

*J*oint *A*dministrative *C*ommittee on *A*cademic *P*rograms

Wisconsin Technical College System (WTCS) to the University of Wisconsin System (UWS)
Program Assessment Study
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BACKGROUND

Over the last ten years, the number of program-to-program transfer articulation agreements between the Wisconsin Technical College System (WTCS) and the University of Wisconsin System (UWS) has continued to grow. Currently, there are over 500 articulation agreements, which allow students to transfer courses from a specific program at a WTCS district into a similar program at a UW institution and complete a bachelor's degree. The agreements provide transfer opportunities for students in associate degree (occupational) programs beyond the standard transfer of general education courses¹. In 2000, new "systemwide" agreements were developed in the areas of nursing and early childhood education. The new agreements are moving toward a 2+2 model where the WTCS transfer students enter the UWS program with or close to junior standing.

In fall 2000, the Joint Administration Committee on Academic Programs (JACAP) established a joint working group to design an appropriate reporting mechanism for program assessment and improvement. This group (the WTCS/UWS Program Assessment Working Group) was asked to report annually to JACAP at the same time that existing transfer data reports are shared. The group's primary goals were to (1) identify students who are currently utilizing WTCS/UWS transfer articulation agreements, (2) identify both the originating WTCS program and the subsequent UWS program in which the students enrolled, and (3) measure the success of the agreements by assessing the academic outcomes of participating students, including retention and graduation. The working group's initial report in 2001 provided a baseline for the assessment of both current and new agreements. This fourth report continues and expands the 2001, 2002, and 2003 efforts.

DATA SHARING

In March 2001, a Data Exchange Memorandum of Understanding between the WTCS Board and the UWS Board of Regents was developed. The agreement allowed for the "exchange of student and other records necessary for the evaluation of student transfers from the WTCS to the UWS and the evaluation of WTCS/UWS transfer articulation agreements and assessment of student outcomes of participants." The data exchange set a model for cooperation between the Systems and was key to the joint study.

To date, the WTCS has provided the UWS with records for students who were enrolled in associate degree, college parallel, and/or occupational/technical courses at WTCS districts in fiscal years 1994-95 through 2003-04. The data included demographic, program, and course records for each student. The WTCS data was matched to the UWS enrollment database to track the students through their UWS experience.

ESTABLISHMENT OF A COHORT

Two factors determined a student's inclusion in the WTCS/UWS Assessment Study. First, the student must have initially enrolled at a WTCS district. Secondly, the student must have concurrently or subsequently enrolled at a UW campus. Students' assignment to a specific cohort was based on their last year at the specific technical college and their initial year of UWS enrollment. For example, a student, who attended MATC-Madison in calendar years 1994 and 1995 and then enrolled at UW-Madison in fall 1996, would have a "Last WTCS Year" of 1995-96 and be in the 1996-97 UWS cohort. For additional information about the cohort formation, refer to the technical notes².

WTCS/UWS ENROLLMENT

The 2006 Program Assessment Study reports on 43,248 students who attended a WTCS district in fiscal years 1994-95 through 2003-04 and concurrently or subsequently enrolled at a UW institution. Overall, the majority of the students initially enrolled at a UW institution in the year directly following their last WTCS year. Some students enrolled in the WTCS and UWS in the same academic year, either during the same term or at a WTCS district one term and at a UW campus the following term, while a large group of WTCS students delayed their UWS enrollment for a year or more. For example, of the 4,325 students who were last enrolled in the WTCS in 1995-96 and concurrently or later enrolled in a UW institution, 1,823 (42%) students initially enrolled at a UW institution in 1996-97, 631 (15%) were enrolled in both Systems in 1995-96, and 1,871 (43%) waited more than one year before enrollment in the UWS (Table 1). Appendix A shows UWS enrollment for the overall cohort by WTCS district and initial UWS enrollment year. The two districts – Madison and Milwaukee, contributed nearly 40 percent of the WTCS/UWS enrollment.

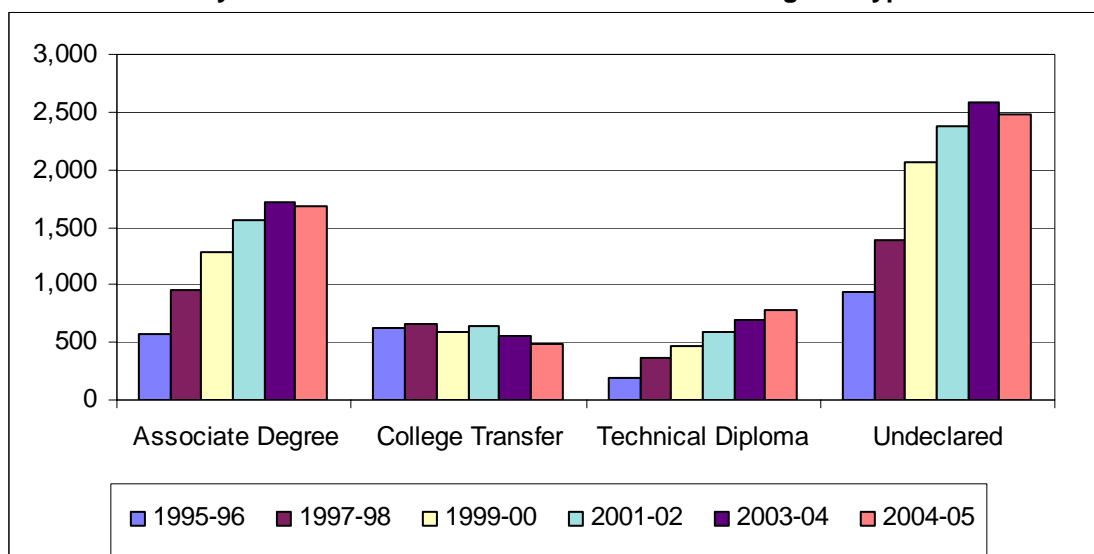
Table 1
WTCS/UWS Assessment Cohorts
by Last WTCS and Initial UWS Enrollment Years

Last WTCS Year	UWS Cohort Year										Total
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	
1994-95	1,697	571	323	268	195	159	130	92	86	56	3,577
1995-96	631	1,823	603	342	267	205	179	101	95	79	4,325
1996-97		651	1,752	623	365	285	213	167	110	82	4,248
1997-98			684	2,059	676	364	295	192	124	131	4,525
1998-99				768	2,143	800	425	273	179	144	4,732
1999-00					733	2,136	726	361	274	173	4,403
2000-01						721	2,369	757	346	258	4,451
2001-02							832	2,418	784	382	4,416
2002-03								908	2,670	911	4,489
2003-04									865	3,217	4,082
Total	2,328	3,045	3,362	4,060	4,379	4,670	5,169	5,269	5,533	5,433	43,248

WTCS PROGRAM TYPE

The number of students who were enrolled in a WTCS associate degree occupational program and then came to a UW has increased significantly over the last ten years, from 580 in 1995-96 to 1,684 in 2004-05 (Figure 1). There has also been an increase in students who enrolled in WTCS technical diploma programs and concurrently or subsequently enrolled in the UW, from 188 in 1995-96 to 784 in 2004-05. In contrast, the number of students who were enrolled in the college transfer program offered at Madison, Milwaukee, and Nicolet Area Technical Colleges and then came to a UW has decreased slightly with fluctuation, from 617 in 1995-96 to 483 in 2004-05. The largest group of WTCS students, who later attend a UW campus, was not enrolled in a specific WTCS program, from 943 in 1995-96 to 2,482 in 2004-05. Possibly, these “undeclared” students attended the WTCS to take only one or two courses.

Figure 1
WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year and WTCS Program Type



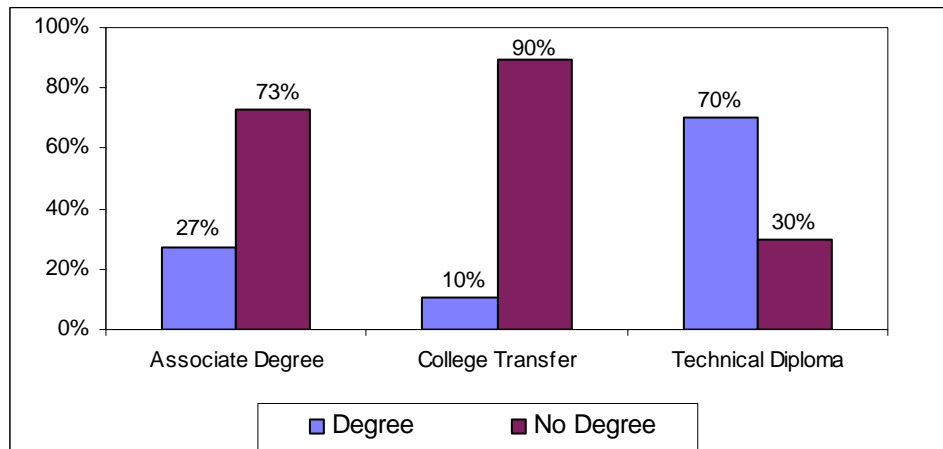
From 1995-96 to 2004-05, the percentage of the cohort enrolled in WTCS associate degree occupational programs increased from 25 percent to 31 percent and the proportion of the cohort enrolled in technical diploma programs grew from 8 percent to 14 percent. In contrast, the share of WTCS college transfer students in the cohort declined from 27 percent in 1995-96 to 9 percent in 2004-05 (Table 2).

Table 2
WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year and WTCS Program Type

Program Type	UWS Cohort Year						Overall
	95-96	97-98	99-00	01-02	03-04	04-05	
Associate Degree	25%	28%	29%	30%	31%	31%	29%
College Transfer	27%	20%	13%	12%	10%	9%	14%
Technical Diploma	8%	11%	11%	12%	12%	14%	12%
Undeclared	41%	41%	47%	46%	47%	46%	45%
Total	100%	100%	100%	100%	100%	100%	100%

Of the WTCS students enrolled in associate degree occupational programs who later attended a UW institution, 27 percent of the students earned a WTCS applied associate degree. Only 10 percent of the WTCS college transfer students earned the WTCS Associate in Arts or Science Degree prior to enrolling at a UW. In contrast, 70 percent of the technical diploma students completed their program before their UWS enrollment. Appendix B shows UWS enrollment for the overall cohort by the UWS initial enrollment year, WTCS program type and WTCS degree completion status.

