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MARYLAND HIGHER EDUCATION COMMISSION

Community College Graduate Follow-Up Survey Report

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The Maryland Higher Education Commission conducts a biennial follow-up survey of community college graduates in cooperation with the State's two-year campuses. This study, which has been conducted since 1976, has provided a wealth of information about the postgraduation employment and educational activities of community college students, their perceptions about the quality of their experiences at their institution, and other outcomes-related matters. Results of the survey are included in each college's performance accountability report and in the Commission's Managing for Results submission. Questionnaires are sent to all students who earned an associate degree or a certificate at a Maryland community college in a particular year – not just to a sample.

This report contains a presentation of the results of the most recent survey (2002 community college graduates) and an analysis of trend data gleaned over more than 20 years.

Results of 2002 Community College Graduate Follow-Up Survey

A questionnaire was administered in spring 2003 to all 8,432 graduates who earned an associate degree or certificate from a Maryland community college during the 2001-2002 academic year. Most colleges conducted a follow-up mailing or telephone campaign to increase the response rate. Overall, there were 477 questionnaires returned as undeliverable. Of the remainder, responses were received from 2,436 graduates, for a statewide return rate of 31 percent.

Characteristics of Survey Participants

The survey respondents were quite similar to all 2002 community college graduates on key attributes.

Of the students who returned the questionnaires, nearly two-thirds (66 percent) were women. In terms of race, 19 percent were African American, 4 percent Asian, 3 percent Hispanic, and 71 percent white. The survey respondents were generally demographically representative of the 2002 Maryland community college graduates as a whole, with a slightly greater proportion of whites and women.

Those who earned associate degrees made up the majority of respondents (86 percent), while 14 percent earned a certificate. Twenty-nine percent were general studies majors, 16 percent health technologies majors, 13 percent business technologies students, and 8 percent arts and sciences students. This mix of majors is comparable to that of all 2002 Maryland community college graduates.

Two-thirds of the respondents had matriculated at their community college as part-time students. The average length of time from matriculation to graduation was 5.3 years.

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Experiences of All Graduates

Table 1 displays the employment or educational status of respondents one year after they graduated from their community college. The figures sum to more than 100 percent because multiple responses were possible. A majority (55.0 percent) of the graduates held a full-time civilian job or were active duty military and an additional 21.8 percent were working part-time. Just 5.6 percent were unemployed and seeking a job. Nearly half (45.2 percent) were enrolled at a postsecondary educational institution.

Table 1. Employment/ Educational Status of Respondents One Year After Graduation

	Percent
Employed full time	54.3 %
Employed part time	21.8 %
Full time student	30.2 %
Part time student	15.2 %
Active Duty Military	0.7 %
Full time homemaker	4.8 %
Unemployed, seeking job	5.6 %
Unemployed, not seeking job	1.6 %
Retired	1.3 %

Overall, Maryland community colleges received high marks from graduates: 94.2 percent rated their community college experience as “good” or “excellent”. Asked whether, if they had to do it over again, they would attend their community college, 89.6 percent said “yes”. A lower percentage (65.5 percent) said they would enroll in the same program of study. Evaluating specific aspects of their community college experience, a majority of students rated almost all items very highly (Table 2). They gave faculty the highest ratings: 91.8 percent assessed “quality of classroom instruction” as “good” or “very good”, and 85.0 percent rated faculty availability and helpfulness as “good” or “very good”. Less than half of the respondents gave similar marks to job placement services, however.

Table 2. Percent of Graduates Rating Certain Aspects of College Experience as “Good” or “Very Good”

	Percent	Mean Score
Quality of Classroom instruction	92 %	4.36
Faculty availability/ helpfulness	85 %	4.30
Information Technology Access	84 %	4.16
Class Scheduling	82 %	4.17
Library	82 %	4.15
Quality of Lab equipment	81 %	4.10
Tutorial services	73 %	4.00
Academic advising	66 %	3.82
Student activities	64 %	3.75
Job placement/referral services	47 %	3.32

Of all survey respondents, 41.2 percent said that their single most important goal in attending a community college had been to prepare for transfer to a four-year institution, while 37.2 percent said that it had been to prepare for entry into a new (first or different) career. “Self-enrichment” was the stated goal of 12.8 percent. Almost two-thirds of all respondents reported that their most important goal was completely achieved by the time they graduated. Table 3 shows the percentage of graduates who believed that they had achieved, in whole or in part, their most important goal. More than three-fourths (75.5 percent) of graduates who planned to transfer to a four-year institution felt that they completely achieved their goal. A majority of those with “self-enrichment” as a goal also reported complete goal attainment (62.8 percent). Slightly more than half of the graduates who sought to update their skills or enter a new or different career field reported complete goal achievement.

