

Special Edition • March 4th, 2010

U.S. HIGHER EDUCATION – RESEARCH AND DEVELOPMENT

When we advise prospective international students on the **quality** of U.S. higher education, we are promoting one of the [top reasons to study in the U.S.](#) American colleges and universities are known worldwide for the quality of their facilities, resources, and faculty. In addition, the U.S. is home to 75% of both the world's top 20 and top 40 universities and 58% of the top 100.

In the U.S., around 2% of the gross domestic product (GDP) is spent on research and development, accounting for 40% of the world total. According to the Chronicle of Higher Education, an estimated **\$49 billion** a year of R&D spending is by U.S. higher education institutions ([Almanac of Higher Education](#)). In addition, the U.S. has patented 38% of all new technology inventions by the industrialized nations of the Organization for Economic Cooperation and Development ([OECD](#)). It also employs 37% of OECD researchers (FTE), produces 35% of total world publications and 63% of highly cited publications, employs 70% of the world's Nobel Prize winners and 66% of its most-cited individuals, and has published 332,916 scientific papers in 2008, which accounts for 29% of the world total. Universities across America also fund graduate students in a range of academic programs. Funding is provided to a majority of Ph.D. and masters candidates in engineering, computer science, and math programs and to around half of those studying the humanities.

Moreover, U.S. institutions sparked a record number of companies in 2008, according to a survey by the [Association of University Technology Managers](#). The following [key highlights](#) were recently reported by the Chronicle of Higher Education and are worth noting in your advising sessions.

- Academic inventions from U.S. institutions in medicine, plant genetics, and alternative energy led to 543 new university spinoff companies in the 2008 fiscal year.
- U.S. college and university inventions generated more than \$2.3 billion in licensing revenue with much of the bigger returns coming from the life sciences.
- U.S. higher education institutions executed 4,438 licenses granting rights to companies and others for new products, and they applied for more than 10,800 patents.
- Three U.S. institutions topped the [Licensing Revenue and Patent Activity Report, FY2008](#) with more than \$100-million in revenue:
 - ❖ Northwestern University (\$824.4 million)
 - ❖ Columbia University (\$134.2 million)
 - ❖ New York University (\$104.2 million)
- The University of California State System received a combined total of \$146.3 million in revenue, formed 55 new start-up companies, and was issued 899 new patents.
- The Chronicle also noted that 29 U.S. institutions saw revenue in excess of \$10-million, and forty-two institutions earned between \$1 and \$5 million.
- Universities that specialize in clean energy and alternative fuels saw the most notable benefits. The University of Texas at Austin, for instance, topped \$11.6 million in revenues and formed 10 new spinoff companies.

*– Edited by Richard O'Rourke, Nancy W. Keteku and Rita Moriconi,
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