



United States
General Accounting Office
Washington, D.C. 20548

Resources, Community, and
Economic Development Division

B-270918

May 22, 1996

The Honorable Dana Rohrabacher
House of Representatives

Dear Mr. Rohrabacher:

Public Law 103-465, enacted on December 8, 1994, changed the term for most patents¹ granted by the United States from 17 years from the date of issuance to 20 years from the date of the earliest filing of an application. This change, which applies to new applications filed after June 7, 1995, raised concerns about patent pendency—the length of time that the Patent and Trademark Office (PTO) spends in examining an application to determine whether the invention should receive a patent. Because a patent's owner cannot enforce his or her rights until the patent is issued, the time frame for issuance reduces the effective term of the patent that is left to the inventor under the new law.

As you requested, we have assembled data on recent patent applications to answer the following four questions:

- In computing pendency, how does PTO consider applications that resulted in the issuance of a patent, unsuccessful applications that were rejected or withdrawn, and applications still under consideration?
- Does pendency differ by type of invention or other factors?
- Would pendency differ depending on whether PTO uses the earliest rather than the most recent filing date of an application?
- To what extent do the applicants themselves contribute to pendency?

¹A patent is a grant given to an inventor, his heirs or assigns by the United States of the right to exclude others for a limited time from making, using, or selling the invention in this country.

We based our analyses on automated data² we obtained from PTO on (1) all patents issued or applications abandoned³ during fiscal year 1994—the latest year for which complete data were available at the time of our work—and (2) all patent applications still in process as of October 1, 1994. The results of our analyses are shown in several tables, which are included in enclosure I. Additional information on our scope and methodology is included in enclosure II.

In summary, we found that (1) PTO's calculation of pendency considers issued patents and abandoned applications but not applications still under examination; (2) pendency tends to be higher when the application involves a complex invention, such as a computer system, or has national security implications; (3) pendency would have been greater if the earliest rather than the most recent application filing date was used; and (4) while precise quantification is not possible, a portion of pendency was caused by the applicants themselves.

BACKGROUND

The patent application examination process consists of several progressive phases. An applicant files a patent application with PTO, which subjects the application to reviews for accuracy and completeness during a preexamination phase. Following preexamination, the application is assigned, or "docketed," to an examiner within an examination group that has expertise in a specific field, such as computer systems or biotechnology.

At this point, the examiner begins the process of determining whether the invention is a new and useful process or product that should receive a patent. Usually early in the process, the examiner makes a preliminary decision, or "first action," which may then be followed by a series of contacts with the applicant to resolve questions and/or obtain additional information. Possibly after a number of actions by the examiner, PTO will decide whether to issue a patent. If PTO decides to issue a patent, termed an "allowance," it informs the

²The portion of the automated system that we used for our analyses is PTO's Patent Application Location and Monitoring system, which PTO uses to track and to record dates and other key information on patent applications in process.

³As used by PTO, an "abandoned" application is any application that does not result in an issued patent and is eventually taken out of the examination process by the applicant or by PTO.

applicant and, upon the payment of the necessary fees, issues the patent. The application may be abandoned during any of these stages.

PTO defines pendency as the period from the date that an application is filed until the date a patent is issued or the application is abandoned. PTO computes average pendency as the total number of months for all patents issued or applications abandoned over a particular period, divided by the total number of applications for that period.

According to PTO, pendency peaked at 25.5 months in fiscal year 1983, declined each year for the next 8 years, and reached a low point of 18.2 months at the end of fiscal year 1991. In its fiscal year 1994 annual report and other publications, PTO reported an overall average patent pendency of 19 months. To provide a baseline for comparison purposes, we computed pendency in total and by examination phase for all patents issued or abandoned during fiscal year 1994. Overall, we calculated a pendency of 20.2 months. (See table I.1 of enclosure I.) On the basis of our analysis of the automated database and discussions with PTO officials, we believe these differences are the result of the following three related factors:

