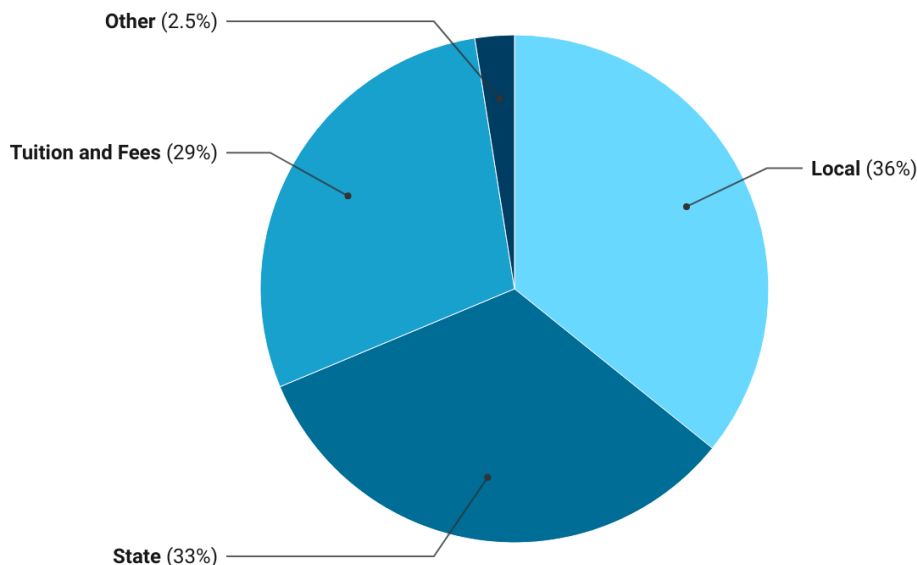


Appendix I. Budget and Expenditures

Community college budgets incorporate information from all sources of revenue. Some of the sources include tuition and fees, governmental funding (federal, state, and local), and sales and services related to educational activities. Some colleges report "Other" for revenue sources, which may include gifts/grants and other miscellaneous revenues. These revenue sources include:

- **Student Tuition and Fees:** This typically includes all tuition and fees for both credit and non-credit courses.
- **Governmental Funding:** This is a significant source of revenue, encompassing federal, state, and local funding. State funding often includes both funding from the Cade formula and local or federal funding. Community colleges usually receive a large amount of proposed governmental funding from the CADE funding formula.
- **Sales and Services of Educational Activities:** This typically includes auxiliary enterprises, such as food and other campus stores.
- **Other Revenue:** This general category includes gifts/grants as well as random revenues.

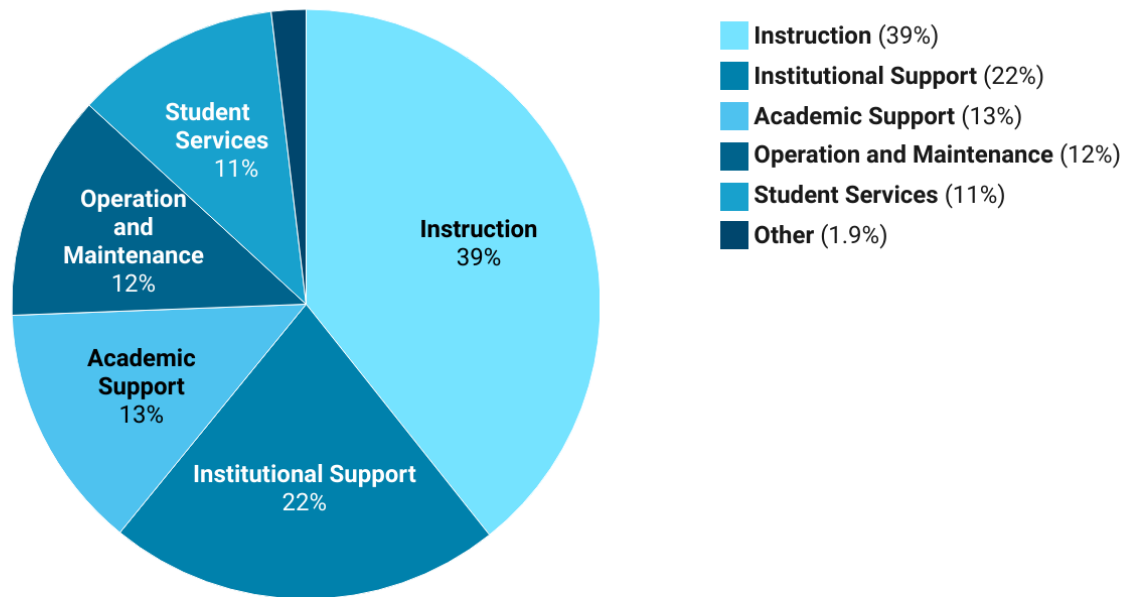
Sources of Revenue at Maryland's Community Colleges: FY 2024



