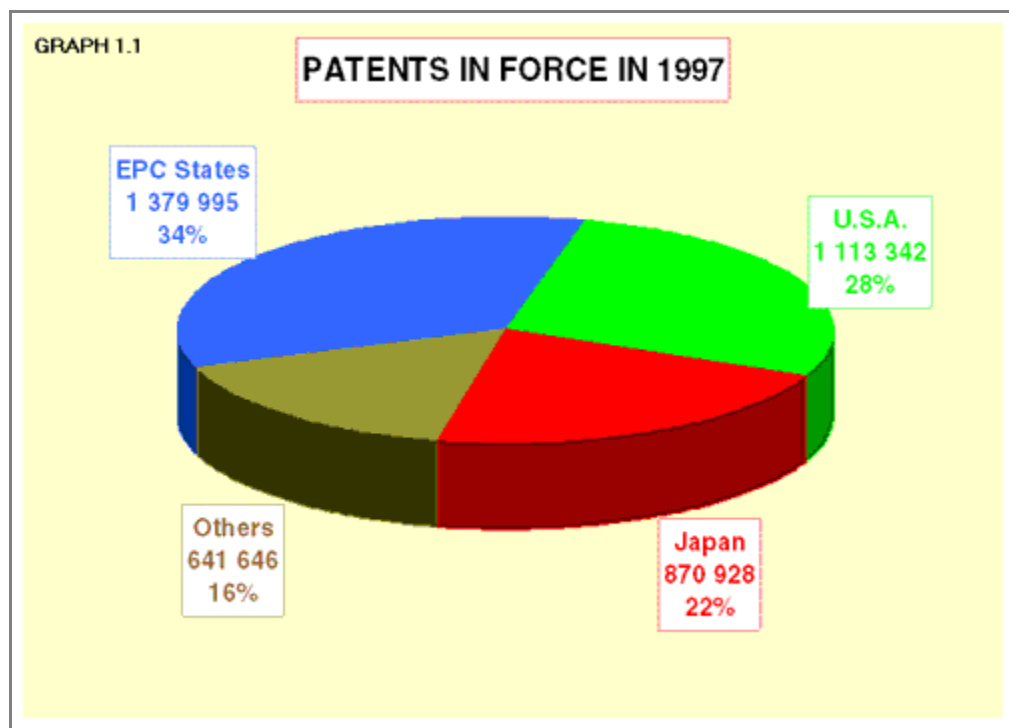


## 1 INTRODUCTION

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 1997, a total of about 4 million patents was in force. The Contracting States of the European Patent Convention, the JPO and the USPTO, respectively, cover about 84% of the total patents worldwide. 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 1998 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 more than 417 million people.

TABLE 1.1 : PRODUCTION INFORMATION EPO

<b>PRODUCTION FIGURES 1997 AND 1998</b>		
	1997	1998
<b>Filings</b>		
Total including Euro-PCT international phase	100 515	113 343
Total including Euro-PCT regional phase	72 960	82 087
<b>Searches carried out</b>		
European searches (Euro + Euro-PCT supplm.)	42 121	48 875
PCT searches (PCT-SAE + PCT-SA)	30 358	37 452
Searches on behalf of national offices	15 002	15 459
Other searches	5 326	5 123
<b>Total production search</b>	<b>92 807</b>	<b>106 909</b>
<b>Examination: final actions performed</b>		
European examination	45 982	45 935
PCT Ch.II	19 795	25 039
Opposition (final action)	2 198	2 469
<b>Total final actions examination / opposition</b>	<b>67 975</b>	<b>73 443</b>
<b>Appeal</b>		
Technical appeals	903	954

PCT protests	9	8
Other appeals	52	63
<b>Total decisions appeal</b>	<b>964</b>	<b>1 025</b>

Cyprus completed preparations for acceding to the European Patent Convention and is, since April 1, 1998, the nineteenth EPC Member State.

