened twice so that our employees could determine the best space configurations to maximize savings in overhead costs. Even with the disruptions of moving and smaller office square footage, our employees do not believe their physical environment makes it difficult for them to do their job. EIA has placed a high priority on funding information technology hardware and software. Every EIA employee has the use of a personal computer with current software. E-mail is the routine form of communication. Individual needs are accommodated with ergonomic equipment and furniture. Employees score EIA favorably for providing adequate resources to do their job well (Figure 7.3-11).

5.3.b Work Climate

EIA leaders strongly support EIA employee programs (Strategic Objective 1, Figure 2-3) in addition to services and benefits programs provided by the Department. These include the Alternative Work Schedule program, the Employee Assistance Program, the indoor fitness center (3 of its 9 directors are EIA employees), the

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career and job placement center, and the day care facility (1 of the board members is an EIA employee). EIA employees take advantage of opportunities to participate on Departmental teams supporting such efforts, including the Secretary's Diversity Council, the DOE/NTEU Partnership Council, the Federal Women's Program Advisory Council, and the American Indian Heritage Task Force. Our leaders encourage people to take advantage of flexible work schedule programs because the programs help them deal better with meeting publication deadlines and our goal to improve timeliness. A 9-day out of 10 alternative work schedule has been in place for ten years, and a 4 out of 5-day schedule and a flexiplace program have been in a pilot test for over a year. Employees are also permitted to work a part-time schedule (Figure 7.3-13). EIA staff use and contribute to the donated leave program which supports people in need of sick leave for prolonged illness. On questions dealing with accommodation of personal needs, employees think that EIA does well (Figure 7.3-12). EIA has not had a grievance filed since 1994, the only DOE Headquarters organization without a grievance for over 3 years. Involving union members in the early quality initiatives and the subsequent union partnership set the tone for an improved environment. Also, EIA leaders hired an alternative dispute resolution expert to deal quickly and fairly with specific equal employment opportunity and grievance cases. EIA employees' overall impression on diversity in the agency is favorable. Women make up 39% of the workforce and minorities make up 29%.

5.3.c Employee Satisfaction

EIA assesses the employee work environment through several methods, the most important being an organizational climate survey which has been conducted four times. Second, we conduct employee discussion groups associated with strategic planning and our annual communications seminar. Jay and Larry lead these groups. Third, employees are encouraged to express their personal views through e-mail, either publicly on bulletin boards, or privately to Jay or Larry. Finally, many offices have periodic all-hands meetings to solicit employee feedback. The

information obtained from these sources is reviewed by the EIA Quality Council or the Senior Staff on a regular basis (see Box). Government downsizing initiatives over the past four years have created the potential to severely affect employee satisfaction. We have had an externally mandated three-year freeze on promotions to the GS-14 and above level. EIA employees feel that opportunities for advancement are inadequate more than other statistical agency employees do. DOE has set a 30 percent staffing reduction target to be achieved over six years. Employees have been faced with the threat of a reduction-in-force for three years. We work to mitigate the possibility of a reduction-in-force and the negative effects that can result from such uncertainty:

- We keep staff informed about all downsizing actions using e-mail and open discussions.
- We post job openings available in other government and private sector organizations.
- We have justified the use of buyout authority and have assisted 63 people (60% of our staff reduction) in exercising this option over the last three years.
- We are working with DOE officials to reverse the severe decline in staffing target levels, with some limited success.
- We are working with our Congressional appropriations committees who have given the Department guidance in the 1998 appropriations report language to avoid or minimize any reduction-in-force at EIA.

Our leaders are planning to achieve our staffing targets over the next two and a half years without any involuntary separations. Employees recognize their efforts to provide job security with one of the highest scores on the organizational climate survey (Figure 7.3-10). EIA employees responded with high scores on factors related to job satisfaction (Figure 7.3-3). The more positive

CRITERION 5. HUMAN RESOURCES**MY JOB IS BORING...NOT!**

The results of our first (1994) organizational climate survey indicated that many EIA employees did not perceive that their jobs affected others in important ways (i.e., were not significant) and many did not take pride in their jobs. Leaders were concerned by this result, especially since earlier that year they had reaffirmed the value of employees by establishing as the number one goal in our first strategic plan: "We will work together to achieve the full potential of a diverse workforce through teamwork and employee development." During the next 9 months, a team of about 10 people addressed these important employee perceptions and developed a detailed plan with two dozen actions centered around four themes: (1) The Big Picture - employees need to understand and feel involved in EIA's mission; (2) We're All Working on the Same Railroad - all employees have an interest in the overall operations of EIA and EIA is the sum of individual employee contributions; (3) Share the Glory - job significance can grow out of a combination of individuals being given more authority over their work and, in turn, accepting greater responsibility and accountability; and (4) The Medium is the Message - we need to promote our strategic plan with constant reinforcement of our vision, mission, goals, and core values through actions as well as words. One of the first actions was an essay contest asking what benefits the taxpayer received from EIA, with Jay treating the winners to lunch.

The second organizational climate survey (1995) showed us that changing organizational attitudes is not done quickly. The results for the same questions indicated a slight downward trend in job significance and a slight upward trend in job pride. Over the course of the next 18 months, we continued working on this challenge. Four dozen crosscutting teams were formed to include employees in solving specific corporate challenges. A major employee-based reengineering study demonstrated that employees could have a significant input into how EIA might be organized to conduct business more efficiently. A Big Picture presentation in 1997 by Larry Pettis on the future of EIA was the most widely-attended session of the Communications Workshop sponsored by the EIA Diversity Advisory Committee. The introduction of the Web site and increasing media citations of EIA played an important role by giving employees quick feedback on the public demand for their work. These and other efforts paid off.

Our third organizational climate survey (1997) was a collaborative project with eight other Federal statistical agencies and the Joint Program on Survey Methodology. A team of EIA employees participated in the design and all employees were given an opportunity to comment on the design. This survey achieved our objectives to have a less costly survey, to involve employees, and to benchmark our results to those of comparable organizations. We believe the data give a strong indication that we have made substantial progress in improving our employees' perceptions of the importance of their work and the pride they take in it.

We scored high on statements about employees' experiences, including: "The agency's work is valued by the public," "Employees have a sense of loyalty to the agency," "The agency's mission is clearly understood by employees," "Employees can participate in developing agency goals," and "Management effectively communicates the agency's mission to employees" (Figure 7.3-2). This employee understanding of what we are about and the value of what we do was reaffirmed in four employee discussion groups led by Jay and Larry when they were gathering input for the 1997 strategic plan. Additionally, one of the statements most disagreed with by EIA employees was "The work I do is boring". In fact, our employees disagreed with this statement more strongly than employees at the other statistical agencies (Figure 7.3-3). Even with these good results, Jay Hakes keeps telling us "We can't rest on our laurels. We will have to continue to seek new efficiencies to develop new products and services to stay relevant to our markets and to keep our jobs interesting."

CRITERION 5. HUMAN RESOURCES

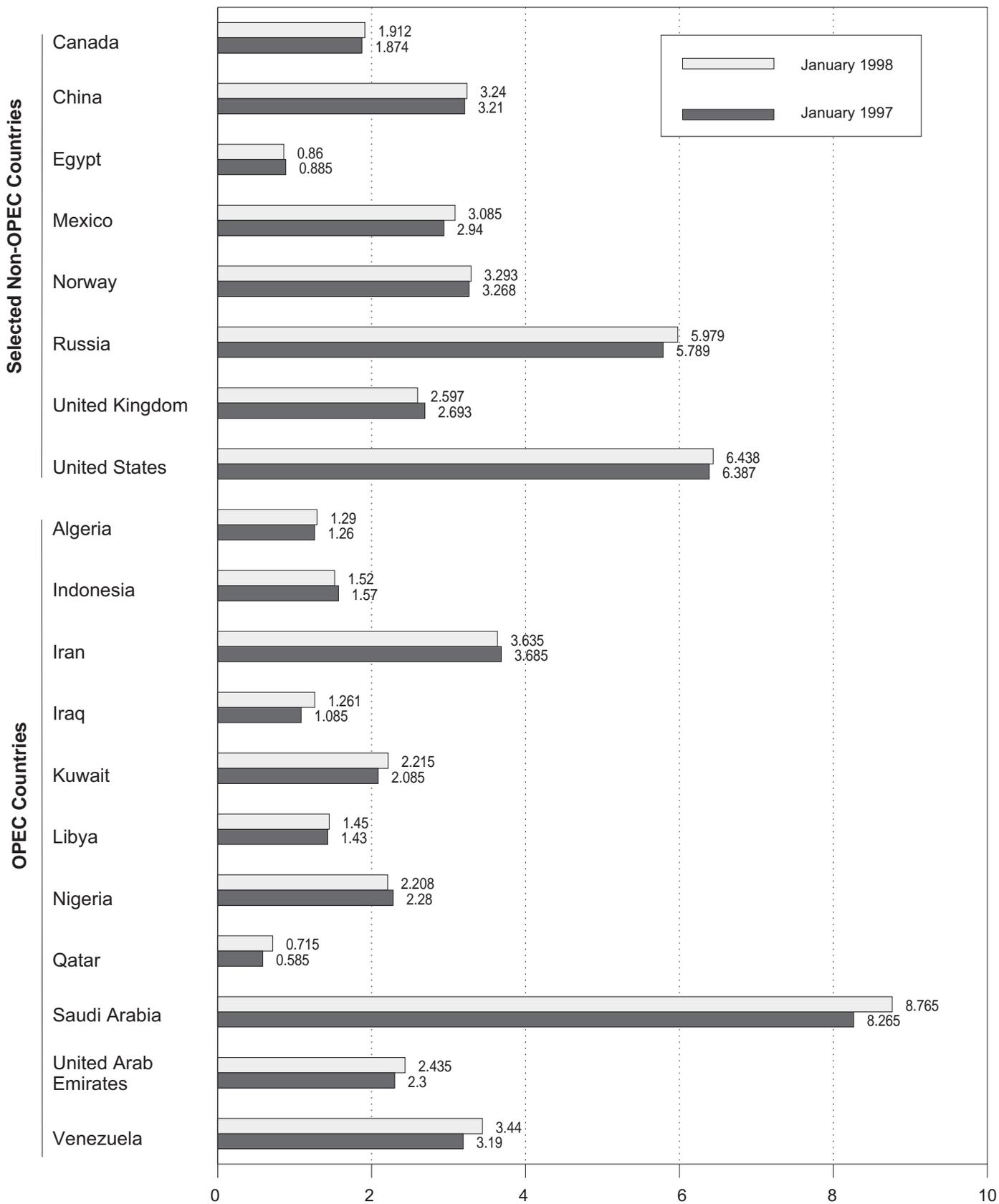
influences of job security, pay, and interesting work (Box) appear to outweigh the less positive responses to rewards, recognition, and promotions. This satisfaction level is reinforced by declining attrition rates (Figure 7.3-14).

Our key business results to deliver accurate, timely information are improving, giving us high customer satisfaction ratings. These favorable ratings are reflected in the perceptions of our employees who rate the quality of EIA's products and service between good and very good and who agree that our customers are satisfied with EIA's products and services (Figure 7.3-4).

Some Of Our Brochures



Figure 10.2 Crude Oil Production by Selected Country
(Million Barrels per Day)



Note: OPEC is the Organization of Petroleum Exporting Countries.
Sources: Tables 10.1a and 10.1b.

CRITERION 6. PROCESS MANAGEMENT

6 Process Management

6.1 Management of Product and Service Processes

The work performed within EIA is comprised of seven core business processes:

1. Survey and data operations
2. Data integration
3. Analysis
4. Forecasting
5. Dissemination
6. Resource management
7. Technical support.

Each of these processes was detailed to the subprocess and activity level through an EIA-wide process-mapping effort completed in 1996 as part of business reengineering and activity-based costing efforts. Many processes have been mapped to further levels of detail as part of office-level process improvement efforts.

6.1.a Design Processes

Major design changes to EIA's processes are driven primarily by our strategic performance goals and corporate-level efforts such as the year-long business reengineering project completed in 1996. Small scale design changes to our processes are made on a continual basis within workteams. All the stimuli for process change (such as customer and employee feedback, external events, performance results and technology advances) are input to the strategic planning process and the resultant plan synthesizes these inputs into specific performance goals that drive process design changes. For example, in striving to meet Goal 4.4.3 ("the median for electronic release of data from EIA monthly publications will be 30 days after the close of the reference period"), offices are revamping the

relevant processes in our monthly survey processing systems to make them more timely. This goal was a direct result of customer surveys which revealed relatively low customer satisfaction with product timeliness.

To improve timeliness and reduce costs EIA-wide, a major recommendation of our 1996 business reengineering effort which affects two of our core processes (survey and data operations, and data integration) was to develop a Common Collection and Processing System (CCAPS) for all EIA surveys. Following approval of this recommendation by the Business Reengineering Steering Committee, the Data Applications and Support Team was formed to assist in the design of the system. The project plan was approved by the Committee in April, 1997. The CCAPS is being created to centralize and standardize collection and processing of data and thereby reduce life-cycle costs. The detailed requirements for design and development of the system were gathered using Joint Application Design (JAD) techniques; JAD is a joint venture between users and developers of the system which encouraged interaction between participants to develop better solutions by taking on different conceptual frameworks and perspectives. The design work is now underway, and the team provides monthly written progress reports measuring actual performance against the baseline established in the plan, and quarterly project reviews are held with the Committee. All monthly reports and quarterly briefings are posted on the Business Process Reengineering bulletin board for staff to review.

There are other stimuli that drive process design throughout the year, including requests from customers for special products, windfall technology introduction and the many process innovations suggested by workteam employees. These process design innovations are encouraged and recognized by EIA's leaders (Section 1).

CRITERION 6. PROCESS MANAGEMENT

EIA's principal products are data, analysis and forecasting reports, and each has its own design processes. **Data reports** are compilations of survey and related information. EIA has been in the survey business since 1977 and we have redesigned our data collection processes over many cycles. Our process for creating or changing our survey forms is designed to meet OMB requirements. It includes a data requirements analysis in which we meet with customers to solicit comments on their data needs. (For example, in 1997 we held 11 customer focus groups as part of our process to redesign our electricity surveys in response to major restructuring of the U.S. electric power industry. The lessons learned from this process are being applied to a redesign of natural gas surveys later this year.) When we have sufficient justification, we communicate our intention to introduce or change a survey, and we solicit formal customer input, through public notices in the **Federal Register**. In order to speed up the process, we recently worked out a new "generic" approval process with OMB which allows us to bundle survey forms together rather than submit our many survey forms separately. To implement a new or changed survey, we (re)design and (re)build the respondent frame (full universe), select a sample from the frame and design the associated data processing systems that convert incoming survey data into energy information suitable for release to the public. The systems development process includes requirements analysis, software specification, design, development, prototyping, testing, installation, documentation, turnover and training. The design and development process itself is evaluated at in-process meetings held during the development cycle. Tracking measures include budget and schedule deviations and operational results.

For **analytical products**, we design our yearly Analysis Agenda through a process which is now going through its third cycle. The cycle begins with customer input. Each year, the Analysis Review Board sponsors two Analysis Roundtables (chaired by the Administrator) in which government and non-government customers

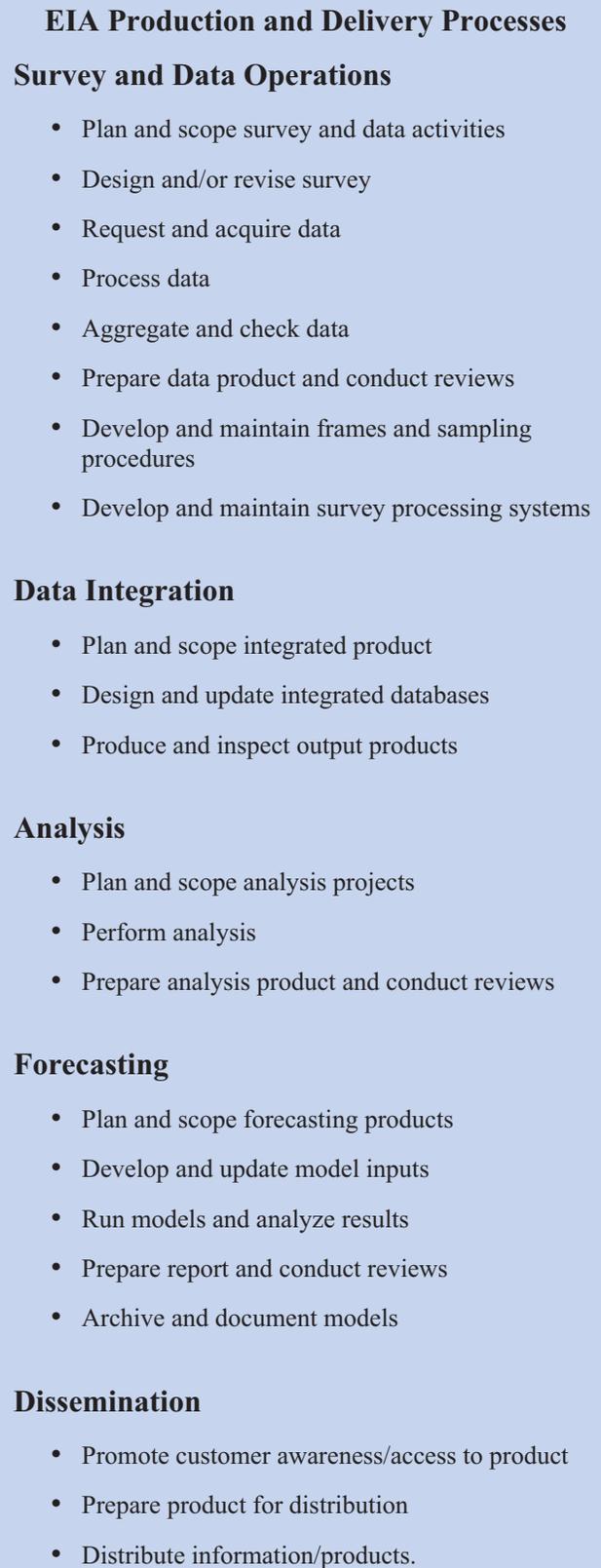


Figure 6.1 EIA Production/Delivery Processes and Subprocesses

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express their opinions on topical energy issues. Using this input, the Board develops a prioritized set of analysis themes which drive office-level analysis proposals. The proposals are evaluated by the Board (including discussions with authors) and approved by the Administrator. All completed analysis and forecasting products are subjected to a cross-agency peer review process before they are released, and analysis proposals must contain a peer review plan as part of the project design. The analysis proposal process is reviewed and revised yearly by the Board. Additionally, the Analysis Review Board set up the EIA Environmental Issues Forum (to focus on future environmental projects) and monthly author briefings which facilitate communications across workgroups. Employees set up special workshops and in-house training to help everyone sharpen his or her skills in emerging topics (e.g., electric power industry restructuring, environmental issues).

