

# AUTM 2017 Licensing Activity Survey

**A Survey of Technology Licensing and  
Related Activity for US Academic and  
Non-profit Research Institutions**



# AUTM 2017 Licensing Activity Survey

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# Executive Summary

Every year, universities, hospitals and research centers around the globe develop inventions — more than 380,000 in the past 26 years — from lifesaving drugs to strawberry varieties. Many have undoubtedly touched your life. It is thanks, in part, to technology transfer.

At its core, technology transfer is the process of transitioning scientific findings from one organization to another with the aim of development and commercialization. This process involves identifying new technologies, safeguarding them with patents, copyrights or other types of intellectual property protection, and licensing those rights to industry. As a membership organization supporting the efforts of the thousands of professionals within the technology transfer industry, AUTM has seen the profession evolve and expand beyond core functions to include corporate engagement, business creation and economic development, which today are vital components of the academic commercialization ecosystem.

This year, AUTM invited 312 institutions to participate in its US Licensing Activity Survey and 193 responded. The highlights of the survey are thought-provoking and shine a light on the changing tech transfer profession.

## Start-ups Flourishing

According to the survey, start-up formation increased 32 percent in 2017 from the 818 start-ups formed in 2013. In addition, 6,050 start-ups were reported to be still operational, a 43.8 percent increase from 2013. Given those facts, the role a technology transfer office (TTO) plays within an entrepreneurship ecosystem is growing and becoming more impactful. Recognizing that most university start-ups are formed around patented technology, this prolonged growth and increased survival rate are reflective of research showing that start-ups with patents are 35 times more likely to be successful than start-ups without patents.<sup>1</sup>

## Growing Uncertainty

While patents are shown<sup>2</sup> to be a major driver of long-term economic performance, recent court decisions have significantly increased the uncertainty regarding their true value. This concern can be illustrated by examining the invention disclosure and new patent application rates. In 2017, universities reported 24,998 disclosures, 3.2 percent lower than the all-time high reported in 2016 and the first-ever decrease. And in 2017, there was a much larger decrease of 7 percent in new patent applications compared with 2016. Therefore, it appears that offices are filing patent applications on those disclosures at a significantly reduced rate than in previous years. While this observation has been made using just a year of data, it may portend a shift in strategies. Other factors may also contribute to this metric — from potential changes to federal technology transfer being led by the National Institute of Standards and Technology, to challenges to the Bayh-Dole Act and the growing concern regarding *inter partes* review.

If you'd like more information beyond the Survey, consider our STATT database, which contains the past 26 years of collected data.



Ragan Robertson  
Cabinet Chair  
AUTM Metrics and Surveys Portfolio

1. [https://sites.nationalacademies.org/cs/groups/dbassessite/documents/webpage/dbasse\\_172827.pdf](https://sites.nationalacademies.org/cs/groups/dbassessite/documents/webpage/dbasse_172827.pdf)

2. **Patenting Prosperity: Invention and Economic Performance in the United States and its Metropolitan Areas**  
Brookings Institution - Metropolitan Policy Program at Brookings - 2013



## **Honeycrisp: The Apple of Minnesota's Eye**

University of Minnesota

Jim Luby and David Bedford's laboratory features a 30-acre orchard that is ground zero for the renowned apple breeding program at the University of Minnesota (UMN). It's where, in 1991, the two researchers introduced a new apple that captivated consumers around the globe and revived a flagging industry back home. They named it Honeycrisp.

"It had this amazing texture in your mouth — an explosive crunch, and then the juice filled your mouth," said Luby, who supervises UMN's fruit breeding programs.

New apple varieties take two decades or more to develop. Honeycrisp required pollinating blossoms by hand, grafting seedlings onto rootstock, cloning and growing test trees, and then passing the all-important taste test.

**From the start, growers gushed about Honeycrisp's amazing taste: simultaneously tart and sweet. The New York Times excitedly called it "the iPod of apples" and "already a legend in its time."**

Honeycrisp was just the 27th new apple variety released by the Minnesota Agricultural Experiment Station since 1908. The odds of any variety becoming a commercial success are usually listed as 1 in 10,000. Luby said Honeycrisp "raised the bar for everyone" to two or three times that level.

Patented in 1990, it's now one of the top six apples grown in the United States. That customers proved willing to pay double or more for Honeycrisps was great news for growers, especially small, family-run orchards in the Upper Midwest and New York looking for an economic booster shot.

It was also a welcome boon for UMN, where royalties on Honeycrisp and Honeycrunch (as it's known in Europe) have exceeded \$14 million, making the apple the university's third-most profitable invention ever.

Small wonder, then, that — at the urging of elementary schoolchildren — it was named Minnesota's official state fruit.

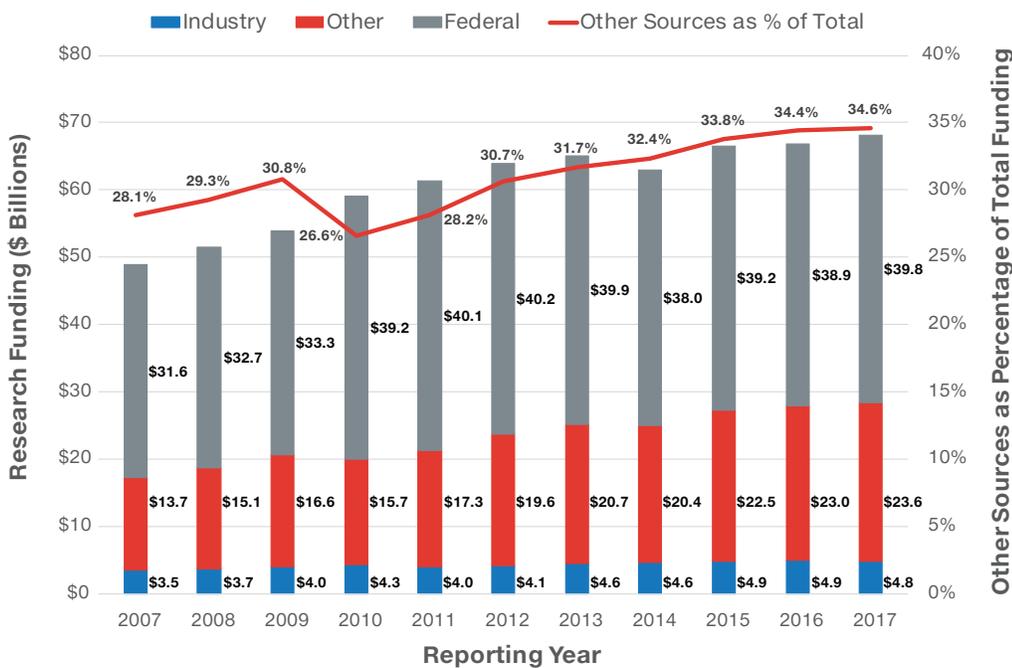
# Research and Development

Funding the work of researchers and scientists at colleges, universities and other research institutions is the first step in developing technologies that eventually improve our world. Funding comes from the federal government, industrial sponsors and other sources.

In 2017, total research expenditures were up nearly 2 percent or \$1.3 billion over 2016. Federal funding, which has largely remained stagnant since 2010, increased slightly, but is not expected to grow substantially in the near term. The biggest funding change occurred in the “Other” research dollars category, which increased 2.7 percent from 2016 levels. This category can include funding sources such as grants from non-profit organizations or state and city grants. However, over the past 10 years, growth in this category has steadily outpaced relatively flat federal and industrial funding. This trend indicates that institutions are successfully pursuing more non-traditional funding sources and partnerships.

## Key Findings

- Research expenditures grew to \$68.2 billion, an increase of almost 2 percent over 2016.
- Research funding is trending toward new sources: “Other” research dollars have increased 14.3 percent over the past five years.
- In 2017, industrial funding declined for the first time in seven years, decreasing 2.1 percent or \$105 million over the prior year. Over the past five years, industrial funding has shown modest growth of 5 percent.



**Other Funding Sources Playing Bigger Role in Research**



## Taking a Chance on Google

Stanford University

In 1996, Stanford University graduate students Larry Page and Sergey Brin created PageRank, a sorting system for the burgeoning World Wide Web. This led to a new search engine called Google, which expanded to become one of the most profitable tech companies in the world and one of the most financially successful inventions ever licensed by a university.

Google provides a host of cutting-edge, internet-related services and has fanned out into other fields with creative products such as smart glasses and self-driving cars.

Intrigued by the mathematical relationships they observed on the rapidly expanding web, Page and Brin designed an algorithm that used all the links on different webpages to search and rank various sites.

They launched their search engine on Stanford's website in March 1996. Within six months, PageRank's popularity had overloaded Stanford's bandwidth, shutting down the university's internet access several times. "We were lucky there were a lot of forward-looking people at Stanford," Page said. "They didn't hassle us too much about the resources we were using."

