Johns Hopkins is Maryland’s largest private employer, a major purchaser of goods and services, a sponsor of construction projects and a magnet for students and visitors. In fiscal year 2014, we estimate that Hopkins and its affiliates directly and indirectly accounted for more than $9.1 billion in economic output in Maryland.

• In fiscal year 2014, Johns Hopkins and its affiliates directly and indirectly accounted for more than 85,600 jobs1 in Maryland, including 48,397 people employed directly by Johns Hopkins at its various locations in Maryland.

• In addition to its 48,397 regular full- and part-time employees, Johns Hopkins employed 8,419 students in a variety of part-time jobs.

• In the spring of 2014, 47,401 regular full- and part-time Johns Hopkins employees (about 85 percent of all non-student employees) lived in Maryland.

• In FY 2014, Johns Hopkins spent more than $916.3 million on purchases of goods and services (excluding construction) from companies in Maryland, directly supporting 6,336 FTE jobs in Maryland.

• In FY 2014, Johns Hopkins spent nearly $213.6 million on construction and renovation, including $150.1 million paid to contractors and subcontractors based in Maryland. This investment directly supported 1,104 FTE jobs with Maryland-based contractors and subcontractors.

• We estimate that spending in Maryland by Johns Hopkins students and visitors from out-of-state directly generated $221.1 million in economic output in Maryland in FY 2014, and 2,097 FTE jobs in Maryland.

• Institutions affiliated with Johns Hopkins directly employed 3,328 people in Maryland in FY 2014. Their spending on purchasing and construction directly generated an additional 424 FTE jobs in Maryland.

• Through the “multiplier effect,” spending by Johns Hopkins, its employees, vendors, contractors, students, visitors and affiliated institutions indirectly generated more than $4.2 billion in economic output and 23,992 FTE jobs in Maryland.

• Johns Hopkins withheld nearly $216.9 million in Maryland State income taxes from the earnings of its employees in FY 2014, and paid more than $17.8 million in taxes and fees to local governments in Maryland. This does not include usage fees such as the $3.4 million paid in water and sewer fees.

• Beyond Maryland, in fiscal year 2014:
  » Johns Hopkins directly employed 3,067 people (excluding students) at its various locations in D.C., with a payroll of more than $162.0 million, and through payments of nearly $81.0 million to D.C. vendors and contractors directly supported an additional 535 FTE jobs in D.C.
  » Johns Hopkins directly employed 3,080 people at All Children’s Hospital and facilities in Florida, with a payroll of more than $223.3 million, and through payments of nearly $75.4 million to Florida vendors and contractors directly supported an additional 413 FTE jobs in Florida.

1. This figure excludes student employees.
Combining all these impacts, we estimate that in fiscal year 2014, spending by Johns Hopkins, its employees, vendors, contractors, students and affiliates in Maryland, D.C. and Florida directly and indirectly accounted for:

» 95,591 FTE jobs in Maryland, D.C. and Florida, with wages and salaries totaling more than $5.9 billion

» Nearly $10.1 billion in economic output in Maryland, D.C. and Florida

Impact of Johns Hopkins, students, visitors and affiliates in Maryland and beyond, FY 2014 (jobs in FTE, earnings and output in $ millions)

