



The Economic Value of the Maricopa County Community College District



THE MARICOPA COUNTY COMMUNITY COLLEGE DISTRICT (MCCCD) creates value in many ways. The colleges play a key role in helping students increase their employability and achieve their individual potential. They also draw students to the county, generating new dollars and opportunities for Maricopa County. The colleges provide students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, the colleges are places for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

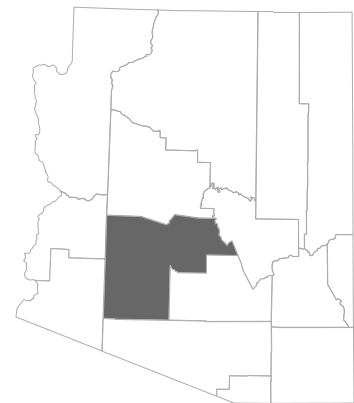
MCCCD influences both the lives of students and the county economy. The colleges support a variety of industries in Maricopa County, serve county businesses, and benefit society as a whole in Arizona from an expanded economy and improved quality of life. Additionally, the benefits created by MCCCD extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by MCCCD on the business community and the benefits the colleges generate in return for the investments made by their 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 MCCCD, for fiscal year (FY) 2021-22. Impacts on the Maricopa 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 Arizona are reported under the investment analysis.



Maricopa County, Arizona

MCCCD influences both the **lives of students** and the **county economy**.

Economic impact analysis



MCCCD promotes economic growth in Maricopa County through its direct expenditures and the resulting expenditures of students and county businesses. The colleges serve as employers and buyers of goods and services for their day-to-day and construction operations. The colleges' activities attract students from outside Maricopa County, whose expenditures benefit county vendors. In addition, the colleges are primary sources of higher education to Maricopa County residents and suppliers of trained workers to county industries, enhancing overall productivity in the county workforce.

Operations spending impact



MCCCD adds economic value to Maricopa County as an employer of county residents and a large-scale buyer of goods and services. In FY 2021-22, the colleges employed 11,125 full-time and part-time faculty and staff, 91% of whom lived in Maricopa County. Total payroll at MCCCD was \$621.5 million, much of which was spent in the county for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the colleges spent \$326.6 million on day-to-day expenses related to facilities, supplies, and professional services.

MCCCD's day-to-day operations spending added \$807.3 million in income to the county during the analysis year. This figure represents the colleges' payroll, the multiplier effects generated by the in-county spending of the colleges and their employees, and a downward adjustment to account for funding that the colleges received from county sources. The \$807.3 million in added income is equivalent to supporting 12,067 jobs in the county.

Construction spending impact



The colleges invest in construction each year to maintain facilities, create additional capacities, and meet growing educational demands. While the amount varies from year to year, these quick infusions of income and jobs have a substantial impact on the county economy. In FY 2021-22, the colleges' construction spending generated \$12.3 million in added income, which is equivalent to supporting 153 jobs.

Student spending impact



Around 16% of students attending the colleges originated from outside the county in FY 2021-22, and some of these students relocated to Maricopa

Impacts created by MCCCD in FY 2021-22



Operations spending impact

\$807.3 million

+



Construction spending impact

\$12.3 million

+



Student spending impact

\$616.4 million

+



Alumni impact

\$6.4 billion



Total economic impact

\$7.9 billion

OR


Jobs supported

108,295



County to attend the colleges. These students may not have come to the county if the colleges did not exist. In addition, some in-county students, referred to as retained students, would have left Maricopa County if not for the existence of MCCCDC. While attending the colleges, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$616.4 million in added income for the county economy in FY 2021-22, which supported 8,117 jobs in Maricopa County.

Alumni impact

 The education and training the colleges provide for county residents has the greatest impact. Since the colleges were established, students have studied at MCCCDC and entered the county workforce with greater knowledge and new skills. Today, hundreds of thousands of former MCCCDC students are employed in Maricopa County. As a result of their education from MCCCDC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2021-22, MCCCDC alumni generated \$6.4 billion in added income for the county economy, which is equivalent to supporting 87,957 jobs.

