



# **Follow-Up Survey of 2013 Bachelor's Degree Recipients at Maryland Four-Year Institutions**

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**MARYLAND HIGHER EDUCATION COMMISSION**  
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## **Introduction**

The Maryland Higher Education Commission (MHEC) reports every three years on statewide surveys of graduates from Maryland public colleges and universities. These surveys are a valuable tool that helps the State and campuses better understand student outcomes and students' perceptions about their education. This follow-up survey of bachelor's degree recipients is conducted a year after the students have graduated.

This report presents results of the most current *Bachelor's Graduate Follow-Up Survey*, which includes responses from graduates who earned their degrees from a public four-year campus in Maryland during the 2013 academic year. In addition, this report includes analysis of over 20 years of trend data. The report provides information regarding the degree recipients' post-graduation educational and employment statuses, perceptions about the quality of their experiences at their institutions, and other related outcomes. Selected results from the survey are included in each college's Performance Accountability Report (PAR) and in the Commission's Managing for Results (MFR) submission. The Bachelor's Graduate Follow-Up Survey provides MHEC with data that are currently not captured any other way. These include satisfaction with educational preparation and workforce placement information.

## **Methods**

A common core of 17 questions was developed and approved by MHEC, in conjunction with the University System of Maryland, Morgan State University, and St. Mary's College of Maryland. Each institution then developed and administered its own survey, with many institutions adding to the core questions items that are specifically relevant to their respective student populations. The follow-up surveys were distributed by the institutions to students who earned a bachelor's degree at a Maryland public four-year university.<sup>1</sup> Responses to the core questions were submitted to MHEC for analysis.

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<sup>1</sup> Coppin State University did not administer a follow-up survey of its 2013 graduates.

## Survey Results

### Response Rate and Respondent Profile

In 2013, 24,664 students received bachelor’s degrees from a Maryland public four-year institution. As Table 1 shows, 2,890 students completed the survey, a statewide response rate of 11.7%. However, there are substantial differences in response rates by institution. These ranged from 4.3% at Bowie State University to 31.8% at St. Mary’s College of Maryland. As this table also shows, Coppin State University did not submit results of a 2013 graduate follow-up survey. Because the representativeness of statewide demographic figures is dependent upon the inclusion of the Coppin State University graduate population, Coppin graduates are included in the demographic comparisons contained in Tables 1 and 2. They are, however, excluded from the remainder of the analysis.

**Table 1: Survey Response Rate by Institution**

Campus	Total 2013 Bachelor’s Recipients	Number of Responses	Response Rate
Bowie State University	739	32	4.3%
Coppin State University	409	0	0.0%
Frostburg State University	969	83	8.6%
Salisbury University	1,872	179	9.6%
Towson University	4,147	333	8.0%
University of Baltimore	670	113	16.9%
University of Maryland, Baltimore	337	56	16.6%
University of Maryland, Baltimore County	2,230	188	8.4%
University of Maryland, College Park	7,192	1,325	18.4%
University of Maryland Eastern Shore	514	60	11.7%
University of Maryland University College	4,159	323	7.8%
Morgan State University	976	55	5.6%
St. Mary’s College of Maryland	450	143	31.8%
<b>Statewide</b>	<b>24,664</b>	<b>2,890</b>	<b>11.7%</b>

In order to protect the privacy of individuals in this report, 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.

Table 2 displays the demographic profile for survey respondents and the entire 2013 academic year graduating class. As this table shows, the demographics of the response pool are largely reflective of those of the entire pool of bachelor’s degree recipients. Males comprised 39.0% of the respondents and females 59.4%, as compared to 42.9% and 57.1% of the respective baccalaureate populations. The survey population was similar to the baccalaureate population in nearly all racial categories. White graduates (56.7% of degree recipients; 60.3% of survey respondents) were slightly overrepresented, while African American students (20.6% of the graduate population, 16.7% of survey respondents) were slightly underrepresented in the survey compared to their presence in the graduate population.

**Table 2: Respondent Profile**

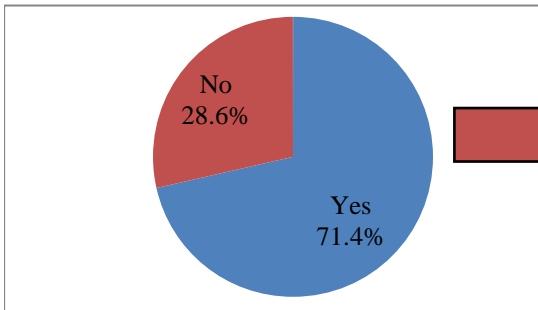
	<b>Survey Respondents</b>	<b>2013 Bachelor's Degree Recipients</b>
<b>Gender</b>		
Male	39.0%	42.9%
Female	59.4%	57.1%
Unknown/Missing	1.7%	N/A
<b>Race</b>		
African American	16.7%	20.6%
Native American	0.2%	0.2%
Asian	8.9%	8.2%
Hispanic	4.7%	5.2%
White	60.3%	56.7%
Foreign	1.5%	2.7%
Two or More Races	2.7%	2.1%
Unknown	4.8%	4.2%

The relatively small differences in the race and gender of the respondent population suggest that the population is broadly representative of the graduate population. However, low response rates suggest that the sample may not be representative of the entire graduate population. These results should therefore be used with caution.

**Financial Need**

As Figure 1 shows, 71.4% of graduates received financial aid while working towards their degrees. As indicated in Table 3, 26.7% of those graduates who received financial aid reported that without assistance obtaining a degree would have caused significant financial hardship for them and their families. More than half (53.0%) of graduates who had received aid stated that they would not have been able to earn their degree without financial assistance. These findings show that financial aid continues to play a pivotal role in ensuring students are able to complete their degrees.

**Figure 1: Received Any Financial Aid**



**Table 3: Able to Complete Degree without Financial Aid**

	<b>% of those who Received Financial Aid</b>
Yes, without major hardship	20.3%
Yes, but with major hardship	26.7%
No	53.0%

African American respondents were most likely to rely on financial aid in order to complete their degrees, as shown in Table 4. Over three-quarters (75.1%) of African American graduates responded that they would not have been able to complete their degree without incurring major financial hardship, and 93.4% responded either that they would not have completed their degree or would have incurred major financial hardship. This reliance on financial aid was also high among Hispanic and Unknown race students, with 87.3% of Hispanic students and 89.0% of Unknown race students reporting that they would incur major financial hardship or be unable to complete the degree. While white and Asian students were more likely to respond that they may have been able to complete their degrees even without financial assistance, 68.6% of Asian students and 74.7% of white respondents still reported that financial aid prevented considerable financial hardship and/or the end of their educational pursuits.

**Table 4: Able to Complete Degree without Financial Aid**

	<b>Yes, without major hardship</b>	<b>Yes, but <u>with</u> major hardship</b>	<b>No</b>	<b>Would not have completed or would have incurred major hardship</b>
African American	6.6%	18.2%	75.1%	93.4%
Asian	31.4%	28.5%	40.1%	68.6%
Hispanic	12.7%	27.3%	60.0%	87.3%
White	25.3%	29.8%	45.0%	74.7%
Two or More Races	18.3%	31.7%	50.0%	81.7%
Unknown	11.0%	22.0%	67.0%	89.0%

## **Post-Baccalaureate Education**

Among survey respondents, over one-third (37.6%) reported enrolling in school again after the receipt of their baccalaureate degrees, as Table 5 shows. This represents a slight decline over the rate among 2011 respondents, of which 40.2% returned to higher education within the year after their degree. The distribution of type of enrollment, however, varied more substantially. A small percentage (2.1%) of respondents indicated that they had enrolled in school again without seeking a degree or certificate; whether those non-degree-seeking students were enrolled in undergraduate or graduate level coursework is not clear from the available data. Nearly a quarter (22.4%) of all respondents were seeking advanced degrees. This represents a decrease from the 2011 survey respondents, of whom 28.8% reported enrollment in an advanced degree program. However, 12.9% of respondents reported seeking another undergraduate-level award such as a certificate, associate degree, or additional bachelor's degree. This is more than twice as high as the proportion of graduates seeking a second undergraduate award in 2011 (6.1%), and may reflect a changing job market in which additional credentials make a candidate more competitive.