<table>
<thead>
<tr>
<th></th>
<th>Direct spending impact</th>
<th>Indirect/induced effects</th>
<th>Total impact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Employment/Payroll</td>
<td>Purchasing/Construction</td>
<td></td>
</tr>
<tr>
<td>Maryland</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobs</td>
<td>51,725</td>
<td>9,961</td>
<td>23,992</td>
</tr>
<tr>
<td>Wages</td>
<td>$3,555.2</td>
<td>$550.6</td>
<td>$1,258.5</td>
</tr>
<tr>
<td>Output</td>
<td>$3,555.2</td>
<td>$1,358.5</td>
<td>$4,203.8</td>
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<tr>
<td>District of Columbia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobs</td>
<td>3,067</td>
<td>728</td>
<td>431</td>
</tr>
<tr>
<td>Wages</td>
<td>$162.0</td>
<td>$52.4</td>
<td>$30.0</td>
</tr>
<tr>
<td>Output</td>
<td>$162.0</td>
<td>$107.1</td>
<td>$84.5</td>
</tr>
<tr>
<td>Florida</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobs</td>
<td>3,080</td>
<td>413</td>
<td>2,194</td>
</tr>
<tr>
<td>Wages</td>
<td>$223.3</td>
<td>$28.0</td>
<td>$99.0</td>
</tr>
<tr>
<td>Output</td>
<td>$223.3</td>
<td>$75.4</td>
<td>$321.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jobs</td>
<td>57,872</td>
<td>11,102</td>
<td>26,617</td>
</tr>
<tr>
<td>Wages</td>
<td>$3,940.6</td>
<td>$631.1</td>
<td>$1,387.5</td>
</tr>
</tbody>
</table>
| Output           | $3,940.6               | $1,541.0                 | $4,609.3     | $10,090.9
During the spring of 2014, 20,272 students were enrolled in for-credit programs at Johns Hopkins, including 5,900 undergraduates and 14,372 graduate and professional students. About 15 percent of all undergraduates and 39 percent of all graduate and professional students were residents of Maryland.

- In fiscal year 2014, Johns Hopkins provided nearly $75.8 million in financial aid from University sources to students residing in Maryland – an increase of 10.2 percent from fiscal year 2010.

- In 2004, Johns Hopkins reinforced its commitment to expanding educational opportunity for young residents of Baltimore by creating the Baltimore Scholars Program. From 2005 through 2013-2014, 261 Baltimore high school students were accepted to Johns Hopkins under this program, including 22 in 2013-2014. To date, the value of scholarships awarded under the program (including future-year commitments to currently enrolled students) has totaled about $20.7 million.

- As of the spring of 2014, 74,299 Johns Hopkins graduates – 34.9 percent of all living alumni – lived in Maryland.

- Part-time graduate programs – such as the Whiting School of Engineering’s Engineering for Professionals program and the Krieger School of Arts and Sciences Advanced Academic Programs – are particularly important for the continued growth of knowledge-based industries in Maryland.

- Johns Hopkins is also expanding access to its academic programs by offering an ever-growing array of courses and degree programs online. In 2013-14, a total of 10,517 students were enrolled in for-credit online courses; and more than one million people worldwide participated in “massively open online courses” (MOOC’s) offered by the Bloomberg School of Public Health.
During fiscal year 2014, externally-funded spending at Johns Hopkins on research and related programs totaled $2.8 billion. Research and related spending rose by nearly $452.9 million between fiscal year 2010 and fiscal year 2014.

- Johns Hopkins consistently ranks first in research spending among all U.S. universities – by a wide margin.

- Almost all of this spending is financed from sources outside Maryland – state and local government funds account for less than 0.7 percent of all research and related spending at Johns Hopkins in FY 2014.

- With revenues of nearly $1.2 billion in fiscal year 2014, the Applied Physics Laboratory (APL) in Laurel, Maryland is one of the largest university-affiliated research centers in the United States, and Howard County’s largest private employer. APL’s work encompasses research on national security problems, the development and testing of new defense technologies, information security, the planning and management of major space missions for NASA, and the development of innovative devices.

- The platform that Johns Hopkins provides within a single, integrated enterprise for collaboration across disciplines and between scientists, engineers, clinicians and other professionals is one of its greatest strengths as a research institution. The creation of the Bloomberg Distinguished Professorships – 50 new faculty positions that are being filled over a five-year period starting in 2014, and that will be focused on interdisciplinary research, teaching and service – will further strengthen the University’s (and Maryland’s) position as a leading center for collaborative research.

For more than 35 years, the Young Investigators’ Award program has recognized the stellar accomplishments of School of Medicine trainee researchers like Elizabeth Gerber, a Paul Ehrlich Award winner, shown here with her mentor, Hal Dietz.
Johns Hopkins is a leading source of high-quality health care for residents of Maryland. During fiscal year 2014, The Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, Howard County General Hospital, Suburban Hospital and Sibley Memorial Hospital reported a total of 95,524 inpatient discharges involving Maryland residents.