Source: Maryland Higher Education Commission, Revenue and Expenditures Dashboard, FY 2024. Published February 2025. • Created with Datawrapper

Community college personnel, such as the Vice President of Finance and Administration, will prepare the college's budget annually. Community colleges submit the MHEC-CC-5 form and any other reports to the Maryland Higher Education Commission (MHEC).

Expenditures by Function at Maryland's Community Colleges: FY 2024



Source: Maryland Higher Education Commission, Revenue and Expenditures Dashboard, FY 2024. Published February 2025. • Created with Datawrapper

Community college expenditures are distributed across various functions, with instruction consuming the largest share at 39%. Institutional support accounts for 22% of expenditures, followed by academic support at 13%, and operations and maintenance at 12%. Student services account for 11% of the total expenditures, while other expenditures, which include scholarships and fellowships and public service, comprise 1.9% of the total expenditures.

When considering community colleges in neighboring states, Maryland has high per-institution funding per FTE supported by state funding, tuition, and local funding, all while focusing on spending on instruction and services that benefit students.

Comparison of Funding Per FTE: A Look At Neighboring States

Revenue Source	Maryland (FY 2024)	Virginia (FY 2022)	Pennsylvania (FY 2023)
State Revenue Per FTE	\$5,441	\$3,982	\$2,703
Local Revenue Per FTE	\$5,929	\$0	\$2,149
Tuition and Fees Per FTE	\$4,772	\$4,622	\$5,103
Other Per FTE	\$414	\$1,276	\$1,389
Total Revenue per FTE	\$16,556	\$9,880	\$11,344

Source: Maryland Higher Education Commission, State Council of Higher Education for Virginia Financial Reports and Data, and Pennsylvania Commission for Community Colleges Annual Reports and Data, FY 2022, FY 2023, and FY 2024 • Created with Datawrapper

Maryland's funding model reflects a shared responsibility between state and county governments. Virginia's community colleges receive no local revenue, relying solely on state appropriations and tuition. Pennsylvania's decentralized model yields comparatively high per-college funding, supported by various local revenues and funding options. (Source: State Council of Higher Education for Virginia Financial Reports and Data, and Pennsylvania Commission for Community Colleges Annual Reports and Data, FY 2022, FY 2023, and FY 2024).

Student Retention and Graduation Rates: Degree Progress Analysis

The Degree Progress Analysis for community colleges is an important part of the MHEC Annual Performance Accountability Report (PAR). It is a tool to identify, define, measure, and monitor inequities in terms of student success as viewed through variables of different groups and college preparation levels. The Degree Progress Analysis model enables community colleges to track progress toward degree attainment among their students, including developmental education needs, completion rates, interim success measures, and transfer rates to other colleges/universities. Generally, community colleges track factors that show disparities between Black and Latino students and White and Asian students by monitoring enrollment and

graduation market share of first-time, full-time students, as well as the percentage of recent college-bound high school graduates. Additionally, they track combined three-year graduation and transfer rates by race/ethnicity. Maryland's community colleges examine progress toward equitable access and student success outcomes by comparing these factors to benchmarks (Source: 2024 Performance Accountability Report, Maryland Public Colleges and Universities, January 2024).

The statewide Degree Progress Analysis for all community college students in Maryland from 2015 to 2019 shows the composition of new students has changed significantly, with a notable increase in college-ready students and a decrease in those requiring developmental education. The percentage of new students identified as "College Ready" has shown a consistent and substantial increase, rising from 28.1% in 2015 to 53.0% in 2019. This indicates an improvement in the academic preparedness of incoming cohorts.