Table 3. Most Important Goal vs. Perception of Goal Attainment

Goal	Complete Goal Achievement	Partial Goal Achievement
Transfer to 4 yr college	75.5 %	22.7 %
Self-enrichment	62.8 %	35.5 %
Update skills	54.6 %	42.8 %
Entry into first career	52.9 %	39.0 %
Entry into different career	52.2 %	39.3 %

Asked whether, in their opinion, their community college experience had contributed to improving their proficiency in certain skill areas, the vast majority responded in the affirmative (Table 4).

Table 4. Percent of Graduates Reporting Community College Had Contributed to Improving Proficiency in Certain Skill Areas “a Fair Amount” or “a Great Deal”

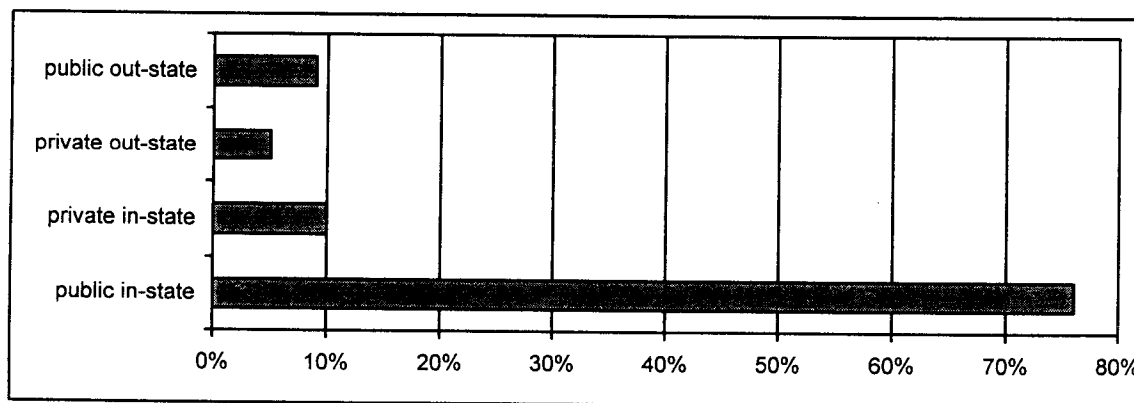
Skill Area	Percent
Understanding of science and technology	90 %
Enjoyment of learning	90 %
Writing skills	89 %
Goal clarity: career and educational	87 %
Self-confidence	86 %
Computer skills	85 %
Math ability	82 %
Knowledge of history and other cultures	79 %
Reading comprehension	78 %
Art, music, literature appreciation	74 %

Graduates Who Transferred to Four-Year Institutions

Half of the survey respondents had transferred to a four-year college or university since graduating from community college. Of these, 84.6 percent rated their community college preparation for transfer as “good” or “very good”.

Three-quarters of transfer graduates were attending Maryland public colleges or universities. An additional 10 percent transferred to a Maryland independent institution. The remainder went out-of-state.

Figure 1. Where Did Community College Graduates of 2002 Transfer?



Less than half (43.6 percent) of the students who transferred indicated that their current major at their four-year institution is the same as the one at their community college, while approximately one-third (32.7 percent) said that their field was “somewhat related”. In terms of acceptance of transfer credit, there was a difference between the

experience of students who changed their major and those who did not. Of the students who continued in the same major, 45.7 percent said that all of their community college credits of “C” or better had been accepted by their transfer institution; an additional 32.1 percent reported that they had lost no more than six credits. Only 11.6 percent of those who did not change majors lost more than 11 credits. In contrast, 41.3 percent of the students who changed majors had had all credits accepted, while 19.0 percent had over 11 credits that did not transfer.