- First, the pendency reported by PTO is the pendency for patents issued or applications abandoned in the final quarter of the fiscal year. Our computations of pendency are based on all patents issued or applications abandoned throughout the fiscal year.
- Second, PTO's computations are based on preliminary data, as the automated database continues to be updated after the end of the fiscal year. For example, in its annual report for fiscal year 1994, PTO reported 113,268 patents issued and 69,909 applications abandoned, or a total of 183,177 applications. The automated files provided to us contained information on 113,684 issued patents and 73,949 abandoned applications, or a total of 187,633 applications. Thus, our computations are based on 4,456 more files than were PTO's.
- Third, PTO's reported pendency includes utility, plant, and reissue patents but not design patents.⁴ Our computations include all four groups.

⁴Utility (process, machine, manufacture, or composition of matter) and plant (asexually propagated plant) patents had a term of 17 years from the date of issuance under the old law and 20 years from the date of filing under the new law. Reissued patents (replacement of defective patents) are for the unexpired

According to PTO statistics, the percentage of patents issued during fiscal year 1994 were broken down as follows: 89.4 percent were utility patents, 9.8 percent were design patents, 0.5 percent were plant patents, and 0.3 percent were reissued patents.

In commenting on a draft of this report, PTO officials agreed that these factors accounted for the differences in the computation of pendency for fiscal year 1994. Our computed pendency of 20.2 months is used throughout this report when comparisons are made to overall average pendency because it is more complete than PTO's computation.

PTO'S CALCULATION OF PENDENCY CONSIDERS ABANDONED APPLICATIONS BUT NOT APPLICATIONS IN PROCESS

Average pendency is an important factor in any consideration of the patent examination process because it provides (1) the inventor with an estimate of how long PTO is likely to take to issue a patent on an application, (2) PTO with information on how it is managing its workload, and (3) decisionmakers such as the Congress and the administration with some method of measuring results. However, we believe that the overall average pendency reported by PTO is of limited use to inventors or decisionmakers because of both what it includes—data on abandoned applications—and what it does not include—data on applications still in process.

The pendency for the patents issued in fiscal year 1994 was 21.3 months, which is 1.1 months higher than the overall pendency of 20.2 months. We believe that information on abandoned applications, while of limited value to inventors overall, is an important measure for PTO. This is because abandoned applications represent a significant part of PTO's workload. During fiscal year 1994, 73,949 applications were abandoned; their average pendency was 18.3 months. Thus, PTO spends a considerable amount of time examining or awaiting responses on applications that will not result in the issuance of a patent. (See tables I.2 and I.3.)

Because PTO does not report outside the agency an average age for work in process, we developed separate statistics for applications in process as of October 1, 1994. Since these applications could be at any stage from filing to

part of the term of the original patent. The term of a design (configuration, shape, or surface ornamentation) patent remained unchanged at 14 years from the date of issuance.

issuance, or abandonment, we limited our analysis to creating an overall summary that would show how long the applications had been filed. As of October 1, 1994, 294,565 applications had been filed but not issued or abandoned; their average pendency was 16 months. Of this total number still in process, 14.8 percent were more than 2 years old, 5.2 percent were more than 3 years old, and 2.7 percent were more than 4 years old. (See table I.4.)

In commenting on a draft of this report, PTO officials provided us with the results of an analysis they had made of work in process as of October 1, 1994. This analysis agreed with our computations and went further in explaining some of the reasons for the older applications. While we did not verify PTO's statistics, they indicate that 55 percent of the applications that were more than 2 years old had experienced delays—such as those created by secrecy orders and appeals—beyond PTO's control.

PENDENCY VARIES BY INVENTION TYPE AND OTHER FACTORS

Patent applications cover a broad range of inventions. To determine whether pendency varies by invention type and other factors, we compared pendency in fiscal year 1994 for individual examination groups, applications subject to secrecy orders,⁵ and foreign applications. We found that (1) pendency can vary significantly among the examination groups, (2) applications subject to secrecy orders have high pendency themselves but little effect on overall pendency because of their limited number, and (3) pendency for applications from foreign residents is only slightly higher than for all applications.

