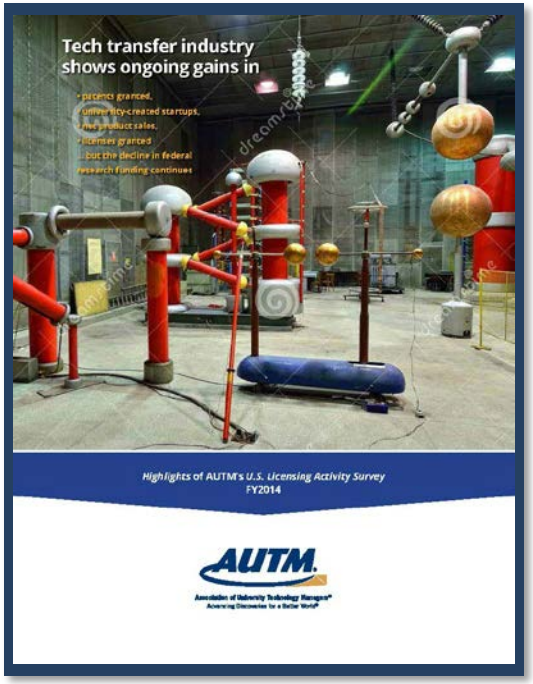
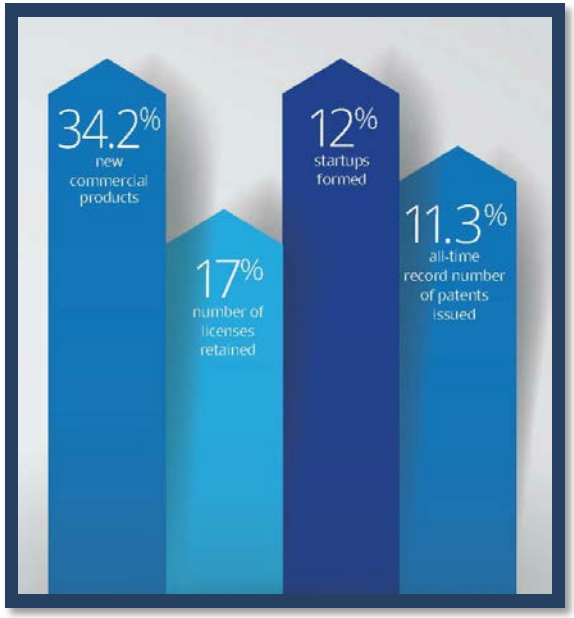
AUTM U.S. Licensing Activity Survey: FY2014



FY2014 Licensing Activity Survey



AUTM's survey data show impressive gains:

- Record number of U.S. Patents issued
- Continuing increase in startups launched
- Growth in new commercials products
- Overall impact on the economy

Boosting Economy with University and Nonprofit Patent Licensing

Economic impact from 1996 to 2013:

- Up to **$518 billion** on US gross domestic product
- Up to **$1.18 trillion** on US gross industrial output
- Creating as many as **3.8 million jobs**

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Jump in Startups

- **914** startup companies formed (**up 11%**)
- **4,688** startups operating by end of FY2013 (**up 11.4%**)
- **702** startups stayed in institution's state (**up 14.8%**)
- **77%** of startups operate in home state where research conducted

While only half of all new businesses formed in the United States survive more than five years, companies grounded in federally funded university research appear to do better.

THE SCIENCE COALITION

Growth in New Commercial Products

- **965** new commercial products created (**up 34%**)
- **$28 billion** net product sales (**up 27.2%**)
- Nearly **10,000 patented products being sold** that originated in academic research labs

Remicade®, developed by researchers at New York University, reduces symptoms of Crohn's disease for 1.3 million adult and teen patients worldwide

Declining Federal Research Funding

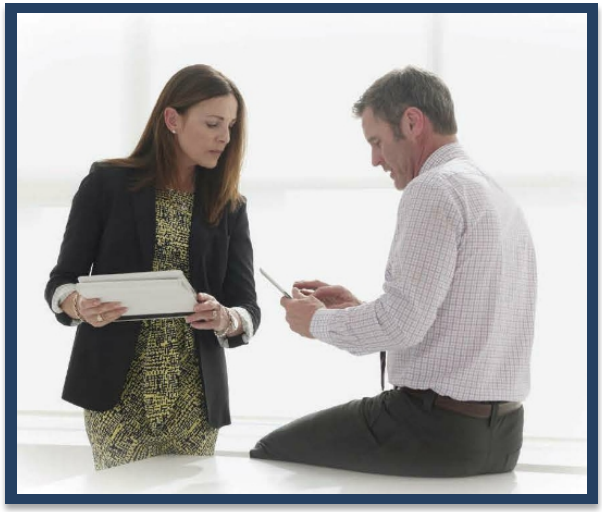
- **$62.8 billion** total research expenditures (**down 3.6%**)
- **$37.9 billion** total research expenditures (**down 5.0%**)
- National Institutes of Health (NIH) grants declined every year since 2004

