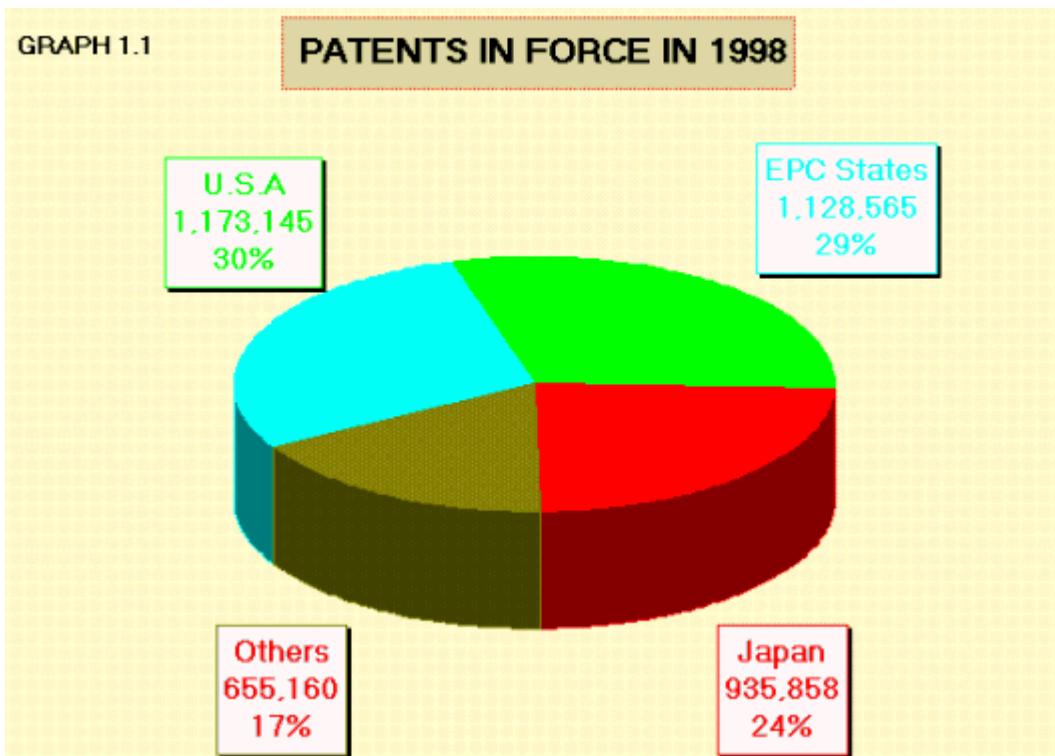


1 INTRODUCTION

Intellectual property rights are not all of the same nature. They can be categorized as:

- patents of invention;
- utility model patents;
- industrial design patents;
- trademarks, and
- copyrights.

This report concerns the first kind, patents of invention. Patent rights are well-used throughout the world. At the end of the year 1998, a total of about 4 million patents were in force. The Contracting States of the European Patent Convention, the JPO and the USPTO, respectively, cover about 83% of the total patents world-wide. Patents in EPC States have been granted by the national Offices in these States and since 1980 in a gradually increasing share by the EPO.



EUROPEAN PATENT OFFICE

The European Patent Office (EPO) is an example of successful economic and political co-operation among the States of Europe, providing patent protection in up to 25 European countries on the basis of a single patent application and a unitary grant procedure. The following 19 States were in 1999 members of the European Patent Organisation:

Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Ellas, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Portugal, The Netherlands, Spain, Sweden, Switzerland, The United Kingdom.

The following States agreed with the EPO to allow extension of European patents to their territory:
Albania, Latvia, Lithuania, the former Yugoslav Republic of Macedonia, Romania and Slovenia.

Together these States build a market of about 420 million people.

In January 1999, the Administration Council invited Bulgaria, the Czech Republic, Estonia, Hungary, Poland, Romania, Slovakia and Slovenia to accede to the Convention as from July 2002. The Turkish parliament ratified the EPC, which means that Turkey is expected to accede to the Convention as its 20th contracting state.