**Table 5: Enrollment in Higher Education Following Graduation**

	<b>% Enrolling After Graduation</b>
Undergraduate-Level Award	12.9%
Master's Degree	16.5%
Doctorate	3.1%
Graduate-Level Certificate	1.0%
First Professional	1.8%
Non-Degree Seeking	2.1%
<b>Total Re-Enrolled at Any Level</b>	<b>37.6%</b>

Table 6 displays the percentage of survey respondents who enrolled in advanced degree programs within one year of earning their bachelor’s degrees. This rate of study by recent graduates varied widely by institution. Women respondents continue to pursue advanced degrees at a higher rate than men, which is consistent with the larger number of women enrolling in graduate school. African American respondents were most likely to pursue advanced studies, with over one-third (33.4%) enrolling within one year after graduation. Respondents identifying themselves as Two or More Races were the least likely to enroll in advanced programs of study directly following graduation. This differs substantially from the racial/ethnic composition of the overall graduate school population, where African American students comprise about one-fifth (19.6%) of enrollments. Additionally, the rate of white respondents indicating that they were seeking an advanced degree (20.4%) is far lower than that of the graduate school population, in which white students represent nearly half (47.2%). This may indicate that African American students are more likely to enter graduate school immediately after earning the bachelor’s degree, or may simply reflect a bias in the survey respondent population.

**Table 6: Respondents Seeking an Advanced Degree**

	Seeking Advanced Degree
<b>Campus</b>	
Bowie State University	25.0%
Frostburg State University	16.9%
Salisbury University	20.8%
Towson University	26.6%
University of Baltimore	39.8%
University of Maryland, Baltimore	14.3%
University of Maryland, Baltimore County	42.6%
University of Maryland, College Park	14.6%
University of Maryland Eastern Shore	38.3%
University of Maryland University College	37.0%
Morgan State University	29.1%
St. Mary’s College of Maryland	11.9%
<b>Race</b>	
African American	33.4%
Asian	21.0%
Hispanic	15.3%
White	20.4%
Two or More Races	12.7%
Unknown	25.4%
<b>Gender</b>	
Male	21.0%
Female	25.8%
<b>All Students</b>	<b>23.9%</b>



Some degree programs produced a larger percentage of students who pursued advanced degrees after graduating than others. As Table 7 shows, while Biological Sciences majors were most likely to pursue additional education of any level, they were third most likely to pursue advanced degrees. Public Affairs and Psychology graduates were the most likely to pursue advanced degrees. Communications majors were both least likely to pursue any degree and least likely to pursue an advanced degree. Business and Computer Science graduates were also less likely to pursue an advanced degree.

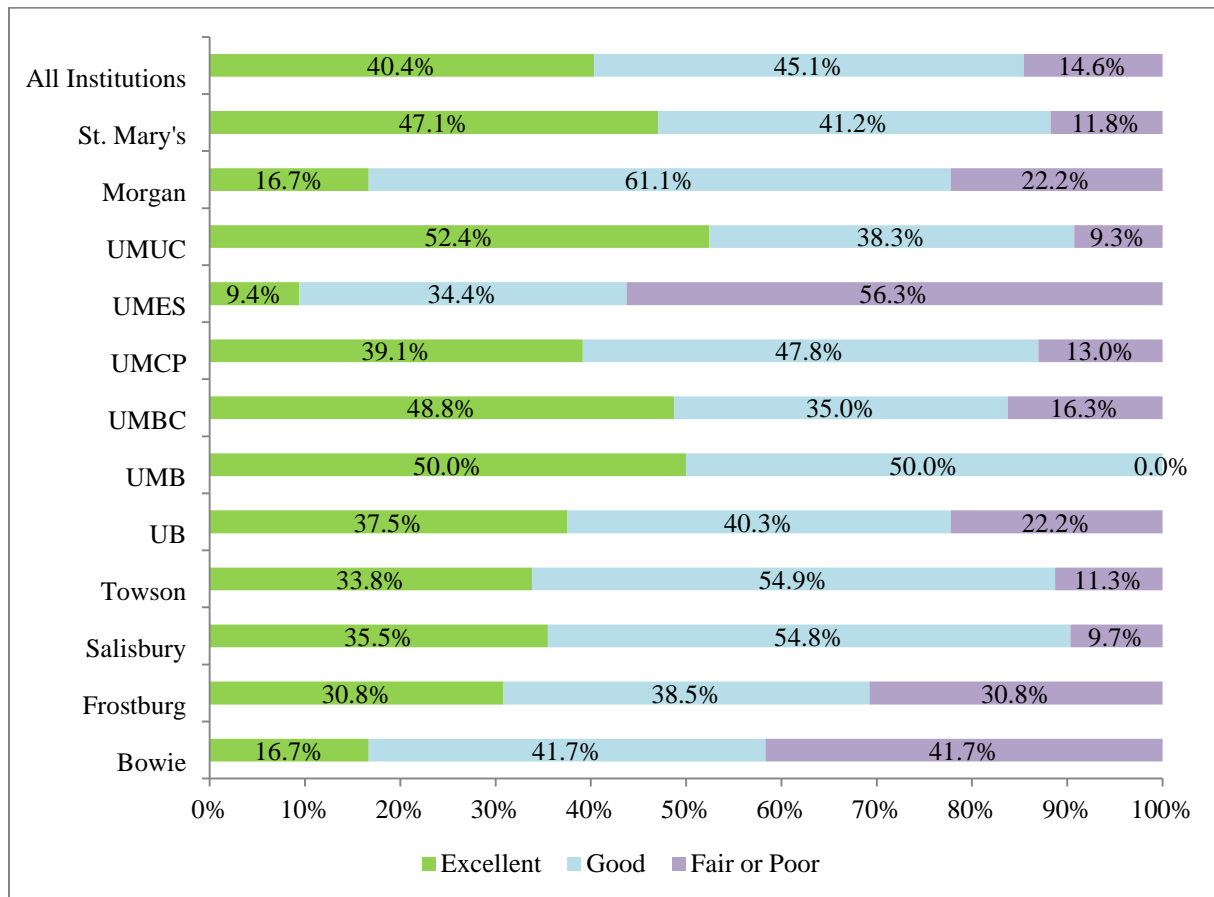
**Table 7: Respondents Seeking Additional Education and Seeking an Advanced Degree**

	<b>Seeking Additional Education</b>	<b>Seeking Advanced Degree</b>
Agriculture	42.2%	21.9%
Biological Sciences	61.3%	29.5%
Business	30.5%	24.3%
Communications	19.2%	10.4%
Computer Science	40.1%	32.9%
Education	36.7%	21.2%
Engineering	36.9%	15.6%
Fine Arts	34.0%	17.0%
Foreign Languages	37.5%	18.0%
Health	28.5%	20.5%
Letters	42.4%	28.8%
Mathematics	38.3%	13.8%
Physical Sciences	49.1%	25.4%
Psychology	56.7%	41.6%
Public Affairs	54.1%	42.1%
Social Sciences	36.9%	19.2%
Interdisciplinary Studies	32.1%	23.3%

Note: Table represents degree programs with at least 50 respondents.

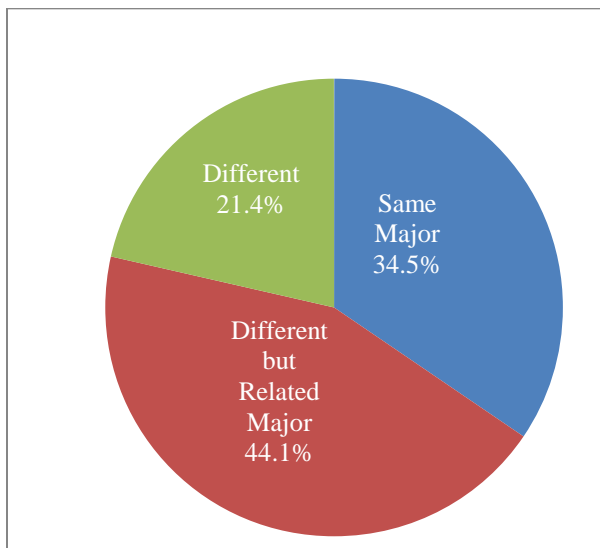
Respondents who were pursuing advanced degrees were asked to rate the institutions from which they received their bachelor’s degrees on how well the institution prepared them for graduate and/or professional study. Figure 2 indicates that of those graduates seeking advanced education, 40.4% of the respondents rated the preparation they received for graduate/professional study as “Excellent,” while an additional 45.1% stated that their institution provided them with “Good” preparation. Overall, 85.4% of the respondents who pursued advanced degrees felt they had been well prepared by their undergraduate campuses.

**Figure 2: Respondents’ Rating of Preparation for Graduate/Professional Study by Institution**



As Figure 3 shows, the majority of respondents pursuing advanced degrees sought them in fields that were either the same as or similar to their undergraduate major. Over one-fifth of the respondents reported pursuing a program of advanced study in a field different from their undergraduate coursework. Table 8 displays the percentage of respondents indicating that their graduate program involved the same or similar major as their program of study during their undergraduate career. Engineering had the largest percentage of students pursuing the same or a similar major in graduate programs, with 94.9% reporting that their graduate programs were related to their undergraduate field of study. Social Sciences and Letters had the smallest percentage of graduates pursuing the same or similar majors at the graduate level, with 65.3% and 63.3%, respectively, of graduates reporting that their advanced studies programs were related to their undergraduate studies. It should be noted that these programs provide graduates with a breadth of knowledge, skills, and abilities that are well suited to the pursuit of many different kinds of advanced study.