$57.5 billion reduction in federal funding if sequestration remains through 2017

AAAS
ADVANCING SCIENCE, SERVING SOCIETY

Increased Partnership Activity Between Academia and Industry

- **$4.6 billion** industry-sponsored expenditures (**up 1%**)
- **549** executed licenses containing equity (**up 17%**)
- **5,435** licenses executed (**up 4.5%**)
- **1,461** options executed (**up 7.7%**)
- **42,015** active licenses and options (**down 2.9%**)



Record Number of U.S. Patents Issued

- **6,363** U.S. patents issued (**up 11%**)
- **23,526** total US patent applications filed (**up 0.10%**)
- **13,907** new patent applications filed (**down 7.26%**)
- **1,107** non-US new patent applications filed (**down 24.8%**)

More than 80,000 patents have been issued to research institutions over past 20 years

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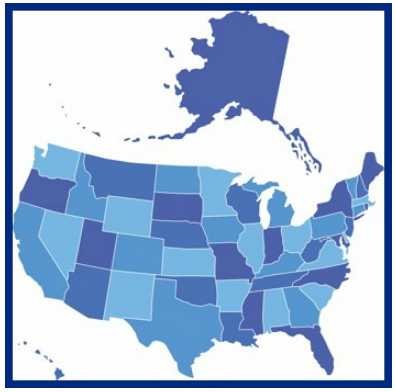
About the Survey



191 responded (**63%** response rate)

- **163** universities
- **27** hospitals and research institutions
- **1** third-party investment firm

Communicating Impact of Technology Transfer

- Infographic — Society Benefits and Economic Impact
- Postcard — Human Side of Technology Transfer

Technology Transfer Continues to Evolve

- Roles of TTO's expanding beyond traditional patents & licensing
  - Industry Engagement
  - Economic Development

- 48 universities received APLU designation as Innovation & Economic Prosperity Universities

MORE THAN MONEY: THE EXPONENTIAL IMPACT OF ACADEMIC TECHNOLOGY TRANSFER

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Revenue generation	• Unrestricted funds to institution from license income • Direct personal financial benefit to inventors and authors
Increased opportunities for funding	• Eligibility for funding by compliance with federal regulations requiring a technology transfer program • Increased opportunities for inter-institutional and interdisciplinary grants • Outreach, licensing, and facilitation of new startups yield new funding partnerships • Increased opportunities for funding sources requiring a commercial partner, for example, SBIR and STTR • Facilitates establishment of international research relationships
Promotes a culture of entrepreneurship and innovation	• Successes increase university brand and prestige • Enhances university fundraising efforts • Opportunities to strengthen donor ties by engagement with startups • Positively factors into high level recruitment efforts • Positively affects retention of high-producing and high-potential faculty
Student success	• Provides opportunities to participate in real-world translational research • Provides exposure to the process of obtaining intellectual property protection • Strengthens prospects of finding jobs and being successful
Public benefit	• Fulfills the university's larger missions to address social, medical, environmental, or technical problems • Improves the quality of life
Economic development	• Revenue from university licensing positively affects the US economy • Brings money into the state or region • Aids in the retention of local talent • New university startups create high-wage jobs

The 9 Points- still relevant

- **Point 1** Universities should reserve the right to practice licensed inventions and to allow other non-profit and governmental organizations to do so
- **Point 2** Exclusive licenses should be structured in a manner that encourages technology development and use
- **Point 3** Strive to minimize the licensing of “future improvements”
- **Point 4** Universities should anticipate and help to manage technology transfer related conflicts of interest
- **Point 5** Ensure broad access to research tools
- **Point 6** Enforcement action should be carefully considered
- **Point 7** Be mindful of export regulations
- **Point 8** Be mindful of the implications of working with patent aggregators
- **Point 9** Consider including provisions that address unmet needs, such as those of neglected patient populations or geographic areas, giving particular attention to improved therapeutics, diagnostics and agricultural technologies for the developing world

Patent Troll Legislation

- Effective IP protection is one of the most reliable indicators of a robust & growing economy- patents promote innovation

- Legislation could threaten the ability of all patent holders to enforce their rights

Advancing Early Stage Technologies

- Early Stage and Gap Funding Opportunities Need Money available including where there is not yet a company
- I-Corps education and development
- Incubators and Accelerators
- SBIR/STTR programs

Material Transfer Agreements

- Universal Material Transfer Agreements
- AUTM Efforts to Streamline
- Maximize Access