Grant Procedure

The main task of the European Patent Office is to perform the European patent grant procedure according to the European Patent Convention. Moreover, the EPO acts as receiving, searching and examining authority under the Patent Cooperation Treaty.

The European Patent Organisation has prepared the ground for a wide-ranging reform of the European patent system. At an intergovernmental conference held in Paris, the 19 member states decided on measures aimed at greatly reducing translation-related costs for European patents and achieving a lasting improvement in the conditions for the settlement of litigation of European patents.

The Organisation started on a speedy revision of The European Patent Convention (EPC). The purpose of the revision, to be formalised in Munich in November 2000, is to adapt the EPC to the ever increasing pace of change on the technical, organisational and legal fronts since it was signed in 1973.

A further task of the EPO is to perform, on the behalf of Patent Offices of certain member States, state of the art searches for the purpose of national procedures and to carry out searches on request of third parties. In table 1.1 production figures for search (European, PCT and national searches), for examination (European and PCT Ch. II) and for opposition and appeal in the European procedure are given for the years 1998 and 1999.

In 1999, 115 806 searches have been completed (+8% more than in 1998), the final actions in examination and opposition decreased by 1.7% down to 72 217, and 1 119 decisions in appeal have been completed (+9%).

TABLE1.1:PRODUCTION INFORMATION EPO

PRODUCTION FIGURES FOR 1998 AND 1999		
	1998	1999
Filings		
1. European applications	48 547	50 236
2. Euro-PCT international phase	64 797	71 514
3. Euro-PCT regional phase	33 704	39 123
Total including Euro-PCT international phase (1+2)	113 344	121 750
Total including Euro-PCT regional phase (1+3)	82 251	89 359
Searches carried out		
European searches (Euro + Euro-PCT suppl.)	48 875	52 577
PCT searches (PCT-SAE + PCT-SA)	37 452	43 076
Searches on behalf of national offices	15 459	15 349
Other searches	5 123	4 804
Total production search	106 909	115 806
Examination: final actions performed		
European examination	45 935	40 903
PCT Ch.II	25 039	28 996
Opposition (final action)	2 469	2 318
Total final actions examination / opposition	73 443	72 217
Appeal		
Technical appeals	954	1 060
PCT protests	8	10
Other appeals	63	49
Total decisions appeal	1 025	1 119

At the end of 1999, the Office's search files contained 27 million patent documents and 2.9 million technical or scientific articles. 1.3 million new documents were added to the collection in 1999, including 860 000 patent documents, 120 000 articles and 300 000 English-language abstracts of patents from Japan and the former Soviet Union. The EPO's in-house classification system is an expanded form of the International Patent Classification (IPC) and features a total of 112 500 subclasses. Some 750 examiners are working on document reclassification. In 1999, they introduced 1 000 new subclasses and assigned additional classifications to 90 000 documents already in the collection.

The development of electronic tools in the grant procedure advanced apace. A key role is played by the PHOENIX electronic file system, which is due to replace paper patent files in the near future. PHOENIX is at the heart of the planned electronic communication system *epoline*®.

The EPO's second fee reform came into effect in July 1999, reducing the search fees and placing a ceiling on designation fees. That cuts a further DEM 85m per year off applicants financial outlay for European patents. Together with the 1997 fee reduction, this means that the yearly bill is now more than DEM 220m less than it was in 1996.

Patent Information

The EPO is a producer of patent information products and systems and has set up databases that are available not only for internal use, but also for dissemination by national Offices. Under the acronym EPIDOS (European Patent Information and Documentation - former INPADOC) the Office presents its range of patent information products. EPIDOS products and services are available both directly to users and to commercial data suppliers. The linking up of national patent libraries to form an information network (PATLIB) is one of the key elements to the effective transfer of knowledge in Europe. These information centres are equipped with CD-ROM workstations, which facilitate user access to patent documents.

For the first time, the EPO's annual EPIDOS conference shared a platform with the EU Commission's PATINNOVA. More than 450 experts gathered in Halkidiki (Greece) to study trends in patent system and patent information. This was the best-attended event relating to patents ever held in Europe.

Enhancements and new online services have further increased the attractiveness of *esp@cenet*®, the most comprehensive free patent information service on the internet. In 1999 the access rose by an average of 15% per month.

