



Follow-Up Survey of 2011 Maryland Community College Graduates

August 2013
(Revised 9/24/13)

Maryland Higher Education Commission

Anwer Hasan, Chair

Sandra L. Jimenez, Vice-Chair

Brandon G. Bell

Vivian S. Boyd

Ian MacFarlane

Edith J. Patterson

Joel Packer

Gregory A. Schuckman

Rizwan A. Siddiqi

Robert A. Wilmot

John W. Yaeger

Danette G. Howard
Secretary of Higher Education

Martin O'Malley
Governor

Anthony Brown
Lieutenant Governor

Follow-Up Survey of 2011 Maryland Community College Graduates

TABLE OF CONTENTS

Survey Procedure	1
Survey Responses	1
Graduate and Survey Respondent Demographic and Academic Characteristics	2
Survey Findings	4
The Community College Experience.....	4
Educational Objectives	8
Academic Skills and Developmental Change.....	10
Post-Graduation Activity	11
<i>Transfer to Four-Year Institutions.....</i>	11
<i>Employment Following Graduation</i>	16
Summary.....	20

Follow-Up Survey of 2011 Maryland Community College Graduates

Every three years, the Maryland Higher Education Commission 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 statuses, and other related outcomes. This information is captured by the Maryland Higher Education Commission (MHEC) through a follow-up survey that is administered every three years to associate degree and lower-division certificate recipients from community colleges a year after the students have completed their certificate or degree. The current version of this report presents results for survey completers who received their degrees and certificates during the 2010-11 academic year. This survey focuses on statewide trends, which are also contained in the Commission's Managing for Results submission. Additionally, some of the survey results for each community college can be found in their institution's Performance Accountability Report (PAR).

SURVEY PROCEDURE

Each of Maryland's 16 community colleges submitted data files to MHEC containing addresses and demographic information for all students who earned an associate degree or certificate during the 2010-2011 academic year. MHEC prepared surveys for each graduate consisting of questions developed in consultation with the Maryland Association of Community Colleges and the Maryland Community College Research Group. MHEC returned these surveys to the institutions, and in the fall of 2012 community colleges mailed surveys to each of their graduates. Of the 18 questions included in the survey, 17 were standardized multiple-choice questions designed to produce aggregate statewide data. A final question allowed graduates to provide open-ended feedback to institutions. Community colleges utilized a first and second mailing in an attempt to increase response rates. Although it was not required, some institutions also contacted graduates via telephone to conduct the survey. Respondents returned completed surveys to institutions, which then submitted them to MHEC for scanning, data processing, and analysis. MHEC created data files from the surveys and used these to perform statewide and institutional analyses, and then returned the original surveys and data files to each campus.

SURVEY RESPONSES

There were 15,974 graduates in FY2011, but follow-up surveys were mailed to 14,201 of the graduating cohort due to incomplete and missing contact information. Completed surveys were returned by 2,379 graduates, resulting in a statewide response rate of 16.8%. As indicated in Table 1, institutional response rates varied widely, from 5.5% at Montgomery College to 30.5% at Wor-Wic Community College.

Institution	Adjusted Sample Size	Responses¹	Response Rate
Allegany College of Maryland	598	87	14.5%
Anne Arundel Community College	1,935	278	14.4%
Baltimore City Community College	538	82	15.2%
Carroll Community College	537	163	30.4%
Cecil Community College	259	53	20.5%
College of Southern Maryland	735	151	20.5%
The Community College of Baltimore County	2,124	503	23.7%
Chesapeake College	272	57	21.0%
Frederick Community College	921	125	13.6%
Garrett College	93	19	20.4%
Hagerstown Community College	733	136	18.6%
Harford Community College	762	151	19.8%
Howard Community College	850	171	20.1%
Montgomery College	2,458	134	5.5%
Prince George's Community College	946	136	14.4%
Wor-Wic Community College	436	133	30.5%
Statewide Total	14,201	2,379	16.8%

Note: Adjusted sample size is calculated by excluding students with missing or incomplete contact information from the total graduate population.

Multiple 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 and responses by race are only included for racial groups with more than 50 respondents. Findings should be interpreted with caution given the low response rates.

Graduate and Survey Respondent Demographic and Academic Characteristics

Despite the challenges associated with low response rates, as Table 2 on page 3 shows, the respondent profile is demographically similar to the overall community college graduate population. Women are slightly overrepresented in the survey population versus the general graduate population (69.1% and 63.4%, respectively) and men are slightly underrepresented (30.9% and 36.6%, respectively). Most racial groups constitute a fairly small percentage of graduates in both the overall and the respondent populations. However, African Americans are underrepresented in the survey (12.9% of respondent population versus 16.7% of all graduates), along with Hispanic (2.8% versus 4.4%) and foreign students (3.4% versus 5.0%). White students are the most substantially overrepresented racial group in the survey, constituting 67.0% of respondents and 60.1% of all graduates. Unknown race graduates are also slightly

¹ A very small number of respondents (n=21, 0.9%) could not be linked to demographic files containing information including race, gender, and program of enrollment. These respondents have been excluded from the analysis.

overrepresented, with 9.1% of survey respondents identified as unknown compared to 7.6% of the total graduate population.

Table 2: Graduate and Survey Respondent Demographic Characteristics				
	2012 Survey Respondents		All 2011 Community College Graduates	
	#	%	#	%
Gender				
Male	728	30.9%	5,841	36.6%
Female	1,630	69.1%	10,133	63.4%
Race				
African American	304	12.9%	2,668	16.7%
American Indian or Alaska Native	7	0.3%	58	0.4%
Native Hawaiian or Pacific Islander	1	0.0%	27	0.2%
Asian	88	3.7%	734	4.6%
Hispanic	67	2.8%	705	4.4%
White	1,582	67.0%	9,604	60.1%
Two or More races	7	0.3%	158	1.0%
Foreign/Non-Resident Alien	80	3.4%	802	5.0%
Unknown	215	9.1%	1218	7.6%
Total	2,358		15,974	
Note: Information on all degree recipients is based on MHEC's 2011 Degree Information System				

More substantial, albeit still quite small, differences between the graduate and respondent populations can be seen in the academic characteristics of the two populations. The distribution of highest degree earned is the most significant difference between graduates and respondents. As Table 3 on the next page shows, while 15.3% of survey respondents earned a certificate and 84.7% an associate degree, 20.9% of all graduates received certificates and 79.1% an associate degree, making certificate graduates underrepresented among survey respondents. The percentage of graduates enrolled in transfer programs (majors designed for students intending to transfer to a four-year institution) versus non-transfer programs (majors not designed to prepare students for transfer) among survey respondents was very similar to the overall graduate population. Additionally, the distribution of academic program enrollment among respondents was very similar to the overall graduate population.