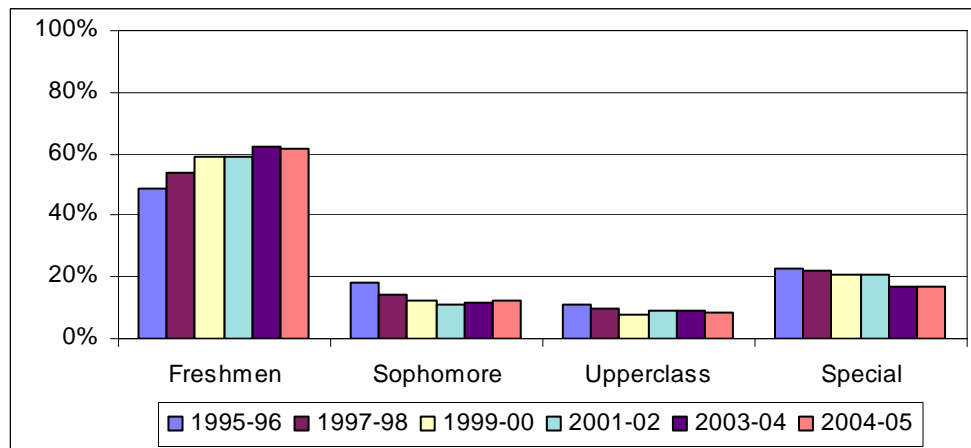
Figure 2
WTCS/UWS Assessment Cohorts - Overall
by WTCS Program Type and Degree Completion Status



UWS INITIAL CLASSIFICATION AND ENTRANCE STATUS

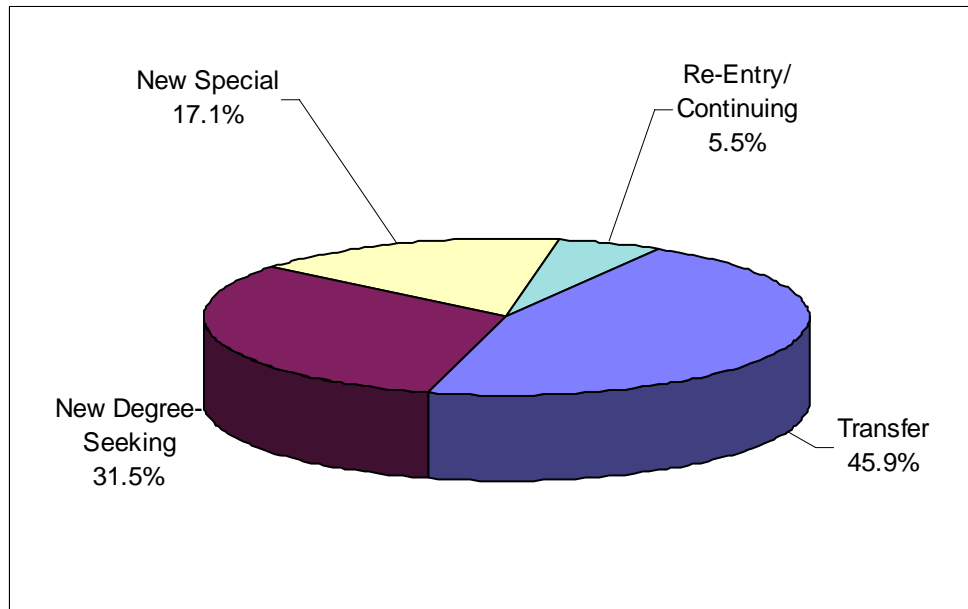
A growing proportion of students in the cohort entered the UWS as freshmen³, from 49 percent in 1995-96 to 62 percent in 2004-05 (Figure 3). In contrast, the proportion of students entering at the sophomore level decreased from 18 percent in 1995-96 to 12 percent in 2004-05. In this same timeframe, the percentage of students entering as upperclassmen (juniors or seniors) declined from 11 percent to 9 percent. A substantial proportion of students enter the UWS as special (non degree-seeking) students. While many special students enroll only to take a few classes, others later enroll in degree programs and may graduate. Appendix C presents the detailed information by initial UWS enrollment year and classification.

Figure 3
WTCS/UWS Assessment Cohorts - Overall
by Initial UWS Enrollment Year and Classification



The largest group of students (46% overall), coming to the UWS after attending a WTCS district, entered as transfer students (Figure 4), that is, they notified the UW institution of their prior coursework and the transfer work was evaluated. Almost one third of the students in the cohort were new, degree-seeking students. Often, these students receive credit for their prior coursework later in their UW enrollment. Since students who enroll as specials (17% overall) are not degree-seeking, their prior coursework is usually not evaluated. "Re-entry" students re-enrolled at the UW with no transfer work. "Continuing" students were enrolled at both a WTCS and UW institution during the same year. Appendix D shows enrollment of the overall cohort by entrance status and UW institution.

Figure 4
WTCS/UWS Assessment Cohorts - Overall
by UWS Entrance Status



The proportion of students in the cohort entering the UWS as new, degree-seeking students increased significantly from 27 percent in 1995-96 to 37 percent in 2004-05, whereas the proportion entering as transfer students decreased slightly from 48 percent to 44 percent for the same time period (Table 3).

Table 3
WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year and Entrance Status

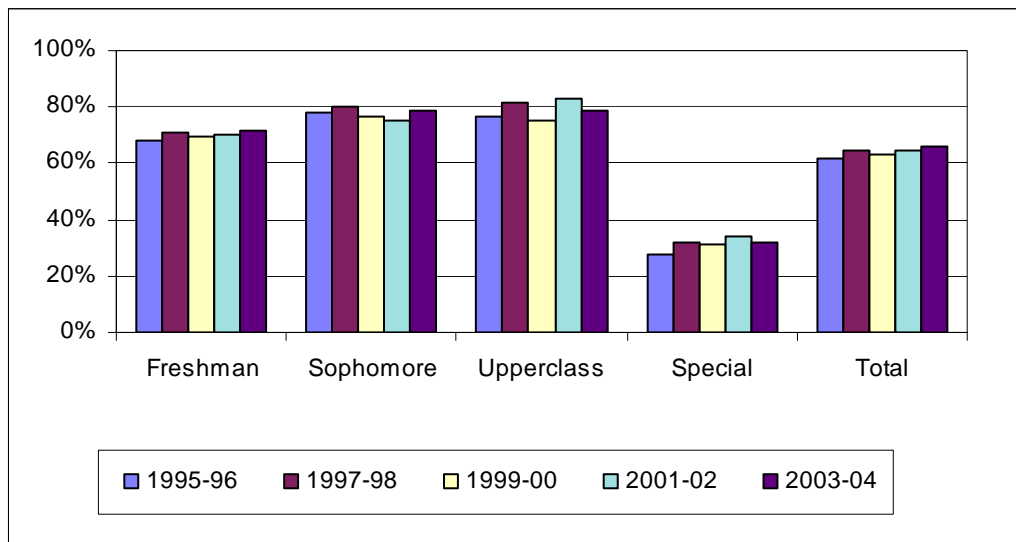
Entrance Status	UWS Cohort Year						Overall
	95-96	97-98	99-00	01-02	03-04	04-05	
Transfer	48%	50%	45%	45%	45%	44%	46%
New Degree-Seeking	27%	26%	31%	32%	35%	37%	32%
New Special	19%	18%	17%	17%	15%	15%	17%
Re-Entry/Continuing	6%	6%	7%	5%	5%	4%	6%
Total	100%	100%	100%	100%	100%	100%	101%

*The total may not equal 100% due to rounding.

SECOND YEAR RETENTION RATES

Students who entered the UWS as sophomores or upperclassmen had similar second year retention rates⁴, slightly higher than for those who entered as freshmen (Figure 5). Of the students who initially enrolled in the UWS in 2003-04 as sophomores or as upperclassmen, 79 percent were retained to the second year compared to 71 percent of the freshmen. Special students were retained at lower rates; this is consistent with their differing academic goals. See Appendix E for details.

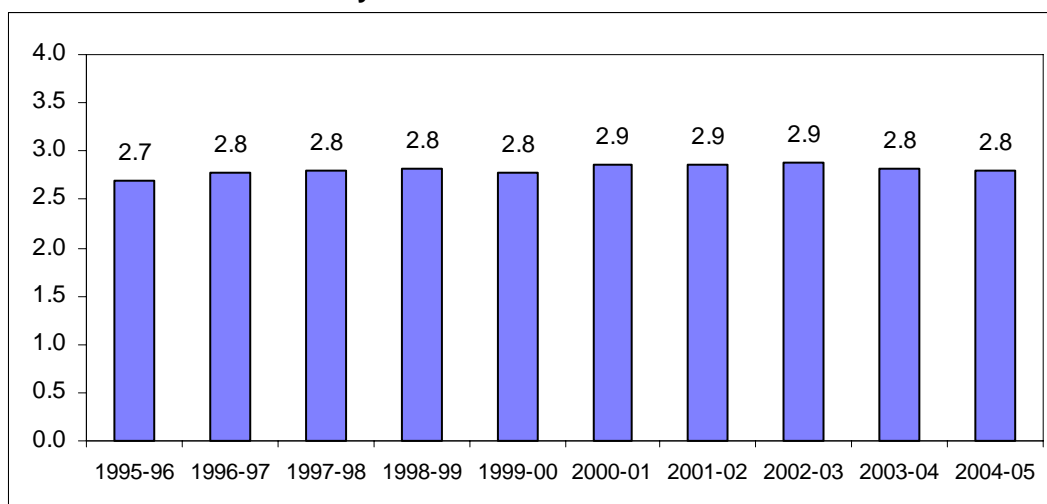
Figure 5
Second Year Retention for WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year and Classification



FIRST YEAR GPA

Figure 6 shows the average first year GPA for students in the assessment study who enrolled in the UWS between 1995-96 and 2004-05. The average first year GPA was basically steady at 2.8 on a 4.0 scale. See Appendix H for details.

Figure 6
Average First Year GPA for WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year



LINKING WTCS TO UWS PROGRAMS

As a first step toward studying program-to-program activity, WTCS and UWS programs were linked using a common classification system (based on CIP discipline areas)⁵. The student's last declared program at the WTCS district and the student's first declared major at the UW institution were linked to their corresponding program groups. Table 4 shows the results of this program linking. Specifically, Table 4 shows, for a given WTCS program group (leftmost column), the number of students in the overall cohort who enrolled at a UW institution and the types of programs that they entered (reading across the columns). It also shows, the number of students in the cohort who enrolled in a given UWS program group (reading down a column). Lastly, the intersections of WTCS and UWS program groups show areas where students are enrolling in similar disciplines. For example, 361 students in the cohort had enrolled in Agriculture & Natural Resources programs at the WTCS, 575 students in the cohort enrolled in Agriculture & Natural Resources programs at the UWS, and 75 students were enrolled in an Agriculture & Natural Resources program while at the WTCS and enrolled in a program in the same area when they came to the UWS.

Table 4
WTCS/UWS Assessment Cohort - Overall
by WTCS and UWS Program Groups

WTCS Program Group	UWS Program Group													Total
	Ag (01)	Bio (02)	Bus (03)	Com (04)	Ed (05)	Engin (06)	Hlth (07)	H Ec (08)	Hum (09)	Math/ CS (10)	Pub Adm (11)	Soc Sci (12)	Und (14)	
Ag & Natural Resources (01)	75	17	19	6	31	5	2		8	5	4	10	179	361
Biological/ Physical Sci (02)	1	19	7		3	5	2		2	3		2	22	66
Business (03)	28	70	1,027	172	341	20	95	23	120	53	76	251	1,790	4,066
Communications/ Arts (04)	2	9	40	246	56	14	20		20	13	11	35	356	822
Education (05)		1	3	8	137	2	11	7	7		11	18	235	440
Engineering & Architecture (06)	17	24	179	32	85	226	23	1	17	66	9	36	818	1,533
Health-Related Professions (07)	24	331	191	93	299	20	1,060	30	100	33	142	226	3,359	5,908
Home Econ/ Personal Serv (08)	2	4	49	14	69	1	9	6	6	4	4	9	253	430
Humanities/Liberal Arts (09)	143	241	655	519	679	217	355	79	334	162	238	618	1,981	6,221
Math, Computer & Info Sciences (10)	6	24	166	59	53	16	33	2	47	224	21	60	698	1,409
Public Admin/ Legal Services (11)	13	28	112	45	96	8	54	6	64	14	174	173	812	1,599
Social Science (12)			1		1				1			2	1	6
Trades/Tech (13)	14	19	90	27	84	58	11	1	8	21	11	22	469	835
Undeclared (14)	250	686	1,751	976	1,238	500	936	85	645	493	461	1,018	10,513	19,552
Total	575	1,473	4,290	2,197	3,172	1,092	2,611	240	1,379	1,091	1,162	2,480	21,486	43,248

The WTCS program group with the largest number of students was Humanities/Liberal Arts with 6,221 students (14% of the overall cohort). The Humanities/Liberal Arts group consists primarily of students enrolled in the college transfer programs at Madison, Milwaukee, and Nicolet Area Technical Colleges. Students in this WTCS program entered a wide variety of UWS majors. Of the college transfer students with a declared UWS major, the largest group initially enrolled in programs in the Education (679 students), Business (655 students), and Social Science (618 students) program groups. On an individual major level, college transfer students enrolled most commonly in UWS elementary education, education, psychology, and general business programs (data not shown).

