



# **Follow-Up Survey of 2016 Maryland Community College Graduates**

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# Maryland Higher Education Commission

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## EXECUTIVE SUMMARY

The Maryland Higher Education Commission (MHEC) periodically conducts a follow-up survey of community college certificate and associate degree graduates a year after they have completed their program. The report generated from this survey provides information on completers' perceptions of the quality of their institutional experience, post-graduation educational and employment status, and other related outcomes.

The responses to the Graduate Follow-Up Survey of 2016 community college graduates indicate that Maryland's community colleges continue to serve their students and the State well. Respondents indicate high levels of satisfaction with their educational experiences and report positive outcomes following the completion of their degree or certificate program. They also report that they feel their institutions prepared them well for further study and employment.

15,464 surveys were distributed to 2016 graduates and 2,808 responses were received, yielding a statewide response rate of 18.2%. As in prior years, response rates varied widely by institution, from a low of 5.0% at Montgomery College to a high of 34.0% at Chesapeake College. While response rates remain low, the overall statewide response rate is slightly higher than that of the previous two iterations of the survey, 16.4% in 2014 and 16.8% in 2011. However, it is important to note that due to the low response rates, findings in this report should be interpreted with caution.

The majority of aspects of the student's experience at the community college were rated highly. When asked to rate the institution on a spectrum of "very good" to "very poor," graduates rated "very good" or "good" the quality of the community college (90.0%), the overall community college experience (88.6%), and the quality of classroom instruction (87.7%).

The primary motivation for most students enrolling at the community college was academic, with nearly three-quarters (73.4%) indicating their primary goal was to either complete a degree or certificate program or transfer to a four-year institution. The majority of graduates (93.1% and 84.9%, respectively) felt that they had completely achieved those goals by the time they graduated. By contrast, 22.1% enrolled with the primary intent of achieving workforce-related objectives, including preparing for a first career, preparing for entry into a different career, or updating skills for their current job. While a majority of these graduates stated that they had completely achieved their objectives by the time of graduation, the majorities were smaller (ranging from 64.9% to 73.8%).

Just over half (54.5%) of survey respondents reported transferring to a four-year college after leaving the community college. The majority of those students (72.6%) transferred to a Maryland public college or university, while nearly one-tenth (9.8%) transferred to an independent college or university. Among those students who did transfer, respondents expressed satisfaction with their academic preparation from the community college, with 82.5% reporting that their preparation for further study had been either "very good" or "good." Moreover, there has been a

substantial decrease since 1996 in both the number of students losing any credits and the number of credits lost.

Community colleges continue to play a critical role in creating an educated workforce within the state. While the unemployment rate for recent graduates remains relatively high (9.8%), over three-fifths of recent graduates are employed full-time one year after graduation. Additionally, of the 61.0% respondents who are working full-time, the vast majority (80.8%) are employed within the state. An additional 12.5% of those employed full-time work within the region, indicating that Maryland's community colleges continue to play a vital role in the economy of the region as a whole.

## **FOLLOW-UP SURVEY OF 2016 MARYLAND COMMUNITY COLLEGE GRADUATES**

Since 1980, the Maryland Higher Education Commission (MHEC) has periodically conducted a follow-up survey of community college certificate and associate degree graduates a year after they have completed their program.<sup>1</sup> The report generated from this survey provides information on completers' perceptions of the quality of their institutional experience, post-graduation educational and employment status, and other related outcomes. This edition of the report presents results for survey completers who received their degrees and/or certificates during the 2015-2016 academic year. Some of the survey results for each community college can be found in their institution's Performance Accountability Report (PAR).

### **SURVEY PROCEDURE**

In 2017, each community college in Maryland administered a survey of its 2016 graduates using questions approved by MHEC and the Maryland Association of Community Colleges. There were 19 standardized multiple-choice questions included in the survey, designed to produce aggregate statewide data. These standard questions are largely unchanged from questions that have been asked over many years, in order to allow for long-term comparisons. Colleges were encouraged to conduct their surveys online and to mail a standard, paper-based survey to all graduates without valid email addresses. Colleges distributed the surveys between April and September 2017. At the end of the survey period, each of Maryland's 16 community colleges submitted data files containing students' survey responses to MHEC.<sup>2</sup>

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<sup>1</sup> Beginning with the 2016 graduating class, the Community College Graduate Follow-Up Survey will be conducted annually by the institutions and reported on by MHEC every two years.

<sup>2</sup> In the past, community colleges submitted addresses and demographic information to MHEC. MHEC prepared the survey questionnaires and then returned them to each institution for them to mail the surveys to their graduates. Respondents returned completed surveys to the colleges, which then sent the surveys to MHEC for scanning, processing and analysis.

## SURVEY RESPONSES

Of all community college graduates in 2016, 15,464 had valid contact information and received a follow-up survey. Of these, a total of 2,808 responses were received, resulting in an overall statewide response rate of 18.2%. However, as Table 1 indicates, response rates varied widely by institution. Two institutions (Chesapeake College, 34.0%, and Wor-Wic Community College, 33.7%) had over one-third of graduates respond, while fewer than ten percent of graduates at two institutions (Montgomery College, 5.0%, and Prince George’s Community College, 8.1%) responded to the survey. While response rates remain low, the overall statewide response rate is slightly higher than that of the previous two iterations of the survey, 16.4% in 2014 and 16.8% in 2011.

**Table 1: 2017 Community College Graduate Follow-Up Survey  
Response Rates by Institution**

<b>Institution</b>	<b>Adjusted Sample Size</b>	<b>Responses</b>	<b>Response Rate</b>
Allegany College of Maryland	542	122	22.5%
Anne Arundel Community College	1,883	291	15.5%
Baltimore City Community College	502	107	21.3%
Carroll Community College	605	155	25.6%
Cecil Community College	327	69	21.1%
Chesapeake College	303	103	34.0%
College of Southern Maryland	1,289	311	24.1%
Community College of Baltimore County	2,260	484	21.4%
Frederick Community College	1,168	131	11.7%
Garrett College	120	26	21.7%
Hagerstown Community College	756	230	30.4%
Harford Community College	1,061	194	18.3%
Howard Community College	1,155	237	20.5%
Montgomery College	2,069	103	5.0%
Prince George’s Community College	980	79	8.1%
Wor-Wic Community College	493	166	33.7%
<b>Statewide Total</b>	<b>15,464</b>	<b>2,808</b>	<b>18.2%</b>
Note: Adjusted sample sizes are calculated by subtracting the number of undeliverable surveys from the total number of graduates.			