Table 3: Graduate and Survey Respondent Academic Characteristics				
	2012 Survey Respondents		All 2011 Community College Graduates	
	#	%	#	%
Highest Degree Earned				
Certificate	360	15.3%	3,337	20.9%
Associate	1,997	84.7%	12,637	79.1%
Academic Program				
<i>Non-Transfer Majors</i>	<i>1,158</i>	<i>49.1%</i>	<i>7,684</i>	<i>48.1%</i>
Business & Commerce	298	12.6%	2,099	13.1%
Data Processing	80	3.4%	605	3.8%
Health Services and Paramedical Studies	531	22.5%	3,373	21.1%
Mechanical Technologies and Engineering	76	3.2%	609	3.8%
Natural Science	18	0.8%	126	0.8%
Public Service Technology	155	6.6%	872	5.5%
Arts and Sciences	265	11.2%	1,641	10.3%
<i>Transfer Majors</i>	<i>1,199</i>	<i>50.9%</i>	<i>8,290</i>	<i>51.9%</i>
Humanities and Social Sciences	25	1.1%	79	0.5%
Engineering	15	0.6%	143	0.9%
General Studies	570	24.2%	4,536	28.4%
Teacher Education	113	4.8%	501	3.1%
Business Administration	190	8.1%	1,255	7.9%
Computer Science	15	0.6%	123	0.8%
Interdisciplinary	6	0.3%	12	0.1%
Total	2,357		15,974	
Note: Information on all degree recipients is based on MHEC's 2011 Degree Information System. Degree information is missing for one student.				

As previously noted, data is not presented for groups of less than 50 respondents to protect individuals' privacy. Natural Science, Humanities and Social Sciences, Engineering, Computer Science, and Interdisciplinary majors have all been excluded from programmatic breakouts. Additionally, data will not be broken out by race for graduates identifying as American Indian or Alaskan Native, Native Hawaiian or Pacific Islander, and Two or More Races. In both cases, however, they are, included in the totals.

SURVEY FINDINGS

The Community College Experience

Graduates were asked to rate their experiences on a continuum from "very good" to "very poor." An additional option was provided for students who felt that they had no basis to judge the institution on the given characteristic. Across all institutions, Maryland's community college graduates report having had positive experiences in school. As Table 4 shows, 91.1% of

respondents indicated that the quality of their overall college experience was either “good” or “very good,” and 92.3% responded similarly regarding the quality of the college itself. When asked to rate different aspects of their community college experience, however, respondents’ opinions varied more considerably. On most aspects of the college experience, students responded very favorably, including the overall college experience, the overall quality of the college, and the quality of instruction. Respondents were most negative regarding job placement, with 52.8% of graduates responding that job placement and referral services on their campus were “fair,” “poor,” or “very poor.” Results regarding job placement may be influenced by the overall depressed state of the economy; however, this was the only aspect of the community college experience which the majority of students did not rate favorably.

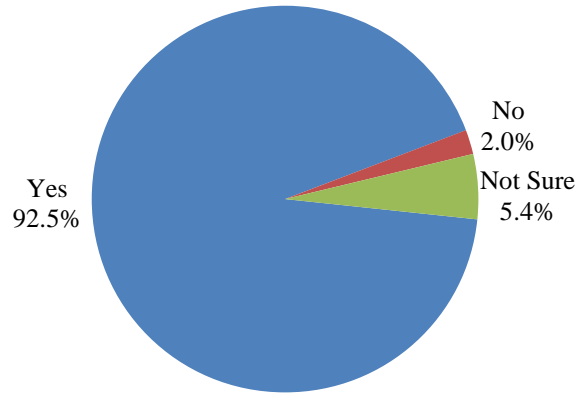
Table 4: Graduate Rating of the Overall Community College Experience					
	Very Good	Good	Fair	Poor	Very Poor
Overall college experience	56.7%	34.4%	7.7%	0.9%	0.3%
Overall quality of college	52.2%	40.1%	7.0%	0.5%	0.1%
Quality of classroom instruction	48.9%	40.8%	9.5%	0.6%	0.2%
Faculty availability/helpfulness	49.0%	37.0%	11.7%	1.5%	0.8%
Access to information technology	39.3%	44.8%	14.3%	1.4%	0.3%
Class scheduling	43.6%	41.2%	13.1%	1.7%	0.3%
Library	39.4%	44.8%	13.8%	1.8%	0.3%
Quality of laboratory equipment	36.0%	45.6%	16.3%	1.7%	0.4%
Tutorial services	37.8%	39.0%	18.8%	2.9%	1.5%
Quality of online instruction	35.0%	40.9%	18.3%	4.4%	1.3%
Student activities	29.6%	40.9%	24.0%	3.9%	1.6%
Academic advising	36.4%	33.6%	20.5%	6.2%	3.3%
Job placement/referral services	19.4%	27.8%	27.4%	14.6%	10.8%
Note: Students answering "no basis to judge" were excluded from the analysis.					

When the community college experience is analyzed by institution, the results are similarly positive. As Table 5 on page 6 shows, only three institutions – the College of Southern Maryland, The Community College of Baltimore County, and Hagerstown Community College – had combined “very good” and “good” satisfaction ratings below 90%. While all institutions rated highly on this measure, Frederick Community College (95.9%), Chesapeake College (94.7%), and Garrett College (94.4%) had particularly high rates of alumni satisfaction.