Examination Groups

One of the functions of preexamining an application is to determine the examination group within PTO to which the application should be assigned. Each examination group specializes in a broad type of application and is divided into subunits that have greater degrees of specialization.

Overall average pendency was highest—at 27.6 months—in the Computer Systems group and lowest—at 16.9 months—in the Solar, Heat, Power, and Fluid Engineering Devices group. These same two examination groups also had the highest and lowest pendency rates for issued patents—29 months compared with

⁵Patent applications for inventions that could affect national security interests can be placed under a secrecy order by PTO if the applicable federal agency determines that such protection is necessary.

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17.8 months—and abandoned applications—26 months compared with 14.1 months. (See tables I.5 through I.7.)

Secrecy Orders

Patent applications subject to secrecy orders are assigned to a separate examination group. PTO will not issue a patent or permit an abandonment on an application while it is subject to a secrecy order; thus, such applications technically remain under examination until the secrecy order is lifted. Applications subject to secrecy orders have a higher pendency but have little effect on overall pendency because they are relatively few in number.

Only 464 patents issued or applications abandoned during fiscal year 1994 had ever been subject to secrecy orders. Pendency for these was high, averaging 62.9 months in total, 67.5 months for issued patents, and 51.6 months for abandoned applications. However, such applications raised overall pendency by only 0.1 month. (See tables I.8 through I.10.) As of October 1, 1994, PTO had 3,653 applications still in process that were or at one time had been subject to secrecy orders. These ranged from 2.2 to 189.3 months old and had an average pendency of 86.2 months. (See table I.11.)

Foreign Applications

A patent application is considered by PTO to have originated in a foreign country if the first applicant named in the application is a foreign resident. We compared the average pendency for foreign applicants with pendency for all patents issued or applications abandoned during fiscal year 1994.

Overall, the average pendency for foreign applications—which accounted for 36.8 percent of all patents issued or applications abandoned—was 20.9 months compared with 20.2 months for all applications. Foreign patents issued had a pendency of 21.9 months compared with 21.3 months for all patents issued. Foreign applications abandoned had a pendency of 19.2 months compared with 18.3 months for all applications abandoned. (See tables I.12 through I.14.)

PENDENCY WOULD HAVE BEEN GREATER IF ORIGINAL FILING DATE HAD BEEN USED

According to PTO officials, an application may spawn other applications during the examination period. This can be done through a "division," whereby the application is split after PTO determines that it contains more than one invention, or through a "continuation," whereby the applicant has chosen to

continue prosecution of the same invention described and claimed in the original application. The new, or current, application is referred to by PTO as the "child" and the earlier application is referred to as the "parent." Several generations of applications are possible from one invention.

According to PTO officials, in calculating pendency, PTO uses the date that each new application is filed. This practice is consistent with PTO's primary use of the pendency statistics as internal workload measurement tools. Also, the filing date for measuring pendency was of less importance under the old law because a patent's term did not begin until the patent was issued.

Under the new law, the patent will be effective when issued, but the term for most patents will be measured from the earliest filing date relating to the particular invention. The new law will affect only those utility and plant applications filed after June 7, 1995. However, to determine what pendency would have been if the application date of the parent had been used, we recalculated overall pendency for both the patents issued and applications abandoned during fiscal year 1994 and applications in process as of October 1, 1994. In fiscal year 1994, 49,686, or 26.5 percent, of the patents issued or applications abandoned had a parent application.⁶ Using the application date of the parent instead of the current application date, average pendency would have been 28 months instead of 20.2 months overall, 28 months instead of 21.3 months for issued patents, and 28.1 months instead of 18.3 months for abandoned applications. (See table I.15.)

As of October 1, 1994, 87,437, or 29.7 percent, of the applications still in process had parent applications. Using the original rather than the current application filing date would raise the average pendency for all applications still in process from 16 months to 25 months.