The process for designing and revising the National Energy Modeling System (NEMS), the basis for our major **forecasting product**, the *Annual Energy Outlook (AEO)*, and the procedures for developing the forecasts for the *AEO* also begins with customer input, using a process which has been refined over six cycles. Each year we sponsor a NEMS/AEO conference held in Washington, DC, at which customers provide detailed feedback to us about the forecasting methodology and results of the *AEO*. We evaluate all their inputs and incorporate many suggestions based on resource availability and priorities. The process for creating the forecasts was mapped and overhauled five years ago, and has been refined each cycle. Each year following release of the current *AEO*, a “post-mortem” review is undertaken to refine the process further. Recently, the review resulted in a two-month earlier release of the main forecast case and a one-month earlier release of the publication.

6.1.b Production/Delivery Processes.

EIA’s key production and delivery processes and subprocesses are shown in Figure 6-1. Intact work teams supplemented by contractors carry out these processes, which have been refined for twenty

years over many cycles. The processes are managed using in-process performance measures which derive from our strategic measures. In survey and data operations, the strategic measures of accuracy and timeliness translate into in-process measures of survey response rate (i.e., % of completed surveys received out of the total), number of error flags and revision errors (all of which impact accuracy), and cycle time (which impacts timeliness). These measures are monitored throughout each survey cycle (weekly, monthly, quarterly, annually or quadrennially) and reviewed at in-process team meetings. If sufficient responses have not been received to assure accuracy (must be at least 75%), remedial action is taken promptly (usually phoning tardy respondents and obtaining their agreement to provide missing data). EIA’s surveys currently exceed 90% response rate (Figure 7.4-1). However, sometimes the in-process reviews reveal results which indicate important industry shifts. For example, nonresponse rates for certain natural gas surveys grew as a result of the deregulation of the industry (more companies entering the industry). Restoring accuracy will require major survey redesign, not just process changes.

Performance measures for the dissemination process include time from the close of a reporting period to delivery to the customer, and ease of access. EIA’s time of delivery has improved greatly in recent years because virtually all of our products are now available through our Web site, eliminating the wait for the printing and mailing of paper publications. Of course, EIA has many customers for whom the hard copy is still their preferred medium. For this class of users, we will continue to improve the timeliness of all of our processes so that hard-copy publications also get to customers sooner. Easing customer access to our products is another goal, especially for electronic products (Section 7.1). We are developing processes to ensure that Web site and CD-ROM users are able to get the information they want quickly and efficiently. To do that, we have developed standards for electronic products, standardizing formats and procedures across all of

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our data classes and fuel types, giving a common “look and feel” to all EIA electronic information.

Performance measures for analytical and forecasting processes include relevance, comprehensiveness, thoroughness and time to complete. Accuracy measures for forecast processes include the difference between forecast and actual values. Customer opinions and peer review inputs on the relevance, comprehensiveness and thoroughness of analytical and forecasting approaches and results provide qualitative data; quantitative comparisons are made with forecasts published by other organizations and with actual values (Figures 7.5-8 and 7.5-9).

The Administrator strongly encourages the use of process mapping to improve processes, and communicated it in an article in *EIA Today*. Using “process mapping” many EIA work teams have streamlined their processes to improve efficiency, timeliness, quality, and in many cases, reduced cost (Section 7).

6.2 Management of Support Processes

Our core support processes are resource management and technical support. Resource management includes budget and finance, human resources, facilities and equipment management, records management, contracts and management information systems. Technical support includes analytical, statistical and information technology support. In recent years, EIA has fundamentally changed its two technical support processes. In early 1997 the Office of Statistical Standards changed from an internal auditor to the Statistics and Methods Group (SMG), a partnering analytical and statistics technical support group. Also, following the recommendation of the business reengineering project, our leaders reengineered our automated data processing concept and created the Information Technology Group (ITG) to centralize not only the computer facility and computer support, but also development and maintenance of all computer systems previously dispersed throughout EIA.

Our finance, human resources, administrative and logistics services have traditionally been delivered to employees by three organizational groups: DOE, EIA’s Office of Resource Management and by EIA program offices themselves. Many layers of review and approval were required to deliver the simplest of resources. Now, every effort is made to give the tools to the customer so that he or she can access the actual service provider as directly as possible. For example:

- We earned Administrative Contracting Authority to issue contractor tasks directly without going through the DOE Contracting officer, saving two weeks per task (about 50%).
- Through DOE’s Working Capital Fund, we now pay only for the services (e.g., copying, supplies, phone) we actually use. Previously we paid a flat fee based on headcount, whether or not we used the services. This has resulted in significant cost savings (Figure 7.2-5).
- Services provided by SMG (statistical, analytical and forecasting support) and ITG (information systems support) are now based on Service Level Agreements negotiated with their customers before a project starts.
- Until recently, EIA had over 500 PC’s on its network (Federal and contractor employees) and there was little standardization across EIA, making support costly. After consulting with users, the Information Technology Group (ITG) formulated agency-wide hardware and software standards so that we are now working toward one standard EIA desktop.
- As a tool to improve performances, SMG and ITG ask customers to fill out questionnaires at the completion of each project measuring their responsiveness, timeliness, and quality in fulfilling Service Level Agreements. Initial results for SMG

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show that 80 percent of its customers are very satisfied and want to partner with SMG on future work.

We use built-in performance measures to save money and processing time in support processes. For example, in resource management, the components of the DOE's Working Capital Fund serve as a set of performance statistics by which EIA measures funds spent on administrative support. In the omnibus contract soon to be implemented, performance measures are outlined in the Performance Work Statement and technical monitors will evaluate results and expenditures monthly.

6.3 Management of Supplier and Partnering Processes

Our major suppliers and partners are: (1) survey respondents and other information providers, (2) contractors (support and vendors) and (3) other government offices, primarily DOE's Human Resource Office (HR). We communicate our requirements to them and track their results in specific ways:

Data Suppliers: Respondents are suppliers to our core business process of survey and data operations. Their key requirement is to fill out the surveys fully, accurately, and on time. Although legally we can compel them to complete our surveys, we have never exercised this authority. Rather, we partner with them and seek their cooperation to achieve timeliness and accuracy. Over 120,000 respondents provided information on 83 EIA surveys last year. Survey workteams track their respondents through each survey cycle and contact them if they are late or non-responsive. We've held workshops, prepared short, quick guides to reporting and established one-on-one relationships. Additionally, we provide some respondents software to submit their data electronically, reducing their reporting burden while improving quality, since the software contains error-correction programs. We make use of statistical sampling where possible to reduce burden. Respondent processes are evaluated and

improved on an on-going basis at survey team meetings.

Contractors: Support contractors, our other main group of suppliers, are provided task orders which describe the work they are to perform, primarily data operations, information technology and analysis, and the schedule of deliverables. The work is tracked by EIA technical monitors through in-person contact and required reports. Recently we designed and provided custom training to 150 technical monitors to improve their ability to evaluate contractor performance and provide effective feedback. Our hardware/software vendor relationships have also changed with the creation of ITG. We are using fewer vendors because standardization means fewer systems to maintain. ITG is making sure that vendors are aware of what other vendors are doing to avoid duplication and encourage sharing of best practices.

Other Government Offices: Our relationship with DOE HR has improved dramatically as we both have improved our business practices. Probably the most important process change has been a significant increase in meaningful communications between us; we now meet with HR throughout the year to discuss process improvements that would be mutually beneficial.

We have established partnerships with other government units at Federal, State, and local levels. Many have been implemented by memoranda of understanding or other formal agreements. For example:

- EIA participates in several collaborative activities with other agencies in the federal statistical system. The Administrator is a member of the OMB Interagency Council on Statistical Policy which is made up of the Chief Statistician of the United States and the heads of the 13 major statistical agencies. The Council meets monthly and coordinates cross-agency policy. For instance, the Council requested that EIA, Census and the National Science Foundation take the

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lead in developing the FEDSTATS Web site (<http://www.fedstats.gov>), which links the web pages of all the statistical agencies. The Council sponsored a multi-agency organizational climate survey led by Census, EIA and the National Agricultural Statistics Service and implemented by the Joint Program on Statistical Methodology of the University of Maryland. EIA is now part of the interagency data sharing enclave which has been sponsored by OMB and the Council, as well as the OMB-sponsored Federal Council on Statistical Methodology (FCSM), composed of chief statisticians and methodologists of the federal statistical agencies. The group sponsors conferences to share new methodologies and reports on statistical issues of concern to the agencies. For instance, EIA is a member of the subcommittees on training, editing, nonresponse and disclosure and is also responsible for organizing a session at the upcoming FCSM conference. EIA officials have also been active members of and contributors to the Federal Publishers Committee of the Depository Library Council.

- In 1994, we signed a Memorandum of Understanding (MOU) with the U.S. Environmental Protection Agency to cooperate on issues relating to greenhouse gases.
- EIA has an MOU with Bureau of Labor Statistics through which we gather

petroleum price information and share it with them, and an MOU with the Interstate Commerce Commission through which we gather diesel fuel price information and share it.

- EIA is a signatory to an agreement with the National Association of State Energy Officials and DOE's Office of Emergency Management to operate a communications system in energy emergencies.
- As a result of a data sharing agreement with the Mine Health and Safety Administration, EIA has reduced the burden on coal survey respondents by 35 percent.
- EIA is partnering with the Federal Energy Regulatory Commission and other Federal agencies to develop standard data definitions, data element coding and confidentiality policies to merge and transfer data sets among ourselves seamlessly.
- EIA and the California Energy Commission are exploring common data collections in the new environment of a restructured electric power industry. This relationship could be the beginning of a new system of partnerships between EIA and the States.

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7 Business Results

EIA’s mission is to produce energy information that promotes sound policymaking, efficient markets and public understanding. We assess our level of achievement of these outcomes by evaluating our product usage and customer satisfaction levels. The results show that while we are accomplishing our mission and have made improvements, there are still areas for improvement. Most of our customer satisfaction ratings are very high, with a growing percentage who are “dazzled” (Section 7.1); where they are not, we take corrective action. The size of our workforce has been reduced, but employee perceptions about the EIA workplace are generally positive (Section 7.3). Our financial and market results indicate that in spite of a 23% reduction in

funding and staffing (Section 7.2), we have expanded our customer base and improved our products’ attributes (Sections 7.1 and 7.5). Through large-scale electronic and media dissemination of our products, we have increased their timeliness and availability to the public while reducing our printing and distribution costs. We will continue to focus our improvement efforts on the performance targets set in our strategic plan.

7.1 Customer Satisfaction Results

EIA has conducted surveys of its telephone customers for the last four years giving us a solid time series of performance results. The telephone surveys give us the most comprehensive measure of overall performance because they have

Majority of Customers “Dazzled” (Very Satisfied) With EIA Service

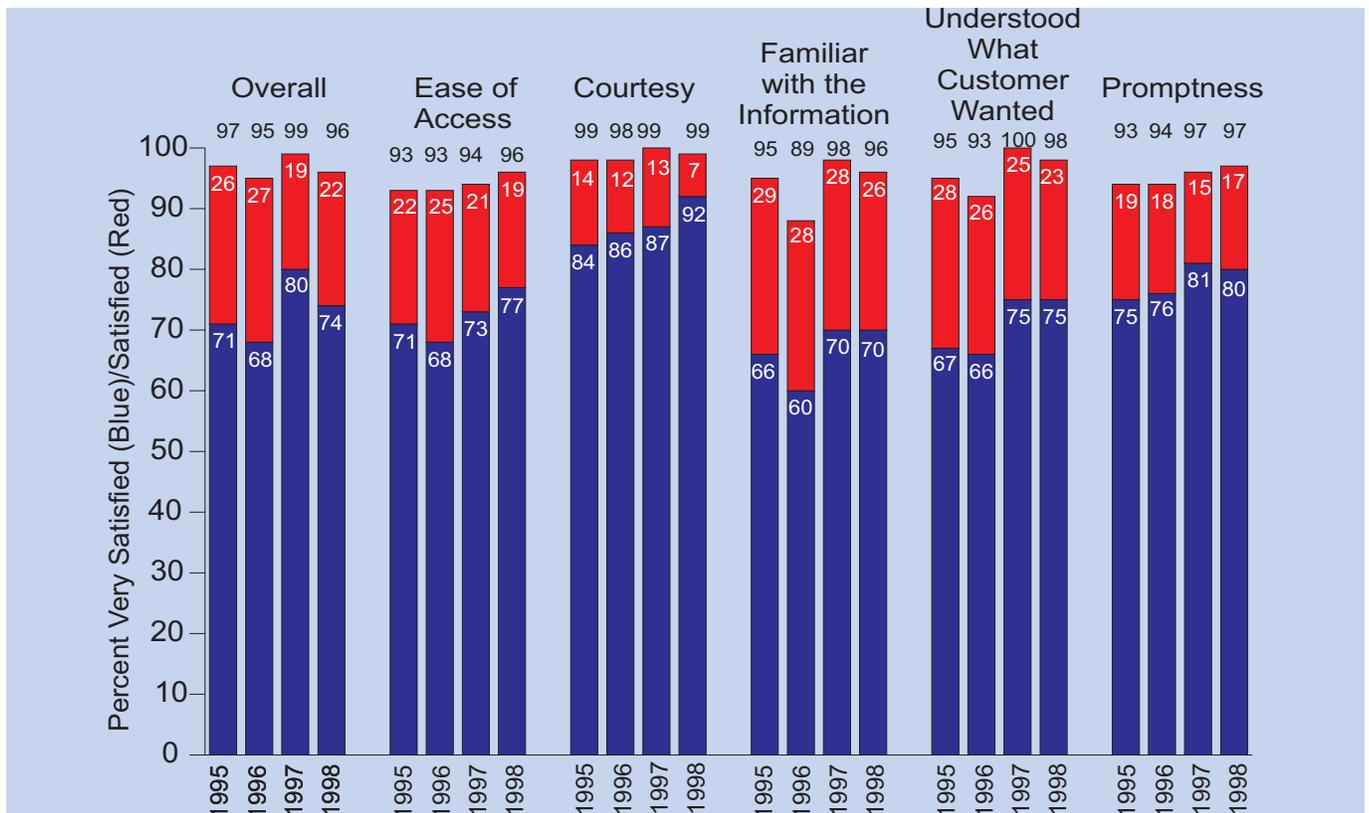


Figure 7.1-1 Customer Satisfaction with Service

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questions about all of EIA’s products and services. We have also conducted surveys of customers who use our other modes of access: Web site, CD-ROM, Listserv and publications. Customers are asked to rate their satisfaction overall and with 5 attributes of customer service and 5 attributes of product quality (Figures 7.1-1 and 7.1-4). (Note that the values in figures in this section may not add to the total shown due to rounding.) EIA’s overall customer service satisfaction levels have been 95% or higher for the last four years (changes of a few percent are not considered statistically significant.)

Overall, our satisfaction levels compare favorably to those of the Bureau of Labor Statistics in their 1995-1996 telephone customer survey, which scored 98% “very good” and “good” combined. In addition to maintaining high satisfaction levels, our service has “dazzled” (very satisfied) 74% of our customers. When compared to other parts of DOE (Figure 7.1-2), EIA’s overall customer satisfaction ratings for 1997 show we are a leader in customer satisfaction in DOE. Our highest service attribute ratings are for understanding what the customers want (100% and 98% for 1997

and 1998) and courtesy (99% for 1997 and 1998). Courtesy is also the attribute of service which dazzles customers the most (87% and 92% very satisfied in 1997 and 1998). When compared to other Federal agencies, this service attribute rating of 99% satisfaction in 1997 shows that EIA is a close second to the Federal Aviation Administration, which is the benchmark in courtesy (Figure 7.1-3).

In terms of the quality of all EIA’s products, telephone customer satisfaction ratings overall are also high (86% to 94%) over the four years (Figure 7.1-4). The percent of customers in the last 2 years who were dazzled ranged from 40% (for timeliness) to 71% (for relevance.) Two aspects, relevance and timeliness, each improved by over 20 percentage points (statistically significant at the 93% and 94% confidence levels, respectively). Furthermore, a one-time question in 1997 was added (at the request of DOE’s Office of Quality Management) which showed that 87% of telephone customers trusted EIA to provide a quality product to a great extent or completely.