Table 5: Graduate Satisfaction with Overall Community College Experience by College					
	Very Good	Good	Fair	Poor	Very Poor
Allegany College of Maryland	53.6%	39.3%	6.0%	0.0%	1.2%
Anne Arundel Community College	59.6%	31.7%	7.5%	1.1%	0.0%
Baltimore City Community College	50.0%	41.3%	5.0%	1.3%	2.5%
Carroll Community College	55.9%	35.4%	8.1%	0.6%	0.0%
Cecil Community College	51.9%	38.5%	9.6%	0.0%	0.0%
Chesapeake College	57.9%	36.8%	3.5%	1.8%	0.0%
College of Southern Maryland	47.7%	39.6%	10.7%	2.0%	0.0%
The Community College of Baltimore County	54.5%	35.2%	9.0%	0.8%	0.4%
Frederick Community College	62.3%	33.6%	3.3%	0.8%	0.0%
Garrett College	55.6%	38.9%	5.6%	0.0%	0.0%
Hagerstown Community College	50.0%	38.1%	10.4%	0.7%	0.7%
Harford Community College	64.9%	27.0%	8.1%	0.0%	0.0%
Howard Community College	57.5%	34.7%	6.6%	0.6%	0.6%
Montgomery College	55.4%	34.6%	7.7%	2.3%	0.0%
Prince George's Community College	66.4%	25.2%	6.1%	1.5%	0.8%
Wor-Wic Community College	60.6%	33.1%	6.3%	0.0%	0.0%
Statewide	56.7%	34.4%	7.7%	0.9%	0.3%
Note: Students answering "no basis to judge" were excluded from the analysis.					

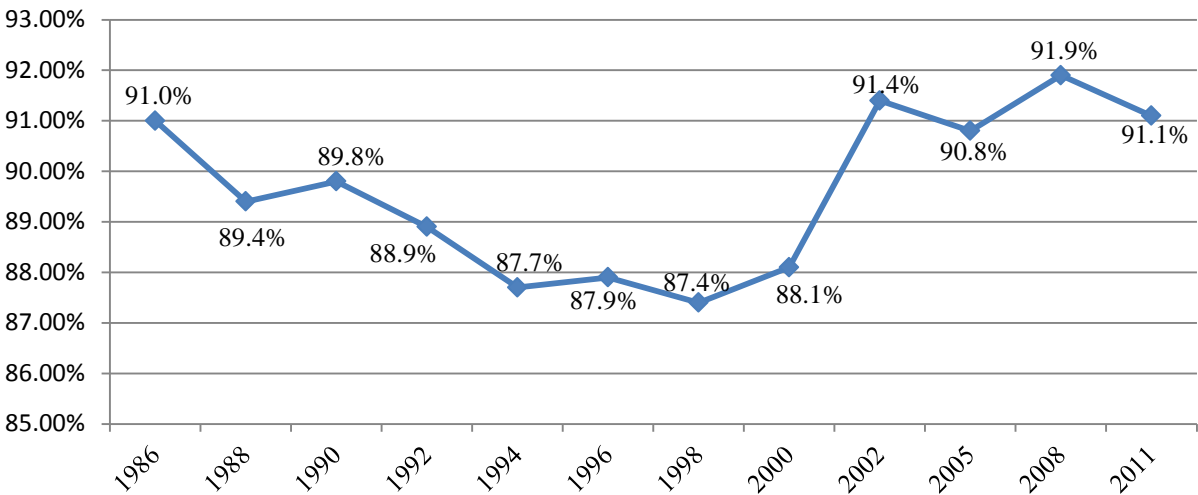
The high rate of satisfaction that graduates had with their institutions was also evident when they were asked whether they would repeat their community college experience if given the opportunity. As Figure 1 shows, graduates across all institutions overwhelmingly stated that they would repeat the experience, with 92.5% of graduates responding “Yes.” Fewer than ten percent (7.4%) of respondents reported either that they were uncertain or would not repeat the experience if given the opportunity.

Figure 1: Percentage of Graduates Who Would Repeat Their Community College Experience



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, over 85.0% of graduates have rated their overall experience at the institution highly.² Satisfaction with the overall community college experience has exceeded 90.0% in every year since 2002.

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



² The wording of this question and response choices provided have changed over time. Surveys from 1986 to 2005 and 2011 provided "very good" and "good" as answer choices. In the 2008 survey, graduates were prompted to choose from "very well" or "well" as answer choices.

When asked if they would enroll in the same academic program, the majority of students (71.3%) responded affirmatively. However, those percentages varied widely by academic program, as indicated in Table 6. For example, over 80.0% of respondents graduating from health services and paramedical studies (80.7%), public service technology (82.6%), and teacher education programs (80.5%) indicated that they would enroll in the same academic program if given the chance. On the other end of the spectrum, just over half of graduates reported that they would re-enroll in a course of general studies. In addition, non-transfer program graduates were far more likely than transfer program graduates to respond that they would enroll in the same academic program. While 77.7% of all non-transfer program majors responded that they would enroll in the same course of study, only 65.1% of transfer program majors would.

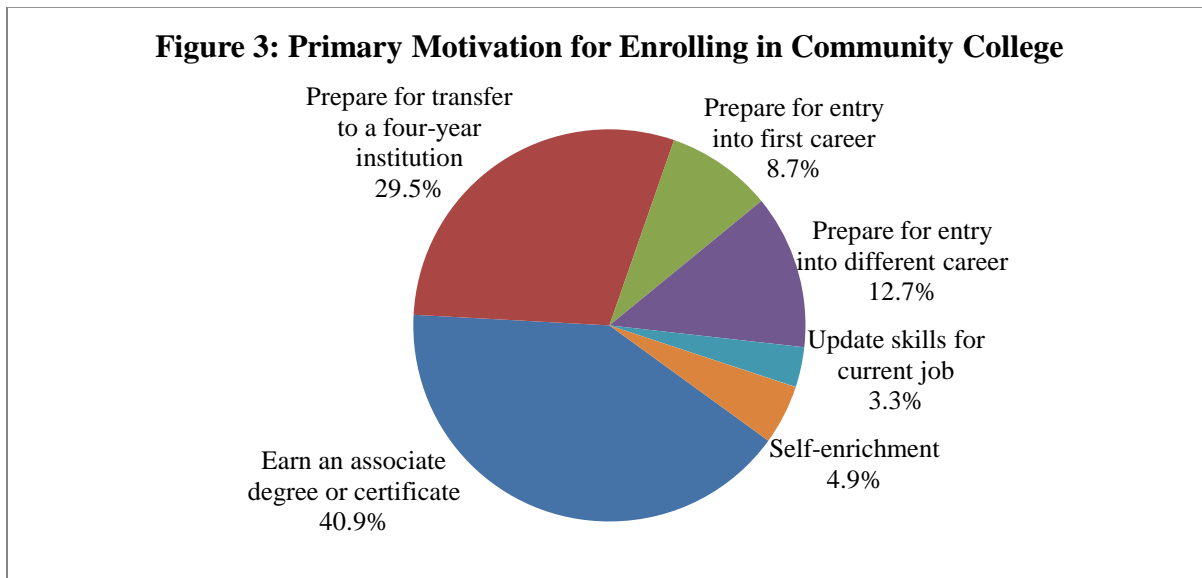
Table 6: Percentage of Graduates Who Would Enroll in the Same Academic Program by Program	
Academic Program	
<i>Non-Transfer Majors</i>	77.7%
Business & Commerce	73.1%
Data Processing	73.8%
Health Services and Paramedical Studies	80.7%
Mechanical Technologies and Engineering	67.1%
Public Service Technology	82.6%
<i>Transfer Majors</i>	65.1%
Arts and Sciences	72.3%
General Studies	54.1%
Teacher Education	80.5%
Business Administration	73.5%
All Programs	71.3%

