



**DISTANCE EDUCATION
AT MARYLAND COLLEGES AND UNIVERSITIES
CALENDAR YEAR 2011**

December 2012

Maryland Higher Education Commission

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INTRODUCTION

Maryland's postsecondary colleges and universities serve more than 370,000 students and enrollments are expected to increase in the coming years. To support the educational needs of an increasingly diverse student body, the *2009 Maryland State Plan for Postsecondary Education* recommends that distance learning be considered as an integral strategy for expanding program offerings to more Maryland residents.

MHEC has been examining trends in distance learning since 1997. This report analyzes data from Calendar Year 2011, but also highlights changes in DE activities since Calendar Year 2008. Data included in this report are derived from MHEC's 2011 Distance Education Survey and from MHEC's 2008 Distance Education Survey and Report.

Survey and Methods

The Distance Education (DE) Survey was created to inform the Maryland Higher Education Commission (MHEC) of postsecondary institutions' progress toward enhancing electronically delivered instruction on their campuses. In fall 2006, the DE Survey was redesigned to align it with the data requirements of the Southern Regional Education Board's (SREB) annual survey and to reduce duplicative reporting requirements for institutions. The Distance Education Survey for calendar year 2011 included five mandatory questions and two follow-up questions. Institutions were asked to fill in tables regarding duplicated and unduplicated DE courses, sections, credit hours, and enrollment. The tables disaggregated the data by student level, term, and type of delivery. Finally, the survey asked institutions to list, if any, the programs they offer entirely online. Each table in the survey roughly corresponds to a section in the Detailed Survey Findings chapter of this report. Fifty-seven institutions, including community colleges, public four-year institutions, and independent institutions in the State of Maryland responded to survey sent out in spring 2012, which asked about courses taught during the 2011 calendar year. A listing of the institutions that participated in the DE Survey appears in Appendix A.

Background and Definitions

Distance education (DE) aims to deliver instruction to students who are not physically present in the same location as the course instructor. The Maryland Higher Education Commission (MHEC) defines distance education courses as classes in which at least 50% of the course instruction/interaction was conducted via distance learning technologies. Technology is the primary mode of instruction/interaction in DE. Comparatively, traditional courses have more than 50% of their instruction/interaction in a traditional classroom or face-to-face setting, with specified meeting times and standard locations. DE courses are not web-enhanced courses, which are defined as those that have standard meeting places/times but include an electronic component, such as electronic delivery of homework assignments. Web-enhanced courses may also allow e-mail exchanges between instructors and students using Learning Management System (LMS) solutions such as WebCT or Blackboard. In addition, DE courses do not include traditional correspondence courses.

There are three types of DE delivery methods defined in the 2011 MHEC Survey: (1) Online & Blended Hybrid; (2) Site-to-Site, 2-way Audio/Video; and (3) all other technology-mediated distance education. Online courses are delivered via the internet while Blended Hybrid courses include scheduled face-to-face sessions, although less than 50% of the scheduled interaction occurs in this manner. Site-to-Site, 2-way Audio/Video courses are delivered at special facilities that allow students to connect to remote classrooms via transmission equipment. Other technology-mediated DE methods include courses taught by closed-circuit, broadcast radio, and tele-courses (both live and pre-recorded).

All community colleges, public four-year institutions, and independent institutions were asked to complete the Maryland Higher Education Commission's DE Survey as a part of the Maryland Annual Collection process. The DE Survey covers four topic areas: (1) unduplicated course counts; (2) duplicated distance courses, sections, and enrollments; (3) calendar year student credit hours; and (4) unduplicated student headcount enrollments. Unduplicated course counts tabulate each unique course title only once for 2011, even if the same title was offered in multiple semesters during the reporting period or via multiple distance delivery methods. Duplicated counts of courses, sections, and enrollments include all such instances, even if the same course or student is counted multiple times during the same term or year. Calendar year credit hours count the number of credit hours earned from January through December of 2011.

In this report, "enrollment" (or headcount) represents the number of students who register for course sections. This is a duplicated headcount, meaning students who register for multiple courses during the same semester or during the same calendar year will be counted more than once. For example, a student who enrolls in five DE courses may count as five DE enrollments. In this report, "unduplicated student headcount" counts each student only once during the specified time period, regardless of how many distance education courses he or she took. Alternatively, duplicated student headcounts count course registrations, and so may count the same student multiple times. Enrollment is reported by student level, and not the level of the course for which the student was enrolled. For example, a graduate student enrolled in an undergraduate course is reported as a graduate student, even if the student only enrolled in undergraduate courses during 2011. Only courses that were offered *and* taught (i.e. not canceled before they begin) are included in this report. If a course had multiple sections, some of which were offered DE and some of which were the traditional face-to-face format, only the DE sections are included in the analysis of DE sections.

Statistics for the University of Maryland, University College (UMUC) are often listed separately from other public four-year institutions. UMUC is an outlier in that nearly all of its students enroll exclusively in DE courses. When analyzing the total number of unduplicated DE courses taught, this analysis replaces Montgomery College's 2008 calendar year data with data from the 2009 calendar year. This is due to what appears to be a one-year statistical aberration in Montgomery College's survey response for 2008.

Summary of Key Findings

Access and Enrollment

DE course offerings and DE enrollment grew rapidly between 2008 and 2011. Of the 57 institutions responding to the survey, 43 (75%) offered DE courses. Among public four-year institutions, St. Mary's College of Maryland is the only institution that did not offer any DE courses. An examination of the number of DE courses offered during calendar years 2008 and 2011 indicates growth in DE access and enrollment. Total enrollments in DE courses grew from 284,030 in 2008 to 442,105 in 2011, a 56% increase. In 2008, 11% of undergraduates and 26% of graduate students were enrolled exclusively in courses delivered via DE. By 2011, these percentages had increased to 13% and 29%, respectively.

UMUC is an Outlier

While most institutions have adopted DE, none offer as many DE courses as the University of Maryland, University College. UMUC is an outlier in distance education. Of all credits earned at UMUC in 2011, 91% of undergraduate credits and 98% of graduate credits were DE. Ninety-five percent of undergraduates and 99% of graduate students enrolled in at least one DE course at UMUC. Among other public four-year institutions, 22% of undergraduates and 20% of graduate students enrolled in at least one DE course.

Variation Across Segments and Student Level

DE is not monolithic; there is variation in DE offerings and enrollments across segments and student level. Delivery method and the percentage of students who enroll in distance education courses differ from segment to segment. Among undergraduates, 29% of community college students, 21% of public four-year (non-UMUC) students, and 10% of independent college students enrolled in at least one DE course. Fifteen percent of earned credit hours at community colleges were DE in 2011. Among public four-year institutions (excluding UMUC), five percent of undergraduate earned credit hours were DE. Among independent colleges, that figure was two percent. Approximately 99% of all undergraduate DE courses in the public sector were Online & Blended Hybrid. Eighty-five percent of undergraduate DE courses at independent institutions were Online & Blended Hybrid, while another 15% were Site-to-Site.

