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Report to Congressional Requesters

August 2002

INTELLECTUAL PROPERTY

Information on the U.S. Patent and Trademark Office's Past and Future Operations

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G A O
Accountability * Integrity * Reliability

United States General Accounting Office
Washington, DC 20548

August 22, 2002

The Honorable Jim Saxton
Chairman, Joint Economic Committee
House of Representatives

The Honorable Lamar Smith
House of Representatives

The U.S. Patent and Trademark Office (USPTO), which administers U.S. patent and trademark laws, had a staff of 6,426 and collected about $1.1 billion in patent and trademark fees in fiscal year 2001. Patent and trademark laws protect inventors' and businesses' inventions and encourage innovation and the scientific and technical advancement of American industry through the preservation, classification, and dissemination of patent information. As the U.S. economy depends increasingly on new innovations, the need to patent or trademark quickly the intellectual property resulting from such innovations becomes more important.

The patent process begins with an applicant filing a patent application with USPTO and paying a filing fee. This step begins the patent examination process. An applicant may be a small or large entity—small entities, which pay reduced fees in many instances, include organizations with 500 or fewer employees, non-profit organizations, and independent inventors, whereas large entities, according to USPTO officials, include all others. As part of the examination process a patent examiner searches United States and foreign patents, journals, and other literature, and sometimes contacts the applicant to resolve questions and obtain additional information to determine the proposed invention's potential patentability. A proposed invention is patentable if it is a new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof. If the examiner decides that a patent is warranted, the applicant is informed and, upon payment of an "issue fee," USPTO grants a patent. The applicant may abandon the application any time during this process. If a patent is granted, the patent holder has, in most instances, a patent term of 20 years from the date the application was filed. To keep the patent active, the applicant must pay maintenance fees at 3.5 years, 7.5 years, and 11.5 years. Historically, the time from the date that a patent application is filed to the date that either the patent is granted or the application is abandoned has been called "patent pendency."

In April 2001, USPTO estimated in its *Fiscal Year 2002 Corporate Plan*—which was part of the agency's fiscal year 2002 budget submission and included some performance information covering fiscal years 2002 through 2006—that patent pendency would increase from 25 months in fiscal year 2000 to over 38 months in fiscal year 2006.[1] Expressing concern about USPTO's plans for the future, the Congress directed USPTO in November 2001 to develop a 5-year plan, among other things, to improve patent quality and reduce patent and trademark pendency. In February 2002, USPTO issued its first 5-year plan, which was called the *USPTO Business Plan* and covered fiscal years 2003 through 2007. This plan included nine operating initiatives focused on improving patent timeliness and quality. For example, the plan included hiring hundreds of new patent examiners each year to handle new patent applications. The plan also identified changes to the fee structure, including a one-time surcharge on patent and trademark fees in fiscal year 2003 to begin paying for the new initiatives. The *Business Plan* was developed before the new Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office (hereafter referred to as the Director) assumed office in December 2001. Consequently, the new Director viewed the *Business Plan* as only the first step toward a long-range strategy to strengthen the patent and trademark system.

Because the new Director did not believe that the *Business Plan* went far enough, he conducted a review of the USPTO to identify new ways to improve quality and reduce pendency. Based upon the results of that review, in June 2002 USPTO produced another 5-year plan—called *The 21st Century Strategic Plan*. Like the *Business Plan*, it covered fiscal years 2003 through 2007. However, the *Strategic Plan* used different assumptions than the *Business Plan* about some key factors, such as the expected number of patent applications to be filed, and included major operating and fee changes that were more aggressive than those in the *Business Plan*. According to USPTO, the *Strategic Plan* proposed fundamental changes in the way the agency operates, such as restructuring the patent fee schedule and redesigning the patent search and examination system. For example, instead of applicants paying one

[1] In lieu of traditional budget submissions, in 1998 USPTO began submitting corporate plans to the Congress that integrated the agency's performance plan and budget. While these plans covered only the budget year, they included selected performance information, such as pendency and other workload data, for multiple years. USPTO officials said that corporate plans were submitted in anticipation of USPTO becoming a performance-based organization. USPTO became a performance-based organization in 2000.

fee that covers filing and examination, applicants would pay a filing fee and then decide whether to request and pay for an examination. Additionally, the *Strategic Plan's* success was linked to enactment of the President's fiscal year 2003 budget, legislation to change USPTO's current fee schedule, revisions to current rules, and legislation for streamlining the patent and trademark system. The administration released its fee legislation proposal on June 20, 2002.

In this context, you asked for information on (1) USPTO's past and future operations, particularly patent applications filed, patents granted, patent application inventory, patent pendency, patent examiner staffing, and fee collections and funding requirements (agency appropriations); (2) some of the differences between USPTO's *Business* and *Strategic Plans*; and (3) changes in the patent fee structure under proposed legislation. The results of our work are summarized in this report. Appendix I presents the information we used to brief your offices on July 12 and 25, 2002.[2]

Results in Brief

Patent activity grew substantially from fiscal year 1990 through 2001. The numbers of patent applications filed and patents granted nearly doubled, and the inventory of patent applications more than tripled; patent pendency increased from slightly over 18 months to nearly 25 months; and the number of patent examiners increased by about 80 percent. Furthermore, in fiscal year 2001, both fee collections and agency funding requirements exceeded $1 billion for the first time in the agency's history. Moreover, projections in USPTO's *Corporate*, *Business*, and *Strategic Plans* indicate future increases in the number of patent applications filed and the number of patents granted. Also, projections in the *Business* and *Strategic Plans* show future increases in the number of patent examiners and fee collections and funding requirements.

While both 5-year plans cover the same period, the assumptions and projected results of the *Business Plan* are different in several ways from the *Strategic Plan*. For example, the *Business Plan* projected that pendency in fiscal year 2007 would increase by less than a month compared to pendency in fiscal year 2001, while the *Strategic Plan* projected pendency would decrease by more than 4 months during that

[2] Patent information in this report relates to "utility," "plant," and "reissue" patents issued by USPTO. Utility patents protect useful processes, machines, articles of manufacture, and compositions of matter; plant patents protect invented or discovered asexually reproduced plant varieties; and reissue patents replace unexpired defective patents.

period. However, some of the pendency reduction projected in the *Strategic Plan* would result from changing the pendency definition in conjunction with proposed changes to the patent system. In addition, through fiscal year 2007, the number of patent examiners hired under the *Business Plan* would have been about 2,100 more than under the *Strategic Plan*. Fewer patent examiners would be needed under the *Strategic Plan* partly because examiners would in many cases be relying on others outside of USPTO to perform a search of patent records and other published information. Furthermore, legislative and regulatory changes to restructure patent and trademark fees would be implemented by October 1, 2002, under the *Strategic Plan*, not in fiscal year 2004 as proposed in the *Business Plan*. Finally, projected USPTO funding requirements for fiscal years 2003 through 2007 would total about $539 million less under the *Strategic Plan* than under the *Business Plan* as a result of changing assumptions, such as fewer patent applications would be filed and fewer patent examiners would be needed.

The administration's recent legislative proposal to restructure patent fees to implement the *Strategic Plan* would result in higher fees for the majority of patent applicants—large entities—that receive utility patents and maintain such patents into the future. While these applicants would pay lower fees when filing applications than required under the current fee structure, applicants that request USPTO to conduct an examination would have to pay a new $1,250 examination fee and a higher fee for issuing the patent. And those that decide to keep their patents active in the future would pay higher fees to maintain them. Consequently, total fees for these applicants would increase by nearly $4,100, or 51 percent. Also, total fees for most small entities would increase nearly $2,700, or 67 percent, over current fees.

We provided a copy of our draft report to USPTO for review and comment. USPTO responded that the factual information in our draft report provides a good picture of USPTO's transition to its new *Strategic Plan*. USPTO's comments are presented in appendix II.

Background

Located within the Department of Commerce, USPTO administers U.S. patent and trademark laws while ensuring the creation of valid, prompt, and proper intellectual property rights. According to the *Strategic Plan*, USPTO's mission is to ensure that the intellectual property system contributes to a strong global economy, encourages investment in innovation, fosters entrepreneurial spirit, and enhances the quality of life.

USPTO also advises the administration on all domestic and global aspects of intellectual property.

USPTO management consults with a Patent Public Advisory Committee and a Trademark Public Advisory Committee. These committees are comprised of voting members from the private sector and non-voting members from the three unions represented at USPTO—the Patent Office Professional Association and two chapters of the National Treasury Employees Union. The committees not only review USPTO policies, goals, performance, budget, and user fees related to patents and trademarks, but also issue annual reports to the President, the Secretary of Commerce, and the House and Senate Committees on the Judiciary.

Fees and volume of patent activity are different for small and large entities. Small entities receive a 50 percent discount on many patent fees. The majority of patent applicants are large entities filing applications for utility patents. USPTO has estimated that in recent years patent applications from large entities have comprised over 60 percent of all patent applications received; small entities have accounted for the remainder. In fiscal year 2001, utility patents represented over 90 percent of all patents granted that year.