- In fiscal year 2014, clinics at or operated by the Health System’s hospitals reported a total of 1,275,722 outpatient visits involving Maryland residents. In addition to these services:
  - Johns Hopkins faculty physicians reported a total of 512,201 outpatient visits by Maryland residents at locations other than those operated by the hospitals.
  - The 36 primary care centers operated in Maryland by Johns Hopkins Community Physicians reported a total of 800,762 patient visits in FY 2014.

- In fiscal year 2014, Johns Hopkins Home Care Group provided home health services to approximately 51,600 Maryland residents.

- As of the end of fiscal year 2014, managed care plans administered by Johns Hopkins HealthCare provided comprehensive health care coverage to 340,285 residents of Maryland – about 5.7 percent of the State’s total population.
Outside of Maryland, other facilities that are part of the Johns Hopkins Health System also provide essential health services to residents of their respective communities:

» During fiscal year 2014, Sibley Memorial Hospital, located in Washington, D.C., reported a total of 6,541 inpatient discharges involving D.C. residents, and reported a total of 44,097 outpatient visits involving D.C. residents at its hospital outpatient clinics.

» The three primary care centers operated in D.C. by Johns Hopkins Community Physicians reported a total of 22,710 visits in FY 2014.

» All Children’s Hospital, located in St. Petersburg, Florida, reported a total of 7,544 inpatient discharges involving Florida residents, and reported a total of 269,504 outpatient visits involving Florida residents at its hospital outpatient clinics.

» In addition to its hospital-based outpatient services, All Children’s Hospital’s ten regional All Children’s Outpatient Care Centers reported a total of 144,112 outpatient visits in FY 2014.
During the past five years, the University has significantly expanded its commitment to support translation of the intellectual and human capital developed at Johns Hopkins into new products and services, new businesses and new jobs – and this effort is already starting to show results.

- During that time, the pace of formal technology transfer activity at Johns Hopkins (including the Applied Physics Laboratory) has accelerated.
  
  » The number of patents awarded to Johns Hopkins rose from 222 in FY 2009 to 261 in FY 2014.
  
  » The number of licensing and option agreements executed rose from 130 in FY 2009 to 231 in FY 2014.
  
  » Between FY 2009 and FY 2014, 94 new companies were created to bring Johns Hopkins technologies to market.

- Growth in the number of start-ups launched from Johns Hopkins is particularly dramatic when measured on a multi-year basis. From fiscal year 2003 through fiscal year 2008, 24 new businesses were started with technologies licensed from Johns Hopkins, versus 94 new start-ups launched from FY 2009 through FY 2014.

- Johns Hopkins is developing a web of programs and facilities – an “innovation ecosystem” – designed to encourage and support faster and more effective translation of new ideas and technologies into new products and services, businesses and jobs. This ecosystem includes:

  Les Baugh, of Colorado, made history at the Johns Hopkins University Applied Physics Laboratory when he became the first bilateral shoulder-level amputee to wear and simultaneously control two of the Laboratory’s Modular Prosthetic Limbs. Muscle reinnervation allows him to control prosthetics with his thoughts.
Programs such as the Center for Bioengineering Innovation and Design, Medical and Educational Perspectives (MEP), the Social Innovation Lab and the Johns Hopkins Business Plan Competition that help students discover and develop their talents as innovators and entrepreneurs.

Programs that fund translational research, including the Institute for Clinical and Translational Research, the Cohen Translational Engineering Fund and the Coulter Translational Research Partnership.

Accelerator programs such as Johns Hopkins Fast Forward, DreamIt Health Baltimore and DC I-Corps.

Space for start-ups and growing companies, including the Science + Technology Park in East Baltimore and space on the Montgomery County Campus that is available for lease by start-up companies.