The European Patent Convention was undersigned in Munich, on October, 5 1973. Representatives from the world of politics, business and patents paid tribute to the successful development of the European patent system on the basis of the EPC, initially ratified by 7 countries, a system offering a centralised granting procedure for 25 European States. By granting observer status to eight central and eastern European countries, the Organisation has set the European patent system on course to stretch from the Atlantic to the Baltic and the Black Sea.

In 1998, the Administrative Council of the European Patent Organisation adopted the President's proposal to cut search fees and set a ceiling for designation fees. From July, 1 1999, European procedural fees will fall by up to 18%. For applicants, that means savings to the tune of 85 mio DEM per year.

The mission of the European Patent Organisation is to promote the use of patent protection in Europe, in order to enhance the innovative strength and competitiveness of European industry, by providing an efficient and high quality regional system for patent protection exploiting the potential for synergy between national offices and the EPO.

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.

A further task of the EPO is to perform, on the behalf of national Patent Offices, novelty searches for the purpose of national procedures and to carry out state of the art searches. 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 1997 and 1998.

In 1998, 106 909 searches have been completed (+15% more than in 1997), the final actions in examination and opposition increased by 8% up to 73 443, and 1 025 decisions in appeal have been completed (+6%).

At the end of 1998, the Office's search files contained 26.1 million patent documents and 2.7 million technical or scientific articles. 1.2 million new documents were added to the collection in 1998, including 840 000 patent documents, 108 000 articles and 300 000 English-language abstracts of

patents from Japan and the former Soviet Union. The classification system used by the EPO is for the most part identical with the IPC. However, 54 800 additional sub-categories and 50 700 supplementary symbols allow greater scope for adapting the collection to the state of the art, resulting in 1998 in 118 200 additional classifications of documents already in the collection.

The use of the browser-technology in the EPO PHOENIX procedural system and the *epoline*<sup>®</sup> project prepare the EPO to enter the world of electronic commerce.

It is also the policy of the Organisation to intensify the awareness of patenting in Europe and to facilitate access to patent information.

In October 1998, the President introduced a new European patent information system to the public at a presentation in Paris jointly organised by the Office and Directorate-General XIII of the EU Commission. With the Internet patent server *esp@cenet*<sup>®</sup>, the technological knowledge published in patents is now accessible free of charge at mouse click. Linked together with the Commission's IPR Helpdesk, this largest such Internet patent server represents a major boost for the innovative capacity of European industry, in particular among small and medium-sized enterprises, inventors, research institution and universities.

The EPO is a producer of patent information products and systems and has set up databases that are not only available 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.

The EPO is involved in technical co-operation projects in many countries and regions of central and eastern Europe, CIS, Africa, Latin America, China and ASEAN. These projects, sometimes conducted on the behalf of the EU Commission, are aimed at building up and modernising industrial property systems in line with the provisions of the TRIPs Agreements. They also serve to establish an important legal framework for investment and technology transfer as part of these countries' trade and industry relations with the EU and other European states. In 1998, the EPO Academy organised jointly with other patent authorities 38 courses attended by about 1 000 trainees.