Technical Cooperation

In many countries and regions of the world, the EPO is involved in numerous technical cooperation projects in partnership with national patent authorities, the EU Commission and the WIPO. In 1999, 360 trainees attended 26 courses offered by the EPO's "International Academy". More than 500 specialists in industrial property rights attended training seminars organised under the EU'S Regional Industrial Property Programm (RIPP). The EPO also produced ten new issues of the ESPACE® PRECES CD-ROM on patent applications from the RIPP countries.

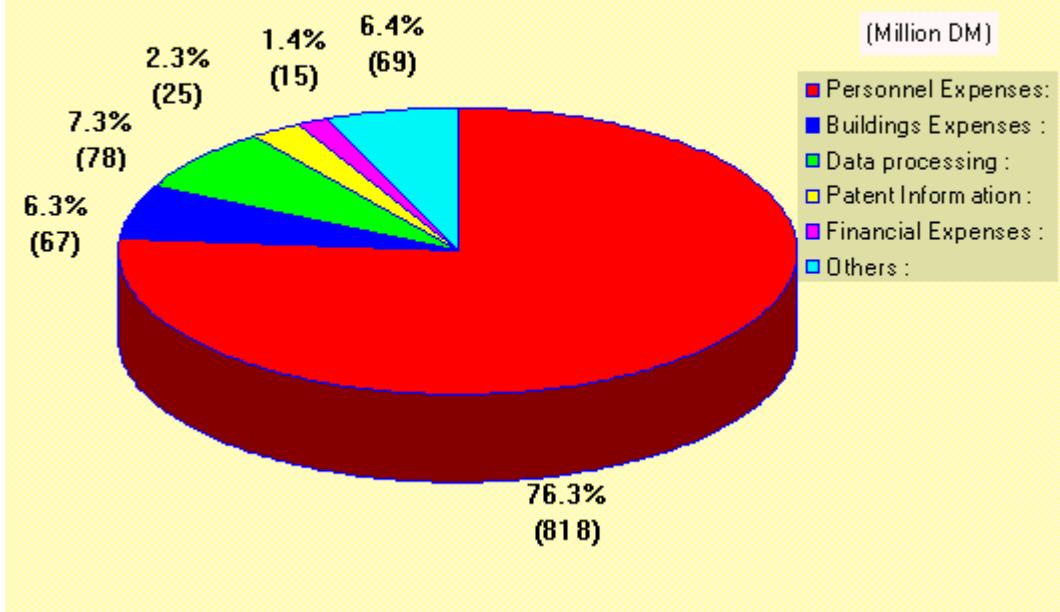
In 1999, the EPO supported national and regional patent authorities of the CIS states by organising an administrative management seminar. The EPO presented its first schedule of work to support the ongoing revision of patent law in China. New cooperation plans were agreed with the ASEAN States to extend the projects until 2001. The EPO also handled numerous projects in Africa, the Arab states and Latin America.

EPO's budget

The Office is financially autonomous. Expenditure is met entirely out of income, mainly consisting of fees paid by applicants and patentees. Procedural fees such as the filing, search, examination and appeal fees and renewal fees for European patent applications are paid to the Office directly. Renewal fees for European patents, on the other hand, are collected by the designated Contracting States and determined by national law. From these renewal fees, 50 % is kept by the National Offices and 50 % is made available to the EPO.

Total expenditure 1999 (excluding investments) was DEM 1 072 million. This breaks down into DEM 818 million (76.3%) for Personnel Expenses, DEM 67 million (6.3%) for Buildings and Equipment (including depreciation), DEM 78 million (7.3%) for Data Processing (including depreciation), DEM 25 million (2.3%) for Patent Information including co-operation with the Contracting States, and DEM 15 million (1.4%) for Interest and Bank Charges, and DEM 69 million (6.4%) for Others.

Total income to the Office in 1999 amounted to DEM 1 324 million of which DEM 252 million constituted the operating surplus.