**Figure 3: Relationship of Graduate/Professional Major to Undergraduate**



**Table 8: Respondents Reporting Same or Similar Major as Undergraduate Degree**

Degree Program	Responding Same or Similar Major
Engineering	94.9%
Computer Science	90.6%
Education	87.0%
Biological Sciences	86.2%
Business	81.9%
Psychology	77.7%
Social Sciences	65.3%
Letters	63.3%
<b>Total (All Programs)</b>	<b>81.9%</b>

Note: Table displays degree programs with at least 50 respondents seeking a graduate degree.

## Transfer Status

Over two-fifths (41.6%) of all respondents began their academic pursuits at an institution other than the one from which they received their bachelor’s degree. Over one-fifth (22.2%) transferred from a Maryland community college, while 6.1% transferred from another Maryland four-year public institution. An additional 13.3% of respondents transferred from a degree-granting institution outside of Maryland.

There are, however, substantial differences in transfer by institution, as shown in Table 9. The University of Maryland, Baltimore, does not offer any lower-division coursework, so all of its graduates are transfer-in. Among UMB graduates, 54.5% transferred in from community colleges and 21.8% transferred in from other Maryland four-year institutions. While the University of Baltimore first began offering admission to a small class of first-year students in Fall 2007, the vast majority (86.7%) of the 2013 graduating class started their education at another institution. Respondents from UMUC were much more likely (29.4%) to transfer from an out-of-state college or university than at any other Maryland public 4-year institution. In contrast, only 13.3% of students graduating from St. Mary’s had first attended another institution. Frostburg State University, University of Maryland, College Park, and University of Maryland Eastern Shore graduates also reported relatively low rates of transfer, with over 70.0% of students indicating that they had not transferred from another institution.

**Table 9: Graduates Transferred in to Bachelor’s Degree-Granting Institution**

Institution	“Transfer From” Institution Type				
	None	Community College	Maryland 4-Year	Out-of-State	Total Transfers
Bowie	50.0%	30.0%	13.3%	6.7%	50.0%
Frostburg	77.1%	14.5%	2.4%	6.0%	22.9%
Salisbury	53.8%	35.0%	4.6%	6.7%	46.3%
Towson	58.5%	21.4%	7.6%	12.4%	41.5%
UB	13.3%	62.8%	12.4%	11.5%	86.7%
UMB	0.0%	54.5%	21.8%	23.6%	100.0%
UMBC	62.9%	23.1%	3.8%	10.2%	37.1%
UMCP	72.8%	15.1%	3.2%	9.0%	27.2%
UMES	73.3%	13.3%	5.0%	8.3%	26.7%
UMUC	33.2%	27.1%	10.3%	29.4%	66.8%
Morgan	47.2%	28.3%	3.8%	20.8%	52.8%
St. Mary’s	86.7%	5.6%	5.6%	2.1%	13.3%
<b>Statewide</b>	<b>58.4%</b>	<b>22.2%</b>	<b>6.1%</b>	<b>13.3%</b>	<b>41.6%</b>

## **Residency**

Most graduates who entered as Maryland residents continued to live in the state following the completion of their bachelor’s degrees. Over three-quarters (77.2%) of recent graduates were residents of Maryland when they first enrolled at their institutions, and Table 10 shows that 84.8% of those respondents were residents a year following their graduation. Recent graduates were heavily concentrated in Baltimore County, Montgomery County, and Prince George’s County, which together accounted for 41.3% of all residencies. This figure, however, is slightly lower than that of the total statewide population, of which an estimated 46.2% lived in one of those three counties.<sup>2</sup> However, as the data also show, 63.9% of respondents were graduates of institutions in either Prince George’s County (University of Maryland, College Park) or Baltimore County (Towson University and the University of Maryland, Baltimore County). This suggests that some graduates may be likely to remain close to the institution from which they graduated.

**Table 10: Current Residency of Recent Bachelor’s Degree Recipients who were Maryland Residents at Time of Entry**

<b>Place of Residence</b>	<b>%</b>	<b>Place of Residence</b>	<b>%</b>
Allegany	1.3%	Howard	8.1%
Anne Arundel	8.0%	Kent	0.2%
Baltimore City	7.5%	Montgomery	17.2%
Baltimore County	11.1%	Prince George's	13.0%
Calvert	1.2%	Queen Anne's	0.3%
Caroline	0.5%	St. Mary's	1.4%
Carroll	1.9%	Somerset	0.2%
Cecil	0.8%	Talbot	0.3%
Charles	2.5%	Washington	0.6%
Dorchester	0.3%	Wicomico	0.9%
Frederick	3.4%	Worcester	0.7%
Garrett	0.2%	<b>All Maryland</b>	<b>84.8%</b>
Harford	3.3%	<b>Out-of-State</b>	<b>15.2%</b>

Note: County of residency is determined based upon respondent ZIP code and includes only those with a valid ZIP code.

<sup>2</sup> Maryland Department of Planning, “U.S. Census Bureau Population Estimates for Maryland’s Jurisdictions: 2015, Table 5A”, prepared March 2016. Accessed on July 10, 2017 via [http://planning.maryland.gov/msdc/Pop\\_estimate/Estimate\\_15/county/popest\\_cnty15.shtml](http://planning.maryland.gov/msdc/Pop_estimate/Estimate_15/county/popest_cnty15.shtml).

## **Post-Graduation Employment**

Of those graduates in the labor market, 90.2% reported having either part-time or full-time employment. Just below one-tenth (9.8%) of degree recipients reported being unemployed and looking for work. Graduates who reported being unemployed and not seeking work were excluded when calculating unemployment rates, in accordance with the methodology used by the US Bureau of Labor Statistics (BLS).

This unemployment figure is high for Maryland, which had an average unemployment rate in 2013 of 5.8%.<sup>3</sup> However, it may be an indicator that the economic recession of 2007-2009 has had a persistent impact on recent college graduates' employment prospects. While official unemployment figures for recent graduates are hard to come by, the Economic Policy Institute estimated that the national average unemployment rate for recent college graduates in 2014 was 8.5%.<sup>4</sup>

As Table 11 shows, unemployment rates varied widely by institution, ranging from a low of 0.0% at Salisbury University to a high of 16.3% at St. Mary's College of Maryland. However, as has been noted in this analysis, concerns regarding respondent bias may be particularly high for this metric.

**Table 11: Unemployment Rate of Respondents by Institution**

	Unemployed
<b>Campus</b>	
Bowie State University	9.4%
Frostburg State University	16.0%
Salisbury University	0.0%
Towson University	9.7%
University of Baltimore	13.5%
University of Maryland, Baltimore	5.5%
University of Maryland, Baltimore County	10.3%
University of Maryland, College Park	10.0%
University of Maryland Eastern Shore	14.5%
University of Maryland University College	10.2%
Morgan State University	10.0%
St. Mary's College of Maryland	16.3%

<sup>3</sup> Maryland State Archives, "Maryland Unemployment Rates – Annual", June 2017. This was accessed on June 21, 2017 via

<http://msa.maryland.gov/msa/mdmanual/01glance/economy/html/unemployrates.html> . This information is published in the Maryland Manual and derived from United States Department of Labor, Bureau of Labor Statistics.

<sup>4</sup> Economic Policy Institute, The Class of 2014: The Weak Economy is Idling Too Many Young Graduates, May 2014. This report was accessed May 7, 2017 via <http://www.epi.org/publication/class-of-2014/>.

Table 12 illustrates that there are also substantial variations in unemployment rates among respondents by race/ethnicity. The unemployment rate was lowest for white graduates, with 7.6% stating that they were unemployed and seeking employment. Since 2011, unemployment rates for all groups apart from white respondents have increased at least slightly, with the largest change occurring among the African American (a 1.5 percentage point increase, from 10.3% to 11.8%) and Asian (1.7 percentage points, from 16.4% to 18.1%) communities. The rate of unemployment among white respondents, however, decreased slightly, from 9.5% to 7.6%, leading to an overall decrease of 0.7 percentage points. As Table 12 also shows, however, male and female respondents reported unemployment at similar levels, at 10.1% and 9.4% respectively; this small gender disparity is roughly reflective of national trends that indicate that men and women generally have similar rates of unemployment. The decrease in overall unemployment, on the other hand, was experienced evenly across male and female respondents, with male unemployment decreasing from 10.8% to 10.1% and female unemployment decreasing from 10.2% to 9.4%.

