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**U.S. PATENT AND
TRADEMARK OFFICE**

**Hiring Efforts Are Not
Sufficient to Reduce the
Patent Application Backlog**

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Highlights of [GAO-08-527T](#), testimony before the Subcommittee on Courts, the Internet, and Intellectual Property, Committee on the Judiciary, House of Representatives

Why GAO Did This Study

The U.S. Patent and Trademark Office (USPTO) helps protect U.S. competitiveness by granting patents for new ideas and innovations. Increases in the volume and complexity of patent applications have extended the time for processing them. Concerns continue about the agency's efforts to attract and retain qualified patent examiners who can meet the demand for patents and help reduce the growing backlog of unexamined patent applications.

In 2007, GAO reported on (1) USPTO's process for making its annual hiring estimates and the relationship of these estimates to the patent application backlog; (2) the extent to which patent examiner hiring has been offset by attrition, and the factors that may contribute to this attrition; and (3) the extent to which USPTO's retention efforts align with examiners' reasons for staying with the agency. GAO recommended that USPTO comprehensively evaluate the assumptions it uses to establish its production goals. USPTO agreed to implement this recommendation once it determines the effect of recent initiatives designed to increase the productivity of the agency through a more efficient and focused patent examination process.

This testimony is based on GAO's 2007 report, which was based in part on a survey of 1,420 patent examiners. See, GAO, *U.S. Patent and Trademark Office: Hiring Efforts Are Not Sufficient to Reduce the Patent Application Backlog*, [GAO-07-1102](#).

To view the full product, including the scope and methodology, click on [GAO-08-527T](#). For more information, contact Robin M. Nazzaro at (202) 512-3841 or nazzaror@gao.gov.

U.S. PATENT AND TRADEMARK OFFICE

Hiring Efforts Are Not Sufficient to Reduce the Patent Application Backlog

What GAO Found

USPTO primarily determined its annual hiring estimates on the basis of available funding levels and institutional capacity to train and supervise new patent examiners, and not on the basis of the number of patent examiners needed to reduce the existing backlog of patent applications or review new patent applications. USPTO's process for identifying its annual hiring estimates is generally consistent with accepted workforce planning strategies. However, because this approach does not consider how many examiners are needed to reduce the existing backlog or address the inflow of new applications, it is unlikely that the agency will be able to reduce the growing backlog simply through its hiring efforts.

Although USPTO is hiring as many new patent examiners as its budget and institutional capacity will support, attrition is significantly offsetting the agency's hiring efforts, and agency management and patent examiners disagree about the causes of attrition. Specifically, from 2002 through 2006, one patent examiner left USPTO for nearly every two hired—70 percent of those who left had been at the agency for less than 5 years. This represents a significant loss to the agency because new patent examiners are primarily responsible for the actions that remove applications from the backlog. According to USPTO management, patent examiners primarily leave the agency because of personal reasons, such as finding that the job is not a good fit. In contrast, 67 percent of patent examiners identified the agency's production goals among the primary reasons they would consider leaving the agency. These goals are based on the number of applications patent examiners must complete during a 2-week period. However, the assumptions underlying these goals were established over 30 years ago and have not since been adjusted to reflect changes in the complexity of patent applications. Moreover, 70 percent of patent examiners reported working unpaid overtime during the past year in order to meet their production goals. The large percentage of examiners working overtime to meet production goals and who would choose to leave the agency because of these goals may indicate that these goals do not accurately reflect the time needed to review applications and are undermining USPTO's hiring efforts.

The retention incentives and flexibilities USPTO has provided over the last 5 years generally align with the primary reasons patent examiners identified for staying with the agency. Between 2002 and 2006, USPTO used a variety of retention flexibilities, such as a special pay rate, performance bonuses, and a flexible work place to encourage patent examiners to stay with the agency. According to USPTO management, their most effective retention efforts were those related to compensation and an enhanced work environment. GAO's survey of patent examiners indicates that most patent examiners generally approved of USPTO's retention efforts, and ranked the agency's salary and other pay incentives as well as the flexible work schedule among the primary reasons for staying with the agency.

Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss GAO's recent report on the U.S. Patent and Trademark Office (USPTO).¹ Protecting intellectual property rights and encouraging technological progress are important for ensuring the current and future competitiveness of the United States. As you know, USPTO helps protect the nation's competitiveness by issuing patents that protect new ideas and investments in innovations, ranging from new treatments for diseases to new wireless technology applications.² However, recent increases in both the complexity and volume of patent applications have lengthened the time it takes the agency to process them and raised concerns among intellectual property organizations, patent holders, and others about the quality of the patents that are issued. Over the last 15 years, the number of patent applications that have not yet been reviewed, called the backlog, has continued to grow—increasing since fiscal year 2002 by nearly 73 percent to about 730,000 applications.

USPTO relies on a workforce of nearly 5,000 patent examiners to review and make decisions on patent applications. The number of patent applications that can be reviewed in any given year is determined by, among other things, the number of examiners hired, as well as the overall size and experience of the patent examination workforce. Patent examiners are assigned a biweekly "production goal," which represents the number of specific actions and decisions that patent examiners must make about patent applications they review in a 2-week period.³ USPTO assesses patent examiners' performance on their ability to meet their goals. However, as we noted in 2005 and again in 2007, the assumptions underlying the agency's production goals have not been updated since 1976.

¹GAO, *U.S. Patent and Trademark Office: Hiring Efforts Are Not Sufficient to Reduce the Patent Application Backlog*, GAO-07-1102 (Washington, D.C.: Sept. 4, 2007).

²USPTO, an agency within the Department of Commerce, consists of two organizations, one for patents and one for trademarks. This statement focuses on the patent organization, which accounts for approximately 76 percent of the agency's resources.

³USPTO tracks two key milestones in the patent application process to evaluate a patent examiner's performance. One milestone is the patent examiner's initial action on the merits of the case. Most patent applications are removed from the backlog when this initial action is made. The other milestone occurs when the application is allowed, abandoned, or sent to the Board of Patent Appeals and Interferences.

Since 2000, USPTO has implemented a variety of human capital flexibilities, such as recruitment bonuses and law school tuition reimbursement, to help attract and retain enough patent examiners to meet the growing demand for patents. Nevertheless, the rate of attrition for patent examiners has continued to increase, especially among patent examiners who have been with the agency for less than 5 years.

My testimony today summarizes findings from GAO's 2007 report, specifically (1) USPTO's process for identifying its annual hiring estimates and the relationship of these hiring estimates to the patent application backlog; (2) the extent to which patent examiner hiring has been offset by attrition at USPTO, and the factors that may contribute to patent examiners' decisions to leave the agency; and (3) the extent to which the retention incentives and flexibilities USPTO has implemented align with patent examiners' reasons for staying with the agency. This report was conducted in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

In summary, we found the following:

- In each of the last 5 years, USPTO identified its projected annual hiring estimates primarily on the basis of how many new patent examiners it has the budget and supervisory and training capacity to support, and not on the existing backlog or the expected patent application workload. Although USPTO's process for identifying its annual hiring estimates is generally consistent with accepted workforce planning strategies, this process does not consider how many examiners are needed to reduce the existing patent application backlog or address the inflow of new applications. As such, it is unlikely that the agency will be able to reduce the growing backlog simply through its hiring efforts.
- Attrition is significantly offsetting USPTO's hiring progress, and agency management and patent examiners disagree about the causes for this attrition. From 2002 through 2006, one patent examiner left USPTO for nearly every two the agency hired. Of those who left, 70 percent had been at the agency for less than 5 years. This represents a significant loss to the agency because new patent examiners are primarily responsible for the actions that remove applications from the backlog. According to USPTO management, patent examiners leave the agency primarily for personal

reasons, such as the job not being a good fit or family reasons. In contrast, 67 percent of patent examiners we surveyed as part of our 2007 report identified the agency's production goals as one of the primary reasons examiners may choose to leave USPTO. Moreover, 70 percent of patent examiners reported working unpaid overtime during the past year in order to meet their production goals. Such a large percentage of patent examiners, who are working extra time to meet their production goals and choosing to leave the agency because of these goals, may be an indication that the production goals do not accurately reflect the time patent examiners need to review applications and are undermining USPTO's hiring efforts.

- The retention incentives and flexibilities USPTO has provided over the last 5 years generally align with the primary reasons patent examiners identified for staying with the agency. According to USPTO management, the most effective retention efforts were those related to compensation and an enhanced work environment. Specifically, between 2002 and 2006, USPTO used a variety of retention flexibilities, such as a special pay rate, performance bonuses, flexible work place, and a telework program to encourage patent examiners to stay with the agency. Most patent examiners who participated in our survey indicated that they generally approved of USPTO's retention efforts, and ranked the agency's salary and other pay incentives, as well as the flexible work schedule, among the primary reasons for staying with the agency.