Educational Objectives

Graduates responded 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 select their most important objective and to rate each of the identified objectives on a scale including “very important,” “somewhat important,” and “not important.” As indicated in Table 7, a number of graduates found all of the 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 (85.9%). Fewer than three percent of graduates responded that obtaining a credential was not an important factor behind their enrollment. Self-enrichment was the second most likely factor to drive enrollment, with 88.5% of graduates reporting that it was either very important or somewhat important. Graduates also considered transfer to a four-year institution an important objective, with 82.1% of respondents stating that transfer was either very important or somewhat important.

Table 7: Graduate Rating of the Importance of Schooling Objectives			
Objective	Very Important	Somewhat Important	Not Important
Earn an associate degree or certificate	85.9%	11.9%	2.2%
Prepare for transfer into a four-year institution	58.3%	23.8%	18.0%
Prepare for entry into first career	39.1%	27.4%	33.5%
Prepare for entry into different career	33.3%	27.1%	39.6%
Update skills for current job	26.9%	28.5%	44.6%
Self-enrichment	53.5%	35.0%	11.5%

As Figure 3 shows, the primary motivator for most graduates' initial enrollment was the desire to attain an associate degree or certificate. Over two-fifths of students (40.9%) of graduates identified obtaining a credential as their primary goal when enrolling in the community college. Nearly one-third of students (29.5%) intended to prepare for transfer to a four-year college or university. Taken together, this means that nearly three-quarters of students enrolling in community colleges are doing so for reasons directly tied to the state's goal of 55% of Marylanders holding a credential by 2025. A smaller percentage of graduates (21.4%) indicated that their primary goal was to prepare for career entry, whether into a different or first career.



Most graduates (97.6%) indicated that their primary objective had been achieved completely or partly by the time they graduated. Table 8 on the next page 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 (91.5%). Students entering with the primary objective of self-enrichment were least likely to have found their goal completely achieved (56.7%), but only one percent of those graduates responded that it had not been achieved at all.

Table 8: Graduate Achievement of the Most Important Objective for Attending Community College			
Objective	Completely	Partly	Not at all
Earn an associate degree or certificate	91.5%	8.0%	0.5%
Prepare for transfer into a four-year institution	82.2%	15.3%	2.1%
Prepare for entry into first career	65.2%	28.8%	6.0%
Prepare for entry into different career	61.9%	30.1%	7.8%
Update skills for current job	60.0%	37.1%	2.9%
Self-enrichment	56.7%	42.3%	1.0%
All Objectives Combined	80.0%	17.6%	2.3%

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 their improvement of both academic skills and personal characteristics. As Table 9 illustrates, many students indicated that they had improved a great deal or a fair amount on all of the characteristics included in the survey. Survey respondents indicated the greatest increase in clarity of educational and career goals, self-confidence, and enjoyment of learning, with over half of respondents stating that these had increased a great deal following their community college experience. Graduates indicated the lowest levels of improvement in appreciation of art, music, and literature and appreciation of cultural diversity.

Table 9: Graduate Improvement of Academic Skills and Personal Change			
Academic Skills	Improved a Great Deal	Improved a Fair Amount	No Improvement at All
Writing Skills	39.4%	48.0%	12.6%
Mathematics Skills	30.6%	48.9%	20.5%
Understanding of Science and Technology	41.6%	46.0%	12.3%
Reading Comprehension	31.3%	47.8%	20.9%
Computer skills	36.6%	43.5%	19.8%
Personal Change	Increased a Great Deal	Increased Somewhat	Remained the Same
Appreciation of Art, Music, and Literature	24.8%	37.9%	37.2%
Clarity of Educational and Career Goals	52.8%	36.7%	10.5%
Self-Confidence	52.1%	37.4%	10.6%
Appreciation of Cultural Diversity	34.3%	40.5%	25.2%
Enjoyment of Learning	50.8%	38.8%	10.4%

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

More than half (52.2%) of graduates continued to take courses at a four-year or two-year institution following program completion. Of those students who successfully transferred to a four-year institution, the majority enrolled as full-time students, with 75.4% enrolling full-time and 24.6% enrolling part-time. As Table 10 shows, there were significant differences in transfer rates by institution. Prince George's Community College graduates were most likely to transfer, with 72.0% of graduates transferring. While Allegany has the lowest rate of transfer among Maryland's community colleges, the 25.3% of 2011 graduates who transferred represent a substantial increase over the 19.8% who reported transferring in the 2008 iteration of this survey.

Table 10: Percentage of Graduates Transferring to a Four-Year College or University						
	Full-Time		Part-Time		Total	
	#	%	#	%	#	%
Allegany College of Maryland	17	20.5%	4	4.8%	21	25.3%
Anne Arundel Community College	106	40.0%	37	14.0%	143	54.0%
Baltimore City Community College	25	32.9%	11	14.5%	36	47.4%
Carroll Community College	78	50.0%	11	7.1%	89	57.1%
Cecil Community College	23	44.2%	6	11.5%	29	55.8%
Chesapeake College	27	47.4%	4	7.0%	31	54.4%
College of Southern Maryland	58	38.9%	28	18.8%	86	57.7%
The Community College of Baltimore County	167	34.2%	68	13.9%	235	48.2%
Frederick Community College	46	37.4%	22	14.8%	68	52.2%
Garrett College	8	47.1%	1	5.9%	9	52.9%
Hagerstown Community College	51	37.8%	10	17.5%	61	55.3%
Harford Community College	73	49.0%	14	9.4%	87	58.4%
Howard Community College	74	43.8%	16	3.3%	90	47.1%
Montgomery College	76	58.9%	15	11.6%	91	70.5%
Prince George's Community College	44	33.8%	29	38.2%	73	72.0%
Wor-Wic Community College	35	27.3%	19	14.8%	54	42.2%
All Campuses	908	39.4%	295	12.8%	1203	52.2%

