

SUPPORTING STATEMENT
United States Patent and Trademark Office
United States Patent Applicant Survey
OMB CONTROL NO. 0651-0052
Modified Submission
(January 2011)

B. COLLECTION OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Universe and Respondent Selection

The respondent pool for this survey is made up of the businesses, organizations, and individuals who typically file patent applications. The USPTO plans to survey large, medium, and small-sized domestic corporations, universities and other non-profit research organizations, and independent inventors. Forecasts on foreign entities will be made available by EPO and JPO survey corporations in Europe and Japan.

In fiscal year 2007 (the last year of available data), the USPTO received patent applications from both large and small entities. Table 3 shows the percentage of total applications received in recent years from each stratum.

Table 3: Respondent Pool for the United States Patent Applicant Survey

Stratum	Percent of Total Applications
Large Domestic Corporations	34%
Small to Medium-Size Businesses	12%
Universities and Non-Profit Research Organizations	27%
Independent Inventors	27%

a. **Sampling Method.** The sampling method for this survey varies depending on whether the survey is targeting a large or a small entity. The sampling methods used for the large domestic corporations, the small and medium-size domestic businesses, universities and non-profit research organizations, and the independent inventors are described below:

(1) **Large Domestic Corporations**

For the survey, the USPTO selected a sample consisting of the top 185 patent-generating corporations headquartered in the United States. The sample selected for survey purposes represents less than one percent (.81%) of the entire respondent pool. These organizations were chosen based on available patent data plus input received from an industry professional organization, the

Association of Corporate Patent Counsel (ACPC). The ACPC maintains a mailing list of corporate patent-generating entities.

The top 185 corporations represent entities that the survey contractor will sample with certainty to create a representative design. This group generates the most patents of any customer group (34%). Overall, the structure of the patent applications is extremely stable, even after experiencing much growth in recent years. Within the top 185 patent-generating corporations, the USPTO has found that the applications fall consistently within the same patent application areas. If a sample of the top 185 patent-generating corporations were to be taken today, the sample would be representative of the top 185 corporations of prior years.

In addition to the top 185 patent-generating corporations, the USPTO will also survey large corporations consisting of 500 employees or more. The USPTO will sample a list of large corporations with 500 or more employees from a database maintained in-house by the USPTO listing all assignees of US origin utility patents granted in calendar year 2009. The survey contractor will then request contact information for the final sample from Dun and Bradstreet.

(2) **Small and Medium-Size Domestic Businesses**

This sample group is defined as all domestic patent-generating corporations of less than 500 employees. This group typically accounts for 12% of domestic patent generation. The USPTO will select a sample of small to medium-size businesses from a database maintained in-house by the USPTO that includes all domestic patent-generating corporations, U.S. research institutions, government agencies, and non-profit research organizations. For the final sample, the survey contractor will request contact information from Dun and Bradstreet.

(3) **Universities and Non-Profit Research Organizations**

For the survey, the USPTO selected a sample of the top 51 patent-generating universities based in the United States. These universities were selected based on 1969-2009 patent data maintained in-house by the USPTO.

(4) **Independent Inventors**

A nationally representative sample of independent inventors will come from a database of independent inventors maintained in-house by the USPTO. Also, the survey contractor's online Consumer Opinion Panel will identify independent inventors who had never applied for a patent, but who might intend to do so in the future. The survey contractor will review the file to ensure that each independent inventor is represented once and receives a single survey packet.

Table 4 shows projections of the number of completed surveys that the USPTO expects to receive from each of the target groups:

Table 4: Projections of Completed Surveys for the Target Groups

Target Groups	Number of Completed Surveys (Mail and Electronic)
Large Domestic Corporations	80
Small and Medium-Size Businesses	55
Universities and Other Non-Profit Research Organizations	15
Independent Inventors	250

- b. **Response Rates.** Based on results from prior surveys, the USPTO expects that the response rates will vary by group. The response rates for the different groups are described below.

The contractor applies statistical adjustments through methods such as bootstrapping to account for the low response rate or non-response bias. This method is essentially an extrapolation of the different demographic groups that did respond to the survey. Demographic information is compiled just prior to the conduct of a survey, in order to ensure quality and timely information and to ensure appropriate expenditure of resources needed for the compilation.