Students were asked for their opinion as to why credits did not transfer. Among those who did not change majors, 24.7 percent believed that it was due to their having earned more than the limit of 60 credits and 21.7 percent said that there was no comparable course. Among those who did change majors, 11.9 percent said it was because they had changed majors, 22.0 percent because they had earned more than the limit of 60 credits and 30.0 percent because there was no comparable course.

Graduates Currently Employed

Of those graduates who reported being employed full-time, 77.6 indicated that their job was in the same or a related field as their major, and 76.5 percent rated their preparation for employment as “good” or “very good”. Over 83 percent were employed in Maryland. The average gross annual salary of these graduates was \$45,775.

Comparison by Major Academic Area

Table 5 displays, by program, the percentage of graduates who reported that they would major in the same field again. Engineering and education transfer program graduates, as well as natural science technology and health services technology graduates, were particularly satisfied with their majors. In comparison, 52.2 percent of general studies majors indicated that they would chose that program again.

Table 5. Percent Who Would Chose Same Major, by Program

Program	Percent
Engineering Transfer	94.1 %
Education Transfer	84.9 %
Science Tech	79.2 %
Health Tech	79.1 %
Business Transfer	72.4 %
Public Services Tech	69.8 %
Computer Transfer	67.6 %
Mech. Eng. Tech	67.2 %
Arts and Sciences Transfer	66.3 %
Data Processing Tech	65.0 %
Business Tech	64.1 %
General Studies	52.2 %

The majority of graduates in each of the occupational fields held full-time employment, while most of those in each of the transfer programs were enrolled at a four-year institution either full or part time (Table 6). A majority of the graduates in business transfer programs were both employed full-time and enrolled in college.

Table 6. Status of Graduates by Program

Program	Percent Employed FT	Percent Employed PT	Percent FT Student at 4-yr College	Percent PT Student at 4-yr College
Arts and Sciences	39.5	27.5	42.5	17.0
Engineering	47.1	5.9	58.8	17.6
General Studies	42.6	26.5	47.5	16.6
Education	21.9	28.8	67.1	8.2
Business	54.6	23.8	39.5	15.7
Computer Info. Sci.	35.1	27.0	62.2	13.5
Business Tech	64.7	16.2	13.6	15.9
Data Proc. Tech	62.8	12.4	13.3	22.6
Health Tech	70.2	20.6	8.8	10.5
Mech. Eng. Tech	67.2	21.3	13.1	16.4
Science Tech	66.7	12.5	33.3	0
Public Svs. Tech.	65.2	17.4	17.4	11.4

Most transfer students were enrolled in the same program at their four-year institution as they had been at their community college. The highest percentage of students continuing in the same major came from these fields: engineering (85.7 percent), education (72.4 percent), computer and information sciences (70.0 percent), and business (69.4 percent).

For those graduates employed full time, the relationship between their job and major varied. Those who said they were employed in the same field ranged from a high of 90.9 percent for health services technology graduates to lows of 22.4 percent for arts and sciences majors and 16.1 percent for general studies majors.

The average annual salary reported by graduates varied significantly by program (Table 7). Students who majored in the fields of business technology and data processing technology reported the highest average salaries. Some caution needs to be exercised in interpreting these figures, since the prior work experience of the respondents is unknown and would have considerable influence on postgraduation earning power.

Table 7. Average Annual Gross Salary by Program

Program	Salary
Arts and Sciences	\$38,003
Engineering	\$39,125
General Studies	\$38,242
Education	\$49,160
Business	\$41,347
Computer Info. Sci.	\$40,300
Business Tech	\$61,804
Data Proc. Tech	\$63,344
Health Tech	\$43,600
Mech. Eng. Tech	\$43,271
Science Tech	\$30,973
Public Svs. Tech.	\$37,878

Comparison by Gender

The post-graduation experiences of men and women community college students were highly consistent. Slightly more than half of both men and women were employed full time and about 30 percent of both genders were full time students at four-year institutions (Table 8).