In part as a result of programs such as those described above, Maryland today is home to a growing number of young companies started by University faculty, students, alumni and other members of the Johns Hopkins community.
Working with Baltimore City, the State, the Annie E. Casey Foundation, East Baltimore Development Inc. (EBDI), Forest City Science and Technology and residential developers, Johns Hopkins, since 2003, has directly contributed more than $50 million to the redevelopment of an 88-acre area adjacent to its East Baltimore campus, including:

- $21 million for property acquisition and relocation
- More than $21 million toward the cost of construction and ongoing operations of the Henderson-Hopkins School and the Weinberg Early Childhood Center

Johns Hopkins has also supported the revitalization of the area in other ways, for example:

- As the anchor tenant in the 280,000 square-foot Rangos Building, the first building developed in the Science + Technology Park
- Through the renovation of a former police station on Ashland Avenue – now the home of the Berman Institute for Bioethics
- Through the rents paid by graduate students, postdoctoral fellows and others affiliated with Johns Hopkins, who are living in the 929 Apartments

- Under the Homewood Community Partners Initiative (HCPI) Johns Hopkins has committed $10 million to a series of projects aimed at strengthening the neighborhoods that surround the University’s Homewood campus. Projects undertaken to date include renovation of the Margaret Brent and Barclay schools; a mixed-use development on a University-owned site in Charles Village; and the planned renovation of two historic theaters.

- Johns Hopkins also seeks to strengthen neighborhoods through its Live Near Your Work (LNYW) program, which provides grants to encourage Johns Hopkins employees to purchase homes near its principal locations in Baltimore. In fiscal year 2014, 84 homebuyers employed by Johns Hopkins received LNYW grants totaling $1,411,000, of which $756,500 was contributed by Johns Hopkins, along with $654,500 provided by other supporters of the program.

- In addition to the Henderson-Hopkins School, Johns Hopkins is engaged in a wide range of partnerships aimed at strengthening K-12 education in Maryland, and expanding educational opportunities for the community’s young residents. For example:

  - During the 2013-14 school year, placement of approximately 295 School of Education graduate students in teaching, counseling and other internships in 200 schools, institutions and community organizations in Maryland
  - Professional development partnerships with seven public schools in Baltimore City, Anne Arundel County and Howard County
» STEM Achievement in Baltimore Elementary Schools (SABES), a program that seeks to improve science education in grades 3 to 5 in nine of the City’s elementary schools; in 2013-14, 40 teachers and 1,620 students participated

» Educational programs for elementary, middle and high school students offered by the Applied Physics Lab and the Johns Hopkins Montgomery County Campus

• Like other not-for-profit hospitals, the Johns Hopkins Health System hospitals in Maryland are required by the federal government to track and report annually on the benefits they provide to their local communities, such as charity care, health education programs, support for community organizations and participation in local community improvement projects. For fiscal year 2014, the community benefits provided by The Johns Hopkins Hospital, Johns Hopkins Bayview Medical Center, Howard County General Hospital and Suburban Hospital were valued at more than $288.9 million.

• In addition to this total, community benefits provided in D.C. by Sibley Memorial Hospital in fiscal year 2014 were valued at nearly $14.5 million, and those provided by All Children’s Hospital in Florida at $27.9 million.

• Maryland communities and their residents also benefit from engagement of Johns Hopkins students in various forms of community service. In 2013-2014:

  » Students at the University’s Homewood campus reported a total of 97,528 hours of community service, including nearly 76,000 hours of community service work performed by more than 1,500 students through programs based at the Center for Social Concern.

  » 1,350 students from the East Baltimore campus performed more than 24,400 hours of community service work through programs affiliated with SOURCE, which provides a focal point for community engagement at the School of Medicine, the School of Nursing and the Bloomberg School of Public Health.
Johns Hopkins has during the past decade become a truly global enterprise. In health care, the State benefits economically from the growing numbers of international patients who come to Maryland for medical treatment at Johns Hopkins, and from Johns Hopkins International’s (JHI) partnerships with non-U.S. institutions. In fiscal year 2014, JHI’s revenues (from treating international patients and from its overseas partnerships) totaled $294 million.