If only those patents and applications that had a parent were considered, the difference in pendency is even more pronounced. For fiscal year 1994, the 49,686 patents and applications with a parent had an average pendency of 17.9 months if the current application date were used and 47.7 months if the application date for the parent were used. The average pendency would have been 46.9 months instead of 19.4 months for issued patents, 48.5 months instead of 16.1 months for abandoned applications, and 45 months instead of 14.6 months for applications still under examination. (See table I.16.)

⁶This includes design patents.

APPLICANTS THEMSELVES CONTRIBUTE TO PENDENCY

In many cases, PTO cannot complete the examination until the applicant has taken some further action. For example, (1) the applicant may have filed an incomplete application that must be corrected before it can be assigned to an examination group, (2) the applicant may need to answer some question or provide PTO with some additional information, or (3) PTO may have to wait for the payment of a fee before it can proceed with the examination process.

We could not determine precisely how much pendency is attributable overall to the applicant, since PTO's automated system does not retain information on each contact with the applicant. However, we did calculate the elapsed time for certain responses from applicants to official actions by PTO, using data that PTO maintains on such responses and includes in its own automated reports.

During PTO's examination, the examiner makes a preliminary decision on the merits of the application as filed. At such time, the examiner may ask the applicant to respond to questions or provide the examiner with information. This process may occur a number of times. For patents issued or applications abandoned during fiscal year 1994, we compared the dates between PTO's actions and the applicants' responses for the first three such responses recorded on the subject applications.

The need for applicants' responses added to the time that applications were pending. Of the 187,633 patents issued and applications abandoned during fiscal year 1994, the applicants had provided examiners with responses at least once for 125,949 applications, at least twice for 36,887 applications, and at least thrice for 7,955 applications. The filers' response time added 3.6 months to the overall average pendency, 3.7 months to the average pendency for issued patents, and 3.4 months to the average pendency for abandoned applications. Thus, the average pendency without these response times would have been 16.6 months instead of 20.2 months overall, 17.6 months instead of 21.3 months for issued patents, and 14.9 months instead of 18.3 months for abandoned applications. (See tables I.17, I.18, and I.19.)

In commenting on a draft of this report, PTO officials stated that the portion of pendency attributable to the applicant actually is much higher than the average response times that we computed. PTO officials explained that at other times throughout the examination process, the applicant can create delays. In this regard, PTO officials provided us with the results of their own analysis of PTO's fiscal year 1994 database, which showed an additional average of 3.8 months attributable to applicants' delays. While we did not verify the accuracy of

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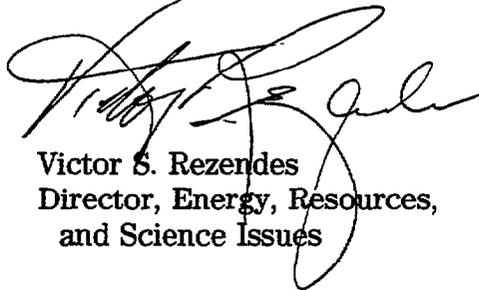
PTO's computations, we note that adding the 3.8 months to the 3.6 months we computed for applicants' responses alone means that, on average, about 7.4 months of the 20.2 months of pendency for fiscal year 1994 was attributable to the applicants themselves.

AGENCY COMMENTS

We provided a draft of this report to the Department of Commerce for review and comment. We met with officials of the Department, including PTO's Director of Budget within the Office of the Comptroller and the Patent Program Administrator, who agreed with the report's findings. The officials also provided us with technical corrections and clarifications that we incorporated where appropriate.

We will make copies of this report available to others on request. If you or your staff have any questions or need additional information, please call me at (202) 512-3841. Major contributors to this report are listed in enclosure III.