GRAPH 1.2**COMPOSITION EPO EXPENDITURE 1999****EPO Staff Composition**

Following the ongoing increase of its workload, the Office maintained its recruitment effort in 1999. By the end of the year, the staff reached a total of 4 301, including 2 382 examiners in search, examination and opposition and 101 members of Boards of Appeal.

Further information can be found by accessing the EPO's web page www.european-patent-office.org.

JAPANESE PATENT OFFICE

The Japanese Patent Office (JPO) formulates policies concerning industrial property right (IPR) systems such as patents, utility models, designs, and trademarks. We also examine applications for and deal with appeals concerning these IPR fields. It can be said that the JPO has been contributing to the industrial development as a whole through the above responsibilities.

Intellectual property helps encourage technological innovations. Reform of the intellectual property system leads to a social reform. Intellectual property is an indispensable industrial infrastructure and the key that leads Japan to a future prosperity. The JPO has been promoting the so-called Japanese-version Pro-Patent Policy with the aim of materializing a system that extends a quicker, stronger, and broader of protection to intellectual property.

The Industrial Property Council prepared a report in December 1998 with the aim of extending stronger protection to intellectual property rights. Based on this report, a bill partially revising the Patent Law and other IP laws was drafted. The Diet approved this bill in May 1999. An outline of the revision is as follows.

1.An Earlier Time Limit for Filing a Request for Examination

The time limit for filing a request for examination is to be changed from the current seven years from the filing date to three years from the filing date as of October 2001 for the purpose of reducing the overall time used to obtain a patent.

2.Revision of Legal Proceedings

To more quickly extend a stronger and broader of protection to IP rights, simplified legal proceedings are to be adopted to redress the losses incurred by a right holder.

3.Accession to the Madrid Protocol

Japan joined the Madrid Protocol as of March 14, 2000 with the aim of protecting trademarks used in Japan and overseas.

4.Reduction of Patent Fees

The amount of additional fees to be included per one claim has been reduced since January 1, 2000 by 25 percent. Special reductions and postponements of payment of patent fees, which were granted to individuals with limited means, are extended to the enterprises whose means are also limited.

A bill to entirely review the Patent Attorney Law was adopted by the then cabinet on March 17, 2000. This bill was submitted with the view to enhancing the level of competition among patent attorneys and providing an improved service to the public. Patent attorneys provide very important service in the field of intellectual property. Their activities support commercialization and dealings of industrial property. This bill was approved in the Diet on April 18, 2000.

The JPO has been promoting the so-called Paperless Plan since 1984 for the purpose of expediting administration processes, reducing the average period of examination, and offering an improved service relating to industrial property information. In December 1990, we started accepting electronic applications for patents and utility models. To date, we have distributed the total of 11,000 software units free of charge. These measures of the JPO helped increase the percentage component ratio of electronically filed applications in overall applications to 96 percent as of March 2000. The electronic filing system can now be considered as being widely accepted by Japanese users. In January 2000, we also started accepting electronically filed applications for designs and trademarks as well as appeal claims and PCT applications entering the national phase. Even though we have just adopted the electronic filing system, many filings are now made through electronic means: design application filings (81%); trademark application filings (80%); appeals against examiners' decisions (91%); requests to enter PCT applications into the national phase (96%)(the average percentage ratios as of March 2000)

With the expansion of patent market supported by the development of E-commerce and economic globalization, we aim to more fully computerize the JPO. Specifically, we will introduce the international standard, or the XML, to our Paperless System, thoroughly computerize every business field including the appeal examination and PCT processes, more efficiently utilize the Internet, and further promote cooperative ties with other countries and regions.

The JPO has been actively providing industrial property information over the Internet. On March 31, 1999, we established the Industrial Property Digital Library (IPDL) on our homepage. Through this IPDL, we provide free of charge IP information involving about 4,000 applications with a search service. On March 30, 2000, we added to the IPDL such functions as the guidance for beginners and automatic translation for foreign users. With these functions, those who are not familiar with detailed IP information in Japanese will be able to easily retrieve necessary information.