USPTO's Past and Future Operations

Patent Applications Filed

The number of patent applications filed nearly doubled during fiscal years 1990 through 2001, increasing from about 164,000 to about 326,000, and USPTO's *Corporate*, *Business*, and *Strategic Plans* projected that the number of applications would increase to between 351,000 and 368,000 in fiscal year 2002. Moreover, each plan projects that the number of applications will increase in the future—10 percent annually under the *Corporate* and *Business Plans* and 5 percent annually for fiscal years 2003 and 2004 and 7 percent annually for fiscal years 2005 through 2007 under the *Strategic Plan*. The *Corporate Plan* projected that the number of applications would increase to about 539,000 in fiscal year 2006; the *Business* and *Strategic Plans* project that the number of applications filed will increase in fiscal year 2007 to about 593,000 and 454,000, respectively. The lower projection under the *Strategic Plan* reflects the reduced number of applications expected for fiscal years 2002 and 2003 due, in part, to a slowdown in the economy. For fiscal year 2002, the *Business*

Plan assumed an application growth rate of about 12 percent and the *Strategic Plan* assumed a growth rate of 3 percent; for fiscal year 2003, the growth rate projected by the *Business* and *Strategic Plans* were 10 percent and 5 percent, respectively. The application growth rate is a key factor in projecting business indicators, such as pendency, staffing needs, and funding requirements. For example, if the number of applications decreases, the number of examiners needed to process those applications decreases. (See app. I, p. 20.)

Patents Granted

The number of patents granted increased by over 90 percent during fiscal years 1990 through 2001, increasing from about 90,000 to about 171,000, and USPTO's three plans projected that the number would increase to a range of about 167,000 to 171,000 in fiscal year 2002. Furthermore, the three plans project that the number of patents granted will increase in the future. The *Corporate Plan* projected that the number of patents granted would increase to about 192,000 by fiscal year 2006, and the *Business* and *Strategic Plans* project that the number of patents granted will increase in fiscal year 2007 to about 314,000 and 374,000, respectively. (See app. I, p. 21.)

Patent Application Inventory

USPTO's inventory of unprocessed patent applications increased by nearly 250 percent from fiscal year 1990 to 2001, increasing from about 96,000 to about 332,000, and USPTO's three plans projected that the inventory would increase to between 393,000 and 512,000 in fiscal year 2002. The *Corporate* and *Business Plans* also project increases in the future, while the *Strategic Plan* projects a decrease. The *Corporate Plan* projected that the application inventory would increase to almost 1.3 million by the end of fiscal year 2006, and the *Business Plan* projects that the inventory would increase to about 584,000 through fiscal year 2007. The *Strategic Plan*, which would speed up some of the proposed changes in the *Business Plan* and make other fundamental changes, projects that the inventory will decrease to about 144,000 through fiscal year 2007. The decrease projected in the *Strategic Plan* reflects several changes in assumptions, including fewer new patent applications. (See app. I, p. 22.)

Patent Pendency

Patent pendency increased from 18.3 months to 24.7 months between fiscal years 1990 and 2001. Projections of patent pendency beyond fiscal year 2001 vary widely under USPTO's three plans. USPTO's three plans projected that pendency would increase to between 26.1 months and 26.7 months in fiscal year 2002. The *Corporate Plan* projected that

pendency would be 38.6 months in fiscal year 2006, and the *Business* and *Strategic Plans* project it will be 25.5 months and 20.3 months, respectively, in fiscal year 2007. According to USPTO officials, pendency time in the *Strategic Plan* reflects a proposed fundamental redesign of the patent search and examination system. (See app. I, p. 23.)

Patent Examiner Staffing

The number of patent examiners on board at the end of the fiscal year increased from 1,699 to 3,061, or about 80 percent, from fiscal year 1990 to 2001. During this period, USPTO annually hired an average of 380 new examiners and lost an average of 236 examiners through attrition. Further, USPTO's *Business* and *Strategic Plans* projected that the number of examiners on board at the end of fiscal year 2002 would be 3,435 and 3,595, respectively.[3] Moreover, both plans project increases in the number of examiners through fiscal year 2007—to 5,735 in the *Business Plan* and to 4,322 in the *Strategic Plan*. (See app. I, pp. 24-26.)

Fee Collections and Funding Requirements

Between fiscal years 1999 and 2001, fee collections increased from $887 million to $1.085 billion and funding requirements (USPTO's appropriations) increased from $781 million to $1.039 billion. For fiscal year 2002, the *Business* and *Strategic Plans* projected fee collections of $1.373 billion (includes $27 million for employee pension and annuitant health benefits proposed by the President) and $1.198 billion, respectively, and both plans projected that funding requirements would be $1.128 billion. Further, fee collections and funding requirements are projected to increase in the future under both plans, but at different rates. Under the *Business Plan*, fee collections are projected to increase from $1.527 billion in fiscal year 2003 to $2.078 billion in fiscal year 2007, and funding requirements are projected to increase from $1.365 billion to $2.078 billion during the same time period. Under the *Strategic Plan*, fee collections are projected to increase from $1.527 billion in fiscal year 2003 to $1.823 billion in fiscal year 2007, and funding requirements are projected to increase from $1.365 billion to $1.823 billion during that period. (See app. I, pp. 27-28.)

[3] The *Corporate Plan* contained no staffing projections.

Some Differences between the *Business* and *Strategic Plans*

There are a number of differences between USPTO's *Business* and *Strategic Plans*, as shown in the following examples. (See app. I, p. 29.)

- The patent pendency definition is different under each plan. Under the *Business Plan*, pendency is measured from the date an application is filed. However, under the *Strategic Plan*, pendency would be measured from the date an applicant pays the examination fee. According to USPTO officials, this definition is different than the definition under the *Business Plan* because of the proposed fundamental redesign of the patent search and examination system. Also, according to the *Strategic Plan*, this definition is the same measure—the examination duration period—used by the European Patent Office and the Japan Patent Office.

  This change in definition is partly responsible for the reduction in pendency under the *Strategic Plan*. Historically, applicants have paid a single fee that covered filing and examination; under the *Strategic Plan* there would be separate filing and examination fees. The applicant has two options for paying fees under the *Strategic Plan*. Under the first option, applicants may elect to pay the patent application fee and examination fee at the same time. Under the second option, applicants may elect to pay the application fee and defer examination and paying the examination fee for up to 18 months. According to USPTO, applicants that take advantage of the deferred examination do so for various reasons, such as to decide the merits of pursuing the patent or to avoid the early expenditure of funds. USPTO estimates that about 9 percent of all applicants will defer examination. The *Strategic Plan* redefines patent pendency as the examination duration period. As a result, under the first option the pendency measure is the same as under the *Business Plan*—it begins from the date the patent application is filed. However, under the second option pendency begins when the examination fee is paid.

  Table 1 shows USPTO's projections of patent pendency under three scenarios using different assumptions. The first scenario shows the *Business Plan's* pendency projections. The second scenario is based upon the *Strategic Plan* where an applicant pays the filing fee and examination fee at the same time, thus seeking immediate examination. The third scenario is based on the *Strategic Plan* where an applicant pays the filing fee and then defers examination. Regarding the third scenario, the *Strategic Plan* notes that to determine the average total pendency under the *Strategic Plan* (from the date an application is filed to issue of a patent or abandonment of the application), 9 months should be added to the plan's calculation to reflect the estimated average examination deferral period. According to USPTO officials, fewer months should be added in

the early years. Table 1 shows for the third scenario that when the deferral time is added, average pendency from filing until patents are granted or applications are abandoned would be longer under the *Strategic Plan* than under the *Business Plan* for those applicants who elect to defer examination of their applications. USPTO noted that the fiscal year 2008 difference between the 18 months in the second scenario and the 27 months in the third scenario is a measure of deferred examination.

Table 1: USPTO Projections of Patent Pendency under Different Assumptions in the *Business Plan* and the *Strategic Plan* (Fiscal Years 2003-2008)

	USPTO projections of patent pendency (in months)		
Fiscal year	***Business Plan***	***Strategic Plan* (where applicant seeks immediate examination)**	***Strategic Plan* (where applicant seeks deferred examination)**
2003	27.3	27.7	27.7
2004	29.2	28.1	28.1
2005	27.8	26.0	30.0
2006	26.8	22.7	31.7
2007	25.5	20.3	29.3
2008	No projection made	18.0	27.0

Source: GAO analysis of USPTO data.

- Patent examiners' responsibility for the search function on most domestic applications would also be eliminated under the *Strategic Plan*. Instead, with the exception of a new class of applicant—the micro-entity—applicants would arrange for such searches by private organizations, foreign patent offices, or others; USPTO would continue to do searches for micro-entities.[4] This change would allow examiners more time to focus on the examination function. USPTO assumes under the *Strategic Plan* that a portion of the patent examiners' time will be refocused from non-examination to examination functions. USPTO officials told us that most of the refocused time would result from eliminating the search function. The detailed action plans supporting the *Strategic Plan* show that eliminating the search function would increase examiners' productivity between 5 and 20 percent.