**Table 12: Unemployment Rates by Race/Ethnicity and by Gender**

<b>Race</b>	<b>Maryland</b>
African American	11.8%
Asian	18.1%
Hispanic	12.9%
White	7.6%
Two or More Races	17.8%
Unknown	12.6%
<b>Gender</b>	
Male	10.1%
Female	9.4%
<b>All Students</b>	<b>9.8%</b>

Table 13 indicates the degree to which the jobs of respondents who were working full-time were related to their majors and whether a bachelor’s degree was required to perform the duties of their current job. Overall, 76.2% of graduates reported working in fields related to their major. The degree programs with the highest percentages of graduates working in fields related to their undergraduate majors were Engineering (91.0%) and Computer Science (88.4%). On the other end of the spectrum, only 45.2% of graduates of programs in Letters working full-time responded that their job was related to their field of study. However, as previously noted, these programs are less likely than others to lead directly to a prescribed type of employment.

Of graduates working full-time, 62.8% reported working in jobs that required a bachelor’s degree. However, as also indicated in Table 13, this varied tremendously by degree program. Engineering had the highest percentage of graduates working in jobs that required a degree, with 91.6% of graduates working in jobs requiring a degree. Over three-quarters (76.1%) of Education graduates were also working in positions requiring a bachelor’s degree. On the other hand, 44.5% of Psychology and 50.3% of Computer Science graduates working full-time worked in positions that did not require a bachelor’s degree, even though many of these jobs were related to the curriculum those graduates had pursued during their bachelor’s degree program.

**Table 13: Respondents Reporting Current Job Related to Undergraduate Degree and Percent of Current Jobs Requiring a Bachelor’s Degree**

<b>Degree Program</b>	<b>% Responding Directly/Somewhat Related</b>	<b>% Responding Current Job Requires Bachelor’s Degree</b>
Biological Sciences	84.1%	68.1%
Business	84.8%	59.3%
Communications	77.8%	70.2%
Computer Science	88.4%	50.3%
Education	83.8%	76.1%
Engineering	91.0%	91.6%
Health	89.2%	53.1%
Letters	45.2%	62.4%
Psychology	60.2%	44.5%
Social Sciences	59.6%	59.6%
<b>Total (All Programs)</b>	<b>76.2%</b>	<b>62.8%</b>

Note: Table displays programs with at least 50 respondents reported working full-time.



Figure 4 provides career preparation ratings by campus. The overall satisfaction rating by bachelor’s degree recipients, including those who indicated receiving “Excellent” or “Good” career preparation, was 70.5%. This rating of satisfaction with job preparation was considerably lower than the 85.4% satisfaction rating offered by respondents regarding preparation for post-baccalaureate study. While 40.4% of respondents rated their preparation for advanced study as “Excellent,” 23.7% of respondents rated their career readiness as “Excellent.” However, there was considerable variation among institutions. Among graduates from the University of Maryland, Baltimore, 96.1% of respondents rated their job preparation as “Excellent” or “Good,” the highest among all of the 13 institutions. The lowest level of satisfaction with job preparation was reported by graduates of Morgan State University, where 52.4% of graduates indicated that they had received either “Excellent” or “Good” preparation for their current job or career.

**Figure 4: Respondents’ Rating of Preparation for Current Job/Career by Institution**



## **Employment Profile**

Nearly three-fifths (57.5%) of respondents reported that they were working in Maryland one year following graduation. As shown in Table 14, Maryland residents educated in Maryland are the most likely to remain and work in the state following graduation. Of respondents in the workforce, 68.4% of those with full-time employment were working in Maryland one year later. Of those respondents who were not residents of Maryland when they first enrolled at one of the state's public institutions, 23.7% reported working in Maryland a year after graduation. Maryland graduates are also highly likely to find employment in neighboring states. Of total graduates, 79.8% were employed in Maryland, Washington, DC, the northern Virginia suburbs, or in another neighboring state. One year after graduation, 17.7% worked in Washington, DC and the northern Virginia suburbs. Nearly five percent (4.6%) worked in a border state such as Delaware, New Jersey, Pennsylvania, West Virginia, or elsewhere in Virginia. Only 20.2% reported that they worked outside of the national capital region (in another state or country). However, among those graduates who were out-of-state at entry, 48.6% found employment outside of the region. The data do not allow us to determine what proportion returned to their region of origin following graduation or whether respondents sought employment in states or countries other than where they came from.

**Table 14: Location of Employment for Graduates Employed Full-Time**

	<b>MD Residents at Entry</b>	<b>Out-of-State Residents at Entry</b>	<b>Total Respondents</b>
<b>Location of Employment</b>			
Maryland	68.4%	23.7%	<b>57.5%</b>
DC	11.2%	7.8%	<b>10.4%</b>
Northern VA suburbs	6.5%	9.8%	<b>7.3%</b>
Neighboring State	2.8%	10.0%	<b>4.6%</b>
Other State	9.5%	45.3%	<b>18.2%</b>
Other Country	1.6%	3.3%	<b>2.0%</b>

Note: Neighboring state includes DE, NJ, PA, WV, and elsewhere in VA.

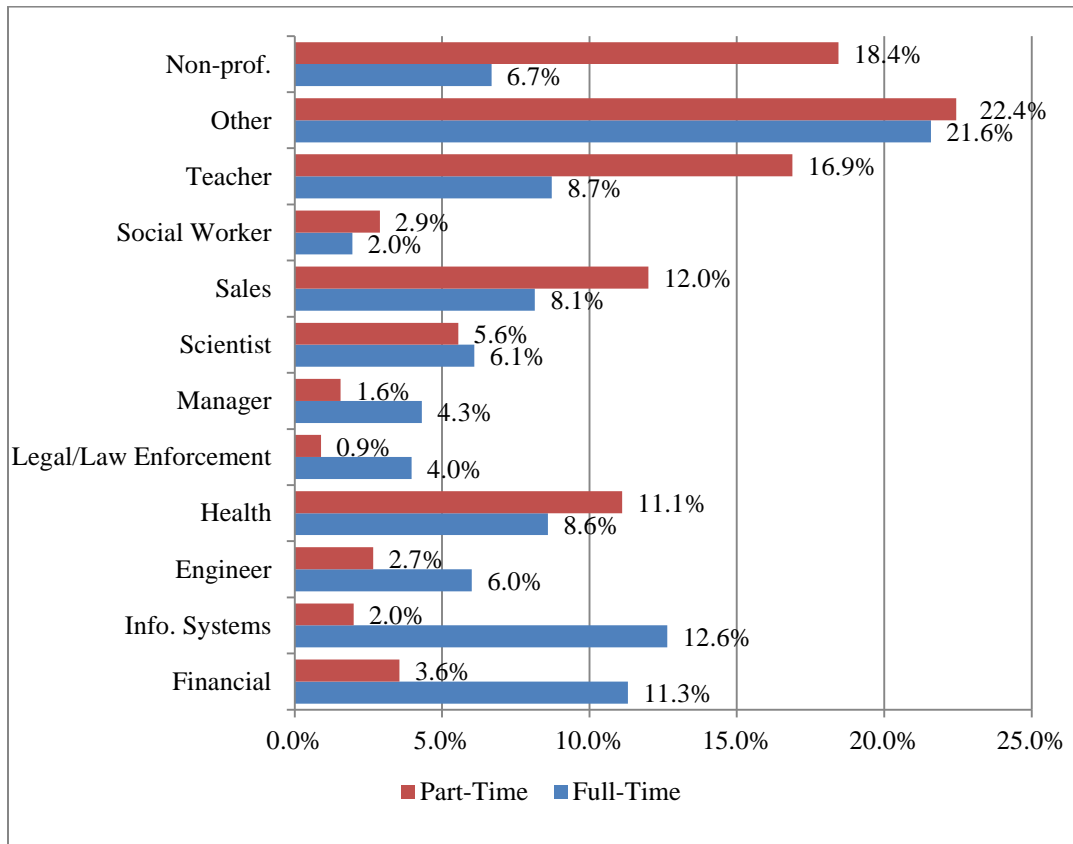
As Table 15 shows, survey respondents were employed in a wide variety of occupations a year after graduation. Of all respondents employed full-time, the Other Professional, Information Systems, and Financial categories accounted for the largest proportions of employment. However, the Follow-Up Survey is conducted on graduates only one year after graduation. The relatively low employment rates in fields such as Social Work and Legal Professional may reflect the requirements for additional study in these fields. Once more data become available from MHEC and additional state agencies, further examination of the post-graduation employment activities of Maryland graduates may be provided.

