

The Economic Value of Montgomery College



MONTGOMERY COLLEGE (MC) creates value in many ways. The college plays a key role in helping students increase their employability and achieve their individual potential. The college retains students in the county, generating new dollars and opportunities for Montgomery County. MC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, MC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

MC influences both the lives of its students and the county economy. The college supports a variety of industries in Montgomery County, serves county businesses, and benefits society as a whole in Maryland from an expanded economy and improved quality of life. The benefits created by MC even extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by MC on the business community and the benefits the college generates in return for the investments made by its key stakeholder groups—students, taxpayers, and society. The following two analyses are presented:



Economic impact analysis



Investment analysis

All results reflect employee, student, and financial data, provided by the college, for fiscal year (FY) 2018-19. The FY 2018-19 was chosen as the analysis year for this study as it is representative of the pre-Covid operations of the college. Impacts on the Montgomery County economy are reported under the economic impact analysis and are measured in terms of added income. The returns on investment to students, taxpayers, and society in Maryland are reported under the investment analysis.



MC influences both the **lives of its students** and the **county economy**.



MC promotes economic growth in Montgomery County through its direct expenditures and the resulting expenditures of students and county businesses. The college serves as an employer and buyer of goods and services for its day-to-day operations. The college's activities retain students in Montgomery County, whose expenditures benefit county vendors. In addition, MC is a primary source of higher education to Montgomery County residents and a supplier of trained workers to county industries, enhancing overall productivity in the county workforce.

Operations spending impact



MC adds economic value to Montgomery County as an employer of county residents and a large-scale buyer of goods and services. In FY 2018-19, the college employed 2,991 full-time and part-time faculty and staff, 66% of whom lived in Montgomery County. Total payroll at MC was \$249.8 million, much of which was spent in the county for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the college spent \$74 million on day-to-day expenses related to facilities, supplies, and professional services.

MC's day-to-day operations spending added \$250.9 million in income to the county during the analysis year. This figure represents the college's payroll, the multiplier effects generated by the in-county spending of the college and its employees, and a downward adjustment to account for funding that the college received from county sources. The \$250.9 million in added income is equivalent to supporting 3,046 jobs in the county.

Student spending impact



Some in-county students, referred to as retained students, would have left Montgomery County if not for the existence of MC. While attending the college, these retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$44.5 million in added income for the county economy in FY 2018-19, which supported 761 jobs in Montgomery County.

IMPACTS CREATED BY MC IN FY 2018-19



Operations spending impact

\$250.9 million



Student spending impact

\$44.5 million



Alumni impact

\$710.5 million



TOTAL ECONOMIC IMPACT

\$1 billion

OR

Jobs supported

11,371

Alumni impact



The education and training MC provides for county residents has the greatest impact. Since its establishment, students have studied at MC and entered the county workforce with greater knowledge and new skills. Today, hundreds of thousands of former MC students are employed in Montgomery County. As a result of their MC educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2018-19, MC alumni generated \$710.5 million in added income for the county economy, which is equivalent to supporting 7,564 jobs.

Total impact

MC added \$1 billion in income to the Montgomery County economy during the analysis year, equal to the sum of the operations spending impact, the student spending impact, and the alumni impact. For context, the \$1 billion impact was equal to approximately 1.1% of the total gross regional product (GRP) of Montgomery County. This contribution that the college provided on its own is larger than the entire Transportation & Warehousing in the county.

MC's total impact can also be expressed in terms of jobs supported. The \$1 billion impact supported 11,371 county jobs, using the jobs-to-sales ratios specific to each industry in the county. This means that one out of every 64 jobs in Montgomery County is supported by the activities of MC and its students. In addition, the \$1 billion, or 11,371 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, MC's spending and alumni in the Professional & Technical Services industry sector supported 1,399 jobs in FY 2018-19. These are impacts that would not have been generated without the college's presence in Montgomery County.

MC IMPACTS BY INDUSTRY (JOBS SUPPORTED)



One out of every 64 jobs in Montgomery County is supported by the activities of MC and its students.



An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. If the benefits outweigh the costs, then the investment is financially worthwhile. The analysis presented here considers MC as an investment from the perspectives of students, taxpayers, and society in Maryland.

Student perspective



In FY 2018-19, MC served 29,961 credit and 22,771 non-credit students. In order to attend the college, the students paid for tuition, fees, books, and supplies. They also took out loans and will incur interest on those loans. Additionally, students gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by MC's students in FY 2018-19 amounted to a present value of \$298.3 million, equal to \$86 million in out-of-pocket expenses (including future principal and interest on student loans) and \$212.3 million in forgone time and money.

In return for their investment, MC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average MC associate degree graduate from FY 2018-19 will see annual earnings that are \$11,300 higher than a person with a high school diploma or equivalent working in Maryland. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$474.6 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that MC's FY 2018-19 students will receive over their working careers is \$1.3 billion.

The students' benefit-cost ratio is 4.2. In other words, for every dollar students invest in MC, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$4.20 in higher future earnings. Annually,

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN MC



Average annual return for MC students
18.6%



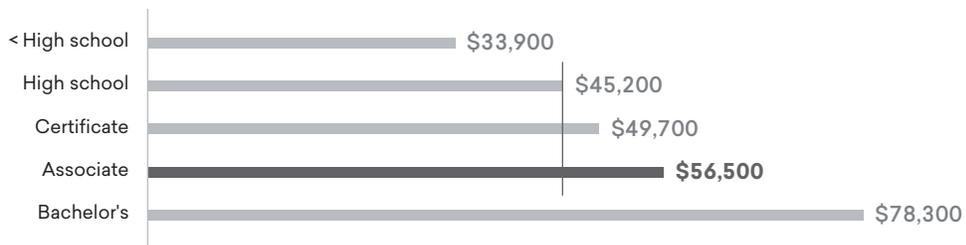
Stock market 30-year average annual return
9.9%



Interest earned on savings account (National Rate Cap)
0.8%

Source: Forbes' S&P 500, 1989-2018. FDIC.gov, 6-2019.