There was also variation between undergraduate and graduate DE students. Graduate students were more likely than undergraduates to enroll in one or more DE courses. Graduates were also more likely to take course loads that were entirely DE. In other words, graduates were less likely to enroll in at least one traditional course at some point during the year.

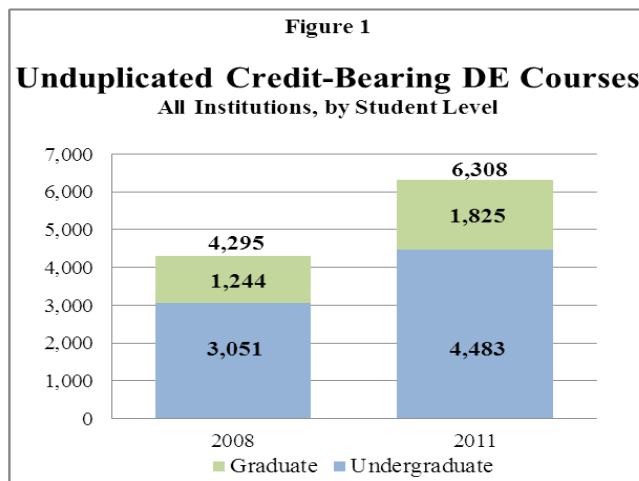
It is unclear whether these differences in DE enrollment across segment and student level were the result of student demographics; peculiarities unique to certain institutions, segments, or student level; or some other variable or variables. It is equally unclear what, if any, impact these differences will have on higher education in Maryland. The causes and effects of these variations may become more evident as DE continues to grow.

DETAILED SURVEY FINDINGS

The findings from MHEC’s Distance Education (DE) Survey are presented in the following four sections: (1) unduplicated course counts; (2) distance courses, sections, and enrollments; (3) calendar year student credit hours; and (4) unduplicated student headcount enrollments.

I. Unduplicated Course Count

In 2011, Maryland colleges and universities offered 6,308 unduplicated DE credit-bearing courses, an increase of 47% over 2008, as shown in Figure 1. The number of DE courses offered at both the undergraduate and graduate levels increased by 47%. Seventy-one percent (or 4,483 courses) of the 6,308 DE credit courses offered at Maryland colleges and universities in 2011 were at the undergraduate level.



As shown in Figure 2, both graduate and undergraduate levels in every segment increased the number of DE courses taught from 2008 to 2011. The public segments – community colleges, public four-year undergraduates, and public four-year graduates – offered more DE courses than independent institutions and added more over the three years. At 2,606, community colleges offered the most DE courses in 2011, and added the most courses (715). The next largest increase was among public four-year undergraduate DE courses, which increased by 548. However, independent institutions grew faster than public segments during the three-year period. This may be due to the overall smaller size of the independent segment when compared to the size of the public institutions. Independent undergraduate courses increased by 94% and graduate courses increased by 80%. DE courses at community colleges grew by 38%, while undergraduate and graduate courses at public four-year institutions increased by 56% and 33%, respectively.

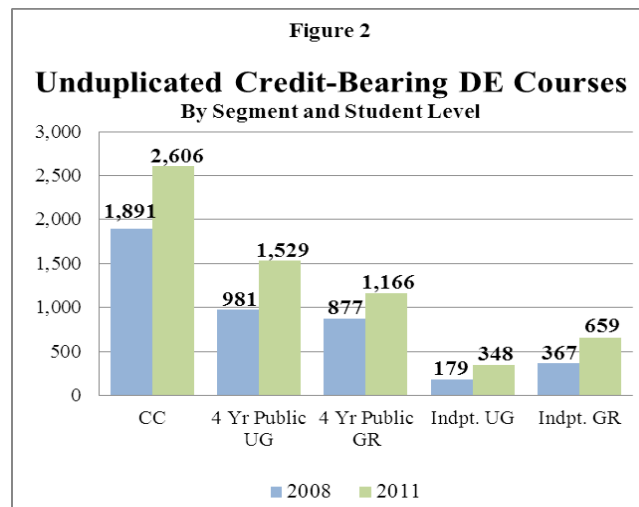
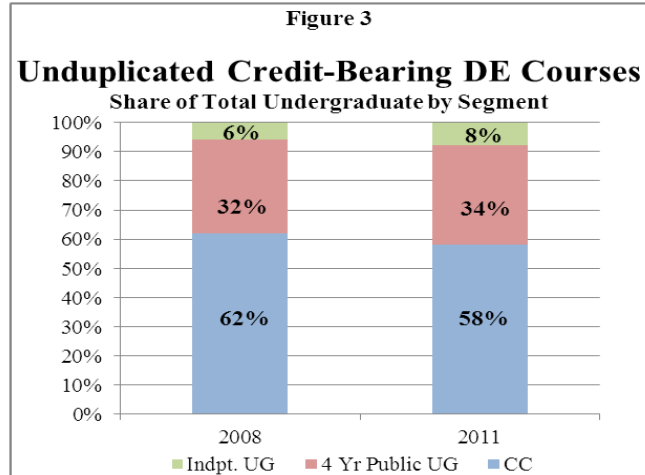


Figure 3 shows that community colleges offered a smaller share of total undergraduate DE credit courses in 2011 compared to 2008. In 2011, the percentage of all undergraduate DE courses offered at the community colleges was 58% (down from 62%), while public four-year institutions offered 34% of the total (up from 32%), and independent institutions taught eight percent (up from six percent). The total number of DE graduate courses increased from 1,244 to 1,825 over the three-year period.



Community Colleges

The unduplicated number of unique DE courses offered by community colleges during the 2008 and 2011 calendar years is shown in Table 1. Between 2008 and 2011, the number of undergraduate DE credit courses offered by the community colleges increased by 38%, or 715 courses. Frederick Community College grew the most over this time period, increasing its number of DE courses by 128%. Anne Arundel taught more DE credit courses (396) than any other community college in 2011.

Table 1: Unduplicated Distance Education Credit-Bearing Courses at Community Colleges, 2008-2011			
Community Colleges	2008	2011	% Change 2008-2011
	UG	UG	UG
Allegany	46	93	102%
Anne Arundel	246	396	61%
BCCC	144	156	8%
Carroll	79	98	24%
Cecil	79	83	5%
Chesapeake	55	71	29%
College of Southern Maryland	218	276	27%
CCBC	183	250	37%
Frederick	115	262	128%
Garrett	36	38	6%
Hagerstown	61	87	43%
Harford	85	137	61%
Howard	110	135	23%
Montgomery-All Campuses	202	260	29%
Prince George's	176	201	14%
Wor-Wic	56	63	13%
Total	1,891	2,606	38%

Public Four-Year Institutions

The unduplicated number of unique DE courses at public four-year institutions is presented in Table 2. The number of DE graduate courses offered at the public four-year institutions increased from 877 to 1,166. Only two public four-year institutions reported a decrease in the number of DE graduate courses, and neither dropped more than eight courses. From 2008 to 2011, the number of undergraduate DE credit courses offered by the public four-year institutions increased by 548 courses, or 56%. The University of Maryland, University College (UMUC) offered a total of 915 unduplicated, DE credit-bearing courses – 641 on the undergraduate level and 274 on the graduate level. UMUC accounted for 34% of all DE courses at public four-year institutions. Among the other public four-year institutions, the largest number of DE courses were offered by the University of Maryland-College Park (407) and Towson University (295).