(1) **Large Domestic Corporations**

Based on results from prior surveys, the USPTO anticipates a 21% response rate, or 40 completed questionnaires, from the leading patent-generating corporations. The USPTO has more complete contact information for the 185 top-patenting corporations surveyed last time after the follow-up calls to each of the corporations. This information is expected to improve the overall response rate. With each questionnaire taking approximately 30 minutes to complete (since most respondents are expected to mail the survey or complete it online), the burden to the public will be approximately 21 hours. Based on the last survey, a third of respondents are expected to complete the survey online this year, and the rest are expected to complete the mail survey). Response time for both mail and online surveys is estimated at 30 minutes.

For the large businesses consisting of 500 employees or more (excluding the 185 top-patenting domestic corporations), the USPTO anticipates a response rate of 10%, or 40 completed questionnaires. With each questionnaire taking approximately 30 minutes to complete (the questionnaire for this group will be identical to the one for large domestic corporations), the burden to the public will be approximately 20 hours. As is the case with the top 185 corporations, a third of this group is also expected to respond online, taking approximately 30 minutes

to complete the survey.

(2) Small to Medium-Size Businesses

Based on results from prior surveys, the USPTO anticipates a 7% response rate, or 55 completed questionnaires. A pre-notification card will be mailed asking respondents to confirm the person and the address to which the survey should be mailed, which in turn should increase the response rate. With each questionnaire taking approximately 30 minutes to complete, the burden to the public will be approximately 28 hours. According to prior surveys, a third of respondents in small to medium-size businesses are also expected to respond online, taking 30 minutes to complete the survey.

(3) Universities and Non-Profit Research Organizations

Based on results from prior surveys, the USPTO expects to achieve a response rate of 20% or 15 completed surveys. The follow-up calls made to the 51 top-generating universities yielded more accurate contact information. The burden to the public will be approximately 8 hours given that the questionnaire will take approximately 30 minutes to complete. A third of this group is expected to respond online.

(4) Independent Inventors

Based on results from prior surveys, the USPTO anticipates a response rate of 20%, or 250 completed surveys. Since the questionnaire for this group will only focus on the counts of past and future patent applications (omitting all questions on contact information for subsidiaries), the questionnaire is estimated to take approximately 15 minutes to complete. The burden to the public will therefore be approximately 63 hours. As with all other target groups, a third of independent inventors are expected to complete the survey online.

2. Procedures for Collecting Information

The USPTO's survey contractor will mail the survey to all of the groups – large domestic corporations, small to medium-size businesses, universities and non-profit research organizations, and independent inventors. A personalized label will be inserted on the survey packet envelope in order to reach the specified respondent. All versions of the questionnaire (one for the large domestic corporations and for small and medium-sized businesses and one for universities, non-profit research organizations, and independent inventors) will include a cover letter explaining that the USPTO is sponsoring the survey and that all responses will remain confidential. The letter to the large corporations (top 185 patent-generating corporations) and to the universities and non-profit research organizations will also inform respondents that they will be receiving a phone call from a contractor employee within one to two weeks to answer any questions they may have.

During the follow-up calls, the contractor's employees will use a script developed in collaboration with the USPTO. If the specified respondent is not the person qualified to respond to the survey, he or she will be given the opportunity to re-route the survey to a more appropriate respondent. If this option is selected, the new respondent will be instructed to provide accurate contact data on the questionnaire. If the qualified respondent chooses to complete the questionnaire over the phone, the contractor's employee will guide him or her through the same questionnaire the respondent received in the mail. For all other groups – large businesses (more than 500 employees excluding the top 185 patent-generating businesses), small to medium-size domestic corporations, and independent inventors – a reminder card will be sent to remind respondents to complete the survey.

In order to improve the response rate achieved in prior surveys, a pre-notification letter will be sent to all groups informing them of the purpose of the survey. For all groups, the pre-notification letter will ask respondents to confirm their contact information. If the contact information is incorrect, they will be asked to nominate the appropriate person to complete the survey.

The information will be collected from the different groups as described below:

a. **Large Domestic Corporations**

The survey packet will include a four-page questionnaire booklet and a postage-paid pre-addressed return envelope. The cover letter will be printed on the front cover of the booklet. For large domestic corporations, we will request that the entity responding to the questionnaire include patent submission data in aggregate – including all subsidiary data. If the responding entity is not able to include this information, we will request the names and contact data of up to three subsidiaries that submit the most patent applications. The USPTO will include the specified subsidiaries in subsequent administrations of the survey.