### Graduate and Survey Respondent Demographic and Academic Characteristics<sup>3</sup>

Despite the challenges associated with low response rates, as Table 2 shows, the respondent profile is generally demographically reflective of the overall community college graduate population.<sup>4</sup> When compared to the general graduate population, women are overrepresented among survey respondents (67.2% and 60.1%, respectively). This results in men being underrepresented; while men constitute approximately two-fifths (39.8%) of the graduate population, less than one third (32.8%) of survey respondents are male. African Americans are the most underrepresented among survey respondents, comprising 15.3% of the survey population compared to 19.9% of the overall graduating class. On the other end of the spectrum, white graduates are substantially overrepresented, constituting 65.3% of survey respondents while representing 58.6% of graduates. Among both survey respondents and the general population, white and African American students represent the largest percentages of individuals.

**Table 2: Graduate and Survey Respondent Demographic Characteristics**

	Survey Respondents		All 2016 Community College Graduates	
<b>Gender</b>				
Male	850	32.8%	6,662	39.8%
Female	1,738	67.2%	10,058	60.1%
<b>Race</b>				
African American	421	15.3%	3,333	19.9%
American Indian or Alaska Native	10	0.4%	64	0.4%
Native Hawaiian or Pacific Islander	1	0.0%	36	0.2%
Asian	92	3.4%	971	5.8%
Hispanic	126	4.6%	1,230	7.4%
White	1,794	65.3%	9,795	58.6%
Two or More Races	59	2.1%	423	2.5%
Foreign/Non-Resident Alien	39	1.4%	543	3.2%
Unknown	97	7.4%	325	1.9%
<b>Race and Gender Unknown</b>	<b>158</b>		-	-
<b>Total</b>	<b>2,746</b>		<b>16,720</b>	
Note: Information on all 2016 community college graduates is based on MHEC's 2016 Degree Information System.				

<sup>3</sup> Graduates are counted only once at each institution, classified according to their highest credential obtained. However, students may be included more than once if they receive a degree from more than one institution within the academic year.

<sup>4</sup> Due to the collection method for this year's survey, there were a fairly high number of students (158) with unknown race and gender. Those students are excluded from all analysis by race and gender. However, they are included in the totals.



Differences between survey respondents and all 2016 graduates are also evident when examining academic characteristics, as Table 3 shows. The percentage of students completing a certificate as their highest credential is nearly identical between the two populations, with 15.0% of respondents versus 15.1% of all graduates completing certificate programs. More substantial differences are seen when examining the program of study by discipline, however. The percentage of survey respondents enrolled in transfer programs (majors designed for students intending to transfer to a four-year institution) versus non-transfer programs (majors designed to prepare students to enter the workforce directly after graduation) was very similar to the overall graduate population, with non-transfer program completers slightly overrepresented compared to the overall graduating student class (47.7% versus 43.9%, respectively).

**Table 3: Graduate and Survey Respondent Academic Characteristics**

	Survey Respondents		All 2016 Community College Graduates	
<b>Highest Degree Earned</b>				
Certificate	405	15.0%	2,596	15.1%
Associate	2,294	85.0%	14,622	84.9%
<b>Academic Program</b>				
<i>Non-Transfer Majors</i>	<i>1,275</i>	<i>47.7%</i>	<i>7,561</i>	<i>43.9%</i>
Fine Arts	-	-	3	0.0%
Health	-	-	5	0.0%
Business and Commerce	216	7.9%	1,413	8.2%
Data Processing	129	4.7%	740	4.3%
Health Services and Paramedical Studies	636	23.2%	3,447	20.0%
Mechanical Technologies and Engineering	62	2.3%	520	3.0%
Natural Science	18	0.7%	95	0.6%
Public Service Technology	214	7.8%	1,338	7.8%
<i>Transfer Majors</i>	<i>1,399</i>	<i>52.3%</i>	<i>9,657</i>	<i>56.1%</i>
Arts and Sciences	358	13.0%	1,824	10.6%
Biological Sciences	5	0.1%	5	0.0%
Humanities and Social Sciences	24	0.9%	131	0.8%
Engineering	46	1.7%	275	1.6%
General Studies	673	24.5%	5,396	31.3%
Teacher Education	100	3.6%	450	2.6%
Business Administration	161	5.9%	1,278	7.4%
Computer Science	37	1.3%	280	1.6%
Other Interdisciplinary/Transfer	2	0.1%	18	0.1%
<b>Total</b>	<b>2,674</b>		<b>17,218</b>	
Note: Information on all degree recipients is based on MHEC's 2016 Degree Information System. Degree and program information are missing for 72 survey respondents; they are excluded from the data presented above as well as all reporting by major.				

Precautions have been taken to protect the privacy of individuals, as well as the validity of the reported data. Program data is only presented for academic programs with more than 50 students responding statewide. Natural Science, Humanities and Social Sciences, Engineering, Computer Science, and Other Interdisciplinary/Transfer majors have all been excluded from subsequent programmatic breakouts. Responses by race are only included for racial groups with more than 50 respondents, thus, data will not be broken out by race for survey respondents identifying as American Indian or Alaska Native, Native Hawaiian or Pacific Islander, and Two or More Races. Additionally, those students with unknown race and those with unknown gender have been excluded from all analysis by race and by gender. For both race and academic program, however, categories not presented in the tables are included in the totals.

## SURVEY FINDINGS

### The Community College Experience

Graduates rated most aspects of their experience at the community college very highly. When asked to rate their overall experience on a continuum from “very good” to “very poor,” respondents rated as either “good” or “very good” the overall quality of their college (90.0%), the quality of their overall college experience (88.6%), and the quality of classroom instruction (87.7%). However, there were aspects of the college experience that graduates did not rate as highly. In particular, graduates were least satisfied with the job search guidance and academic advising they received at the community college, with 10.8% and 10.6%, respectively, rating those services as either “very poor” or “poor.”

**Table 4: Respondent Rating of the Overall Community College Experience**

	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>
Overall college experience	52.7%	35.9%	9.1%	1.4%	0.9%
Overall quality of college	51.0%	38.9%	8.4%	0.9%	0.7%
Quality of classroom instruction	48.2%	39.6%	10.5%	1.3%	0.5%
Faculty availability/helpfulness	53.0%	33.5%	10.6%	2.0%	0.9%
Access to information technology	44.8%	40.6%	12.5%	1.4%	0.6%
Class scheduling	47.7%	36.7%	12.8%	1.8%	1.1%
Library	49.4%	38.1%	10.8%	1.0%	0.7%
Quality of laboratory equipment	43.9%	40.3%	13.3%	2.0%	0.6%
Tutorial services	45.3%	33.4%	17.0%	2.9%	1.4%
Quality of online instruction	39.5%	36.4%	19.0%	3.6%	1.5%
Student activities	36.0%	37.3%	21.1%	3.9%	1.6%
Academic advising	40.6%	29.1%	19.7%	6.6%	4.0%
Career Information	34.7%	35.8%	22.3%	4.8%	2.4%
Job Search skills	30.0%	32.1%	27.1%	6.6%	4.2%