At many UW institutions, students are not required to declare a major until they reach junior or senior standing. This may partially account for the large number of UWS students with no declared major.

Areas of significant program intersection included Health Professions to Health Professions with 1,060 students, and Business to Business with 1,027 students (Table 4). On an individual program level, WTCS and UWS nursing programs showed the largest individual program connection with 364 students moving from a WTCS to a UWS nursing program (data not shown). These program intersections show areas where current WTCS/UWS articulation agreements exist as well as areas where new agreements could be developed.

PROGRAM-SPECIFIC ENROLLMENTS AND ASSESSMENT

The remaining sections of the report analyze groups of students in the overall cohort who were enrolled in specific programs at the WTCS and then entered specific programs or program areas at a UW institution⁶. These programs were selected for this year's report for a variety of reasons. The nursing and early childhood education programs were selected because of the implementation of multi-campus transfer agreements for these programs. The computer information systems (CIS) and marketing programs were selected because a large number of students in the cohort were enrolled in these programs. While there are a few current agreements for these students, these programs showed potential for development of additional transfer agreements. Criminal Justice appeared to be an emerging area with a few new transfer agreements and potential for future growth.

NURSING

The 2006 assessment study included 1,122 students who last enrolled in the WTCS nursing associate degree program between 1994-95 and 2003-04 and concurrently or subsequently enrolled at a UW institution (Table 5). Since 1994-95, the overall trend indicates an increase in the number of WTCS nursing students continuing their education in the UWS. Similar to the trend shown for the overall cohort (Table 1), a large portion of nursing students came to the UWS in the year following their WTCS enrollment. However, for some students, there is a considerable gap between their last WTCS year and initial UWS enrollment year. Of the 118 nursing students who last enrolled in the WTCS in 1995-96, 45 students (38%) enrolled in the UWS in 1996-97, ten students (8%) were concurrently enrolled, and 63 students (54%) waited at least one year before their UWS enrollment. Refer to Appendix I for enrollment of students in WTCS nursing associate degree programs by WTCS district and UWS institution. Appendix J summarizes WTCS/UWS transfer agreements for WTCS nursing associate degree programs.

Table 5
WTCS/UWS Assessment Cohorts
WTCS Nursing Associate Degree Students
by Last WTCS and Initial UWS Enrollment Years

Last WTCS Year	UWS Cohort Year										Total
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	
1994-95	26	15	13	10	3	8	8	2	3	2	90
1995-96	10	45	14	4	5	16	10	4	6	4	118
1996-97		30	43	9	13	11	8	8	7	5	134
1997-98			13	44	9	13	13	11	4	11	118
1998-99				18	41	22	12	10	3	4	110
1999-00					21	40	19	8	9	6	103
2000-01						13	37	10	11	8	79
2001-02							16	56	22	15	109
2002-03								51	72	20	143
2003-04									29	89	118
Total	36	90	83	85	92	123	123	160	166	164	1,122

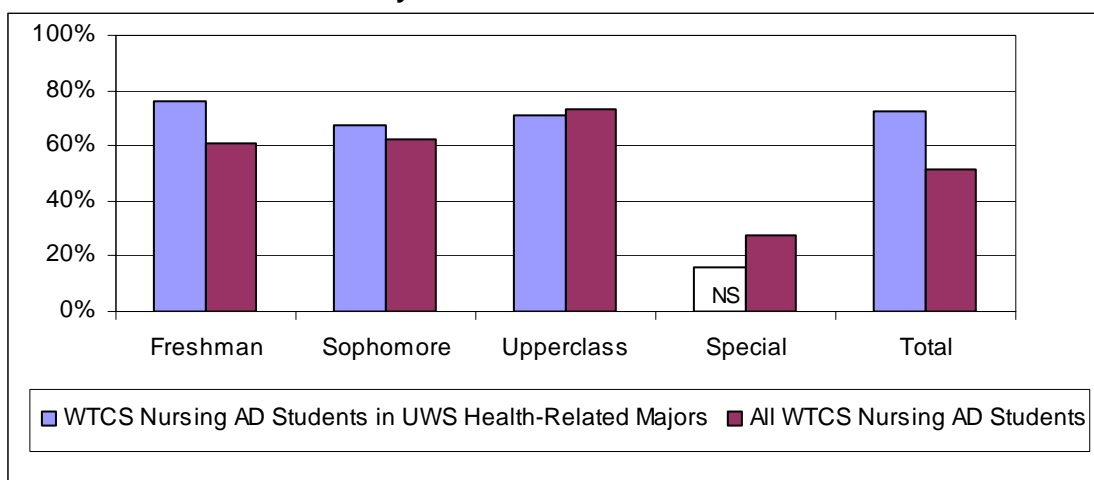
Table 6 shows the type of UWS programs chosen by WTCS nursing students. While the majority of WTCS nursing students in the cohort entered Health-Related Professions, others pursued majors in Education, Biological/Physical Science, and Social Science areas. Some of the WTCS nursing students in the "Undeclared" group may be seeking a UWS nursing degree but had not yet been admitted to the nursing program.

Table 6
WTCS/UWS Assessment Cohorts
WTCS Nursing Associate Degree Students
by UWS Program Group

UWS Program Group	# of Students
Ag & Nat Resources (01)	2
Biological/Physical Sciences (02)	28
Business (03)	21
Communications/Arts (04)	10
Education (05)	34
Engineering & Architecture (06)	2
Health-Related Professions (07)	349
Home Economics/Personal Services (08)	4
Humanities/Liberal Arts (09)	18
Math, Computer & Info Sciences (10)	2
Public Admin/Legal Services (11)	10
Social Sciences (12)	25
Trades/Technical (13)	0
Undeclared (14)	617
Total	1,122

Within the overall assessment cohort, WTCS nursing students who had declared a UWS major in a health-related field had a second year retention rate of 72 percent, compared to 52 percent for WTCS nursing students as a group (Figure 7). See Appendix F for details.

Figure 7
Second Year Retention for WTCS/UWS Assessment Cohorts
WTCS Nursing Associate Degree Students
by Initial UWS Classification

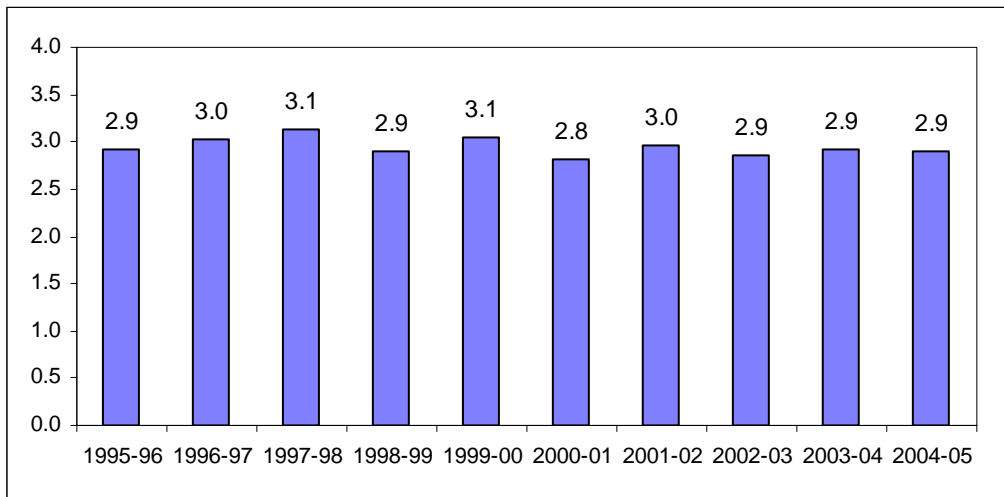


NS – not shown due to small cohort size.

Within the assessment cohorts who enrolled in the UWS from 1995-96 to 1999-00, WTCS nursing students who had declared a UWS major in a health-related field had a combined fifth year graduation/sixth year retention rate of 39 percent, compared to 24 percent for WTCS nursing students as a group. See Appendix G for details.

The average first year GPA for WTCS nursing students ranged from 2.8 for students who enrolled in the UWS in 2000-01 to 3.1 for those who enrolled in 1997-98 or 1999-00 (Figure 8). In general, WTCS nursing students had a slightly higher average first year GPA than students in the overall assessment study. See Appendix H for details.

Figure 8
Average First Year GPA for WTCS/UWS Assessment Cohorts
WTCS Nursing Associate Degree Students
by Initial UWS Enrollment Year



The study also looked for other WTCS sources for UWS nursing majors. Within the overall cohort, 38 percent were in the WTCS nursing assistant programs and 35 percent were in the WTCS nursing associate degree program (Table 7). However, students from college transfer programs and other WTCS health programs also became UWS nursing majors.

Table 7
WTCS/UWS Assessment Cohorts - Overall
WTCS Source Programs
for UWS Nursing Majors

WTCS Program	#	%
Nursing Assistant	369	38%
Nursing Associate Degree	338	35%
College Transfer	117	12%
Other Health Programs	72	7%
Other Programs	80	8%
Total	976	100%

EARLY CHILDHOOD EDUCATION

The 2006 program assessment study included 399 students who were enrolled in WTCS early childhood education associate degree programs between 1994-95 and 2003-04 and concurrently or subsequently enrolled at a UW institution (Table 8). Since 1994-95, the overall trend indicates a significant increase in the number of WTCS early childhood students continuing their education in the UWS. Similar to the trend shown for the overall cohort (Table 1), a large portion of the early childhood students (54%) came to the UWS in the year following their WTCS enrollment while, for some students, there was a considerable gap between their last WTCS year and initial UWS enrollment year. Refer to Appendix K for enrollment of students in WTCS early childhood education associate degree programs by WTCS district and UWS institution. Appendix L summarizes WTCS/UWS transfer agreements for WTCS early childhood education programs.