Prior surveys with 80 respondents showed that the requested information is readily available in most cases, taking approximately 30 minutes to complete using the mail or online option. For those respondents who offered their responses over the phone during a follow-up call, the collection took between five to ten minutes depending on how much of the questionnaire was previously completed. Although collection time over the phone ranged between five to ten minutes, most respondents chose to complete the mail or online survey. Therefore, collection time for the full study is estimated at 30 minutes with the expectation that most respondents will respond to the survey by mail or online. The survey contractor and the USPTO have developed a script for the contractor's employees to use during follow-up calls. After going over the script, the contractor's employee will guide respondents through the same questionnaire as the one sent to them by mail. Follow-up calls will only be made to the top 185 patent-generating entities.

For the large businesses (more than 500 employees excluding the top 185 patent-generating businesses), the survey contractor will also send a notification card to inform respondents about the survey and to confirm the contact information. For this group, reminder cards will also be sent to remind them of the survey instead of follow-up calls, as in the case of the top 185 patent-generating corporations and universities and non-profit research organizations.

b. **Small Domestic Corporations**

The survey packet for this group will be identical to the one sent to the large corporations. It will include a four-page questionnaire booklet and a postage-paid pre-addressed return envelope. The cover letter will be printed on the front cover of the booklet. We will request that the entity responding to the questionnaire include patent submission data in aggregate – including all subsidiary data. If the responding entity is not able to include this information, we will request the names and contact data of up to three subsidiaries that submit the most patent applications. The USPTO will include the specified subsidiaries in subsequent administrations of the survey. Reminder cards will be sent.

c. **Universities and Non-Profit Research Organizations**

The survey packet for the universities will include a three-page questionnaire booklet and a postage-paid pre-addressed return envelope. The questionnaire aimed at this group will include counts on both domestic and international filings, but it will exclude any information on subsidiaries. For universities and non-profit research organizations, we anticipate that data collection will take approximately 30 minutes. Follow-up calls will be made.

d. **Independent Inventors**

The survey packet for the independent inventors will include a three-page questionnaire with a cover letter and a postage-paid, pre-addressed return envelope. For independent inventors, we anticipate that data collection will take 15 minutes. This estimate is based on the fact that the survey itself is three pages long; on the assumption that since independent inventors file fewer applications over time than large and small domestic corporations and universities and non-profit research organizations, their information is “top-of-mind”; and on the fact that typically one person has complete knowledge of patent activity, alleviating the need to consult within a department to tally all applications submitted by the group. Reminder cards will be sent.

3. Methods to Maximize Responses

In order to maximize the number of responses received from the survey, the USPTO plans to follow-up with contacts after the initial survey is sent to them. In the case of

large corporations (top 185 patent-generating corporations) and universities and non-profit research organizations, the USPTO's survey contractor will telephone all of the non-respondents to assist them in answering the questionnaire; to collect new contact information, in the event that a different respondent is completing the survey (in which case, the contractor will call the newly named contact); or to collect the survey data from them. A script has been developed for these phone calls so that everyone conducting these interviews asks the same questions, in the same manner. Follow-up phone calls will be made approximately two weeks after the initial survey is mailed to the contacts.

For the large businesses (more than 500 employees excluding the top 185 patent-generating businesses) and small to medium-size businesses, a notification card will be sent to inform respondents about the purpose of the survey and to confirm the contact information of the respondent. Reminder cards will be mailed to the contacts a week after the initial survey is sent to large businesses (excluding the 185 large corporations), small to medium-size businesses, and independent inventors.

4. Testing of Procedures

In 2001, the USPTO conducted a pilot study to develop and test the methodology for full estimation of all patent-generating entities. The pilot study was conducted only among the top patent-generating companies headquartered in the United States (large entities are the most difficult to survey due to their size). The survey contractor received a sample list of 350 patent-generating entities from the USPTO, and after eliminating universities, foreign entities, and non-profit research organizations, mailed surveys to 162 corporations. The survey packet included a 4-page questionnaire booklet with a cover letter on the front and a business reply envelope. The survey instrument included questions on subsidiaries, domestic and international patent filings, general feedback concerning industry trends, and feedback on the survey itself. Follow-up interviews were conducted two weeks after the initial mailing. Fifty-one companies completed and returned the survey.

The lessons learned and implemented in future waves of the survey were:

- confirm the contact information before mailing the surveys;
- offer two survey completion options – mail and online;
- identify individuals that would oversee the completion of the survey;
- use the USPTO logo on the envelope as it carries great influence; and
- conduct follow-up calls to remind respondents to complete the survey as well as answer any questions.

5. Contact for Statistical Aspects and Data Collection

The Office of Planning and Budget of the USPTO is responsible for conducting the United States Patent Applicant Survey. Gerard Torres, Economist, is the point of contact for this survey and can be reached by phone at 571-272-4951 or by e-mail at gerard.torres@uspto.gov.