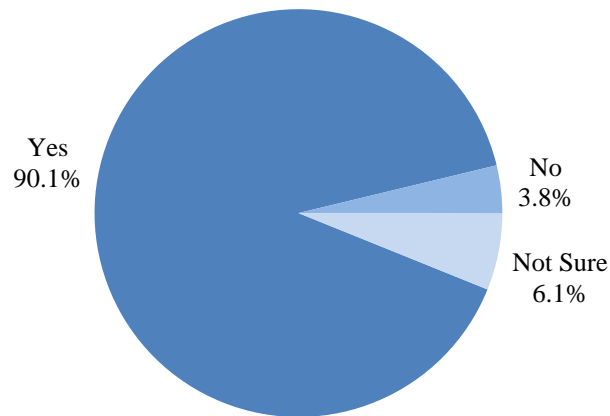
The positive experiences Maryland community college graduates reported were experienced across all institutions. As Table 5 shows, more than four-fifths of graduates from every institution reported that their experience at the community college was either “very good” or “good.”

**Table 5: Respondents’ Satisfaction with Overall Community College Experience by College**

<b>Institution</b>	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>
Allegany College of Maryland	53.8%	35.0%	7.7%	1.7%	1.7%
Anne Arundel Community College	55.1%	35.1%	8.1%	1.1%	0.7%
Baltimore City Community College	42.4%	42.4%	9.1%	3.0%	3.0%
Carroll Community College	55.5%	38.1%	5.2%	1.3%	0.0%
Cecil Community College	58.8%	29.4%	8.8%	1.5%	1.5%
Chesapeake College	52.5%	37.6%	7.9%	1.0%	1.0%
College of Southern Maryland	46.7%	40.5%	9.8%	2.3%	0.7%
Community College of Baltimore County	47.5%	38.6%	11.6%	1.7%	0.6%
Frederick Community College	54.8%	33.9%	8.9%	1.6%	0.8%
Garrett College	53.8%	38.5%	3.8%	0.0%	3.8%
Hagerstown Community College	51.1%	38.2%	10.2%	0.4%	0.0%
Harford Community College	54.6%	30.4%	9.8%	3.1%	2.1%
Howard Community College	55.3%	33.2%	10.6%	0.0%	0.9%
Montgomery College	57.1%	26.2%	16.7%	0.0%	0.0%
Prince George's Community College	46.8%	36.7%	12.7%	2.5%	1.3%
Wor-Wic Community College	71.8%	27.0%	1.2%	0.0%	0.0%
<b>Statewide</b>	<b>52.7%</b>	<b>35.9%</b>	<b>9.1%</b>	<b>1.4%</b>	<b>0.9%</b>

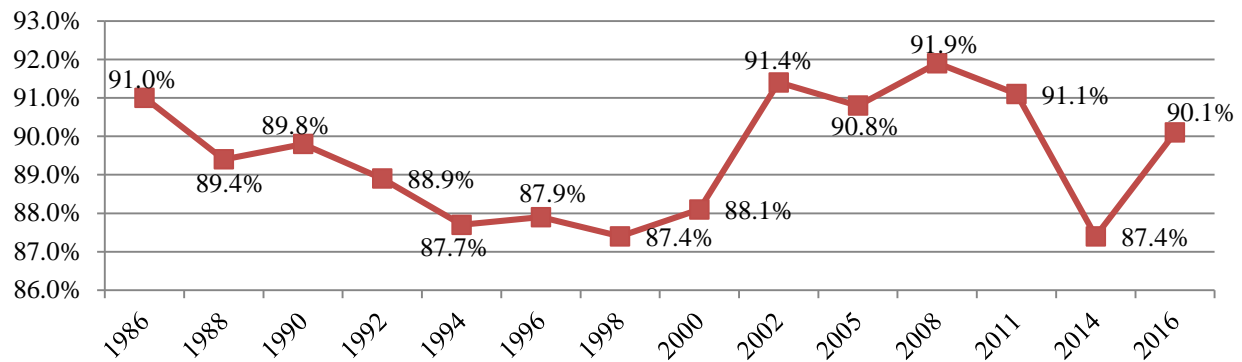
An overwhelming majority (90.1%) of respondents also indicated that they would attend the same community college if given the opportunity, as Figure 1 shows. Only a very small percentage (3.8%) indicated that they would not. This reflects the high level of satisfaction respondents had with their community college experience. Additionally, this represents a slight increase (1.4 percentage points) in graduates responding that they would attend the same institution since 2014.

**Figure 1: Percentage of Respondents Who Would Attend the Same Community College**



Maryland community college graduates have consistently rated their experiences highly. As Figure 2 shows, in every administration of the Community College Graduate Follow-Up Survey since 1986, a substantial majority of respondents have rated their overall experience at the institution highly. In five of the past six survey iterations, over 90% of students expressed satisfaction with their overall community college experience.

**Figure 2: Percentage of Graduates Rating the Overall Community College Experience Highly**



As in the last several iterations of this survey, the majority of students (70.8%) responded that they would enroll in the same academic program. However, as Table 6 shows, there is substantial variation across academic programs. Respondents with non-transfer majors were more likely than respondents with transfer majors to indicate that they would enroll in the same program if given the opportunity. This varied by type of program; while over four-fifths (83.2%) of respondents who majored in Health Services and Paramedical Studies said they would enroll in that same program again, only 61.3% of those majoring in Mechanical Technologies and Engineering indicated that they would choose that same course of study.

**Table 6: Percentage of Respondents Who Would Enroll in the Same Academic Program by Program**

<b>Academic Program</b>	<b>Percentage of Respondents</b>
<i>Non-Transfer Majors</i>	76.5%
Business and Commerce	74.2%
Data Processing	73.4%
Health Services and Paramedical Studies	83.2%
Mechanical Technologies and Engineering	61.3%
Public Service Technology	70.9%
<i>Transfer Majors</i>	62.8%
Arts and Sciences	69.3%
General Studies	57.2%
Teacher Education	73.0%
Business Administration	66.5%
<b>All Programs</b>	<b>70.8%</b>