Public Four-Year Institutions	2008			2011			% Change 2008-2011		
	UG	GR	Total	UG	GR	Total	UG	GR	Total
Bowie	24	5	29	62	21	83	158%	320%	186%
Coppin	60	29	89	65	21	86	8%	-28%	-3%
Frostburg	93	53	146	130	55	185	40%	4%	27%
Morgan	3	1	4	31	23	54	933%	2,200%	1,250%
Salisbury	83	32	115	67	109	176	-19%	241%	53%
St. Mary's	0	0	0	0	0	0	0%	0%	0%
Towson	73	81	154	154	141	295	111%	74%	92%
UB	33	54	87	49	57	106	48%	6%	22%
UMB	39	78	117	49	107	156	26%	37%	33%
UMBC	10	47	57	91	93	184	810%	98%	223%
UMCP	61	232	293	146	261	407	139%	13%	39%
UMES	35	6	41	44	4	48	26%	-33%	17%
UMUC	467	259	726	641	274	915	37%	6%	26%
Total	981	877	1,858	1,529	1,166	2,695	56%	33%	45%

Independents

Table 3 presents the unduplicated number of DE courses offered at independent institutions during the 2008 and 2011 calendar years. The number of undergraduate DE credit courses offered at independent colleges and universities nearly doubled between 2008 and 2011, from 179 to 348. At independent institutions, the number of DE graduate courses offered increased from 367 to 659, or 80%, since 2008. Johns Hopkins University, Stevenson University, and Capitol College accounted for 57% of the courses offered by the independent segment.

Table 3: Unduplicated Distance Education Credit-Bearing Courses at Independent Institutions, 2008 and 2011

Institutions	2008			2011			% Change 2008-2011		
	UG	GR	Total	UG	GR	Total	UG	GR	Total
Baltimore Hebrew**	0	3	3	*	*	*	N/A	N/A	N/A
Baltimore International**	0	3	3	*	*	*	N/A	N/A	N/A
Capitol	26	62	88	50	55	105	92%	-11%	19%
Notre Dame of Maryland	11	22	33	12	47	59	9%	114%	79%
Columbia Union	5	0	5	*	*	*	N/A	N/A	N/A
Goucher	0	40	40	0	83	83	0%	108%	108%
Hood	2	1	3	1	0	1	-50%	-100%	-67%
ITT Technical Institute	11	0	11	18	0	18	64%	0%	64%
Johns Hopkins	12	146	158	19	293	312	58%	101%	97%
Maryland Institute College of Art	0	4	4	1	16	17	N/A	300%	325%
McDaniel	1	28	29	1	55	56	0%	96%	93%
Mount St. Mary's	18	4	22	26	3	29	44%	-25%	32%
National Labor	37	0	37	47	0	47	27%	0%	27%
SANS Technology Institute	0	17	17	0	15	15	0%	-12%	-12%
Sojourner-Douglass	*	*	*	33	0	33	N/A	N/A	N/A
Stevenson	41	36	77	95	59	154	132%	64%	100%
Washington Adventist	*	*	*	22	27	49	N/A	N/A	N/A
Washington Bible	15	1	16	23	6	29	53%	500%	81%
Total	179	367	546	348	659	1,007	94%	80%	84%

* Data not available
**Baltimore Hebrew and Baltimore International participated in the 2008 survey but are no longer independent institutions

II. Duplicated Counts: Courses, Sections, & Enrollments

Courses (by term)

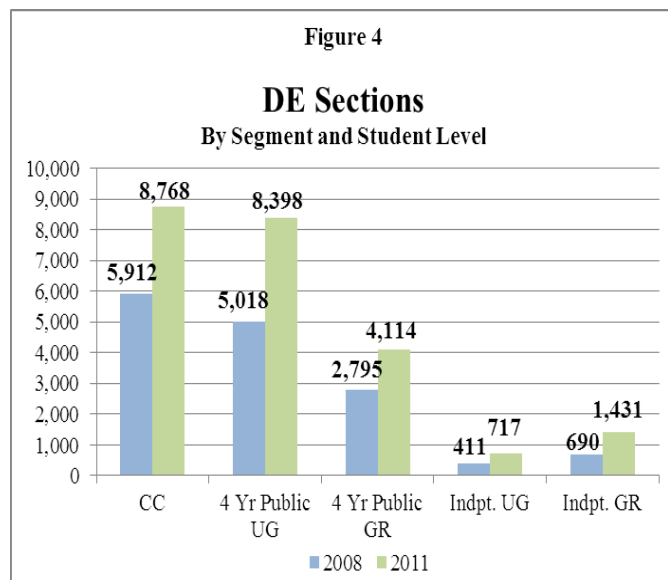
Table 4 contains the distribution of course title offerings, by term, of all courses where at least one section was offered as DE. Some of these courses had all sections taught via DE while some of these courses had only some sections that were DE. If the same course was taught in multiple terms, it is counted in each term it was offered. At the undergraduate and graduate levels, Spring and Fall had the most DE courses (each semester comprised over one third of year-round unique DE courses). The Winter term had the fewest number of DE courses. The Winter term typically has fewer traditional courses than other terms. UMUC does not have a Winter term, which may further contribute to the relatively small number of Winter DE course offerings.

Table 4: Distribution of Credit-Bearing DE Courses, by Term and Course Level, 2011				
	Winter	Spring	Summer	Fall
Undergraduate Courses				
Community Colleges	3%	39%	21%	38%
All 4-Yr Publics	8%	31%	31%	29%
UMUC	--	37%	30%	33%
Other 4-Yr Publics	16%	25%	33%	26%
Independents	6%	35%	22%	37%
Undergraduate Total	5%	35%	24%	35%
Graduate Courses				
All 4-Yr Publics	3%	35%	26%	36%
UMUC	--	34%	30%	35%
Other 4-Yr Publics	5%	35%	24%	36%
Independents	1%	36%	23%	39%
Graduate Total	3%	35%	25%	37%

Note: Percentages may not add to 100% due to rounding.