Background

To obtain a patent, inventors—or more usually their attorneys or agents—submit an application to USPTO that fully discloses and clearly describes one or more distinct innovative features of the proposed invention and pay a filing fee to begin the examination process. USPTO evaluates the application for completeness, classifies it by the type of patent and the technology involved,⁴ and assigns it for review to one of its operational units, called technology centers, that specializes in specific areas of science and engineering. Supervisors in each technology center then assign the application to a patent examiner for further review to determine

⁴Patents typically fall into one of three categories: (1) utility—for useful inventions, such as processes, machines, articles of manufacture, or composition of matter; (2) design—for changes in configuration, shape, or surface ornamentation that do not involve changes in function; or (3) plant—for asexually reproducible plants. A fourth category, "reissue patents," refers to patents USPTO grants as replacements for any patent that was in some way defective; these patents constituted less than one-half of 1 percent of patents issued in fiscal year 2003.

if a patent is warranted. In making this determination, patent examiners must meet two specific milestones in the patent examination process: first actions and disposals.

- *First action.* At this milestone, patent examiners notify applicants about the patentability of their invention. After determining if the invention is new and useful, or a new and useful improvement on an existing process or machine, patentability is determined through a thorough investigation of information related to the subject matter of the patent application and already available before the date the application was submitted, called prior art. Prior art includes, but is not limited to, scientific publications and U.S. and international patents.
- *Disposal.* Patent examiners dispose of a patent application by determining, among other things, if a patent will be granted—called allowance—or not.

Patent examiners receive credit, called counts, for each first action and disposal, and are assigned production goals on the basis of the number of production units—comprised of two counts—they are expected to achieve in a 2-week period. The counts in a production unit may be any combination of first actions and disposals.

The production goals that are used today to measure patent examiner performance are based on the same assumptions that USPTO established in the 1970s. At that time, production goals were determined based on the belief that it should take a patent examiner a certain amount of time to review a patent application and achieve two counts based on their experience (as determined by their position in the agency) and the type of patent they are reviewing. As a result, these goals vary depending upon the patent examiner's position based on the federal government's general schedule pay scale (GS) and the technology center in which the patent examiner works. For example, a GS-12 patent examiner working on data processing applications is expected to achieve two counts in 31.6 hours, whereas a GS-12 patent examiner working on plastic molding applications is expected to do so in 20.1 hours. GS-7 patent examiners working on those types of applications, however, are expected to achieve two counts in 45.1 and 28.7 hours, respectively. Patent examiner achievements are recorded biweekly, and, at the end of each fiscal year, those patent applications that have not been reviewed for first action are counted as part of USPTO's inventory of unexamined applications, otherwise known as the patent application backlog.

USPTO's Annual Hiring Estimates Are Determined by Funding and Institutional Capacity and Are Unlikely to Reduce the Patent Application Backlog

In each of the last 5 years, USPTO has identified its annual hiring estimates primarily on the basis of available funding levels and its institutional capacity to train and supervise new patent examiners, and not on the basis of the number of patent examiners needed to reduce the existing backlog or review new patent applications. Although this process is consistent with workforce planning strategies established by the Office of Personnel Management (OPM) and has enabled the agency to better match its hiring estimates to its institutional capacity, USPTO's ability to reduce the patent application backlog simply through its hiring efforts is unlikely.

Specifically, USPTO begins the process of identifying projected hiring estimates as part of creating its budget submission for the Office of Management and Budget (OMB) 18 months before the start of the hiring year in order to meet OMB's submission timeline. After considering expected funding levels and available patent examiner workforce data,⁵ USPTO considers its institutional capacity to supervise and train patent examiners. For example, in identifying its fiscal year 2002 hiring estimate, USPTO determined that funding availability would limit the number of patent examiners the agency could hire, and established its estimate on the basis of the number of patent examiners the agency had hired in the most recent year. However, in fiscal years 2003 through 2006, USPTO determined that funding would not be a limiting factor, and the agency's hiring estimates were based primarily on its institutional capacity to supervise and train patent examiners.