[4] The micro-entity category is referred to in USPTO's *Strategic Plan* and legislative fee proposal. USPTO does not plan to define micro-entities until legislation is enacted. At that time, USPTO will publish proposed regulations related to micro-entities. Information posted to USPTO's web site on July 29, 2002, indicated that micro-entities will be a subset of "independent inventors," with incomes below a specified level. Independent inventors comprise about 18 percent of all patent application filers.

- Almost 2,100 more new patent examiners would be hired under the *Business Plan* than under the *Strategic Plan*—4,750 versus 2,688. This difference reflects revised assumptions about new hires and the number of examiners expected to leave. Under the *Business Plan*, USPTO expects to hire 950 examiners and assumes a 10 percent attrition rate each year during fiscal years 2003 through 2007. Under the *Strategic Plan*, USPTO expects to hire 750 examiners annually for fiscal years 2003 and 2004 and 396 examiners annually for fiscal years 2005 through 2007. USPTO assumes 11 percent and 8 percent attrition rates for fiscal years 2003 and 2004, respectively, and 9 percent attrition annually for fiscal years 2005 through 2007. Fewer examiners would be required under the *Strategic Plan* because fewer new applications are anticipated and examiners would no longer be required to do the search function for most patent applications.

- Patent fee restructuring would be implemented in fiscal year 2004 under the *Business Plan*, and by October 1, 2002, under the *Strategic Plan*. There would be a one-time surcharge of 19.3 percent on patents and 10.3 percent on trademarks in fiscal year 2003 under the *Business Plan*, but no surcharge under the *Strategic Plan*. USPTO officials told us that the restructured fees would need to be put in place earlier than proposed under the *Business Plan* to compensate for the elimination of the one-time surcharge and the expected decrease in patent applications, and to implement changes proposed to improve quality and reduce pendency.

- Fee collections and funding requirements projected for fiscal year 2003 in the *Business Plan* would be the same in the *Strategic Plan*—$1.527 billion in fee collections and $1.365 billion in funding requirements—but the specifics would change. For example, the *Strategic Plan's* patent-funding requirements would increase by about $27 million and trademark-funding requirements would decrease by the same amount. Furthermore, projected funding requirements for fiscal years 2003 through 2007 would total about $539 million less under the *Strategic Plan* than under the *Business Plan*—$8.396 billion versus $8.935 billion—as a result of changing assumptions, such as fewer patent applications filed and fewer patent examiners needed. For fiscal years 2004 through 2007, the *Business* and *Strategic Plans* both predict that fee collections and funding requirements will equal each other.

Patent Fee Structure Would Change under Proposed Legislation

There would be some significant changes in the patent fee structure under legislation proposed on June 20, 2002. While the proposed filing fee under the *Strategic Plan* would be lower than the current filing fee, a new examination fee would be added and other fees would be higher. In addition, some new fees would be established for such things as surcharges authorized by the USPTO Director in certain instances. For example, a surcharge could be charged for any patent application whose specification and drawings exceed 50 sheets of paper. (See app. I, p. 30.)

Generally, large entities would pay higher fees under the proposed legislation. The current fee structure provides that large entities pay a $740 patent filing fee that covers both the filing and examination of the patent application. While the proposed legislation would have large entities pay a $300 patent filing fee, it would also require applicants that request examination (assumed by USPTO to be 90 percent of the large entity applicants) to pay an additional $1,250 examination fee. Patent issue fees would also be higher under the proposed legislation. Consequently, a large entity that receives a utility patent would incur a fee increase of nearly $1,200, or about 59 percent, over current fees. Furthermore, the three fees to maintain the patent through its useful life would be higher. If a large entity maintains the patent through the payment of the three maintenance fees, the total fee increase resulting from the proposed legislation would be nearly $4,100, or about a 51 percent increase over current fees. (See app. I, p. 31.)

Small entities also would pay increased fees under the proposed legislation, as shown in table 2. Instead of paying a $370 patent filing fee (50 percent of the $740 fee for large entities) that covers both the filing and examination of the patent application under the current fee structure, small entities would pay a $150 patent filing fee (50 percent of the new $300 fee) under the proposed legislation. However, small entities that request examination (assumed by USPTO to be 90 percent of the small entity applicants) also would have to pay the new $1,250 examination fee; with the exception of the new “micro-entity” category, small entities would not get a discount on the new examination fee. In addition, issue fees for small entities are also higher. As a result, a small entity that receives a utility patent would incur a fee increase of over $1,200, or about 121 percent, over current fees. Furthermore, because maintenance fees are higher, if a small entity maintains the patent through the payment of the three maintenance fees, the total fee increase resulting from the proposed legislation would be nearly $2,700, or about a 67 percent increase over current fees.

Table 2: Example of How the Basic Patent Fees Would Change for a Small Entity Granted a Utility Patent, and Maintaining the Patent through the Three Maintenance Fees

	USPTO fee structure				
Type of fee	Current fees for large entities	Current fees for small entities	Fees for small entities based on the legislative proposal[a]	Dollar change for small entities	Percentage change for small entities
Filing	$ 740	$ 370	$ 150	$ (220)	(59.5)
Examination			1,250	1,250	
Subtotal	**$ 740**	**$ 370**	**$1,400**	**$1,030**	**278.4**
Issue	1,280	640	830	190	29.7
Subtotal	**$2,020**	**$1,010**	**$2,230**	**$1,220**	**120.8**
Maintenance—3.5 years	880	440	450	10	2.3
Maintenance—7.5 years	2,020	1,010	1,500	490	48.5
Maintenance—11.5 years	3.100	1,550	2,500	950	61.3
Maintenance subtotal	**$6,000**	**$3,000**	**$4,450**	**$1,450**	**48.3**
Total	**$8,020**	**$4,010**	**$6,680**	**$2,670**	**66.6**

[a] Fee amounts shown represent a 50 percent reduction from the fees in the legislative proposal, except for the examination fee that specifically excludes any small entity discount. The amounts do not consider any discount that may be applicable to a "micro-entity" since USPTO has yet to define in regulations this type of applicant and the fee structure applicable to such applicants. Information posted to USPTO's web site on July 29, 2002, indicated that micro-entities would pay a proposed $750 examination fee—a $500 reduction from the new $1,250 examination fee. However, a USPTO official told us that the agency is still studying the micro-entity concept and no final decision has been made about the fee levels.

Source: GAO analysis of USPTO data.

Agency Comments

We provided a copy of our draft report to USPTO for review and comment. USPTO responded that the factual information in our draft report provides a good picture of USPTO's transition to its new *Strategic Plan*. USPTO added that the *Strategic Plan* is USPTO's road map for creating, over the next 5 years, an agile and productive organization fully worthy of the unique leadership role the American intellectual property system plays in the global economy. In addition, USPTO provided technical clarifications and corrections to our draft report, which we incorporated as appropriate. USPTO's comments are presented in appendix II.

Scope and Methodology

To provide information on past and future USPTO operations, including information on the number of patent applications filed, patents granted, inventory of patent applications, patent pendency, patent examiner staffing, and fee collections and funding requirements, we reviewed key USPTO documents, such as its April 2001 *Corporate Plan*, February 2002 *Business Plan*, and June 2002 *Strategic Plan*. We also reviewed various budget documents, performance and accountability reports, planning and

other internal documents, and historical data provided by the agency. In addition, we interviewed USPTO senior management and other officials, as well as representatives of the Patent Public Advisory Committee and the Patent Office Professional Association.

Recognizing that a detailed examination of the *Strategic Plan* would be premature until congressional action is taken on the fee legislation proposal and USPTO's fiscal year 2003 budget request, we agreed to identify some of the differences between the *Business* and *Strategic Plans*.[5] We compared selected aspects of those plans, including key assumptions and proposed operating changes. We also discussed with USPTO officials how USPTO develops projections of key business indicators, such as pendency and funding requirements. For example, we obtained information about USPTO's Patent Production Model, which is a computer-based system that estimates staffing needs, production, pendency, and other key business indicators for managerial decisionmaking.

To determine how the current patent-fee structure would change under the proposed fee legislation, we compared current fees with the June 20, 2002, fee legislation proposal. We obtained USPTO officials' views on the accuracy of our analysis. In addition, we reviewed the results of published analyses of the fee proposal by others, including the American Intellectual Property Law Association and the Intellectual Property Owners Association.