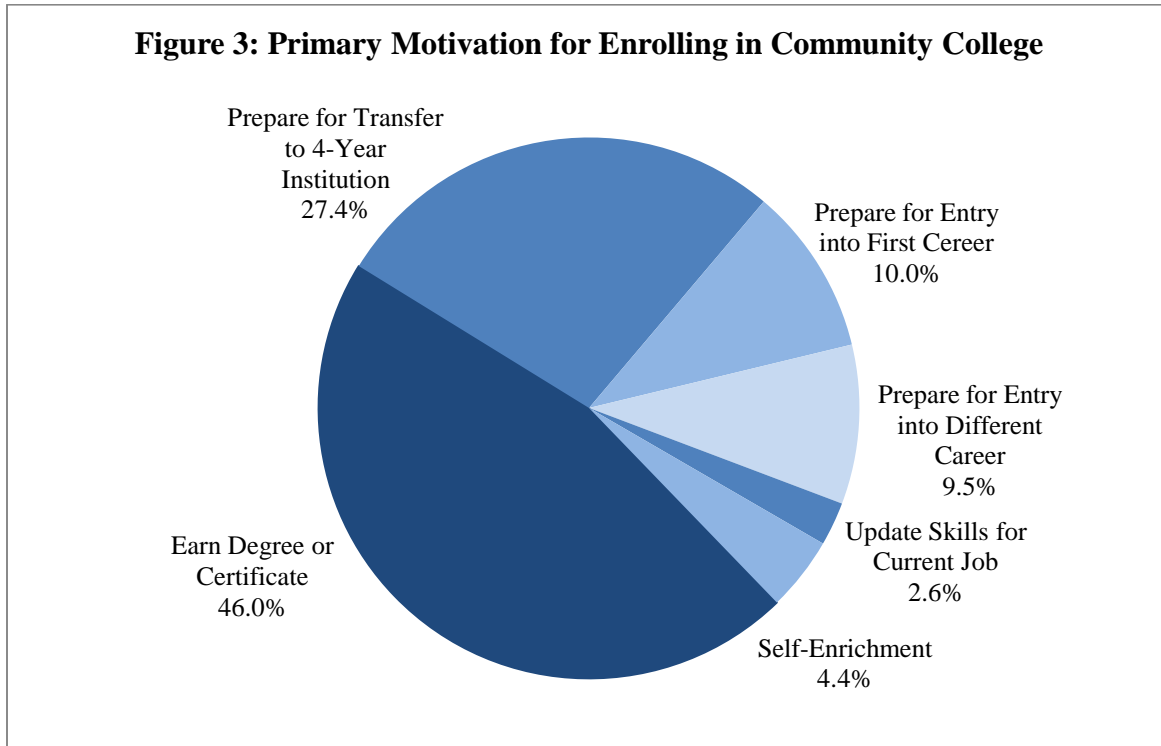
## Educational Objectives

Graduates were asked to respond to several questions regarding their motivations and objectives for enrolling in a community college and their success in achieving those objectives during their time in the program. Graduates were asked to rate the importance of the identified objectives on a scale including “very important,” “somewhat important,” and “not important” and to select their most important objective. As indicated in Table 7, most respondents found all of the identified objectives to be important motivators driving them to enroll. Students were most likely to consider obtaining an associate degree or certificate to be very important (89.0%); only two percent of respondents indicated that obtaining a credential was not an important factor behind their enrollment. However, students also placed value in less tangible benefits of receiving an education, with 91.3% of respondents indicating that self-enrichment was a very important or somewhat important objective motivating their enrollment at the community college.

**Table 7: Respondents’ Rating of the Importance of Schooling Objectives**

<b>Objective</b>	<b>Very Important</b>	<b>Somewhat Important</b>	<b>Not Important</b>
Earn an associate degree or certificate	89.0%	9.0%	2.0%
Prepare for transfer into a four-year institution	63.6%	21.4%	15.0%
Prepare for entry into first career	55.0%	22.4%	22.5%
Prepare for entry into different career	41.2%	27.8%	31.0%
Update skills for current job	42.0%	26.3%	31.7%
Self-enrichment	66.8%	24.5%	8.7%

As Figure 3 shows, nearly three-quarters of students indicated that their primary motivation for enrolling in the community college was academic, either to earn an associate degree or certificate (46.0%) or to prepare for transfer to a four-year institution (27.4%). However, 22.1% of respondents stated that their primary goal was workforce-related, either to prepare for entry into their first career (10.0%), prepare for entry into a different career (9.5%), or to update their skills for their current job (2.6%).



Most respondents (97.8%) indicated that their primary objective had been achieved completely or partly by the time they graduated. Table 8 indicates the percentages of students ranking each objective most important who found those specific objectives to have been achieved completely, partly, or not at all. Those students entering with the goal of earning an associate degree or certificate were most likely to have found their objective completely achieved (93.1%). Students entering with the primary objective of self-enrichment were least likely to have found their goal completely achieved (62.4%), though graduates preparing for entry into either their first career or a different career were the most likely to respond that it had not been achieved at all (8.3% and 4.8%, respectively).

**Table 8: Respondents' Achievement of the Most Important Objective for Attending Community College**

<b>Objective</b>	<b>Completely</b>	<b>Partly</b>	<b>Not at all</b>
Earn an associate degree or certificate	93.1%	6.4%	0.5%
Prepare for transfer into a four-year institution	84.9%	12.9%	2.2%
Prepare for entry into first career	64.9%	26.8%	8.3%
Prepare for entry into different career	73.8%	21.4%	4.8%
Update skills for current job	71.0%	27.5%	1.4%
Self-enrichment	62.4%	35.9%	1.7%
<b>All Objectives Combined</b>	<b>84.2%</b>	<b>13.5%</b>	<b>2.2%</b>



## Academic Skills and Developmental Change

Recognizing that there are a number of potential benefits associated with educational attainment beyond earning a degree, the survey also asks graduates about improvement of both their academic skills and personal characteristics. As Table 9 illustrates, over 80% indicated that they had improved a great deal or a fair amount on all of the identified academic skill areas. However, respondents were less likely to experience personal change as a result of attending college. Respondents were most likely to indicate that their clarity of educational and career goals and self-confidence had increased a great deal (58.0% and 54.4%, respectively), but 42.6% reported no change in their appreciation of art, music, and literature.

**Table 9: Respondents' Improvement of Academic Skills and Personal Change**

<b>Academic Skills</b>	<b>Improved a Great Deal</b>	<b>Improved a Fair Amount</b>	<b>No Improvement at All</b>
Writing Skills	43.4%	44.9%	11.7%
Mathematics Skills	34.6%	46.2%	19.2%
Scientific Reasoning	44.6%	42.0%	13.4%
Reading Comprehension	37.5%	45.4%	17.2%
Effective Use of Information	58.1%	35.5%	6.4%
<b>Personal Change</b>	<b>Increased a Great Deal</b>	<b>Increased Somewhat</b>	<b>Remained the Same</b>
Appreciation of Art, Music, and Literature	27.1%	30.3%	42.6%
Clarity of Educational and Career Goals	58.0%	30.0%	11.2%
Self-Confidence	54.4%	32.7%	12.9%
Appreciation of Cultural Diversity	38.7%	33.9%	27.4%
Enjoyment of Learning	49.3%	32.6%	18.1%

## Post-Graduation Activity

As indicated in the sections above, many students sought a certificate or associate degree in order to prepare for transfer to a four-year institution or increase their preparation for employment. To assess the degree to which graduates achieved those objectives, the survey asked students several questions regarding their post-graduation educational and career activities.