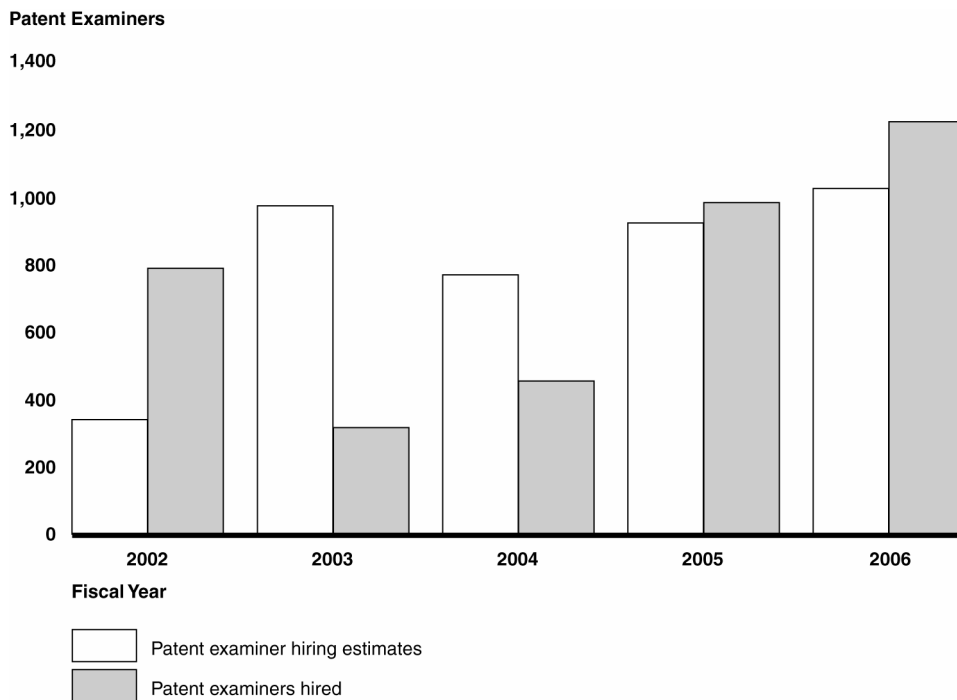
USPTO considers a number of factors in determining its institutional capacity to supervise and train new patent examiners. For example, it determines its supervisory capacity by considering the number of additional patent examiners who can be placed in a technology center. This number is limited by the number of supervisors available in each center who can sign patent application approvals and rejections and provide on-the-job-training for new patent examiners. Although new patent examiners can review the prior art relating to patent applications, only supervisors can authorize a new patent examiner's decision to approve or reject a patent application. In an effort to avoid delays and

⁵USPTO stated that it uses a robust forecasting and modeling process to determine the optimal hiring, staffing, and production levels. This model was evaluated by the National Academy of Public Administration and determined to be appropriate. While we acknowledge that USPTO uses this model to identify optimal hiring levels, we found that the determination of projected estimates was made on the basis of funding levels and the capacity to support additional staff.

inefficiencies in initial and final decisions on patent applications, the agency tries to ensure that the supervisor to patent examiner ratio is about 1 supervisor for every 12 patent examiners. Similarly, USPTO's training capacity is determined by the number of patent examiners the agency believes it can train in a year. Training capacity was based on 2- or 3-week courses offered throughout the year and were led by supervisory patent examiners. The courses could accommodate about 16 patent examiners each, and in fiscal year 2004, according to USPTO, the agency offered about 28 training sessions.

Because USPTO's projected hiring estimates are established at least 18 months in advance of the hiring year, the agency continually refines the estimates to reflect changes that might occur during this period. For example, in 2002, when it created its budget submission to OMB, USPTO projected it would hire 750 patent examiners for fiscal year 2004. However, due to budget constraints, the agency actually hired 443 patent examiners in fiscal year 2004. Figure 1 shows USPTO's projected and actual hiring numbers for fiscal years 2002 through 2006.

Figure 1: USPTO Patent Examiner Projected Hiring Estimates and Actual Number Hired, Fiscal Years 2002 through 2006



Source: USPTO.

The differences between projected hiring estimates and the number hired occurred primarily because of funding availability. In fiscal years 2003 and 2004, according to USPTO, the agency's appropriations were significantly less than the agency's budget requests. As a result, the agency could not financially support the number of new patent examiners it had initially planned to hire. In fiscal years 2005 and 2006, however, USPTO hired more patent examiners than originally planned because the agency's appropriation for those years was greater than anticipated.