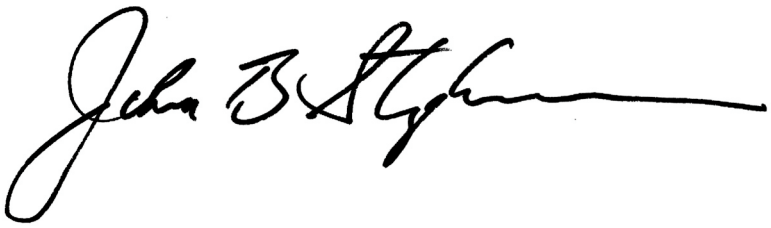
Although we did not independently verify the data provided by USPTO, to the extent feasible we corroborated it with other agency sources. We

[5] On June 26, 2002, the Senate adopted by unanimous consent an amendment to H.R. 2047—*An Act to authorize appropriations for the United States Patent and Trademark Office for fiscal year 2002, and for other purposes*. The amendment changed the Act's title to "*An Act to authorize appropriations for the United States Patent and Trademark Office for fiscal years 2003 through 2008, and for other purposes*." Among other things, the amended Act would (1) authorize USPTO's appropriations for each fiscal year at an amount equal to the fees estimated to be collected in each year, and (2) require annual reports (for five calendar years after the Act's enactment) on the USPTO's progress made in implementing the *Strategic Plan* and any amendments to the plan. On July 18, 2002, the Subcommittee on Courts, the Internet, and Intellectual Property of the House Committee on the Judiciary held an oversight hearing focusing on the USPTO's proposed fee structure and agency reform. Also, on July 24, 2002, the Senate Committee on Appropriations adopted S. 2778—*Departments of Commerce, Justice, and State, the Judiciary, and Related Agencies Appropriations Act, 2003*—which provides $1.146 billion to the USPTO. This is a $219 million decrease from the President's $1.365 billion budget request.

performed our work from April 2002 through July 2002 in accordance with generally accepted government auditing standards.

As agreed with your offices, unless you publicly announce its contents earlier, we plan no further distribution of this report until 7 days after the date of this letter. At that time, we will send copies to appropriate House and Senate Committees; the Under Secretary of Commerce for Intellectual Property and Director of the United States Patent and Trademark Office; the Chief Financial Officer and Chief Administrative Officer, USPTO; the Secretary of Commerce; and the Director, Office of Management and Budget. This letter will also be available on GAO's home page at http://www.gao.gov.

If you or your staffs have any questions concerning this report, please call me on (202) 512-6225. Key contributors to this report included John P. Hunt, Jr., Byron S. Galloway, and Don Pless.



John B. Stephenson
Director, Natural Resources and Environment

Appendix I: Information Used in Briefings for the Chairman of the Joint Economic Committee and Representative Lamar Smith

This appendix contains the information used to brief the staff of Representative Lamar Smith on July 12, 2002, and the staff of the Chairman of the Joint Economic Committee on July 25, 2002.

GAO

Accountability * Integrity * Reliability

Briefing for the Chairman of the Joint Economic Committee and Representative Lamar Smith

U.S. Patent and Trademark Office: Information on Past and Future Operations

July 12, 2002
and
July 25, 2002

Background

- **U.S. Patent and Trademark Office (USPTO)**
  - Overseen by the Under Secretary of Commerce for Intellectual Property and Director of the USPTO, who consults with a Patent Public Advisory Committee and a Trademark Public Advisory Committee
  - Administers the laws on patents and trademarks while ensuring the creation of valid, prompt, and proper intellectual property rights
  - Advises the administration on all domestic and global aspects of intellectual property
  - Employed 6,426 staff, including 3,061 patent examiners and 389 trademark examining attorneys, in fiscal year 2001
  - Had about $1.1 billion in fee collections in fiscal year 2001
  - Had three plans in recent past: Corporate Plan for FY 2002 (included some performance measures for FY 2002-2006) and two 5-year plans—February 2002 Business Plan for FY 2003-2007 and June 2002 Strategic Plan for FY 2003-2007

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Background (con't.)

- **Patent Process Involves Several Progressive Steps**
  - Applicant files patent application with USPTO, which reviews it for accuracy and completeness during a preexamination phase
  - Application is assigned, or "docketed," to an examiner who has expertise in a specific field, such as biotechnology
  - Examiner begins to determine whether the invention is a new and useful process or product that should receive a patent
  - Examiner makes a preliminary decision, or "first action," which may be followed by contacts with the applicant to resolve questions and/or obtain additional information
  - If USPTO decides to grant a patent, it informs the applicant and, upon the payment of the necessary fees, grants a patent
  - The application may be abandoned during any of these steps
  - In the past, the period from the date an applicant filed for a patent until the date the applicant abandoned it or received a patent—the ultimate disposition—was called patent pendency; under the Strategic Plan, patent pendency will be measured from the time the applicant requests an examination

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Objectives, Scope, and Methodology

- **Objectives**
  - Discuss past and future USPTO operations on patent applications filed, patents granted, and patent application inventory; patent pendency; patent examiner staffing; and fee collections and funding requirements
  - Identify some of the differences between the Business and Strategic plans
  - Describe how the patent fee structure would change under proposed legislation
- **Scope**
  - Limited comparison of selected parts of USPTO's April 2001 Corporate Plan; February 2002 Business Plan; and June 2002 Strategic Plan
  - Detailed examination of Strategic Plan has to await congressional action on the fee legislation proposal and USPTO's fiscal year 2003 budget request

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Objectives, Scope, and Methodology (con't.)

- **Methodology**
  - Reviewed key USPTO documents for historical and planning information, such as USPTO's Corporate, Business, and Strategic plans, the President's fiscal year 2003 budget submission, and the June 20, 2002, fee legislation proposal
  - Compared selected aspects of (1) USPTO's Strategic Plan with its Business and Corporate plans and (2) fee legislation proposal with current fee structure
  - Interviewed USPTO officials and representatives of the Patent Public Advisory Committee and the Patent Office Professional Association
  - Conducted work from April through July 2002 in accordance with generally accepted government auditing standards; did not independently verify information obtained from USPTO