Table 8. Status of Graduates by Gender

	Percent Employed FT	Percent Employed PT	Percent FT Student at 4-yr College	Percent PT Student at 4-yr College
Men	52.5	18.5	31.2	16.8
Women	55.4	23.3	29.7	14.3

Of the students who transferred to four-year institutions, 84 percent of both men and women rated their preparation for transfer as “good” or “very good”. Slightly less than half of each gender enrolled in the same major.

Of the students employed full-time, more women than men said that their job was related to their college major (49.6 percent vs. 41.2 percent). Also, a higher percentage of women than men rated their preparation for employment as “good” or “very good” (78.2 percent vs. 73.1 percent).

The reported average annual salary of men exceeded that of women who majored in the various transfer programs (Table 9). In the occupational programs, women had higher

average salaries in business technology and data processing technology, while men enjoyed greater earnings in health services technologies and public services technologies.

Table 9. Average Annual Gross Salary by Gender and Program

Program	Salary-Men	Salary-Women
Arts and Sciences	\$35,559	\$39,291
Engineering	*	*
General Studies	\$37,467	\$38,749
Education	*	\$49,160
Business	\$49,769	\$37,051
Computer Info. Sci.	*	*
Business Tech	\$47,179	\$66,832
Data Proc. Tech	\$44,459	\$74,811
Health Tech	\$50,107	\$41,627
Mech. Eng. Tech	*	*
Science Tech	*	*
Public Svs. Tech.	\$44,681	\$35,181

* data not presented for cells with number of respondents less than 10.

Minority/ Non-Minority Comparison

A slightly higher percentage of minority graduates were employed full time compared to non-minority students. A slightly lower percentage of minority graduates were full time students at a four-year institution (Table 10).

Table 10. Status of Graduates by Minority Status

	Percent Employed FT	Percent Employed PT	Percent FT Student at 4-yr College	Percent PT Student at 4-yr College
Minority	58.2	16.9	26.0	17.4
Non-Minority	53.3	23.6	31.3	14.3

Of students who transferred to four-year schools, the vast majority of minority students (86.0 percent) and non-minority students (84.1 percent) were of the opinion that their preparation for transfer was “good” or “very good”. In addition, about the same percentage of both groups were enrolled in the same major that they had at their community college.

Of the students employed full-time, fewer of the minority students felt that their jobs were related to their majors (41.9 percent vs. 48.8 percent). About three-fourths of each group thought that their preparation for employment was “good” or “very good”.

Average annual salary was higher for minority graduates compared to non-minority graduates in almost every program (Table 11).

Table 11. Average Annual Gross Salary by Minority Status and Program

Program	Salary-Minority	Salary-Non-Minority
Arts and Sciences	*	\$31,774
Engineering	*	*
General Studies	\$46,671	\$35,459
Education	*	*
Business	\$50,550	\$38,813
Computer Info. Sci.	*	*
Business Tech	\$75,093	\$56,460
Data Proc. Tech	\$98,188	\$49,190
Health Tech	\$38,772	\$45,242
Mech. Eng. Tech	*	\$45,771
Science Tech	*	*
Public Svs. Tech.	\$41,437	\$36,409

* data not presented for cells with number of respondents less than 10.

Trends in the Responses of Community College Graduates

This survey has been relatively consistent in content and format since 1990 and thus serves as a valuable resource for identifying longitudinal patterns in student outcomes. About a dozen items have appeared on the survey for more than 20 years, although there have been changes in the wording of the question or response categories in most of them. Highlights of these trends follow.