On May 19 and 20, 1999, the First Informal Meeting of the Head of Patent Offices in Certain Developed Nations was held in Tokyo based on the JPO's proposal. Commissioners (or their representatives) of IP offices in Canada, France, Germany, Japan, the U.K., and the U.S. as well as representatives of the European Commission and European Patent Office met together at this meeting. At the meeting, they agreed that countries should make efforts to revitalize technologically innovative activities to keep up with the recent drastic economic globalization. The participants of this meeting also shared the understanding that it is important to establish an environment that allows adequate protection and easier transfer of the outcomes of such innovative activities on a global scale. Based on the above understanding, they discussed a desirable industrial property system and other issues relating to intellectual property rights from a global perspective.

The JPO held the 7th APEC Symposium on Intellectual Property Rights in Hokkaido on February 28 and 29, 2000. Experts in the field of intellectual property rights in both public and private sectors of 17 APEC countries/regions met together at the symposium. The experts discussed how the intellectual property system can contribute to the economic development of the APEC region.

The JPO has been implementing since fiscal 1996 the so-called 1000 Trainee Program under which the JPO is to receive the total of about 1,000 trainees by fiscal 2000 from both public and private sectors mainly in the Asia-Pacific region. For the first three years by fiscal 1998, we received 739 trainees from 35 countries and one region. In fiscal 1999, 235 trainees from 28 countries were received. Thus, we have received the total of 974 trainees under this program.

The JPO has also been dispatching experts in the fields of examination, computerization, and PCT business to IP offices in the Asia-Pacific region and other regions through such schemes as the WIPO-Japan Trust Fund and JICA.

To help Japanese companies in the Asian region enforce their intellectual property, the JPO has been making efforts to establish an improved enforcement system and to more quickly collect/provide detailed information on counterfeiting activities in respective countries in the region.

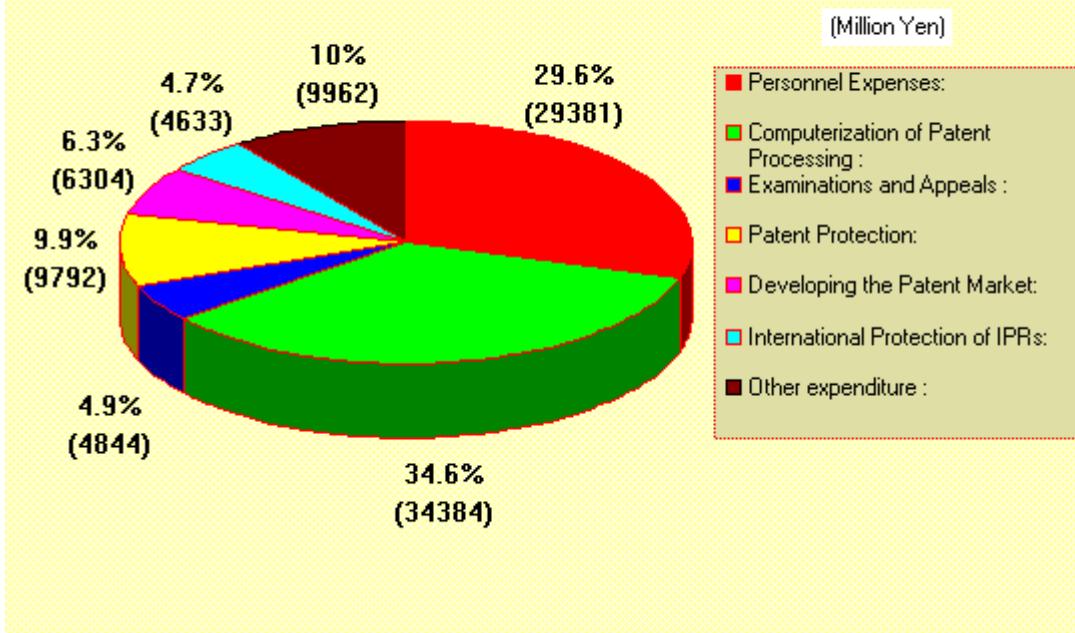
TABLE 1.2:PRODUCTION INFORMATION JPO

PATENT PRODUCTION FIGURES 1998 AND 1999			
		1998	1999
Applications filed			
Domestic		359 381	360 180
Foreign		42 551	45 475
Total		401 932	405 655
Grants			
Domestic		125 704	133 960
Foreign		15 744	16 099
Total		141 448	150 059
Applications appeals	in	14 157	14 650

JPO's Budget

In July 1984, the JPO introduced a new accounting system. Under this system, all expenditures are to be covered by its earnings from IP business. This accounting system enabled the promotion of a comprehensive measure centring the Paperless System, which is aimed at expediting the administration processes.

