

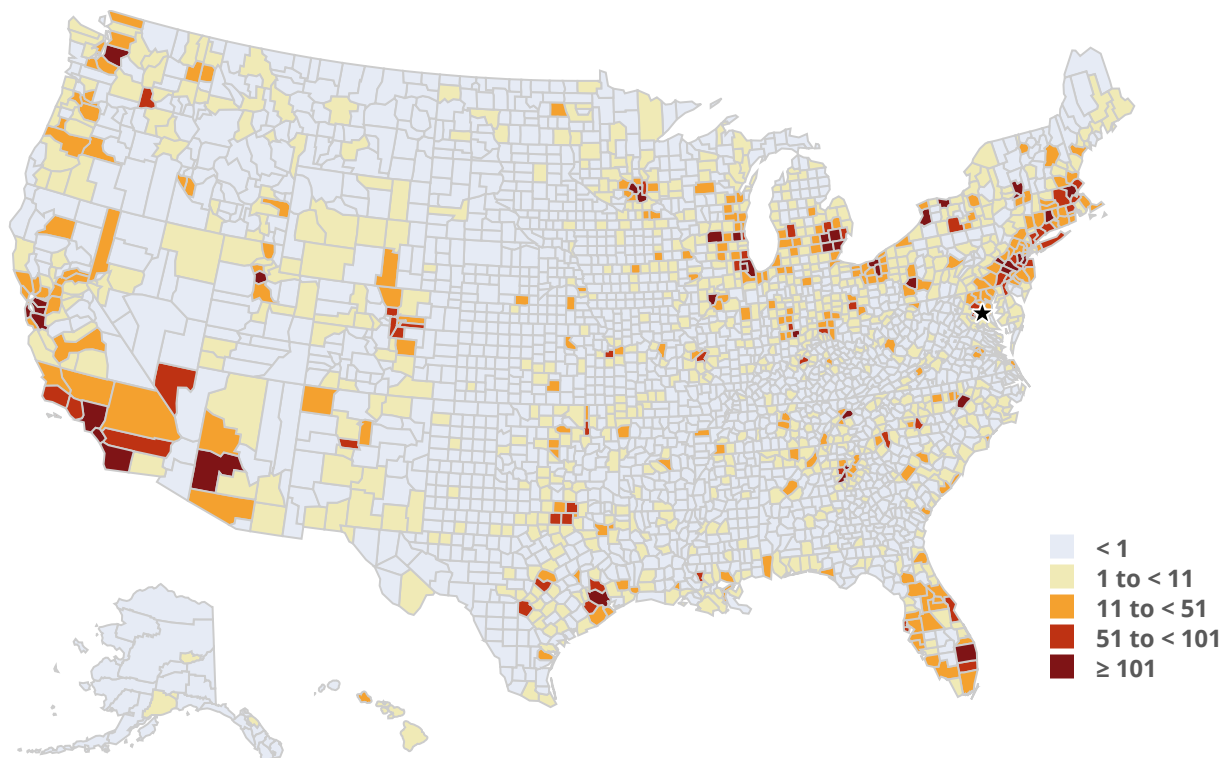


InfoChart

Great Lakes, Coastal, and Southwest Counties Have Highest Numbers of Environmental Technologies Utility Patents Granted between 2000 and 2020

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Figure 1 | USPTO utility patents granted to U.S. inventors in environmental technology, by U.S. county: 2000–20



USPTO = Patent and Trademark Office.

Note(s): Utility patents are fractionally allocated among counties based on the proportion of residences of all named inventors. *Science and Engineering Indicators 2022* classifies patent data into 35 comprehensive and nonoverlapping technology fields, which are based on the World Intellectual Property Organization’s 2008 International Patent Classification (<https://www.wipo.int/classifications/ipc/en/>). Patents identify inventions that may later be introduced into use as an innovation. Inventions are also protected by trade secrets and other forms of protection. Differences between technology classes are affected by the propensity to patent a particular type of technology, among other reasons.

Source(s): National Science Board, National Science Foundation. 2022. Invention, Knowledge Transfer, and Innovation. [Public Use file Supplemental Workbook INV-1](#). *Science and Engineering Indicators 2022*. NSB-2022-4. Alexandria, VA. Available at <https://nces.nsf.gov/pubs/nsb20224/>.

Two Michigan counties (Oakland and Wayne) in the greater Detroit area had the first- and third-greatest numbers of utility patents in environmental technologies granted to U.S. residents between 2000 and 2020. The greater Detroit region has historically been associated with the automobile industry. Between 2000 and 2020, U.S. residents were granted almost 22,300 environmental technology utility patents. During this time, Oakland County, Michigan residents received the highest

number of these patents (655), followed by Harris County, Texas (505), and Wayne County, Michigan (436). Residents of Cook County, Illinois received the fourth-highest number of patents (433); Los Angeles (416) and Orange (385) counties in California followed. Regionally, the Great Lakes, the southwest, and the coastal counties account for higher numbers of environmental technology utility patents.

Utility patents provide legal protection to novel and potentially useful inventions; the location where inventors reside is a geographic measure of innovative activity. The map above shows the cumulative number of Patent and Trademark Office utility patents granted in environmental technology between 2000 and 2020 to inventors residing in each U.S. county.

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