The university's Office of Technology Licensing (OTL) undertook marketing the technology to prospective business partners. Frustrated that investors were failing to recognize PageRank's value, Page and Brin founded Google (derived from googol, the name for the numeral 1 followed by 100 zeroes) to market and commercialize their search engine.

**“Two of our graduate students had developed what they passionately believed was the best search engine in the world, yet existing companies didn’t believe them,” said Katharine Ku, then head of Stanford’s Office of Technology Licensing. “They also had no business experience or knowledge about how to build a company. Who would take a chance on them? We did.”**

After Google incorporated in 1998, Stanford licensed the PageRank algorithm to the new start-up. In just two years, Google became the world's largest search engine, with more than 1 billion webpage addresses in its index. The company went public in 2004.

Supporting Google was a gamble for Stanford, but it paid off handsomely. Google is far and away the most financially successful invention ever licensed by the university.

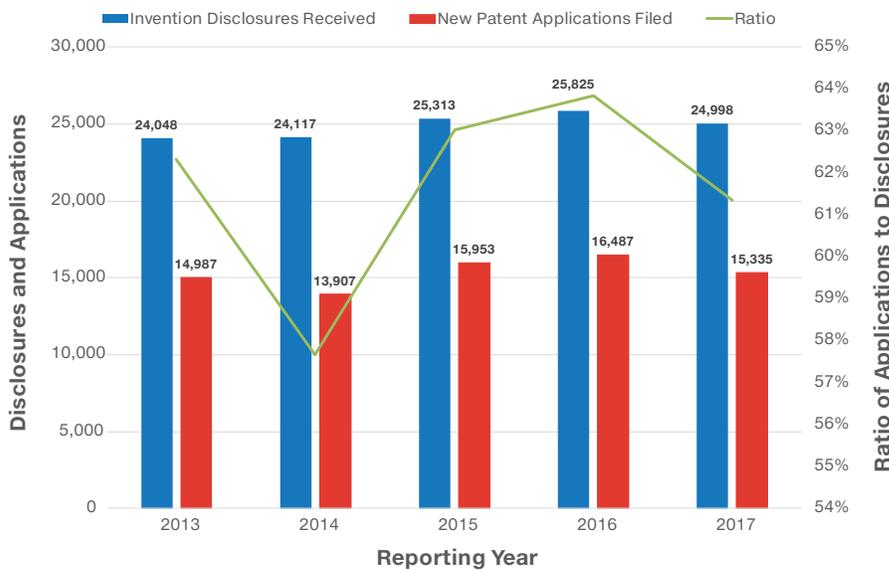
# Invention

The disclosure is the launching pad for evaluating new inventions, analyzing market potential and developing strategies for protecting the intellectual property.

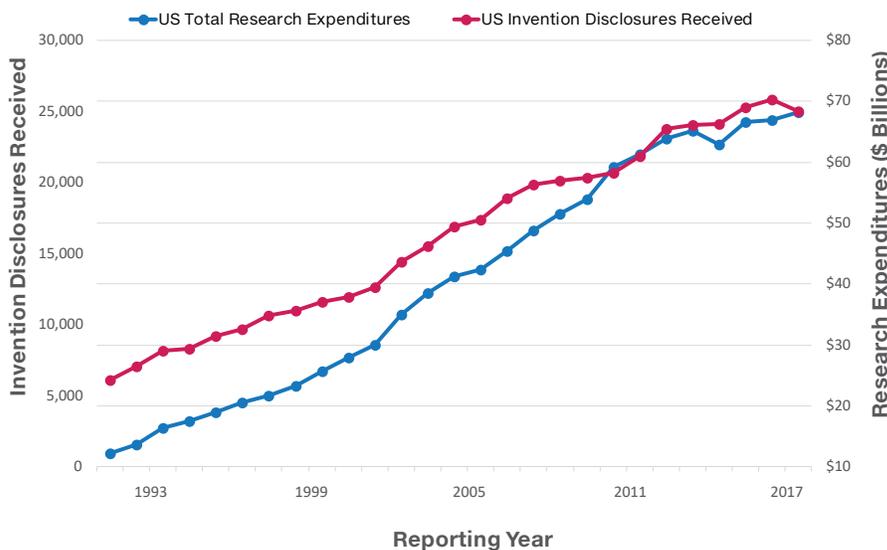
In 2017, disclosures fell 3.2 percent over the previous year, the first decline reported in this category since we began collecting data in 1991. Although disclosure rates have increased 4 percent over the past five years, the 2017 dip is consistent with the headwinds that TTOs are feeling regarding institutional research and TTO funding, inventor outreach and commercialization. It is unclear if disclosures have reached a plateau or if they will regain an upward trajectory.

## Key Findings

- 24,998 invention disclosures reported in 2017.
- More than 440,000 inventions reported since 1991.
- On track to reach 500,000 inventions within the next three years.



Disclosures Received and New Patent Applications Filed for US Research Institutions



Invention Disclosures Grow with Increased Research Funding

## Intellectual Property Protection

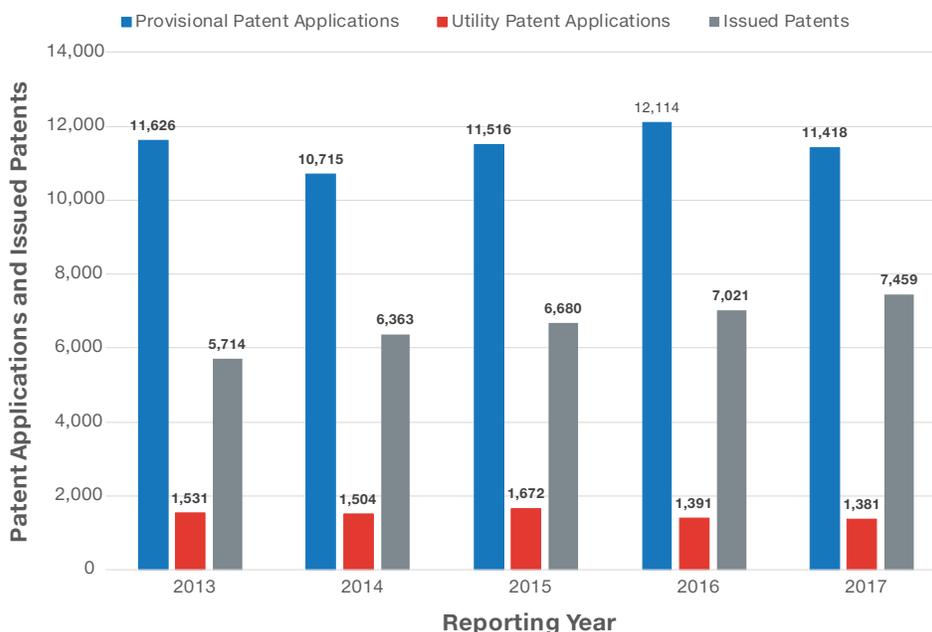
A key step in the transfer of technology is the protection of new inventions. Patent protection provides both economic opportunities for sponsoring research institutions and an incentive for entrepreneurs and companies to invest in new technologies.

The number of patent applications, including new provisional and utility patents filed in the United States by research institutions, decreased in 2017. While this drop in provisional patents represents a one-year dip, filings for US utility patent applications have been in decline for three years. This trend may reflect concerns over the erosion of patent rights in the United States resulting from recent US Supreme Court rulings. The 7,459 US patents issued in 2017 were the most in the history of the survey.

### Key Findings

- 7,459 US patents were issued in 2017, the most ever reported.
- Provisional patent applications (down 5.7 percent in 2017 from 2016) have essentially remained flat for the past five years.
- US utility patent applications, although down 0.72 percent in 2017 from 2016, have essentially remained flat for the past five years.

### US Provisional, Utility and Issued Patents





## Small Chips Tackle Big Problems

Harvard University

People all over the world who have never heard of George Whitesides owe him a debt of gratitude, or will one day.

Among his many research interests, the Harvard chemistry professor is known for groundbreaking work in microfluidics, the manipulation of minute amounts of liquids in tiny spaces.

Whitesides invented a paper-based microfluid chip the size of a thumbnail — a miniature, portable laboratory that can test a tiny sample of bodily fluid for signs of health or disease.

**The paper-based thumbnail-sized chip is inexpensive to make, easy to use and, most important to its inventor, ideal for helping people in the developing world and other resource-poor areas.**

In 2007, Whitesides and like-minded colleagues started a non-profit company, Diagnostics for All (DFA), aimed at making the patterned-paper technology available worldwide.

The paper is patterned with water-averse polymers, forming a series of channels that guide a fluid sample to a specific location on the chip that is pretreated with a reagent. When the reagent is exposed to the fluid sample, it results in a color change that can be translated into a diagnosis.

Citing its commitment to acting with flexibility and speed to improve global health, Harvard, through its Office of Technology Development, in 2009 provided DFA exclusive licensing rights for diagnostic technology developed by the Whitesides Research Group at the university.