Table 11 displays the percentage of students transferring to a four-year institution by race and gender. More men than women transferred, with 58.3% of men transferring and only 49.4% of women. While white students constitute the majority of transfer students, they were slightly

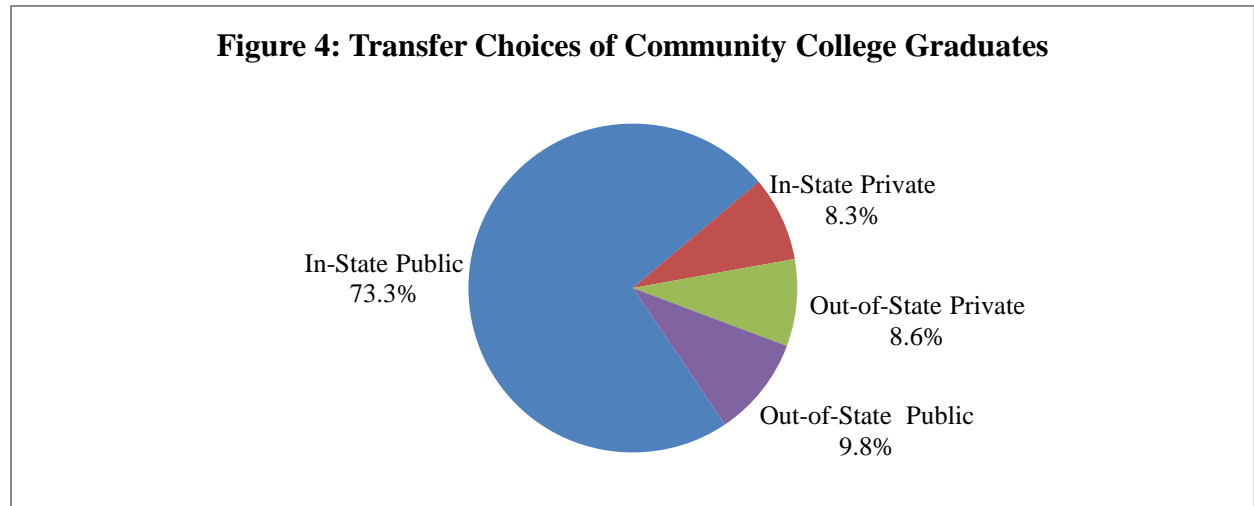
below average in likelihood to transfer. Asian students were most likely (65.0%) to transfer. Foreign students (44.2%) were least likely to transfer to a four-year institution.

Table 11: Percentage of Community College Graduates Transferring to a Four-Year Institution by Race and Gender	
Gender	
Male	58.3%
Female	49.4%
Race	
African American	54.4%
Asian	65.0%
Hispanic	55.8%
White	50.8%
Foreign/Non-Resident Alien	44.2%
Unknown	56.0%
Statewide Total	52.2%

There were also differences in transfer activity between transfer and non-transfer program students, as shown in Table 12. As transfer majors are community college programs specifically designed to prepare students for transfer to a four-year institution, this difference is not unexpected. The majority of transfer major students (72.8%) re-enrolled in four-year institutions within a year of graduation from the community college. While non-transfer program graduates were less likely to re-enroll than transfer program students, many students in these programs (30.7%) did transfer to a four-year institution.

Table 12: Percentage of Graduates Transferring to a Four-Year Institution by Academic Program	
Academic Program	
<i>Non-Transfer Majors</i>	30.7%
Business & Commerce	32.5%
Data Processing	53.2%
Health Services and Paramedical Studies	25.5%
Mechanical Technologies and Engineering	27.4%
Public Service Technology	35.5%
<i>Transfer Majors</i>	72.8%
Arts and Sciences	73.2%
General Studies	68.7%
Teacher Education	82.9%
Business Administration	78.0%
All Programs	52.2%

As Figure 4 shows, the majority of graduates (73.3%) that transferred to four-year institutions chose to enroll at a Maryland public college or university. A sizeable portion of graduates (8.3%) transferred to a Maryland independent or private institution. Additionally, 18.4% of students who transferred attended an out-of-state institution, whether public or private.



The 73.3% of respondents who elected to transfer to Maryland public institutions chose a wide array of colleges and universities, as Figure 5 shows. Among degree completers, the top three transfer institutions were Towson University (23.1%), University of Maryland University College (19.2%), and University of Maryland, College Park (13.5%). University of Maryland, Baltimore County (12.3%) and University of Baltimore (10.2%) also received a large portion of community college transfer students.