The statewide Degree Progress Analysis also reveals some general stability in terms of student outcomes four years after initial enrollment. The *"Graduation/Transfer Rate - All"* metric was stable, hovering around 52-54%, indicating that just above half of all new students either graduated with a degree or certificate or transferred to another institution within four years. The *Successful Persister Rate - All* metric was also stable and continued to hover within a narrow range of 71-73%, meaning that about three-quarters of the students either graduated, transferred, or accumulated a minimum of 30 credits while maintaining a satisfactory GPA or remained enrolled at the institution the student entered four years earlier. With minor fluctuations across affirmation cohort years, the percent rates suggest that the general overall success level of students moving forward toward their academic goals at Maryland community colleges remained consistent during this time.

DEGREE PROGRESS ANALYSIS FOUR YEARS AFTER INITIAL ENROLLMENT: MARYLAND COMMUNITY COLLEGE STUDENTS ENTERING 2015-2019			
Cohort Year	Grad/Trans - All	Persister - All	
2015	52.2%	71.6%	
2016	52.6%	71.3%	
2017	53.8%	72.7%	
2018	52.4%	71.8%	
2019	53.6%	72.4%	
Source: Maryland Higher Education Commission. December 2024. Degree Progress Analysis: Community Colleges.			

Community colleges in Maryland are taking a variety of actions to boost completion rates, according to the Maryland Higher Education Commission's "2024 Performance Accountability Report," known as PAR. These actions frequently utilize data-informed methods, additional student support services, and the use of technology. Community colleges are using data to identify students at risk of not completing, provide guidance to improve their chances of success, and leverage analytics to understand student behavior, enabling colleges to predict potential roadblocks, intervene, and set goals. The report explains that institutions are using "data-informed methods" to increase completion rates. Additionally, many community colleges are combining support services to ease students' access to services like tutoring, advising, and financial aid counseling. The report notes the implementation of "combined support services" to improve completion readiness. Maryland's Community Colleges are attempting to create more inclusive and accessible support for students.

Community colleges are leveraging technology to enhance learning, expand flexible course options, and improve communication between students and staff. Some of the technology include online learning spaces, early alert systems, and mobile student advising. PAR notes "innovative uses of technology" as the technology-based approach to enhance completion rates. The colleges are experimenting and adopting new technology to support completion and student success. Community colleges are implementing early intervention strategies to identify and support students who may be struggling, whether academically or due to other issues that could impact their completion potential. PAR identified the use of "early interventions" as the major strategy to improve completion rates. Maryland's community colleges have already begun contacting students who were disrupted by non-academic interventions to help them maintain their progress. Community colleges are also strengthening their ability to monitor and evaluate the impact of completion-based programs and initiatives. As noted in PAR, each college is working to "strengthen their ability to track and evaluate their program outcomes in a reasonable and effective manner."

According to the Maryland Higher Education Commission, from 2013 to 2022, statewide first-year retention rates at Maryland community colleges remained consistently around 60%. The rates improved to 62.4% (2021) and 62.8% (2022), similar to other cohorts. The collective data yielded trends for students who graduated, didn't transfer, completed, and then transferred, and those who transferred without graduating. For example, the "Graduated/Did Not Transfer" rate went from 9.7% in the 2013 cohort to 13.6% in the 2019 cohort of students who graduated. Similar patterns apply for "Graduated and Transferred," which rose from 12.8% (2013) to 15.8% (2019), and "Transferred without Graduating," which remained relatively stable

over four years, peaking at 14.2% (2013) and settling at 10.2% (2019). The 2020 cohort shows that the upward trends in graduation and transfer rates continued. The data suggest growing success in how students' progress as they either complete and earn a degree or successfully transition to a four-year institution. Future planning should involve strategic investments in programs that promote both graduation and successful transfer. Additionally, it's crucial to investigate why the percentage of students transferring without graduating remains constant and to analyze their subsequent success at a four-year college or university.