DFA's first paper-based diagnostic chip test was for liver function. This simple procedure, in which a drop of blood is assessed in about 15 minutes, could save thousands if not millions of lives once the test receives full approval. Early diagnosis of impaired liver function could help people with AIDS or tuberculosis. More than 400,000 people in Africa died from TB in 2016, according to the World Health Organization.

Other uses for the paper-based technology include measuring micronutrient levels in children and assessing vaccination coverage and disease incidence in the developing world. In fact, DFA's scientists say the sky's the limit on the types of tests that can be embedded on a paper chip.

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## Licensing

The next step in the commercialization process for protected intellectual property is licensing. The number of exclusive licenses executed is a leading indicator of licensing revenue and the commercial development of new products and services five to 10 years later.

Since generating more than \$1 million in licensing revenue is a rare event (accounting for less than 1 percent of all licenses in 2017), the more exclusive licenses executed, the better the chance at generating revenue. In 2017, 2,037 exclusive licenses were executed, a slight decrease of 1.3 percent from 2016 and down 3.3 percent from 2015. Conversely, there was a slight increase in the number of options and non-exclusive licenses over the past two years. Viewed together, these data points may be a sign of a declining risk appetite among commercial entities for university licenses.

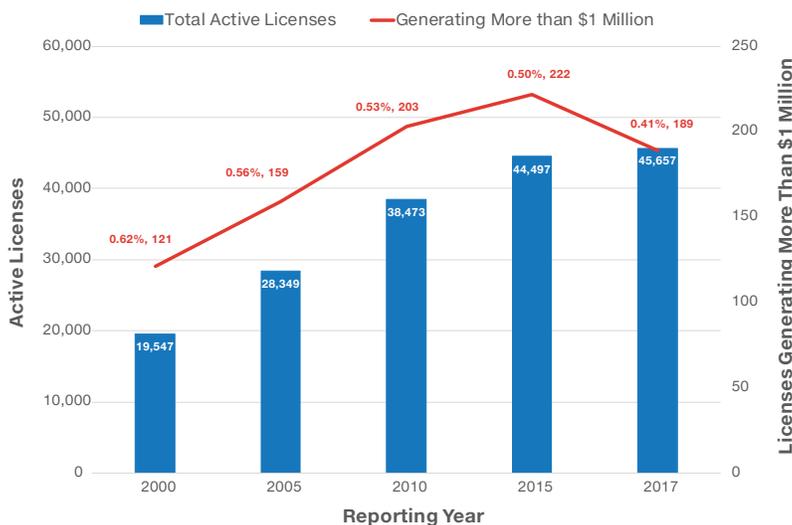
### Key Findings

- All three categories — exclusive licenses, options and non-exclusive licenses — have been relatively flat when viewed over the past three years.
- Exclusive licenses were down 3.3 percent in 2017 (2,037) compared with 2015 (2,107).
- Options were up 1.2 percent in 2017 (1,566) over 2015 (1,547).
- Non-exclusive licenses were up 1.9 percent in 2017 (4,195) compared with 2015 (4,115).

### Exclusive Licenses, Options, and Non-Exclusive Licenses



### \$1 Million Mark Is Tough to Crack





## Beating the Odds Against Prostate Cancer

Roswell Park Cancer Institute

About one in nine American men will be diagnosed with prostate cancer in their lifetime. With about 164,000 new cases annually, it is the most common cancer among US men. But what just a few decades ago was viewed as a near-death sentence today boasts a 10-year survival rate of 98 percent, due largely to earlier detection linked to a simple blood test.

“The PSA test absolutely revolutionized the way we approach prostate cancer diagnosis,” said Donald L. Trump, former president and CEO of what is now Roswell Park Comprehensive Cancer Center in Buffalo, New York, where initial research on the test was conducted.

“PSA” refers to “prostate-specific antigen,” a protein found in blood. Elevated PSA levels can, but do not necessarily, indicate prostate cancer. However, a PSA test can detect prostate cancer long before symptoms appear, giving “advance warning so [patients] can consider various treatment options before the cancer spreads,” said Richard Matner, director of technology transfer and commercial development at the institute.

**Administered to millions each year, the PSA test has practically become routine for American men in their 50s and older. Besides being used for early detection, it is a valuable tool in monitoring the efficacy of treatments for those diagnosed with prostate cancer, and an effective predictor of the disease’s recurrence.**

Although PSA levels alone do not offer enough data to distinguish between benign and cancerous prostate conditions, physicians and their patients use the test results to determine their next steps in checking for other signs of cancer.

The test’s origins can be traced to the pioneering work of Roswell Park researchers led by T. Ming Chu, who in 1979 reported the discovery and purification of the PSA. This led to development of a test to detect the antigen. A patent was issued in 1984.

The technology was eventually licensed to a California biotech company, which developed the first commercially viable PSA test. In 1994 the Food and Drug Administration approved its use as an early screening tool for prostate cancer.

“There is no doubt that thousands of men would not be alive today if the PSA test had not come along,” said Trump.

## Product Development

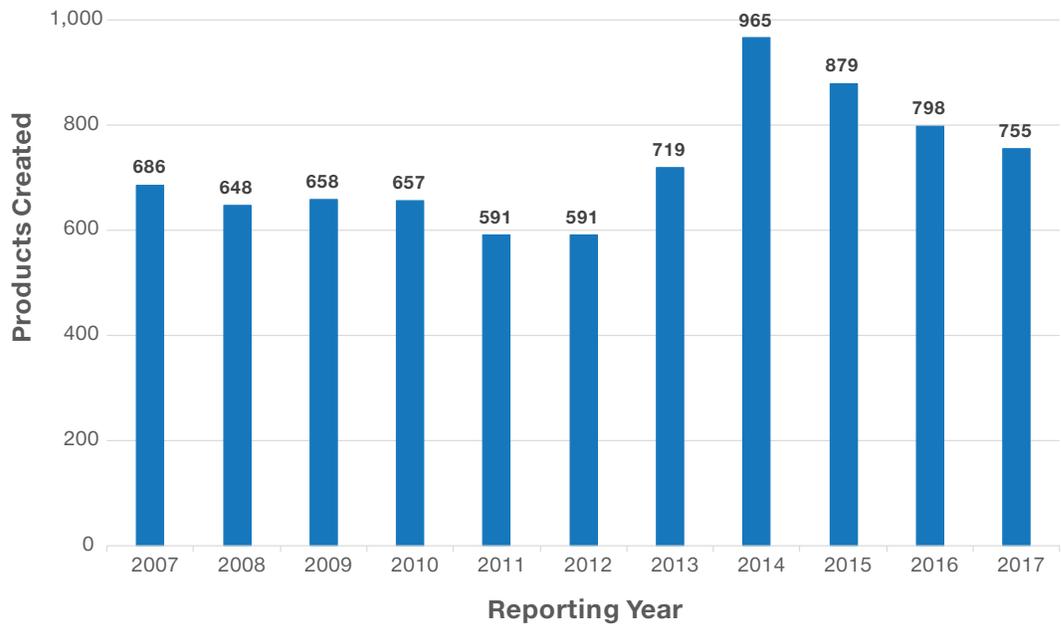
The arrival of new products in the marketplace is the culmination of successful tech transfer, from idea, research and development to intellectual property protection and licensing—a strategic, collaborative and often complicated process led by tech transfer professionals.

AUTM members reported 755 new products in the market in 2017, a 5.4 percent decrease from 2016. After a relatively flat period from 2007 to 2012, the number of new products spiked in 2014. The numbers have since retreated to 2013 levels, with minimal gains between 2016 and 2017. Viewed over a 10-year period, the gains are more tangible.

### Key Finding

- 7,947 new products created over the past 10 years.