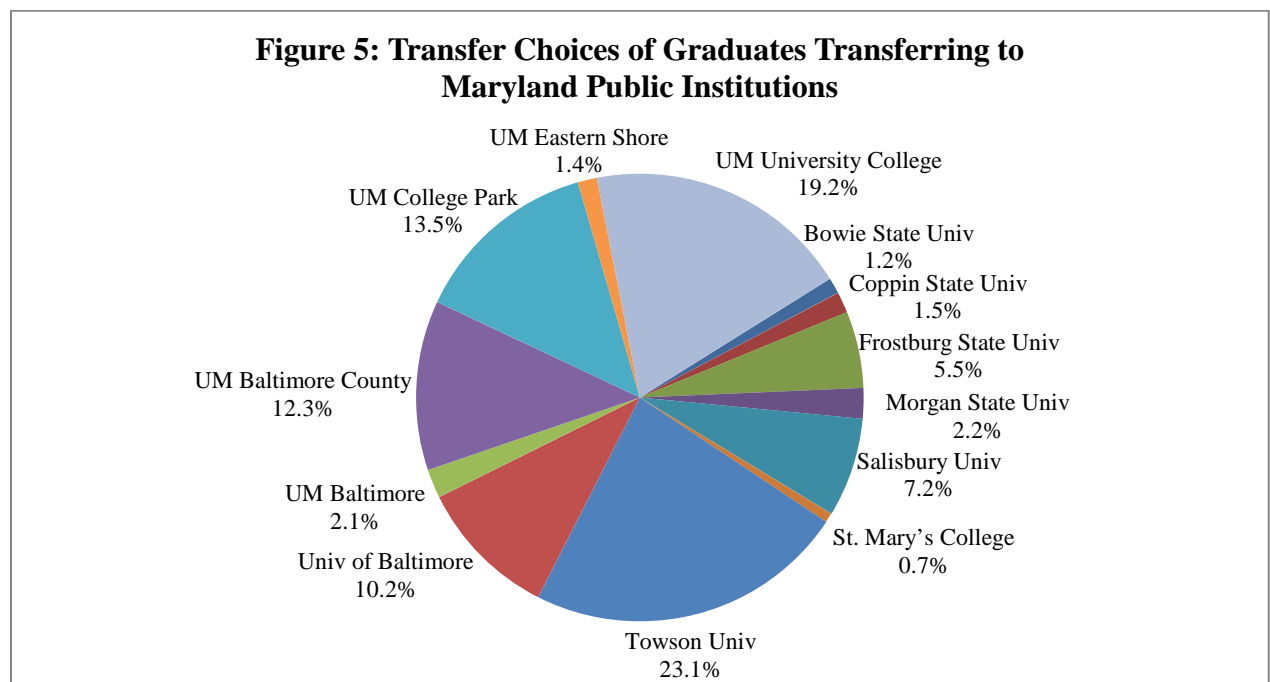
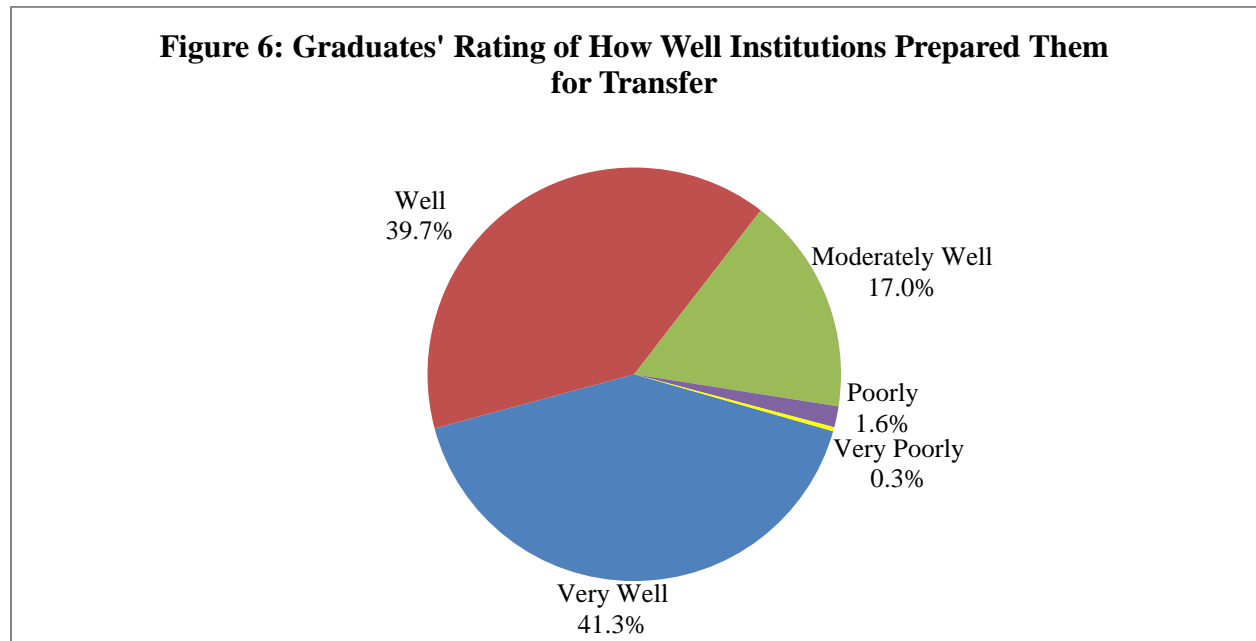
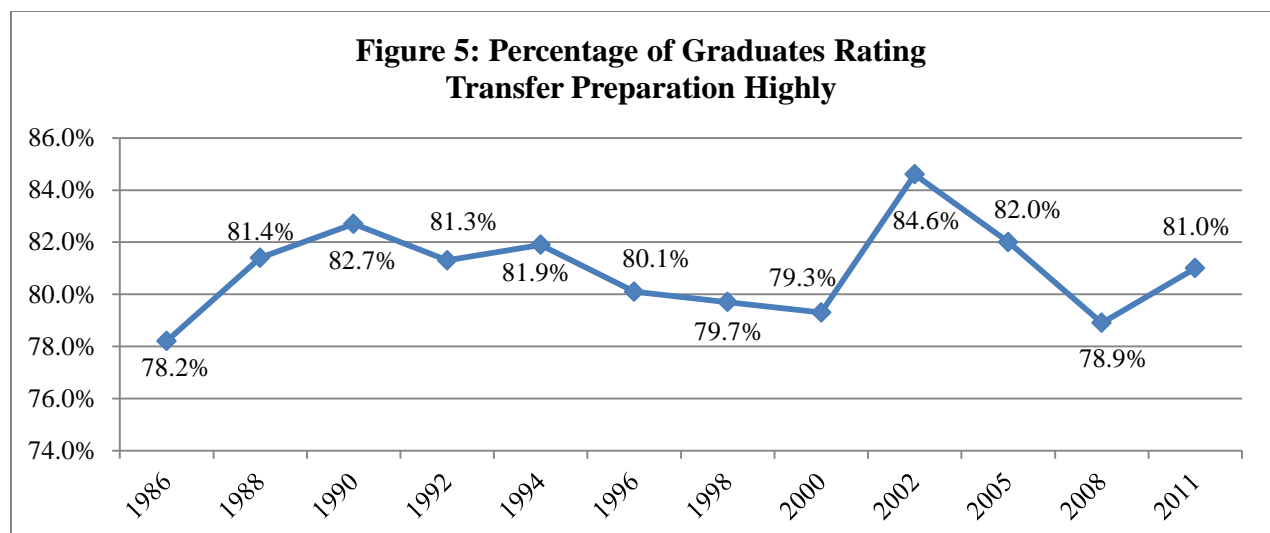


Figure 6 shows that the vast majority of survey respondents transferring to a four-year institution reported high levels of satisfaction with the academic preparation received at the community college. Most (81.0%) of respondents indicated that the community college had prepared them "very well" or "well" for transfer to a four-year college or university. While the percentage of graduates reporting being well-prepared varied slightly between the community colleges, the majority of students at every campus indicated that they were prepared for transfer either very well or well during their time at the community college.