Sections

The growth in DE sections by segment and level is shown in Figure 4. There were 23,428 DE sections offered by Maryland colleges and universities in 2011, an increase of 8,602 sections, or 58%, since 2008. The largest increases were at public four-year undergraduates and community colleges, which grew by 3,380 and 2,856 sections, respectively. Seventy-six percent of all DE credit course sections were offered at the undergraduate level. Since 2008, the number of undergraduate sections offered has increased by 6,240 sections. In 2011, community colleges offered 8,768 DE sections, or 37% of all DE sections offered at Maryland universities and colleges. Public four-year institutions were responsible for 53% of all DE sections offered statewide. In 2011, Maryland colleges and universities offered 5,545 credit-bearing sections at the graduate level, an increase of 59% since 2008.



Community Colleges. Table 5 reports the number of community college DE sections in which at least one student. Overall, community colleges added nearly 3,000 DE sections since 2008, an increase of 48%. Allegany and Wor-Wic were the only community colleges to experience declines in the number of DE course sections. Anne Arundel added the most DE sections, growing by 715. The next biggest increase was at Montgomery (465), which nearly doubled its offerings. Only Harford grew at a faster rate than Montgomery, by increasing its DE sections 109%.

Community Colleges	2008	2011	% Change 2008 to 2011
	UG	UG	UG
Allegany	478	340	-29%
Anne Arundel	1,087	1,802	66%
Baltimore City	391	485	24%
Carroll	163	255	56%
Cecil	155	227	46%
Chesapeake	134	187	40%
College of Southern Maryland	723	1,073	48%
CCBC	668	1,041	56%
Frederick	278	345	24%
Garrett	69	71	3%
Hagerstown	166	279	68%
Harford	217	453	109%
Howard	256	412	61%
Montgomery -All Campuses	504	969	92%
Prince George's	505	717	42%
Wor-Wic	118	112	-5%
Total	5,912	8,768	48%

Public Four-Year Institutions. The number of DE sections in which at least one student enrolled in 2008 and 2011 at a public four-year institution is presented in Table 6. Overall, DE sections rose by 67% at the undergraduate level and 47% at the graduate level. Among public four-year institutions, 70% of all DE sections were offered by the University of Maryland, University College. Towson University offered the second-most number of DE sections, accounting for five percent of all DE sections at public four-year institutions. UMUC also grew by the most number of sections (2,901). The fastest growth rate was at Morgan State, which increased from four DE sections to 124. The University of Maryland, Eastern Shore was the only institution to experience a decline in any level: its graduate DE sections dropped from five to four.

Public Four-Year Institutions	2008			2011			% Change 2008 to 2011		
	UG	GR	Total	UG	GR	Total	UG	GR	Total
Bowie	31	7	38	127	26	153	310%	271%	303%
Coppin	81	30	111	180	40	220	122%	33%	98%
Frostburg	208	85	293	332	119	451	60%	40%	54%
Morgan State	3	1	4	58	66	124	1,833%	6,500%	3,000%
Salisbury	210	70	280	358	172	530	70%	146%	89%
St. Mary's	0	0	0	0	0	0	0%	0%	0%
Towson	207	112	319	437	235	672	111%	110%	111%
UB	97	103	200	150	105	255	55%	2%	28%
UMES	47	5	52	100	4	104	113%	-20%	100%
UMB	91	142	233	91	215	306	0%	51%	31%
UMBC	16	88	104	246	189	435	1,438%	115%	318%
UMCP	68	280	348	214	316	530	215%	13%	52%
UMUC	3,959	1,872	5,831	6,105	2,627	8,732	54%	40%	50%
Total	5,018	2,795	7,813	8,398	4,114	12,512	67%	47%	60%

Independents. The number of independent segment DE sections in which at least one student enrolled in 2008 and 2011 is shown in Table 7. The independent segment grew by 74% at the undergraduate level. Graduate DE sections more than doubled, from 690 to 1,431. Johns Hopkins offered the most amount of DE sections at the graduate level and overall (595 and 641, respectively). Stevenson University offered the most undergraduate DE sections (233). Stevenson also experienced the highest growth rate among undergraduate sections, at 165%. McDaniel College had the highest overall growth rate, nearly tripling from 49 to 146 DE sections.

Table 7: Distance Education Course Sections, by Level, 2008 and 2011

Independent Institutions	2008			2011			% Change 2008 to 2011		
	UG	GR	Total	UG	GR	Total	UG	GR	Total
Baltimore Hebrew**	0	0	0	*	*	*	N/A	N/A	N/A
Baltimore International**	0	3	3	*	*	*	N/A	N/A	N/A
Capitol	38	148	186	87	187	274	129%	26%	47%
Columbia Union	6	0	6	*	*	*	N/A	N/A	N/A
Goucher	0	145	145	0	186	186	0%	28%	28%
Hood	2	1	3	1	0	1	-50%	-100%	-67%
ITT Technical Institute	32	0	32	54	0	54	69%	N/A	69%
Johns Hopkins	24	247	271	46	595	641	92%	141%	137%
Maryland Institute College of Art	0	0	0	1	16	17	--	--	--
McDaniel	1	48	49	1	145	146	0%	202%	198%
Mount St. Mary's	33	4	37	52	3	55	58%	-25%	49%
National Labor	58	0	58	93	0	93	60%	0%	60%
Notre Dame of Maryland	13	35	48	18	97	115	38%	177%	140%
SANS Technology Institute	0	0	0	0	33	33	0%	--	--
Sojourner-Douglass	*	*	*	183	0	183	N/A	N/A	N/A
Stevenson	88	58	146	233	128	361	165%	121%	147%
Washington Adventist	*	*	*	34	33	67	N/A	N/A	N/A
Washington Bible	116	1	117	131	8	139	13%	700%	19%
Total	411	690	1,101	717	1,431	2,148	74%	107%	95%

* Data not available
 **Baltimore Hebrew and Baltimore International participated in the 2008 survey but are no longer independent institutions

Sections per DE Course. Table 8 includes data on the average number of sections run per credit-bearing DE course. Students had, on average, more options in the Spring and Fall terms – public institutions (and the statewide aggregate) tended to offer more sections per DE course during those terms. On the other hand, independent institutions offered the most sections per DE courses in the Winter term. On average, most Maryland colleges and universities offered fewer than two sections per DE course in 2011. As was the case with other survey findings, UMUC was an exception to this rule. UMUC offered an average of 4.2 sections per undergraduate course and 3.7 sections per graduate courses.

