



# THE ECONOMIC IMPACT OF THE UNIVERSITY SYSTEM OF MARYLAND

A Fiscal Perspective | FY 2011

HIGHLIGHTS PREPARED BY THE JACOB FRANCE INSTITUTE, UNIVERSITY OF BALTIMORE



## Context

A university education is widely recognized as an investment that pays a lifetime of dividends in the form of better jobs and higher incomes. The University System of Maryland (“USM” or “system”) commissioned the Jacob France Institute of the University of Baltimore to study the system’s economic impact on the Maryland economy. This study measures the economic benefits of college degree attainment and provides a conservative and in-depth analysis in three areas:

- **Earnings, Economic, and Fiscal Impact.** USM graduates have increased earnings attributable to obtaining a degree with each succeeding level of educational attainment generating incremental earnings. The study analyzes the system’s economic and fiscal impact on the state as measured by the incremental earnings of and resulting additional taxes paid by USM graduates, as well as the new spending attracted into Maryland from sources such as federal research support and out-of-state students.
- **Workforce Development.** The system’s contribution to workforce development, including its ability to produce graduates in areas of workforce shortages and its accessibility to workers who are upgrading their skills or changing careers.
- **Economic Development.** The system’s contribution to economic development through its research, partnerships with the private sector, and technology transfer.

- For 1989 graduates, lifetime incremental earnings are estimated to be \$13.3 billion generating \$883.8 million in additional Maryland income and sales taxes.
- For 1996 graduates, lifetime incremental earnings are estimated to be \$17.4 billion generating \$1.2 billion in additional Maryland income and sales taxes.

In addition to increasing state tax revenues, the incremental earnings of USM graduates have multiplier effects—when the earnings are spent, other economic activities are supported that result in jobs.

- Economic activity generated by the lifetime incremental earnings of 1986 graduates will support an average of 2,527 annual jobs, earning nearly \$4 billion in salaries and wages, and resulting in a total of almost \$1.1 billion in additional state taxes.

## Earnings, Economic, and Fiscal Impact

The system’s fiscal impact was estimated by a detailed analysis of three representative USM graduating classes: 1986, 1989, and 1996. Over the course of their working lives, those graduates will have increased earnings, and pay increased taxes, as follows:

- For 1986 graduates, lifetime incremental earnings are estimated to be \$12 billion generating \$796.3 million in additional Maryland income and sales taxes.

- Economic activity generated by the lifetime incremental earnings of 1989 graduates will support an average of 2,919 annual jobs, earning \$4.4 billion in salaries and wages, and resulting in a total of \$1.2 billion in additional state taxes.
- Economic activity generated by the lifetime incremental earnings of 1996 graduates will support an average of 3,910 annual jobs, earning \$5.9 billion in salaries and wages, and resulting in a total of \$1.6 billion in additional state taxes.

The system also contributes to Maryland’s economic base by attracting students and spending into Maryland from outside the state. This spending, too, is subject to multiplier effects. Three sources of out-of-state spending were considered in the study:

- Non-resident student tuition and living expenditures
- Federal government sponsored grants to USM institutions to perform research, training, or other services
- Out-of-state visitors to USM institutions

In terms of return on investment, using the 1996 cohort of graduates as an example, the state receives **\$2.70** in revenue for every **\$1** invested.

In 2011, these three sources contributed the following to the state's economy:

- \$1.8 billion in out-of-state spending associated with USM
- \$3.7 billion in economic activity in the state, supporting 30,098 jobs earning \$1.16 billion in FY 2011
- \$48.2 million in state income and sales taxes

A comparison of the positive economic impact of USM to state appropriations for the system demonstrates the soundness of the state's investment:

- For the 1986 cohort of graduates, the state receives \$3.10 in revenue for each \$1 invested.
- For the 1989 cohort, the state receives \$2.50 for each \$1 invested.
- For the 1996 cohort, the state receives \$2.70 for each \$1 invested.
- The overall increase in state income and sales taxes generated by USM graduates employed in Maryland, extrapolated from the analysis of the three graduating classes used in this study, totals \$1.1 billion annually, an amount that exceeds the state's appropriation to the system.

## Workforce Development

The University System of Maryland makes a significant contribution to the state's highly qualified workforce. This enables businesses to compete more effectively regionally, nationally, and globally.

In 2011, among all public and private four-year colleges and universities in Maryland, USM institutions provided:

- 74 percent of total bachelor's degrees awarded
- 55 percent of all of the master's degrees awarded
- 62 percent of all doctoral degrees awarded
- 88 percent of all professional degrees awarded

In 2011, USM institutions provided **74 percent** of the total bachelor's degrees awarded among all public and private four-year colleges and universities in Maryland.

USM institutions alone met 60 percent of the demand for computer science occupations, 69 percent of the projected demand for educational occupations, 89 percent of the demand for engineering occupations, and all of current demand in a variety of fields, including business, health, and law.

## Economic Development

With three of the state's four primary research universities, USM is a core element of Maryland's academic and scientific infrastructure. USM institutions play a vital role in the generation of new technologies, basic research, and the commercialization of research discoveries in Maryland. Some measures of USM's economic development impacts are as follows:

The overall increase in state income and sales taxes generated by USM graduates employed in Maryland, extrapolated from the analysis of the three graduating classes used in this study, totals **\$1.1 billion** annually, an amount that exceeds the state's FY 2013 appropriation to the system.

- USM generates \$1.1 billion in the academic research and development expenditures.
- Maryland's four USM research parks host 117 tenants with 3,198 employees and its seven incubators host 72 tenant companies with 873 employees.
- USM has established a strategic goal to help create 325 new companies over 10 years and has had significant impact on the development of 51 companies from July 2011 to June 2012.

## Conclusion

The system contributes to the state's economy in a variety of ways. It is a source of educated and skilled workers for Maryland employers. The workers' increased earnings generate additional state revenues.

Furthermore, USM institutions provide valuable services to businesses, generate technologies through research and development, and contribute to the quality of life in Maryland through community-service activities.

The positive economic impact of USM on the state of Maryland considerably exceeds the state's investment in the system.



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