The way in which USPTO identifies annual patent examiner hiring estimates is generally consistent with workforce planning strategies endorsed by OPM. For example, OPM recommends that agencies regularly track workforce trends to ensure updated models for meeting organizational needs; base decisions on sources of information such as past workforce data; and include in its workforce planning process a workforce analysis system that identifies current and future losses due to attrition. We found that USPTO generally followed these processes.

Recognizing the need to increase its institutional capacity to hire more patent examiners, USPTO has taken steps to increase its training and supervisory capacity. To increase its training capacity, USPTO implemented an 8-month training program in fiscal year 2006 called the Patent Training Academy. According to USPTO, the academy provides the agency with a constant annual training capacity for 1,200 new patent examiners for each of the next 5 years. Moreover, USPTO officials believe that the academy may indirectly improve the agency's supervisory capacity because new patent examiners should be better prepared to start work in a technology center and therefore will need less supervision and on-the-job training. USPTO plans to monitor new patent examiners after they have graduated from the academy to determine if the agency can use this approach to increase its institutional capacity and, therefore, its future annual hiring estimates.

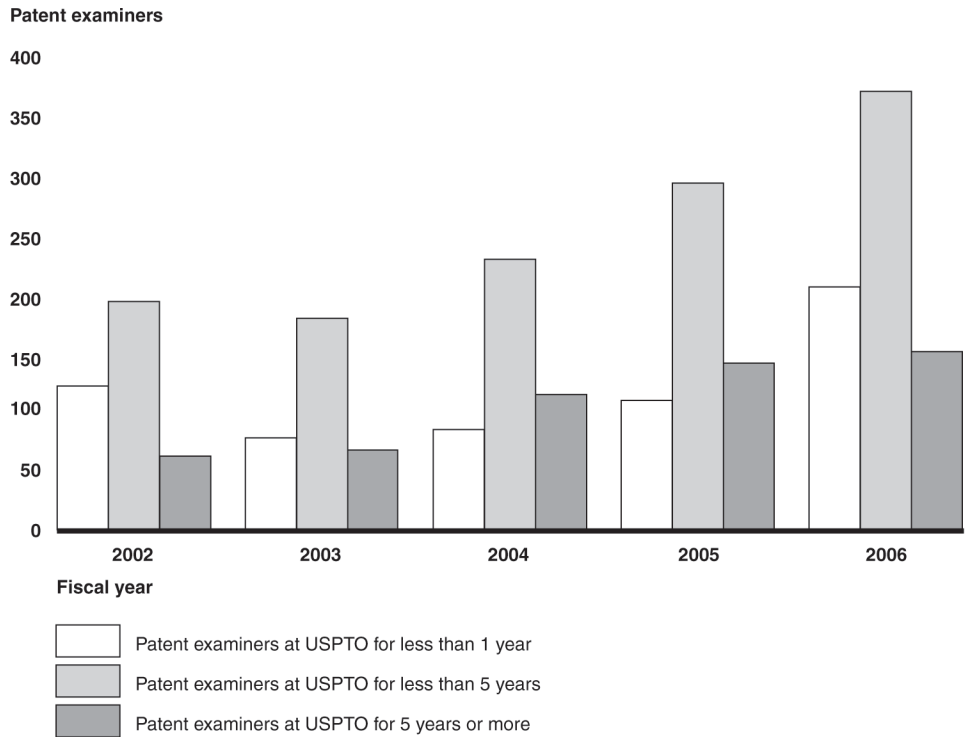
Even with its increased hiring estimates of 1,200 patent examiners each year for the next 5 years, USPTO's patent application backlog is expected to increase to over 1.3 million at the end of fiscal year 2011. The agency has also estimated that if it were able to hire 2,000 patent examiners per year in fiscal year 2007 and each of the next 5 years, the backlog would continue to increase by about 260,000 applications, to 953,643 at the end of fiscal year 2011. Despite its recent increases in hiring, the agency has acknowledged that it cannot hire its way out of the backlog and is now focused on slowing the growth of the backlog instead of reducing it.