As Figure 7 illustrates, the results of the current survey are consistent with decades of high ratings regarding transfer preparation. In most surveys performed since 1986, positive graduate ratings of transfer preparation have remained above 80.0%. This year's satisfaction level represents a slight increase over 2008 survey responses.



Significant policy attention has focused on whether students who transfer to a four-year institution having received a grade of at least a "C" or better received credit for their courses when transferring to a four-year college or university. Almost half of students (43.9%) transferring to four-year institutions reported that they received credit for all courses successfully completed at the community college. Another high percentage of students (30.3%) indicated that the four-year institution did not award credit for between one and six credits that had been completed with a grade of "C" or better. However, more than a quarter of students (25.8%) reported that they were unable to transfer six or more of the credits earned at the sending community college.

While the number of students reporting that credits had been lost upon transfer remains high, survey respondents reporting the successful transfer of all credits has increased dramatically in recent years, especially since the 2002 graduating class. The percentage of students reporting successful transfer of all credits has increased substantially since the 2000 survey, as is shown in Table 13. In 2011, nearly half of all students transferring lost no credits when transferring to the four-year institution. Fifteen years ago, just over ten percent (12.8%) indicated the same. Additionally, the percentage of students who did lose credits has declined since the 2008 survey. In 2008, 27.5% of students lost more than six credits, compared to 25.8% in 2011.

Table 13: Percentage of Graduates Reporting Credit Loss, 1996-2011			
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%

The data above, and particularly the large spike in the number of students losing no credits at transfer from 2000 to 2002, are indicative of a number of initiatives undertaken by the state, the University System of Maryland (USM), other public universities, and the Maryland Independent Colleges and Universities Association (MICUA) campuses pertaining to transfer credit articulation. In particular, two major policy changes have led to declining rates of credit loss for transfer students from community colleges.

In 1990, the University System of Maryland developed ARTSYS, a standardized articulation system whereby students and advisors could determine the transferability of courses to a specific institution prior to enrollment. While ARTSYS was initially a paper-based system that only included the USM institutions, it is now available online and has expanded to include both other

public and a number of private institutions. Much of the rest of the decade saw Maryland making further concerted efforts to improve the credit articulation process. MHEC then adopted a policy requiring that any student transferring from a Maryland community college to a public four-year campus having earned an associate degree 1) receives credit for a minimum of 56 credits of college-level work, and 2) is considered to have fulfilled general education requirements. Both of these policy changes have played important roles in reducing credit loss at transfer, and especially the large shift which took place between 2000 and 2002.

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. Among all graduates, the majority reported that they were currently employed either part-time (28.3%) or full-time (47.2%). A fairly substantial portion (11.5%) reported being unemployed and actively seeking employment.

In accordance with Bureau of Labor Statistics methodology for calculating unemployment rates, those who reported their status as full-time homemaker, unemployed and not seeking a job, active-duty military, or retired were excluded from calculations of employment rates. Following graduation from a community college, the vast majority (75.5%) of respondents reported employment in some capacity, whether full-time or part-time. Nearly 13.0% of respondents were excluded from the workforce in accordance with BLS methodology. Table 14 on page 17 displays the percentage of students from each demographic and academic major category in the workforce reporting that they were employed full-time, employed part-time, or unemployed and actively seeking a job.

Table 14: Employment Status by Demographic and Academic Category			
	Employed Full-Time	Employed Part-Time	Unemployed
Gender			
Male	53.1%	33.7%	13.2%
Female	54.8%	31.9%	13.3%
Race			
African American	61.8%	22.5%	15.7%
Asian	44.9%	32.7%	22.4%
Hispanic	48.7%	38.5%	12.8%
White	53.4%	35.8%	10.8%
Foreign/Non-Resident Alien	40.4%	31.9%	27.7%
Unknown	62.3%	21.0%	16.7%
Highest Degree Earned			
Certificate	61.0%	23.6%	15.4%
Associate	53.3%	33.7%	13.0%
Academic Program			
<i>Non-Transfer Majors</i>	<i>70.6%</i>	<i>19.0%</i>	<i>10.4%</i>
Business & Commerce	67.7%	18.1%	14.2%
Data Processing	63.8%	15.5%	20.7%
Health Services and Paramedical Studies	76.0%	18.6%	5.4%
Mechanical Technologies and Engineering	57.9%	28.9%	13.2%
Public Service Technology	71.3%	16.8%	11.9%
<i>Transfer Majors</i>	<i>40.2%</i>	<i>44.1%</i>	<i>15.7%</i>
Arts and Sciences	29.0%	56.2%	14.8%
General Studies	40.1%	43.1%	16.9%
Teacher Education	39.3%	44.0%	16.7%
Business Administration	50.7%	34.7%	14.6%
All Students	54.3%	32.5%	13.3%
NOTE: In accordance with BLS methodology, active-duty military, full-time homemakers, and individuals who are unemployed and not seeking unemployment are excluded from calculations.			

Unemployment has increased for survey respondents since the 2008 survey, when 9.4% of recent graduates reported that they were unemployed and seeking a job one year after graduation.³ The rate also remains higher than the national average for all those with an associate degree. These figures are high for Maryland, which at the time of survey distribution had an overall unemployment rate below 6.7%. However, they are not completely unexpected given the impact the economic recession has had on employment prospects for those just entering the workforce. Official unemployment figures for recent graduates are hard to come by, but a 2012 report by the

³ The 2008 report did not exclude those not in the workforce.

Center on Education and the Workforce estimates the national unemployment rate for recent bachelor’s degree graduates is now 7.9%. This figure is nearly twice the 4.6-4.7% unemployment for graduates aged 25 or older with college degrees.⁴ It is a reasonable assumption that this would hold true for community college graduates as well.

The degree to which respondents’ jobs were connected to their careers differed substantially by major, though most majors responded that their job was either in the same or a somewhat related field as their academic program of study. Table 15 displays the percentage of graduates employed full-time who indicated that their job was related to their major. Those students enrolled in transfer programs typically reported less connection between their job and their major than students enrolled in non-transfer programs, as transfer programs are typically intended for preparation for transfer to a four-year university rather than direct employment in the chosen field. Of the programs having more than 50 respondents, health services and paramedical studies (91.3%) and public service technology (74.6%) graduates were most likely to be employed in the same field as their academic studies. Graduates from arts and sciences (14.9%) and general studies (19.2%) majors were the least likely to report being employed in the same field in which they had studied.