Table 8
WTCS/UWS Assessment Cohorts
WTCS Early Childhood Education Students by Last WTCS and Initial UWS Enrollment Years

Last WTCS Year	UWS Cohort Year										Total
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	
1994-95	8	4	1	2	3		1	1	2	1	23
1995-96	1	12	2	2	1	2	1			2	23
1996-97		2	13	4	4	2			1	1	27
1997-98			4	18	3	3	4	2	2	1	37
1998-99				9	20	6	5	2	3		45
1999-00					12	22	5	6	3	2	50
2000-01						6	25	4	1	3	39
2001-02							15	23	8	5	51
2002-03								8	35	9	52
2003-04									12	40	52
Total	9	18	20	35	43	41	56	46	67	64	399

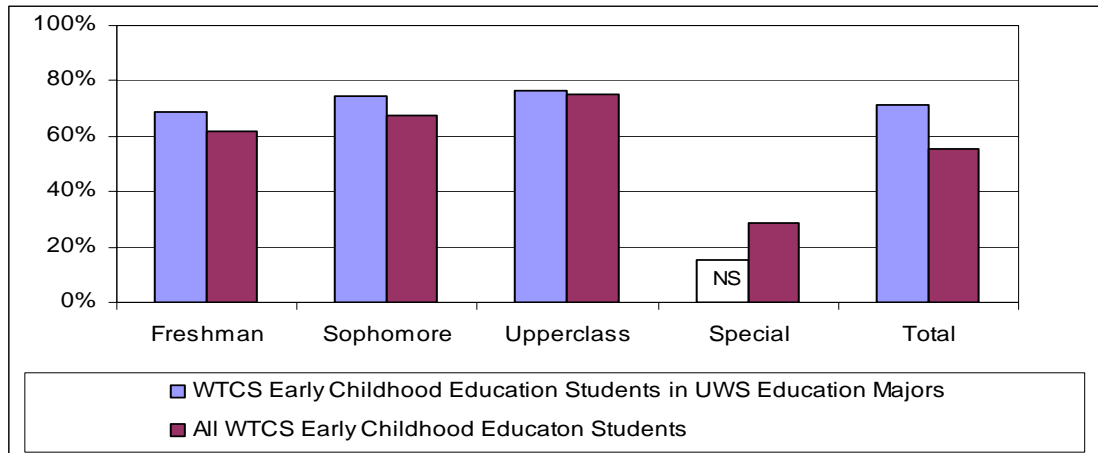
Table 9 shows the type of UWS majors chosen by WTCS early childhood education students. Students in this group predominately entered a UWS field in the Education area. Some of the WTCS early childhood students in the "Undeclared" group may be seeking a UWS education degree but had not yet been admitted to the education major.

Table 9
WTCS/UWS Assessment Cohorts
WTCS Early Childhood Education Students by UWS Program Group

UWS Program Group	# of Students
Ag & Nat Resources (01)	0
Biological/Physical Sciences (02)	1
Business (03)	3
Communications/Arts (04)	8
Education (05)	129
Engineering & Architecture (06)	2
Health-Related Professions (07)	10
Home Economics/Personal Services (08)	7
Humanities/Liberal Arts (09)	7
Math, Computer & Info Sciences (10)	11
Public Admin/Legal Services (11)	0
Social Sciences (12)	18
Trades/Technical (13)	0
Undeclared (14)	203
Total	399

WTCS early childhood education students who declared a UWS major in an education area had an overall second year retention rate of 71 percent (Figure 9). This compares to 55 percent for all WTCS early childhood students in the assessment study. See Appendix F for details.

Figure 9
Second Year Retention for WTCS/UWS Assessment Cohorts
WTCS Early Childhood Education Students
by Initial UWS Classification

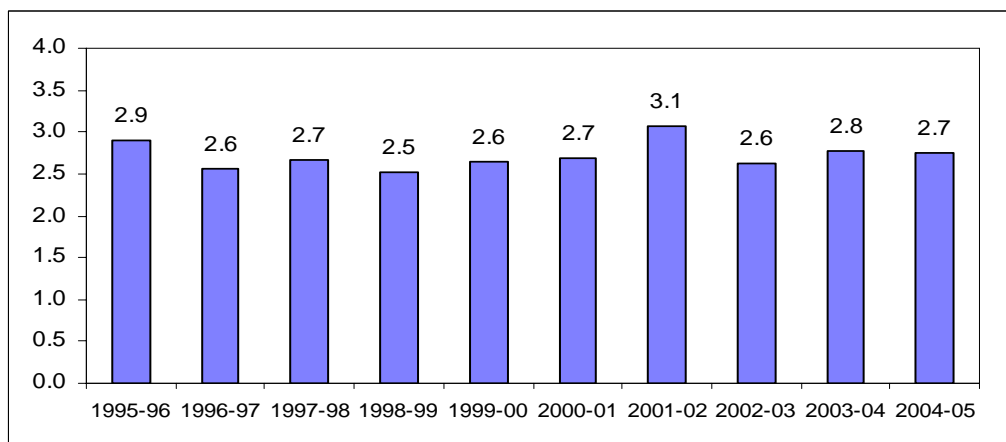


NS – not shown due to small cohort size.

Within the assessment cohorts who enrolled in the UWS from 1995-96 to 1999-00, WTCS early childhood students who had declared a UWS major in an education area had a combined fifth year graduation/sixth year retention rate of 47 percent, compared to 32 percent for WTCS early childhood students as a group. See Appendix G for details.

The average first year GPA for WTCS early childhood education students varied from 2.5 for students who enrolled in the UWS in 1998-99 to 3.1 for those who enrolled in 2001-02 (Figure 10). Some of the year to year variability in the average GPA's may be due to the small early childhood cohort size. In general, WTCS early childhood education students had a slightly lower average first year GPA than students in the overall assessment group. See Appendix H for details.

Figure 10
Average First Year GPA for WTCS/UWS Assessment Cohorts
WTCS Early Childhood Education Students
by Initial UWS Enrollment Year



Students in the cohort entered UWS early childhood/elementary education majors from a variety of WTCS programs (Table 10). A large proportion (32%) of the students were in the WTCS college transfer program. WTCS early childhood education students composed 13 percent of the UWS early childhood/elementary education majors. With the implementation of multi-campus early childhood articulation agreements, this proportion grew from 11 percent in the 2003 Program Assessment Study to 13 percent in the 2006 Program Assessment Study.

Table 10
WTCS/UWS Assessment Cohorts
WTCS Source Programs
for UWS Early Childhood/Elementary Education Majors

WTCS Program	#	%
College Transfer	249	32%
Early Childhood	99	13%
Nursing Assistant	67	9%
Child Care Services	42	5%
Other Programs	331	42%
Total	788	100%

COMPUTER INFORMATION SYSTEMS (CIS)

The 2006 program assessment cohort included 1,317 students who were enrolled in WTCS computer information systems (CIS) associate degree programs between 1994-95 and 2003-04 and concurrently or subsequently enrolled at a UW institution (Table 11). Since 1994-95, the overall trend indicates a significant increase in the number of WTCS CIS students continuing their education in the UWS. Students in the CIS group showed similar patterns as students in other program groups and in the overall cohort as the majority of students (49%) enrolled in the UWS in the year following their WTCS enrollment. Refer to Appendix M for enrollment of students in WTCS computer information systems (CIS) associate degree programs by WTCS district and UWS institution. Appendix N summarizes WTCS/UWS transfer agreements for WTCS CIS programs.

Table 11
WTCS/UWS Assessment Cohorts
WTCS Computer Information Systems (CIS) Students
by Last WTCS and Initial UWS Enrollment Years

Last WTCS Year	UWS Cohort Year										Total
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	
1994-95	24	8	10	4	4	3	4	1	2	2	62
1995-96	11	38	12	6	7	6	4	4	4	2	94
1996-97		7	43	13	11	5	9	3	3	2	96
1997-98			15	54	12	9	11	11	4	9	125
1998-99				25	53	21	10	6	12	7	134
1999-00					22	65	25	20	16	8	156
2000-01						37	90	28	15	16	186
2001-02							39	93	27	22	181
2002-03								47	88	24	159
2003-04									28	96	124
Total	35	53	80	102	109	146	192	213	199	188	1,317

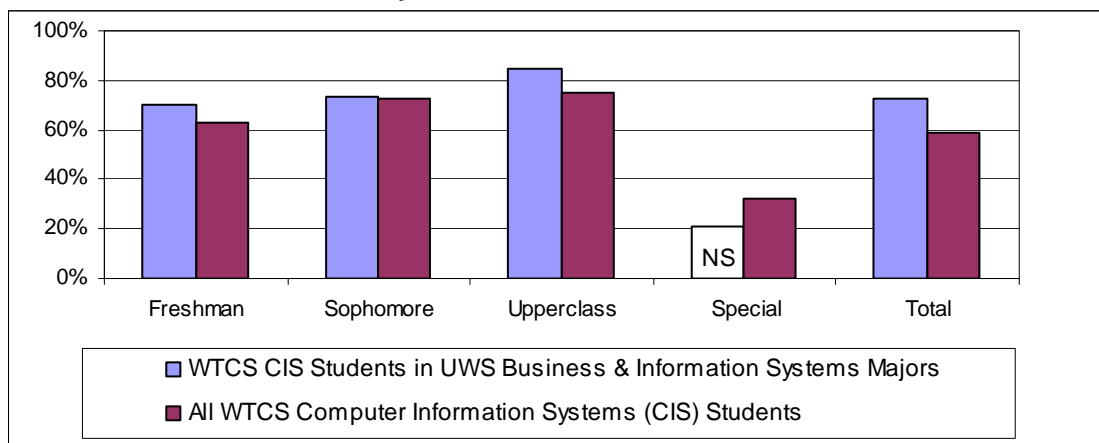
Of the CIS students who declared a specific UWS major, over half of the students (56%) pursued UWS programs in either the Business area or the Math, Computer & Information Sciences (CIS) area (Table 12). This illustrates the two different directions that CIS students can pursue at a UW institution – either entering majors with a business focus such as Management Information Systems or majors with a computer/information science focus. However, some CIS students changed direction and enrolled in programs in Social Sciences, Communications/Arts, and Education areas.

Table 12
WTCS/UWS Assessment Cohorts
WTCS Computer Information Systems (CIS) Students
by UWS Program Group

UWS Program Group	# of Students
Ag & Nat Resources (01)	6
Biological/Physical Sciences (02)	23
Business (03)	159
Communications/Arts (04)	50
Education (05)	49
Engineering & Architecture (06)	14
Health-Related Professions (07)	30
Home Economics/Personal Services (08)	2
Humanities/Liberal Arts (09)	47
Math, Computer & Info Sciences (10)	218
Public Admin/Legal Services (11)	19
Social Sciences (12)	56
Trades/Technical (13)	0
Undeclared (14)	644
Total	1,317

WTCS CIS students who declared a UWS major in CIS areas had an overall second year retention rate of 73 percent (Figure 11). This compares to 59 percent for all WTCS CIS students in the assessment study. See Appendix F for details.

Figure 11
Second Year Retention for WTCS/UWS Assessment Cohorts
WTCS Computer Information Systems (CIS) Students
by Initial UWS Classification

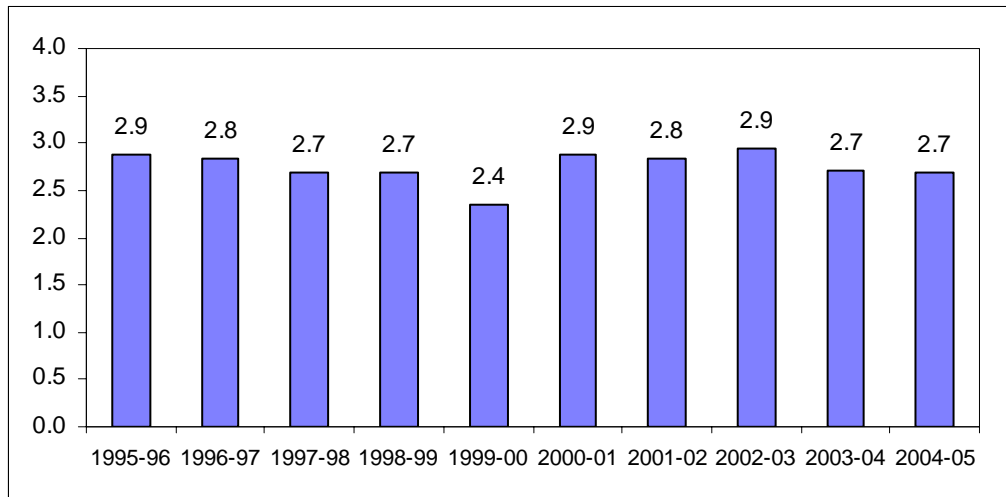


NS – Not shown due to small cohort size.