- Jhpiego, a Johns Hopkins organization based in Baltimore, is a world leader in the development and deployment of innovative approaches to improving the health of women and their families in low-income communities around the world. From $39.5 million in fiscal year 2003, Jhpiego’s revenues have grown to $295 million in FY 2014.

- Johns Hopkins is also a leader in preparing students to live and work in an increasingly integrated world – through the degree programs offered by the D.C.-based Paul H. Nitze School of Advanced International Studies, the Carey School’s Global MBA program, programs in global health and others.

- Johns Hopkins conducts research in Europe, Asia, the Middle East, Africa and Latin America in fields as diverse as anthropology, international studies, public health, environmental science and national security. This expanding global knowledge base – and the network of relationships developed in the course of building it – can be a valuable source of future economic growth.

A Global Enterprise

Chemical and Biomolecular Engineering graduate student Jeannine Coburn (lower right) and her team designed this bicycle-powered grain mill. Traveling to Tanzania, they re-created the device using local material and then trained people how to use it and to make more devices like it.
Beyond the impact of Johns Hopkins itself, Maryland’s economy is strengthened by the presence of institutions which have chosen to locate on or near Johns Hopkins’ campuses. While they exist separately from Johns Hopkins and have their own leadership, governing structures and funding, were it not for the presence of Johns Hopkins these institutions might not have located in Maryland. The most notable of these are:

» The Kennedy Krieger Institute, with 2,601 employees, an extensive program of health care, rehabilitation and education for children with disabilities, and nearly $30 million in research spending in fiscal year 2014

» The Space Telescope Science Institute, with 468 employees and nearly $109 million in research spending in FY 2014

» The Lieber Institute for Brain Development, with 101 employees and $14.1 million in research spending in FY 2014

» The Howard Hughes Medical Institute, located at Johns Hopkins, with 62 employees and $5.5 million in research spending in FY 2014

» The Carnegie Institution for Science, Department of Embryology, with 85 employees in FY 2014

• Like Johns Hopkins, these institutions have contributed to Maryland’s recovery from the Great Recession, adding more than 500 jobs between 2009 and 2014.

The James Webb Space Telescope is an international collaboration between NASA, the European Space Agency, and the Canadian Space Agency. The NASA Goddard Space Flight Center is managing the development effort. The main industrial partner is Northrop Grumman; the Space Telescope Science Institute will operate JWST after launch.
During the next five to ten years, Johns Hopkins is likely for several reasons to be a major contributor to the continued economic growth in Maryland, and in the other communities in which it operates.

- Johns Hopkins will continue to attract and develop the talented undergraduates, graduate and professional students, post-docs, residents, researchers, clinicians and staff on whom the continued growth of the State’s increasingly knowledge-based economy depends.

- Despite recent constraints on the growth of federal research spending, the Johns Hopkins research enterprise is well-positioned to remain a strong contributor to the Maryland economy.

- Over time, the expansion and intensification of Johns Hopkins’ support for innovation and new enterprise development will not only increase the number of businesses being started by faculty members, students, alumni and other members of the Johns Hopkins community, but will also increase significantly the likelihood that those start-ups will be able to attract outside investors, grow and succeed in the marketplace.

- Investments by Johns Hopkins will make the communities in which it operates more attractive places to live, work and do business, and will create new opportunities for residents of those neighborhoods.
In addition to developments already completed or under way in East Baltimore and near the University’s Homewood Campus, Johns Hopkins will during the next few years begin developing the 108-acre Belward Campus in Montgomery County — a site that over the next several decades could become a new hub for research, innovation, health care and education.

- As the Johns Hopkins Health System continues to extend its reach to new markets and new populations, the leading role that Johns Hopkins is playing in the ongoing transformation of the region’s (and the nation’s) health care system will help ensure that Maryland remains a leader in the delivery of health services, and in efforts to expand access to, improve the quality of and reduce the cost of health care.

- The continued growth of both the University’s and the Health System’s engagement with countries in Europe, Asia, Africa and Latin America will reinforce Maryland’s position as the home of an increasingly global enterprise, raise its visibility around the world, and create new opportunities for the State to expand its role as an exporter of higher education and health services.