EIA Has The Highest Overall Customer Satisfaction Rating In DOE

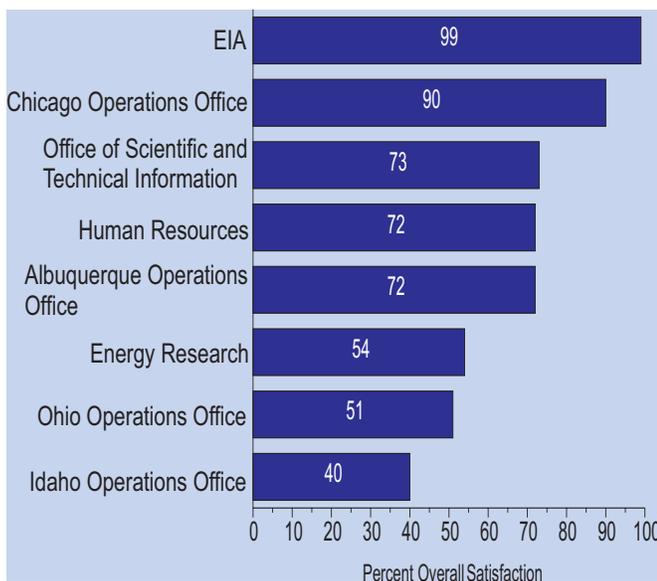


Figure 7.1-2 Customer Satisfaction Within DOE (1997 Survey Results)

FAA And EIA Benchmarks In Customer Satisfaction With Courtesy

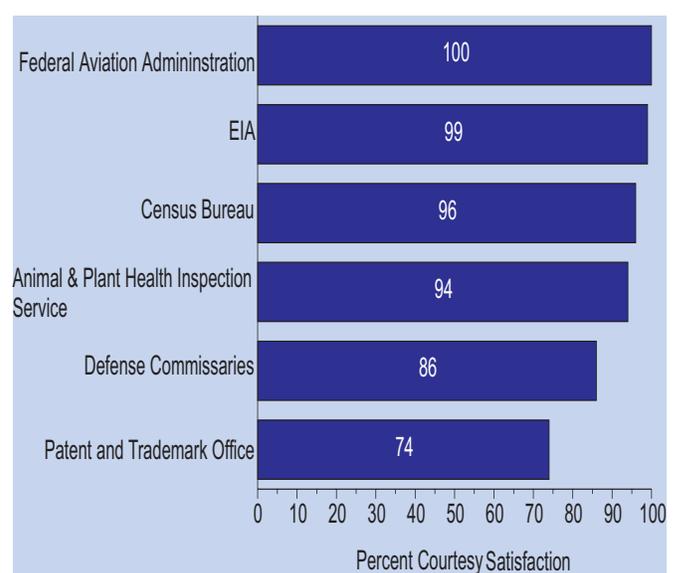


Figure 7.1-3 Customer Satisfaction With Federal Agencies (1997 Survey Results)

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EIA Has High Customer Satisfaction With Product Quality, With Increasing Numbers Of “Dazzled” Customers

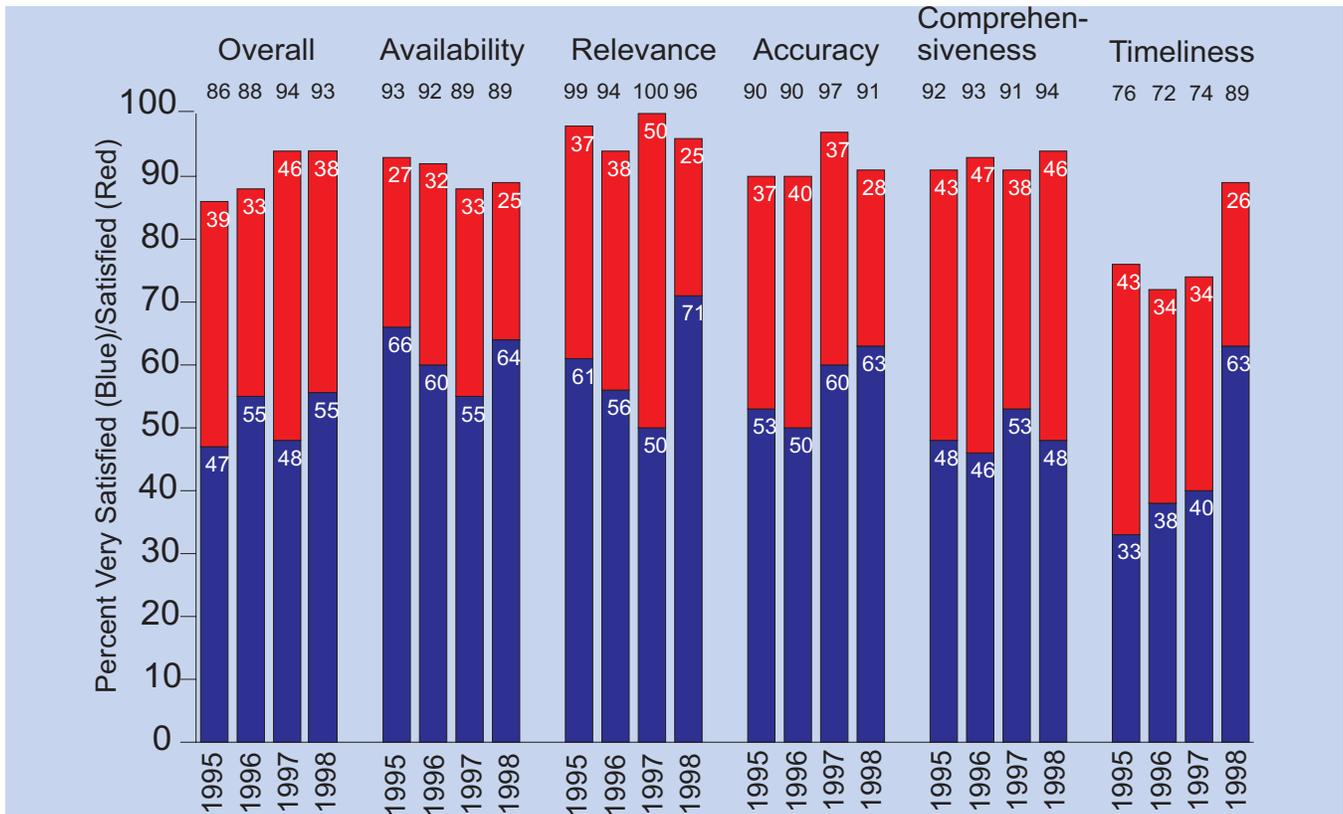


Figure 7.1-4 Satisfaction with Information Quality

The 1997 satisfaction results on the product attribute of timeliness achieved for the Listserv, Web site and CD-ROM customer surveys (Figure 7.1-5) show that Listserv subscription customers, who have our products automatically delivered to them by e-mail, are the most satisfied (95%) with timeliness. Similarly, 83% of Web site customers are also satisfied. CD-ROM subscription customers, who receive new updated CD-ROM’s quarterly, are the least satisfied (49%) with timeliness.

EIA has specifically targeted timeliness as a key area of product quality improvement, given the relatively low satisfaction ratings in 1995 and 1996 (76% and 72%, respectively). EIA’s success in improving customer satisfaction with timeliness is shown in Figure 7.1-6, which reveals that we met and exceeded the 2002 strategic goal this year, 4 years ahead of schedule!

Listserv Customers Are The Most Satisfied With Timeliness

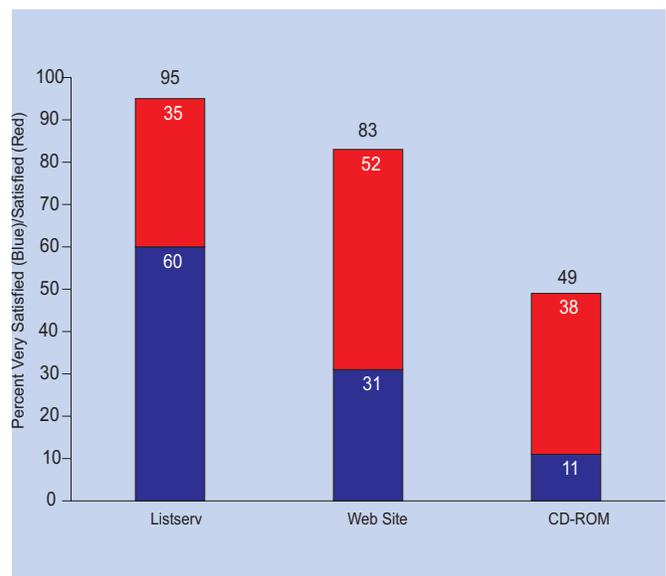


Figure 7.1-5 Satisfaction with Timeliness by Mode of Access

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EIA Exceeds 2002 Goal On Timeliness Satisfaction 4 Years Early

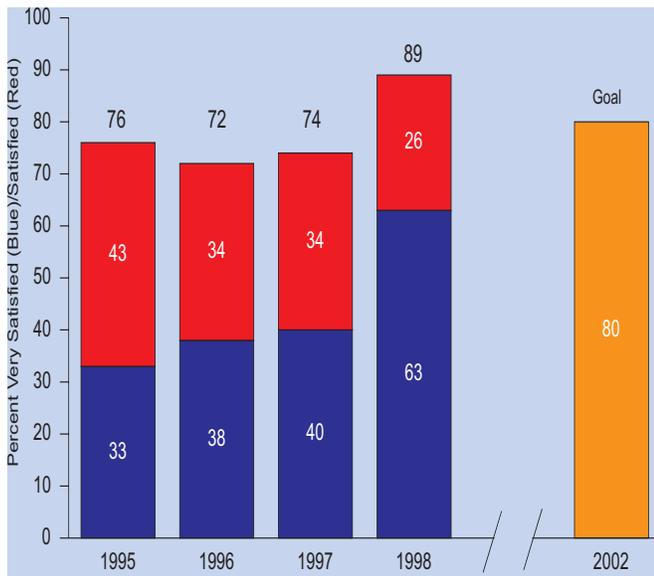


Figure 7.1-6 Satisfaction with Overall Timeliness

CD-ROM, Listserv, and Web site customers also have told us (Figure 7.1-7) that EIA’s products met their needs (95%, 91% and 86%, respectively). The proportion of customers who said our products were easy to use was fairly high for Web site customers (98% for yes or somewhat) and

EIA Products “Meet Needs” For Most Users

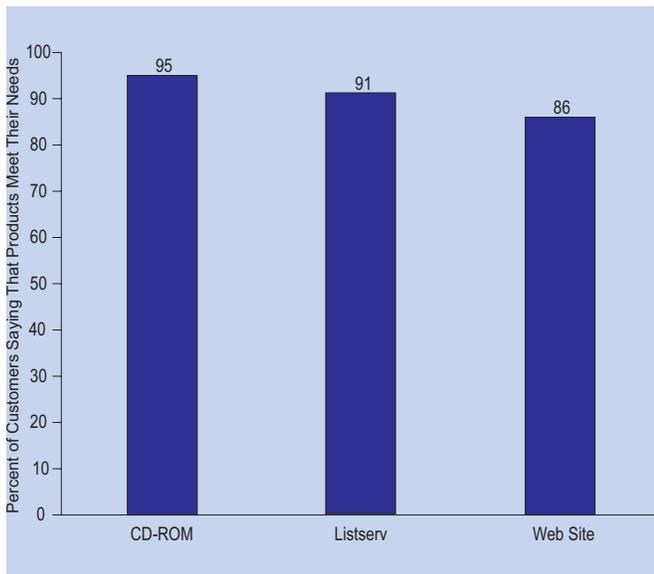


Figure 7.1-7 Satisfaction With Meets Needs By Mode Of Access

EIA Products Are “Easy To Use”

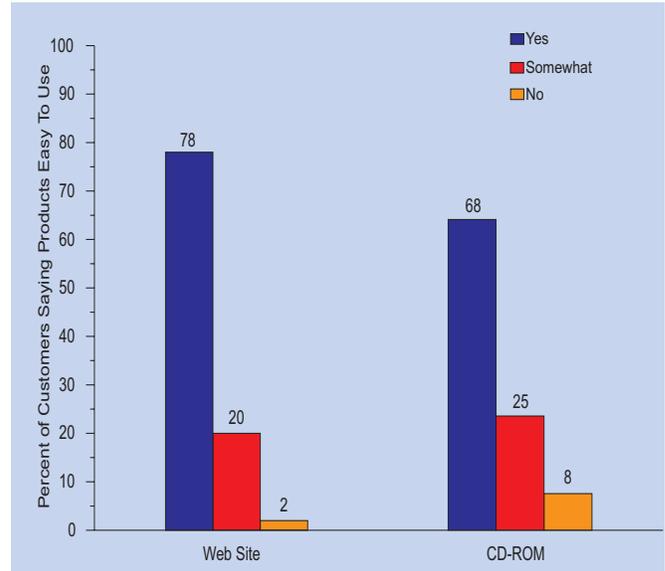


Figure 7.1-8 Satisfaction with Easy To Use by Product

CD-ROM customers (92%). However, as shown in Figure 7.1-8, only 68% of CD-ROM customers responded with an unqualified “yes” and we followed up on the results, as described in Section 3.2.c.

We also ask our customers which quality attributes of our products are most important to them. A comparison of responses from telephone customers (Figure 7.1-9) and CD-ROM customers (Figure 7.1-10) shows that timeliness is more important (tied for second) to telephone customers than to CD-ROM customers, who had the smallest percent (16%) saying that timeliness was the most important. This tells us that timeliness for CD-ROM customers is a lower priority for us because it isn’t as important to the customers themselves. The results also tell us that accuracy of our product is the most important attribute (26%) to our telephone customers, and we continue to monitor accuracy closely (Section 7.5) through other performance measures to ensure that accuracy ratings do not go down as ratings on timeliness go up.

The relatively low ratings by CD-ROM customers on ease of use can be analyzed further, as shown in Figure 7.1-11. The specific attributes associated

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Telephone Customers Rate Accuracy As The Most Important Product Attribute

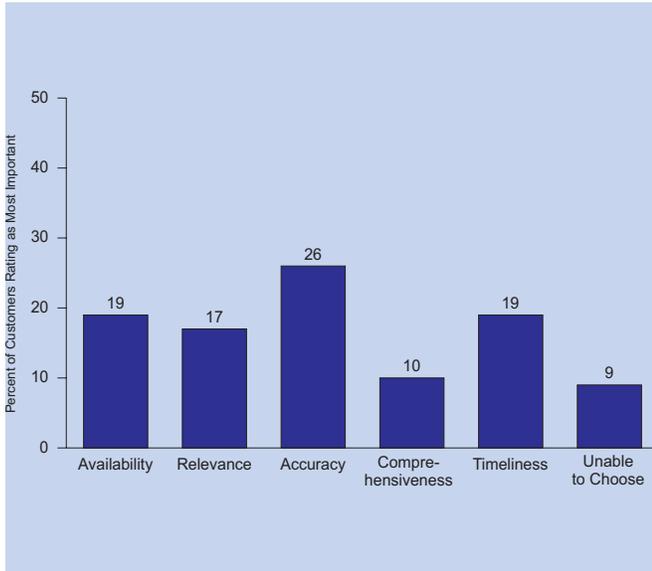


Figure 7.1-9 Most Important Attribute: Telephone

with ease of use in the CD-ROM have varying levels of satisfaction. While viewing publications and printing information from the CD-ROM had high ratings (83% and 81% satisfied or very satisfied, respectively), ratings on our search mechanism (49%) and linkage from the CD-ROM directly to our Web site (59%) revealed them as areas needing improvement. We responded by

CD-ROM Users Satisfied With Viewing And Printing Capabilities But Not Search

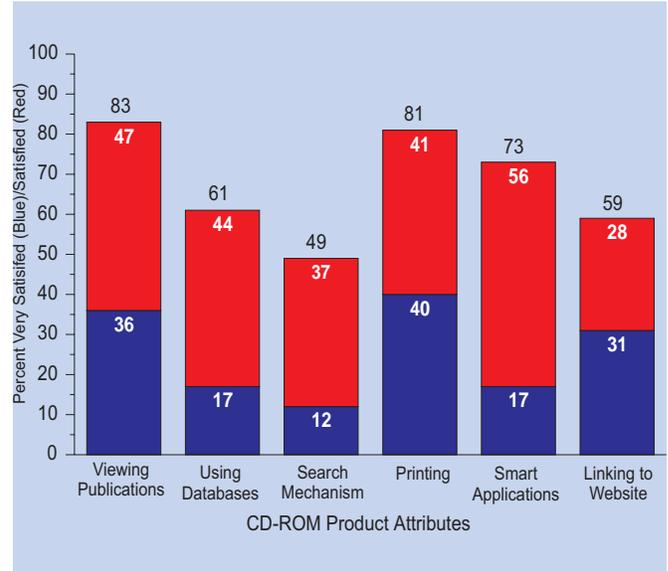


Figure 7.1-11 Satisfaction with Attributes: CD-ROM

advertising and explaining the CD-ROM link to the Web site and by enhancing its search techniques. We let the customers know we were listening and responding.

Also, we have focused on understanding our customers' continuing preference for paper copy

CD-ROM Users Rate Timeliness As The Least Important Product Attribute

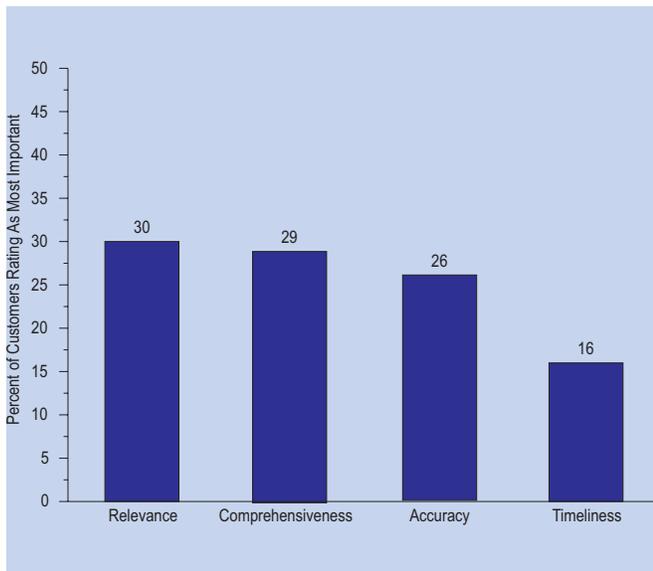


Figure 7.1-10 Most Important Attribute: CD-ROM

Customers Still Want Paper

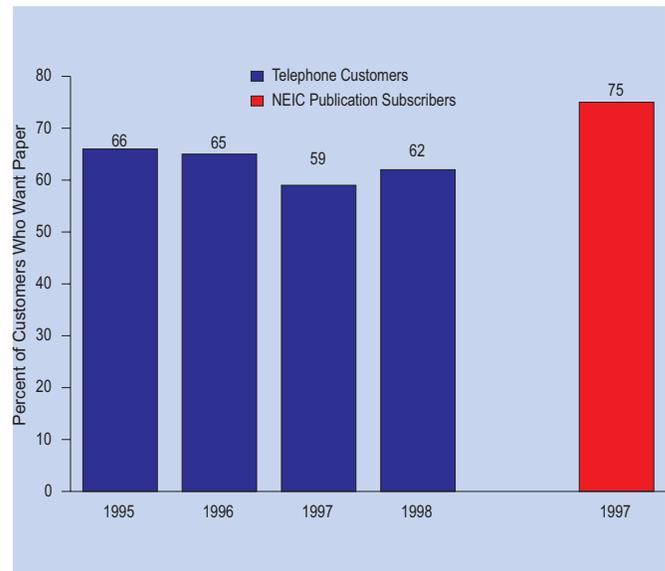


Figure 7.1-12 Customers Preferring Paper Copy

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versus electronic access (Figure 7.1-12). Three-quarters of NEIC publication subscribers

replied that they continue to want paper copy even if the information they needed was available electronically. Telephone customers over the 4-year period showed virtually no drop in their desire for paper (from 59% to 66%). We have responded by continuing to offer paper copy to our customers.