Table 8: Average Number of Sections Per DE Credit Course by Course Level, Segment, and Term 2011

	Winter	Spring	Summer	Fall	Calendar Year
Undergraduate Courses					
Community Colleges	1.4	1.8	1.6	1.8	1.7
All 4-Yr Publics	1.2	3.2	1.8	3.7	2.8
UMUC	--	4.4	2.5	5.4	4.2
Other 4-Yr Publics	1.2	1.6	1.2	1.7	1.4
Independents	1.9	1.4	1.1	1.5	1.4
Undergraduate Total	1.3	2.2	1.7	2.3	2.1
Graduate Courses					
All 4-Yr Publics	1.4	2.6	2.1	2.4	2.3
UMUC	--	4.1	3.0	3.7	3.7
Other 4-Yr Publics	1.4	1.5	1.3	1.5	1.4
Independents	1.4	1.3	1.2	1.3	1.3
Graduate Total	1.4	2.1	1.8	2.0	2.0

Enrollments

In 2011, Maryland colleges and universities experienced 442,105 duplicated enrollments in DE credit courses, a 56% increase over the 284,030 DE enrollments in 2008, as shown in Figure 5. Unlike unduplicated headcounts, duplicated headcounts count a student who enrolls in two DE courses during 2011 as two separate DE enrollments. Eighty percent of all DE credit course duplicated enrollments (or 355,115 registrations) were at the undergraduate level. Twenty percent of all DE enrollments in credit courses, or 86,990 registrations, were at the graduate level.

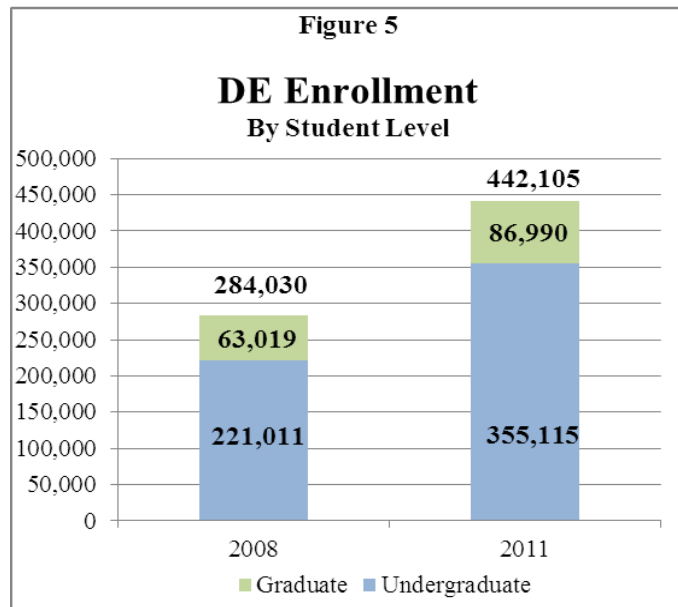


Figure 6 presents DE enrollment by segment and student level. Public four-year institutions at the undergraduate level added the most DE enrollments from 2008 to 2011, an increase of 73,929 enrollments. Independent undergraduate enrollment more than tripled, from 2,791 to 9,116, but the independent segment had the smallest number of DE enrollments in both years.

Community Colleges. Table 9 contains individual course registrations by public institution and course level. Community colleges were responsible for more than 41% of the undergraduate DE credit course enrollments. The campuses with the largest number of DE credit course enrollments were Anne Arundel Community College (25,779), the Community College of Baltimore County (19,641), and the College of Southern Maryland (18,530). This order is unchanged from 2008.

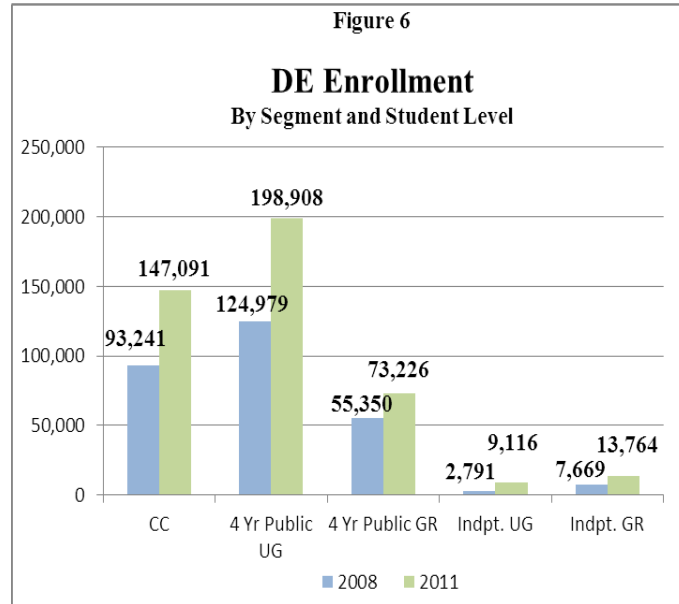


Table 9: Duplicated Enrollments in Distance Education Credit Courses at Community Colleges, by Course Level, 2008 and 2011			
	2008	2011	% Change 2008 to 2011
	UG	UG	UG
Community Colleges			
Allegany	2,347	2,913	24%
Anne Arundel	16,248	25,779	59%
Baltimore City	7,580	9,404	24%
Carroll	2,238	3,254	45%
Cecil	1,550	2,570	66%
Chesapeake	2,121	3,518	66%
College of Southern Maryland	11,667	18,530	59%
CCBC	12,037	19,641	63%
Frederick	4,446	5,635	27%
Garrett	664	886	33%
Hagerstown	2,616	4,701	80%
Harford	4,859	9,989	106%
Howard	3,537	6,454	82%
Montgomery-All Campuses	9,706	16,912	74%
Prince George's	9,268	13,985	51%
Wor-Wic	2,357	2,920	24%
Total	93,241	147,091	58%

Public Four-Year Institutions. Individual course registrations by course level at public four-year institutions is reported in Table 10. Public four-year institutions accounted for 56% of all undergraduate DE credit course enrollments and 84% of graduate DE enrollments. Public four-year institutions generated 62% of all DE (undergraduate and graduate) credit course enrollments. Again, UMUC had the most DE enrollments among public four-year institutions, accounting for 75% of all undergraduate DE enrollments in its sector.

**Table 10: Duplicated Enrollments in Distance Education Credit Courses
by at Public Four-Year Institutions, by Course Level, 2008 and 2011**

	2008			2011			% Change 2008 to 2011		
	UG	GR	Total	UG	GR	Total	UG	GR	Total
Public Four-Year Institutions									
Bowie	804	72	876	3,337	221	3,558	315%	207%	306%
Coppin	1,690	187	1,877	3,534	276	3,810	109%	48%	103%
Frostburg	3,310	1,092	4,402	4,867	1,625	6,492	47%	49%	47%
Morgan	42	7	49	743	661	1,404	1,669%	9,343%	2,765%
Salisbury	4,003	558	4,561	6,837	1,833	8,670	71%	228%	90%
St. Mary's	0	0	0	0	0	0	0%	0%	0%
Towson	4,108	1,180	5,288	8,915	2,690	11,605	117%	128%	119%
UB	2,668	2,429	5,097	4,236	2,874	7,110	59%	18%	39%
UMB	1,906	2,942	4,848	2,045	7,585	9,630	7%	158%	99%
UMBC	310	1,183	1,493	7,300	2,342	9,642	2,255%	98%	546%
UMCP	1,545	1,671	3,216	5,230	2,290	7,520	239%	37%	134%
UMES	750	41	791	2,023	55	2,078	170%	34%	163%
UMUC	103,843	43,988	147,831	149,841	50,774	200,615	44%	15%	36%
Total	124,979	55,350	180,329	198,908	73,226	272,134	59%	32%	51%

Independents. Table 11 contains individual course enrollments by institution and course level. DE enrollments grew by 119% from 2008 to 2011 among independent institutions. Johns Hopkins University led the way among independent colleges – enrolling the most DE graduate students and representing 33% of total DE enrollments among independent institutions. Stevenson University was responsible for the largest share (37%) of undergraduate DE credit course enrollments at independent institutions.