Sincerely yours,



Victor S. Rezendes
Director, Energy, Resources,
and Science Issues

Enclosures - 3

Table I.1: Patent Pendency by Examination Phase for Patents Issued or Applications Abandoned During Fiscal Year 1994

Examination phase	Number of applications ^a	Pendency in months		
		Average	Range	
			Low	High
Filing to docketing	186,162	2.9	.3	232.8
Docketing to first action	184,634	5.8	.1	120.5
First action to allowance	118,327	6.5	.1	155.2
Allowance to issuance or abandonment	118,304	6.3	.1	153.2
Overall--filing to issuance or abandonment	187,633	20.2	.1	308.5

^aThe automated files that the Patent and Trademark Office (PTO) provided us with did not always include usable dates for each examination phase. Our computations for each phase are based on those applications for which data were available; thus, the number of applications for a particular phase may not equal the number of patents issued or applications abandoned overall.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.2: Patent Pendency by Examination Phase for Patents Issued During Fiscal Year 1994

Examination phase	Number of applications ^a	Pendency in months		
		Average	Range	
			Low	High
Filing to docketing	113,651	2.7	0.4	232.8
Docketing to first action	113,277	5.8	0.1	120.5
First action to allowance	113,188	6.5	0.1	155.2
Allowance to issuance or abandonment	113,216	6.4	0.2	153.2
Overall--filing to issuance	113,684 ^b	21.3	4.5	308.5

^aThe automated files that PTO provided us with did not always include usable dates for each examination phase. Our computations for each phase are based on those applications for which data were available; thus, the number of applications for a particular phase may not equal the number of patents issued overall.

^bAccording to PTO officials, the 113,684 patents identified as issued in PTO's computer database included 402 reexamination applications that PTO did not report as patents issued in its annual report.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.3: Patent Pendency by Examination Phase for Applications Abandoned During Fiscal Year 1994

Examination phase	Number of applications ^a	Pendency in months		
		Average	Range	
			Low	High
Filing to docketing	72,511	3.1	.3	167.8
Docketing to first action	71,357	5.8	.1	82.7
First action to allowance	5,139	6.1	.1	121.6
Allowance to issuance or abandonment	5,088	4.0	.1	135.5
Overall--filing to abandonment	73,949	18.3	.1	183.3

^aThe automated files PTO provided us with did not always include usable dates for each examination phase. Our computations for each phase are based on those applications for which data were available; thus, the number of applications for a particular phase may not equal the number of applications abandoned overall.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.4: Age of Patent Applications in Process as of October 1, 1994

Age from date of filing in months	Number of applications	Percent of total
3.0 or less	12,121	4.1
3.1 - 6.0	40,802	13.9
6.1 - 9.0	45,520	15.5
9.1 - 12.0	44,032	14.9
12.1 - 15.0	37,762	12.8
15.1 - 18.0	31,866	10.8
18.1 - 21.0	22,706	7.7
21.1 - 24.0	16,238	5.5
24.1 - 36.0	28,168	9.6
36.1 - 48.0	7,388	2.5
48.1 or more	7,962	2.7
Total	294,565	100.0

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.5: Patent Pendency by Examination Group for Patents Issued or Applications Abandoned During Fiscal Year 1994

Group	Description	Number of applications	Pendency in months		
			Average	Range	
				Low	High
1100	General, metallurgical, inorganic, petroleum and electrical chemistry and engineering	13,477	19.7	0.1	151.8
1200	Organic chemistry drug, etc.	9,253	18.8	0.8	177.2
1300	Specialized chemical industries, etc.	8,239	19.3	0.6	128.6
1500	High polymer chemistry, plastics, coating, photography, etc.	15,550	20.2	0.1	101.8
1800	Biotechnology	13,094	21.5	0.1	164.0
2100	Industrial electronics, physics, etc.	10,374	20.5	0.1	152.8
2200	Special laws administration	4,220	24.7	0.8	185.8
2300	Computer systems, etc.	9,181	27.6	1.9	134.0
2400	Packages, cleaning, textiles, and geometrical instruments	10,507	17.2	0.2	103.9
2500	Electronic/optical systems, etc.	14,493	20.6	0.1	140.1
2600	Communications, measuring, testing and lamp/discharge group	13,371	22.7	0.1	308.5
2900	Special designs	17,036	23.0	1.1	126.2
3100	Handling and transporting media	8,501	17.8	2.1	103.9
3200	Material shaping, tools, etc.	8,646	17.0	0.9	115.7
3300	Medical technology, sporting goods, etc.	12,056	18.2	0.1	137.7
3400	Solar, heat, power and fluid engineering devices	8,424	16.9	1.9	97.2
3500	Construction, petroleum and mining engineering	9,764	18.4	1.5	128.2
	Not determined	1,447	N/A	N/A	N/A
Total		187,633	20.2	0.1	308.5