### New Product Ups and Downs

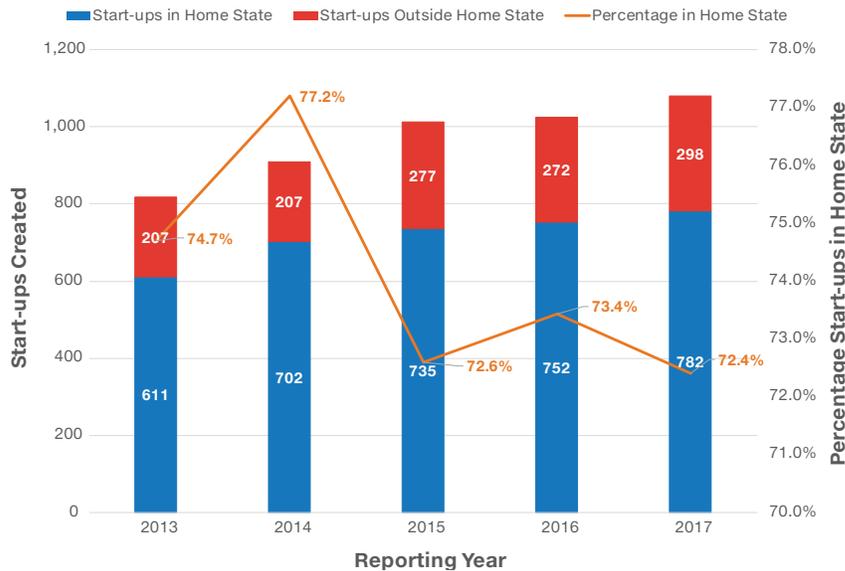


# Public Use and Economic Growth

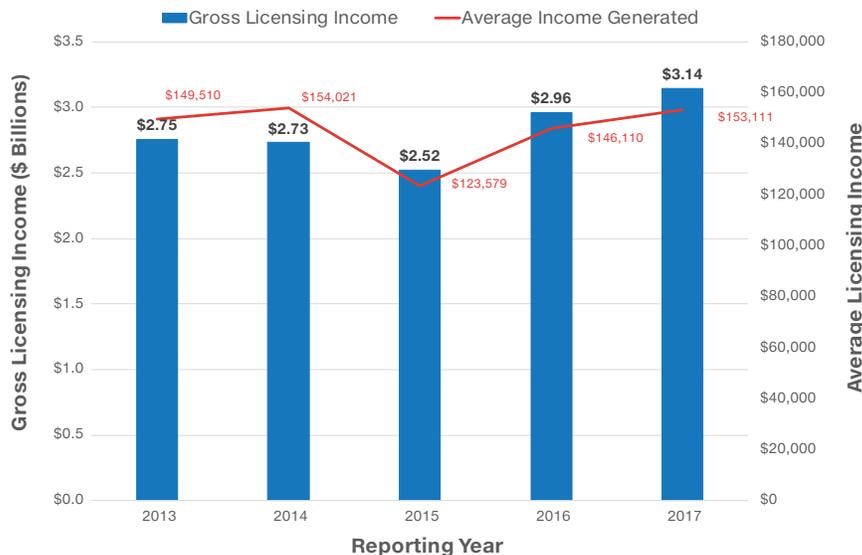
Start-ups continue to be a core focus of university technology transfer offices. In 2017, 1,080 start-ups based upon foundational university intellectual property were formed, an increase of 32 percent over the past five years. Of these start-ups, 72.4 percent were incorporated within the institution's home state. More than \$3 billion in gross licensing revenue was reported in 2017, the highest amount ever. Start-ups continue to be a core focus of university technology transfer offices.

## Key Findings

- 1,080 start-ups formed.
- 72.4 percent of these start-ups were headquartered within the home state of the institution.
- More than \$3 billion in licensing revenue reported.



Start-ups  
Contribute to  
Local Economies



Licensing Income  
Hits Record High



## The Birth of Allegra

Georgetown University

When Raymond Woosley discovered fexofenadine's role as a safe and effective allergy medicine — you know it as Allegra — he didn't realize it would transform the science of drug development. Today, Allegra is one of the most popular antihistamines in the world, restoring an otherwise unattainable quality of life for serious allergy sufferers.

Woosley, then chairman of pharmacology at Georgetown University Medical Center, was part of a team investigating problems with the drug Seldane (terfenadine), marketed in 1985 as the first “non-drowsy” allergy medicine. He found previously overlooked reports suggesting that an interaction between Seldane and other common drugs could cause serious, sometimes fatal heart rhythm disorders.

During his research, Woosley also discovered that a breakdown product of Seldane — fexofenadine — was the actual ingredient that suppressed allergy symptoms, with no serious side effects.

With the help of Georgetown's Office of Technology Commercialization (OTC), Woosley patented fexofenadine as a non-toxic allergy medicine. OTC's critical role included managing key language in the development agreement.

Following approval by the Food and Drug Administration in 1996, the drug was marketed as Allegra. Shortly afterward, terfenadine and several other medications found to pose similar risks were pulled from the market.

**Woosley's work transformed the drug development process at an international level. Based on his studies, the FDA and other regulatory agencies published guidelines requiring testing of new drugs for their potential to cause heart arrhythmias. These guidelines are essentially the same tests and protocols that Woosley conducted on terfenadine.**

The FDA approved over-the-counter sales of Allegra in 2011. Five years later, sales topped \$221 million, making Allegra one of the five best-selling non-prescription allergy medicines in the United States.

Woosley has continued his mission to make drugs safer. He is founding president of the Arizona Center for Education and Research on Therapeutics, a non-profit dedicated to the safe use of medications.

“Patients are dying needlessly from drugs and drug combinations that are often taken to treat common, relatively trivial illnesses,” he said. “Although these kinds of side effects resulting in death are rare, they are preventable, and even one death is unacceptable.”

# AUTM 2017 Licensing Activity Survey

Data Appendix

Institution				Key Metrics							Cumulative, 2015–2017				Other Benchmarks		
Name of Institution	Type of Institution	Program Start	Licensing Full-time Equivalent	Total Research Expenditures	Total Licenses	Total Options	Gross License Income Received	Disclosures	New Patent Applications	Startups	Total Research Expenditures	Disclosures	Adjusted Gross Income	Adjusted Gross Income	Active Licenses and Options	Patents	Running Royalties
Albert Einstein College of Medicine, Inc.	University	1985	2.00	\$184,894,950	20	2	\$4,641,239	52	25	5	\$546,465,830	157	\$13,319,703	\$4,537,352		14	\$2,597,889
Arizona State University	University	1985	7.50	\$546,530,000	52	45	\$770,443	277	183	15	\$1,523,181,000	816	\$13,080,993	\$767,622	290	85	\$116,938
Auburn University	University	1988	4.00	\$190,340,000	10	12	\$1,414,816	70	33	3	\$478,620,000	198	\$3,792,994	\$1,414,816	89	15	\$400,851
Augusta University	University	2001	3.00	\$99,661,000	8	1	\$389,743	40	10	4	\$238,735,000	125	\$3,324,561	\$384,520	54	7	\$62,215
Baylor College of Medicine	University	1983	6.00	\$453,867,867	38	4	\$3,699,040	100	78	7	\$1,263,709,289	316	\$29,176,559	\$3,699,040	700	17	\$1,985,297
Beth Israel Deaconess Medical Ctr.	Hospital/ Research Inst.	1997	3.00	\$235,802,000	15	4	\$2,848,334	74	36	2	\$664,663,000	239	\$8,983,098	\$2,848,334	186	18	\$1,851,416
Boise State University	University	2009	1.00	\$34,992,389	27	1	\$39,231	14	8	0	\$98,418,979	45	\$114,553	\$39,231	48	3	\$1,249
Boston University/ Boston Medical Ctr.	University	1976	7.00	\$440,919,025	6	4	\$2,270,889	77	123		\$1,286,221,499	286	\$4,364,374	\$2,122,132	118	25	\$399,031
Bowling Green State University	University	2001	0.00	\$14,333,000	1	0	\$3,000	6	2	0				\$3,000	3	1	
Brandeis University	University	1998	3.50	\$61,278,788	5	0	\$2,323,914	62	12	1	\$186,297,047	200	\$5,701,249	\$2,300,715	36	12	\$2,102,984
Brigham & Women's Hospital, Inc.	Hospital/ Research Inst.	1986	10.00	\$684,583,480	39	11	\$13,633,253	182	451	9	\$1,997,039,777	593	\$27,353,269	\$8,574,151	68	61	\$11,275,236
Brigham Young University	University	1986	5.00	\$34,278,900	29	6	\$2,325,153	96	147	15	\$101,994,157	254	\$8,813,496	\$2,311,685		29	\$2,325,153
Brown University	University	1983	4.00	\$167,953,131	3	2	\$1,097,059	71	67	3	\$476,786,837	196	\$3,776,543	\$1,097,059	40	12	\$920,902
California Inst. of Technology	University	1995	8.00	\$366,098,909	47	17	\$10,034,315	268	284	16	\$1,081,613,551	906	\$45,222,327	\$9,569,259	395	190	\$1,815,321
Carnegie Mellon University	University	1992	9.50	\$249,019,000	76	1	\$758,408,215	258	83	10	\$732,786,000	988	\$780,729,213	\$758,340,781	812	51	\$1,644,139
Case Western Reserve University	University	1986	6.00	\$309,484,000	51	8	\$1,126,437	245	150	8	\$938,345,000	766	\$4,395,333	\$974,529	362	48	\$439,278
The Catholic University of America	University	1997	0.20	\$21,133,225	0	0	\$18,840	2	2	0	\$62,919,949	7	\$138,798	\$18,840	5	5	\$0
Cedars-Sinai Medical Ctr.	Hospital/ Research Inst.	1991	4.00	\$161,072,533	9	3	\$28,100,000	82	60	3	\$424,973,277	266	\$69,595,400	\$28,071,975	83	12	\$25,413,500
Children's Hospital Boston	Hospital/ Research Inst.	1991	7.00	\$355,020,000	34	6	\$9,154,738	144	68	5	\$978,619,900	443	\$21,742,591	\$7,200,000	455	51	\$5,575,647
Children's Hospital of Philadelphia	Hospital/ Research Inst.	1991	3.00	\$383,865,000	13	1	\$1,166,888	87	120	0				\$1,110,183	36	6	\$855,788
City of Hope National Medical Ctr. & Beckman Research Inst.	Hospital/ Research Inst.	1986	5.00	\$448,796,000	16	0	\$390,749,624	82	70	2				\$389,774,624	16	34	\$386,048,624
Clemson University	University	1987	3.50	\$89,547,288	8	1	\$539,490	65	19	3	\$242,348,525	198	\$1,280,688	\$536,990	62	18	\$135,734
Cleveland Clinic	Hospital/ Research Inst.	1989	22.45	\$276,000,000	38	5	\$14,923,008	251	99	3	\$787,000,000	679	\$52,882,785	\$14,922,936	329	65	\$5,147,642
Cleveland State University	University	2010		\$83,762,000	5	2	\$110,500	13	11	1				\$110,500	39	2	\$60,500
Cold Spring Harbor Laboratory	Hospital/ Research Inst.	1985	3.00	\$126,900,000	3	0	\$15,318,332	9	5	0	\$347,157,913	32	\$26,391,077	\$15,318,332	190	5	\$7,100,000
Colorado School of Mines	University	2005	1.00	\$56,794,718	4	13	\$67,000	50	24	2	\$180,968,972	151	\$290,217	\$67,000	38	11	
Colorado State University	University	1970	3.50	\$338,202,049	33	4	\$3,189,811	101	41	5	\$987,282,881	298	\$10,369,491	\$3,188,318	246	30	\$2,821,238
Columbia University	University	1982	11.00	\$784,380,780	84	28	\$55,096,728	391	206	21	\$2,250,657,347	1,079	\$233,388,133	\$29,783,700		116	\$46,858,866
Cornell University	University	1979	9.00	\$820,545,611	76	11	\$11,545,189	435	142	15	\$2,465,138,549	1,151	\$31,042,433	\$11,066,063	977	130	\$6,518,181
Dana-Farber Cancer Inst.	Hospital/ Research Inst.	1981	12.00	\$289,103,452	30	2	\$23,931,537	131	111	2	\$825,638,549	424	\$43,268,409	\$22,565,964	433	53	\$12,434,217
Dartmouth College	University	1985	0.50	\$169,744,069	10	1	\$4,985,973	60	29	6	\$538,534,464	220	\$7,157,010	\$4,985,973	109	21	\$463,954
Drexel University	University	1995	5.00	\$107,898,245	10	13	\$164,955	119	75	4	\$312,784,183	337	\$1,269,943	\$124,705	87	52	\$11,949
Duke University	University	1986	11.00	\$975,684,000	97	18	\$44,562,379	294	141	11	\$2,784,463,000	832	\$111,475,312	\$41,965,648	811	87	\$33,630,332
Duquesne University	University	1999		\$17,179,000	0	0	\$0	6	6	1	\$50,427,000	16	\$5,000	\$0			
East Carolina University	University	1995	2.00	\$26,935,000	4	0	\$286,454	11	3	0	\$78,757,000	35	\$705,158	\$286,454	25	6	\$25,655