**Table 11: Duplicated Enrollments in Distance Education Credit
at Independent Institutions, by Course Level, 2008 and 2011**

	2008			2011			% Change 2008 to 2011		
	UG	GR	Total	UG	GR	Total	UG	GR	Total
Independent Institutions									
Baltimore Hebrew	0	10	10	*	*	*	N/A	N/A	N/A
Baltimore Int'l	0	13	13	*	*	*	N/A	N/A	N/A
Capitol	335	2,006	2,341	927	2,047	2,974	177%	2%	27%
Columbia Union	119	0	119	*	*	*	N/A	N/A	N/A
Goucher	0	463	463	0	929	929	0%	101%	101%
Hood College	7	45	52	5	0	5	-29%	-100%	-90%
ITT Technical Institute	120	0	120	188	0	188	57%	0%	57%
Johns Hopkins University	324	3,582	3,906	568	6,997	7,565	75%	95%	94%
Maryland Institute College of Art	0	0	0	10	231	241	--	--	--
McDaniel	5	586	591	16	1,084	1,100	220%	85%	86%
Mount St. Mary's	176	27	203	278	21	299	58%	-22%	47%
National Labor	501	0	501	1,232	0	1,232	146%	0%	146%
Notre Dame of Maryland	204	287	491	365	643	1,008	79%	124%	105%
SANS Technology Institute	0	11	11	0	39	39	0%	255%	255%
Sojourner-Douglass	*	*	*	1,704	0	1,704	N/A	N/A	N/A
Stevenson	731	632	1,363	3,336	1,517	4,853	356%	140%	256%
Washington Adventist	*	*	*	231	166	397	N/A	N/A	N/A
Washington Bible	269	7	276	256	90	346	-5%	1,186%	25%
Total	2,791	7,669	10,460	9,116	13,764	22,880	227%	79%	119%

* Data not available

**Baltimore Hebrew and Baltimore International participated in the 2008 survey but are no longer independent institutions

Class Sizes. The average class size for DE credit courses, by postsecondary segment, is presented in Table 12. Average class size was calculated by dividing the number of credit course enrollments by the number of credit-bearing DE sections. In 2011, the average undergraduate DE class size for all higher education segments was 19.6 students – a small increase from 19.5 in 2008. Smaller classes were found at independent institutions and community colleges, and larger classes were offered by public four-year institutions. At both the undergraduate and graduate course levels, UMUC averaged larger DE class sizes than the mean DE course at other Maryland colleges and universities over the course of the year.

Table 12: Average Class Size of Distance Education Credit Courses, by Course Level and Institution Type, 2011					
	Calendar Year	Winter	Spring	Summer	Fall
Undergraduate Courses					
Community Colleges	16.8	16.6	16.7	15.7	17.5
All 4-Yr Publics	23.7	17.7	22.8	21.6	26.1
UMUC	24.5	--	22.6	24.2	26.4
Other 4-Yr Publics	21.4	17.7	23.5	17.2	24.9
Independents	9.8	9.9	9.6	7.6	10.9
Undergraduate Total	19.6	16.3	19.1	18.2	21.2
Graduate Courses					
All 4-Yr Publics	17.8	8.5	18.9	15.5	18.7
UMUC	19.3	--	20.1	17.4	19.9
Other 4-Yr Publics	15.1	8.5	16.6	11.5	16.6
Independents	9.6	3.0	9.4	10.7	9.4
Graduate Total	15.7	7.2	16.5	14.3	16.1

III. Unduplicated Student Headcount

Table 13 reports unduplicated headcount percentages by course type. The percentages in the Traditional Only column refer to the percentage of students who exclusively enrolled in traditional, classroom-based courses for the course level and institution type specified. This column also includes correspondence students. The percentages reported in the Distance Only column refer to students who exclusively enrolled in courses where at least 50% of the instruction/interaction was technology mediated/electronically delivered. These students did not enroll in any Traditional Only courses unless those courses were cancelled. The percentages reported in the Traditional & Distance Mixed column reflect those students who enrolled in at least one Traditional Only course as well as at least one DE course.

The majority of students in all segments were Traditional Only students. However, at UMUC, five percent of undergraduates and one percent of graduate students were Traditional Only. Overall, undergraduate students were also more likely to enroll in Traditional & Distance Mixed than in Distance Only. At the graduate level, students were more likely to enroll in Distance Only than in a mixed course load. Students at independent institutions were more likely to enroll in Traditional Only than students at community colleges or public four-year institutions.

Table 13: Percent of Unduplicated Students Enrolled in Traditional, Distance and Mixed Courses, by Student Level and Course Type, 2011			
	Traditional Only	Distance Only	Traditional & Distance Mixed
Undergraduate			
Community Colleges	71%	8%	21%
All Public Four-Years	58%	24%	18%
UMUC	5%	83%	12%
Other Public Four-Years	78%	1%	20%
Independents	90%	3%	7%
Undergraduate Total	68%	13%	19%
Graduate			
All Public Four-Years	51%	39%	9%
UMUC	1%	96%	3%
Other Public Four-Years	80%	7%	13%
Independents	81%	16%	3%
Graduate Total	65%	29%	7%

Note: Percentages may not add to 100% due to rounding.

Statewide, 32% of undergraduates at all Maryland colleges and universities enrolled in at least one DE course in 2011, whether they took Distance Only or Traditional & Distance Mixed course loads. Excluding UMUC, 78% of undergraduates at public four-year institutions were Traditional Only and one percent were Distance Only. Undergraduates in the public segments were more likely than undergraduates in the independent segment to take mixed-type course loads. Twenty-nine percent of undergraduates attending community colleges and 42% of undergraduates at public four-year institutions enrolled in at least one DE course. Ten percent of undergraduates at independent institutions enrolled in at least one DE course, with most of those enrolling in a mix of course types. At the graduate level, over one-third (35%) of Maryland students enrolled in at least one DE course. This percentage includes 20% of graduate students attending public four-year institutions other than UMUC, and 19% of graduate students at independent institutions. By contrast, 99% of UMUC graduate students enrolled in at least one DE course, and 96% took only DE courses.