Total impact

MCCCDC added \$7.9 billion in income to the Maricopa County economy during the analysis year, equal to the sum of operations and construction spending impacts; the student spending impact; and the alumni impact. For context, the \$7.9 billion impact was equal to approximately 2.3% of the total gross regional product (GRP) of Maricopa County. This contribution that the colleges provided on their own is larger than the entire Utilities industry in the county.

MCCCDC's total impact can also be expressed in terms of jobs supported. The \$7.9 billion impact supported 108,295 county jobs, using the jobs-to-sales ratios specific to each industry in the county. This means that one out of every 28 jobs in Maricopa County is supported by the activities of the colleges and their students. In addition, the \$7.9 billion, or 108,295 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of MCCCDC and their students and the activities of their alumni in the Arts, Entertainment, & Recreation industry sector supported 14,193 jobs in FY 2021-22. If the colleges did not exist, these impacts would not have been generated in Maricopa County.

MCCCDC impacts by industry (jobs supported)



One out of every 28 jobs in Maricopa County is supported by the activities of the colleges and their 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 evaluates MCCCDC as an investment from the perspectives of students, taxpayers, and society in Arizona.

Student perspective



In FY 2021-22, MCCCDC served 154,172 credit and 10,764 non-credit students. In order to attend the colleges, 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 MCCCDC students in FY 2021-22 amounted to a present value of \$445.2 million, equal to \$196.7 million in out-of-pocket expenses (including future principal and interest on student loans) and \$248.5 million in forgone time and money.

In return for their investment, MCCCDC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average MCCCDC associate degree graduate from FY 2021-22 will see annual earnings \$9,200 higher than a person with a high school diploma or equivalent working in Arizona. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$377,200 in higher earnings per graduate. The present value of the cumulative higher future earnings that MCCCDC's FY 2021-22 students will receive over their working careers is \$2.2 billion.

The students' benefit-cost ratio is 5.0. In other words, for every dollar students invest in an education at MCCCDC in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$5.00 in higher future earnings. Annually, the students' investment in MCCCDC has an average annual internal rate

Students see a high rate of return for their investment in MCCCDC



Average annual return for MCCCDC students
17.9%



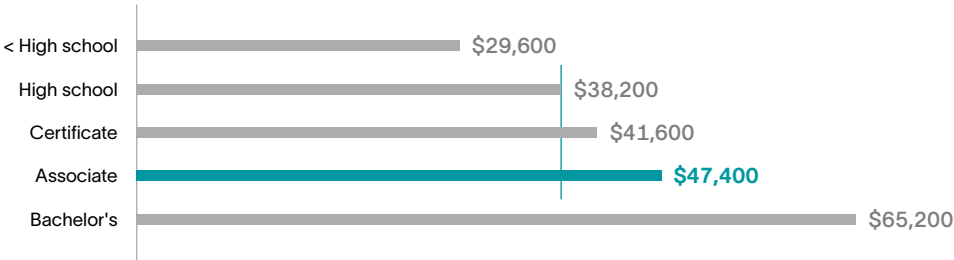
Stock market 30-year average annual return
9.6%



Interest earned on savings account (national deposit rate)
0.4%

Source: Forbes' S&P 500, 1992-2021. FDIC.gov, 2-2022.

The average associate degree graduate from MCCCDC will see an increase in earnings of **\$9,200** each year compared to a person with a high school diploma or equivalent working in Arizona.



Source: Lightcast employment data.

of return of 17.9%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.6%.