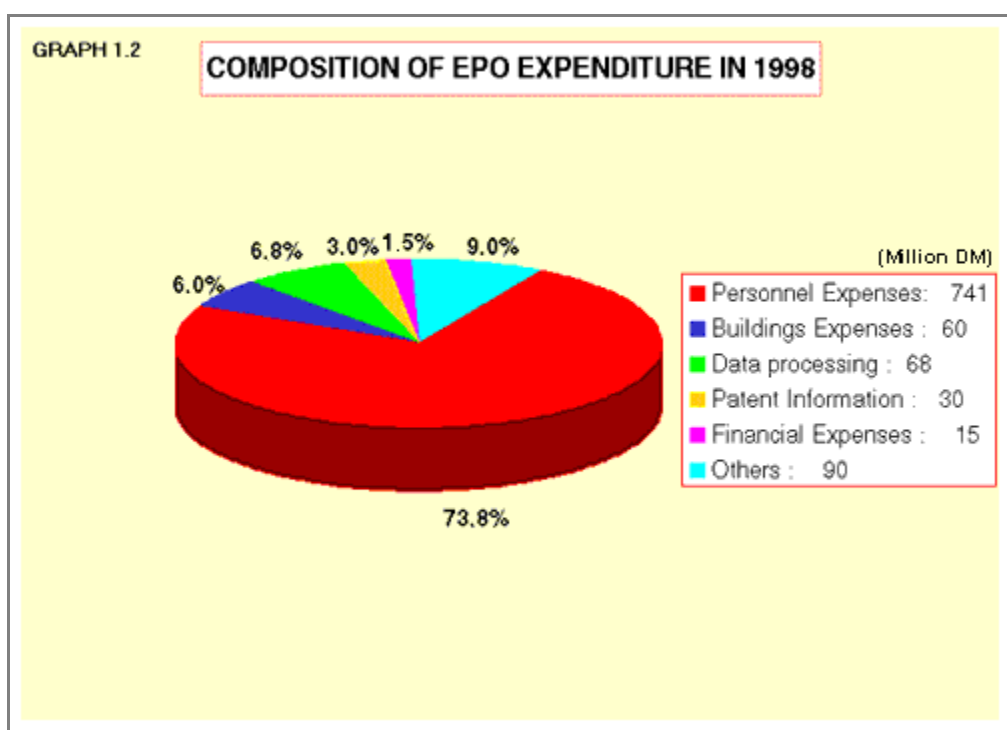
### **EPO's budget**

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 1998 (excluding investments) was DEM 1 004 million. Thereof DEM 741 million (73.8%) for Personnel Expenses, DEM 60 million (6%) for Buildings and Equipment (including depreciation), DEM 68 million (6.8%) for Data Processing (including depreciation), DEM 30 million (3%) for Patent Information including co-operation with the Contracting States, and DEM 15 million (1.5%) for Interest and Bank Charges, and DEM 90 million (9%) for Others were expended.

Total income to the Office in 1998 amounted to DEM 1 239 million of which DEM 235 million constituted the operating surplus.



### EPO Staff Composition

Following the large increase of its workload, the Office maintained its recruitment effort in 1998. By the end of the year, the staff reached a total of 4 027, thereof 2 198 (54.6%) involved in the patent grant procedures (including appeal), mainly examiners in search, examination and opposition (2 116) and members of Boards of Appeal (82).

## **JAPANESE PATENT OFFICE**

The role of the Japanese Patent Office (JPO) is to deal with the development of entire industry through planning, examination and appeal of the industrial property system involving patents, utility models, designs and trademarks.

As a result of rapid globalization and technological innovation in recent years, interest in the importance of intellectual property rights has risen dramatically. In response the JPO has been promoting measures as follows.

The JPO announced the Patent Policies for 2005, which sets out four core strategies: World-leading Operation, Effective Utilization of Patents, Globalization of IPR Policy and Patent Information Highway.

In a move to speed up the examination and appeal procedures for patents, designs and trademarks, the JPO has been striving to reduce the average time period to make the first office action (from the date of request for examination on patent applications or from the date of the demand for appeals) by the end of fiscal year 2000 to 12 months.

The JPO has been promoting the Paperless System which computerizes operations from filing to registration. The JPO started electronic filing in the fields of patents and utility models in December 1990 and introduced the system in April 1998 under which applicants can file applications electronically using general purpose personal computers on their desks. The JPO has been further developing the Paperless System in order to electronically deal with design/trademark applications, appeal examination procedures, and the PCT procedures entering the national phase. The JPO plans to start operating the improved Paperless System in January 2000.

The JPO provides industrial property information actively via the Internet. The JPO established the Industrial Property Digital Library on March 31, 1999. Through this library, industrial property information based on the documents stored in the JPO is provided free of charge with search functions.