7.2 Financial and Market Results

Over the past four years, EIA has dramatically increased its market share (measured by numbers of customers) through an aggressive program to expand dissemination of our information products both electronically and through the mass media. This increased use of electronic technology (Internet, CD-ROMs, Listserv) for product dissemination has led to an explosive growth in the number of customers for our data and in the breadth of its distribution. Figure 7.2-1 shows the growth in unique monthly users (individuals who contact the site during each month are only counted once, regardless of how many times they visit, which provides a more accurate count of how

EIA Web Users Continue To Set Usage Records

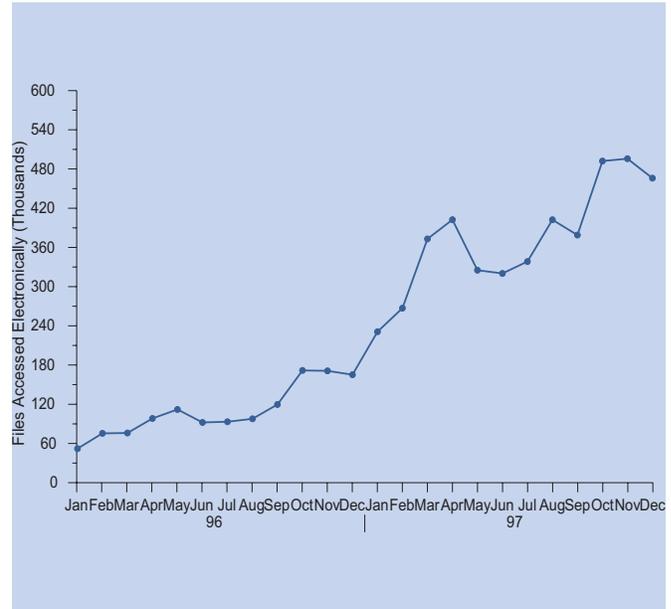


Figure 7.2-2 Files Accessed Electronically

many actual customers we have), not including EIA employees. Figures 7.2-2 and 7.2-3 show similar growth in Web site file access and ListServ mailings.

Explosion In EIA Web Site Customers Over The Last Two Years

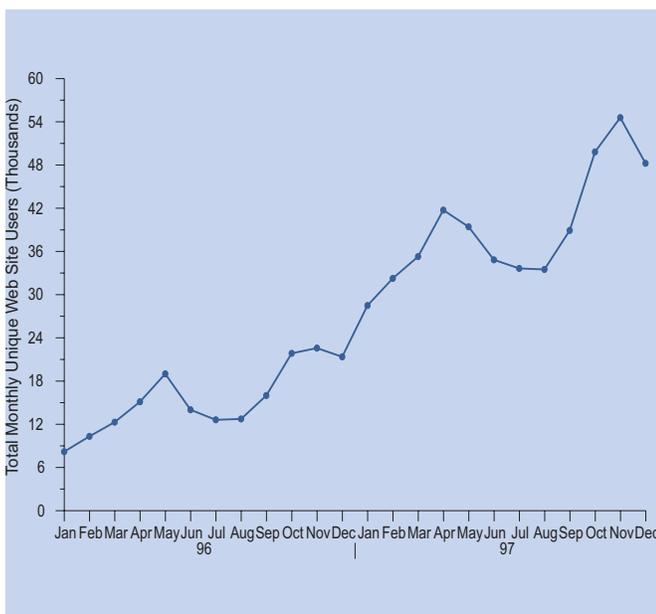


Figure 7.2-1 Web Site Customer History

Listserv (E-mail) Customers Increased 4x Last Year

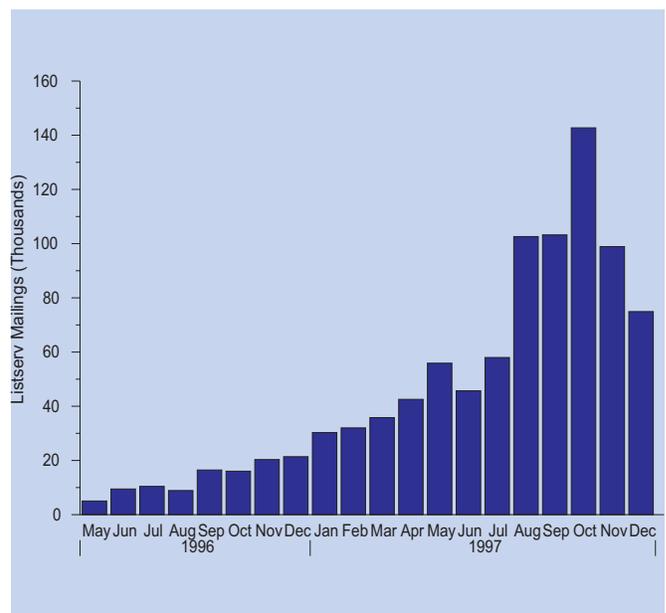


Figure 7.2-3 Listsrv Customers

CRITERION 7. BUSINESS RESULTS

One result of the increase in the electronic availability of our information has been a small reduction in the public contacts with the National Energy Information Center because customers are now able to get what they want directly (Figure 7.2-4).

Another result of our expanded use of electronic dissemination is a 35% reduction in the number of paper publications (Figure 7.2-5) and a 50% reduction in publication printing costs since 1994, with dollar savings of over \$500,000 per year (Figure 7.2-6).

We have made use of the technological revolution in our work practices within the agency to significantly enhance productivity through the widespread use of electronic tools supporting employee work processes. For example, virtually every EIA employee has a personal computer at his or her workstation, and is networked throughout the organization for routine e-mail and Intranet use.

EIA has generated major financial savings in other areas, as well. We have reduced our administrative costs (DOE Working Capital Fund) by 24% since

EIA Has Reduced The Number Of Its Paper Publications

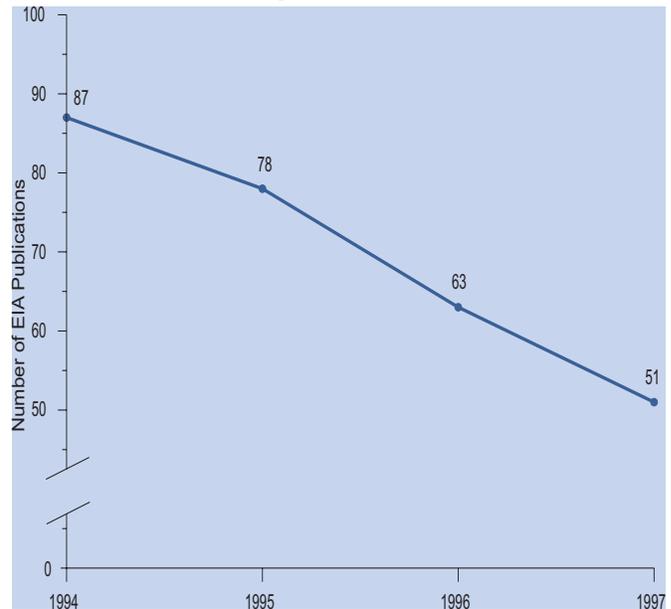


Figure 7.2-5 Number of EIA Publications

1995, achieving \$2.2 million in overhead cost savings (Figure 7.2-7) by tightening up on the management of administrative services, such as space usage. We have managed the consolidation of space to achieve savings far in excess of that corresponding to staff reductions (Figure 7.2-8).

Phone and Walk-In Customers Still Numerous, Though Declining

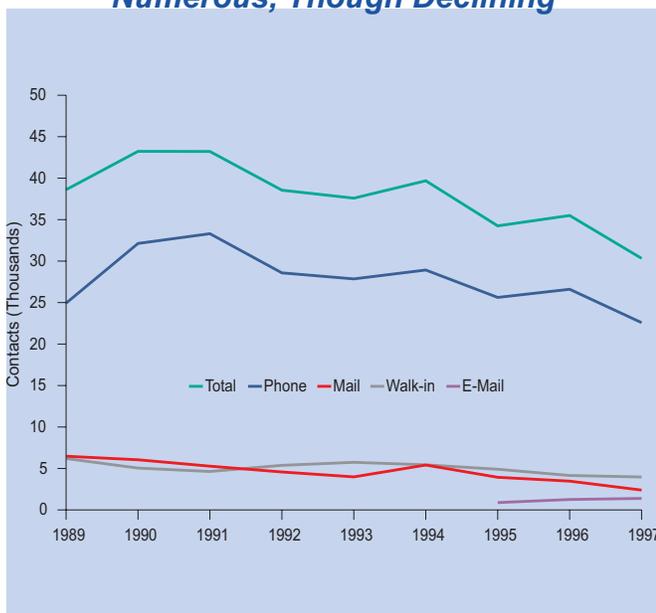


Figure 7.2-4 National Energy Information Center Contacts by Type

EIA Reduces Printing Costs By 50 Percent

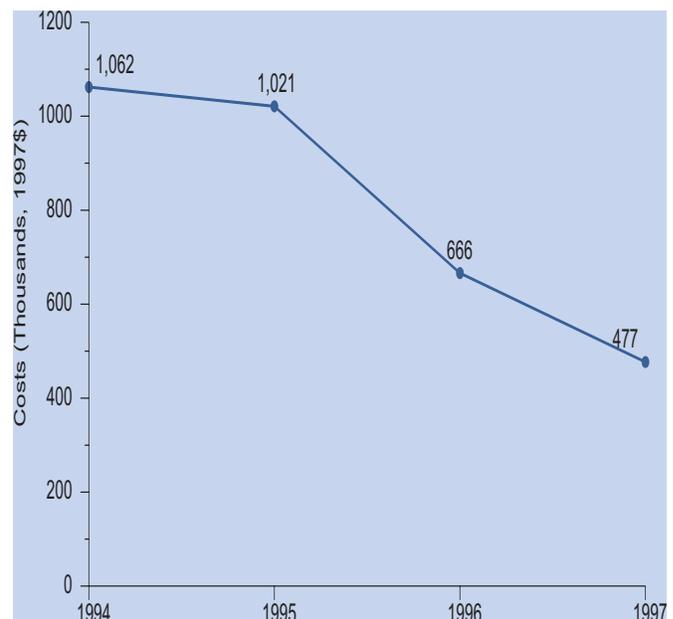


Figure 7.2-6 Printing Costs

CRITERION 7. BUSINESS RESULTS

EIA's Overhead Costs Are Down By \$2.2M Per Year

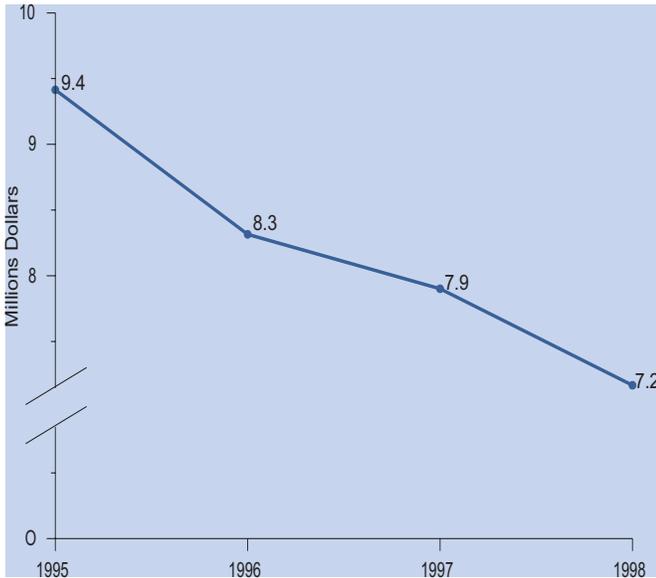


Figure 7.2-7 EIA Overhead Costs History

We have further improved our cost management with a 57 percent reduction in uncosted obligations since 1994, compared to the DOE total of 42 percent.

As a result of these efforts, EIA has been able to successfully accommodate reductions in

EIA's Budget Is Down 23% From 1994

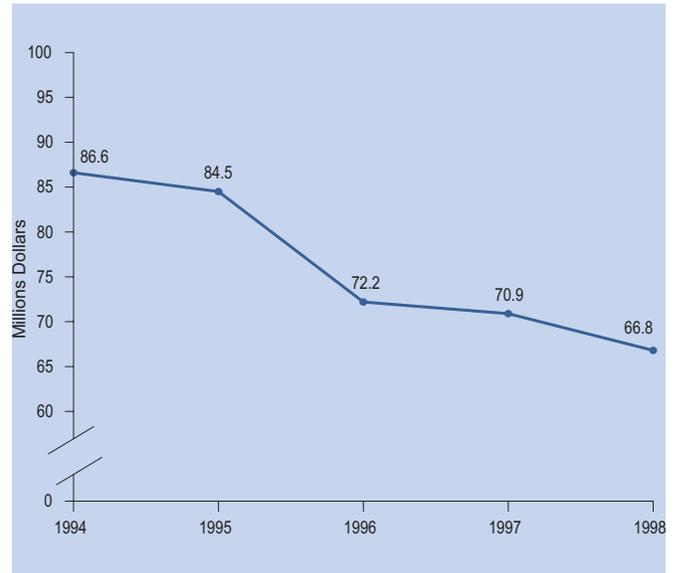


Figure 7.2-9 EIA Budget History

appropriations in each of the last four years; we are the only statistical agency to absorb significant budget reductions over this time period, yet we have one of the smallest budgets among those agencies (Figures 7.2-9 through 7.2-11).

EIA Takes Up Less Space And Saves Money

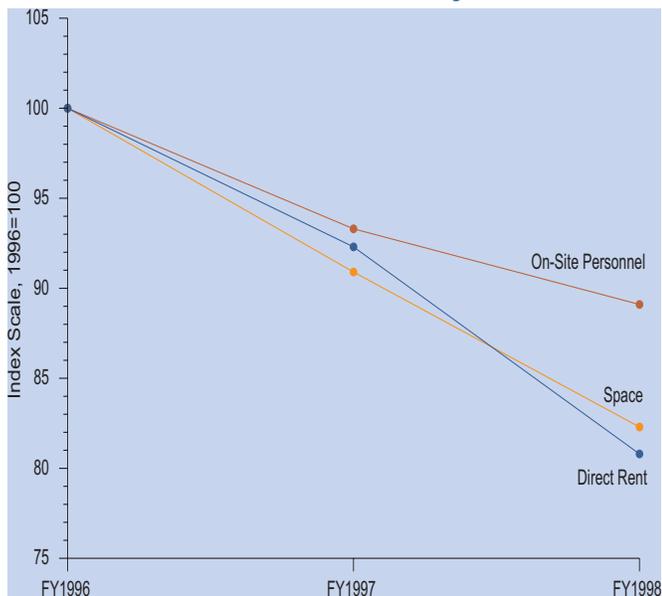


Figure 7.2-8 EIA Rent Costs History

EIA Stands Alone In Achieving Significant Budget Savings

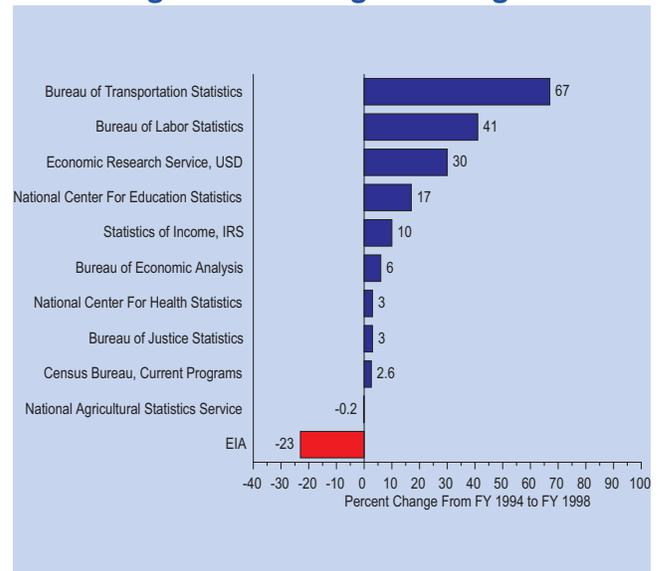


Figure 7.2-10 Changes in Budgets of Statistical Agencies (1994 to 1998)

CRITERION 7. BUSINESS RESULTS

EIA Budget Small Compared To Other Federal Statistical Agencies

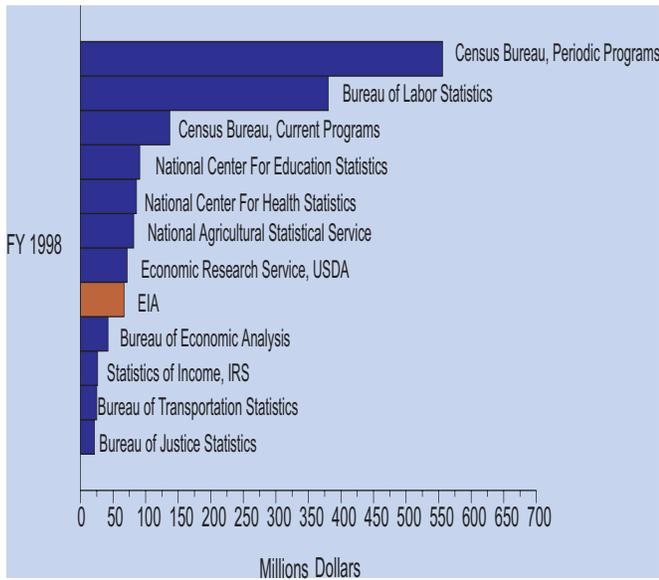


Figure 7.2-11 Budgets for Statistical Agencies

We have also absorbed significant Federal staff reductions driven by National Performance Review goals and DOE’s personnel ceiling targets. The work formerly done by these employees was not shifted to contractors; in fact we absorbed even greater reductions (48% to 23%) in contractor staff levels (Figure 7.2-12).

EIA Achieves Major Staff Reductions

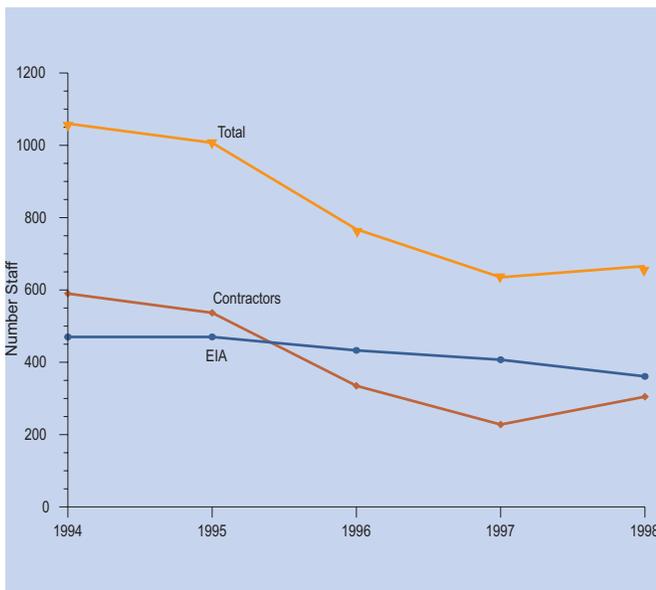


Figure 7.2-12 EIA Workforce History

EIA has taken seriously the National Performance Review’s goal of doing more with less. We have accommodated reduced funding and staffing while enlarging our customer base through the use of technology and mass media, and we expect to continue to improve in the future.