Attrition Has Significantly Offset Hiring over the Last 5 Years, and Agency Management and Patent Examiners Disagree about the Reasons for Attrition

Although USPTO is hiring as many new patent examiners as it has the annual funding and institutional capacity to support, attrition has continued to increase among patent examiners—one patent examiner has been lost for nearly every two hired over the last 5 years. For example, from the beginning of fiscal year 2002 through fiscal year 2006, USPTO hired 3,672 patent examiners. However, the patent examination workforce only increased by 1,644 because 1,643 patent examiners left the agency and 385 patent examiners were either transferred or promoted out of the position of patent examiner. As shown in figure 2, approximately 70 percent of the patent examiners who left the agency had been at USPTO for less than 5 years, and nearly 33 percent had been at the agency for less than 1 year.⁶

⁶These percentages include patent examiners who transferred or were promoted out of the patent examination workforce, but remained at USPTO, and represent approximately 19 percent of patent examiner attrition from fiscal year 2002 through 2006.

Figure 2: Patent Examiner Attrition by Years of Experience, Fiscal Years 2002 through 2006



Source: USPTO.

Note: In each fiscal year, the number of patent examiners at USPTO for less than 5 years is inclusive of those at USPTO for less than 1 year.

The attrition of patent examiners who were at the agency for less than 5 years is a significant loss for USPTO for a variety of reasons. First, attrition of these staff affects USPTO’s ability to reduce the patent application backlog because these less experienced patent examiners are primarily responsible for making the initial decisions on patent applications—the triggering event that removes applications from the backlog. Second, when these staff leave USPTO, the agency loses up to 5 years of training investment in them because patent examiners require 4 to 6 years of on-the-job experience before they become fully proficient in conducting patent application reviews. Third, the more experienced examiners who have the ability to examine more applications in less time have to instead devote more of their time to supervising and training the less experienced staff, thereby further reducing the agency’s overall productivity. Finally, these workforce losses reduce the pool of potential

supervisory patent examiners for the future and therefore impair USPTO's ability to increase its supervisory capacity and, ultimately, its hiring goals.

We found that USPTO management and patent examiners disagree significantly on the reasons for the agency's attrition. According to USPTO management, personal reasons are the primary reasons that cause patent examiners to leave the agency.⁷ Some of these reasons include the following:

- The nature of the work at USPTO does not fit with the preferred working styles of some patent examiners, such as those with engineering degrees who are looking for more “hands-on” experiences.
- Many patent examiners enter the workforce directly out of college and are looking to add USPTO to their resumes and move on to another job, rather than building a career at the agency, otherwise known as the “millennial problem.”
- Patent examiners may choose to leave the area, as opposed to choosing to leave the agency, because their spouse transfers to a position outside of the Washington, D.C., area; the cost of living is too high; or the competition is too high for entry into the Washington, D.C., area graduate and post graduate programs for those patent examiners who would like to pursue higher education.

According to USPTO management, the agency has a number of ongoing efforts to help address these issues. For example, the agency is developing a recruitment tool to better assess applicant compatibility with the agency's work environment; targeting midcareer professionals during the recruitment process; and considering the creation of offices located outside the Washington, D.C., area to provide lower cost-of-living alternatives for employees.

While Patent Office Professional Association officials—the union that represents patent examiners—agreed that in some cases personal reasons may contribute to patent examiners leaving the agency, they believe that the unrealistic production goals that the agency sets for patent examiners

⁷The term “primary reasons” refers to the top three reasons patent examiners leave the agency provided by USPTO management, as well as the top three or more statistically significant reasons provided by patent examiners in our survey.

is primarily responsible for attrition.⁸ Specifically, according to union officials unrealistic production goals have created a “sweat shop culture” within the agency that requires patent examiners to do more in less time and has therefore been a significant contributor to patent examiners’ decisions to leave USPTO. To call attention to this concern, in April 2007 the union joined the Staff Union of the European Patent Office and other international patent examiner organizations in a letter declaring that the pressures on patent examiners around the world have reached such a level that in the absence of serious measures, intellectual property worldwide would be at risk. The letter recommended, among other things, an increase in the time patent examiners have to review patent applications.

Patent examiners who participated in our survey generally agreed with union officials. Specifically, approximately 67 percent of patent examiners, regardless of their tenure with the agency, said that the agency’s production goals were among the primary reasons they would consider leaving USPTO. Moreover, we estimated that 62 percent of patent examiners are very dissatisfied or generally dissatisfied with the time USPTO allots to achieve their production goals; and 50 percent of patent examiners are very dissatisfied or generally dissatisfied with how the agency calculates production goals. In addition, a number of respondents noted that the production goals are outdated, have not changed in 30 years, and some technologies for which they evaluate applications had not even been discovered at the time the agency’s production goals were set. Fifty-nine percent of patent examiners believed that the production system should be reevaluated, including altering the production goals to allow more time for patent examiners to conduct their reviews.