Within the assessment cohorts who enrolled in the UWS from 1995-96 to 1999-00, WTCS CIS students who had declared a UWS major in CIS areas had a combined fifth year graduation/sixth year retention rate of 38 percent, compared to 27 percent for WTCS CIS students as a group. See Appendix G for details.

The average first year GPA for WTCS CIS students varied from 2.4 to 2.9 (Figure 12). In general, WTCS CIS students had about the same average first year GPA as students in the overall assessment group. See Appendix H for details.

Figure 12
Average First Year GPA for WTCS/UWS Assessment Cohorts
WTCS Computer Information Systems (CIS) Students
by Initial UWS Enrollment Year



Students in a variety of WTCS programs later declared a UWS major in the business or information systems area (Table 13). Within the cohort, the WTCS college transfer program was the largest single source (25%) of these majors. WTCS CIS students composed 16 percent of the business administration/information systems majors in the study.

Table 13
WTCS/UWS Assessment Cohorts
WTCS Source Programs
for UWS Business Administration/Information Systems Majors

WTCS Program	#	%
College Transfer	443	25%
Computer Information System (CIS)	285	16%
Marketing	190	11%
Accounting	155	9%
Nursing Assistant	59	3%
Business Mid-Management	53	3%
Other Programs	580	33%
Total	1,765	100%

MARKETING

The 2006 program assessment cohort included 1,187 students who were enrolled in WTCS marketing associate degree programs between 1994-95 and 2003-04 and concurrently or subsequently enrolled at a UW institution (Table 14). Since 1994-95, the overall trend indicates a significant increase in the number of WTCS marketing students continuing their education in the UWS. Students in the marketing group showed similar patterns as students in other program groups and in the overall cohort with the majority of students (47%) enrolling in the UWS in the year following their WTCS enrollment. Refer to Appendix O for enrollment of students in WTCS marketing associate degree programs by WTCS district and UW institution. Appendix P summarizes WTCS/UWS transfer agreements for WTCS marketing programs.

Table 14
WTCS/UWS Assessment Cohorts
WTCS Marketing Students
by Last WTCS and Initial UWS Enrollment Years

Last WTCS Year	UWS Cohort Year										Total
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	
1994-95	41	17	6	5	5	4	1			1	80
1995-96	12	53	13	7	14	4	2	1	2	2	110
1996-97		26	43	19	11	5	7	3	4		118
1997-98			18	46	13	9	7	4	3	2	102
1998-99				32	57	13	10	3	2	3	120
1999-00					24	53	19	5	8	8	117
2000-01						30	79	11	7	6	133
2001-02							46	66	22	12	146
2002-03								38	60	16	114
2003-04									46	101	147
Total	53	96	80	109	124	118	171	131	154	151	1,187

WTCS marketing students in the cohort pursued two principal types of programs at the UWS (Table 15). A large group of students enrolled in business programs (41% of the students with declared majors) while a significant group of students (20%) entered UWS education programs. WTCS marketing students also enrolled in UWS programs in Social Sciences and Communications/Arts areas.

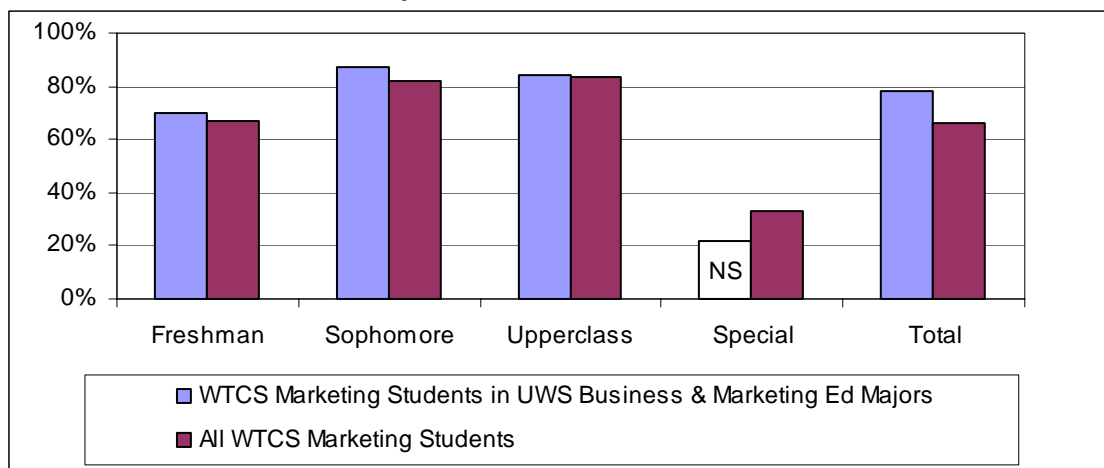
UW-Stout offers a program in marketing education and has marketing-to-marketing education transfer agreements with nine WTCS districts. Out of the 1,187 WTCS marketing students in the cohort, 240 enrolled in the UW-Stout (20%) as shown in Appendix O.

Table 15
WTCS/UWS Assessment Cohorts
WTCS Marketing Students
by UWS Program Group

UWS Program Group	# of Students
Ag & Nat Resources (01)	6
Biological/Physical Sciences (02)	16
Business (03)	286
Communications/Arts (04)	65
Education (05)	139
Engineering & Architecture (06)	5
Health-Related Professions (07)	35
Home Economics/Personal Services (08)	6
Humanities/Liberal Arts (09)	34
Math, Computer & Info Sciences (10)	9
Public Admin/Legal Services (11)	20
Social Sciences (12)	71
Trades/Technical (13)	0
Undeclared (14)	495
Total	1,187

WTCS marketing students who declared a UWS major in the business or marketing education areas had an overall second year retention rate of 78 percent (Figure 13). This compares to 66 percent for all WTCS marketing students in the assessment study. See Appendix F for details.

Figure 13
Second Year Retention for WTCS/UWS Assessment Cohorts
WTCS Marketing Students
by Initial UWS Classification

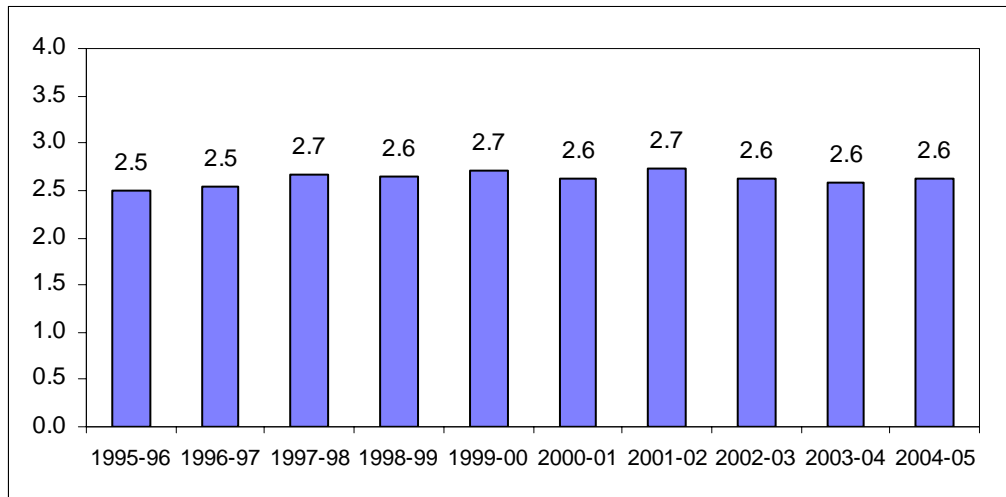


NS – Not shown due to small cohort size.

Within the assessment cohorts who enrolled in the UWS from 1995-96 to 1999-00, WTCS marketing students who had declared a UWS major in the business or marketing education areas had a combined fifth year graduation/sixth year retention rate of 50 percent, compared to 33 percent for WTCS marketing students as a group. See Appendix G for details.

The average first year GPA for WTCS marketing students ranged between 2.5 and 2.7 (Figure 14). In general, WTCS marketing students had about the same average first year GPA as students in the overall assessment group. See Appendix H for details.

Figure 14
Average First Year GPA for WTCS/UWS Assessment Cohorts
WTCS Marketing Students
by Initial UWS Enrollment Year



Students in a variety of WTCS programs later declared a UWS major in the business, marketing, or marketing education area (Table 16). Within the cohort, the WTCS college transfer program was the largest single source (25%) of these majors. WTCS marketing students composed 20 percent of the business administration/marketing/marketing education majors in the study.

Table 16
WTCS/UWS Assessment Cohorts
WTCS Source Programs
for UWS Business Administration/Marketing/Marketing Ed Majors

WTCS Program	#	%
College Transfer	365	25%
Marketing	289	20%
Accounting	145	10%
Computer Information System (CIS)	77	5%
Business Mid-Management	58	4%
Police Science/Criminal Justice	40	3%
Other Programs	497	34%
Total	1,471	100%

CRIMINAL JUSTICE

WTCS criminal justice associate degree programs were included in the program assessment study as an emerging area for System-to-System articulation. The 2006 assessment cohort included 951 students who were enrolled in WTCS criminal justice programs between 1994-95 and 2003-04 and concurrently or subsequently enrolled at a UW institution (Table 17). Refer to Appendix Q for enrollment of students in WTCS criminal justice associate degree programs by WTCS district and UWS institution. Appendix R summarizes WTCS/UWS transfer agreements for WTCS criminal justice programs.

Table 17
WTCS/UWS Assessment Cohorts
WTCS Criminal Justice Students
by Last WTCS and Initial UWS Enrollment Years

Last WTCS Year	UWS Cohort Year										Total
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	
1994-95	41	15	12	4	8	2	3	1	4	1	91
1995-96	13	41	20	5	3	4	5	2	3	1	97
1996-97		13	46	14	7	8	3	6	3	3	103
1997-98			11	43	15	11	6	4	6		96
1998-99				16	56	12	8	7	1	4	104
1999-00					15	36	10	6	5	4	76
2000-01						20	58	8	7	4	97
2001-02							16	50	15	9	90
2002-03								32	57	13	102
2003-04									24	71	95
Total	54	69	89	82	104	93	109	116	125	110	951

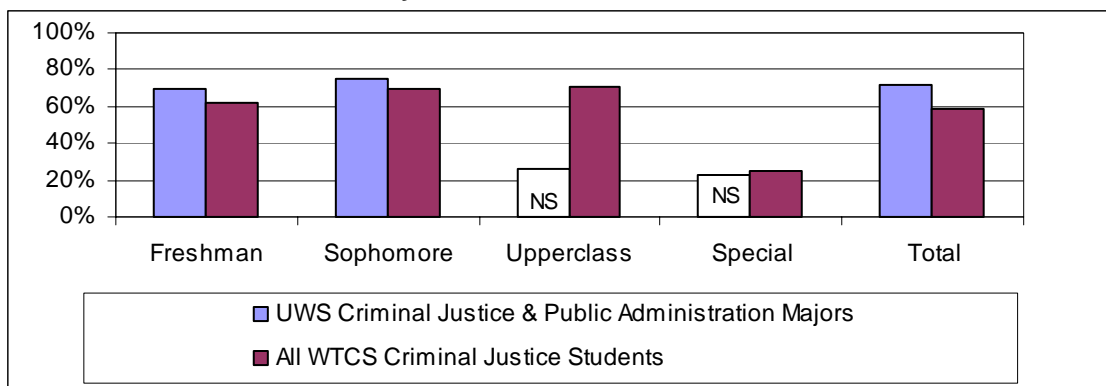
WTCS criminal justice students in the cohort pursued two principal types of majors at the UWS (Table 18). One group of students (29% of the students with declared majors) enrolled in programs in the Public Administration/Legal Services area. These students typically majored in Criminal Justice at the UW campus. A second group of criminal justice students (23% of the students with declared majors) enrolled in UWS programs in the Social Sciences area, which includes UWS Social Work majors. As with other WTCS groups, criminal justice students enrolled in a variety of UWS program groups, including Business and Education.