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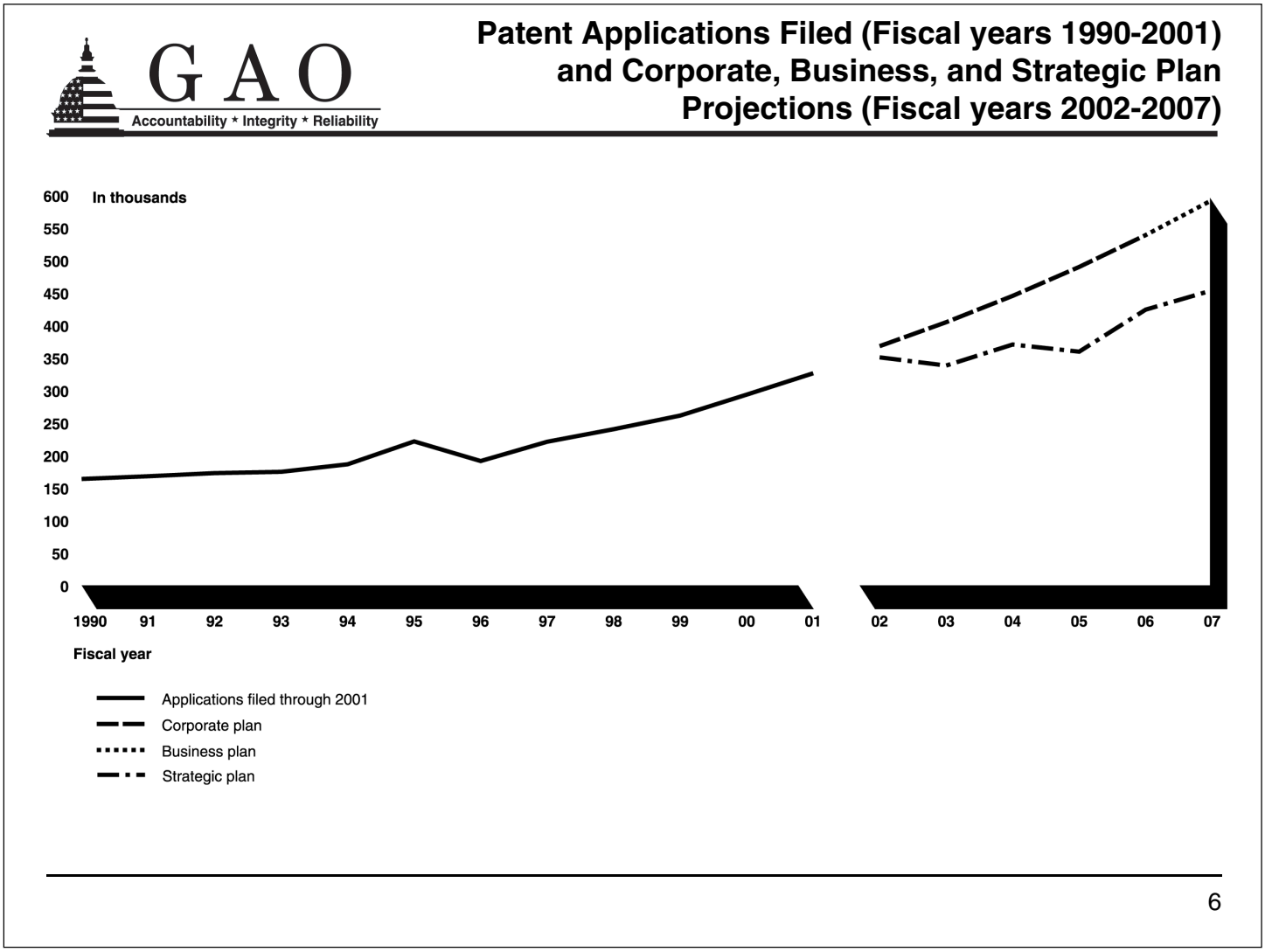
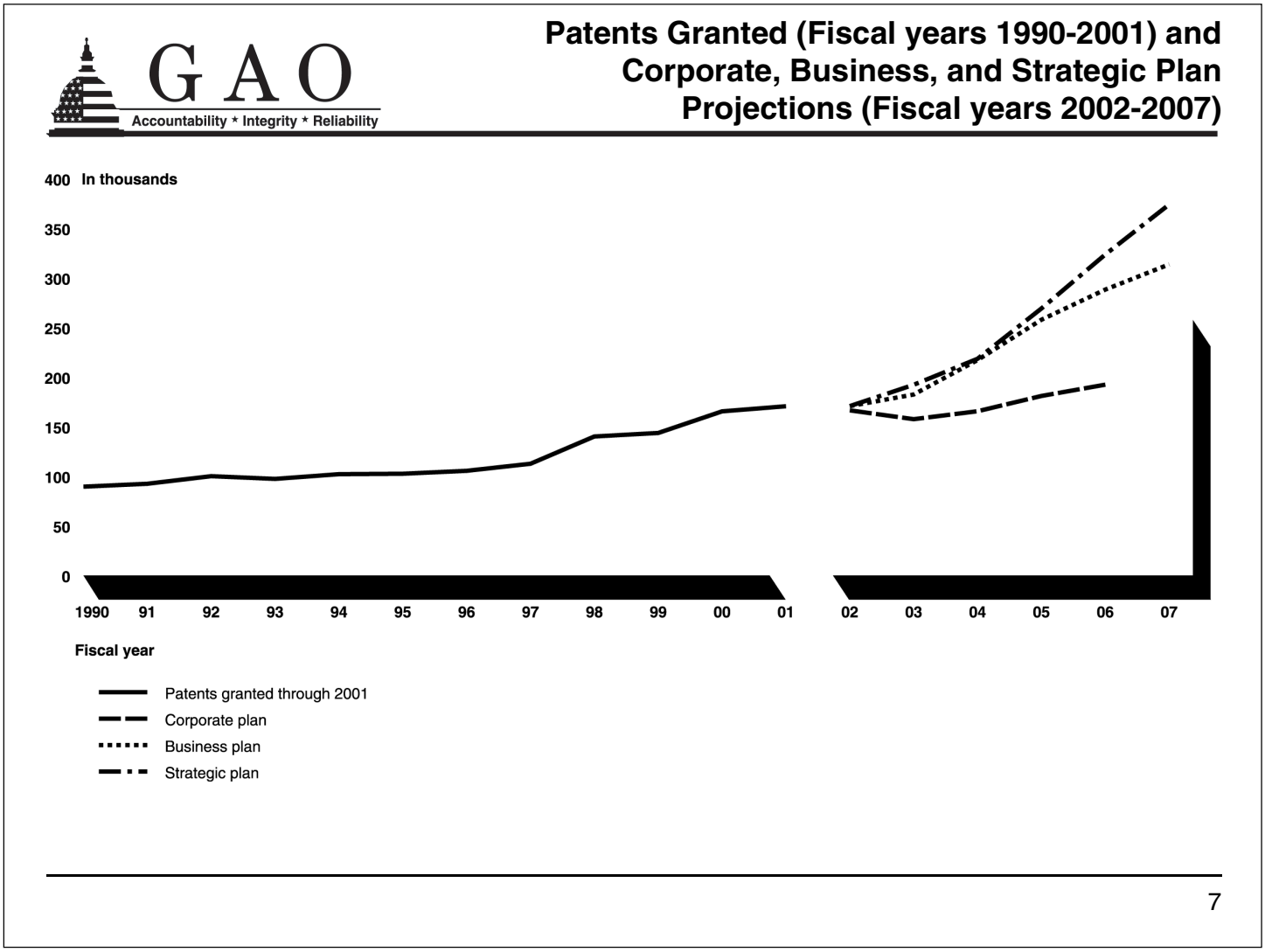


Note: Corporate Plan and Business Plan projections for fiscal years 2002 through 2006 were the same.

Source: USPTO.



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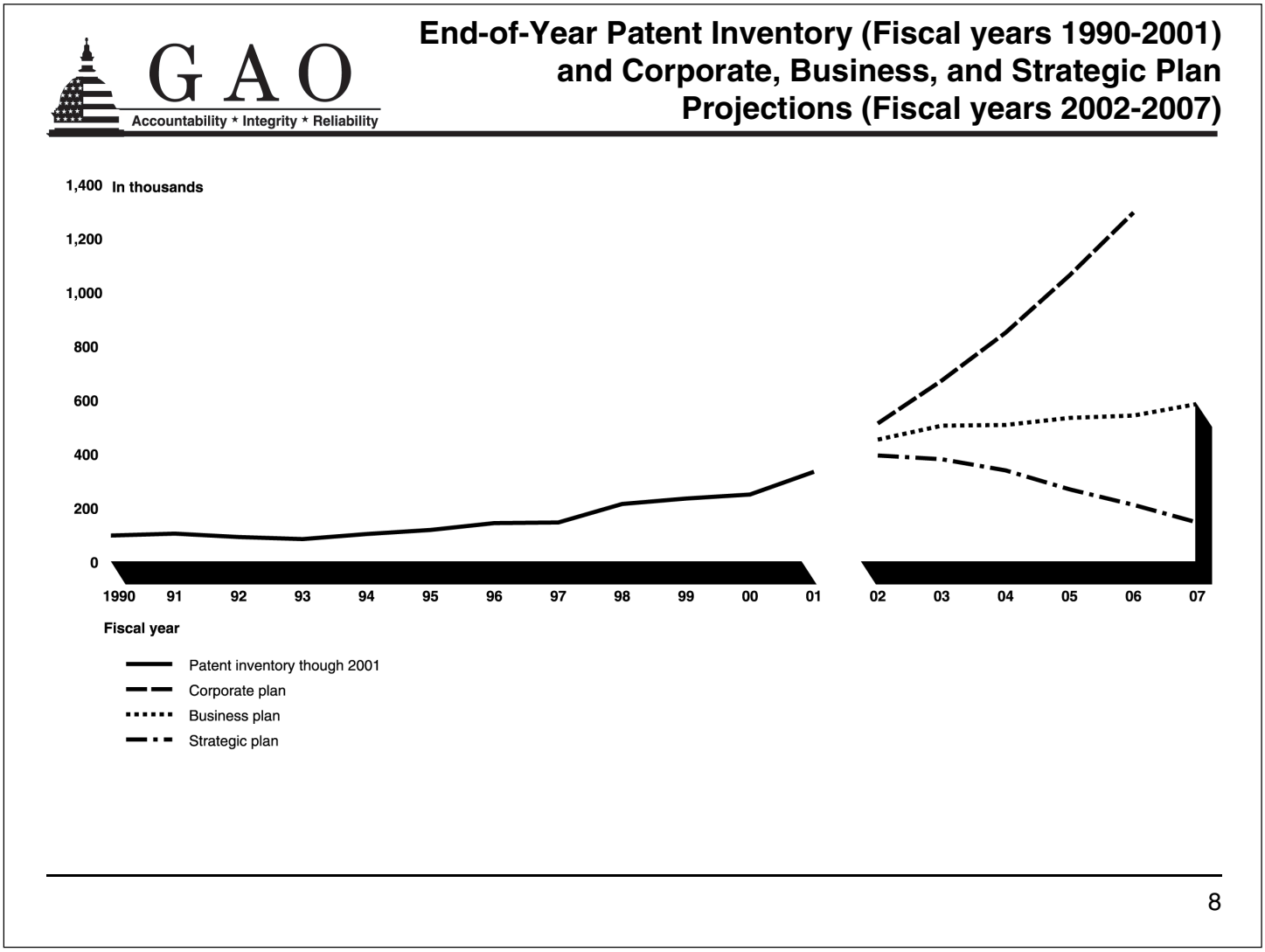