**Table 15: Category of Current Occupation**

<b>Category of Current Occupation</b>	<b>% of Employed</b>
Financial	11.3%
Information Systems	12.6%
Engineer or Architect	6.0%
Health Professional	8.6%
Legal Professional or Law Enforcement	4.0%
Manager	4.3%
Scientist	6.1%
Sales Or Marketing	8.1%
Social Worker	2.0%
Teacher	8.7%
Other Professional	21.6%
Nonprofessional	6.7%

It is clear from Figure 5 that there are fairly substantial differences in category of employment between full-time and part-time employees. The percentage of graduates who are teachers is almost twice as high for part-time rather than full-time employees; part-time employees are also much more likely to be employed in Sales and Marketing than full-time employees. Full-time employees are more concentrated in the Financial and Information Systems sectors than graduates who are employed part-time.

**Figure 5: Type of Occupation for Full- and Part-Time Employed**



As Table 16 shows, while data are only included for programs with more than 50 respondents, and small sample sizes may affect the analysis, there is substantial variation in median salary by major, race/ethnicity and gender. A substantial share of the gender disparity in salaries is likely driven by major; male respondents were far more likely to have graduated with degrees in engineering and computer science, while many more women than men had majors in education, health, and psychology. However, the racial wage gap does not appear to be driven by major field; academic majors are far more evenly distributed among racial groups than among genders.

**Table 16: Median Salary of Respondents**

	Median Salary
<b>Degree Program</b>	
Biological Sciences	\$33,461
Business	\$51,527
Communications	\$36,316
Computer Science	\$66,029
Education	\$43,717
Engineering	\$62,999
Health	\$54,204
Letters	\$38,437
Psychology	\$31,770
Social Sciences	\$44,384
<b>Race</b>	
African American	\$42,500
Asian	\$46,547
Hispanic	\$51,249
White	\$42,614
Two or More Races	\$43,749
Unknown	\$42,291
<b>Gender</b>	
Male	\$54,230
Female	\$43,883

Note: Table represents degree programs with at least 50 respondents working full-time.

## **Overall Satisfaction**

Table 17 provides the graduates' responses to the question of whether they would attend the same institution if they were given the option. The data indicate that recent graduates were largely satisfied with their degree-granting institutions. Of all graduates statewide, 49.4% would definitely attend the same institution, and 31.9% probably would. Statewide, then, 81.3% of students reported overall satisfaction with their undergraduate experiences.

**Table 17: Respondents Who Would Definitely or Probably Choose to Attend the Same Institution**

<b>Campus</b>	<b>Definitely/Probably Would</b>
Bowie State University	56.7%
Frostburg State University	64.2%
Salisbury University	80.9%
Towson University	84.0%
University of Baltimore	78.8%
University of Maryland, Baltimore	89.3%
University of Maryland, Baltimore County	79.6%
University of Maryland, College Park	84.1%
University of Maryland Eastern Shore	51.7%
University of Maryland University College	81.5%
Morgan State University	68.0%
St. Mary's College of Maryland	85.2%
<b>Statewide (All Campuses)</b>	<b>81.3%</b>

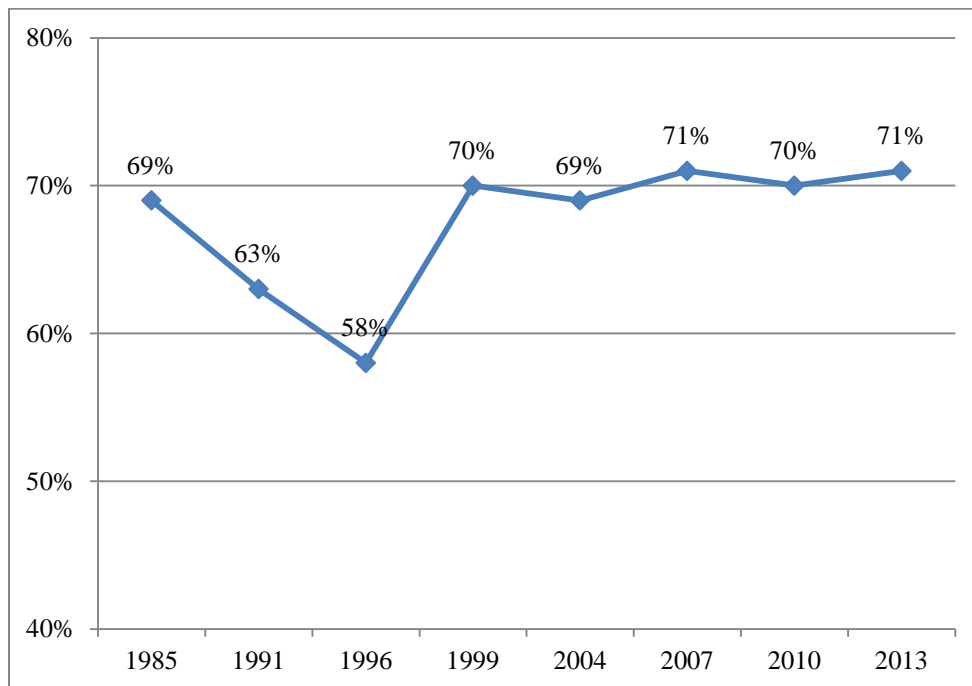
## **Trend Profile**

One of the most useful ways of looking at data is examining how trends may have emerged over time. This section presents trends that have emerged from the *Bachelor's Graduate Follow-Up Survey* in the past three decades, from 1985-2013. The surveys were administered to bachelor's degree recipients graduating in 1985, 1991, 1996, 1999, 2004, 2007, 2010, and 2013, and data points are presented for each of these years. However, trends reflected in all of these figures should be interpreted with a good deal of caution. Throughout this time period, response rates have continued to decline, which may affect the power and validity of the results. Additionally, fluctuations in sample sizes may have particularly high impacts upon survey outcomes once they are disaggregated by sub-populations such as race and gender.

### *Financial Aid*

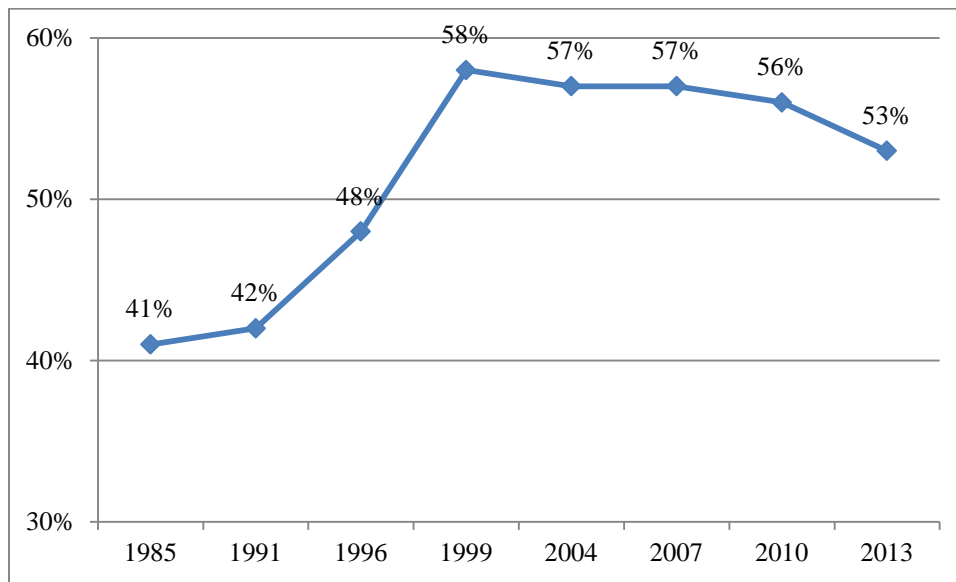
Provision of financial aid remains a crucial factor in ensuring continued accessibility to higher education for a large portion of the college-age population. The price of college rose faster than inflation during the last two and a half decades, but financial aid has not increased to match it. Figure 6 shows the trend in the percentage of recent graduates who received financial aid during their college careers. From 1985 to 1996, there was a decrease in the percentage of respondents who reported receiving aid, but that proportion had risen greatly by 1999. In 2013, the percentage of graduates who received aid (71%) matched the highest rate since 1985.

**Figure 6: Respondents Receiving Financial Aid: 1985-2013**



As Figure 7 shows, the importance of financial aid to degree completion has grown tremendously over time, though it has changed little over the past decade. This figure shows the percentage of graduates receiving financial aid who stated that they would not have completed their bachelor's degrees without financial support. The percentage of recent graduates who would not have been able to complete their degrees without financial aid gradually increased from 1985 to 1999, reaching a high of 58% following a sharp increase from 1996 to 1999. From 2004 to 2013, the rate has remained fairly stable, indicating that financial aid remains a vital contributor to student success.