7.3 Human Resource Results

A new Administrator actively supporting modern management principles and DOE’s National Performance Review downsizing goals have caused significant human resource results in EIA during the last four years. We have achieved streamlining and downsizing goals while improving the workplace. Without involuntary separations, we have reduced total Federal staffing by 23% (Figure 7.2-12) while expanding our product line and customer base. All of our offices have reorganized to gain efficiencies from work teams in which employees are less supervised and more autonomous. There are now 4 times as many employees for each supervisor as there were in 1993 (Figure 7.3-1) and most employees are no more than 2 layers away from the Administrator. Through surveys, our employees indicate that EIA is doing better in workplace issues than the average of eight other Federal statistical agencies.

EIA Exceeds NPR 11:1 Target For Staff To Supervisor Ratio

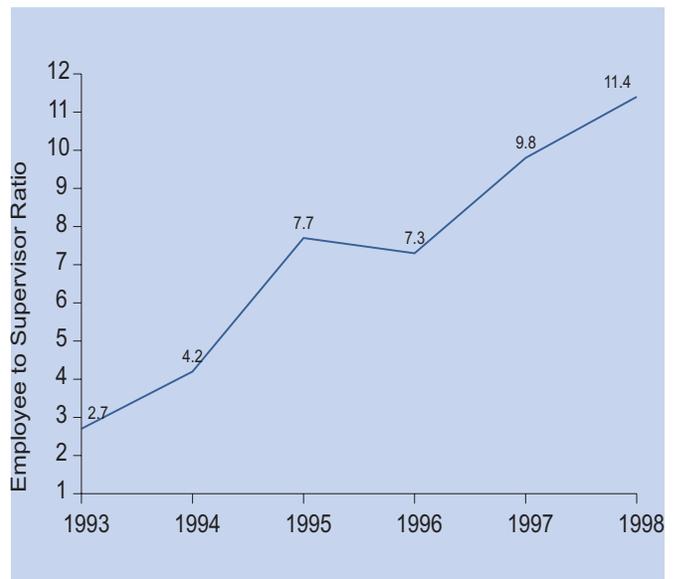


Figure 7.3-1 EIA Supervisory Ratio History

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Our employees said they understand EIA’s mission, value EIA’s work and don’t think their work is boring. This is a vast improvement over the results of our first organizational climate survey in 1994 when many employees did not take pride in their jobs or appreciate the importance of EIA’s mission (Figures 7.3-2, 7.3-3 and Box in Section 5).

EIA’s strong customer satisfaction surveying program (Section 3) and customer feedback and follow-up mechanisms reinforce the principle of customer service with our employees. Our staff feels that our customers are satisfied with EIA’s products and services, and, in fact, our employees themselves rate our products very good (Figure 7.3-4).

The number of awards to recognize special acts has more than doubled since 1994 and the percentage of staff receiving special awards has increased from 15% to 41% (Figure 7.3-5). EIA has consistently rated its employees well over the years, with over 90% receiving a performance bonus for outstanding or highly successful performance. Cash awards and performance

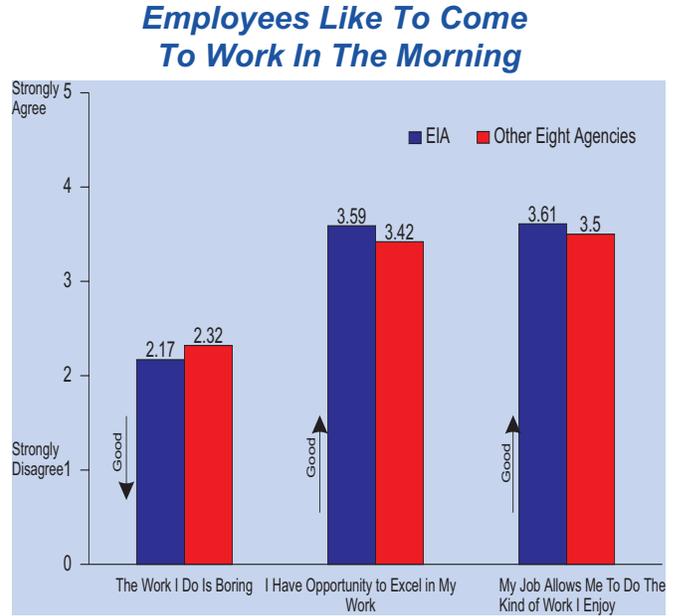


Figure 7.3-3 Job Satisfaction

bonuses totaled about \$800,000 in 1997, an increase of 115% from 1994.

Our employees, like employees at other statistical agencies, are generally not satisfied with rewards and recognition, despite significant increases in awards over the last 4 years. Our Quality Council is studying this now. On the other hand,

Employees Know The Role Of EIA

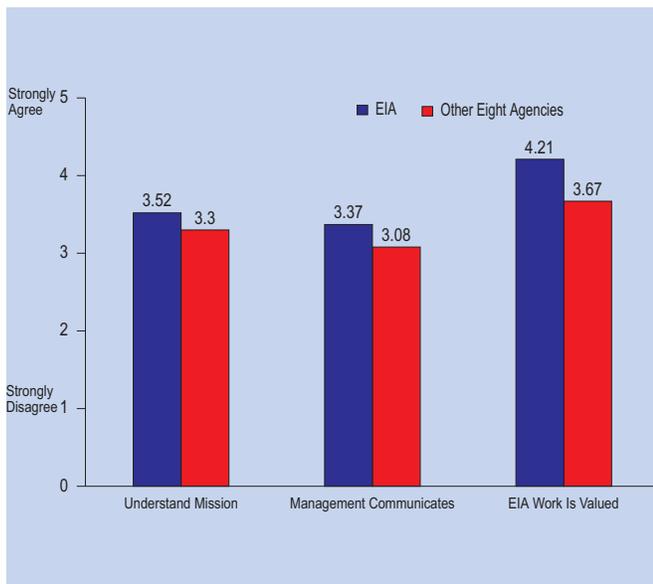


Figure 7.3-2 Mission Understanding

Employees Perceptions Mirror Customer Satisfaction Business Results

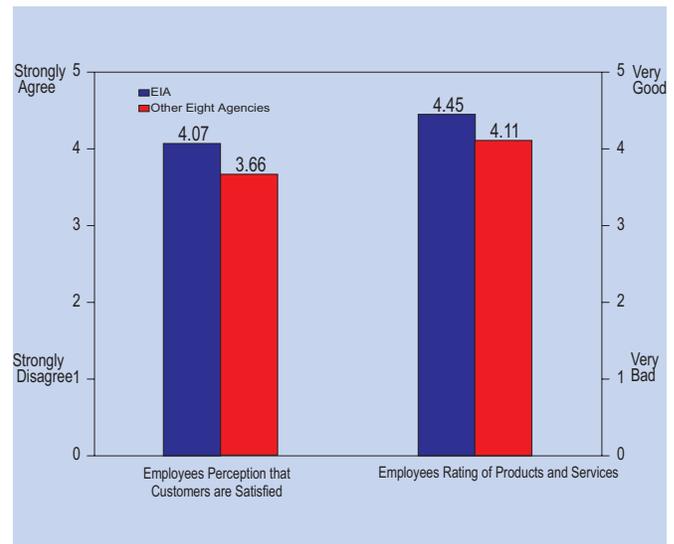


Figure 7.3-4 Employees Perceptions Of Customer Satisfaction And Quality

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**Special Act Cash Awards
More Than Double**

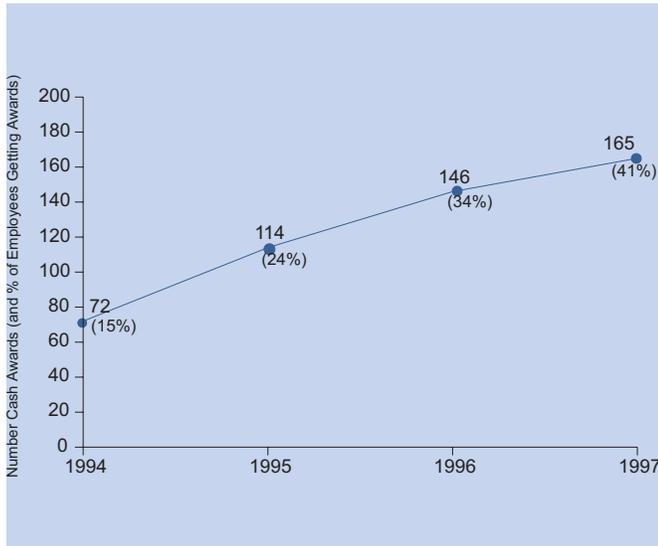


Figure 7.3-5 Special Act Cash Awards

**Quality Courses Spike Up
EIA Training Efforts**

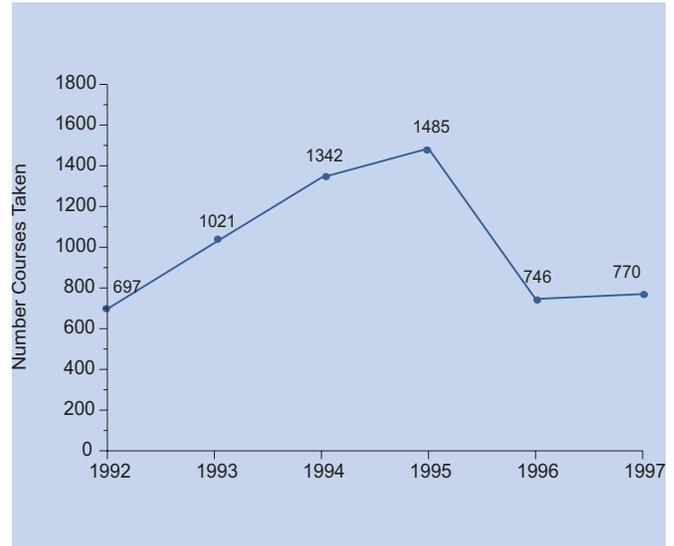


Figure 7.3-7 Training Courses Taken

employees are much more satisfied with their level of pay and benefits (Figure 7.3-6).

Our strategic plan objective to support our employees in acquiring training is being measured in four ways (Figure 2-3). Our massive efforts to train all EIA staff in quality activities and behavior change at the start of our improvement efforts are

reflected in the dramatic increase in courses taken in 1993, 1994 and 1995 (Figure 7.3-7). Currently EIA employees average about 2 courses per person per year.

We are delivering much of our training now through internal seminars - a fourfold increase

EIA Employees Satisfied With Pay And Benefits But Less Satisfied With Awards

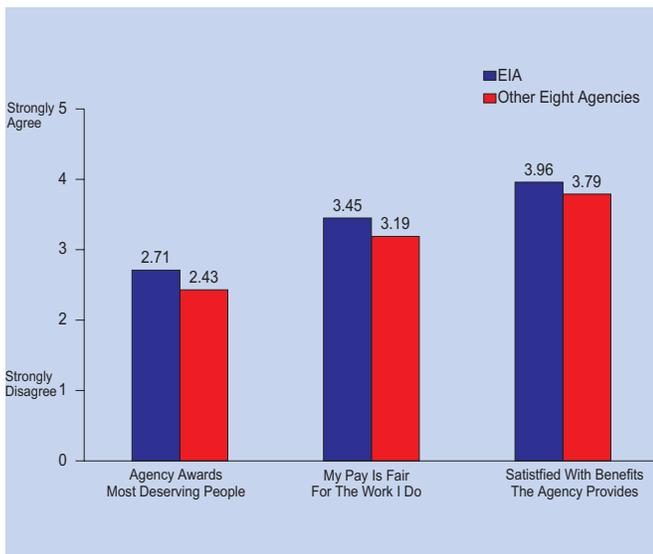


Figure 7.3-6 Satisfaction With Rewards/Pay/ Benefits

The New Wave For Training: Do It Yourself

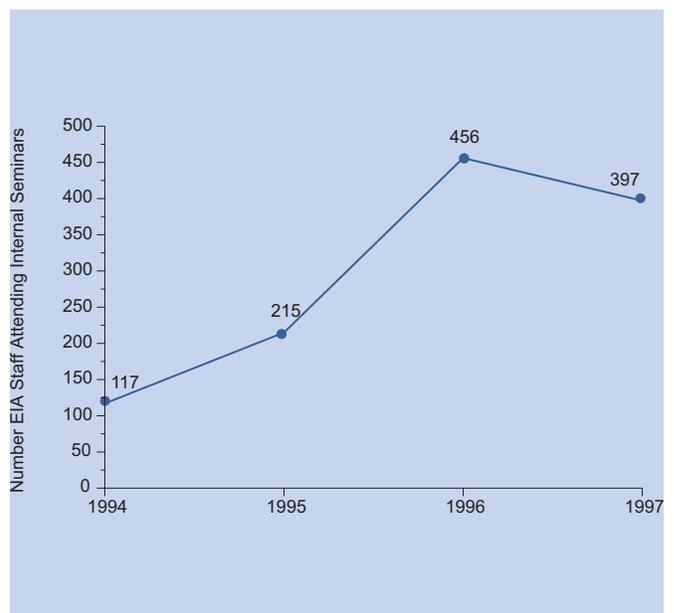


Figure 7.3-8 In-House Seminars

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since 1994 (Figure 7.3-8). About half of the formal courses previously offered have been replaced by seminars and training delivered by in-house staff. The percent of staff who are meeting core competency requirements in the areas of computer skills and teamwork has increased more than fourfold from 15% to 65% since 1994.

This greater emphasis on training is paying off. We are currently on schedule to increase our employees' level of satisfaction with getting the training they need (Figure 7.3-9), having already achieved 40% of the increase necessary to meet our 2002 goal.

EIA employees agree with actions taken by leaders to improve job security in a downsizing environment. EIA leaders have achieved a difficult balance between encouraging people to leave to avoid involuntary reductions-in-force, while taking steps to improve the workplace for those remaining. Our employees appreciate these efforts by their leaders, much of it accomplished by keeping employees informed of changes (Figure 7.3-10).

Employees Appreciate EIA's "No RIF" Policy

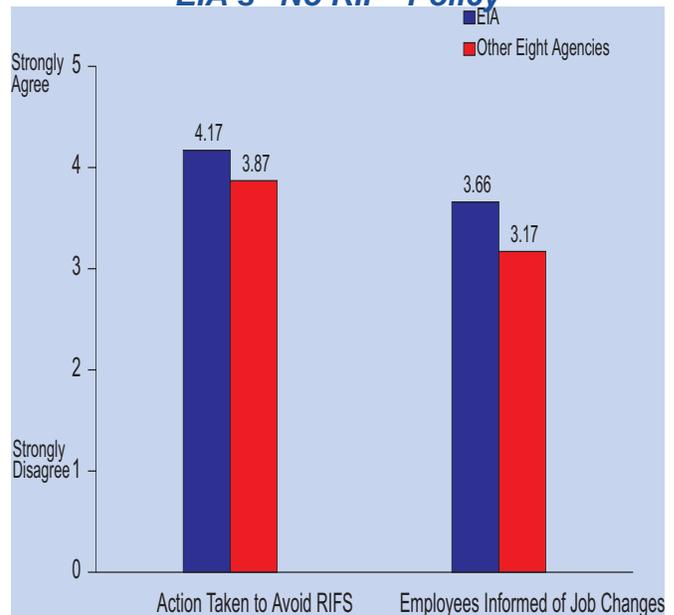


Figure 7.3-10 Job Security

EIA employees, along with employees at the other eight statistical agencies, agree with factors contributing to a good work climate (Figure 7.3-11). A very proactive on-site employee health facility most likely contributed to the higher score for promoting a healthy lifestyle. Also contributing to a positive work climate, EIA and

EIA On Track To Achieve Employee Training Satisfaction Goal

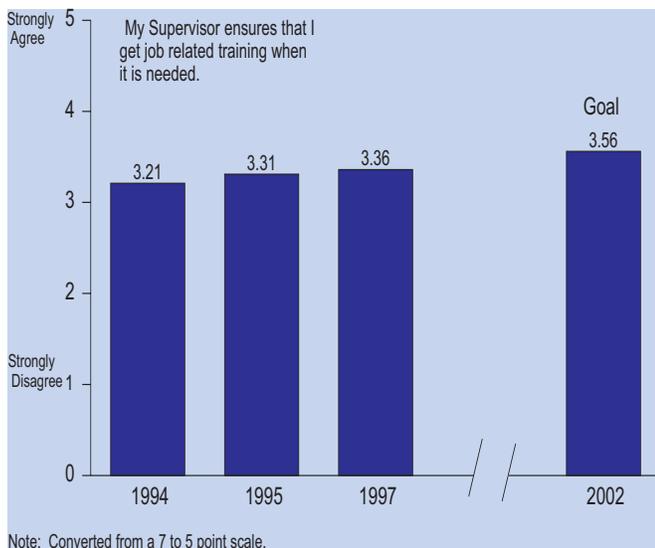


Figure 7.3-9 Satisfaction With Training

In EIA, The Climate Is Good

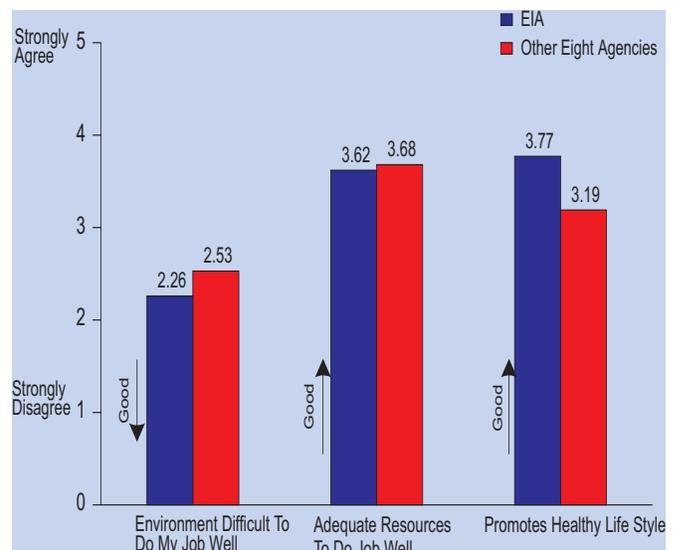


Figure 7.3-11 Work Climate

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You Have A Friend In EIA

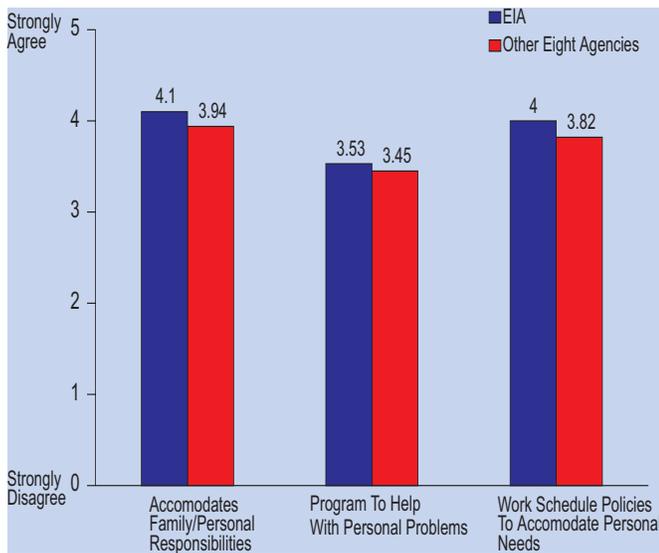


Figure 7.3-12 Personal Needs

other statistical agencies scored well on factors addressing diversity, with especially high scores for accommodating people with disabilities, preventing sexual harassment, and working well with people of different backgrounds.