# AUTM 2017 Licensing Activity Survey

Data Appendix

Institution				Key Metrics							Cumulative, 2015-2017				Other Benchmarks		
Name of Institution	Type of Institution	Program Start	Licensing Full-time Equivalent	Total Research Expenditures	Total Licenses	Total Options	Gross License Income Received	Disclosures	New Patent Applications	Startups	Total Research Expenditures	Disclosures	Adjusted Gross Income	Adjusted Gross Income	Active Licenses and Options	Patents	Running Royalties
Emory University	University	1985	8.00	\$549,904,509	52	4	\$7,936,914	245	83	8	\$1,536,161,380	642	\$21,864,624	\$7,666,261	319	46	\$6,910,602
Florida State University	University	1996	4.00	\$183,262,902	10	4	\$448,612	53	37	2	\$576,594,599	195	\$1,292,235	\$446,024	63	50	\$24,362
Fred Hutchinson Cancer Res. Ctr.	Hospital/Research Inst.	1988	8.00	\$426,951,979	36	0	\$3,450,620	107	36	1	\$1,154,199,925	231	\$26,192,939	\$3,450,620	235	5	\$490,557
George Washington University	University	2003	2.00	\$245,518,387	5	3	\$484,113	63	37	4			\$484,113	6	11	\$150,003	
Georgetown University	University	1993	5.00	\$145,218,856	4	1	\$7,263,414	50	55	0	\$403,248,389	149	\$21,031,239	\$7,232,480	86	26	\$6,411,439
Georgia Inst. of Technology	University	1990	8.00	\$824,800,000	15	4	\$1,945,020	274	300	7	\$2,331,500,000	879	\$4,696,206	\$1,921,047	386	77	\$1,413,635
Georgia State University	University	2007	1.00	\$201,158,551	2	2	\$129,335	26	91	2			\$129,335	4	0	\$0	
H Lee Moffitt Cancer Ctr & Res Inst.	Hospital/Research Inst.	2004	2.00	\$163,919,767	14	1	\$19,149,611	24	33	0	\$441,255,886	92	\$33,203,930	\$19,149,572	55	19	\$3,960
Hackensack University Medical Center	Hospital/Research Inst.	2012	1.00	\$6,860,043	0	0	\$0	3	5	0	\$23,160,951	21	\$0	\$0	0	0	\$0
Harvard University	University	1977	12.10	\$868,100,000	75	30	\$35,445,437	530	372	14	\$2,506,300,000	1,489	\$84,409,889	\$33,140,452	986	153	\$6,807,172
Hospital for Special Surgery	Hospital/Research Inst.	1996	5.00	\$42,171,000	3		\$1,835,000	66	30		\$122,212,000	164	\$12,078,950	\$1,835,000	15	5	\$1,835,000
Illinois State University	University	2014		\$19,122,932	0	1	\$2,100	5	3	0	\$54,457,939	12	\$2,100	\$2,100	1	0	\$0
Indiana University (IOC)	University	1991	6.30	\$474,424,331	49	13	\$6,697,520	164	74	10	\$1,514,473,156	517	\$19,956,891	\$6,511,731	266	57	\$793,910
Iowa State University	University	1935	8.33	\$377,110,683	62	23	\$4,018,133	130	71	10	\$1,104,351,759	404	\$10,818,047	\$4,018,133	377	27	\$3,948,879
James Madison University	University	2005	0.50	\$3,581,740	1	1	\$31,878	6	3	1			\$31,878	5	1	\$6,078	
Johns Hopkins University	University	1973	24.91	\$1,779,925,961	135	14	\$17,080,685	553	153	18	\$4,950,246,277	1,573	\$87,281,028	\$16,039,437	917	153	\$5,583,958
Johns Hopkins University Applied Physics Laboratory	University	1999	5.50	\$1,366,809,314	38	11	\$469,937	355	66	3	\$3,923,727,680	901	\$1,427,438	\$469,937	139	16	\$412,792
Kansas State University Research Fdn.	University	1942	4.80	\$196,478,000	26	6	\$2,656,892	73	28	4	\$578,453,000	203	\$8,376,547	\$2,648,117	103	17	\$1,146,443
Los Angeles Biomedical Research Institute	Hospital/Research Inst.	2000	3.00	\$80,000,000													
Louisiana State University System	University	1986	8.50	\$330,227,000	30	5	\$9,174,480	173	64	6	\$1,042,340,000	498	\$28,970,514	\$9,109,178	68	34	\$8,419,302
Louisiana Tech University	University	2000	1.00	\$22,741,367	1	1	\$173,250	10	9	0	\$69,672,249	35	\$469,987	\$165,813	12	6	\$123,000
Loyola University of Chicago	University			\$39,737,721			\$959,139			0	\$131,075,348		\$4,001,826	\$959,139			
Marquette University	University	1999	2.00	\$30,789,000	1	0	\$991,286	22	19	1	\$84,027,000	50	\$2,806,523	\$991,286	25	1	\$0
Massachusetts Inst. of Technology (MIT)	University	1940	22.00	\$1,734,510,000	123	37	\$32,980,000	794	447	29	\$5,069,511,000	2,389	\$106,460,000	\$29,780,000	1,204	296	\$27,360,000
Mayo Fdn. for Medical Education and Research	Hospital/Research Inst.	1986	21.17	\$750,000,000	71	15	\$57,202,525	500	141	19	\$2,123,000,000	1,603	\$135,196,967	\$54,559,947	902	87	\$30,037,650
Medical College of Wisconsin Research Fndtn	University	1984	3.00	\$276,591,889	5	3	\$566,140	38	31	0	\$643,407,046	142	\$2,207,555	\$566,140	53	2	
Medical University of South Carolina	University	1994	4.50	\$250,345,000	10	12	\$608,714	102	29	6	\$757,639,701	318	\$1,839,740	\$608,714	74	6	\$541,329
Memorial Sloan Kettering Cancer Center	Hospital/Research Inst.	1981	7.00	\$641,037,392	52	8	\$77,775,981	112	57	1	\$1,852,609,044	362	\$439,443,917	\$77,570,409	460	33	
Miami University	University	2012		\$17,239,000	0	0	\$425	3	4	0	\$49,404,000	9	\$1,304	\$425			
Michigan State University	University	1992	11.00	\$694,917,000	57	18	\$4,598,911	118	54	6	\$1,866,534,000	446	\$17,755,584	\$4,451,462	373	51	\$3,981,664
Michigan Technological University	University	1988	3.00	\$71,629,178	7	7	\$326,169	38	8	1	\$213,771,663	105	\$817,186	\$326,169	154	3	\$0
Mississippi State University	University	1985	3.75	\$240,972,000	2	5	\$146,281	35	10	3	\$706,777,000	102	\$573,106	\$145,810	49	4	\$100,319
Montana State University	University	1980	2.25	\$130,788,759	16	14	\$306,249	17	14	1	\$356,055,609	77	\$1,091,126	\$306,249	264	5	\$298,999
Morgan State University	University	2016	2.00	\$16,525,944	1	1	\$15,000	21	12	2			\$15,000	2	1	\$0	
Mount Sinai School of Medicine	University	1991	11.58	\$493,780,866	40	13	\$16,283,538	144	45	6	\$1,370,337,833	394	\$102,537,109	\$11,918,019	239	22	\$8,469,042