**Figure 7: Respondents Not Able to Complete Their Degrees without Financial Aid Received: 1985-2013**





*Post-baccalaureate Education*

Figure 8 displays the trend in the percentage of graduates who reported they had enrolled in an advanced study program after earning their baccalaureate degree. Following steady enrollment in advanced educational programs for a decade and a half, advanced degree enrollment declined sharply for the 2013 respondents. This may reflect diminishing effects of the recession, as graduates may be more likely to enter directly in the workforce rather than continuing to pursue additional credentials. However, overall graduate school enrollment remained steady, suggesting that there may be some other explanation for the decline in graduate school attendance among the respondent population.

**Figure 8: Respondents Seeking Advanced Degrees: 1985-2013**

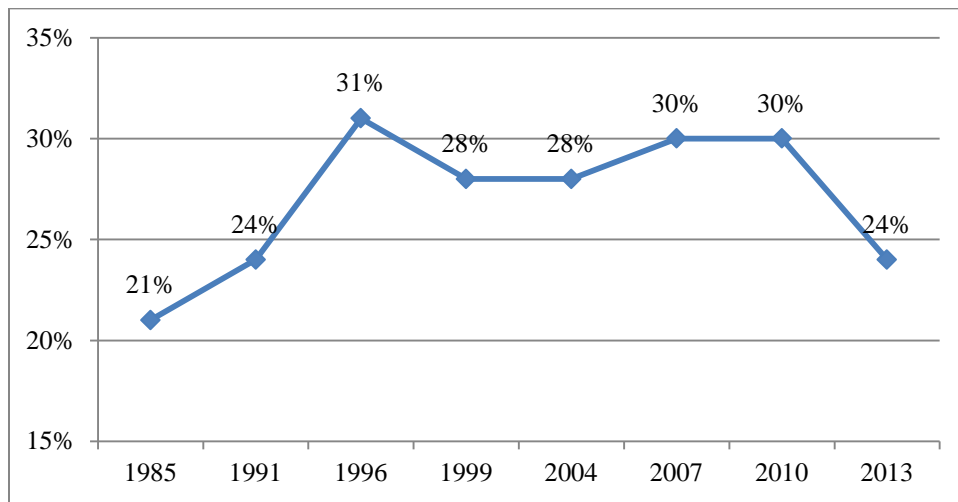
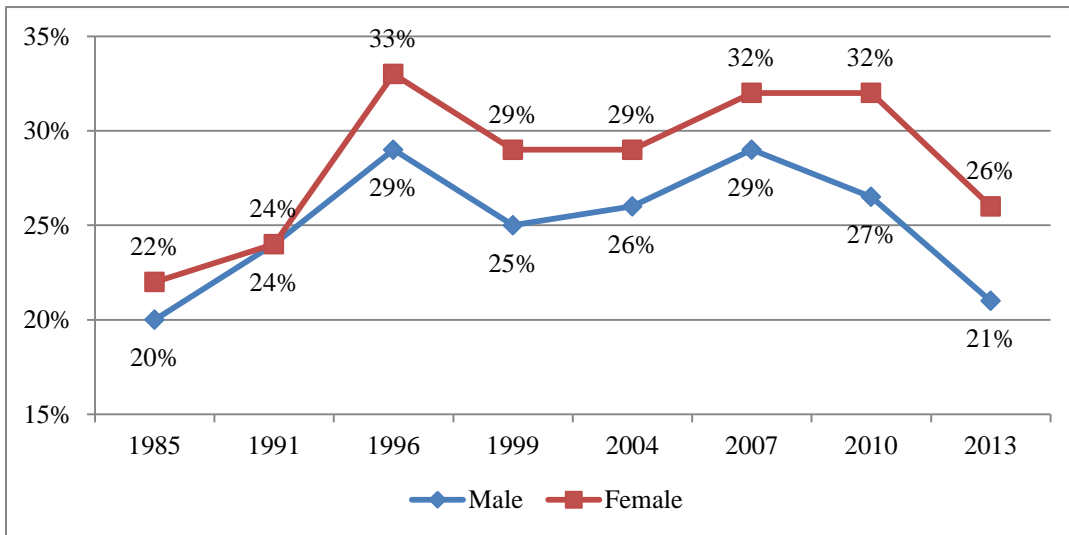


Figure 9 compares the percentage of men and women pursuing advanced degrees over time. From 1985 to 1991, women and men were seeking advanced degrees at similar rates. However, from 1991 onward, females began to outpace their male peers. This is consistent with a general trend in graduate school enrollment in Maryland institutions; while in 1991, 52.4% of graduate school students were women, in 2014, women comprised 57.5% of graduate school student bodies.<sup>5</sup>

**Figure 9: Respondents Seeking Advanced Degrees by Gender: 1985-2013**



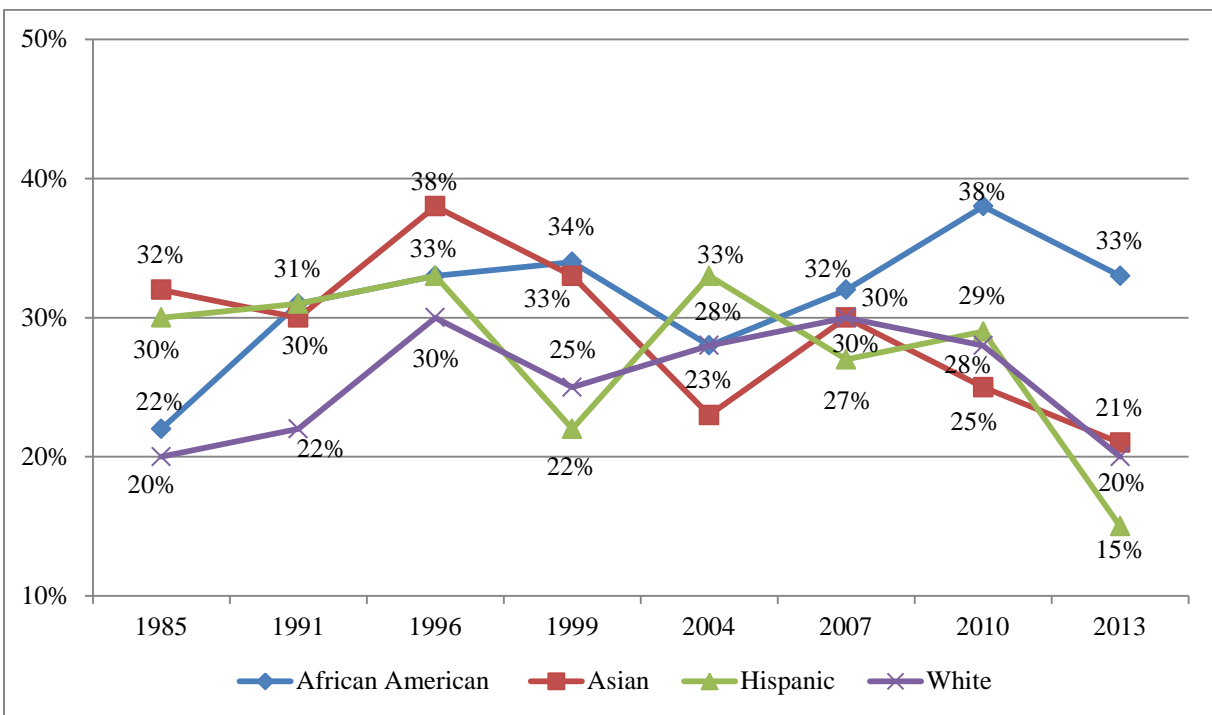
<sup>5</sup> Maryland Higher Education Commission, Enrollment Information System.

Table 18 and Figure 10 present the percentage of recent graduates who sought advanced degrees by race from 1985-2013. Throughout the years for which data is available, there have been substantial fluctuations in the pursuit of advanced degrees by race. As these data show, the drop in pursuit of advanced degrees between 2010 and 2013 graduates occurred across all racial groups. However, the decline was experienced most substantially among Hispanic graduates, whose rate of graduate degree enrollment rates decreased by nearly half, from 30% to 15%. This rate decreased the least among white students, from 25% to 21%. Since this survey has been administered, enrollment in advanced degree programs has declined for each racial group apart from African Americans. Between 1985 and 2013, the rate of African American survey respondents seeking advanced degrees has increased by 50%, from 22% to 33%. As has been mentioned elsewhere in this report, however, the large fluctuations represented in these data are likely influenced by small sample sizes. The actual percentage of graduate school enrollments by racial groups over time has not fluctuated to the same degree as indicated in the survey.