*Transfer to Four-Year Institutions*

While 63.6% of graduates indicated that one of their objectives for enrolling at the community college was to prepare for transfer to a four-year institution, approximately half (54.5%) of respondents transferred within a year of program completion. Of those students who successfully transferred to a four-year institution, the majority enrolled as full-time students, with 74.8% enrolling full-time and 25.2% enrolling part-time. As Table 10 shows, there were significant differences in transfer rates by institution. Garrett College had the highest rate of transfer (73.1%) to a four-year institution, and four other institutions (College of Southern Maryland, Harford Community College, Montgomery College, and Prince George’s Community College) also had over four-fifths transfer within a year of completion. In contrast, only one-third of respondents from Allegany College transferred within a year.

**Table 10: Percentage of Respondents Transferring to a Four-Year College or University**

	<b>Full-Time</b>	<b>Part-Time</b>	<b>Total</b>
Allegany College of Maryland	23.9%	9.4%	33.3%
Anne Arundel Community College	39.8%	13.7%	53.5%
Baltimore City Community College	36.3%	15.4%	51.6%
Carroll Community College	43.2%	12.3%	55.5%
Cecil Community College	38.2%	8.8%	47.1%
Chesapeake College	28.4%	10.8%	39.2%
College of Southern Maryland	47.2%	19.4%	66.7%
Community College of Baltimore County	36.9%	13.5%	50.3%
Frederick Community College	46.7%	11.5%	58.2%
Garrett College	69.2%	3.8%	73.1%
Hagerstown Community College	37.6%	10.5%	48.0%
Harford Community College	47.6%	15.2%	64.8%
Howard Community College	47.5%	17.4%	35.2%
Montgomery College	59.5%	9.5%	69.0%
Prince George's Community College	55.7%	15.2%	70.9%
Wor-Wic Community College	28.9%	12.0%	41.0%
<b>All Campuses</b>	<b>40.8%</b>	<b>13.7%</b>	<b>54.5%</b>

Table 11 displays the percentage of students transferring to a four-year institution by race and gender. More men than women transferred, with 58.0% of men transferring and 51.8% of women. Hispanic students were most likely (65.9%) to enroll in a four-year institution. White students, while constituting the largest number of transfer students, had the smallest proportion of students transferring (51.0%), when compared to students of other races.

**Table 11: Percentage of Respondents  
Transferring to a Four-Year Institution by Race and Gender**

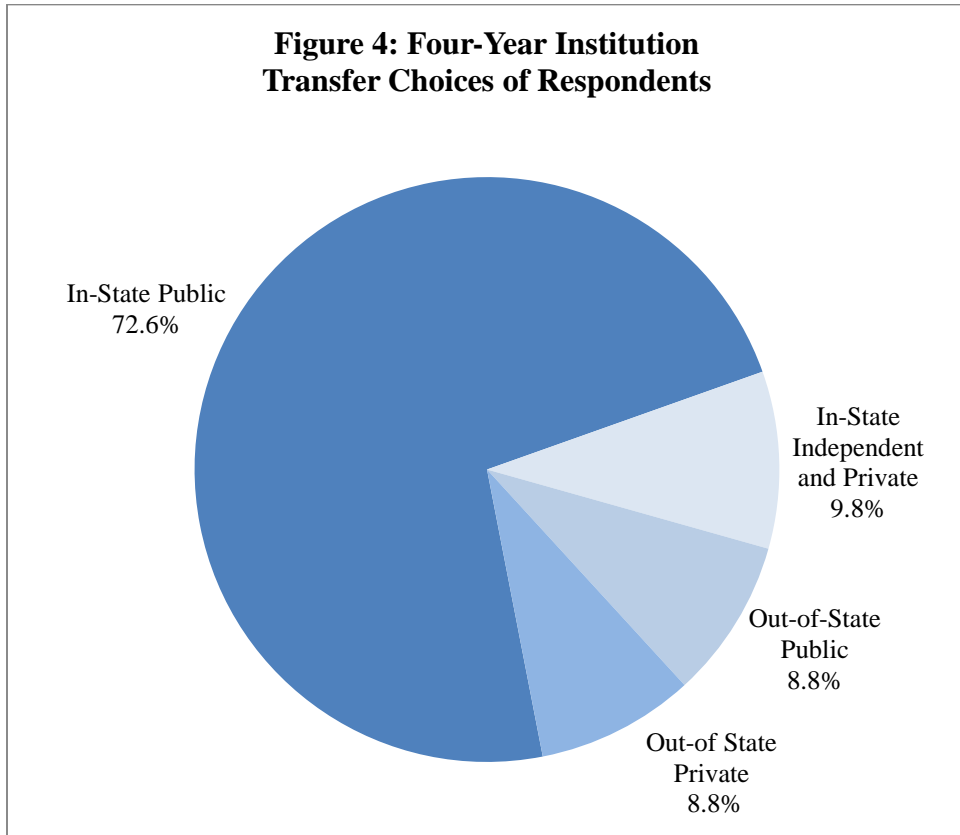
	<b>Percentage of Respondents</b>
<b>Gender</b>	
Male	58.0%
Female	51.8%
<b>Race</b>	
African American	59.6%
Asian	62.0%
Hispanic	65.9%
White	51.1%
Foreign/Non-Resident Alien	56.4%
Unknown	40.4%

Respondents who enrolled in major programs designed to prepare them for transfer to a four-year institution were far more likely to transfer than those completing programs designed to prepare them for direct entry into the workforce, as Table 12 shows. Over three-quarters of respondents (78.6%) completing transfer programs transferred within one year of graduation from their community college. While non-transfer program graduates were far less likely to re-enroll than transfer program students, over one-third of non-transfer program students (36.1%) transferred to a four-year institution.