# AUTM 2017 Licensing Activity Survey

Data Appendix

INSTITUTION				KEY METRICS							CUMULATIVE, 2015–2017				OTHER BENCHMARKS		
Name of Institution	Type of Institution	Program Start	Licensing Full-time Equivalent	Total Research Expenditures	Total Licenses	Total Options	Gross License Income Received	Disclosures	New Patent Applications	Startups	Total Research Expenditures	Disclosures	Adjusted Gross Income	Adjusted Gross Income	Active Licenses and Options	Patents	Running Royalties
Nationwide Children's Hospital	Hospital/ Research Inst.	2008	4.00	\$164,388,747	11	7	\$36,731,621	78	69	4	\$434,977,126	233	\$37,550,527	\$35,958,892	38	10	\$14,973
New Jersey Inst. of Technology	University	1990	3.00	\$142,000,000	0	1	\$70,773	51	38	0	\$383,359,846	131	\$260,898	\$70,773	126	19	\$0
New York University	University	1989	8.00	\$669,450,000	42	5	\$119,803,770	168	76	13	\$1,739,431,000	520	\$489,457,367	\$119,472,986	547	93	\$118,431,108
North Carolina State University	University	1984	9.00	\$500,445,000	93	78	\$4,445,476	275	99	15	\$1,458,656,000	856	\$15,832,508	\$4,430,657	818	47	\$3,115,381
Northeastern University	University	2000	1.50	\$140,700,000	8	4											
Northern Arizona University	University	2008	1.68	\$46,253,000	1	2	\$30,070	46	18	3	\$121,039,000	123	\$104,721	\$30,070	6	6	\$17,195
Northern Illinois University	University	1988	1.00	\$9,702,234	0	0	\$0	12	8	0	\$32,190,633	24	\$97,068	\$0	4	8	\$0
Northwestern University	University		12.50	\$563,560,992	28	13	\$246,738,243	212	137	12	\$1,605,450,142	631	\$54,691,047	\$6,548,226	308	107	\$243,807,138
Ohio State University	University	1990	10.00	\$864,327,102	41	9	\$3,237,090	451	362	9	\$2,673,417,397	1,049	\$8,034,455	\$3,187,203	236	43	\$1,725,756
Ohio University	University	1991	2.00	\$61,092,000	2	0	\$2,360,012	32	50	1	\$181,287,000	82	\$20,663,591	\$2,360,012		10	\$2,260,012
Oklahoma State University	University	1995	5.00	\$136,807,483	13	1	\$2,695,553	65	12	3	\$415,844,295	172	\$7,853,900	\$2,606,369	87	9	\$2,614,519
Oregon Health & Science University	University	1989	6.00	\$354,260,011	82	11	\$1,455,064	151	53	3	\$1,018,662,096	435	\$4,366,906	\$1,411,343	418	24	\$777,627
Oregon State University	University	1980	5.00	\$270,278,000	74	2	\$3,843,593	68	44	3	\$769,870,000	210	\$15,125,036	\$3,335,092	474	15	\$3,679,061
Penn State University	University	1989	5.50	\$862,866,000	27	3	\$1,177,897	158	162	8	\$2,500,567,000	456	\$10,756,716	\$1,152,250	201	62	\$504,599
Portland State University	University	2005	2.00	\$61,744,697	26	1	\$539,590	16	6	0				\$539,590	25	0	\$78,906
Princeton University	University	1986	4.00	\$215,207,512	16	10	\$68,841,000	90	0	6	\$610,167,916	307	\$335,682,925	\$65,956,000	83	41	\$68,405,000
Purdue Research Fdn.	University	1988	6.00	\$662,506,000	85	50	\$5,134,126	361	206	21	\$1,861,294,000	1,054	\$16,975,630	\$5,134,126	123		\$2,516,227
The Research Foundation for The State University of New York	University	1979	19.50	\$939,898,996	41	13	\$7,284,350	259	148	19	\$2,759,469,446	861	\$36,238,651	\$7,279,833	464	59	\$6,401,007
Research Corporation Technologies	Technology Investment Firm	1987	5.00	\$0	1	0	\$73,300,000		3		\$0		\$84,850,000	\$35,000,000	1	3	\$71,900,000
Rice University	University	1998	3.50	\$131,298,192	0	6	\$376,472	98	42	3	\$381,820,111	317	\$3,847,872	\$376,472	46	65	\$3,972
Rochester Inst. of Technology	University	1998	1.00	\$51,263,000	8	0	\$146,000	22	14	1	\$137,223,000	60	\$706,000	\$146,000	7	3	\$125,000
Rosalind Franklin University of Medicine and Science	University	2004	1.00	\$17,000,006	0	1		6	6	0					1	2	
Rowan University	University	2013	2.00	\$21,180,067	2	0	\$156,000	21	10	0				\$156,000	7	5	\$0
Rutgers, The State University of NJ	University	1989	16.50	\$627,421,000	60	4	\$29,425,420	152	101	6	\$1,941,444,000	494	\$58,613,116	\$28,560,130	984	83	\$14,935,862
San Diego State University	University	1997	2.00	\$52,575,358	6	0	\$519,725	34	18	0	\$162,309,167	98	\$1,687,122	\$519,725		2	
Seattle Children's Research Institute	Hospital/ Research Inst.		1.00	\$115,419,000	4	1	\$802,000	27	33	0				\$802,000	10	0	\$0
South Dakota State University	University	2008	2.00	\$63,412,589	6	2	\$1,077,490	45	7	1	\$182,461,345	108	\$5,396,381	\$1,077,490	54	5	\$1,027,490
St. Jude Children's Research Hospital	Hospital/ Research Inst.	1995	3.00	\$368,300,000	15	0	\$6,579,450	31	11	0	\$1,065,370,870	106	\$28,886,198	\$6,490,212	234	20	\$2,378,052
Stanford University	University	1970	24.00	\$1,032,395,311	116	41	\$45,391,705	477	288	22	\$2,969,325,988	1,432	\$232,249,080	\$44,487,045	1,440	231	\$29,496,603
Temple University System	University	1984	2.00	\$170,944,216	5	11	\$579,632	110	51	7	\$575,918,355	327	\$2,156,609	\$579,632	72	13	\$60,649
Texas A&M University System	University	1992	7.00	\$905,474,000	29	13	\$6,147,135	224	151	6	\$2,664,870,000	706	\$22,697,521	\$6,119,619	476	64	\$5,146,105
Texas Tech University System	University	1998	2.00	\$265,041,000	5	14	\$692,131	128	42	7	\$689,871,000	327	\$1,451,779	\$657,577	52	8	\$500,568
The General Hospital dba Massachusetts General Hospital	Hospital/ Research Inst.	1976	19.00	\$911,963,270	74	25	\$87,793,810	309	935	19	\$2,563,412,872	951	\$230,697,683	\$77,611,776	91	115	\$76,908,450
The UAB Research Fdn.	University	1987	5.45	\$561,851,000	42	2	\$4,669,909	91	22	6	\$1,615,905,000	221	\$16,727,947	\$4,292,175	294	16	\$2,225,003
Thomas Jefferson Univ	University	1984															
Tufts Medical Center	Hospital/ Research Inst.	1993	1.00	\$73,254,000	2	1	\$2,368,663	19	4	2	\$222,772,000	51	\$3,168,242	\$2,348,238	27	5	\$2,383
Tufts University	University	1978	6.00	\$190,196,097	10	4	\$9,618,398	61	37	1	\$543,637,558	188	\$14,006,756	\$7,643,979	91	35	\$3,166,625
Tulane University	University	1985	3.00	\$142,372,500	8	2	\$1,615,811	40	19	5	\$420,027,210	129	\$5,843,552	\$1,615,811	48	8	\$1,458,837