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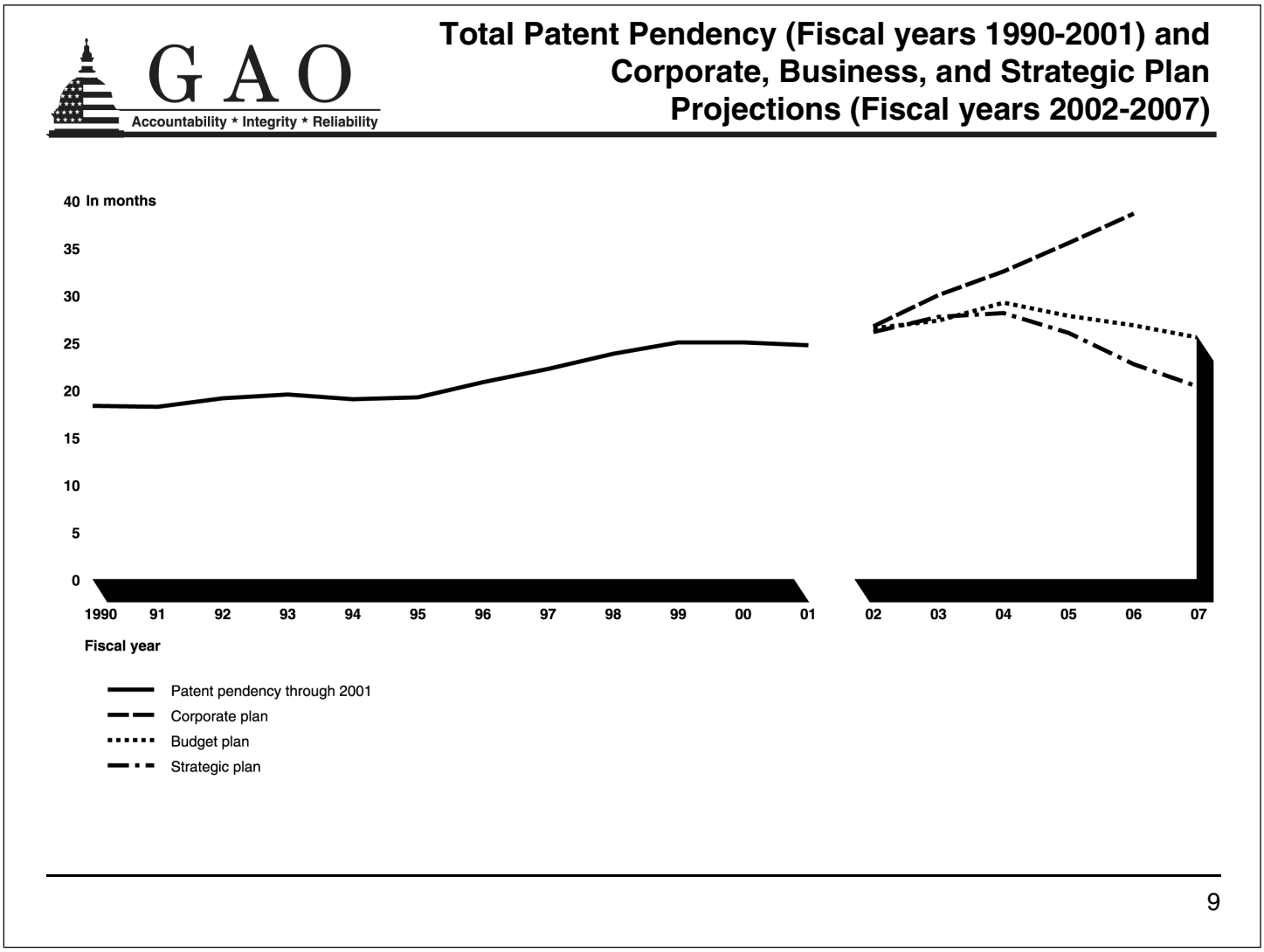
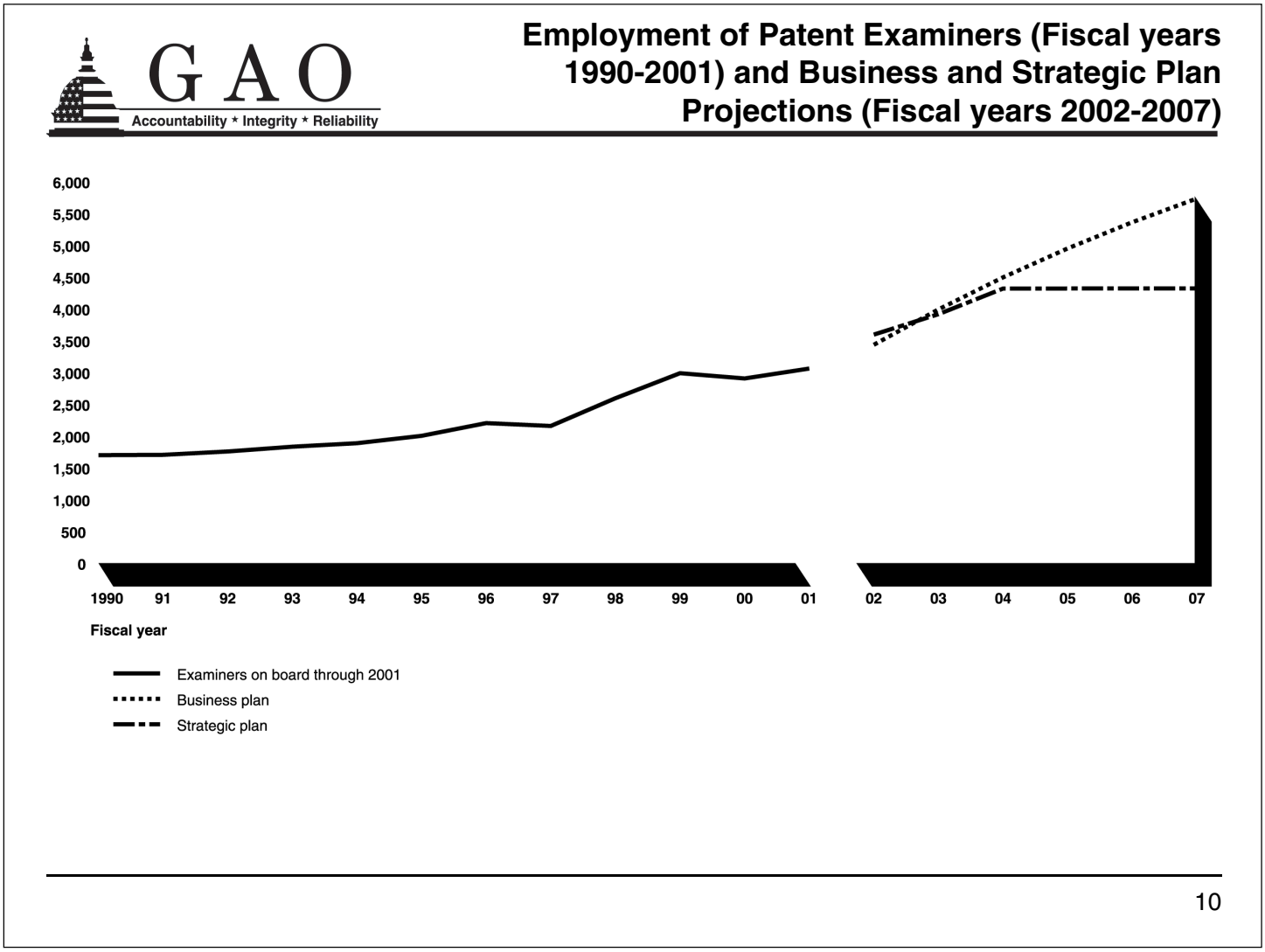


Note: Under the Strategic Plan, patent pendency is redefined as the examination duration period (i.e., from the time the applicant requests examination to the ultimate disposition of the patent application).

Source: USPTO.



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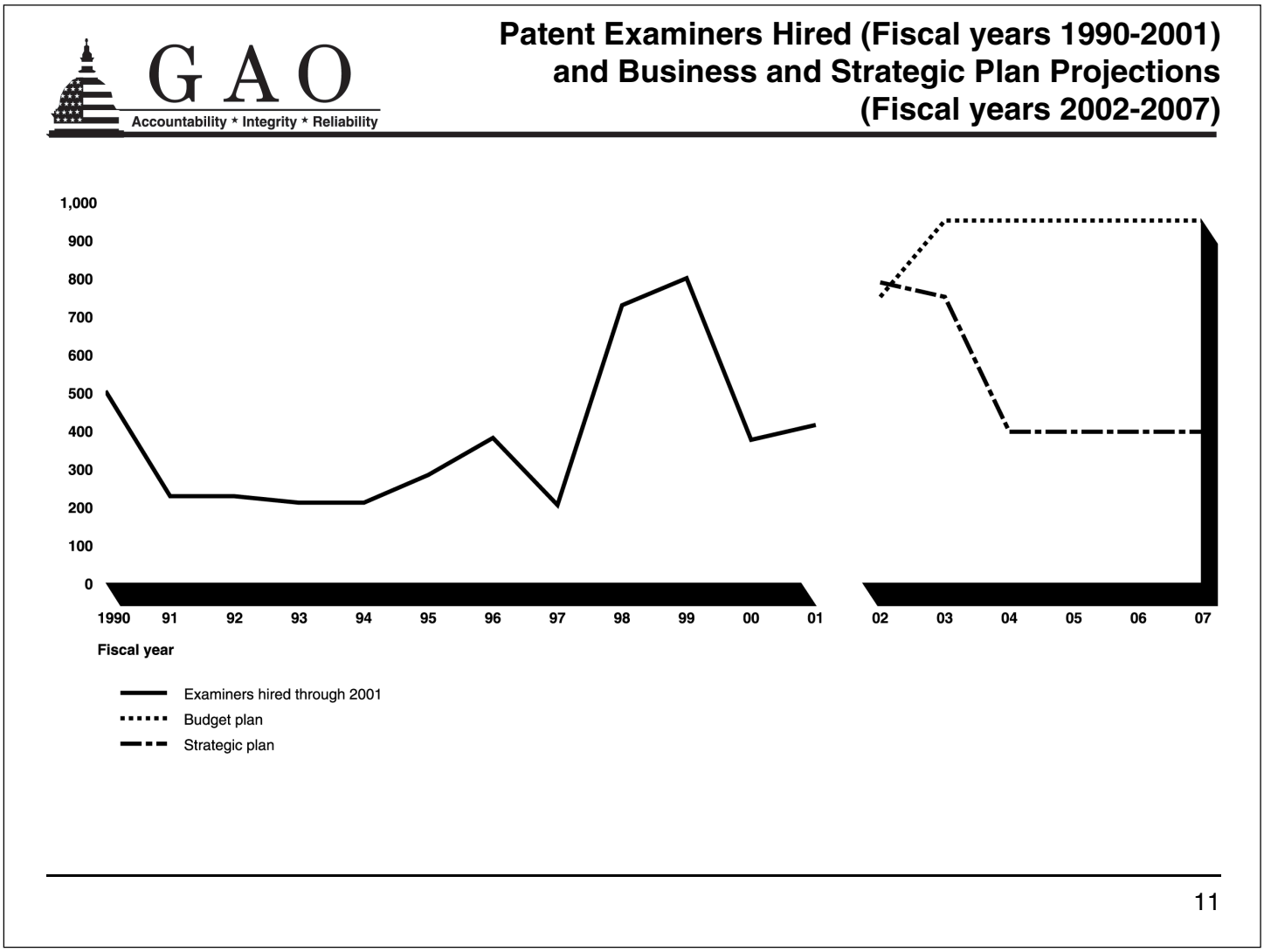