The average associate degree graduate from MC will see an increase in earnings of **\$11,300** each year compared to a person with a high school diploma or equivalent working in Maryland.



Source: Emsi Burning Glass employment data.

the students' investment in MC has an average annual internal rate of return of 18.6%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

Taxpayer perspective



MC generates substantial benefits for taxpayers. These benefits to taxpayers consist primarily of taxes that the state and local government will collect from the added revenue created in the state. As MC students will earn more, they will make higher tax payments throughout their working lives. Students' employers will also make higher tax payments as they increase their output and purchases of goods and services. By the end of the FY 2018-19 students' working lives, the state and local government will have collected a present value of \$232.5 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of MC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' MC educations will generate savings in three main categories: 1) healthcare, 2) crime, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, students will be less likely to interact with the criminal justice system, resulting in a reduced demand for law enforcement and victim costs. MC students will be more employable, so their reduced demand for income assistance such as welfare and unemployment benefits will benefit taxpayers. For a list of study references, contact the college for a copy of the main report. Altogether, the present value of the benefits associated with an MC education will generate \$22.6 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$255.2 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$280.1 million, equal to the amount of state and local government funding MC received in FY 2018-19.

Total taxpayer benefits amount to **\$255.2 million**, the present value sum of the added tax revenues and public sector savings.

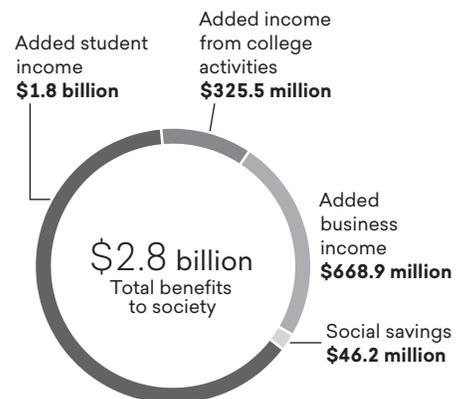
Social perspective



Society as a whole in Maryland benefits from the presence of MC in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business output (added business income), which raise economic prosperity in Maryland.

Benefits to society also consist of the savings generated by the improved lifestyles of MC students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are distinct from the costs

SOCIAL BENEFITS IN MARYLAND FROM MC



Source: Emsi Burning Glass impact model.

avoided by the taxpayers outlined above. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, obesity, drug abuse, and depression. Savings related to crime include reduced security expenditures and insurance administration, lower victim costs, and reduced expenditures by the criminal justice system. Income assistance savings include reduced welfare and unemployment claims. For a list of study references, contact the college for a copy of the main report.

Altogether, the social benefits of MC equal a present value of \$2.8 billion. These benefits include \$1.8 billion in added student income, \$668.9 million in added business income, \$325.5 million in added income from college activities, as well as \$46.2 million in social savings related to health, crime, and income assistance in Maryland. People in Maryland invested a present value total of \$565.5 million in MC in FY 2018-19. The cost includes all the college and student costs.

The benefit-cost ratio for society is 5.0, equal to the \$2.8 billion in benefits divided by the \$565.5 million in costs. In other words, for every dollar invested in MC, people in Maryland will receive a cumulative value of \$5.00 in benefits. The benefits of this investment will occur for as long as MC's FY 2018-19 students remain employed in the state workforce.

Summary of investment analysis results

The results of the analysis demonstrate that MC is a strong investment for students and society. As shown, students receive a great return for their investments in an MC education. From the taxpayers' perspective, the benefits generated by the college and its students recover a significant portion of the costs borne by taxpayers and creates a wide range of social benefits throughout Maryland.



STUDENT PERSPECTIVE

Present value benefits

\$1.3 billion

Present value costs

\$298.3 million

Net present value

\$952.2 million

Benefit-cost ratio

4.2

Rate of return

18.6%



TAXPAYER PERSPECTIVE

Present value benefits

\$255.2 million

Present value costs

\$280.1 million



SOCIAL PERSPECTIVE

Present value benefits

\$2.8 billion

Present value costs

\$565.5 million

Net present value

\$2.2 billion

Benefit-cost ratio

5.0

Rate of return

n/a*

* The rate of return is not reported for the social perspective because the beneficiaries of the investment are not necessarily the same as the original investors.

CONCLUSION

The results of this study demonstrate that MC creates value from multiple perspectives. The college benefits county businesses by increasing consumer spending in the county and supplying a steady flow of qualified, trained workers to the workforce. MC enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The college benefits state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, MC benefits society as a whole in Maryland by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students.

About the study

Data and assumptions used in the study are based on several sources, including the FY 2018-19 academic and financial reports from MC, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Emsi Burning Glass's Multi-Regional Social Accounting Matrix model, and a variety of studies and surveys relating education to social behavior. The study applies a conservative methodology and follows standard practice using only the most recognized indicators of economic impact and investment effectiveness. For a full description of the data and approach used in the study, please contact the college for a copy of the main report.

The results of this study demonstrate that MC creates value from **multiple perspectives**.



Emsi Burning Glass provides colleges and universities with labor market data that helps create better outcomes for students, businesses, and communities. Our data, which cover more than 99% of the U.S. workforce, are compiled from a wide variety of government sources, job postings, and online profiles and résumés. Hundreds of institutions use Emsi Burning Glass to align programs with regional needs, drive enrollment, connect students with in-demand careers, track their alumni's employment outcomes, and demonstrate their institution's economic impact on their region. Visit economicmodeling.com/higher-education to learn more or connect with us.