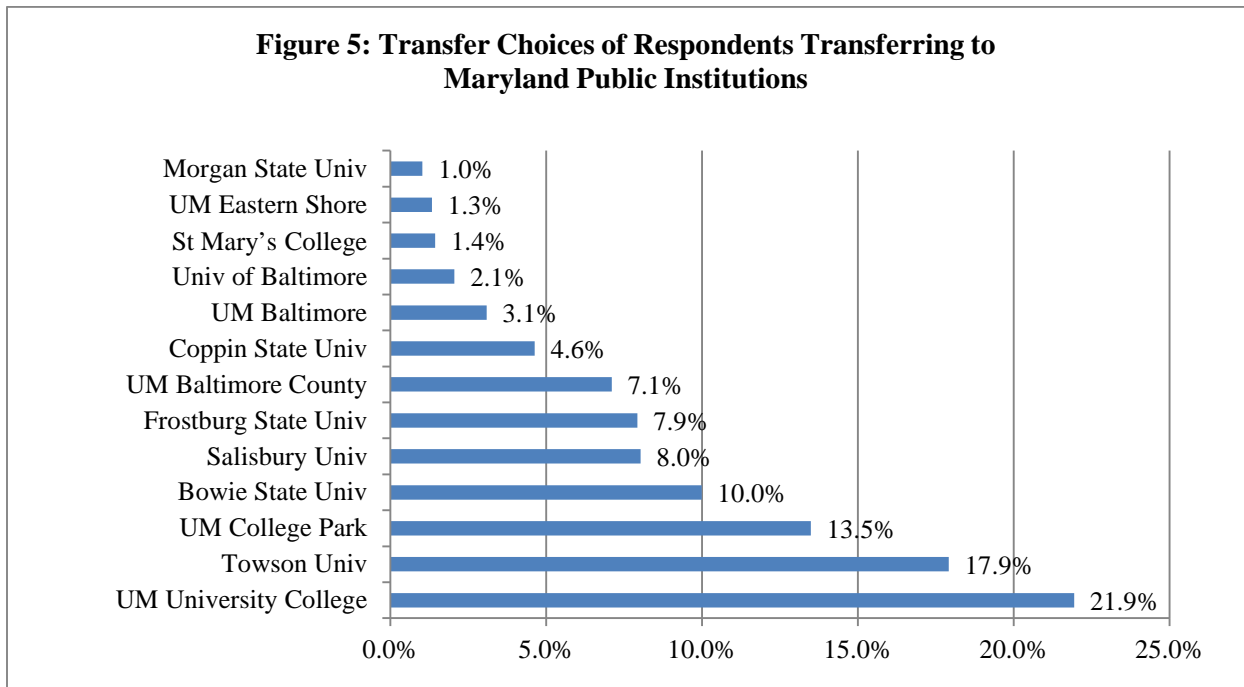
**Table 12: Percentage of Respondents Transferring to a Four-Year Institution by Academic Program**

	<b>Percentage of Respondents</b>
<b>Academic Program</b>	
<i>Non-Transfer Majors</i>	<i>36.1%</i>
Business and Commerce	36.2%
Data Processing	44.1%
Health Services and Paramedical Studies	34.9%
Mechanical Technologies and Engineering	31.1%
Public Service Technology	34.9%
<i>Transfer Majors</i>	<i>78.6%</i>
Arts and Sciences	70.8%
General Studies	70.4%
Teacher Education	68.7%
Business Administration	68.3%
<b>All Programs</b>	<b>54.5%</b>

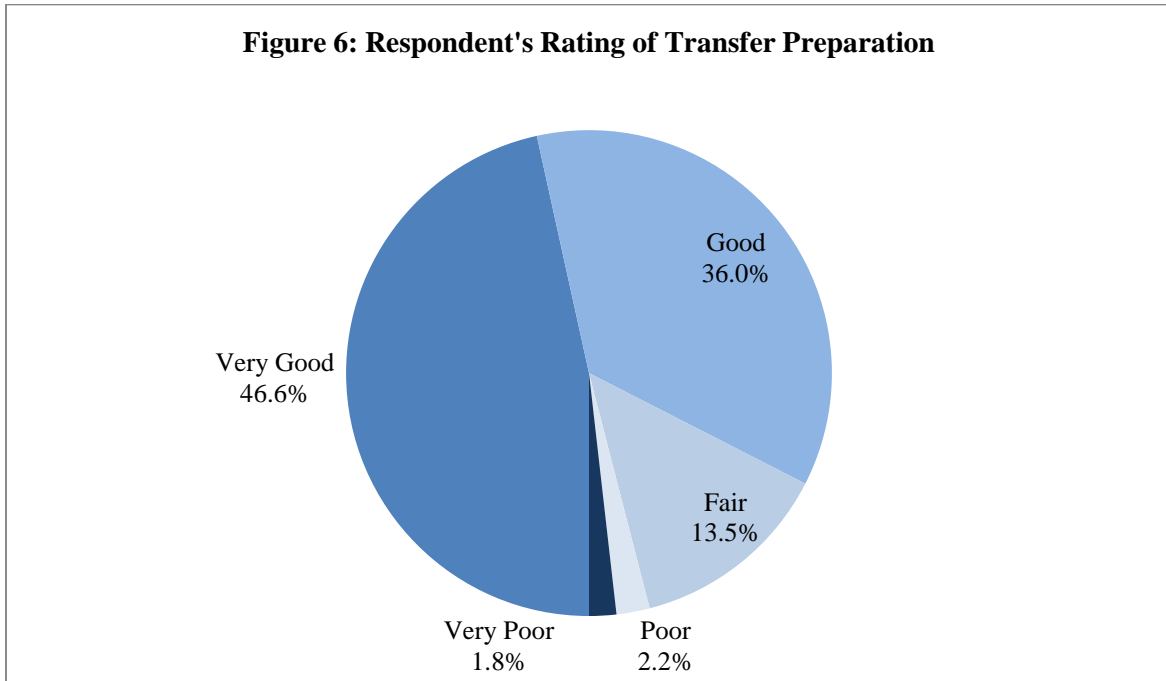
The vast majority of those respondents that transferred to a four-year college or university enrolled at Maryland institution (82.4%). As Figure 4 shows, those graduates that transferred to a four-year institution in-state were much more likely to attend a public college or university (72.6%) than an independent or private institution (9.8%). For students transferring out of state, however, they were equally likely to choose a private institution as they were a public one.



As Figure 5 shows, every Maryland public institution was a destination for some students transferring to a four-year college or university within the state. However, the extent to which this was true varied widely by institution. University of Maryland, University College (UMUC) was the top choice, with over one-fifth (21.9%) of in-state public transfer students enrolling. Towson University (17.9%) and University of Maryland College Park (13.5%) also represented top transfer choices for respondents. Fewer than half (46.7%) transferred to one of the 13 other public institutions.



As Figure 6 shows, the vast majority of survey respondents transferring to a four-year institution reported high levels of satisfaction with the academic preparation received at the community college. Most (82.5%) of the respondents indicated that the community college had provided them with either “very good” or “good” preparation for transfer to a four-year college or university.



Over the past two decades, the State and institutions have undertaken a number of policy initiatives aiming to decrease student credit loss at transfer. These actions have led to a substantial decrease in both the number of students losing any credits and the number of credits lost, as shown in Table 13. Of survey respondents in 1996, only 12.8% of respondents reported receiving credits for all classes in which they earned a “C” or better at the community college; among 2016 survey respondents, this proportion rose to nearly half (48.7%). Additionally, while nearly two-fifths (39.9%) of respondents lost more than six credits when transferring in 1996, fewer than one-quarter (22.4%) students reported the same in 2016.