Revision of the Patent Law, etc. was approved at the Diet in April 1998. Major revisions include revision of damage-compensation system, revision of the design system and the improvement of annual patent fees. The Industrial Property Council prepared a report in December 1998. Based on this report, a bill for a partial revision of such IP laws as the Patent Law was drafted. The Diet approved this bill in May 1999. Major revisions include shortening of the period of request for examination, revised litigation procedures and membership to the Madrid Protocol.

The JPO organized the International Patent Appeal Examination Symposium in Tokyo on November 19 and 20, 1998. This was the first international symposium on the appeal examination, and was held to discuss the direction of development of the appeal examination system towards the 21st century. The symposium was well attended and there was a useful exchange of

opinions during the session.

In order to improve IPR protection in developing countries in the Asia-Pacific region, the JPO has been extending technical cooperation in the fields of human resources development, modernization of IP offices and examination and search. Since 1996, the JPO has been implementing the "1,000 Trainee Program", which is to receive 1,000 IPR trainees in Japan from government offices and private sectors in the Asia-Pacific region by the year 2000.

In addition, to assist Japanese companies in using intellectual property rights against counterfeit products, the JPO has enhanced its activities for gathering and providing information on foreign enforcement system and the status quo of damages caused by counterfeits.

On March 26, 1999, the International Affairs Section of the Industrial Property Council made a report on three concrete goals (1. Establishment of transparent IP protection rules to be implemented on an international scale and earlier obtainment of international IP rights, 2. Satisfaction of the demands of society derived from technical innovations, and 3. Establishment of an attractive international business environment in which IP rights are respected) and measures to achieve goals for harmonizing industrial property systems on an international scale to keep up with the trend of globalization. To achieve these goals, the international Affairs Section suggested that the JPO should make efforts for the harmonization of industrial property systems through bilateral negotiations, multilateral negotiations at the next round of WTO and WIPO, and so on.