Retention, Graduation, and Transfer Rates at Community Colleges										
Cohort	First Year Retention	Transferred Without Graduating (2 Year)	Graduated /Did Not Transfer (2 Year)	Graduated and Transferred (2 Year)	Transferred Without Graduating (3 Year)	Graduated/ Did Not Transfer (3 Year)	Graduated and Transferred (3 Year)	Transferred Without Graduating (4 Year)	Graduated /Did Not Transfer (4 Year)	Graduated and Transferred (4 Year)
2013	59.90%	10.80%	3.00%	3.40%	13.30%	7.30%	9.30%	14.20%	9.70%	12.80%
2014	61.60%	10.10%	3.50%	4.10%	12.70%	8.10%	10.40%	13.30%	10.70%	14.40%
2015	61.90%	10.60%	3.80%	4.80%	12.90%	8.30%	11.50%	13.30%	10.90%	15.20%
2016	60.80%	10.70%	4.30%	5.10%	12.50%	8.50%	11.80%	13.20%	11.20%	15.20%
2017	60.90%	10.80%	4.80%	6.10%	12.10%	9.90%	12.90%	12.30%	12.50%	16.40%
2018	61.40%	9.30%	4.60%	5.70%	10.50%	10.20%	12.30%	11.00%	13.00%	15.90%
2019	59.80%	8.70%	5.50%	5.90%	10.00%	10.90%	12.40%	10.20%	13.60%	15.80%
2020	59.30%	10.50%	5.80%	6.60%	11.70%	11.60%	13.70%	-	-	-
2021	62.40%	-	-	-	-	-	-	-	-	-
2022	62.80%	-	-	-	-	-	-	-	-	-

Sources: Maryland Higher Education Commission, Retention, Graduation, and Transfer at Community Colleges, April 2025

Data from the 2013 and 2019 cohorts show the same trend as previously analyzed, with consistent variances in retention, graduation, and transfer rates across racial/ethnic groups reported in Maryland community colleges. Asian students had the highest first-year retention rates overall, often over 70%, and reasonably good transfer rates as well (especially in "Transferred Without Graduating" and "Graduated and Transferred"). However, they had equally low direct graduation rates without transferring. White students also had above average retention rates and rates of graduation and transfers, with particularly high rates of "Graduated/Did Not Transfer" and "Graduated and Transferred". Black or African-American students had the lowest first-year retention rates overall (generally low to mid-50s), and although they had comparable or slightly higher "Transferred Without Graduating" rates in other terms of the cohort analysis, their direct graduation rates and "Graduated and

Transferred" rates were all much lower than those of the other groups. Most Hispanic students had higher retention rates than Black students, but lower rates than White or Asian students. Their graduation and transfer rates, although lower than those of the other groups, had also improved during the analysis period. Non-resident Alien, American Indian/Alaska Native, Hawaiian/Pacific Islander, and Two or More Races generally had, due to their fluctuating and often smaller cohorts, more limited data from which to generalize, but all had some level of success in varying measures across all four outcome categories, some had very strong retention but lower graduation rates (or vice versa), and were consulted, when comparing to the larger racial groups. Data consistently show gaps in outcomes across racial lines, highlighting the need for ongoing and internalized institutional interventions, as well as formal systems of student support, in the future to ensure equitable success for all students (Source: Maryland Higher Education Commission, Retention and Graduation at Maryland's Community Colleges, April 2025). Between the 2013 and 2020 cohorts, Pell Grant recipients generally show lower first-year retention rates compared to the larger student populations. (Source: Maryland Higher Education Commission: Retention and Graduation at Maryland's Community Colleges, April 2025).

Maryland's community colleges are utilizing Customer Relationship Management (CRM) software and have implemented enhanced data governance, which enables them to better understand their students' needs and identify areas where they can provide targeted support. MHEC's 2024 Performance Accountability Report (PAR) found that community colleges are using "CRM software and enhanced data governance" to identify service gaps and inequities in enrollment. The PAR suggested that this enhanced approach allows colleges to gain a deeper understanding of their student populations and tailor their efforts to address specific student need areas associated with student completion. Based on the PAR, Maryland's community colleges have various goals and situations related to the success of transfer students, often involving statewide efforts to improve transfer pathways and student outcomes.