Table 18
WTCS/UWS Assessment Cohorts
WTCS Criminal Justice Students
by UWS Program Group

UWS Program Group	# of Students
Ag & Nat Resources (01)	11
Biological/Physical Sciences (02)	15
Business (03)	61
Communications/Arts (04)	29
Education (05)	50
Engineering & Architecture (06)	5
Health-Related Professions (07)	27
Home Economics/Personal Services (08)	2
Humanities/Liberal Arts (09)	30
Math, Computer & Info Sciences (10)	9
Public Admin/Legal Services (11)	142
Social Sciences (12)	112
Trades/Technical (13)	0
Undeclared (14)	458
Total	951

WTCS criminal justice students who declared a UWS major in the criminal justice or public administration area had an overall second year retention rate of 72 percent (Figure 15). This compares to 59 percent for all WTCS criminal justice students in the assessment study. See Appendix F for details.

Figure 15
Second Year Retention for WTCS/UWS Assessment Cohorts
WTCS Criminal Justice Students
by Initial UWS Classification

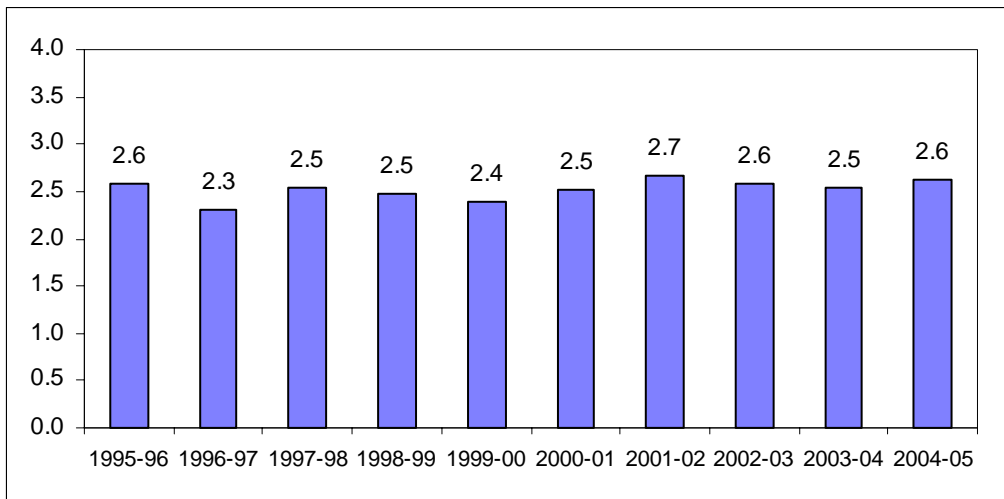


NS – Not shown due to small cohort size.

Within the assessment cohorts who enrolled in the UWS from 1995-96 to 1999-00, WTCS criminal justice students who had declared a UWS major in the criminal justice or public administration area had a combined fifth year graduation/sixth year retention rate of 45 percent, compared to 25 percent for WTCS criminal justice students as a group. See Appendix G for details.

The average first year GPA for WTCS criminal justice students varied from 2.3 for students who enrolled in UWS in 1996-97 to 2.7 for those who enrolled in 2001-02 (Figure 16). In general, WTCS criminal justice students had a slightly lower average first year GPA than students in the overall assessment group. See Appendix H for details.

Figure 16
Average First Year GPA for WTCS/UWS Assessment Cohorts
WTCS Criminal Justice Students
by Initial UWS Enrollment Year



A distinct path is shown from WTCS criminal justice programs to UWS criminal justice majors with 39 percent of the UWS criminal justice majors in the study coming from WTCS criminal justice programs (Table 19). College transfer students were also a source of UWS criminal justice majors.

Table 19
WTCS/UWS Assessment Cohorts
WTCS Source Programs
for UWS Criminal Justice Majors

WTCS Program	#	%
Police Science/Criminal Justice	119	39%
College Transfer	76	25%
Other Programs	108	36%
Total	303	100%

SUMMARY

The 2006 WTCS/UWS Program Assessment Study identified 43,248 students who were enrolled in associate degree, college transfer, or technical diploma courses at a WTCS district in fiscal years 1994-95 through 2003-04 and concurrently or subsequently enrolled at a UW institution. The majority of students initially enrolled at a UW institution in the year directly following their last WTCS year.

Of the students enrolled in a specific WTCS program, students in associate degree occupational programs formed the largest group (12,624), followed by students in college transfer programs (6,069) and students in technical diploma programs (5,003). While the associate degree and technical diploma groups increased over the last several years, the number of students, who were enrolled in the college transfer program offered at Madison, Milwaukee, and Nicolet Area Technical Colleges and then came to the UWS, decreased slightly. There has also been a significant increase in students who attended a WTCS district and later a UW institution, but were not enrolled in a specific WTCS program (19,552 or 45% in the cohort).

A growing proportion of students in the study group entered the UWS as freshmen. The percentage of freshmen in the cohort increased from 49 percent in 1995-96 to 62 percent in 2004-05. The proportion of students entering at the sophomore level decreased from 18 percent in 1995-96 to 12 percent in 2004-05 while the proportion of students entering as upperclassmen (juniors or seniors) decreased from 11 percent to 9 percent.

The largest group of students (46%) coming to the UWS after attending a WTCS district entered as transfer students. Almost one third (32%) of the students in the cohort were new, degree-seeking students and one sixth (17%) of the students initially enrolled as special (non degree-seeking) students. New, degree-seeking students may receive credit for their prior coursework later in their UW enrollment if a transfer credit evaluation is requested. Since students, who enroll as specials, are not degree-seeking, their prior coursework is usually not evaluated.

Students in the study group who entered the UWS as sophomores or as upperclassmen had similar second year retention rates, 78 percent and 79 percent, respectively; higher than for those who entered as freshmen (70%). The average first year GPA for the overall group was between 2.7 and 2.9 on a 4.0 scale during this time period.

The nursing associate degree, early childhood education, computer information systems (CIS), marketing, and criminal justice programs were selected for additional analysis. For students in these programs who enrolled in the UWS - UWS enrollment, the types of UWS programs that they entered, second year retention rates, combined fifth year graduation/sixth year retention rates, and average first year GPA, were reported. This information should aid in the evaluation of current program-to-program articulation agreements and future revisions to or expansions of the agreements.

The 2006 WTCS/UWS Program Assessment Study identifies students who were enrolled at a WTCS district and subsequently enrolled at a UW institution. It reports both the originating WTCS program and the subsequent UWS program in which the students enrolled, and provides academic outcome information for participating students. Transfer for some of these students may have been facilitated by program-to-program articulation agreements. This study should contribute to the broader goal of ensuring that students utilizing these agreements have the requisite knowledge from their WTCS coursework to succeed in their UWS programs. Future reports may expand on this analysis as well as focus on areas for new WTCS/UWS initiatives.

APPENDICES

Appendix A WTCS/UWS Assessment Cohorts by Initial UWS Enrollment Year and WTCS District

District	UWS Cohort Year										Total	
	95-96	96-97	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	#	%
Blackhawk	39	67	62	89	96	120	109	126	115	121	944	2%
Chippewa Valley	69	128	141	188	223	254	305	307	341	348	2,304	5%
Fox Valley	151	183	193	283	360	352	409	479	446	437	3,293	8%
Gateway	135	124	197	229	249	291	285	354	393	375	2,632	6%
Lakeshore	60	69	96	101	126	131	158	159	161	176	1,237	3%
Madison	549	643	622	726	717	854	871	914	866	872	7,634	18%
Mid-State	66	95	138	142	174	217	248	255	278	241	1,854	4%
Milwaukee	691	834	914	1,004	1,055	899	924	833	873	878	8,905	21%
Moraine Park	57	94	131	147	163	185	233	264	279	263	1,816	4%
Nicolet	88	94	98	108	128	134	145	142	146	111	1,194	3%
Northcentral	75	105	114	180	196	235	269	276	282	299	2,031	5%
Northeast	97	152	168	222	249	291	376	338	437	446	2,776	6%
Southwest	28	50	60	93	62	82	101	90	91	115	772	2%
Waukesha	94	161	170	215	214	214	258	225	283	253	2,087	5%
Western WI	73	146	174	214	225	252	222	239	249	246	2,040	5%
WI Indianhead	56	100	84	119	142	159	256	268	293	252	1,729	4%
Total	2,328	3,045	3,362	4,060	4,379	4,670	5,169	5,269	5,533	5,433	43,248	100%

Appendix B
WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year, WTCS Program Type and Degree Completion Status

UWS Cohort Year		Associate Degree			College Transfer			Technical Diploma			Undeclared	Total		
		Grad	No Grad	Total	Grad	No Grad	Total	Grad	No Grad	Total	No Grad	Grad	No Grad	Total
95-96	#	138	442	580	46	571	617	117	71	188	943	301	2,027	2,328
	%	24%	76%	100%	7%	93%	100%	62%	38%	100%	100%	13%	87%	100%
96-97	#	204	681	885	59	605	664	178	84	262	1,234	441	2,604	3,045
	%	23%	77%	100%	9%	91%	100%	68%	32%	100%	100%	14%	86%	100%
97-98	#	251	702	953	66	600	666	241	121	362	1,381	558	2,804	3,362
	%	26%	74%	100%	10%	90%	100%	67%	33%	100%	100%	17%	83%	100%
98-99	#	310	802	1,112	67	588	655	302	141	443	1,850	679	3,381	4,060
	%	28%	72%	100%	10%	90%	100%	68%	32%	100%	100%	17%	83%	100%
99-00	#	341	934	1,275	63	526	589	318	142	460	2,055	722	3,657	4,379
	%	27%	73%	100%	11%	89%	100%	69%	31%	100%	100%	16%	84%	100%
00-01	#	396	917	1,313	78	521	599	356	180	536	2,222	830	3,840	4,670
	%	30%	70%	100%	13%	87%	100%	66%	34%	100%	100%	18%	82%	100%
01-02	#	443	1,117	1,560	66	571	637	404	193	597	2,375	913	4,256	5,169
	%	28%	72%	100%	10%	90%	100%	68%	32%	100%	100%	18%	82%	100%
02-03	#	461	1,088	1,549	72	533	605	495	191	686	2,429	1,028	4,241	5,269
	%	30%	70%	100%	12%	88%	100%	72%	28%	100%	100%	20%	80%	100%
03-04	#	462	1,251	1,713	65	489	554	502	183	685	2,581	1,029	4,504	5,533
	%	27%	73%	100%	12%	88%	100%	73%	27%	100%	100%	19%	81%	100%
04-05	#	443	1,241	1,684	49	434	483	594	190	784	2,482	1,086	4,347	5,433
	%	26%	74%	100%	10%	90%	100%	76%	24%	100%	100%	20%	80%	100%
Total	#	3,449	9,175	12,624	631	5,438	6,069	3,507	1,496	5,003	19,552	7,587	35,661	43,248
	%	27%	73%	100%	10%	90%	100%	70%	30%	100%	100%	18%	82%	100%

Appendix C
WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year and Classification