# AUTM 2017 Licensing Activity Survey

Data Appendix

INSTITUTION				KEY METRICS							CUMULATIVE, 2015–2017				OTHER BENCHMARKS		
Name of Institution	Type of Institution	Program Start	Licensing Full-time Equivalent	Total Research Expenditures	Total Licenses	Total Options	Gross License Income Received	Disclosures	New Patent Applications	Startups	Total Research Expenditures	Disclosures	Adjusted Gross Income	Adjusted Gross Income	Active Licenses and Options	Patents	Running Royalties
University of Arkansas for Medical Sciences	University	1994	2.00	\$5,485,185	4	1	\$1,748,014	33	20	1	\$154,471,612	95	\$5,637,078	\$1,734,376	52	13	\$776,452
University of Akron	University	1995	0.60	\$41,326,298	3	3	\$93,760	63	55	4	\$158,655,783	197	\$419,760	\$93,760	46	28	\$760
University of Alabama	University	2006	0.50	\$63,282,000	2	3	\$108,314	52	23	3	\$184,065,000	144	\$273,328	\$108,314	26	15	\$88,314
University of Alabama in Huntsville	University	1999	1.00	\$78,718,475	1	2	\$34,497	42	20	2	\$235,427,230	97	\$2,091,970	\$34,497	11	6	\$34,497
University of Alaska Anchorage	University	2011	1.00	\$15,494,400	1	0	\$0	4	5	0	\$43,512,399	12	\$0	\$0	1	4	\$0
University of Arizona	University	1988	8.25	\$622,200,000	80	25	\$2,703,261	261	139	15	\$1,832,883,000	724	\$8,463,612	\$2,632,936	418	47	\$1,272,170
University of Arkansas, Fayetteville	University	1990	7.00	\$157,791,000	17	0	\$1,534,415	54	8	2	\$436,471,187	147	\$3,830,648	\$1,534,415	315	13	\$1,499,415
University of California System	University	1979	80.30	\$4,557,000,000	236	61	\$124,462,132	1,586	1,374	94	\$14,233,347,291	4,913	\$407,469,549	\$108,002,178	2,366	519	\$48,916,059
University of Central Florida	University	1985	5.00	\$233,702,000	35	5	\$3,435,592	100	62	1	\$691,529,000	297	\$6,810,012	\$3,435,592	133	57	\$1,165,354
University of Chicago/UCTech	University	1986	9.00	\$359,252,778	25	3	\$7,907,422	123	57	9	\$1,067,619,751	345	\$19,890,440	\$7,720,892	342	27	\$5,652,092
University of Cincinnati	University	1983	2.30	\$252,097,233	16	5	\$517,338	104	42	5	\$655,177,694	346	\$1,488,595	\$442,863	210	19	\$36,158
University of Colorado	University	1993	5.00	\$471,909,649	38	10	\$2,117,204	120	215	9	\$2,091,677,301	601	\$11,414,139	\$2,116,185	283	31	\$1,051,841
University of Connecticut	University	1987	5.25	\$184,004,000	4	7	\$1,510,377	61	45	3	\$539,821,000	223	\$3,158,370	\$1,446,164	87	46	\$134,762
University of Dayton	University	1984		\$135,214,000	3	0	\$14,530	16	12	1	\$348,526,396	43	\$180,008	\$14,530		6	
University of Delaware	University	1997	3.00	\$143,544,741	7	2	\$68,150	52	76	5	\$420,200,049	146	\$293,844	\$68,150	54	7	\$68,150
University of Denver	University	2004	1.00	\$28,055,957	2	0	\$109,700							\$109,700	4		
University of Florida	University	1983	12.50	\$623,880,026	217	40	\$41,600,839	331	176	11	\$1,753,543,287	989	\$116,559,317	\$41,456,983	1,930	140	\$37,941,880
University of Georgia	University	1979	6.95	\$455,432,000	130	73	\$8,733,292	192	38	4	\$1,240,041,000	518	\$20,833,952	\$8,160,136	1,267	47	\$7,703,584
University of Hawaii	University	1987	3.50	\$299,027,891	11	1	\$288,752	52	41	0	\$968,510,527	160	\$929,119	\$288,752	108	8	\$92,587
University of Houston	University	1996	6.00	\$169,000,000	3	0	\$33,829,868	66	46	3	\$481,677,000	209	\$84,111,802	\$33,829,868	42	31	\$33,714,413
University of Idaho	University	1986	2.00	\$109,537,485	5	0	\$1,096,624	21	8	0	\$309,487,433	55	\$1,421,013	\$913,407	41	1	\$1,096,624
University of Illinois, Chicago, Urbana	University	1981	11.89	\$1,036,782,000	83	19	\$31,140,693	390	144	8	\$2,993,635,000	1,140	\$94,280,930	\$31,080,340	509	106	\$27,269,682
University of Iowa Research Fdn.	University	1975	5.00	\$451,241,612	45	15	\$1,833,229	93	33	4	\$1,309,205,997	391	\$5,965,500	\$1,781,500	245	24	\$587,796
University of Kansas	University	1994	5.00	\$236,146,681	31	6	\$10,010,246	75	33	7	\$709,953,973	232	\$30,143,026	\$9,993,980	141	38	\$8,942,912
University of Kentucky Research Fdn.	University	1984	3.00	\$292,018,222	8	5	\$4,547,906	54	39	6	\$832,039,131	166	\$12,158,726	\$4,547,906	102	40	\$4,547,906
University of Louisville	University	1996	3.00	\$177,588,000	14	3	\$240,213	72	40	5	\$539,540,440	263	\$2,034,707	\$217,154	72	28	\$48,298
University of Massachusetts	University	1994	10.70	\$669,993,000	25	12	\$34,627,904	190	139	11	\$1,931,226,000	590	\$89,621,645	\$34,625,441	279	64	\$16,204,252
University of Memphis	University	2008		\$0	0	0	\$0	20	5	0				\$0	0	8	\$0
University of Miami	University	1989	2.90	\$325,272,000	19	5	\$9,649,088	82	108	10	\$958,152,000	282	\$22,714,146	\$9,646,827	152	10	\$4,739,706
University of Michigan	University	1982	11.00	\$1,482,852,116	151	22	\$14,645,930	444	135	12	\$4,175,202,294	1,294	\$112,638,278	\$13,203,171	537	172	\$8,969,013
University of Minnesota	University	1957	18.80	\$948,349,000	188	25	\$22,935,794	406	234	18	\$2,798,119,000	1,162	\$80,425,995	\$21,557,130	798	84	\$8,764,435
University of Mississippi	University	1992	3.00	\$79,012,000	1	0	\$402,304	15	3	0	\$212,358,000	41	\$12,267,154	\$251,265	24	4	\$126,803
University of Missouri, all campuses	University	1987	13.25	\$329,468,119	46	4	\$8,046,522	223	79	7	\$974,457,223	559	\$31,206,560	\$6,830,310	281	53	\$3,932,364
University of Nebraska	University	1992	11.00	\$458,961,829	39	11	\$2,316,920	191	199	9	\$1,306,719,344	520	\$12,518,958	\$2,157,004	277	36	\$1,626,683
University of Nevada at Las Vegas	University	2005	3.00	\$66,285,000	9	0	\$292,526	57	20	4			\$292,526	\$292,526	38	6	\$0
University of Nevada at Reno	University	2000	1.00	\$75,663,944	6	0	\$320,209	21	7	1	\$325,715,988	69	\$718,474	\$320,209	34	7	\$222,109
University of New Hampshire	University	1997	3.00	\$102,396,684	167	0	\$860,213	70	13	0	\$311,330,463	173	\$2,423,375	\$860,213	669	6	\$129,530
University of New Mexico/ Sci. & Tech. Corp.	University	1995	4.50	\$246,595,239	15	43	\$1,335,335	114	68	12	\$718,416,510	341	\$4,723,203	\$1,293,216	81	74	\$139,274
University of North Carolina, Chapel Hill	University	1985	13.00	\$830,979,586	66	9	\$4,557,469	164	85	9	\$2,354,730,119	496	\$11,275,156	\$4,432,586	688	66	\$740,701

