Intellectual Property Measures in Context

Inventors often have an economic motivation to keep the details of their inventions secret. The patenting system provides the legal right, for a limited time, to exclude others from making, using, offering for sale, or selling the invention, in exchange for public disclosure of the technical information in the granted patent. Extensive publicly available administrative data exist for patents and their inventors, and databases allow for systematic insights into these patents. In the absence of other comprehensive data on inventions, patent data provide unique and useful insights into the inventions deemed valuable enough to patent. However, analysis of these data requires caution.

While comprehensive data are scarce, available evidence shows that many patented inventions are never commercialized; a recent analysis of the Small Business Innovation Research program and the Department of Defense showed 21.5% of patents had evidence of commercialization (Bottai, de Rassenfosse, and Raiteri 2025). Conversely, many valuable inventions that are commercialized are not patented. Patent data are neither representative of all inventions, nor are they consistent measures of innovation. Companies choose a variety of strategies to protect their inventions and intellectual property (IP). For example, U.S. companies rate trade secrets higher than patents in their importance for protecting IP, which is true even for R&D-performing firms (NCSES 2024; NCSES 2025a: Table 71; Shackelford and Kindlon 2021).

A small number of patents are issued with secrecy orders that restrict the release of information about the invention during the period of its patent protection for reasons that include national security and export control. The total number of USPTO patents with secrecy orders in effect at the end of FY 2024 was about 6,500 (FAS 2025).

In addition, patent protection may be sought for reasons other than intended commercialization. Patents may be obtained to block rivals and negotiate with competitors, to use in lawsuits, or to build “thickets” of patents to impede or raise others’ costs of R&D and innovation (Cohen, Nelson, and Walsh 2000). Research suggests that some organizations and countries pursue “strategic patenting” to block competitors and to monetize patents through licensing and other activities (Ernst 2015). New and emerging firms may seek patent protection to help obtain financing because investors may perceive patents as valuable assets and as indicators of future profitability. Finally, cross-country analysis indicates that international differences in taxes on corporate and patent income influence the choice of patent location for multinational firms (OECD 2016:3). However, considering these limitations, Patent and Trademark Office patent documents provide information as to when and in what technology areas inventors have decided to protect their IP with patent protection. This rich detail, which also includes the name and address of the inventor and assignee, justifies presentation of the patent documents.

There are marked differences in terms of the scale of economic resources directed toward patenting inventions across economic sectors; the private business sector expends significantly more resources than the federal government or higher education institutions. Even so, each of these sectors has evolved substantial capacities for identifying potentially patentable inventions and filing patent applications in the United States and worldwide. Differences also exist within and across these sectors in the perceived net benefit of choosing patenting as a principal means of pursuing the further development and commercialization of inventions.

Finally, patent protection is important for some technologies that have been identified as critical for the U.S. economy. Based on business survey data comparing other kinds of IP protection, 39% of firms that produce communication equipment and 34% of firms that produce pharmaceuticals and medicines consider utility patents very important (NCSES 2025a: Table 72).