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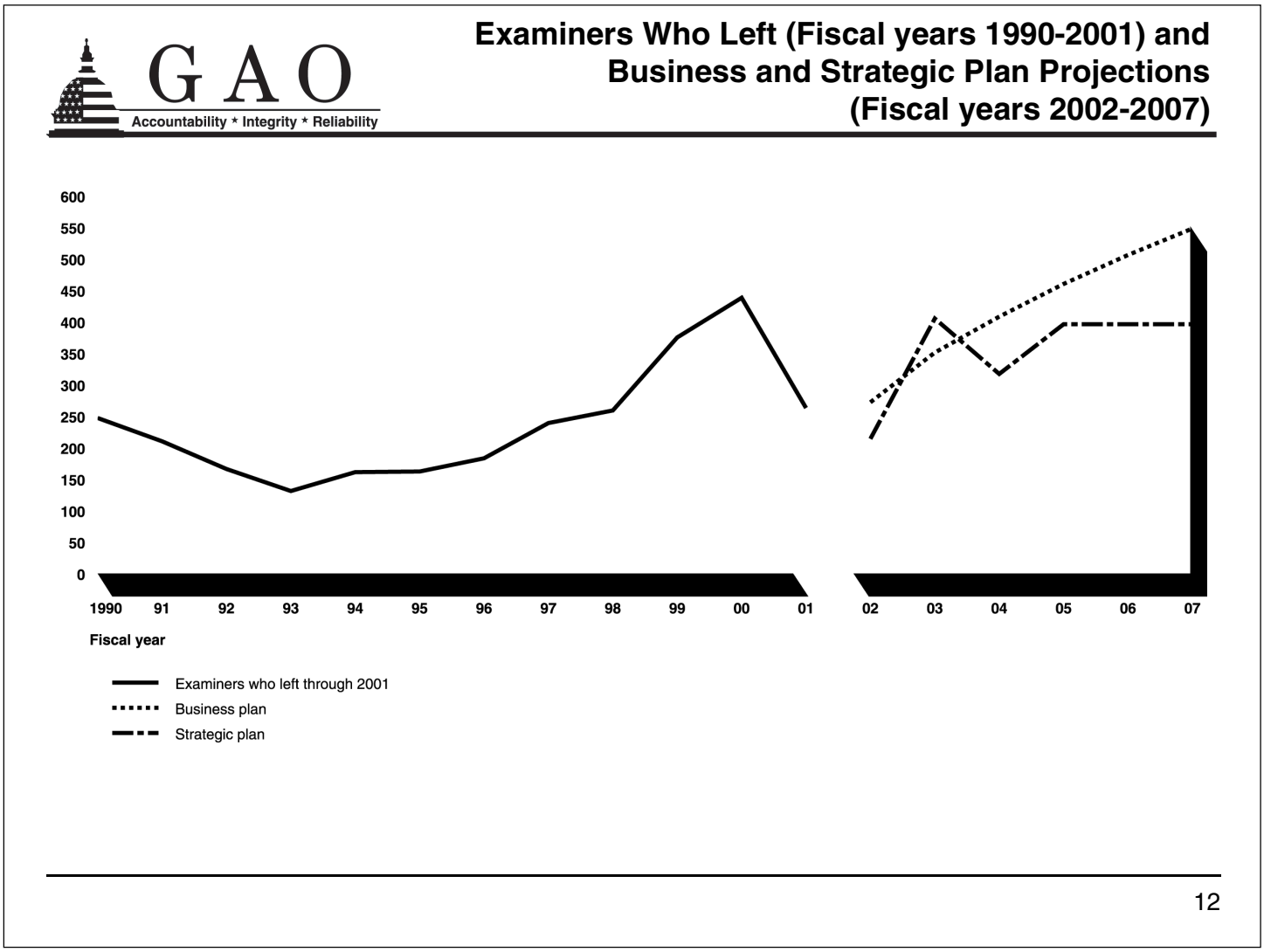

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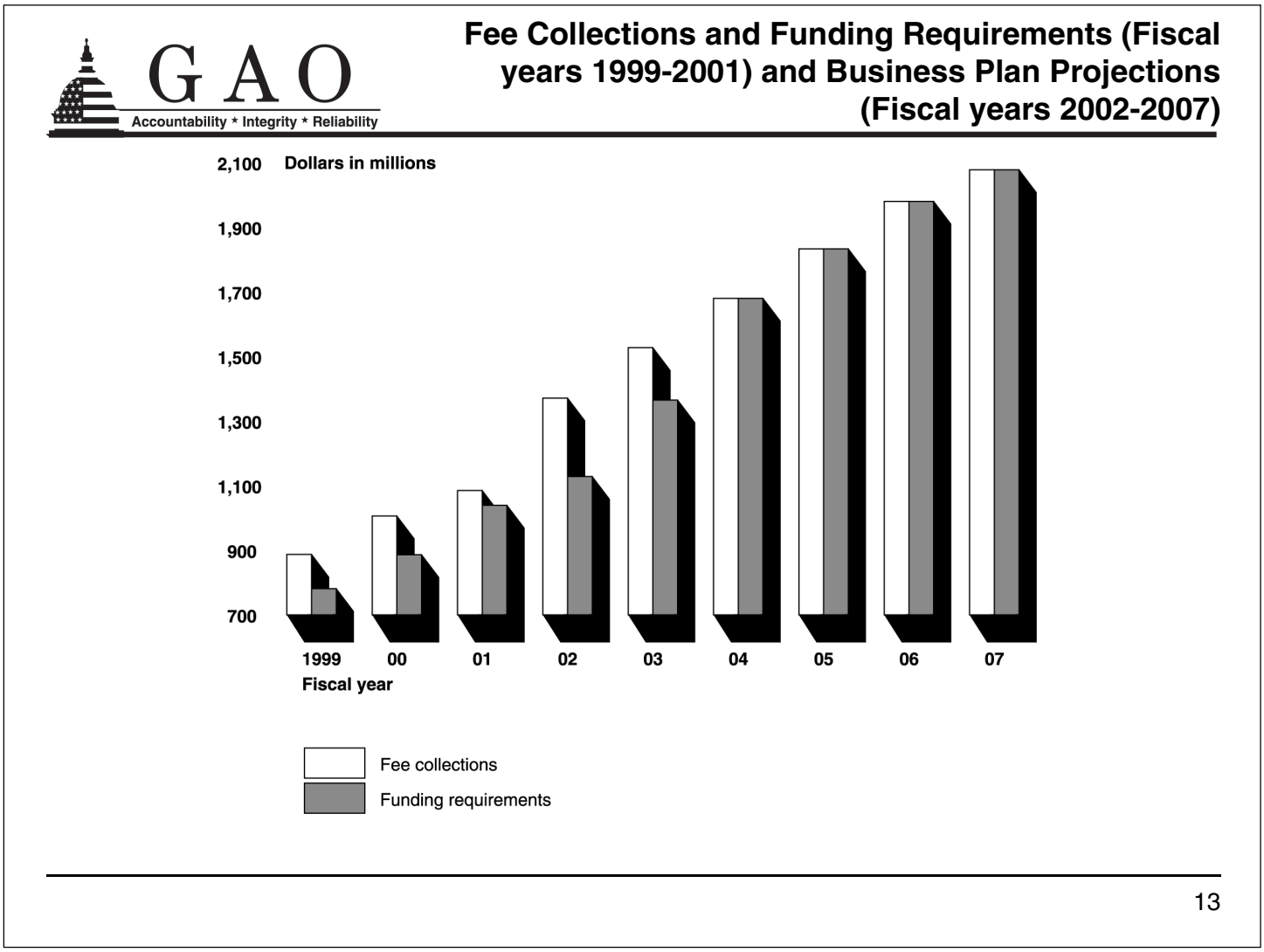

Note: For fiscal year 2002, fee collections are based on USPTO estimates and funding requirements are USPTO's appropriations.