Taxpayer perspective



MCCCD generates more in tax revenue than it receives. 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 MCCCD 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 2021-22 students' working lives, the state and local government will have collected a present value of \$787.6 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of MCCCD students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that MCCCD students receive will generate savings in three main categories: 1) healthcare, 2) justice system, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, costs related to the justice system will decrease. MCCCD 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 MCCCD for a copy of the main report. Altogether, the present value of the benefits associated with an education through MCCCD will generate \$70.1 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$857.7 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$671.1 million, equal to the amount of state and local government funding MCCCD received in FY 2021-22. These benefits and costs yield a benefit-cost ratio of 1.3. This means that for every dollar of public money invested in MCCCD in FY 2021-22, taxpayers will receive a cumulative present value of \$1.30 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 1.6%, which compares favorably to other long-term investments in the public sector.

For every dollar of public money invested in MCCCD, taxpayers will receive a cumulative value of **\$1.30** over the course of the students' working lives.

Social perspective



Society as a whole in Arizona benefits from the presence of MCCCD 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 Arizona.



Benefits to society also consist of the savings generated by the improved lifestyles of MCCCCD 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 avoided by the taxpayers outlined above. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, obesity, drug abuse, and depression. Justice system savings include avoided costs to the government and society due to less judicial activity. Income assistance savings include reduced welfare and unemployment claims. For a list of study references, contact MCCCCD for a copy of the main report.

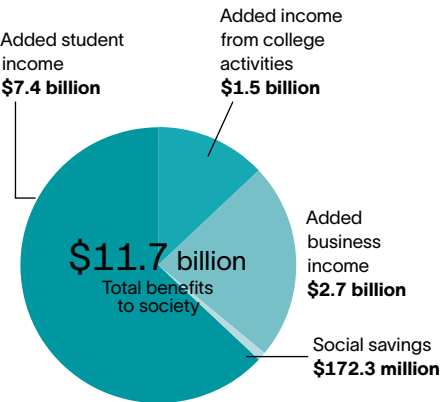
Altogether, the social benefits of MCCCCD equal a present value of \$11.7 billion. These benefits include \$7.4 billion in added student income, \$2.7 billion in added business income, \$1.5 billion in added income from colleges activities, as well as \$172.3 million in social savings related to health, the justice system, and income assistance in Arizona. People in Arizona invested a present value total of \$1.3 billion in MCCCCD in FY 2021-22. The cost includes all the colleges’ expenditures and student costs.

The benefit-cost ratio for society is 9.0, equal to the \$11.7 billion in benefits divided by the \$1.3 billion in costs. In other words, for every dollar invested in MCCCCD, people in Arizona will receive a cumulative value of \$9.00 in benefits. The benefits of this investment will occur for as long as MCCCCD’s FY 2021-22 students remain employed in the state workforce.

Summary of investment analysis results

The results of the analysis demonstrate that MCCCCD is a strong investment for all three major stakeholder groups—students, taxpayers, and society. As shown, students receive a great return for their investments in an education through MCCCCD. At the same time, taxpayers’ investment in MCCCCD returns more to government budgets than it costs and creates a wide range of social benefits throughout Arizona.

Social benefits in Arizona from MCCCCD



Source: Lightcast impact model.

Student perspective

Present value benefits
\$2.2 billion

Present value costs
\$445.2 million

Net present value
\$1.8 billion

Benefit-cost ratio	Rate of return
5.0	17.9%

Taxpayer perspective

Present value benefits
\$857.7 million

Present value costs
\$671.1 million

Net present value
\$186.6 million

Benefit-cost ratio	Rate of return
1.3	1.6%

Social perspective

Present value benefits
\$11.7 billion

Present value costs
\$1.3 billion

Net present value
\$10.4 billion

Benefit-cost ratio	Rate of return
9.0	n/a*

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

Conclusion

The results of this study demonstrate that MCCCCD creates value from multiple perspectives. The colleges benefit county businesses by increasing consumer spending in the county and supplying a steady flow of qualified, trained workers to the workforce. MCCCCD enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The colleges benefit state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, MCCCCD benefits society as a whole in Arizona 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 2021-22 academic and financial reports from MCCCCD, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Lightcast'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 district for a copy of the main report.

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



Lightcast provides colleges and universities with labor market data that help 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 Lightcast 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 lightcast.io/solutions/education to learn more or connect with us.