The JPO's budget for fiscal 1999 was about 99.3 billion yen. The details of the budget for fiscal 1999 are as follows: 9,792 million yen was allocated as the expense to quickly grant a patent right and to extend a more adequate protection; 6,304 million yen as the expense to establish a patent market; 4,633 million yen for IPR protection on an international scale; 34,384 million yen for promoting computerization of patent business; 4,844 million yen for the administration of examinations and appeals; and 29,381 million yen for personnel expenses.

GRAPH 1.3**COMPOSITION JPO EXPENDITURE 1999****JPO Staff Composition**

In order to speed up the examination and appeal processes, the staff number has increased to 2,534 as at the end of fiscal 1999. This included 1,084 patent and utility-model examiners; 51 design examiners; and 140 trademark examiners, giving a total of 1,275 examiners engaged in the business of substantive examination.

Also, there are 389 appeal examiners in the Department of Appeal and 870 clerical officials.

Further JPO Information

The JPO has laid open statistics on patents, utility models, designs and trademarks on our website. To use this service, please access our homepage (<http://www.jpo-miti.go.jp>) and click "Statistics, Documents", then go to "Reports". You will find the statistical information under "Annual Report 1999".

THE UNITED STATES PATENT AND TRADEMARK OFFICE

The mission of the United States Patent and Trademark Office (USPTO) is to promote industrial and technological progress in the United States and strengthen the national economy by administering the laws relating to patent and trademarks; and advising the Administration on patent, trademark, and copyright protection, and the trade-related aspects of intellectual property.

This mission is carried out by examining patent and trademark applications, issuing patents and registering trademarks; disseminating the information contained in patents and trademarks; and encouraging a domestic and international climate in which intellectual property can flourish.

On March 29, 2000, the Patent and Trademark Office (PTO) became the United States Patent and Trademark Office (USPTO), a Performance-Based Organization (PBO). The new status results from the American Inventors Protection Act of 1999, which reformed the U.S. patent system in a number of ways. The PBO is a concept created in March 1996 by Vice President Al Gore and the National Partnership for Reinventing Government. A PBO is a results-driven organization that delivers the best possible services to its customers. A PBO also commits to accountability for results by having clear objectives, specific measurable goals, customer service standards and targets for improved performance. In exchange for this commitment to accountability, a PBO is granted managerial flexibility's to achieve these goals and operate more like a business with greater autonomy over its budget, hiring, and procurement.

As a PBO, the USPTO has committed to the following performance goals that are customer-oriented, results-driven and committed to making a difference in areas that matter to the public.

- Process all inventions in 12 months (to be achieved in 2003).
- Render a trademark first action in three months.
- Offer electronic filing to our customers.
- Electronically process patent and trademark applications.
- Partner with the World Intellectual Property Organization to achieve electronic filing of PCT applications and electronically receive and process PCT applications at the USPTO.
- Enable customers to use the Internet to conduct business electronically.
- Continually assess the USPTO fee structure to ensure it encourages participation in the patent and trademark systems and reflects costs.
- Offer USPTO employees innovative training programs and work-at-home opportunities.

One characteristic of a PBO is its ability to support itself by generating sufficient fee income. In fiscal year 2000, USPTO is projected to collect \$984 million in patent and trademark fee income. A large portion of this income will be generated through an expected 299,000 patent applications and 328,000 trademark applications. These filing levels represent a 10 percent increase over 1999 filing levels.

USPTO's first priority is to increase the quality of the patent and trademark examination processes. As a first step, a Quality Council comprised of representatives from all areas of the USPTO was established. This Council is identifying opportunities for improvement throughout the USPTO that will lead to performance excellence, as measured by periodic assessments. These assessments provide an opportunity for USPTO to step back and determine how well the entire organization is performing in such areas as leadership, strategic planning, customer and market focus, information and analysis, human resource focus, and process management.