**Table 13: Percentage of Respondents Reporting Credit Loss, 1996-2016 Graduates**

Graduation Year	Number of Credits Lost Upon Transfer		
	None	1-6 Credits	Over 6 Credits
1996	12.8%	47.3%	39.9%
1998	13.9%	49.7%	36.4%
2000	16.4%	46.8%	36.8%
2002	45.2%	31.9%	22.9%
2005	45.2%	30.0%	25.8%
2008	40.2%	32.4%	27.5%
2011	43.9%	30.3%	25.8%
2014	45.5%	29.6%	24.9%
2016	48.7%	28.9%	22.4%

#### *Employment Following Graduation*

Several additional survey questions focused on employment status following graduation from the community college, including employment status, location, job preparation, and relationship to academic program. Participants were given several options to choose from when reporting employment: employed full-time, employed part-time, serving active military duty, full-time homemaker, unemployed and seeking a job, unemployed and not seeking a job, and retired. The majority of all survey respondents reported that they were employed either part-time (29.2%) or full-time (61.0%), and 9.8% reported being unemployed and actively seeking employment at the time of the survey. Table 14 displays the percentage of students from each academic program in the workforce reporting that they were employed full-time, employed part-time, or unemployed and actively seeking a job. As this shows, those respondents majoring in mechanical technologies and engineering or health services and paramedical studies were most likely to be employed full-time. However, students in transfer programs were much more likely than those in non-transfer programs to be employed part-time. This is likely at least in part due to the fact that respondents from transfer programs were much more likely to continue studying at a four-year



institution, while those students from non-transfer programs were more likely to immediately enter the workforce.

**Table 14: Employment Status by Academic Program**

	<b>Employed Full-Time</b>	<b>Employed Part-Time</b>	<b>Unemployed</b>
<b>Highest Degree Earned</b>			
Certificate	72.0%	17.9%	10.1%
Associate	59.2%	31.1%	9.7%
<b>Academic Program</b>			
<i>Non-Transfer Majors</i>	<i>75.6%</i>	<i>16.9%</i>	<i>7.5%</i>
Business and Commerce	68.8%	20.1%	11.1%
Data Processing	64.1%	21.4%	14.5%
Health Services and Paramedical Studies	80.0%	14.7%	5.2%
Mechanical Technologies and Engineering	83.6%	9.1%	7.3%
Public Service Technology	73.6%	19.3%	7.1%
<i>Transfer Majors</i>	<i>47.5%</i>	<i>40.6%</i>	<i>11.9%</i>
Arts and Sciences	41.2%	44.1%	14.7%
General Studies	48.5%	39.5%	12.0%
Teacher Education	45.6%	47.8%	6.7%
Business Administration	56.8%	36.3%	6.8%
<b>All Students</b>	<b>61.0%</b>	<b>29.2%</b>	<b>9.8%</b>

As Table 15 shows, there were no substantial differences in employment status between males and females, with 61.0% of males and 61.5% of females employed full-time, while 29.2% of males and 29.3% of females obtained part-time employment. African American students were by far the most likely to be employed full-time (66.4%), while fewer than half (48.2%) of Hispanic students were employed full-time. Hispanic students were much more likely (38.6%) to be employed part-time than any other racial category. Fewer than ten percent of both white (8.7%) and African American (9.2%) respondents were unemployed one year after graduation.

**Table 15: Employment Status by Demographic Category**

	<b>Employed Full-Time</b>	<b>Employed Part-Time</b>	<b>Unemployed</b>
<b>Gender</b>			
Male	61.0%	29.2%	9.7%
Female	61.5%	29.3%	9.2%
<b>Race</b>			
African American	66.4%	24.4%	9.2%
Asian	57.0%	27.8%	15.2%
Hispanic	48.2%	38.6%	13.2%
White	61.6%	29.6%	8.7%
Foreign/Non-Resident Alien	51.6%	32.3%	16.1%
Unknown	60.0%	24.4%	15.6%

The unemployment rate for survey respondents (9.8%) was substantially higher than the overall unemployment rate for the state, which at the time of survey administration was 3.8%, while the national unemployment rate was 4.2%. At the time that institutions collected their data, Maryland had an overall unemployment rate of 3.8%, while the national unemployment rate was 4.2%.<sup>5,6</sup> However, this high rate of unemployment among young college graduates is not restricted to Maryland. While official unemployment figures for recent graduates are hard to come by, a report by the Economic Policy Institute estimated that the unemployment rate for young college graduates not enrolled in college or a university (age 21 to 24) was 5.6% in 2016. The study also indicated that over the past four decades, on average, unemployment rates of workers under age 25 are 2.2 times as high as the overall national unemployment rate, regardless of the strength or weakness of the economy.<sup>7</sup> The relatively high unemployment rate among survey respondents may reflect this phenomenon.

<sup>5</sup> Maryland Department of Labor Licensing and Regulation. Office of Workforce Information and Performance. *Maryland Seasonally Adjusted Local Area Unemployment Data*. <http://www.dllr.state.md.us/lmi/laus/>

<sup>6</sup> United States Department of Labor, Bureau of Labor Statistics, *Labor Force Statistics from the Current Survey*, <https://data.bls.gov/timeseries/LNS14000000>

<sup>7</sup> T. Kroeger, T. Cooke, and E. Gould. (2016). *The Class of 2016*. Economic Policy Institute. <https://www.epi.org/publication/class-of-2016/>

The majority of survey respondents reported that their job was related to their major. However, as Table 16 shows, the extent to which that was true varied substantially by major. As transfer programs are typically designed to prepare students for transferring to a four-year institution rather than direct entry into the workforce, it is not surprising that the transfer program students were less likely to indicate that their job and major were related. While 74.1% of non-transfer major respondents indicated that their job was in the same field, only 30.0% of transfer major students said the same. Even within those program categories there were substantial differences. While 89.2% of students completing degrees in health services and paramedical studies indicated they were working in the same field as their major, only 54.3% of majoring in mechanical technologies and engineering worked in that field. This result is consistent with the fact that some career fields are much more likely than others to require graduates to pursue specific majors.