**Table 18: Respondents Seeking Advanced Degrees by Race: 1985-2013**

Race	% Seeking an Advanced Degree							
	1985	1991	1996	1999	2004	2007	2010	2013
African American	22%	31%	33%	34%	28%	32%	38%	33%
Asian	32%	30%	38%	33%	23%	30%	25%	21%
Hispanic	30%	31%	33%	22%	33%	27%	29%	15%
White	20%	22%	30%	25%	28%	30%	28%	20%

**Figure 10: Respondents Seeking Advanced Degrees: 1985-2013**



As illustrated in Table 19, recent graduates pursuing advanced degrees continue to report that they felt well prepared for graduate-level studies, indicating that they felt that their bachelor's degree program had provided them with either "Excellent" or "Good" preparation them for advanced study programs. 2013 graduates reported that almost nine out of ten students were satisfied with their preparation.

**Table 19: Advanced Degree Seekers Who Felt Prepared for Graduate Study: 1985-2013**

Campus	% Satisfied with Preparation for Graduate Study							
	1985	1991	1996	1999	2004	2007	2010	2013
Bowie State University	89%	78%	76%	78%	96%	64%	81%	58%
Coppin State University	68%	71%	82%	88%	*	77%	69%	N/A
Frostburg State University	77%	75%	76%	92%	92%	80%	94%	69%
Salisbury University	79%	80%	73%	90%	93%	89%	94%	90%
Towson University	69%	79%	71%	84%	88%	89%	88%	89%
University of Baltimore	64%	86%	93%	80%	94%	97%	89%	78%
University of Maryland, Baltimore	69%	72%	100%	77%	92%	92%	73%	100%
University of Maryland, Baltimore County	83%	81%	77%	90%	87%	82%	90%	84%
University of Maryland, College Park	72%	69%	78%	80%	89%	86%	88%	87%
University of Maryland Eastern Shore	63%	93%	60%	74%	76%	65%	82%	44%
University of Maryland University College	83%	82%	80%	89%	90%	93%	88%	91%
Morgan State University	89%	64%	70%	81%	81%	84%	71%	78%
St. Mary's College of Maryland	85%	87%	94%	87%	100%	95%	95%	88%
<b>Statewide</b>	<b>75%</b>	<b>76%</b>	<b>77%</b>	<b>84%</b>	<b>89%</b>	<b>87%</b>	<b>89%</b>	<b>85%</b>

\*Note: No students from Coppin reported attending graduate school in the follow-up survey of 2004 degree recipients.

### Post-graduation Employment

Figure 11 presents the trends in the percentage of recent graduates who were employed full-time and the percentage who were unemployed since 1985. The data show that the rates have remained relatively stable over time, though the percent of graduates reporting working full-time has increased slightly and unemployment levels have slightly decreased since the survey of 2010 graduates. As previously discussed, this may be reflective of larger economic trends. In addition, there may be some difficulty in longitudinal analysis of unemployment figures since it is unclear whether the total workforce figures were calculated using appropriate BLS methodology. Additionally, the continued decline in response rates and, correspondingly, sample sizes for the survey may contribute to concerns regarding the comparability of these figures over time.

**Figure 11: Respondents Working Full-time and Unemployed: 1985-2013**

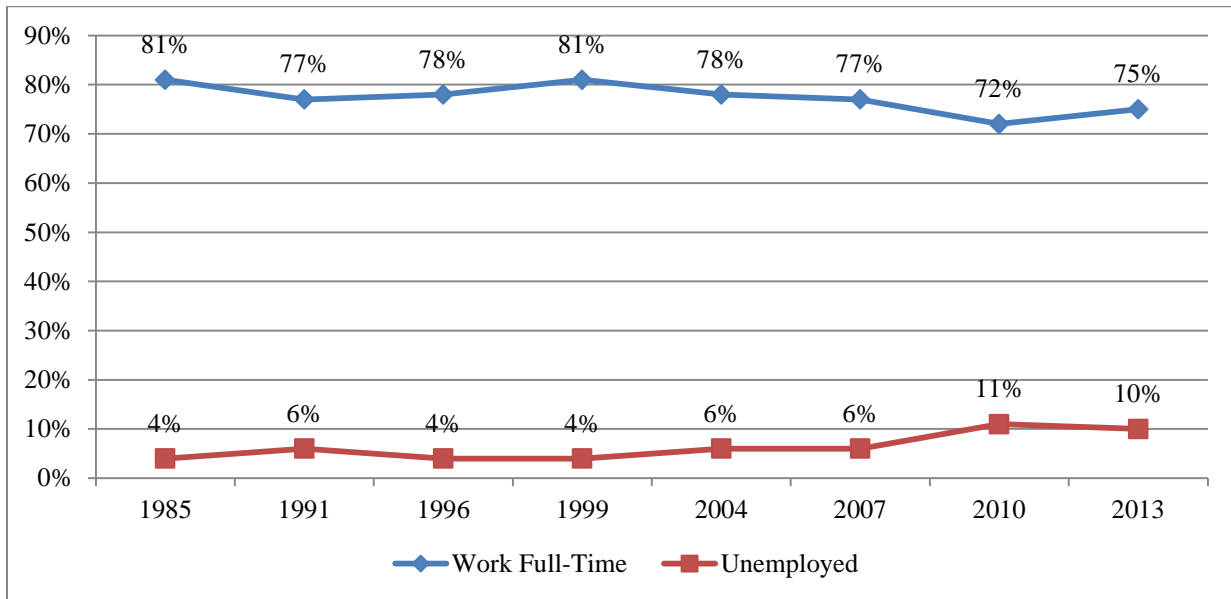


Figure 12 displays the percentage of survey respondents employed full-time who worked in positions similar or directly related to their undergraduate major. From 1985 to 2010, the rate of graduates employed full-time in jobs related to their undergraduate major fell from 83% to 76%. The percentage of 2013 respondents employed full-time who worked in a job related to their major remained consistent with the 2010 rate of 76%. While this change over time remains small, this continuing decline in the relationship between undergraduate major and subsequent field of employment may be reflective of broader changes in the economy, such as increased applicability of skills and abilities to different fields.

**Figure 12: Respondents Working Full-time in a Job Related to their Undergraduate Major: 1985-2013**

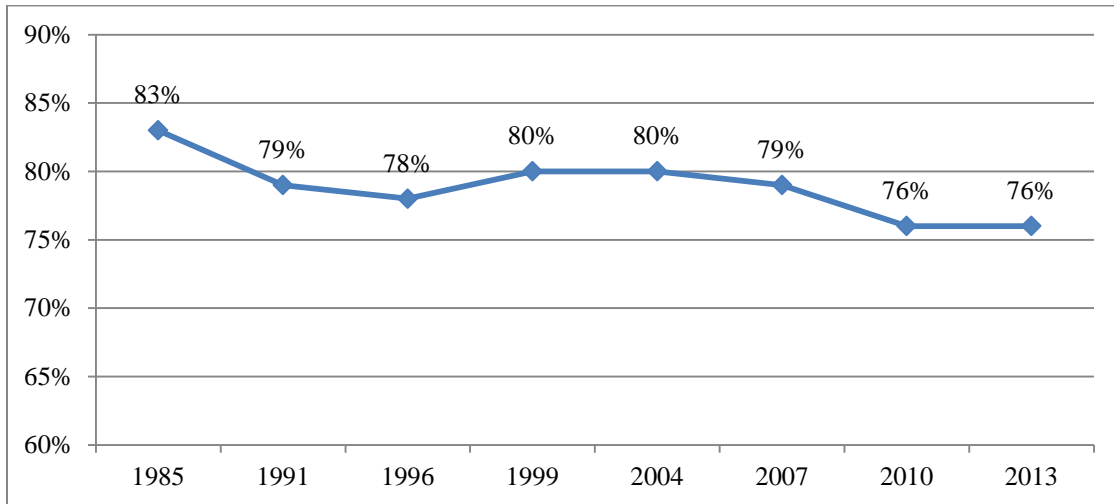
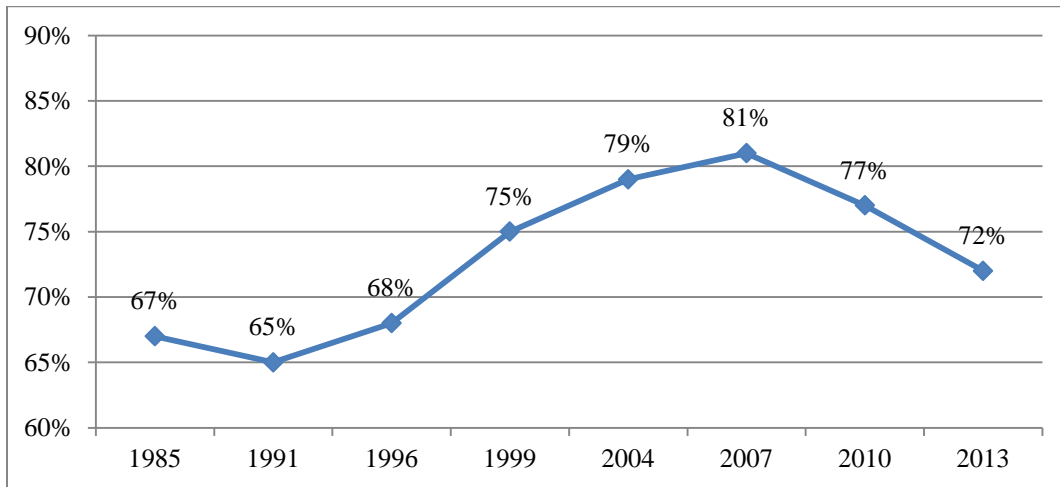