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.6: Patent Pendency by Examination Group for Patents Issued During Fiscal Year 1994

Group	Description	Number of applications	Pendency in months		
			Average	Range	
				Low	High
1100	General, metallurgical, inorganic, petroleum and electrical chemistry and engineering	8,346	20.7	5.1	151.8
1200	Organic chemistry drug, etc.	5,234	20.0	4.9	145.3
1300	Specialized chemical industries, etc.	4,698	20.3	5.0	128.6
1500	High polymer chemistry, plastics, coating, photography, etc.	8,360	21.4	4.5	101.8
1800	Biotechnology	4,209	25.0	5.0	164.0
2100	Industrial electronics, physics, etc.	7,093	21.4	4.8	152.8
2200	Special laws administration	2,964	25.8	5.3	185.8
2300	Computer systems, etc.	4,960	29.0	4.9	95.7
2400	Packages, cleaning, textiles, and geometrical instruments	6,364	18.9	5.3	103.9
2500	Electronic/optical systems, etc.	9,819	21.4	5.1	139.1
2600	Communications, measuring, testing and lamp/discharge group	7,932	24.4	6.0	308.5
2900	Special designs	11,142	23.2	5.2	126.2
3100	Handling and transporting media	5,940	19.0	5.6	95.5
3200	Material shaping, tools, etc.	6,106	18.0	5.6	115.7
3300	Medical technology, sporting goods, etc.	7,273	19.9	5.4	112.9
3400	Solar, heat, power and fluid engineering devices	6,447	17.8	4.8	93.0
3500	Construction, petroleum and mining engineering	6,792	19.6	5.0	93.7
	Not determined	5	N/A	N/A	N/A
Total		113,684	21.3	4.5	308.5

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.7: Patent Pendency by Examination Group for Applications Abandoned During Fiscal Year 1994

Group	Description	Number of applications	Pendency in months		
			Average	Range	
				Low	High
1100	General, metallurgical, inorganic, petroleum and electrical chemistry and engineering	5,131	18.2	0.1	128.3
1200	Organic chemistry drug, etc.	4,019	17.2	0.8	177.2
1300	Specialized chemical industries, etc.	3,541	18.0	0.6	86.0
1500	High polymer chemistry, plastics, coating, photography, etc.	7,190	18.8	0.1	96.1
1800	Biotechnology	8,885	19.9	0.1	159.5
2100	Industrial electronics, physics, etc.	3,281	18.6	0.1	112.2
2200	Special laws administration	1,256	22.3	0.8	183.3
2300	Computer systems, etc.	4,221	26.0	1.9	134.0
2400	Packages, cleaning, textiles, and geometrical instruments	4,143	14.7	0.2	91.8
2500	Electronic/optical systems, etc.	4,674	18.9	0.1	140.1
2600	Communications, measuring, testing and lamp/discharge group	5,439	20.2	0.1	99.2
2900	Special designs	5,894	22.5	1.1	100.1
3100	Handling and transporting media	2,561	15.1	2.1	103.9
3200	Material shaping, tools, etc.	2,540	14.6	0.9	111.2
3300	Medical technology, sporting goods, etc.	4,783	15.6	0.1	137.7
3400	Solar, heat, power and fluid engineering devices	1,977	14.1	1.9	97.2
3500	Construction, petroleum and mining engineering	2,972	15.4	1.5	128.2
	Not determined	1,442	N/A	N/A	N/A
Total		73,949	18.3	0.1	183.3