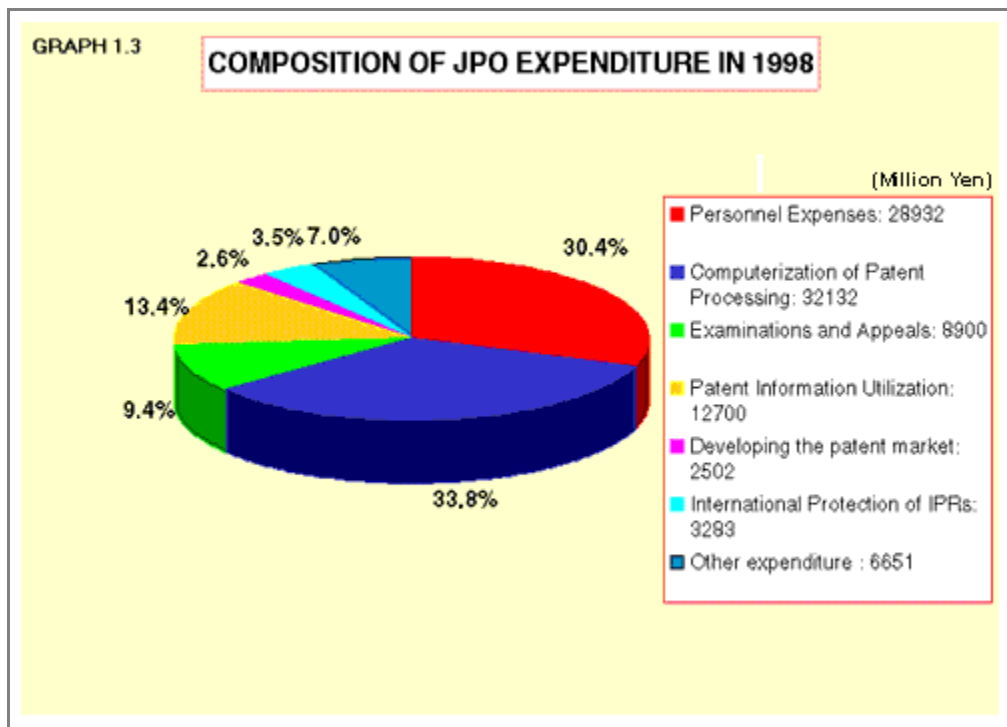
TABLE 1.2: PRODUCTION INFORMATION JPO

<b>PRODUCTION FIGURES 1997 AND 1998</b>		
	1997	1998
<b>Applications filed</b>		
Domestic	350 807	359 381
Foreign	40 765	42 551
<b>Total</b>	<b>391 572</b>	<b>401 932</b>
<b>Grants</b>		
Domestic	129 937	125 704
Foreign	17 749	15 744
<b>Total</b>	<b>147 686</b>	<b>141 448</b>
<b>Applications in appeals</b>	<b>13 742</b>	<b>14 157</b>

### **JPO's budget**

In July 1984, the JPO introduced a new accounting system, in which all expenditures are covered by its revenues. This system made it possible for the JPO to take comprehensive measures, such as the Paperless Project, to speed up its clerical procedures.

The JPO's budget for fiscal year 1998 was approximately 95.1 billion yen, of which 2 502 million yen was allocated to developing the patent market, 12 700 million yen for utilization of patent information, 32 132 million yen for developing the computerization of patent processing, 8 900 million yen for examinations and appeals, 3 283 million yen for International Protection of IPRs, 368 million yen for the reinforced patent training program and 28 932 million yen for personnel expenses.



### JPO Staff

In order to speed up the examination and appeal process, staff number has been increased. At the end of 1998 fiscal year, there was a total of 2 531 JPO examiners and other officials: 1 264 examiners (1 078 patent and utility model examiners, 49 design examiners, and 137 trademark examiners), 383 appeal examiners in the Department of Appeal and 884 clerical officials.



## 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.

To be competitive in the 21<sup>st</sup> century market place, the USPTO recognizes the importance of customer satisfaction. Therefore, our focus is to achieve customer satisfaction via enhanced production, timeliness and quality. This is being accomplished through our commitments to:

- Process all inventions in 12 months (to be achieved in 2003).
- Render a trademark first action in three months (to be achieved in 2000 and maintained in 2001).
- Offer electronic filing to our customers (under way in Trademarks, to be piloted in Patents in 2000).
- Electronically process trademark applications (in 2002) and patent applications (in 2003).
- Partner with WIPO to achieve electronic filing of PCT applications and to electronically receive and process PCT applications at the PTO (in 2000).
- Enable customers to use the Internet to request the status of their patent and trademark applications, to place orders and receive products, and to access patent and trademark data (ongoing).
- Continually assess the PTO fee structure to ensure it encourages participation in the patent and trademark systems and reflects costs (ongoing).
- Offer PTO employees innovative training programs and work-at-home opportunities (ongoing).

These High-Impact Agency commitments build upon the USPTO's strategic and annual performance plans produced as a result of the Government Performance and Results Act of 1993 as well as ongoing quality improvement efforts. The USPTO is a strong advocate of this process and has incorporated these and supporting business goals in its fiscal year 2000 Corporate Plan that can be viewed on the Internet at <http://www.uspto.gov>. USPTO's contribution and support of the Department of Commerce's (DOC) mission can be viewed in the DOC strategic plan at their Internet address at <http://www.uspto.gov>.

In 1998, the Patent Business focused on the quality of its products and

improving customer service. Significant accomplishments in the Patent Business included the continuing effort to reduce processing times. In order to manage the growth in application filings, Patents hired 728 new examiners in fiscal year 1998 and is on track to hire 700 new examiners in fiscal year 1999. In the Pre-examination area, the time needed for initial processing of patent applications was reduced by over 100 days. Applicants are now receiving filing receipts in less than one month, as compared to four months at the beginning of 1998.

A Patent Working Lab to test reengineered processes opened on March 30, 1998. The Lab was comprised of 24 participants, representing various technologies throughout the Patent Corps. The Lab participants were grouped into four teams. Each team was comprised of four adjudicators (examiners), one analyst, and one assistant. The goals of the Lab were:

1. improving patent application processing;
2. training technical support personnel to perform higher-level functions and thereby enable the examiners to focus their time on legal and technical functions;
3. encouraging teamwork and collaboration between team members;
4. improving examination quality; and
5. improving both customer and employee satisfaction.

