How Intellectual Property Drives U.S. Innovation and Biopharma's Impact

Biopharmaceutical companies are at the forefront of medical innovation. Every treatment the industry develops, and every therapy brought forward, is the result of many years of research, risk and investment. While some critics continue to question the necessity of intellectual property (IP) and patents in this process, the data tells a very compelling story.

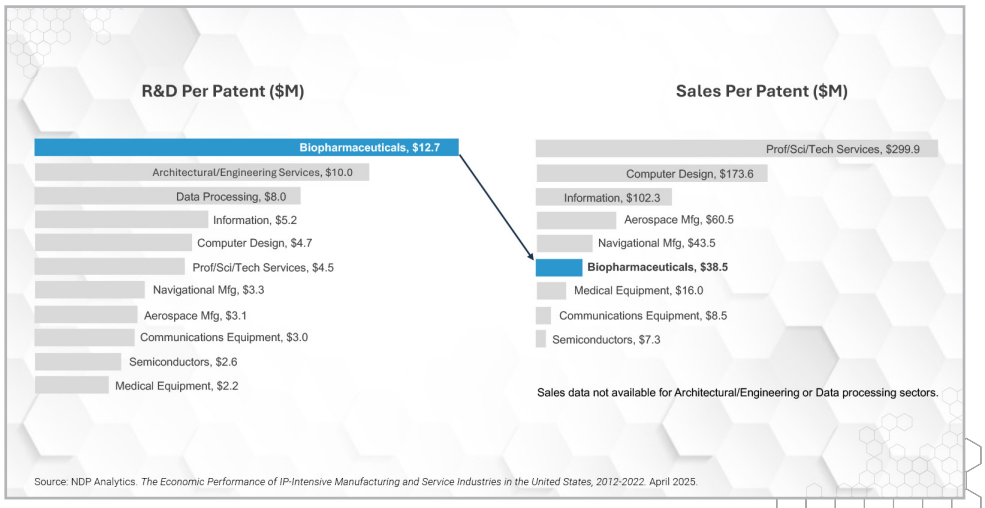
According to a new study from NDP Analytics,[i] IP is foundational to a productive modern economy and a crucial factor in sustaining American competitiveness. America's great competitive advantage is innovation, and IP protections, especially patents, are vital investments in high-risk projects leading to new innovations.

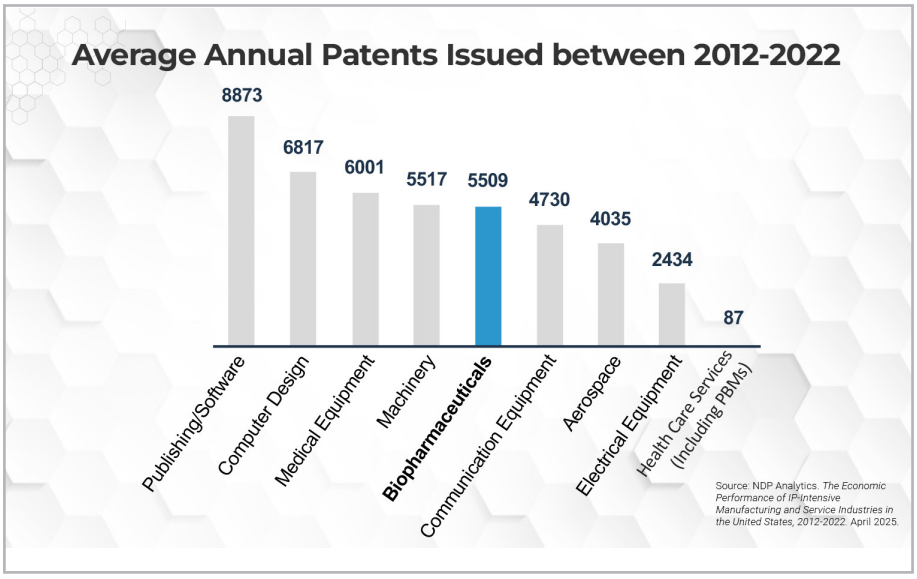
The new report compares the economic performance of U.S. industries according to R&D investment and the patented inventions resulting from that investment. The report shows that industries which patent more and invest more in R&D to develop patent-protected technologies have greater contributions to the U.S. economy, through higher wages, exports, output and GDP. Delving into the report's details reveals the outsized contributions biopharmaceuticals especially make to the U.S. economy.

Here are four key charts from the new data:

The biopharmaceutical industry invests more in R&D per patent than any other industry, but sales per biopharmaceutical patent are about average.

Biopharmaceutical companies invest more than $12 million for every patent issued by the USPTO—more than any other sector. Yet when it comes to sales generated per patent, the industry is squarely in the middle. This sales context is important because it demonstrates the biopharmaceutical industry's significant risk in drug development where even vital investments won't always be successful and be able to generate sales.