Source: USPTO.

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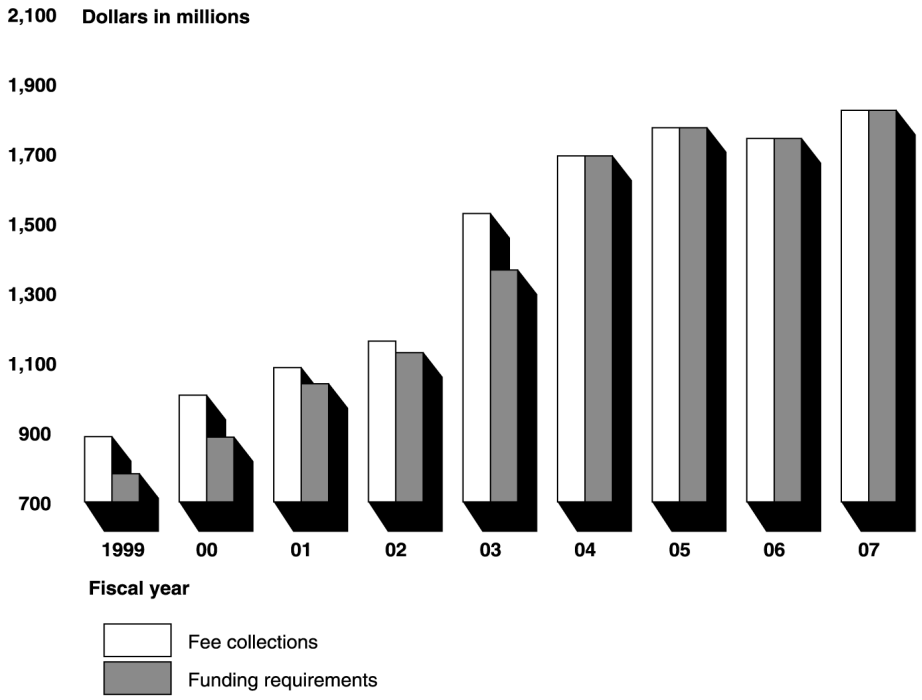
Fee Collections and Funding Requirements (Fiscal years 1999-2001) and Strategic Plan Projections (Fiscal years 2002-2007)



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Note: For fiscal year 2002, fee collections are based on USPTO estimates and funding requirements are USPTO's appropriations.

Source: USPTO.

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Some Differences Between the Business and Strategic Plans

Business Plan

- Pendency—from time applicant files application
- Examiners conduct search function
- 4,750 hires—FY 2003-2007
- Restructures patent/trademark fees in FY 2004
- Patent/trademark surcharge fees proposed for FY 2003
- FY 2003 budget--$1.527 billion in fee collections and $1.365 billion in funding requirements
- Through FY 2007, funding requirements are projected to total $8.935 billion

Strategic Plan

- Pendency—from time applicant requests examination
- Search function can be performed by others
- 2,688 hires—FY 2003-2007
- Restructures patent/trademark fees by October 1, 2002
- Eliminates proposed FY 2003 patent/trademark surcharge fees
- Retains FY 2003 fee collections and funding requirements totals, but specifics will change
- Through FY 2007, funding requirements are projected to total $8.396 billion

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How Patent Fee Structure Would Change Under Proposed Legislation

- Filing fee would be lower, but other fees would be higher—to compensate for the eliminated FY 2003 patent fee surcharge and the expected decrease in patent applications.
- New examination fee would be added; 50 percent small entity discount would not apply to examination fee.
- Issue fee would be higher.
- The combined filing, examination, and issue fees would be higher.
- All three maintenance fees would be higher.
- New fees would be created, such as a surcharge authorized by the USPTO Director in certain instances.
- A new "micro-entity" category would be created; with a discount on the examination fee to be prescribed by the USPTO Director.
- Example of how the basic patent fees would change for an applicant (not a small entity) granted a utility patent, and maintaining the patent through the three maintenance fees.[1]

[1]Utility patents include chemical, electrical, and mechanical applications. In fiscal year 2001, utility patents represented over 90 percent of all patents granted that year.

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How Patent Fee Structure Would Change Under Proposed Legislation (con't.)

Type of fee	Current fee structure	Proposed fee structure	Dollar change	Percentage change
Filing	$ 740	$ 300	$ (440)	(59.5)
Examination		1,250		
Subtotal	**$ 740**	**$ 1,550**	**$ 810**	**109.5**
Issue	1,280	1,660	380	29.7
Subtotal	**$2,020**	**$ 3,210**	**$1,190**	**58.9**
Maintenance--3.5 years	880	900	20	2.3
Maintenance--7.5 years	2,020	3,000	980	48.5
Maintenance--11.5 years	3,100	5,000	1,900	61.3
Maintenance subtotal	**$6,000**	**$ 8,900**	**$2,900**	**48.3**
Total	**$8,020**	**$12,110**	**$4,090**	**51.0**

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Appendix II: Comments from the United States Patent and Trademark Office

Under Secretary of Commerce For Intellectual Property and
Director of the United States Patent and Trademark Office
Washington, DC 20231
www.uspto.gov

AUG 14 2002

Mr. John B. Stephenson
Director, Natural Resources and Environment
United States General Accounting Office
441 G Street N.W.
Washington, D.C. 20548-0001

Dear Mr. Stephenson:

Thank you for the opportunity to review your draft report entitled *Intellectual Property: Information on the U.S. Patent and Trademark Office's Past and Future Operations* (GAO-02-907). The factual information included in the report provides a good picture of the United States Patent and Trademark Office's (USPTO) transition to our new *21st Century Strategic Plan.*

Comparing the Strategic Plan to the 2003 Business Plan is a little like comparing apples and oranges. The 2003 Business Plan was focused on performing our core functions – the processing of patent and trademark applications – resulting in the highest quality of products and services and the shortest pendency times possible. It deferred changes to the fee structure until fiscal year 2004 and instead relied on the Administration's proposed surcharge to generate the fee collections needed to meet quality and pendency goals.

The Strategic Plan takes a global perspective by envisioning the patent and trademark systems of the future that American innovators will need to remain competitive around the world. It is built on the premise that American innovators need to obtain enforceable intellectual property rights here and abroad as seamlessly and cost-effectively as possible. The Strategic Plan emphasizes the need for the USPTO to collaborate with other intellectual property organizations in automation, global patent classification, and mutual reliance on search results.

As you so aptly point out in your report, our Strategic Plan proposes fundamental changes in the way we operate, such as restructuring the patent fee schedule and redesigning the patent search and examination functions. When implemented, our strategic plan will transform the organization into a quality driven, highly productive, and cost-effective organization.

The *21st Century Strategic Plan* is the USPTO's road map for creating, over the next five years, an agile and productive organization fully worthy of the unique leadership role the

American intellectual property system plays in the global economy. The Plan is predicated on behavioral changes within the USPTO and a willingness to embrace change among all players in the intellectual property system. The Plan pursues three main objectives. First, make USPTO's processes simpler, faster, and more accurate. Second, listen more closely to the voices of USPTO applicants and to the demands of the national and global marketplaces. Third, be more productive while hiring 2,500 fewer examiners than was proposed under the 2003 Business Plan -- and spending half a billion dollars less than originally planned.

Your report provides an extensive description of our legislative fee restructuring proposal. It is essential, however, to understand the dynamics behind the proposed fee changes. The existing fee structure is inadequate -- it is failing to serve applicants promptly, it is less equitable to applicants who file more recently than earlier filers, and it is less equitable to applicants who have modest complexity in their applications.

The existing fee structure offers so much for a low flat fee that applicants routinely overwhelm the system capacity. Applicants with greater complexity consume more examiner resources, with no significant difference in fees paid, as compared to applicants with lesser complexity and who are able to obtain their desired patent protection in a single application. Instead, the cost incurred by all is the opportunity cost of delayed prosecution, as those earlier in the queue and with greater complexity and volume disproportionally absorb available examining resources.

The fee restructuring proposal would create parity among applicants -- those who consume less USPTO resources would pay lower fees. Fee amounts also would be aligned so that we provide service when the applicant has been able to decide that it is needed. This will allow the Office to better allocate its examining resources among all applicants in a more equitable alignment. We plan to work with the Congress to achieve a fee structure that supports the goals and objectives in our Strategic Plan, while not impeding full participation of all potential applications in the intellectual property system.

In closing, let me say yes, our *21st Century Strategic Plan* does challenge the status quo and is aggressive and far-reaching, but anything less would fall woefully short of what the times demand. I have enclosed several minor suggested changes regarding the report for your consideration.

Sincerely,

for

JAMES E. ROGAN
Under Secretary and Director

Enclosure

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