After nine months of operation, Lab employees have demonstrated enthusiasm about working in the Lab environment. More specifically, the Technical Support Staff (TSS) working in the Lab has demonstrated that they can effectively perform several tasks traditionally performed by examiners. Not only does this provide the TSS additional 'up-skilling' opportunities and transition them to an automated environment, but it also enables patent examiners to focus more on the legal and technical aspects of the application. This concept supports the USPTO's strategic direction and would result in marked improvements in customer and employee satisfactions and greater quality of work products.

Consistent with what we have learned from the Patent Working Lab, we are committed to full electronic processing and to this end we will test automated systems, and be ready to deploy electronic processing of patent applications in 2003.

We currently scan all incoming patent applications. In August 1998, we built upon this technology using commercially available optical character recognition (OCR) technology to capture bibliographic data from the application submitted to the PTO 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.

Currently, customers can order certified and uncertified copies of Office records through Internet e-mail and contact the PTO concerning the status of orders. We also have an Adobe Acrobat Reader "fill in" form link from the

PTO home page for people who want to order patent and trademark copies electronically. At the present time, we do not deliver any products electronically over the Internet. By September 1999, the next generation Order Entry Management System will accept orders in HTML via the Internet permitting customers to check the status of their orders and receive some products electronically. Also, beginning in fiscal year 1999, patent and trademark assignment customers will be able to send assignment-related documents via the Internet directly to the Patent and Trademark Assignment System server for processing and recordation. By September 2000, we plan to send back recordation notices electronically to those who submit assignment-related documents electronically.

The USPTO has made substantial progress preparing for the Year 2000. As of November 1998, we had completed 66% of the work on our 35 mission-critical systems. Of those, 23 are fully Y2K compliant; we will repair or replace the others by the end of June 1999, with most finished by March. Those legacy systems which may not be replaced in time are being modified to ensure they are Y2K compliant. By the end of FY 1998, we had budgeted over \$7.2 million directly to resolving Y2K issues. We expect to spend \$3.4 million more over the next two years to coordinate and monitor replacement and repair work and validate Y2K compliance, and an additional \$16.4 million in FY 1999 to replace legacy systems and major components. Our contingency plans include establishing manual procedures to protect us against the failure of one or more mission-critical systems, and promptly prioritizing and resolving any failures that do occur.

We use a variety of methods to obtain information on the level of customer satisfaction with our products and services including surveys, focus sessions, roundtable discussions, and town hall meetings. In 1998, for example, we conducted a postal survey of more than 6,000 patent customers. A similar survey is planned for FY 1999. We use our client feedback to determine our customers' expectations of our services and to identify areas where we must improve to meet these expectations.

In October 1998 and January 1999, the USPTO held a one-on-one dialogue with major customers and other stakeholders on end-outcome and results-oriented performance goals and indicators. These sessions served as a unique forum for our stakeholders in assisting the USPTO to define the public value it creates and the role we play in the protection of patents and trademarks and other intellectual property rights as we move into the next millennium.

Our customers articulated their desire for reasonable fee rates that support the programs of the USPTO. The United States Patent and Trademark Office Reauthorization Act, Fiscal Year 1999, which was enacted on November 10, 1998, reduced major patent fees by about six percent for an overall cost avoidance to our customers of about \$50 million.