- **Maximizing Credit Transfer:** One of their goals is to ensure that students earn as much credit as they can by transferring into the four-year institution, which encompasses working with the four-year universities to align curricula and make credit evaluation easier. With this narrative, the community colleges are prioritizing "credit maximization" between the sector and partners as the primary goal to support transfer students.
- **Dedicated Transfer Student Services:** Another goal is to provide students with dedicated support or staff for transfer-specific services, such as advising, orientation programs, and transfer-specific support or information. The report directly noted, in their findings, that

institutions were providing “dedicated support staff” and “tailored orientation and advising” for transfer students.

- **Developmental Partnerships with Four-Year Institutions:** Community colleges sought to strengthen their relationships with “feeder” four-year institutions to facilitate a more successful transition for transfer students. The community colleges were very involved in joint events and through partnerships that facilitated communication. The report emphasized that Maryland’s community colleges are focusing on “building relationships with feeder institutions,” which mirrors the need for partnerships to support the success of transfer students. Community colleges are actively working to create a more efficient and better transition.
- **Tracking and Evaluation of Transfer Students’ Outcomes:** Ideally, community colleges aim to develop strategies that enable them to track and evaluate students’ transfer outcomes more effectively. These strategies include gathering data that informs them of challenges and the ability to measure success and areas for improvement in transfer pathways, ultimately supporting student success.

PAR mentioned colleges are using “CRM software and enhanced data governance” to find service gaps and inequities in enrollment, which would apply to tracking the progress and success of transfer students. Maryland’s community colleges face numerous challenges to achieve equity, as referenced in the “2024 Performance Accountability Report.” They are generally related to:

- **Inequities in Outcomes:** Significant inequities in graduation and transfer rates were evident for demographic groups, such as African American males, Hispanic students, or those from low-income backgrounds.
- **Student Barriers to Success:** Students often face challenges such as family responsibilities, financial difficulties, and inadequate academic preparation.
- **Permanent Shortage of Resources:** Growing and financing intended outcomes from previously committed funding significantly limit colleges from continuing with thriving interventions, such as intrusive advising or support targeting specific populations.

Community colleges are working to enhance their capacity to monitor and evaluate program outcomes. They are utilizing CRM software and enhanced data governance, as previously mentioned, to identify service gaps and inequities in enrollment.

Student Debt

Maryland's community colleges strive diligently to minimize the debt burdens for students. Community colleges have affordable tuition and fees. Community colleges offer various financial aid packages, which lessens the need for loans. In addition, 70 percent of students enroll as part-time students at a community college. By attending part-time, learners have more flexibility, allowing them to work while in college, which also leads to less reliance on loans. Finally, dual enrollment with Maryland community colleges has grown significantly in the last decade, often reducing the time and cost required to complete a degree.

According to MHEC's "FAIS SegmentUndergraduate2023-2024Report.pdf", the average loan amounts for Community Colleges in Maryland for the 2023-2024 academic year: Direct Loan, \$2,879; Parent PLUS Loan, \$9,484; Private Loans, \$7,922; and Stafford Unsubsidized Loan, \$3,719; and the net cost is projected to remain flat across all income brackets.

The Maryland Higher Education Commission's Power BI report on average student loans for the 2021-2022 academic year reveals significant disparities across age, income, race, and institution type. For Maryland's community colleges, adult learners age 25 and older have the highest average loan burden, at \$6,258.60, compared to younger students. The disparities are evident in race and ethnicity as well, as Black or African American and Hispanic students disproportionately borrow more than other groups. Income also matters: students from households with an income of \$30,000 or less often took on a slightly larger loan amount than students in the other income brackets, who typically take out a slightly smaller loan amount as compared to their less advantaged working peers. These data paint a picture of systemic inequities in student borrowing while raising the consideration of intentional financial aid strategies and policies that address the disparity (Source: Maryland Higher Education Commission, Microsoft Power BI Report on Average Student Loans, Academic Year 2021-2022).

Employment and Innovation

Economic Value of Maryland's Community Colleges

The value-added income earned through student spending, construction, operations, and alumni's imputed increased productivity of Maryland's community colleges had an extraordinary \$11.0 billion impact on the state's economy during fiscal year 2022-23. This injection of income is approximately 2.4% of Maryland's total gross state product (GSP) and supports 127,632 jobs, or one out of every 31 jobs in Maryland is sustained through the

regulatory activities of Maryland's community colleges and their students (Source: The Economic Value of Maryland's Community Colleges, Lightcast, 2024).