We and others have reported in the past that the assumptions underlying the agency’s production goals were established over 30 years ago and have not since been adjusted to reflect changes in science and technology. Moreover, USPTO uses these production goals to establish its overall performance goals for patent examiners, such as the number of first actions to be completed in a given year.⁹ However, from 2002 through

⁸Union officials also identified a recent decision by USPTO management to track when patent examiners enter and leave the building as another reason patent examiners would choose to leave the agency. Union officials declined to rank the reasons they believe patent examiners leave USPTO, preferring instead that we rely on patent examiner survey results.

⁹USPTO predicts first actions by multiplying the number of patent examiners in the workforce by production goals.

2006, the agency missed its projections in 4 of the 5 years. Furthermore, according to our survey, patent examiners are discontented with the actions they have to take in order to meet their production goals. Specifically, 70 percent of patent examiners who participated in our survey reported working unpaid overtime to meet their production goals during the last year, some reporting working over 30 extra hours in a 2-week period. In addition, we estimated that 42 percent of patent examiners had to work while they were on paid annual leave in order to meet their production goals. The percentage of patent examiners working while on paid leave was significantly higher for those with longer tenure at the agency. We estimated that 18 percent of patent examiners who had been at USPTO from 2 to 12 months worked to meet their production goals while on paid leave, compared with 50 percent of patent examiners with over 5 years' experience. As one respondent to our survey explained, "Vacation time means catch up time." Another respondent summed up the situation as follows: "I know that the production goals are set to keep us motivated in order to help get over the backlog but if a majority of examiners cannot meet those goals without relying on unpaid overtime or annual leave then something is wrong with the system." According to our survey results, 59 percent of patent examiners identified the amount of unpaid overtime that they have to put into meeting their production goals as a primary reason they would choose to leave USPTO, and 37 percent identified the amount of time they must work during paid leave in order to meet their goals as a primary reason to leave the agency.

Even though the agency has not been able to meet its productivity goals for the last 4 years, this extensive amount of unpaid overtime patent examiners have to work in order to meet their production goals does not appear to be a concern for the agency. When we asked USPTO management about the agency's policy for unpaid overtime to meet production goals, the Deputy Commissioner for Patent Operations told us, "As with many professionals who occasionally remain at work longer to make up for time during the day spent chatting or because they were less productive than intended, examiners may stay at the office (or remote location) longer than their scheduled tour of duty to work."

Retention Incentives and Flexibilities Provided over the Last 5 Years Generally Align with the Primary Reasons Patent Examiners Identified for Staying at USPTO

From 2002 to 2006, USPTO offered a number of different retention incentives and flexibilities, as table 1 shows.

Table 1: Retention Incentives and Flexibilities Provided by USPTO by Category, and Other Retention Efforts, Fiscal Years 2002 through 2006

Category	Retention incentive, flexibility, or other
Compensation	• Performance bonuses
	• Flexible spending accounts that allow patent examiners to set aside funds for expenses related to health care and care for dependents
	• Law school tuition reimbursement program ^a
	• Noncompetitive promotion to the full performance level
	• Recruitment bonuses up to \$9,900
	• Special pay rate ^b
Enhanced work environment	• Transit subsidy program
	• Casual dress policy
	• Flexible work schedules, including the ability to schedule hours off during the day
	• Improved management communication techniques (e.g., town hall meetings, online chats with the Commissioner)
	• No-cost health screenings at an on-site health unit staffed with a registered nurse and part-time physician
	• On-site child care and fitness centers
	• Creation of a committee to organize recreational and social activities, such as a basketball tournament and Halloween party
• Work at home opportunities	
Other retention efforts	• Additional training for managers, such as workshops on intergenerational issues and technical training for patent examiners
	• Formation of a Patents Retention Council to focus on patent examiner retention issues at USPTO
	• A survey given to potential applicants during the recruiting process to better assess applicant compatibility with the USPTO work environment

Source: GAO analysis of USPTO information.

^aUSPTO provided the law school tuition program for two years between fiscal years 2002 and 2006.

^bThe special pay rate was approved in 2006 and went into effect in January 2007.