UWS Cohort Year		Class Level				Total
		Freshman	Sophomore	Upperclass	Special	
1995-96	#	1,131	417	258	522	2,328
	%	49%	18%	11%	22%	100%
1996-97	#	1,550	476	318	701	3,045
	%	51%	16%	10%	23%	100%
1997-98	#	1,818	476	331	737	3,362
	%	54%	14%	10%	22%	100%
1998-99	#	2,328	529	409	794	4,060
	%	57%	13%	10%	20%	100%
1999-00	#	2,586	545	349	899	4,379
	%	59%	12%	8%	21%	100%
2000-01	#	2,723	549	396	1,002	4,670
	%	58%	12%	8%	21%	100%
2001-02	#	3,071	576	455	1,067	5,169
	%	59%	11%	9%	21%	100%
2002-03	#	3,181	615	431	1,042	5,269
	%	60%	12%	8%	20%	100%
2003-04	#	3,464	645	495	929	5,533
	%	63%	12%	9%	17%	100%
2004-05	#	3,359	673	475	926	5,433
	%	62%	12%	9%	17%	100%
Total	#	25,211	5,501	3,917	8,619	43,248
	%	58%	13%	9%	20%	100%

Appendix D
WTCS/UWS Assessment Cohorts
by Initial UWS Entrance Status and Institution

	Transfer		New Degree-Seeking		New Special		Re-Entry/ Continuing		Total
	#	%	#	%	#	%	#	%	
UW-Madison	2,126	48%	1,205	27%	918	21%	219	5%	4,468
UW-Milwaukee	4,505	51%	1,691	19%	1,875	21%	724	8%	8,795
UW-Eau Claire	624	36%	772	45%	282	16%	56	3%	1,734
UW-Green Bay	966	52%	608	33%	203	11%	71	4%	1,848
UW-La Crosse	1,169	57%	589	29%	244	12%	38	2%	2,040
UW-Oshkosh	1,193	46%	1,069	41%	206	8%	118	5%	2,586
UW-Parkside	960	45%	612	28%	463	22%	118	5%	2,153
UW-Platteville	587	37%	578	37%	269	17%	143	9%	1,577
UW-River Falls	215	33%	337	52%	82	13%	13	2%	647
UW-Stevens Point	1,157	53%	573	26%	357	16%	96	4%	2,183
UW-Stout	1,941	66%	566	19%	169	6%	263	9%	2,939
UW-Superior	463	59%	196	25%	65	8%	65	8%	789
UW-Whitewater	1,265	55%	756	33%	172	8%	87	4%	2,280
UW Colleges	2,697	29%	4,075	44%	2,050	22%	387	4%	9,209
Total	19,868	46%	13,627	32%	7,355	17%	2,398	6%	43,248

Note:

"**Transfers**" include (1) new students with transfer work, who had not previously enrolled at the UW institution and (2) re-entry students, who re-enrolled at the UW with transfer work.

"**New Degree-Seeking**" students were new to the UW campus, initially enrolling with no transfer work.

"**New Specials**" may have enrolled at the UW with no intent of seeking a degree.

"**Re-entry**" students re-enrolled at the UW institution with no transfer work, and "**Continuing**" students were enrolled at both a WTCS and UW institution during the same year.

Appendix E
Second Year Retention for WTCS/UWS Assessment Cohorts
by Initial UWS Enrollment Year and Classification

UWS Cohort Year	Class Level	# in Cohort	Retained to 2 nd Year	
			#	%
1995-96	Freshman	1,131	767	68%
	Sophomore	417	324	78%
	Upperclass	258	197	76%
	Special	522	145	28%
	Total	2,328	1,433	62%
1996-97	Freshman	1,550	1,054	68%
	Sophomore	476	370	78%
	Upperclass	318	258	81%
	Special	701	210	30%
	Total	3,045	1,892	62%
1997-98	Freshman	1,818	1,289	71%
	Sophomore	476	383	80%
	Upperclass	331	269	81%
	Special	737	236	32%
	Total	3,362	2,177	65%
1998-99	Freshman	2,328	1,623	70%
	Sophomore	529	408	77%
	Upperclass	409	320	78%
	Special	794	245	31%
	Total	4,060	2,596	64%
1999-00	Freshman	2,586	1,801	70%
	Sophomore	545	419	77%
	Upperclass	349	262	75%
	Special	899	282	31%
	Total	4,379	2,764	63%
2000-01	Freshman	2,723	1,913	70%
	Sophomore	549	432	79%
	Upperclass	396	310	78%
	Special	1,002	297	30%
	Total	4,670	2,952	63%
2001-02	Freshman	3,071	2,149	70%
	Sophomore	576	435	76%
	Upperclass	455	379	83%
	Special	1,067	365	34%
	Total	5,169	3,328	64%
2002-03	Freshman	3,181	2,285	72%
	Sophomore	615	492	80%
	Upperclass	431	342	79%
	Special	1,042	327	31%
	Total	5,269	3,446	65%
2003-04	Freshman	3,464	2,470	71%
	Sophomore	645	509	79%
	Upperclass	495	389	79%
	Special	929	298	32%
	Total	5,533	3,666	66%
Overall	Freshman	21,852	15,351	70%
	Sophomore	4,828	3,772	78%
	Upperclass	3,442	2,726	79%
	Special	7,693	2,405	31%
	Total	37,815	24,254	64%

Appendix F
Second Year Retention for WTCS/UWS Assessment Cohorts
for Specific Program Groups
by Initial UWS Classification

	Class Level	# in Cohort	Retained to 2nd Year	
			#	%
WTCS Nursing AD Students in UWS Health-Related Majors	Freshman	112	85	76%
	Sophomore	76	51	67%
	Upperclass	150	107	71%
	Special	11	10	91%
	Total	349	253	72%
All WTCS Nursing AD Students	Freshman	433	264	61%
	Sophomore	133	83	62%
	Upperclass	177	129	73%
	Special	379	104	27%
	Total	1,122	580	52%
WTCS Early Childhood Education Students in UWS Education Majors	Freshman	61	42	69%
	Sophomore	35	26	74%
	Upperclass	30	23	77%
	Special	3	1	33%
	Total	129	92	71%
All WTCS Early Childhood Education Students	Freshman	203	126	62%
	Sophomore	58	39	67%
	Upperclass	36	27	75%
	Special	102	29	28%
	Total	399	221	55%
WTCS CIS Students in UWS Business & Information Systems Majors	Freshman	243	170	70%
	Sophomore	68	50	74%
	Upperclass	52	44	85%
	Special	13	9	69%
	Total	376	273	73%
All WTCS Computer Information Systems (CIS) Students	Freshman	822	517	63%
	Sophomore	144	104	72%
	Upperclass	99	74	75%
	Special	252	81	32%
	Total	1,317	776	59%
WTCS Marketing Students in UWS Business & Marketing Ed Majors	Freshman	173	121	70%
	Sophomore	88	77	88%
	Upperclass	88	74	84%
	Special	7	6	86%
	Total	356	278	78%
All WTCS Marketing Students	Freshman	768	515	67%
	Sophomore	157	129	82%
	Upperclass	110	92	84%
	Special	152	50	33%
	Total	1,187	786	66%
UWS Criminal Justice & Public Administration Majors	Freshman	103	72	70%
	Sophomore	32	24	75%
	Upperclass	4	4	100%
	Special	3	2	67%
	Total	142	102	72%
All WTCS Criminal Justice Students	Freshman	667	414	62%
	Sophomore	119	83	70%
	Upperclass	55	39	71%
	Special	110	27	25%
	Total	951	563	59%

Appendix G
Combined 5th Year Graduation Rate and 6th Year Retention Rate
for WTCS/UWS Assessment Cohorts*
for Specific Program Groups

	# in Cohort	Graduated in 5 Years		Retained to 6th Year		Combined Rate
		#	%	#	%	
WTCS Nursing AD Students in UWS Health-Related Majors	86	23	27%	10	12%	39%
All WTCS Nursing AD Students	249	38	15%	22	9%	24%
WTCS Early Childhood Education Students in UWS Education Majors	38	15	39%	3	8%	47%
All WTCS Early Childhood Education Students	104	26	25%	7	7%	32%
WTCS CIS Students in UWS Information Systems Majors	61	16	26%	7	11%	38%
All WTCS Computer Information Systems (CIS) Students	297	42	14%	38	13%	27%
WTCS Marketing Students in UWS Business & Marketing Ed Majors	148	65	44%	9	6%	50%
All WTCS Marketing Students	399	99	25%	32	8%	33%
UWS Criminal Justice & Public Administration Majors	51	20	39%	3	6%	45%
All WTCS Criminal Justice Students	350	62	17%	28	8%	25%

*Including 1995-96 to 1999-00 degree-seeking students only.

Appendix H
Average First Year GPA for WTCS/UWS Assessment Cohorts
for Specific Program Groups by Initial UWS Enrollment

WTCS Program	UWS Cohort	# in Cohort	First Year GPA
WTCS Nursing Associate Degree Students	1995-96	36	2.9
	1996-97	90	3.0
	1997-98	83	3.1
	1998-99	85	2.9
	1999-00	92	3.1
	2000-01	123	2.8
	2001-02	123	3.0
	2002-03	160	2.9
	2003-04	166	2.9
	2004-05	164	2.9
WTCS Early Childhood Educaton Students	1995-96	9	2.9
	1996-97	18	2.6
	1997-98	20	2.7
	1998-99	35	2.5
	1999-00	43	2.6
	2000-01	41	2.7
	2001-02	56	3.1
	2002-03	46	2.6
	2003-04	67	2.8
	2004-05	64	2.7
WTCS Computer Information Systems (CIS) Students	1995-96	35	2.9
	1996-97	53	2.8
	1997-98	80	2.7
	1998-99	102	2.7
	1999-00	109	2.4
	2000-01	146	2.9
	2001-02	192	2.8
	2002-03	213	2.9
	2003-04	199	2.7
	2004-05	188	2.7
WTCS Marketing Students	1995-96	53	2.5
	1996-97	96	2.5
	1997-98	80	2.7
	1998-99	109	2.6
	1999-00	124	2.7
	2000-01	118	2.6
	2001-02	171	2.7
	2002-03	131	2.6
	2003-04	154	2.6
	2004-05	151	2.6
WTCS Criminal Justice Students	1995-96	54	2.6
	1996-97	69	2.3
	1997-98	89	2.5
	1998-99	82	2.5
	1999-00	104	2.4
	2000-01	93	2.5
	2001-02	109	2.7
	2002-03	116	2.6
	2003-04	125	2.5
	2004-05	110	2.6
Overall WTCS/UWS Assessment Cohort	1995-96	2,328	2.7
	1996-97	3,045	2.8
	1997-98	3,362	2.8
	1998-99	4,060	2.8
	1999-00	4,379	2.8
	2000-01	4,670	2.9
	2001-02	5,169	2.9
	2002-03	5,269	2.9
	2003-04	5,533	2.8
	2004-05	5,433	2.8

Appendix I
WTCS/UWS Assessment Cohorts
Students in WTCS Nursing Associate Degree Programs
Enrollment by WTCS District and UWS Institution

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC	TOTAL
Blackhawk	3	2	1			1	1	1		1			6	31	47
Chippewa Valley			35	1	2				3		10		1	11	63
Fox Valley	1			20		44				6				21	92
Gateway	1	29	1	2		3	54	1					3	5	99
Lakeshore	1	4		18		2	1			1				49	76
Madison	37	5		1		2							1	10	56
Mid-State	1			1		11				23				13	49
Milwaukee	2	101	1	2		3	5						2	13	129
Moraine Park	3	10		1		9		1		1				46	71
Nicolet	1	3	5	21	1	1		1		8	2	5	1	5	54
Northcentral	1	3		6	1	24		1		18		1		38	93
Northeast WI		2	1	57		3				14				9	86
Southwest WI	2			1				11		1				10	25
Waukesha	1	22			1		2			1	1		4	46	78
Western WI	1	2	1	1	38	2	1	1		2	1			6	56
WI Indianhead		1	8	5		1	1		5	2	4	11		10	48
* Overall Total	55	184	53	137	43	106	65	17	8	78	18	17	18	323	1,122
* Major-Specific Total	42	72	26	113	0	93	0	0	0	1	2	0	0	0	349

Note: Shaded areas indicate WTCS/UWS institutions with transfer agreements in nursing.