**Table 16: Relationship of Respondents' Full-Time Jobs to Their Academic Field of Study**

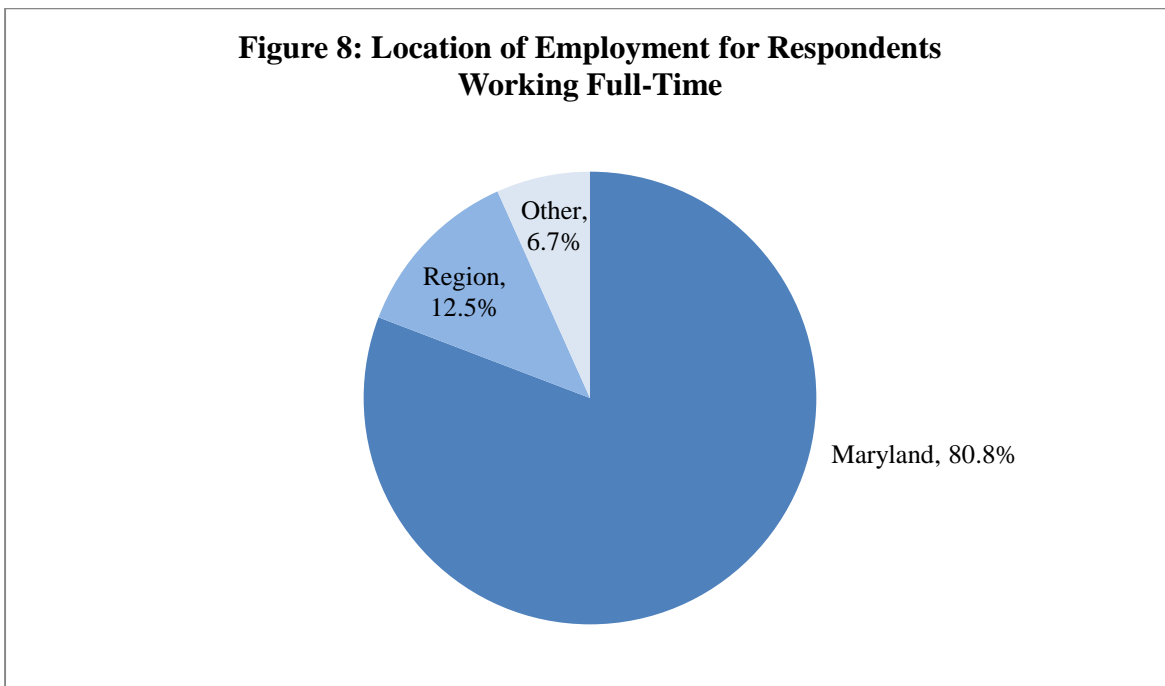
	<b>Same Field</b>	<b>Somewhat Related Field</b>	<b>Different Field</b>
<b>Academic Program</b>			
<i>Non-Transfer Majors</i>	74.1%	13.3%	12.5%
Business and Commerce	54.9%	24.1%	21.1%
Data Processing	55.4%	14.9%	29.7%
Health Services and Paramedical Studies	89.2%	5.5%	5.3%
Mechanical Technologies and Engineering	54.3%	23.9%	21.7%
Public Service Technology	61.5%	23.1%	15.4%
<i>Transfer Majors</i>	30.0%	36.7%	33.3%
Arts and Sciences	31.0%	34.1%	34.9%
General Studies	18.5%	40.9%	40.6%
Teacher Education	64.1%	20.5%	15.4%
Business Administration	42.7%	36.6%	20.7%
<b>All Programs</b>	<b>56.7%</b>	<b>22.3%</b>	<b>21.0%</b>

As previously noted, many graduates attended community colleges with the primary goal of increasing employment skills. Survey respondents reported that the community colleges are doing an excellent job of meeting that goal. When asked how well the community college had prepared them for employment, at most institutions fewer than five percent of graduates employed full-time responded “poorly” or “very poorly.” Statewide, 5.3% of students indicated that their preparation was “poor” or “very poor.” Over three-quarters of graduates reported that their level of preparation was either “very good” (47.0%) or “good” (28.2%). Table 17 shows the percentage of respondents in each rating category by institution.

**Table 17: Respondents' Rating of Community College Employment Preparation by Community College**

	<b>Very Good</b>	<b>Good</b>	<b>Fair</b>	<b>Poor</b>	<b>Very Poor</b>
Allegany Community College	52.5%	35.0%	7.5%	3.8%	1.3%
Anne Arundel Community College	74.2%	0.0%	17.4%	3.9%	4.5%
Baltimore City Community College	42.2%	31.1%	20.0%	0.0%	6.7%
Carroll Community College	42.7%	29.3%	24.4%	3.7%	0.0%
Cecil Community College	54.3%	25.7%	17.1%	2.9%	0.0%
Chesapeake College	50.0%	30.6%	14.5%	1.6%	3.2%
College of Southern Maryland	36.9%	33.1%	26.8%	1.9%	1.3%
Community College of Baltimore County	41.6%	30.2%	20.6%	5.3%	2.1%
Frederick Community College	31.1%	34.4%	27.9%	3.3%	3.3%
Garrett College	11.1%	33.3%	33.3%	11.1%	11.1%
Hagerstown Community College	51.3%	33.6%	12.4%	1.8%	0.9%
Harford Community College	27.7%	34.0%	30.9%	5.3%	2.1%
Howard Community College	44.4%	36.1%	14.8%	3.7%	0.9%
Montgomery College	40.0%	25.0%	30.0%	5.0%	0.0%
Prince George's Community College	38.8%	30.6%	26.5%	4.1%	0.0%
Wor-Wic Community College	65.5%	25.5%	9.1%	0.0%	0.0%
<b>All Campuses</b>	<b>47.0%</b>	<b>28.2%</b>	<b>19.5%</b>	<b>3.4%</b>	<b>1.9%</b>
Note: Cecil Community College and Garrett College had fewer than 15 respondents.					

One of the central functions of community colleges is creating a more educated workforce for the state. Figure 8 shows that Maryland's community colleges appear to be successful in this regard, with the majority of survey respondents (80.8%) working in the state one year after graduation. Maryland's community colleges also play an important role in the region's economy, as 12.5% reported working in Delaware, the District of Columbia, Pennsylvania, Virginia, or West Virginia. Only 6.7% of respondents reported working outside of the state or the region.



## CONCLUSION

The responses to the Graduate Follow-Up Survey of 2016 community college graduates indicate that Maryland's community colleges continue to serve their students and the State well. Respondents indicate high levels of satisfaction with their educational experiences and report positive outcomes following the completion of their degree or certificate program. They also report that they feel their institutions prepared them well for further study and employment. The Community College Graduate Follow-Up Survey has been administered since the graduating class of 1980 because it has provided MHEC and the community colleges with the ability to track outcomes such as satisfaction with the community college experience, labor market outcomes, and graduates' post-completion educational participation. The advent of the Maryland Longitudinal Data System Center may provide the State with improved ability to identify and report on a number of these outcomes. However, much of this information, such as student satisfaction, cannot be captured through these types of data sources. This makes declining response rates to the Survey a concern, particularly because results must be interpreted with caution. MHEC will continue to work with the institutions to explore alternate methods of capturing this information.