Figure 13 shows that recent graduates who worked full-time have remained largely satisfied with the preparation they received for their current job. This satisfaction level is based on those who rated their job preparation as “Excellent” or “Good.” The current data show a slight decline (five percentage points) in overall satisfaction with job preparation since the prior survey cohort. It is important to note that while the percentage of students working in a job related to their major has declined over time, the percentage who indicated being satisfied with their preparation for employment has remained steady. This may indicate that students are not only satisfied with the technical skills they are learning that translate directly into employment, they are satisfied with the more transferable skills they are being taught.

**Figure 13: Respondents Working Full-time and Satisfied with their Job Preparation: 1985-2013**



There remained a fairly wide range among institutions in the degree to which graduates were satisfied with the preparation they received for their career. As shown in Table 20, the majority of full-time workers continue to feel satisfied with the job preparation they receive from their degree-granting institution, with most respondents rating their preparation as either “Excellent” or “Good.” However, the level of satisfaction with job preparation varies substantially by institution, and from year to year.

**Table 20: Full-time Workers who were Satisfied with Preparation for their Job: 1985-2013**

Campus	% Satisfied with Job Preparation							
	1985	1991	1996	1999	2004	2007	2010	2013
Bowie	88%	73%	72%	75%	80%	77%	75%	65%
Coppin	79%	69%	75%	79%	81%	83%	75%	N/A
Frostburg	70%	64%	70%	77%	76%	80%	77%	59%
Salisbury	73%	70%	76%	83%	85%	83%	79%	79%
Towson	60%	65%	61%	76%	76%	82%	74%	69%
UB	64%	72%	79%	71%	82%	86%	84%	66%
UMB	76%	84%	71%	65%	88%	93%	90%	96%
UMBC	68%	66%	65%	77%	67%	77%	81%	71%
UMCP	63%	58%	68%	71%	82%	82%	81%	71%
UMES	58%	76%	72%	63%	68%	76%	72%	65%
UMUC	73%	73%	72%	78%	81%	81%	80%	76%
Morgan	73%	69%	61%	76%	73%	73%	51%	62%
St. Mary's	75%	75%	84%	85%	81%	78%	79%	72%



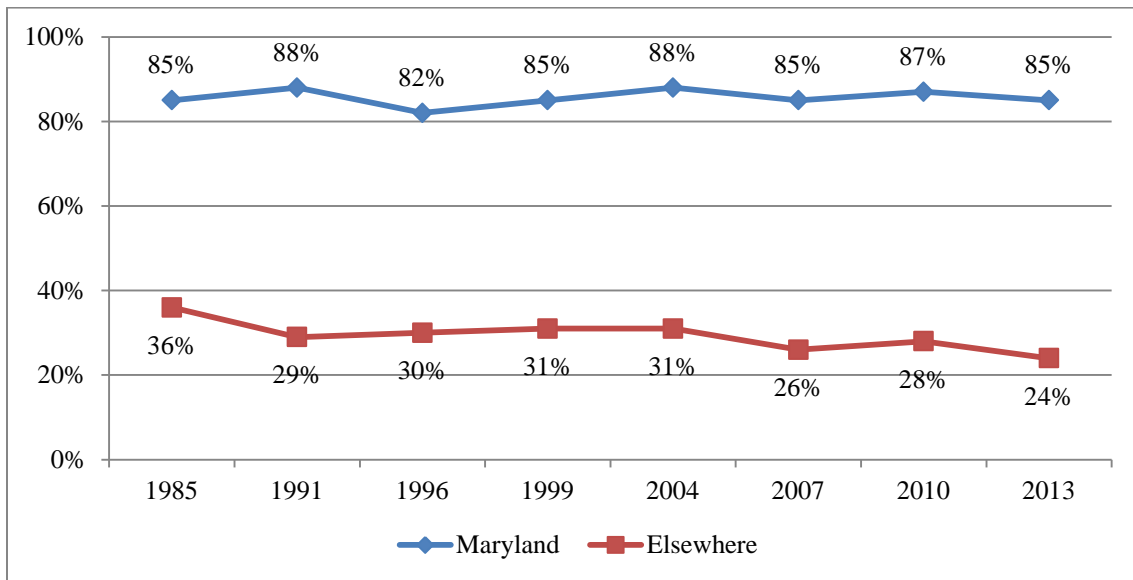
Table 21 reveals that graduates remain largely satisfied with their experiences at their baccalaureate degree-granting institutions. Similar to the 2010 graduates, the 2013 data showed that more than 70% of the graduates at nine of the 13 institutions reported that they would attend their same campus again. Statewide, over four-fifths (81%) would again enroll at their alma mater if given the opportunity.

**Table 21: Respondents Who Would Attend the Same Institution Again: 1985-2013**

Campus	% Would Attend Same School Again							
	1985	1991	1996	1999	2004	2007	2010	2013
Bowie	68%	77%	67%	77%	74%	64%	71%	57%
Coppin	68%	69%	66%	84%	72%	74%	62%	N/A
Frostburg	69%	74%	81%	89%	78%	84%	84%	64%
Salisbury	71%	74%	80%	89%	89%	89%	85%	81%
Towson	65%	67%	67%	77%	77%	83%	81%	84%
UB	81%	82%	89%	87%	83%	89%	89%	79%
UMB	65%	79%	60%	79%	90%	97%	84%	89%
UMBC	71%	71%	70%	78%	76%	79%	82%	80%
UMCP	72%	66%	77%	85%	85%	84%	87%	84%
UMES	62%	78%	71%	67%	67%	62%	59%	52%
UMUC	92%	87%	90%	91%	89%	89%	88%	82%
Morgan	63%	76%	73%	88%	71%	67%	56%	68%
St. Mary's	76%	79%	89%	87%	85%	88%	89%	85%

Graduates who were residents when they first enrolled at a Maryland four-year public campus have historically tended to remain in the state after completing their degrees. As is demonstrated in Figure 14, the last 28 years have seen little change in this trend. Similarly, graduates who were not Maryland residents when they first enrolled have tended to not remain in the state. The rate of graduates remaining in Maryland who began their studies as non-Maryland residents has continued to decline, and is currently at its lowest rate since 1985 (24%). Overall, the state continues to retain a high percentage of Marylanders after graduation and on into the workforce, and 70% of all respondents remained Maryland residents following graduation.

**Figure 14: Respondents Currently Living in Maryland by Residence at Time of First Enrollment: 1985-2013**



## **Conclusion**

The Graduate Follow-Up Survey has provided the Commission with valuable information regarding degree recipient outcomes and satisfaction with their educational experience for over two decades. As this report has shown, graduates continue to be largely satisfied with their educational experiences. As previously noted, findings should be interpreted with caution given the possibility of respondent bias. Additionally, the survey is conducted one year following graduation, so the evaluation of longer-term outcomes is not possible. Nevertheless, graduate feedback is a valuable component of the State's efforts to assess how well institutions are serving their graduates and contributing to the State's educational goals, and the Commission is working to explore other methods to gather information relating to the goals of this report. For example, data from the Maryland Longitudinal Data System Center (MLDSC) may provide additional reliable information on questions related to some of the longer-term outcomes of these graduates such as unemployment rates and earnings.

Despite the dangers of a low response rate, the Graduate Follow-Up Survey of 2013 public college and university graduates appears to indicate that Maryland institutions are continuing to perform well. As in prior years, graduates remain satisfied with their overall college experience and their levels of preparation for employment.

The results of this year's administration of the survey provide MHEC, policymakers, and institutions with valuable information on the state of our public four-year colleges and universities. This year's survey results show that graduates are largely satisfied with most aspects of their experience, but each institution has ways in which it 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.