In the business areas, our quality efforts focus on our customers, employees and processes, with an emphasis on coordination, communication and commitment. Our formal quality programs trace back to the early 1960s. Since that time, we have focused on the quality of the patent grant and trademark registration through the respective Quality Review Programs. We focused on employees' skills through the establishment of training programs, such as the Patent Academy and the Examiner Education Program.

Among the accomplishments of the Patent Business in 1999 was the conclusion of the Patent Working Lab in March, which provided the Patent Business important lessons. Most importantly, lab participants demonstrated that our Technical Support Staff (TSS) could effectively perform several tasks traditionally performed by examiners. Not only does this provide our TSS additional 'up-skilling' opportunities and assist in transitioning them to an automated environment, but it also enables patent examiners to focus more on the legal and technical aspects of the examination process. This concept supports our strategic direction to balance the distribution of work and has potential to deliver marked improvements in customer and employee satisfaction and greater quality of work products. Because of the demonstrated successes in the Lab, the Patent Business intends to pilot these concepts on a larger scale in select Technology Centers during fiscal year 2000 to determine if the results would continue to be as encouraging when applied to a larger non-laboratory production environment.

In fiscal year 1999, we consistently maintained an average processing time of less than 30 days in the initial review phase. This contributed to achieving a fiscal year 1999 average cycle time of 12.9 months and is a good predictor of improved customer satisfaction. On the automation front, we currently scan all incoming patent applications. In August 1998, we built upon this technology using commercially available optical character recognition (OCR) to capture bibliographic data from the application when submitted to the USPTO in a standardized format. This process is used to prepare and send an electronic acknowledgment of application receipt to the applicant and to automate the capture of bibliographic data. Our automation plans also include offering a variety of means for our customers to electronically file their applications. Working with volunteer applicants, in fiscal year 2000 we will be offering an electronic filing capability for utility applications and amino acid and nucleotide sequence listings for Utility, Plant and Reissue (UPR) applications filed. The Patent Business began a second cycle of strategic planning effort (for fiscal years 2002 to 2006) in August 1999. The objectives of the effort are to get input from customers regarding priorities for the office, revalidate existing patent goals, and make modifications to the vision, mission, strategic directions and goals based on customer input. The planning process also takes into account employee's involvement and feedback.

The recently enacted American Inventor's Protection Act (AIPA) of 1999, sets forth-new timeliness standards for the Patent Business. This new legislation, for example, provides that failure to issue a first office action on the merits of the claimed invention within 14 months of the filing date of the application, or to issue a patent later than 36 months after the filing date, will result in a commensurate restoration of patent term to the diligent applicant. Consequently, our efforts will be directed towards achieving 12 months cycle time for all inventions, while at the same time striving to comply with the pendency constraints in the AIPA legislation. The Patent Business strategic planning effort will address these two needs as well as other significant requirements contained within the legislation. It is anticipated that our strategic planning process will likely result in revised goals and commitments and new metrics for determining timely processing.

Although our goals and objectives may be revised, we will continue to focus on key concepts such as enhancing the quality of our products and services, maximizing the customer's effective term, enhancing employee satisfaction, and activating an e-commerce environment.

TABLE 1.3 : PRODUCTION INFORMATION USPTO

PATENT PRODUCTION FIGURES 1998 AND 1999				
	1998	1999		
Application filed ¹	243 062			270 187
First actions	209 180			230 326
Grants				
U.S. residents	80 292	54.4%	83 911	54.7%
Japan	30 841	20.9%	31 105	20.3%
EPO	25 693	17.4%	24 807	16.2%
Others	10 694	7.2%	13 670	8.9%
Total Foreign	67 228	45.6%	69 582	45.3%
Total	147 520	100.0%	153 493	100.0%
PCT Chapter II	13 030		13 744	
Applications in appeals and interference proceedings				
	Appeals Interference		Appeals Interference	
Contested	3 889	165	3 961	78
Disposed	4 286	191	4 689	187
Pending at EOY	8 908	425	8 180	316
Number of patent cases in litigation				
Total cases filed	51		69	
Total cases disposed	40		78	
Total EOY ² cases pending	47		38	