	Same Field	Somewhat Related Field	Different Field
Academic Program			
<i>Non-Transfer Majors</i>	<i>74.7%</i>	<i>13.3%</i>	<i>12.0%</i>
Business & Commerce	42.2%	32.4%	25.5%
Data Processing	64.9%	18.9%	16.2%
Health Services and Paramedical Studies	91.3%	4.6%	4.2%
Mechanical Technologies and Engineering	63.6%	22.7%	13.6%
Public Service Technology	74.6%	9.9%	15.5%
<i>Transfer Majors</i>	<i>27.8%</i>	<i>35.1%</i>	<i>37.0%</i>
Arts and Sciences	14.9%	29.8%	55.3%
General Studies	19.2%	36.3%	44.5%
Teacher Education	66.7%	3.0%	30.3%
Business Administration	37.0%	46.6%	16.4%
All Programs	56.0%	22.0%	22.0%

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

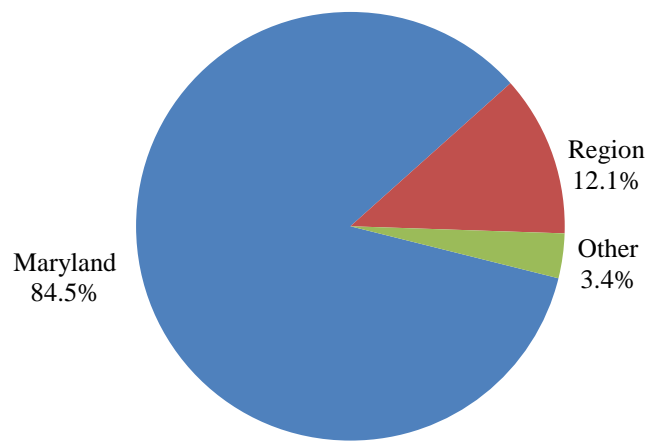
⁴ A. Carnevale, B. Cheah, & J. Strohl. (2012). *Hard Times: Not All College Degrees Are Created Equal*. Washington, DC: Georgetown University Center on Education and the Workforce. 3.

prepared them for employment, fewer than five percent of graduates employed full-time responded “poorly” or “very poorly.” The majority of graduates reported being prepared either “very well” (37.2%) or “well” (32.9%). Table 16 shows the percentage of respondents in each rating category by institution.

Table 16: Graduates' Rating of How Well Community Colleges Prepared Them for Employment by Community College					
	Very Well	Well	Moderately Well	Poorly	Very Poorly
Allegany Community College	40.9%	40.9%	13.6%	4.5%	0.0%
Anne Arundel Community College	31.7%	35.4%	29.3%	3.7%	0.0%
Baltimore City Community College	50.0%	29.2%	12.5%	8.3%	0.0%
Carroll Community College	33.3%	31.1%	28.9%	6.7%	0.0%
Cecil Community College	36.8%	42.1%	10.5%	5.3%	5.3%
Chesapeake College	43.5%	39.1%	17.4%	0.0%	0.0%
College of Southern Maryland	32.1%	37.5%	25.0%	3.6%	1.8%
The Community College of Baltimore County	35.7%	29.2%	32.2%	2.3%	.6%
Frederick Community College	41.2%	31.4%	23.5%	2.0%	2.0%
Garrett College	33.3%	66.7%	0.0%	0.0%	0.0%
Hagerstown Community College	28.9%	42.2%	24.4%	4.4%	0.0%
Harford Community College	34.0%	38.3%	23.4%	4.3%	0.0%
Howard Community College	38.6%	34.1%	22.7%	2.3%	2.3%
Montgomery College	35.7%	33.3%	23.8%	4.8%	2.4%
Prince George's Community College	34.0%	28.3%	35.8%	1.9%	0.0%
Wor-Wic Community College	55.6%	22.2%	17.5%	4.8%	0.0%
All Campuses	37.2%	32.9%	25.6%	3.5%	0.8%

An important function of community colleges is to create a more educated workforce for the state. Keeping college graduates in the state is a primary contributor to making progress toward achieving Governor O’Malley’s 2025 goal of 55% of Marylanders possessing a college degree. Maryland community colleges have been successful in producing graduates who have contributed to Maryland’s economy by working in-state after graduation. As Figure 8 illustrates, the majority (84.5%) of those survey respondents who are working full-time after graduation remain in the state. An additional 12.1% of graduates with full-time employment reported working within the District of Columbia, Virginia, Delaware, or Pennsylvania. Fewer than four percent (3.4%) of respondents reported that their job was located elsewhere.

Figure 8: Graduates' Location of Employment



SUMMARY

The Graduate Follow-Up Survey of 2010-11 community college graduates indicates that Maryland institutions are continuing to perform well. As in prior years, graduates remain satisfied with their overall community college experience, their level of preparation for transfer to a four-year college or university, and their levels of preparation for employment.

However, a significant concern remains. While the number of graduates experiencing credit loss upon transfer has declined significantly in recent years, over one-quarter (25.8%) of students still lose six or more credits when transferring to a four-year institution. This can contribute to higher costs and time required to complete a degree program. A number of policies have been enacted by community colleges and four-year colleges and universities in an attempt to remedy this problem. Additionally, in the 2013 legislative session, the Maryland legislature passed the College Readiness and Completion Act of 2013. While credit loss is not the sole focus of the legislation, the Act contained a number of specific steps to be undertaken by MHEC and the campuses to increase the transferability of credits between community colleges and four-year institutions. In particular, the legislation requires students to file degree plans with institutions within a short period after enrollment to ensure that they are on the path to completion. Many institutions did not have this formal advising structure in place under the current system.

The results of this year's administration of the survey provide MHEC, policymakers, and institutions with valuable information on the state of our community colleges. This year's survey results show that community college graduates are largely satisfied with all aspects of their experience, but there are ways that community colleges can continue to improve. Examining

existing policies and careful consideration of graduate feedback may help institutions and the state continue to provide a high quality experience.

The Community College Graduate Follow-Up Survey has been administered since 1980 to capture information on graduates' educational experiences and outcomes. However, response rates for both this and the Bachelor's Follow-Up Survey have declined over time. As previously noted, findings should be interpreted with caution given the possibility of respondent bias and low response rates. Graduate feedback is a valuable gauge of how institutions are serving their graduates and contributing to the State's educational goals, and the Commission is exploring other methods to gather the information contained in this report.