According to USPTO management officials, the three most effective retention incentives and flexibilities that they have offered are the special pay rates, the bonus structure, and opportunities to work from remote locations. More specifically:

- *Special pay rate.* In November 2006, USPTO received approval for an across-the-board special pay rate for patent examiners that can be more than 25 percent above federal salaries for comparable positions. For example, in 2007, a patent examiner at USPTO earning \$47,610 would earn \$37,640 in a similar position at another federal agency in the Washington, D.C., area.
- *Bonus structure.* The agency awards bonuses to patent examiners who exceed their production goals by at least 10 percent. For example, according to USPTO, in fiscal year 2006, 60 percent of eligible patent examiners who exceeded production goals by 10 percent or more received a bonus. As table 2 shows, USPTO awarded 4,645 bonuses to patent examiners that totaled over \$10.6 million in fiscal year 2006.¹⁰
- *Opportunities to work from remote locations.* In fiscal year 2006, approximately 20 percent of patent examiners participated in the agency’s telework program, which allows patent examiners to conduct some or all of their work away from their official duty station 1 or more days a week. In addition, when USPTO began a “hoteling” program in fiscal year 2006, approximately 10 percent of patent examiners participated in the program, which allows some patent examiners to work from an alternative location.¹¹

Table 2: Number of Bonuses and Bonus Amounts USPTO Awarded, and Number of Patent Examiners Participating in the Telework Program in Fiscal Years 2002 through 2006

	2002	2003	2004	2005	2006
Number of bonuses	4,877	4,839	5,015	4,567	4,645
Bonus amount (dollars in millions)	\$10.3	\$10.9	\$11.5	\$10.9	\$10.6
Patent examiners in telework program	Not applicable ^a	800	345	1,014	999

Source: USPTO.

^aUSPTO did not offer a telework program until fiscal year 2002.

¹⁰USPTO may award up to three types of bonuses to one patent examiner in a fiscal year, one of which may be awarded twice per fiscal year.

¹¹Patent examiners who qualify for hoteling are assigned USPTO computer hardware and are not assigned permanent office space but share space when it is necessary for them to come into the USPTO offices.

According to the results of our survey, patent examiners generally agreed that compensation-related retention incentives and efforts to enhance the work environment were among the most important reasons they would choose to stay at USPTO, as table 3 shows.

Table 3: Patent Examiners' Views on Compensation-Related and Enhanced Work Environment Incentives and Flexibilities in Decreasing Order of Importance

USPTO incentives and flexibilities offered to patent examiners	Estimated percentage of patent examiners who identified these incentives and flexibilities as reasons to stay with the agency
Current total pay (excluding benefits)	58
The availability of the flexible work schedule program	49
The availability of a hoteling program	38
Current federal benefits	30
The availability of a teleworking program	17
The recent implementation of a special pay rate increase	16
Opportunities for career advancement	15
The ability to be promoted to the next GS level	14
The availability of the law school tuition program	10
The availability of monetary awards	5
The casual dress policy	4
Access to an on-site fitness center	4
The availability of a transit subsidy program	2
The availability of on-site child care	1
The availability of flexible spending accounts (i.e., the program that allows you to pay for eligible out-of-pocket health care and dependent care expenses with pre-tax dollars)	1
The availability of an on-site health unit	0
Activities offered by the Work-Life Committee	0

Source: GAO survey.

Note: To determine the estimated percentages in this table, we included the total number of times patent examiners identified a particular retention incentive and flexibility as one of the three most important reasons they would choose to stay at USPTO.

Despite USPTO's efforts to hire more patent examiners annually and implement retention incentives and flexibilities over the last 5 years, the agency has had limited success in retaining new patent examiners.

Because the agency's production goals appear to be undermining USPTO's efforts to hire and retain a qualified workforce, we recommended in 2007 that the agency comprehensively evaluate the assumptions it uses to establish patent examiner production goals and revise those assumptions as appropriate.

The Department of Commerce agreed with our findings, conclusions, and recommendation and agreed that the agency's hiring efforts are not sufficient to reduce the patent application backlog. It stated that USPTO is implementing initiatives to increase the productivity of the agency that will result in a more efficient and focused patent examination process. Once USPTO determines the effect of these initiatives on patent examiner productivity, it will reevaluate the assumptions used to establish patent examiner productions goals.

Mr. Chairman, this concludes my prepared statement. I would be happy to respond to any questions that you or Members of the Subcommittee may have at this time.

Contacts and Acknowledgments

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