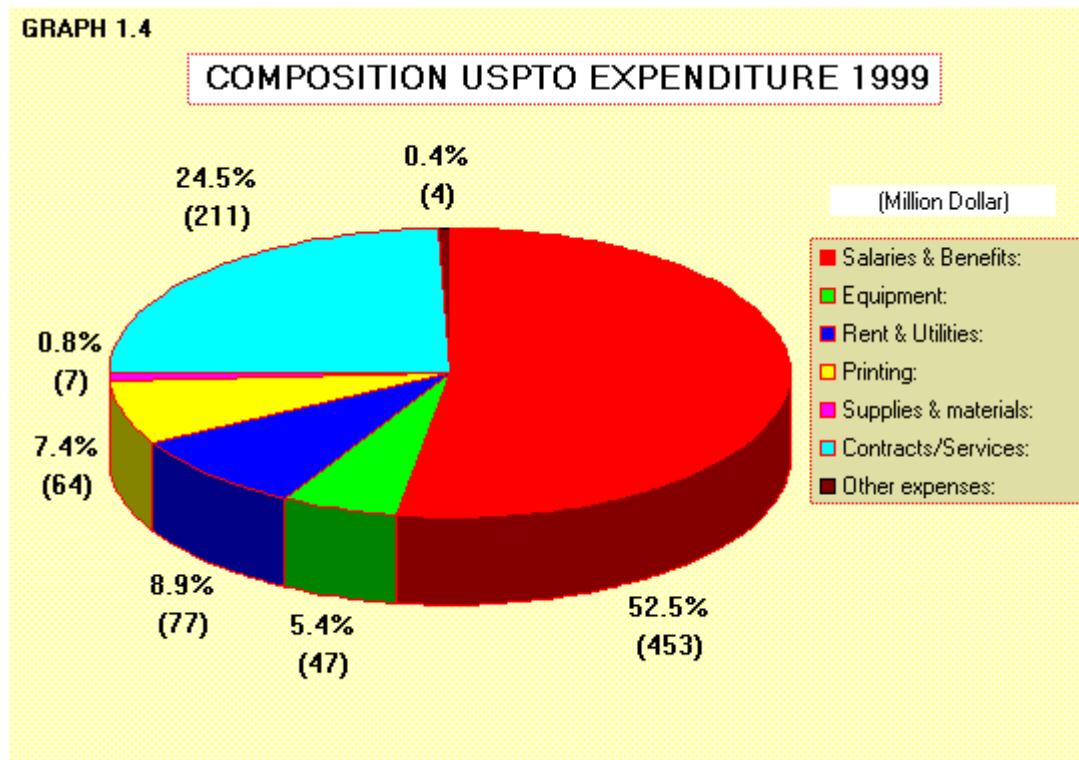
1: For utility patents only.

2: End of Year (EOY) is the calendar year (December 31st).

Additional statistical information on the USPTO can be found at our homepage <http://www.uspto.gov> by selecting "statistics". The statistics link will take you to our Annual Reports and Calendar Year Patent Statistics where you can access our online brochure of product and services or related patent statistical reports.

USPTO's budget

The USPTO funding is depending upon fees collected from its users. During 1999 the USPTO income was comprised of patent expenditures of \$796,999,298 and the trademark expenditures of \$125,957,199. The USPTO incurred \$862,761,497 in expenditures in 1999. Expenditures for salaries and benefits constituted the largest cost at 52.5% of overall expenditures. A breakdown by major spending categories is shown in the following chart.



USPTO Staff Composition

At the end of the Fiscal Year (September 30, 1999), the total Patent staff was 4,651. This total was comprised of 2,940 Utility, Plant and Reissue (UPR) examiners, 57 Design examiners, 1,527 managerial, administrative and technical support staff, 25 members of the Patent Quality Review staff, and 102 members of the Board of Patent Appeals and Interferences¹.

¹ Interference is generally defined as when two or more patent applications conflict because of claims to the same invention.