The percentage of students enrolled in at least one DE course by institution type is shown in Table 14. This includes students who were Distance Only as well as students who were Traditional and Distance Mixed students. Students were counted only once for each term and only once for the year. In other words, if a student took DE courses in multiple terms, he or she would only be counted once in the year-round total. For both undergraduate and graduate students, summer was the most popular time to take a DE course. The large percentages of students enrolled during the summer may have been due to many students being physically away from their home campus.

Table 14: Percent of Students Enrolled in at Least One DE Course by Student Level, Term and Segment, 2011					
	Winter	Spring	Summer	Fall	Calendar Year Unduplicated
Undergraduate					
Community Colleges	31.9%	24.5%	28.2%	24.4%	28.5%
All Public Four-Years	27.1%	31.6%	48.9%	30.7%	42.0%
UMUC	--	94.9%	94.4%	99.0%	95.3%
Other Four-Years	27.1%	13.3%	22.7%	12.2%	21.5%
Independents	4.7%	10.0%	12.8%	11.1%	10.1%
Undergraduate Total	23.7%	26.3%	34.4%	26.1%	31.6%
Graduate					
All Public Four-Years	18.5%	44.0%	61.0%	43.0%	48.6%
UMUC	--	99.2%	99.4%	99.2%	98.9%
Other Four-Years	18.5%	14.5%	24.4%	14.1%	19.7%
Independents	9.8%	18.5%	17.4%	20.0%	18.8%
Graduate Total	16.5%	39.9%	51.5%	39.3%	35.4%

IV. Student Credit Hours

Table 15 reports the total number of credit hour registrations for DE courses at the undergraduate and graduate levels, regardless of the level of the student. Only hours for courses that were offered and completed (i.e., not cancelled) are reflected in the totals. Credit-bearing DE courses accounted for 1,324,494 credit hours of enrollment, or approximately 16% of the total credit hours generated by Maryland colleges and universities in 2011.

Thirteen percent of statewide total student credit hours, and 78% of all DE student credit hours, were generated by courses at the undergraduate level. The vast majority of the total undergraduate DE credit hours were generated the community colleges (441,888) and UMUC (425,286). Fifteen percent of community colleges' total calendar year student credit hours originated from DE courses. While undergraduate DE courses at UMUC accounted for almost 64% of the institution's total credit hours, DE courses comprised only five percent of undergraduate student credit hours at other public four-year institutions. DE student credit hours accounted for two percent of independent institutions' undergraduate student credit hours. At the graduate level, 286,859 credits were DE in 2011. This represents three percent of all student credit hours produced in the State. UMUC accounted for 189,917 graduate DE credit hours, or 66% of statewide graduate DE credits.

Table 15: Distance Education Student Credit Hours (SCH) as Percentage of Total SCH, by Institution Type and Student Level, 2011							
	DE SCH Undergraduate		DE SCH Graduate		DE SCH Total		Total SCH (All Delivery Methods)
	N	% of Total SCH	N	% of Total SCH	N	% of Total SCH	
Community Colleges	441,888	15%	--	--	441,888	15%	2,975,979
All 4-Yr Publics	569,633	15%	242,590	6%	812,223	22%	3,737,650
UMUC	425,286	64%	189,917	29%	615,203	93%	661,509
Other 4-Yr Publics	144,347	5%	52,673	2%	197,020	6%	3,076,141
Independents	25,114	2%	44,269	3%	69,383	5%	1,545,449
Total	1,036,635	13%	286,859	3%	1,324,494	16%	8,259,078

Table 16 reports the percentage of DE student credit hours as a percentage of total student credit hours taken on that student level (undergraduate or graduate) for each term of the calendar year. Fifteen percent of all undergraduate credits were DE, while 25% of graduate credits were distance education. Among all four terms, Summer term credit hours were most likely to be DE credits. Spring and Fall SCH were least likely to be DE. This may be due to the large number of traditional SCH during these terms. On the undergraduate level, 12% of all Spring credit hours and 13% of all Fall credit hours were distance education.

Table 16: DE Student Credit Hours as Percentage of Total SCH at that Student Level (Undergraduate or Graduate) by Term, 2011					
	Winter	Spring	Summer	Fall	Calendar Year
Out of Total Undergraduate SCH					
Community Colleges	34%	14%	26%	13%	15%
All 4-Yr Publics	43%	14%	52%	17%	18%
UMUC	--	87%	88%	96%	91%
Other 4-Yr Publics	43%	4%	27%	4%	5%
Independents	2%	2%	5%	2%	2%
Undergraduate Total	22%	12%	33%	13%	15%
Out of Total Graduate SCH					
All 4-Yr Publics	32%	36%	63%	33%	39%
UMUC	--	98%	99%	98%	98%
Other 4-Yr Publics	32%	11%	26%	10%	12%
Independents	7%	8%	14%	8%	9%
Graduate Total	25%	25%	40%	21%	25%
Note: Percentages may not add to 100% due to rounding.					

The percentage of credit hours offered for each DE delivery method for courses at the undergraduate and graduate levels is presented in Table 17. The most common delivery methods for DE credit hours at Maryland colleges and universities were Online & Blended Hybrid courses. In 2011, 99% of all undergraduate DE credit hours and 98% of all graduate DE hours were produced by Online & Blended Hybrid courses. The independent segment was most likely to award other forms of DE credits at the undergraduate level. Among independent institutions, 15% of undergraduate credits were from Site-to-Site, 2-Way Audio/Visual courses. At the graduate level, public four-year institutions were most likely to award credits from Site-to-Site and All Other Technology-Mediated courses.

Table 17: Distance Education Credit Hours by Delivery Method and Student Level, 2011

	Online & Blended Hybrid	Site-to-Site, 2-Way Audio/Video	All Other Technology-Mediated DE
Undergraduate Courses			
Community Colleges	99%	1%	0.2%
All Public Four-Years	99%	1%	0.0%
UMUC	100%	0%	0.0%
Other Public Four-Years	98%	2%	0.0%
Independents	85%	15%	0.0%
Undergraduate Total	99%	1%	0.1%
Graduate Courses			
All Public Four-Years	98%	2%	0.1%
UMUC	100%	0%	0.0%
Other Public Four-Years	91%	9%	0.3%
Independents	100%	0%	0.0%
Graduate Total	98%	2%	0.1%

Note: Percentages may not add to 100% due to rounding.

V. Credit-Bearing Programs Offered Entirely By Distance Education

Table 18 presents the number of for-credit degree programs by degree level that were offered via distance education. These programs may have been available through traditional, classroom-based means, but it was also possible to complete them entirely through DE courses. In 2011, 296 for-credit degree or award programs were offered completely via distance education. UMUC offered more certificate and bachelor's entirely-DE programs than all other institutions combined. UMUC also offered two of the four all-DE doctoral programs in Maryland.