# AUTM 2017 Licensing Activity Survey

Data Appendix

INSTITUTION				KEY METRICS							CUMULATIVE, 2015–2017				OTHER BENCHMARKS		
Name of Institution	Type of Institution	Program Start	Licensing Full-time Equivalent	Total Research Expenditures	Total Licenses	Total Options	Gross License Income Received	Disclosures	New Patent Applications	Startups	Total Research Expenditures	Disclosures	Adjusted Gross Income	Adjusted Gross Income	Active Licenses and Options	Patents	Running Royalties
University of North Carolina, Charlotte	University	1993	2.00	\$37,009,913	2	3	\$112,014	48	94	4	\$109,531,988	136	\$211,640	\$112,014	27	13	
University of North Florida	University		0.00	\$8,825,086	1	0	\$540	6	6	0				\$540	1	1	\$40
University of North Texas Denton	University		1.00	\$32,859,065	6	0	\$42,118	32	44	0				\$42,118	6	8	\$22,118
University of North Texas Health Science Ctr.	University	1999	1.50	\$44,420,752	6	0	\$32,942	15	9	1	\$128,235,214	49	\$52,449	\$32,942	32	2	\$32,942
University of Northern Iowa	University	2002	0.10	\$37,800,000	2	0	\$27,200	11	2	1	\$115,800,000	32		\$27,200	11	1	\$27,200
University of Notre Dame	University	1999	4.00	\$212,823,000	20	2	\$386,917	73	76	3	\$605,993,170	224	\$1,280,285	\$385,948	92	22	\$90,525
University of Oklahoma, All Campuses	University	1984	4.00	\$230,114,248	10	2	\$7,000,162	64	27	4	\$603,968,218	179	\$9,222,317	\$6,847,131	65	20	\$323,396
University of Oregon	University	1992	4.25	\$76,142,752	55	0	\$8,853,587	28	2	4	\$221,442,778	77	\$25,716,390	\$8,725,480	273	6	\$1,030,684
University of Pennsylvania	University	1986	16.00	\$958,048,924	114	49	\$31,750,514	370	145	18	\$2,749,258,754	1,160	\$122,918,135	\$31,358,556	869	111	\$14,101,452
University of Pittsburgh	University	1992	7.05	\$764,478,000	112	34	\$3,780,352	329	111	15	\$2,204,901,000	950	\$12,767,251	\$3,606,248	459	102	\$1,486,096
University of Rhode Island	University	1991	2.00	\$0	1	0	\$86,888	22	12	0		63	\$345,530	\$86,888	29	5	\$30,555
University of Rochester	University	1980	5.00	\$363,663,000	26	2	\$10,160,584	106	43	4	\$1,057,486,000	399	\$55,306,327	\$10,154,174	155	78	\$9,558,432
University of South Alabama	University	1995	2.00	\$56,985,147	3	0	\$2,530,127	36	10	1	\$176,622,605	81	\$6,796,038	\$2,530,127	18	4	\$2,530,127
University of South Carolina	University	1993	1.50	\$208,670,000	1	1	\$81,857	60	51	1	\$626,677,000	168	\$497,358	\$81,857	39	32	\$37,119
University of South Dakota	University	2006	0.00	\$14,319,000	0	0	\$0	9	3	0				\$0	0	2	\$0
University of South Florida	University	1990	8.20	\$568,433,000	99	23	\$2,062,242	193	120	10	\$1,577,582,000	566	\$6,420,459	\$2,062,242	447	124	\$923,432
University of Southern California	University	1971	11.50	\$764,322,295	44	7	\$8,959,062	248	121	8	\$2,158,220,623	780	\$23,039,473	\$8,899,128	267	70	\$6,474,402
The University of Southern Mississippi	University	2013		\$61,659,000	5	0	\$61,695	7	8	0	\$172,862,000	18	\$451,306	\$61,695			
University of Tennessee	University	1983	7.00	\$354,437,514	9	4	\$1,116,032	166	23	4	\$998,277,215	422	\$5,131,060	\$1,080,066	141	24	\$349,672
University of Texas System	University	1985	56.02	\$2,872,770,451	217	62	\$60,259,197	868	491	37	\$8,249,263,974	2,690	\$329,606,606	\$58,056,824	1,254	230	\$34,760,795
University of Toledo	University	1994	2.00	\$50,030,000	5	3	\$5,572,135	51	16	0	\$152,403,000	199	\$7,226,988	\$5,572,135	106	23	\$1,795,560
University of Utah	University	1968	14.00	\$380,295,000	38	4	\$8,260,475	196	94	10				\$7,848,480	308	74	\$6,983,016
University of Vermont	University	1998		\$123,000,000	1	3	\$286,000	40	11	3		135	\$1,448,221	\$276,221	43	14	\$240,000
University of Virginia Patent Fdn.	University	1977	5.50	\$469,682,000	65	16	\$3,354,570	207	92	6	\$1,240,358,000	597	\$13,044,935	\$3,254,091	408	43	\$1,333,298
University of Washington/ Wash. Res. Fdn.	University	1983	13.00	\$1,287,000,000	379	6	\$16,750,848	339	164	15	\$3,790,042,000	1,075	\$78,716,332	\$16,632,478	1,342	103	\$6,367,963
University Wisconsin-Milwaukee Research Fdn.	University	2000	3.00	\$54,266,403	5	2	\$29,971	62	10	1	\$174,916,346	161	\$89,145	\$29,971	32	11	\$15,971
University System of Maryland	University	1987	13.50	\$1,085,080,293	52	18	\$2,425,751	331	214	16	\$3,086,596,614	1,027	\$6,307,607	\$2,246,170	431	90	\$973,290
University of Louisiana at Lafayette	University	2012	1.50		3		\$17,200	18	12	3		44	\$90,300	\$17,200		2	
University of North Carolina Wilmington	University	2015	2.00	\$16,015,000	10	0		7	1	2						0	
UW-Madison/WARF	University	1925	21.00	\$1,193,413,000	58	17	\$20,005,000	382	145	10	\$3,371,054,000	1,184	\$83,125,800	\$19,860,800	629	192	\$16,155,000
Vanderbilt University	University	1990	11.00	\$685,460,306	77	10	\$8,398,077	179	123	8	\$1,923,581,193	528	\$21,254,606	\$8,086,494	637	51	\$3,549,213
Virginia Commonwealth University	University	1994	3.00	\$235,463,824	14	4	\$6,677,008	134	165	4	\$680,387,824	360	\$16,149,483	\$6,677,008	175	18	\$1,521,995
Washington State University	University	1985	5.00	\$195,141,350	34	17	\$2,284,872	136	99	12	\$580,139,970	375	\$5,443,389	\$2,274,535	448	44	\$1,658,318
Washington University of St. Louis	University	1986	10.00	\$673,142,000	111	12	\$16,002,446	206	146	8	\$1,919,748,000	540	\$53,859,624	\$15,830,176	487	51	\$3,296,691
Wayne State University	University	1988	3.00	\$227,091,000	5	1	\$660,583	70	25	1	\$662,506,000	204	\$2,336,935	\$660,583	80	22	\$75,238
West Virginia University	University	1999	2.00	\$103,961,162	2	0	\$1,503,265	39	30	1	\$304,047,926	120	\$1,590,345	\$1,503,265	32	2	\$49,753
Whitehead Institute for Biomedical Research	Hospital/ Research Inst.	1987	5.00	\$45,848,000	9	1	\$6,757,955	19	11	2	\$142,233,000	91	\$14,359,627	\$4,789,958	85	15	\$4,956,474

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Wistar Inst.	Hospital/ Research Inst.	1991	3.00	\$72,136,000	40	4	\$21,094,000	38	28	2	\$191,268,000	130	\$90,433,000	\$20,982,000	196	6	\$19,621,000
WiSys Technology Foundation	University	2005	1.00	\$19,206,422	0	3	\$333,379	64	30	0	\$49,217,182	181	\$637,401	\$333,379	11	7	\$105,102
Woods Hole Oceanographic Inst.	Hospital/ Research Inst.	2007	2.00	\$174,300,000	5	1	\$336,267	24	5	0	\$568,569,655	107	\$1,199,539	\$336,267	17	5	\$336,267



## About the Survey

AUTM invited 312 US institutions (including universities and colleges, hospitals and research institutes, national laboratories and third-party technology investment firms) to participate in the AUTM US Licensing Activity Survey: 2017. AUTM received 193 completed surveys, for a response rate of 61.9 percent. Respondents for 2017 comprised 167 universities, 25 hospitals and research institutes, and one technology management firm. The numbers from these institutions reflect the significant role played by technology transfer in today's innovation economy.

Most of the data collected in this survey is also available in AUTM's Statistics Access for Technology Transfer (STATT) database. To access this searchable database of more than 26 years of academic licensing data, visit [www.autm.net/statt](http://www.autm.net/statt).

## Suggested Citation

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## About AUTM

AUTM is the non-profit leader in efforts to educate, promote and inspire professionals to support the development of academic research that changes the world and drives innovation forward. Our community comprises more than 3,100 members who work in more than 800 universities, research centers, hospitals, businesses and government organizations around the globe.



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