Even higher scores were received by EIA and its sister statistical agencies on factors addressing personal needs (Figure 7.3-12). Over 70% of EIA

Normal Attrition Remains Low

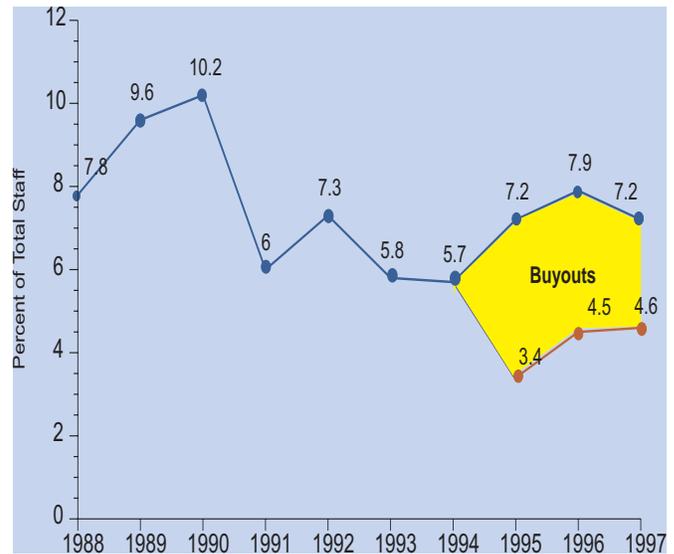


Figure 7.3-14 Attrition Rates

employees take advantage of some form of flexible work schedule (Figure 7.3-13).

The organizational climate survey results presented above demonstrate that EIA employees think EIA is a pretty good place to work. These results are very important for EIA because they contribute to a workforce committed to producing the quality products necessary to achieve high levels of usage and customer satisfaction. Retaining these employees is important and our attrition rates are a measure of the bottom line of our human resource results. Our turnover rate of staff not eligible for retirement is low, averaging about 4% over the past three years (Figure 7.3-14). We have met downsizing requirements primarily by offering buyouts. While buyouts were offered to all employees, only employees eligible to retire chose to depart. For the most part, our middle aged and younger employees have chosen to remain with EIA.

Many Employees Enjoy Flexible Work Schedules

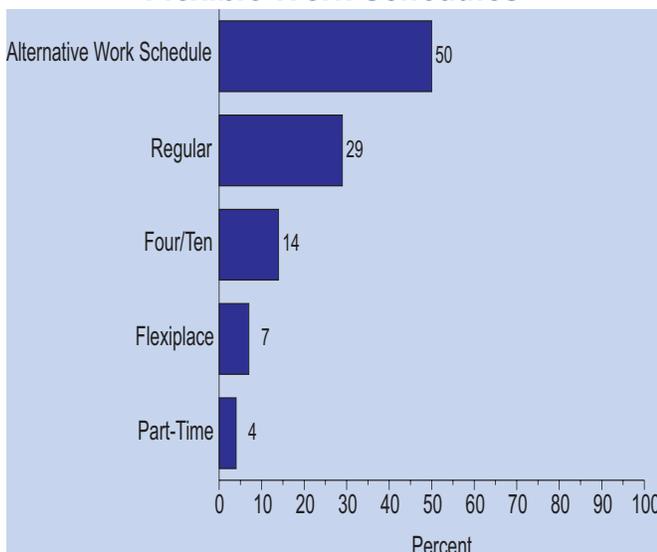


Figure 7.3-13 Flexible Work Schedules

7.4 Supplier and Partner Results

Our primary suppliers are our survey respondents and support services contractors. We keep track of the total burden hours that our surveys place on respondents and make changes to keep it level or dropping. For example, when the Energy Policy Act of 1992 required us to collect new information

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on greenhouse gases and alternative fuel vehicles, we reduced requirements in ongoing surveys on coal, electric power and petroleum supply, so that our 1997 burden is the same as our 1994 level - 562,000 hours.

We have become more demanding of the performance of our support services contractors as our resources have shrunk. From 1992 to 1995, EIA was one of the few DOE organizations to have a formal contractor evaluation in place to give quantitative and qualitative feedback to our contractors. In 1995, a more rigorous set of performance criteria was instituted along with improved training for our technical monitors. As a result, the score for one contractor (out of 11) dropped significantly in 1996, driving the average score down (Figure 7.4-1). The option for that contract was not exercised by EIA, reinforcing the expectation of improved performance by the other contractors. In addition, while the number of contractors with a better evaluation than the previous year dropped from 4 to 1, the percentage of all contractors with the same or better evaluation remained at 7 in the 70-75% range (Figure 7.4-2). To meet the goals in our strategic plan, we will continue to expect excellent

Rigorous Criteria Show Effect On Contract Evaluations Over Time

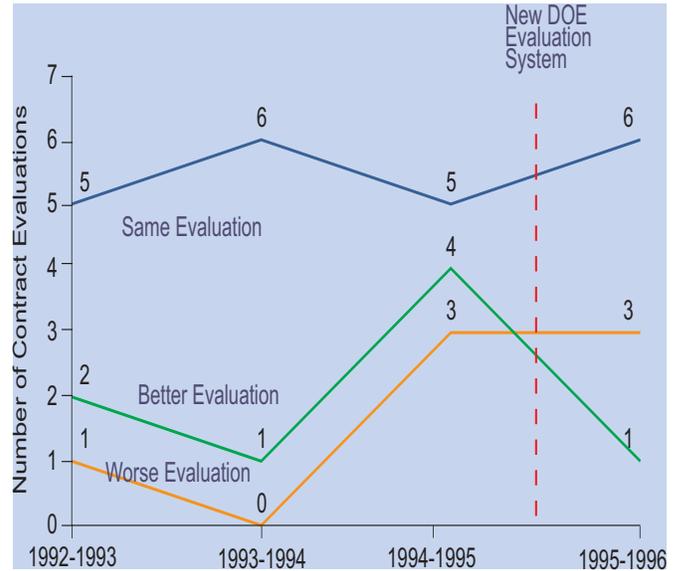


Figure 7.4-2 Contract Evaluation Changes

performance from our contractors. Calendar year 1997 evaluations will be completed by June.

Contractor Evaluations

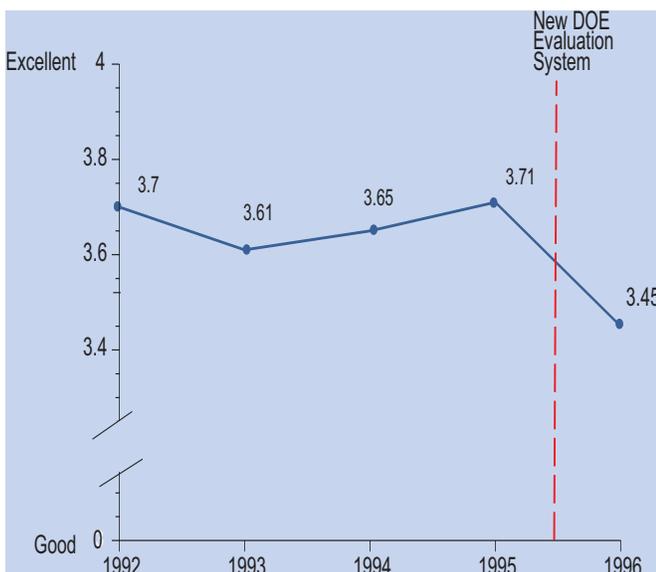


Figure 7.4-1 Contractor Performance Evaluation Average Scores

7.5 Agency-Specific Results

EIA’s major output is energy information whose purpose (outcome) is to promote sound policymaking, efficient markets and public understanding. Because assessing the level of achievement of these ultimate outcomes is very difficult and costly, we approximate overall achievement of our mission by measuring product usage and customer satisfaction levels. We track usage levels in many ways (e.g., number of publications mailed out; number of Web site file downloads; unique customers and the products they use; number of Listserv recipients; number of telephone inquiries; and number of media citations.) We measure customer satisfaction through surveys and focus groups. All of the results indicate two basic trends: both our customer satisfaction ratings and our usage levels are high and getting higher (Sections 7.1 and 7.2). This has occurred during a period in which our costs have dropped significantly (Figure 7.5-1). For example, the CNEAF Coal Intact Process Improvement Team streamlined the *Quarterly Coal Report* production processes, reducing staff hours to produce the report from 200 hours per

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EIA Is Doing More With Less

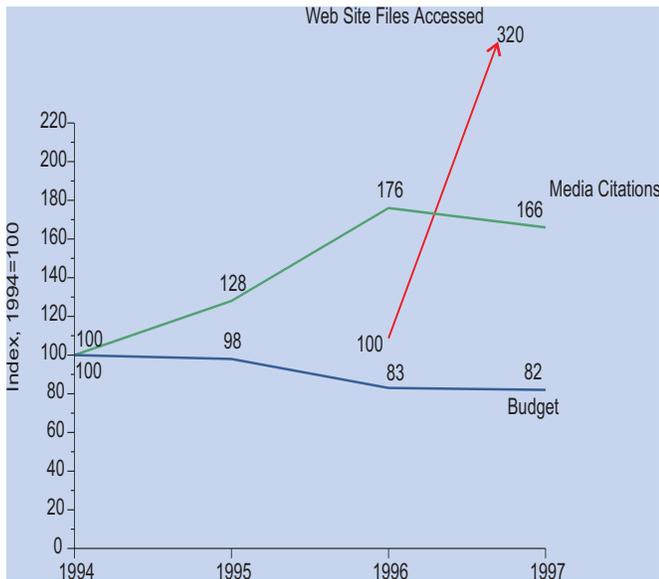


Figure 7.5-1 EIA Budget, Web Site Accesses, Media Citations

quarter to 131, including reducing one four-hour process to just two minutes saving \$42,000 per year. The Uranium Data Team, which produces

the *Uranium Industry Annual*, improved timeliness by 40 percent with no loss in quality. After surveying its customers, the team that produces the *Weekly Petroleum Status Report* is saving \$40,000 per year by eliminating first class mailings; it learned that customers concerned about timeliness get the information electronically. The release schedule for the *Annual Energy Outlook* was moved up two months (from January to November) while actually improving quality. The cycle time for distributing the survey “Annual Report of Public Electric Utilities” was reduced, resulting in savings of 320 contractor hours (about \$12,000 per year).

We have continued to provide accurate and timely energy information to our customers. For survey respondents, the measures that we watch most carefully are the response rates of individual surveys. The response rates to our surveys continue to be very high (Figure 7.5-2). High response rates are essential to the accuracy of the resultant information. In the last three years only one of EIA’s 83 surveys has ever fallen below the

Response Rates Are High For EIA Surveys

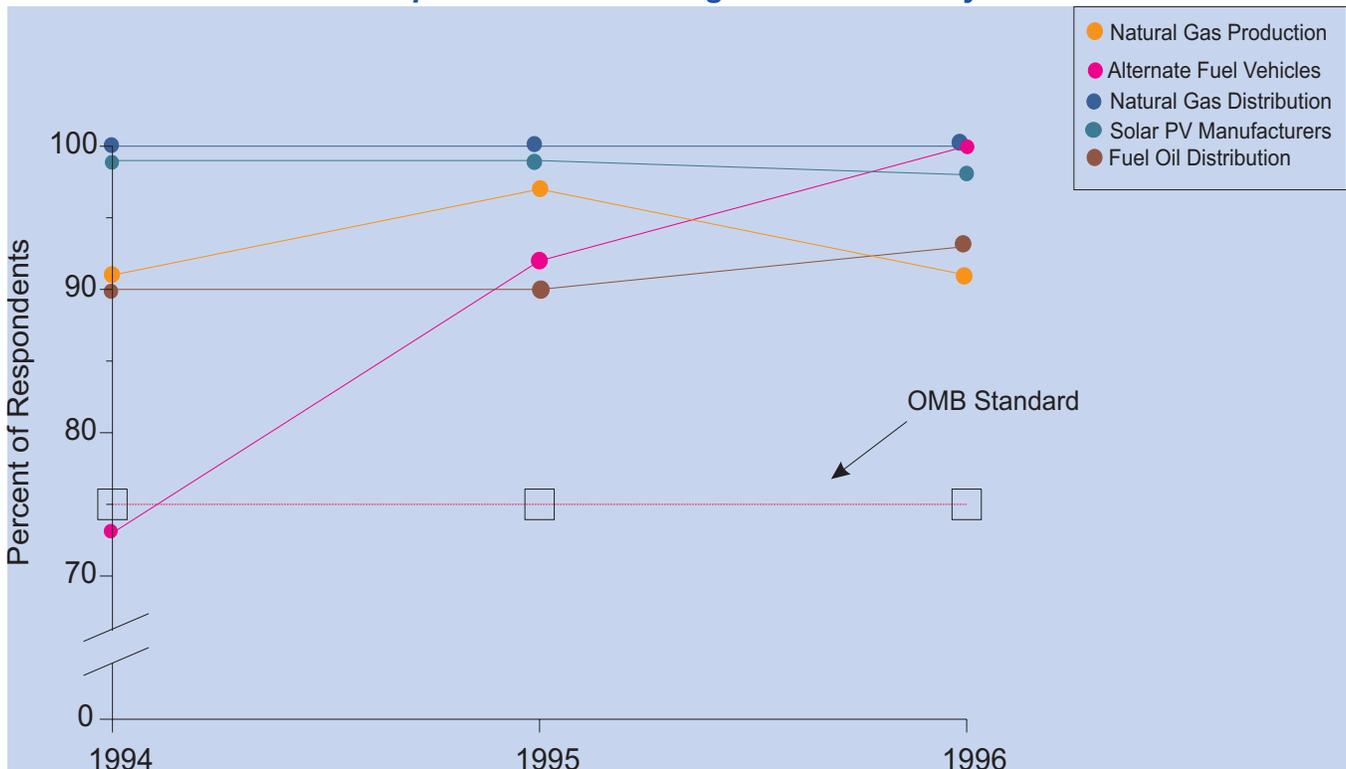


Figure 7.5-2 Response Rates for Annual Surveys

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OMB standard of 75% response rate. It occurred in 1995 when a new survey was fielded, but the response rate for that survey was 92% in 1996 and 100% in 1997. In fact, over the last few years, we have improved the accuracy of many of our data products, as measured by percent revision error. For survey data, percent revision error is the percent difference between first published data values (what customers see first) and final published values (which reflect corrections made by us and our data suppliers.) For example, Figures 7.5-3, 4, 5, 6 and 7 contain accuracy results for individual surveys in petroleum marketing, petroleum supply, coal, natural gas and electricity. (The latest accuracy results are for 1995 and 1996 because final reconciliation of data revisions occurs 6-18 months after the close of the reporting year.)

The accuracy of our petroleum marketing and supply data are well within acceptable limits. These data series are of particular importance in educating the public about the workings of petroleum and petroleum product prices.

Variations in motor gasoline and heating oil prices often raise questions about pricing mechanisms and industry collusion. Our data can help show the relationship between product supply and prices, and help consumers understand the economics of the petroleum market.

Coal data are normally well within acceptable limits; however, the EIA-5 data show significant variations because of the small size of the universe. The survey is of all coke plants in the United States, a total of less than 30. When any one respondent submits a correction to previously submitted data, as occurred in the third quarter of 1996, a sizable change is magnified in the revision error rate.