According to the Maryland Longitudinal Data Center, Maryland's college graduates experienced a steady increase in annualized, inflation-adjusted wages over the five years following graduation. Graduates with community college degrees earn a median salary of approximately \$36,373 at graduation and substantially increase their earnings to \$42,000 in the first year after completion, \$48,216 in the second year, \$53,603 in the third year, \$57,328 in the fourth year, and ultimately \$60,307 in the fifth year. Each figure demonstrates a steady upward progression per cohort (2013-2023), even with the disruption caused by COVID-19 and its associated data inconsistencies (Source: Maryland Longitudinal Data System Center, 2025). Maryland College Labor Sector and Wage Explorer. Baltimore, MD. Retrieved from Power BI Wage Explorer Dashboard).

In addition to examining the wage data for Maryland community college graduates, we can also observe how significantly wages vary across different labor sectors. Graduates who entered the utilities sector of the economy, for example, earned a starting salary of \$92,942 at graduation and \$118,757 by year five - even though utilities was the highest-paying labor sector tracked. In contrast, graduates in the accommodation and food services sector earned \$20,116 at graduation and subsequently earned a meager \$33,265 by year five, demonstrating little wage growth. Graduates from the manufacturing and professional, scientific, and technical services sectors experienced wage improvements from graduation to year five, earning \$71,993 and \$68,930, respectively. As these sector labor market descriptions illustrate, offering students academic programs aligned with high-growth industries is vital for maximizing the economic futures and welfare of students (Source: Maryland Longitudinal Data System Center, 2025). Maryland College Labor Sector and Wage Explorer. Baltimore, MD. Retrieved from Power BI Wage Explorer Dashboard).

The total economic impact of Maryland's Community Colleges on the state economy was \$11.0 billion in added income in fiscal year 2022-23. This amount is approximately 2.4% of Maryland's total gross state product (GSP) and supports 127,632 jobs (Source: The Economic Value of Maryland's Community Colleges, Lightcast, 2024).

Employable skills

Maryland's Community Colleges are dedicated to providing skills that allow graduates to be immediately employable through a focus on work-based learning, career services, and

connections to industry partners. Community colleges offer students many choices to lay a pathway to a successful career. Community colleges provide options for formal work-based learning through internships, apprenticeships, and clinical experiences in many of their career programs. Community colleges also offer additional options as part of work-based learning, such as co-op programs, service learning, and industry-aligned capstone experiences. There are career services offices with dedicated staff to assist students individually during the transition from college to career. These services include career counseling, career assessments, resume development, interviewing skills training, networking, and job search workshops, as well as access to job fairs and opportunities for hiring students for open positions. Community colleges also pride themselves on strong relationships with industry partners, utilizing advisory boards to help align curricula with workforce needs. Additionally, they expand programs that lead to industry-recognized credentials (IRC) to ensure students graduate with the portable skills considered essential by employers.

CYBER WORKFORCE ACCELERATOR PROGRAM: AN EXAMPLE OF WORKFORCE INNOVATION

BCR Cyber, in collaboration with the Maryland Association of Community Colleges (MACC), operates the Cyber Workforce Accelerator (CWA) program to showcase innovation and job creation in Maryland. The initiative aims to address the cybersecurity workforce shortage of over 30,000 unfilled cybersecurity roles in Maryland. The CWA has established 16 cyber training centers at all of Maryland's community colleges and offered learners innovative, hands-on, and interactive training courses. A critical part of the CWA is the SOC Operations Analyst I (SOCOA I), training and certification to develop the competencies needed for jobs in Security Operations Center working environments. The CWA set a target to upskill 1,100 students for cybersecurity jobs and achieve an 80% job placement rate within 1 year of service completion.

As of September 1, 2025, the CWA has registered 275 learners from Maryland community colleges in 5 cohorts. Also, indicative demographics show approximately 64% of participants are Black/African American, and 65% are taking credit. Of the learners who have reached that phase of the program, there have been 62 completions, with 42 learners completing the SOCOA I certification. The community colleges with the strongest participation are Prince George's Community College, Carroll Community College, and Montgomery College, which is promising for our partner institutions.

Overall, the CWA initiative demonstrates MACC's commitment to developing a skilled workforce and fostering economic growth and employment opportunities within Maryland.