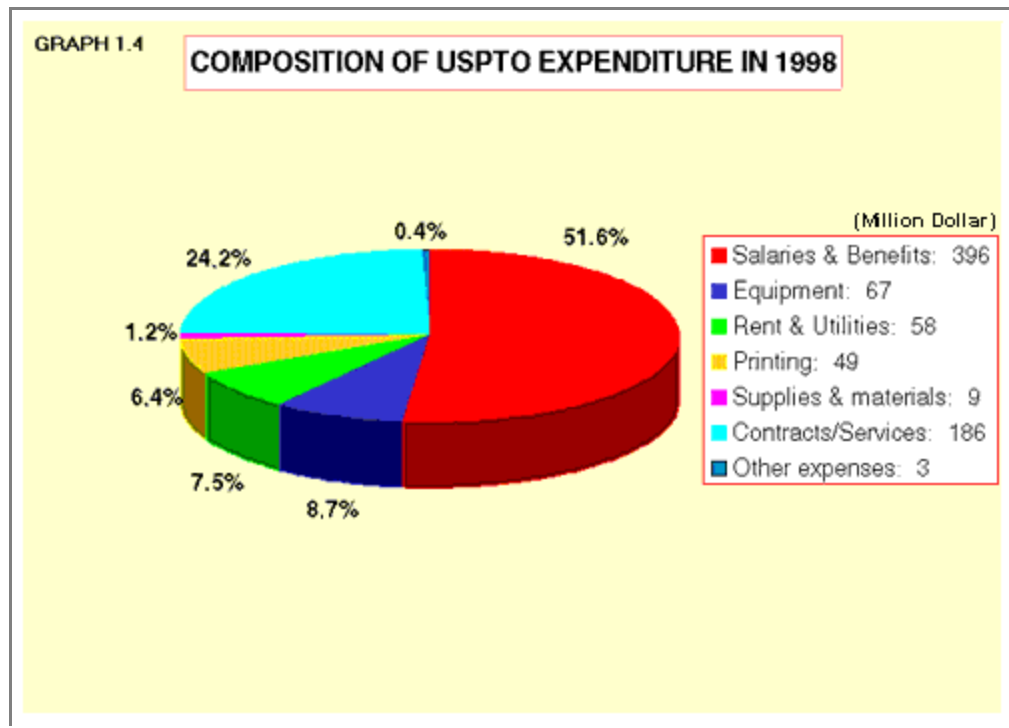
TABLE 1.3 : PRODUCTION INFORMATION USPTO

<b>PRODUCTION FIGURES 1997 AND 1998</b>
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	1997		1998	
<b>Applications filed<sup>1</sup></b>	215 257		243 062	
<b>First actions</b>	187 978		209 180	
<b>Grants</b>				
U.S. residents	61 707	55.1%	80 292	54.4%
Japan	23 179	20.7%	30 841	20.9%
EPC	18 635	16.6%	25 693	17.4%
Others	8 463	7.6%	10 694	7.2%
Total Foreign	50 277	44.9%	67 228	45.6%
<b>Total</b>	<b>111 984</b>	<b>100.0%</b>	<b>147 520</b>	<b>100.0%</b>
PCT Chapter II	11 671		13 030	
<b>Applications in appeals and interference proceedings</b>				
	Appeals	Interference	Appeals	Interference
Contested	4 328	282	3 889	165
Disposed	2 911	124	4 286	191
Not allowed	1 953	-	-	-
Pending at EOY	7 852	296	8 908	425
<b>Number of patent cases in litigation</b>				
Total cases filed	51		51	
Total case disposed	61		40	
Total EOY <sup>2</sup> cases pending	36		47	

### USPTO's budget

The USPTO funding is depending upon fees collected from its users. During 1998 the USPTO income was comprised of patent expenditures of \$675 208 247 and the trademark expenditures of \$92 399 716. The USPTO incurred \$767 607 425 in expenditures in 1998. Expenditures for salaries and benefits constituted the largest cost at 51.6% 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, 1998), the total Patent staff was 4 287. This total was comprised of 2 594 Utility, Plant and Reissue (UPR) examiners, 56 Design examiners, 1 530 managerial, administrative and technical support staff, 21 members of the Patent Quality Review staff, and 86 members of the Board of Patent Appeals and Interferences<sup>3</sup>.

<sup>1</sup> For utility patent only

<sup>2</sup> End of Year (EOY) is the calendar year (December 31st)

<sup>3</sup> Interference is generally defined as when two or more patent applications conflict because of claims to the same invention.