Our natural gas data series have suffered from the deregulation of the industry, and the rapid entry and departure of nontraditional companies into and from the ranks of participants in the market. Essentially, we have trouble knowing how many and which companies are in the market, and thus how to effectively sample the universe. Redesign

Petroleum Marketing Data More Accurate

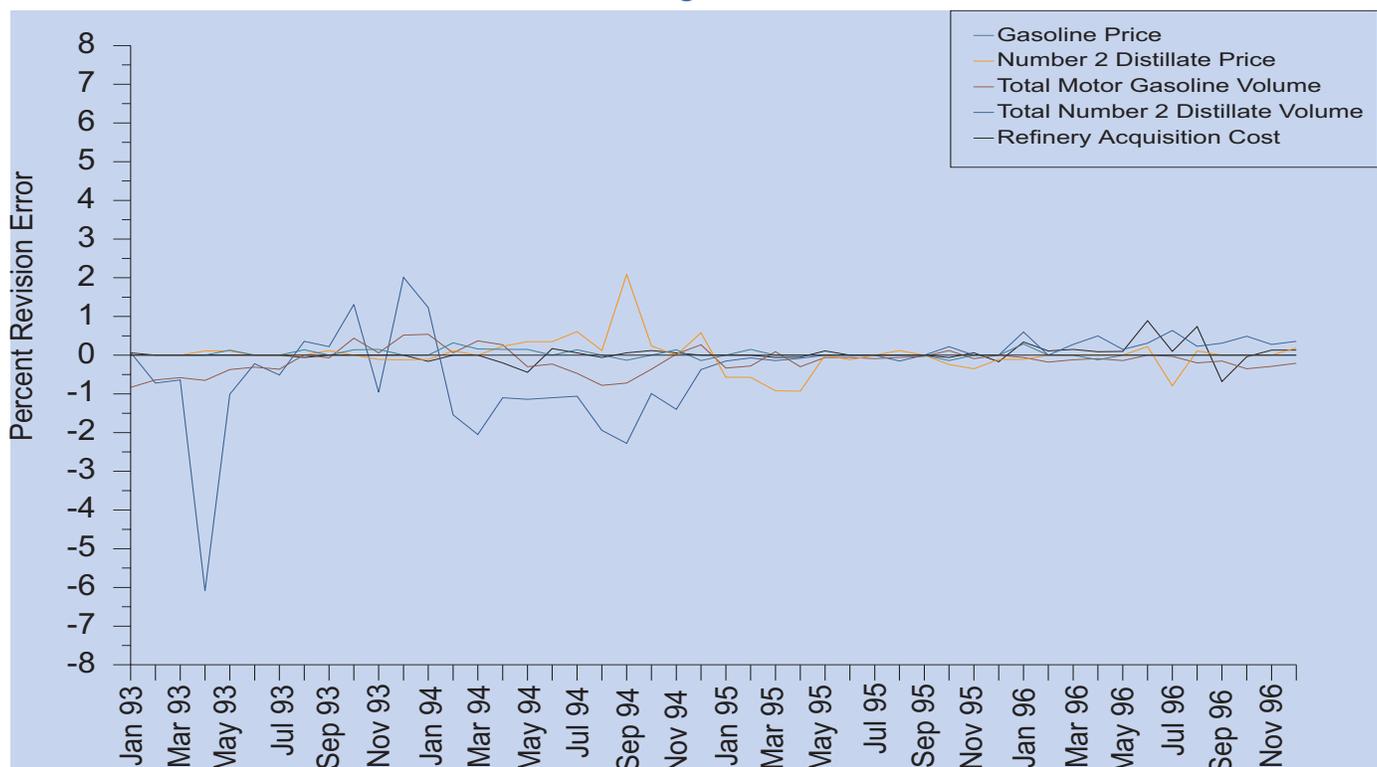


Figure 7.5-3 Accuracy - Petroleum Marketing Data

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Petroleum Supply Data More Accurate

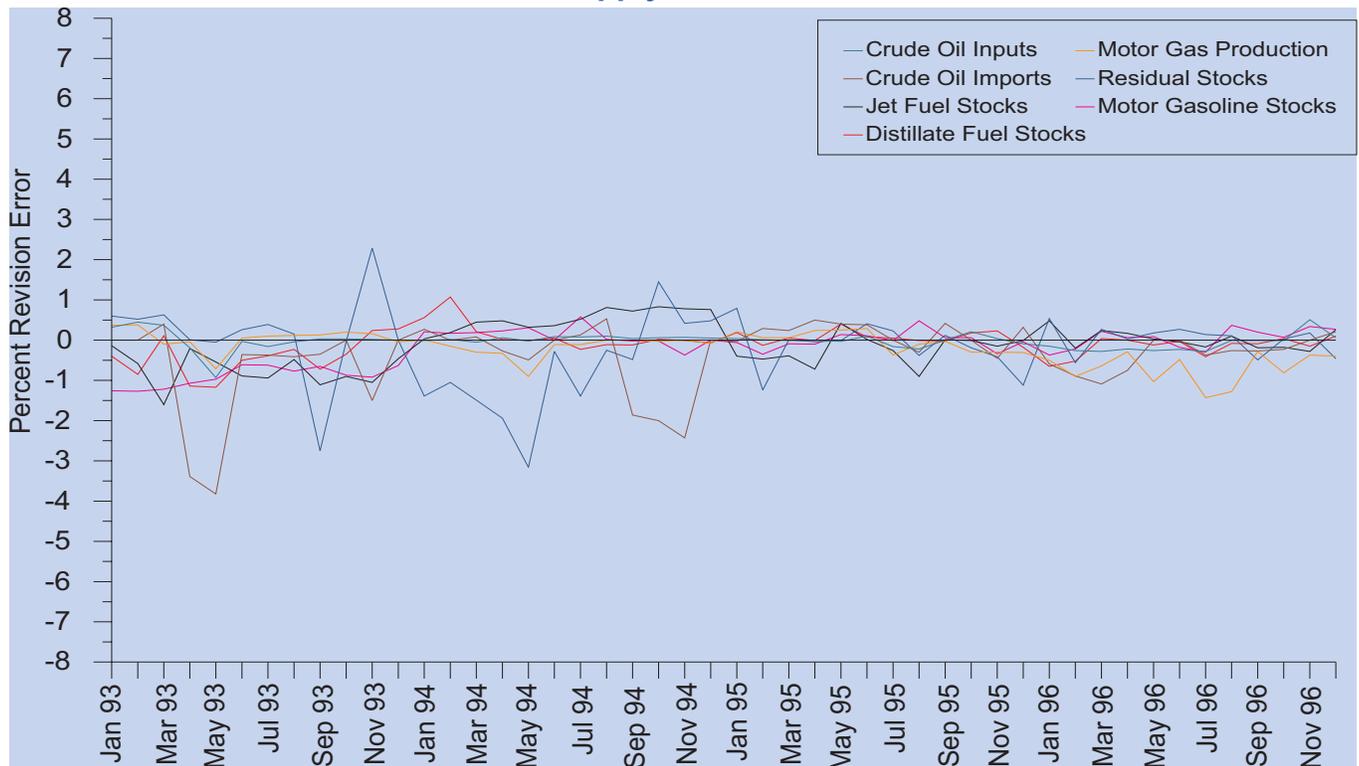


Figure 7.5-4 Accuracy - Petroleum Supply Data

Accuracy of Most Coal Data High

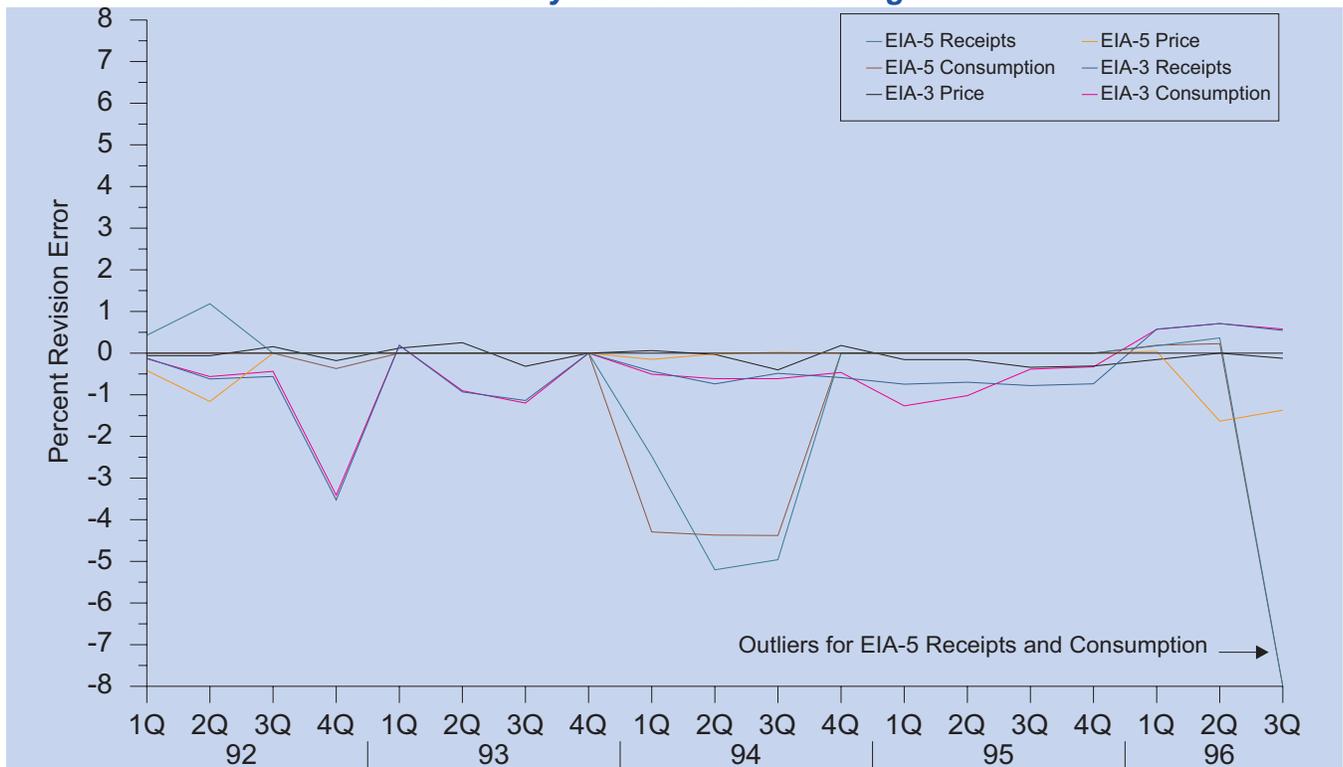
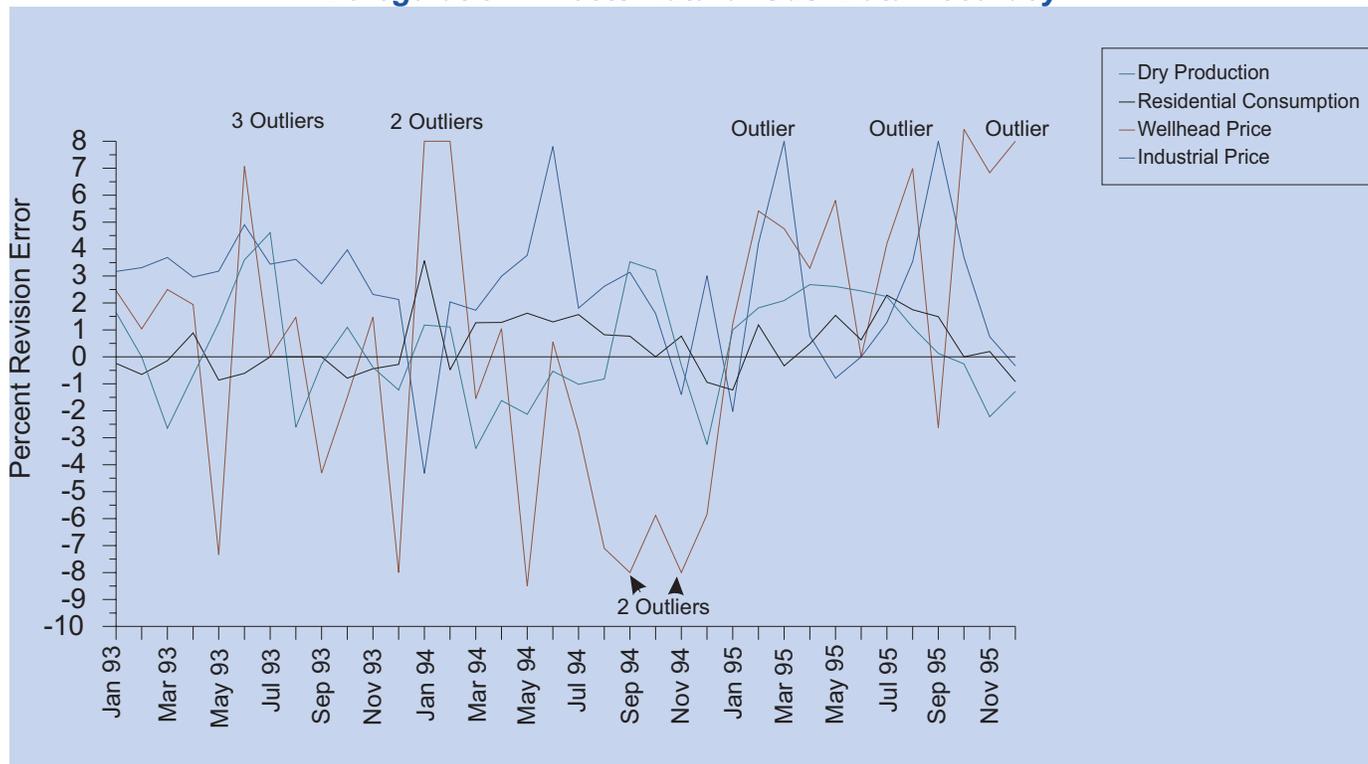


Figure 7.5-5 Accuracy -Coal Data

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Deregulation Affects Natural Gas Data Accuracy**Figure 7.5-6 Accuracy - Natural Gas Data**

of the surveys to address this difficulty is underway.

We recognize that we face potential problems of a similar nature in the electric power arena. Deregulation is underway in some states, and legislation at the national level is being considered. The effect on our accuracy has so far been minimal (the October 1996 spike in Figure 7.2-7 was due to a reclassification, from industrial to commercial use, by a utility respondent, which had no effect on the total electricity sales and revenue), but we are watching developments to insure we address any future requirements.

We also measure the accuracy of our forecasts, although there is more uncertainty associated with forecasts. Figure 7.5-8 shows percent revision error for four petroleum price categories published in the *Short-Term Energy Outlook (STEO)*. (For forecasts, revision error is the percent difference between predicted and actual values.) EIA benchmarks its forecasts to the forecasts of other organizations as well and makes comparisons of

prior year forecasts to what actually happened (Figure 7.5-9).

Early release of information electronically has improved our timeliness. Printed publications also are being released somewhat earlier than before (Figures 7.5-10 and 7.5-11.)

EIA has dramatically increased the distribution of its information by becoming the dependable source of objective energy information for the media, enabling our product to be spread widely with minimal cost to the agency (Figure 7.5-12). Major media outlets include the *New York Times*, *Washington Post*, *USA Today*, *Los Angeles Times*, and *Wall Street Journal*, which have a combined daily circulation of over 6 million. In addition, the *Washington Post*, *USA Today*, and Cable News Network (CNN) have, in the past, included hot links to the EIA Web site as supplements to their online articles. Reporters often seek background information from EIA, even if there is no attribution in the final article. As noted earlier in this section, public concern about price volatility

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Restructuring Affects Electric Power Data Accuracy

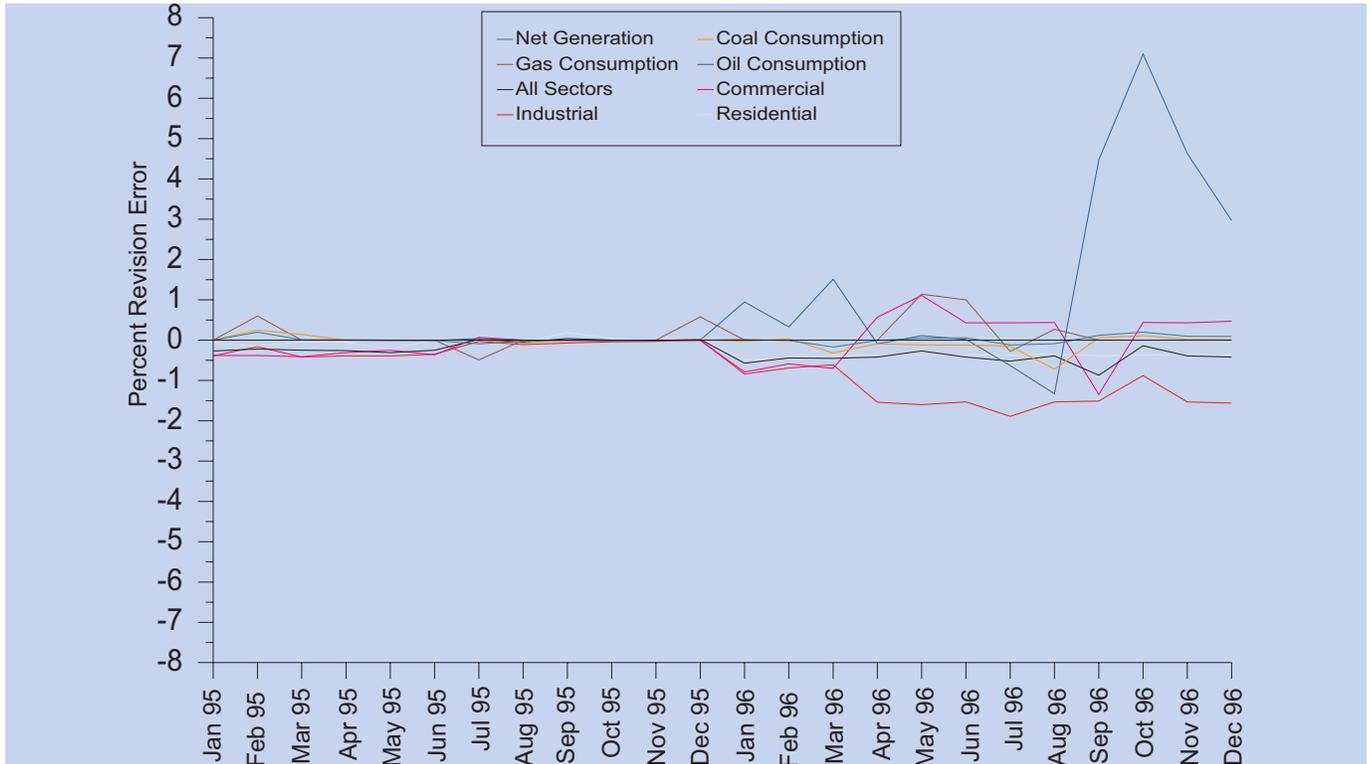


Figure 7.5-7 Accuracy - Electric Power Data

Short-Term Price Projections Fluctuate

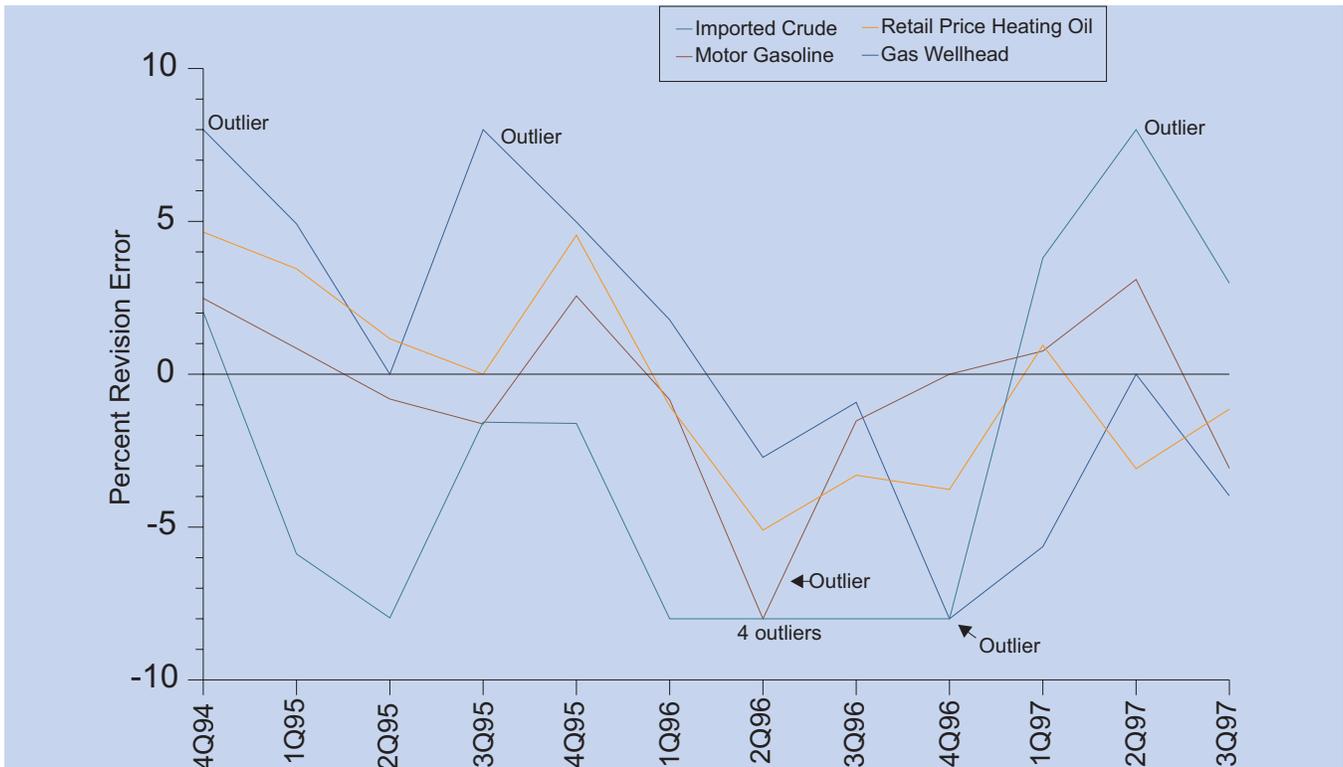


Figure 7.5-8 STEO Petroleum Prices Forecast Accuracy

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There Are No Facts About The Future