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.8: Patent Pendency for Applications at One Time Subject to Secrecy Orders--Patents Issued or Applications Abandoned During Fiscal Year 1994

Application type	Number of applications	Pendency in months		
		Average	Range	
			Low	High
Secrecy order	464	62.9	7.7	185.8
No secrecy order	187,169	20.1	0.1	308.5
Total	187,633	20.2	0.1	308.5

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.9: Patent Pendency for Applications at One Time Subject to Secrecy Orders--Patents Issued During Fiscal Year 1994

Application type	Number of applications	Pendency in months		
		Average	Range	
			Low	High
Secrecy order	330	67.5	8.8	185.8
No secrecy order	113,354	21.2	4.5	308.5
Total	113,684	21.3	4.5	308.5

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.10: Patent Pendency for Applications at One Time Subject to Secrecy Orders--Applications Abandoned During Fiscal Year 1994

Application type	Number of applications	Pendency in months		
		Average	Range	
			Low	High
Secrecy order	134	51.6	7.7	183.3
No secrecy order	73,815	18.3	0.1	177.2
Total	73,949	18.3	0.1	183.3

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.11: Patent Pendency for Applications at One Time Subject to Secrecy Orders and Still in Process as of October 1, 1994

Application type	Number of applications	Pendency in months		
		Average	Range	
			Low	High
Secrecy order	3,653	86.2	2.2	189.3
No secrecy order	290,912	15.1	0.4	188.6
Total	294,565	16.0	0.4	189.3

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.12: Patent Pendency for Foreign Applications--Patents Issued or Applications Abandoned During Fiscal Year 1994

Application type	Number of applications	Pendency in months		
		Average	Range	
			Low	High
Foreign	68,962	20.9	.1	177.2
Domestic	118,671	19.7	.1	308.5
Total	187,633	20.2	.1	308.5

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.13: Patent Pendency for Foreign Applications--Patents Issued During Fiscal Year 1994

Application type	Number of applications	Pendency in months		
		Average	Range	
			Low	High
Foreign	42,774	21.9	4.8	166.2
Domestic	70,910	21.0	4.5	308.5
Total	113,684	21.3	4.5	308.5

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.14: Patent Pendency for Foreign Applications--Applications Abandoned During Fiscal Year 1994

Application type	Number of applications	Pendency in months		
		Average	Range	
			Low	High
Foreign	26,188	19.2	.1	177.2
Domestic	47,761	17.8	.1	183.3
Total	73,949	18.3	.1	183.3

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.15: Comparison of Pendency Using Current and Original Application Filing Dates for Patents Issued or Applications Abandoned During Fiscal Year 1994 and Applications in Process as of October 1, 1994

Application type	Number of current applications	Pendency in months	
		Current filing date	Original filing date ^a
Fiscal year 1994			
Issued	113,684	21.3	28.0
Abandoned	73,949	18.3	28.1
Total	187,633	20.2	28.0
In process, Oct. 1, 1994	294,565	16.0	25.0

^aOriginal parent application filing date if application had a parent, current application filing date if there was no parent.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.16: Comparison of Pendency on Child Applications. Using Current and Original Application Filing Dates for Patents Issued or Applications Abandoned During Fiscal Year 1994 and Applications in Process as of October 1, 1994

Application type	Number of applications with parent	Pendency in months	
		Current filing date	Original filing date ^a
Fiscal year 1994			
Issued	27,526	19.4	46.9
Abandoned	22,160	16.1	48.5
Total	49,686	17.9	47.7
In process, Oct. 1, 1994	87,437	14.6	45.0

^aOriginal parent application filing date.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.17: Patent Pendency Attributable to Applicants' Response Time for Patents Issued or Applications Abandoned During Fiscal Year 1994