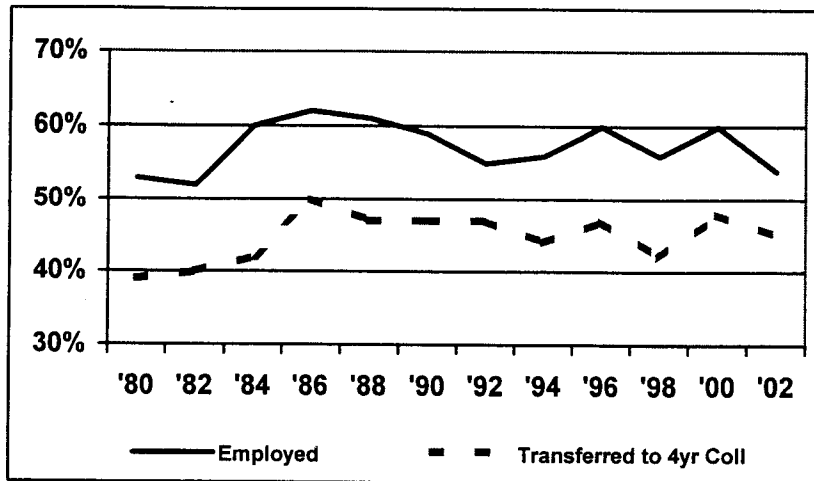
Throughout the years, Maryland's community colleges have continually received high marks from their graduates. Each year, the percentage of graduates who expressed satisfaction with the quality of their college or rated it as good or very good has exceeded 87 percent (Table 12). The overall quality rating has risen in the past three surveys from 87.4 percent to 91.4 percent.

Table 12. Percent of Graduates Rating Overall Quality of Community College Experience Highly

<i>"satisfied or extremely satisfied with quality of college"</i>	
1980	97.1 %
1982	98.0 %
1984	97.6 %
<i>"overall quality of college good or very good"</i>	
1986	91.0 %
1988	89.4 %
1990	89.8 %
1992	88.9 %
1994	87.7 %
1996	87.9 %
1998	87.4 %
2000	88.1 %
2002	91.4 %

The proportion of graduates who have transferred to four-year institutions versus those who have taken full time employment has varied. In 1980, 38.6 percent were enrolled in a transfer college or institution. This rose to a high of 50 percent in 1986, and then dropped slightly in subsequent years. The percent employed full time has ranged between 52.2 and 62.2 during the past two decades.

Figure 2. Employment/ Educational Status of Graduates



Students Who Transferred to Four-Year Institutions

Over the years, a strong majority of the community college graduates who transferred to four-year colleges or universities have been pleased with their preparation for transfer (Table 13). More than three-quarters of the graduates in each of the surveys rated their transfer preparation as “good” or “very good” or expressed satisfaction with it.

Table 13. Percent of Transfer Students Rating Transfer Preparation Highly

<i>“satisfied or extremely satisfied with transfer preparation”</i>	
1980	92.0%
1982	91.7%
1984	92.2%
<i>“transfer preparation good or very good”</i>	
1986	78.2%
1988	81.4%
1990	82.7%
1992	81.3%
1994	81.9%
1996	80.1%
1998	79.7%
2000	79.3%
2002	84.6%

There was a huge jump in the 2002 survey from previous years in the percentage of graduates who reported that all of their credits had transferred to their four-year institution. In 2002, 45.2 percent lost no credits; in previous years, less than 20 percent of the graduates had this experience. The proportion of graduates who lost more than six credits declined from 39.9 percent in 1996 to 22.9 percent in 2002.

Table 14. Percent Graduates Reporting Credits had Transferred

	all credits accepted	lost 1-6 credits	lost 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%

Students Employed Full-Time

Since 1980, at least 80 percent of community college graduates with full time employment one year after graduation held jobs in Maryland. A very high percentage of graduates reported being pleased with their preparation for employment. The percentage who rated the quality of their job preparation as “good” or “very good” has always exceeded 70 percent (Table 14).

Table 15. Percent of Graduates Employed Full-Time Rating Job Preparation Highly

“satisfied or extremely satisfied with employment preparation”	
1980	93.1%
1982	94.3%
1984	94.3%
“employment preparation good or very good”	
1986	78.9%
1988	77.9%
1990	80.0%
1992	78.0%
1994	77.2%
1996	75.1%
1998	74.6%
2000	73.9%
2002	76.5%

Since 1980, the percent of employed graduates whose job was in the same or a related field as their major has remained high, never dropping below 76.5 percent.

The average annual gross salary reported by fully-employed community college graduates has risen steadily over the past twenty years—from \$15,701 in 1982 to \$45,775 in 2002.

Figure 3. Average Annual Gross Salary of Community College Graduates