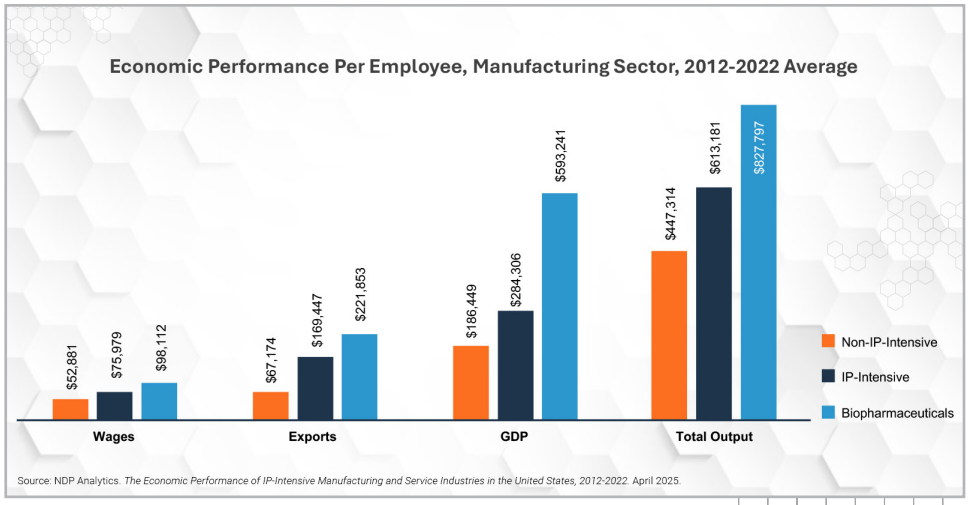


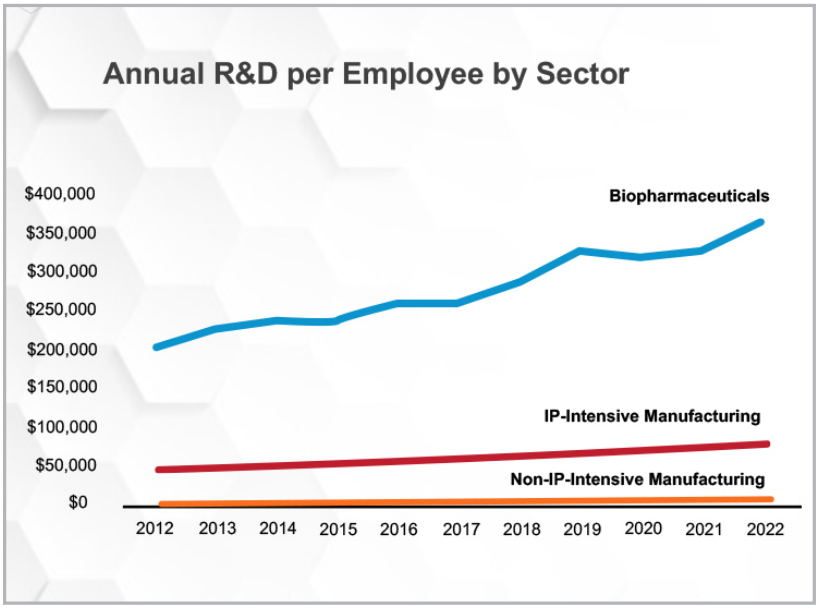
Despite investing the most, biopharmaceutical companies also rank in the middle in patent volume.

Even as biopharmaceutical companies commit massive resources to R&D, the industry ranks in the middle of the pack for annual issued patents as compared to other high-IP industries. This context is often overlooked by critics who focus on volume, not value.

The biopharmaceutical industry plays a critical role in powering the U.S. economy.

The more intensively industry invests in R&D to develop IP-protected inventions, the greater the economic return. Biopharmaceuticals, as the most R&D/IP-intensive industry, outperforms almost every other industry. Generally, the more IP held, and the higher R&D investment by an industry, the higher the productivity, output and wages will be in that industry.





IP-intensive industries outperform because biopharmaceuticals and IP-intensive manufacturers invest more in R&D and generate more patent-protected inventions than non-IP-intensive manufacturers.

The biopharmaceutical industry is investing, innovating and driving progress that is benefitting both patients and the American economy.

The data is clear, and the facts matter. Despite false narratives pushed by critics, patents are not just a legal tool, they're the foundation of America's innovation economy and support every medical breakthrough to date and every cure the biopharmaceutical industry is still chasing.

As the data shows, weakening that system will only risk the next generation of cures for patients and the well-being of the American economy.

i NDP Analytics. The Economic Performance of IP-Intensive Manufacturing and Service Industries in the United States, 2012-22. April 2025. https://ndpanalytics.com/the-economic-performance-of-ip-intensive-manufacturing-and-service-industries-in-the-united-states-2012-22/