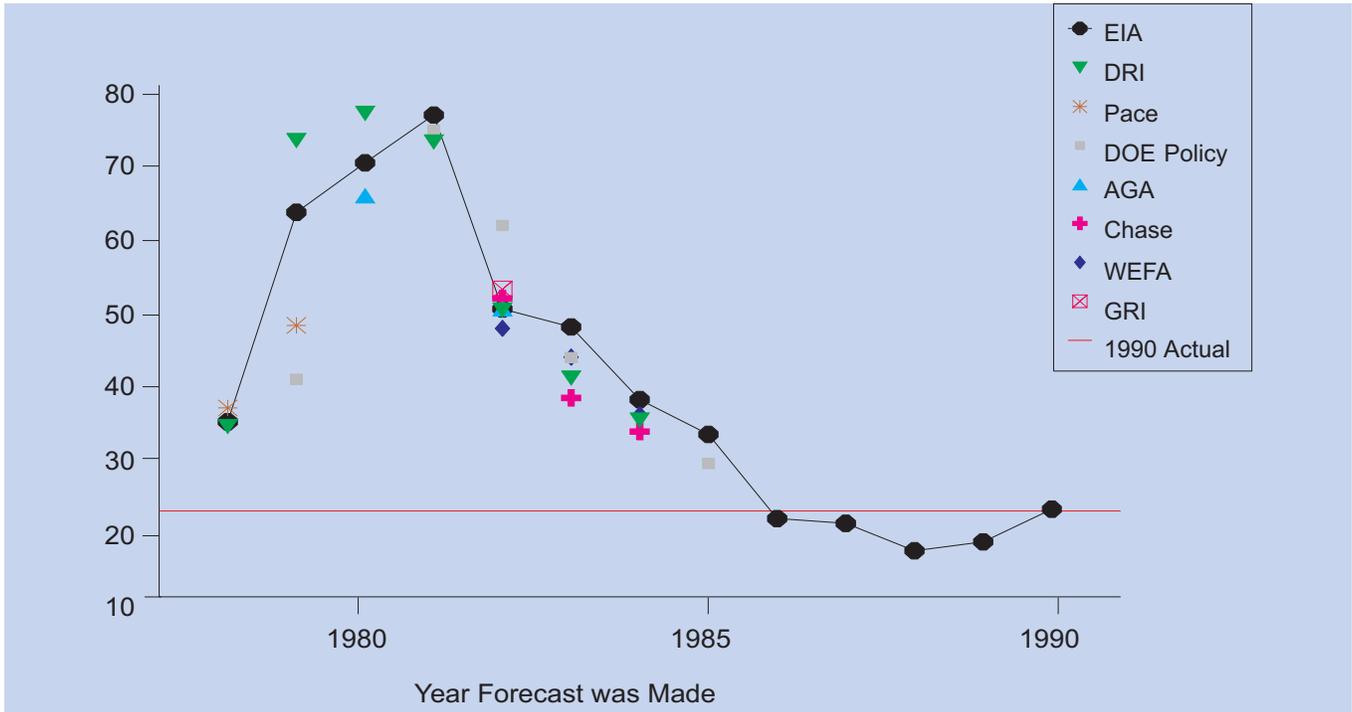


Figure 7.5-9 World Oil Price Forecasts for 1990 (1990 Dollars per Barrel)

Timeliness Of Printed Annuals Improving

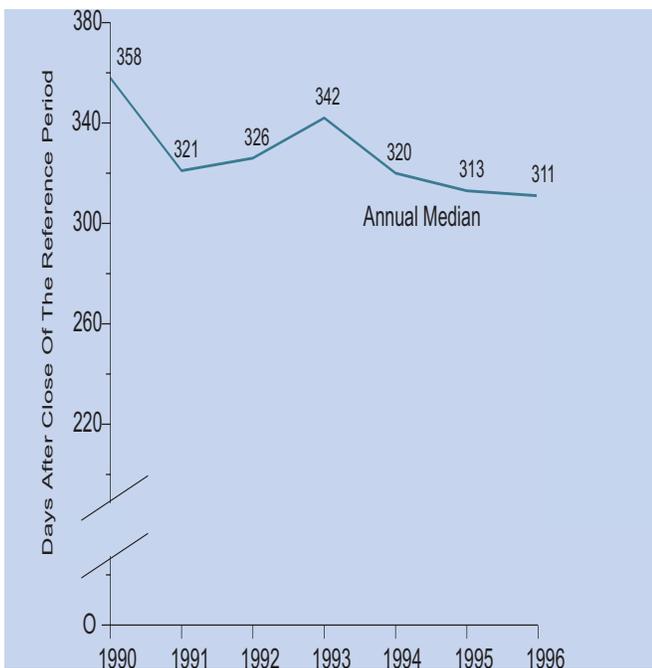


Figure 7.5-10 Date of Issue of Paper Products Following Close of Reporting Period: Annual Publications

Timeliness Of Printed Quarterlies And Monthlies Improving

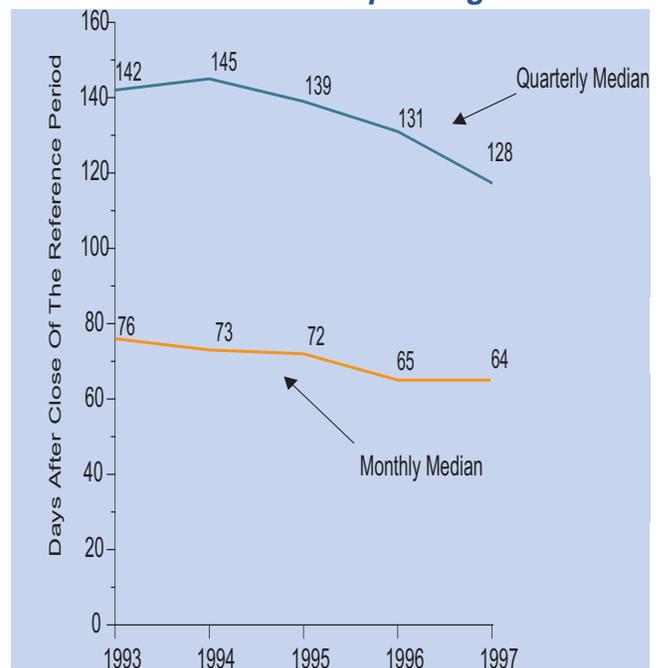


Figure 7.5-11 Date of Issue of Paper Products Following Close of Reporting Period: Quarterly and Monthly Publications

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EIA Often Cited In The Media

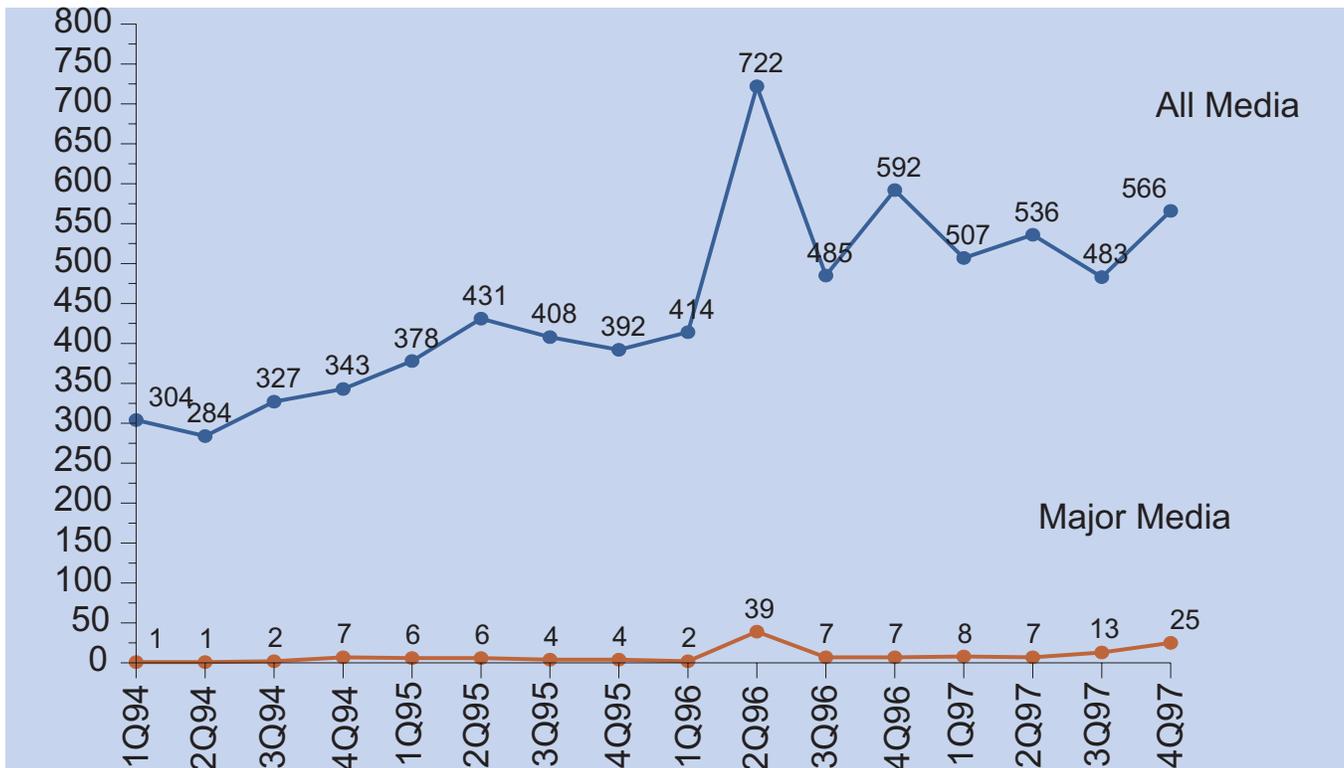


Figure 7.5-12 Citations of EIA Information in Media

in the gasoline and heating oil markets led to the increases in media citations shown in Figure 7.2-12 in the spring of 1996 and the winter of 1997.

Perhaps the area most difficult to quantify is the impact of our data on the policy development process. We do have substantial evidence that our advice is sought prior to legislative action. Most recently, as the restructuring of the electric power industry has moved to the front of the energy debate, our briefing on how the industry works has been presented to staff members of more than 50 U.S. Senators. The Administrator was requested to testify before the Energy and Power Subcommittee of the House of Representatives on the subject. Our brochure “The Restructuring of the Electric Power Industry - A Capsule of Issues and Events,” which clarifies the complex issues involved, is one

of the most popular files on our Web site, and we have distributed over 2000 printed copies.

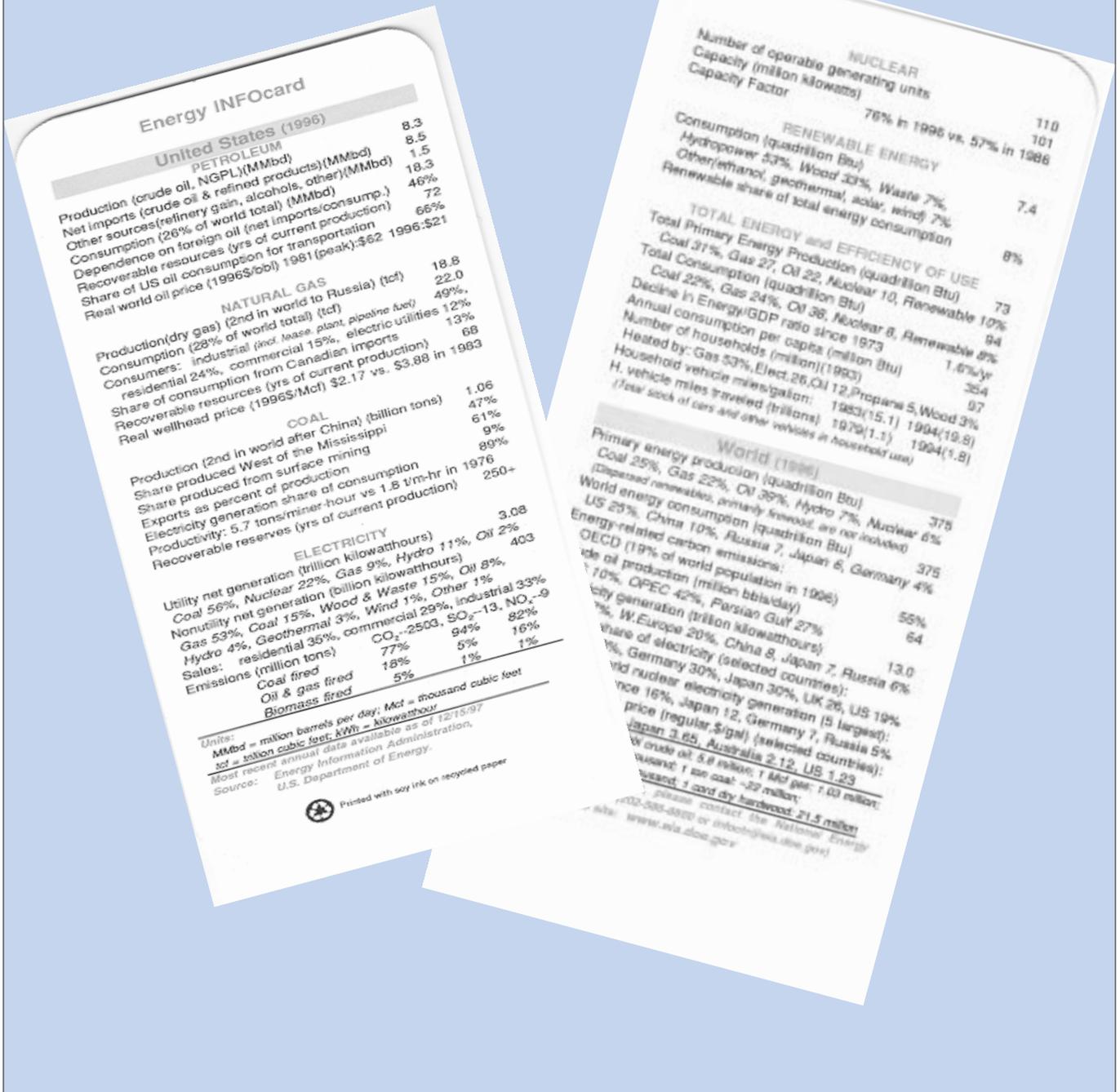
We have also been requested by the Chairman and ranking minority member of the House Science Committee to prepare a study on the cost and economic impact of proposed reductions in greenhouse gas emissions, in accordance with the recently completed Kyoto agreement. We believe that the inclusion of our policy-neutral input on these major issues will help result in informed debate and sound policy decisions.

In summary, in the last four years EIA has increased its customer base and their satisfaction levels, its product quality and timeliness, while undergoing serious budget reductions. Our goal is to maintain and improve our results between now and 2002.

CRITERION 7. BUSINESS RESULTS

Our InfoCard

This free quick-reference card provides the most recent annual domestic and international data available.



Glossary

AEO: *Annual Energy Outlook*

AOP: Annual Operating Plan

ATS: Automated Tracking System

BLS: Bureau of Labor Statistics

BR: Business reengineering

CCAPS: Common Collection and Processing System

CNEAF: Office of Coal, Nuclear, Electric and Alternate Fuels

DOE: Department of Energy

E-mail: Electronic Mail

EIA Today: EIA's Monthly Newsletter

EIA: Energy Information Administration

EMEU: Office of Energy Markets and End Use

EPUB: Electronic Publication System

FTP: File Transfer Protocol

GPRA: Government Performance and Results Act

GS: General Schedule

HR: Office of Human Resources and Administration

InfoCard: EIA product that contains summary energy information

ITG: Information Technology Group

JAD: Joint Application Design

Listserv: Electronic mailing list

NCES: National Center for Education Statistics

NEIC: National Energy Information Center

NEMS: National Energy Modeling System

NTEU: National Treasury Employees Union

O&G: Office of Oil and Gas

OIAF: Office of Integrated Analysis and Forecasting

OMB: Office of Management and Budget

ORM: Office of Resource Management

Quick Guide: Card that lists EIA phone & fax numbers

SMG: Statistics and Methods Group

Web Site: World Wide Web Site

WEFA: Wharton Energy Forecasting Associates

WESTAT: A consulting firm