Table 18: Degree Programs Offered Entirely via Distance Education, 2011

	Community Colleges	UMUC	Other 4-Yr Publics	All 4-Yr Publics	Independents	Total Degree Programs
Certificate	44	71	12	83	5	132
Associate	53	-	-	-	-	53
Bachelor's	-	33	6	39	6	45
Master's	-	18	17	35	27	62
Doctorate	-	2	2	4	-	4

VI. Non-Credit Activity Measures

As is displayed in Table 19, in 2011, all 16 of the community colleges and five independent institutions offered non-credit distance education courses. No public four-year institutions reported offering non-credit DE courses. Non-credit DE courses are often self-paced, with students' performance evaluated by a computer, without the involvement of an instructor.

Community colleges taught over 2,300 unduplicated DE courses that were not for credit. The community colleges with the largest number of unique, non-credit DE offerings were the Anne Arundel Community College (772), CCBC (493), and Montgomery College (487). The colleges

that offered the largest number of non-credit DE sections with at least one enrollment were Anne Arundel Community College (1,214), Montgomery College (780), and CCBC (725). Anne Arundel Community College (4,246), CCBC (2,552), and College of Southern Maryland (1,206) had the largest number of enrollments (individual course registrations) in these courses.

Table 19: Distance Education Non-Credit-Bearing Courses, Sections and Enrollments by Institution, 2011			
Institution	Courses	Sections	Enrollments
Allegany	82	82	93
Anne Arundel	772	1,214	4,246
Baltimore City	0	263	354
Carroll	153	169	199
Cecil	87	117	130
Chesapeake	119	177	486
College of Southern Maryland	250	350	1,206
CCBC	493	725	2,552
Frederick	39	85	150
Garrett	18	19	25
Hagerstown	327	410	663
Harford	161	247	386
Howard	362	460	910
Montgomery College-All Campuses	487	780	1,100
Prince George's	218	433	1,003
Wor-Wic	183	257	327
Community Colleges Total	3,751	5,788	13,830
Capitol College	3	5	46
Goucher	1	1	2
Maryland Institute College of Art	1	1	20
Sojourner-Douglass	38	38	40
Stevenson	4	19	984
Independent Institutions Total	47	64	1,092
All Institutions	3,798	5,852	14,922

NEW AREAS OF RESEARCH

Distance Education represented 16% of all public and independent student credit hours earned in Maryland in 2011. Moreover, DE has expanded rapidly over the past three years. The MHEC Distance Education Study does not capture information on student identity, demographics, performance, or success. This has resulted in a growing blind spot in MHEC's data collection and represents a missed opportunity for more-thorough analysis and better informed policy recommendations. For instance, the DE Survey information does not allow for studies on retention and success of DE students or whether certain demographics are more likely to enroll in DE. It is unclear what additional resources would be needed for MHEC and Maryland institutions to develop, administer, complete, and analyze a DE Survey of such complexity.

IMPLICATIONS FOR POLICY AND PRACTICE

Distance education continues to increase in the State of Maryland, with a growing number of enrollments, courses, and sections. Enrollment in DE courses increased 56% from 2008 to 2011. While UMUC continues to lead the state in DE offerings, the majority of institutions included in this report have also increased their DE offerings since 2008. Access to distance education increased at both the undergraduate and graduate levels and at the community college, public four-year, and independent segments.

The University of Maryland, University College is a leader in distance education and may serve as an early indicator of developing trends in DE. UMUC reported more DE courses, sections, and credits in 2011, and its students were more likely than students at other institutions to enroll in DE courses. Because UMUC is an outlier, discussions of distance education in Maryland should make a distinction between UMUC and all other public four-year institutions when appropriate. DE figures should be displayed for both the public four-year segment with UMUC and for the public four-year segment without UMUC.

The *2009 Maryland State Plan for Postsecondary Education* identifies DE as an important means of increasing postsecondary access for adult learners, other non-traditional students, and those in underserved areas of the State. In addition to promoting DE as a means to facilitate accessibility and affordability, the *State Plan* recommends enhancing DE courses and programs to address capacity issues at Maryland institutions. Maryland institutions should further enhance their distance learning portfolios so that students can continue to have a range of options in pursuing higher education. Additional support at the state level may be needed to assist institutions in developing and providing more online courses and academic programs. Maryland's Completion Agenda calls for 55% of the State population to have achieved a postsecondary degree by 2025, and DE may play a crucial role in reaching this goal.

The next distance education report will include information on calendar year 2012. It is scheduled to be published in 2013.

APPENDIX A: MARYLAND HIGHER EDUCATION INSTITUTIONS: FALL 2011

COMMUNITY COLLEGES

Allegany College of Maryland*
 Anne Arundel Community College*
 Baltimore City Community College*
 Carroll Community College*
 Cecil Community College*
 Chesapeake College*
 College of Southern Maryland*
 Community Colleges of Baltimore County*
 Frederick Community College*
 Garrett College*
 Hagerstown Community College*
 Harford Community College*
 Howard Community College*
 Montgomery College-All Campuses*
 Prince George's Community College*
 Wor-Wic Community College*

PUBLIC FOUR-YEAR INSTITUTIONS

Bowie State University*
 Coppin State College*
 Frostburg State University*
 Salisbury University*
 Towson University*
 University of Baltimore*
 University of Maryland-Baltimore City*
 University of Maryland-Baltimore County*
 University of Maryland-College Park*
 University of Maryland-Eastern Shore*
 University of Maryland-University College*
 Morgan State University*
 St. Mary's College of Maryland*+

STATE-AIDED INDEPENDENT SCHOOLS

Baltimore Hebrew University^
 Baltimore International College^
 Capitol College*
 Goucher College*+
 Hood College*
 Johns Hopkins University*
 Loyola University Maryland*+
 Maryland Institute College of Art*
 McDaniel College*
 Mount St. Mary's College*
 National Labor College*

Notre Dame of Maryland College*
 Sojourner-Douglass College*
 St. John's College*+
 Stevenson University*
 Washington Adventist University*
 Washington College*+

NON-STATE AIDED INDEPENDENT SCHOOLS

Binah Institute of Advanced Judaic Study*+
 Fortis College*+
 Hagerstown Business College
 Harry Lundeberg School of Seamanship*+
 ITT Technical Institute*
 Lincoln College of Technology*+
 Ner Israel Rabbinical College*+
 Sans Institute*+
 St.Mary's Seminary and University*+
 TAI Sophia Institute*+
 TESST College of Technology*+
 Washington Bible College*
 Women's Institute of Torah Seminary*+
 Yeshiva College of the Nation's Capital*+

* Indicates participation in the 2011 Distance Education Survey

+ Institution does not offer Distance Education courses (based on survey response)

^ Institution participated in the 2008 Distance Education Survey but is no longer an independent institution