Pendency attributable to	Number of applications ^a		Average pendency in months
Applicants' responses:			
First response	125,949		
Second response	36,887		
Third response	7,955		
No response	61,684		
Total		187,633	3.6
Other factors during PTO's examination		187,633	16.6
Total			20.2

^aThe total number of applications with responses is the same as the number for first responses, since second or third responses cannot occur unless there was a first response.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.18: Patent Pendency Attributable to Applicants' Response Time for Patents Issued During Fiscal Year 1994

Pendency attributable to	Number of applications ^a		Average pendency in months
Applicants' responses:			
First response	83,950		
Second response	23,031		
Third response	5,317		
No response	29,734		
Total		113,684	3.7
Other factors during PTO's examination		113,684	17.6
Total			21.3

^aThe total number of applications with responses is the same as the number for first responses, since second or third responses cannot occur unless there was a first response.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

Table I.19: Patent Pendency Attributable to Applicants' Response Time for Applications Abandoned During Fiscal Year 1994

Pendency attributable to	Number of applications ^a		Average pendency in months
Applicants' responses:			
First response	41,999		
Second response	13,856		
Third response	2,638		
No response	31,950		
Total		73,949	3.4
Other factors during PTO's examination		73,949	14.9
Total			18.3

^aThe total number of applications with responses is the same as the number for first responses, since second or third responses cannot occur unless there was a first response.

Source: Patent Application Location and Monitoring system, PTO; GAO computations.

SCOPE AND METHODOLOGY

To answer the four questions raised by Representative Dana Rohrabacher, we relied on data reported through the Patent and Trademark Office's (PTO) automated Patent Application Location and Monitoring (PALM) system to develop statistics on patent pendency. This system contains background information on each patent application, as well as a "prosecution history" that shows the date when key actions were taken on each application during its examination. To determine pendency, we first analyzed the periodic reports that PTO produces from the PALM system. While these reports were useful in learning how the examination process works and what data were available from the automated system, they did not allow us to compare pendency over a full fiscal year for the individual categories of issued patents, abandoned applications, and applications still in process.

For this reason, we performed our own analysis of the automated data. We asked PTO to provide us with certain background information and prosecution histories from the PALM system for (1) all patents issued and applications abandoned during fiscal year 1994 and (2) all applications that had been filed but neither issued nor abandoned as of October 1, 1994. We chose fiscal year 1994 because it was the last fiscal year for which complete data were available at the time of our request in October 1995 and because it was the last full year under the old patent-term law. We chose October 1, 1994, because it would give us a "snapshot" of pendency at one particular point and because it was the first day after the end of fiscal year 1994. While the data for our two analyses would be in close proximity, there would be no overlapping files from the automated system.

We designed our own automated program for analyzing PTO's data. In this regard, we obtained the file layouts for one of PTO's own automated reports (PALM 3515) and held discussions with PTO officials familiar with the PALM system to ensure that we were using the same data fields to extract information on the examination phases, the examination groups, the types of applications, secrecy orders, foreign applications, et cetera. We then extracted data and computed the number of applications, the average pendency, and the pendency range for the various subsets of information shown in the tables in enclosure I of this report.

Our analyses are based on PTO's own data. We did not independently verify or validate the PALM system or the data we extracted from the system. We did, however, discuss with officials in PTO's Search and Information Resources Administration office the layout of the PALM system, the manner by which information is added to the system, and our plans for extracting, collating, and analyzing the data we obtained from the system. We also discussed the results of our

analysis of pendency with officials in PTO's Assistant Commissioner for Patents office, Comptroller office, and Office of the Chief Information Officer. Where possible, we compared aggregate data with data produced by PTO in other reports and discussed with PTO officials the potential reasons for any discrepancies.

In limited cases, the application files that we obtained from the automated system did not include usable information in particular fields. In those cases, we deleted the particular application from the computation we were making using such data fields. Thus, the tables in enclosure I may show different numbers of applications for different subsets of data within the same table.

We conducted our review from October 1995 through May 1996 in accordance with generally accepted government auditing standards.

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