* Overall Total includes all WTCS Nursing Associate Degree students who enrolled in the UWS; Major-Specific Total includes only WTCS Nursing Associate Degree students enrolled in UWS Health-Related Majors.

Appendix J
WTCS/UWS Program-to-Program Transfer Agreements
for WTCS Nursing Associate Degree Programs

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC
Blackhawk	N1	N1	N1	N1		N1								
Chippewa Valley	N1	N1	N1	N1		N1								
Fox Valley	N1	N1	N1	N1		N1								
Gateway	N1	N1	N1	N1		N1	N2							
Lakeshore	N1	N1	N1	N1		N1								
Madison	N1	N1	N1	N1		N1								
Mid-State	N1	N1	N1	N1		N1								
Milwaukee	N1	N1	N1	N1		N1								
Moraine Park	N1	N1	N1	N1		N1								
Nicolet	N1	N1	N1	N1		N1								
Northcentral	N1	N1	N1	N1		N1								
Northeast WI	N1	N1	N1	N1		N1								
Southwest WI	N1	N1	N1	N1		N1								
Waukesha	N1	N1	N1	N1		N1								
Western WI	N1	N1	N1	N1		N1								
WI Indianhead	N1	N1	N1	N1		N1								

N1 = WTCS Nursing Associate Degree to UWS Collaborative Nursing (2001)

N2 = WTCS Nursing Associate Degree to UW-Parkside and UW-Milwaukee Consortial Nursing Program (2000)

Appendix K
WTCS/UWS Assessment Cohorts
Students in WTCS Early Childhood Education Programs
Enrollment by WTCS District and UWS Institution

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC	TOTAL
Blackhawk	1	1						1			1		6		10
Chippewa Valley															
Fox Valley		1		4		19					11			25	60
Gateway		6					17			1			1		25
Lakeshore															
Madison	12	3						4	1		2		4	2	28
Mid-State						1				6	1			2	10
Milwaukee		55						1			2	1	1	5	65
Moraine Park		6		1	1	1							1	11	21
Nicolet			1			1		1		13	3	14		1	34
Northcentral														2	2
Northeast WI		2													2
Southwest WI	1	1			2			14				1		1	20
Waukesha		12		1		1		1		1	1		6	17	40
Western WI					24		1		1		5			3	34
WI Indianhead								2	2		24	17		3	48
* Overall Total	14	87	1	6	27	23	18	24	4	21	50	33	19	72	399
* Major-Specific Total	2	26	1	1	13	9	0	9	0	4	37	13	14	0	129

Note: Shaded areas indicate WTCS/UWS institutions with transfer agreements in early childhood education.
 * Overall Total includes all WTCS Early Childhood Education students who enrolled in the UWS; Major-Specific Total includes only WTCS Early Childhood Education students enrolled in UWS Education Majors.

Appendix L
WTCS/UWS Program-to-Program Transfer Agreements
for WTCS Early Childhood Education Program

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC
Blackhawk		E1				E3	E4				E6		E7	
Chippewa Valley														
Fox Valley		E1				E3	E4				E6		E7	
Gateway		E1				E3	E4				E6		E7	
Lakeshore		E1				E3	E4				E6		E7	
Madison		E1				E3	E4	E5			E6		E7	
Mid-State		E1				E3	E4				E6		E7	
Milwaukee		E1				E3	E4				E6		E7	
Moraine Park		E1				E3	E4				E6		E7	
Nicolet		E1				E3	E4				E6		E7	
Northcentral		E1				E3	E4				E6		E7	
Northeast WI		E1		E2		E3	E4				E6		E7	
Southwest WI		E1				E3	E4	E5			E6		E7	
Waukesha		E1				E3	E4				E6		E7	
Western WI		E1				E3	E4				E6		E7	
WI Indianhead		E1				E3	E4				E6		E7	

E1 = WTCS Early Childhood Education to UW-Milwaukee Early Childhood/Community Education (2001)
 E2 = WTCS Early Childhood Education to UW-Green Bay Education/Early Childhood or Midchildhood License Program (2005)
 E3 = WTCS Early Childhood Education to UW-Oshkosh (PK-3/PK-6 Certification) (2001)
 E4 = WTCS Early Childhood Education to UW-Parkside Early Childhood Education Certification (2001)
 E5 = WTCS Early Childhood Education to UW-Platteville Elementary Education/Early Childhood (2000)
 E6 = WTCS Early Childhood Education to UW-Stout Early Childhood Education (2003)
 / Human Development & Family Studies(2004)
 E7= WTCS Early Childhood Education to UW-Whitewater Elementary Education (PK-6 Certification) (2001)

Appendix M
WTCS/UWS Assessment Cohorts
Students in WTCS Computer Information Systems (CIS) Programs
Enrollment by WTCS District and UWS Institution

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC	TOTAL
Blackhawk								3	1	1			3	28	36
Chippewa Valley		1	36	1	2				8	1	64	2		6	121
Fox Valley	2	7		5		59	1	2		8	4		1	53	142
Gateway	1	3	1				85	4		1		1	10	5	111
Lakeshore		3		2	1			1			1			35	43
Madison	34	5	3	1	2	4	5	11		5	3	1	18	10	102
Mid-State	1	1	3	2		1			1	36				15	60
Milwaukee		198	2	2	2	2	13	4		1	5		8	19	256
Moraine Park		5		1		10		1			4			22	43
Nicolet					1	2		1		2	1	2		2	11
Northcentral		4	4		1	2	1			16	8	1	1	33	71
Northeast WI		1		24		6		2		2	2	1		14	52
Southwest WI					1			21		1	1			17	41
Waukesha	1	25		1			3	1		4	1		8	39	83
Western WI		4	2		57			4	1	1	5	2	1	5	82
WI Indianhead	1	1	3					1	7	2	9	29		10	63
* Overall Total	40	258	54	39	67	86	108	56	18	81	108	39	50	313	1,317
* Major-Specific Total	3	105	16	9	25	30	30	19	7	36	57	13	27	0	377

Note: Shaded areas indicate WTCS/UWS institutions with transfer agreements in CIS.

* Overall Total includes all WTCS Computer Information Systems (CIS) students who enrolled in the UWS; Major-Specific Total includes only WTCS CIS students enrolled in UWS Business or Information Systems Majors.

Appendix N
WTCS/UWS Program-to Program Transfer Agreements
for WTCS Computer Information Systems (CIS) Programs

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC
Blackhawk								C4						
Chippewa Valley								C4			C7			
Fox Valley						C2		C4		C6				
Gateway		C1					C3	C4						
Lakeshore								C4						
Madison								C4						
Mid-State								C4		C6				
Milwaukee		C1						C4						
Moraine Park		C1						C4						
Nicolet								C4						
Northcentral								C4		C6				
Northeast WI								C4						
Southwest WI								C4						
Waukesha														
Western WI								C4						
WI Indianhead								C4	C5				C8	

C1 = WTCS Computer Information System (CIS) to UW-Milwaukee Information Resources (2004)

C2 = WTCS Computer Information System (CIS) to UW-Oshkosh Comp Science (1999) & BLS Organizational Admin (2002)

C3 = WTCS Computer Information System (CIS) to UW-Parkside Business Management (2002)

C4 = WTCS Computer Information System (CIS) to UW-Platteville Business (1993 - 2003) &

Agriculture (2002) & Biological Science (2002) & Computer Information System (2003)

C5 = WTCS Computer Information System (CIS) to UW-River Falls Computer Information Systems & Business (2002)

C6 = WTCS Computer Information System (CIS) to UW-Stevens Point Computer Information Systems (1990, 1995)

C7 = WTCS Computer Information System (CIS) to UW-Stout Telecommunication Systems (2002)

C8 = WTCS Computer Information System (CIS) to UW-Superior Computer Information Systems (1997)

Appendix O
WTCS/UWS Assessment Cohorts
Students in WTCS Marketing Programs
Enrollment by WTCS District and UWS Institution

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC	TOTAL
Blackhawk		2				2		2			2		5	16	29
Chippewa Valley	1	1	42	1				2	3	2	117	2		7	178
Fox Valley		8	2	3		38	1	4		4	17			32	109
Gateway		5			2	2	48	1			5		15	3	81
Lakeshore	1	2		3						1	5			49	61
Madison	13	12	1	1	3	3	1	11			11		13	11	80
Mid-State			1			1	1			26	1	1		7	38
Milwaukee	1	51			1	3	6	1		1	4	1	3	6	78
Moraine Park	1	1		1		5		1			3		1	23	36
Nicolet		1	1					1		2		1			6
Northcentral		3			1	1		1		17	23			29	75
Northeast WI	1	8	1	56	1	12	2			3	16			11	111
Southwest WI								5			2			3	10
Waukesha	1	30				4	1		1	1	2		6	50	96
Western WI		2			111	1	1	2		4	21	1	1	8	152
WI Indianhead			1						5		11	21		9	47
* Overall Total	19	126	49	65	119	72	61	31	9	61	240	27	44	264	1,187
* Major-Specific Total	1	32	6	9	27	24	8	15	2	14	186	13	23	0	360

Note: Shaded areas indicate UWS/WTCS institutions with transfer agreements in marketing.
* Overall Total includes all WTCS Marketing students who enrolled in the UWS; Major-Specific Total includes only WTCS Marketing students enrolled in UWS Business or Marketing Education Majors.

Appendix P
WTCS/UWS Program-to Program Transfer Agreements
for WTCS Marketing Programs

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC
Blackhawk								M4					M6	
Chippewa Valley								M4			M5		M6	
Fox Valley								M4			M5		M6	
Gateway							M3	M4			M5		M6	
Lakeshore											M5		M6	
Madison								M4			M5		M6	
Mid-State								M4					M6	
Milwaukee		M1						M4					M6	
Moraine Park								M4			M5		M6	
Nicolet								M4					M6	
Northcentral								M4			M5		M6	
Northeast WI								M4						
Southwest WI								M4					M6	
Waukesha								M4			M5		M6	
Western WI					M2			M4					M6	
WI Indianhead											M5			

M1 = WTCS Marketing to UW-Milwaukee Marketing Communication (1999)
M2 = WTCS Marketing to UW-La Crosse Business Administration (1994)
M3 = WTCS Marketing to UW-Parkside Business (2002)
M4 = WTCS Marketing to UW-Platteville Business (1998-2001) & Biological Science (2002) & Agriculture (2002)
M5 = WTCS Marketing to UW-Stout Marketing & Business Education (1991-2004)
M6 = WTCS Marketing to UW-Whitewater Business & Economics (1995)

Appendix Q
WTCS/UWS Assessment Cohorts
Students in WTCS Criminal Justice Programs
Enrollment by WTCS District and UWS Institution

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW	UWC	TOTAL
Blackhawk						2	1	3		1			13	24	44
Chippewa Valley			23		3	1	1	1	2	1	42	5	1	9	89
Fox Valley	1	4	1	4	1	31	1	2	2	4	1		1	28	81
Gateway	1	11				3	68	3			1		7	6	100
Lakeshore		3				1		1							12
Madison	7	11	2		2	5	1	15		5	1	2	14	14	79
Mid-State			1			1				16	5				10
Milwaukee		125			1	4	12	2				1	3	8	156
Moraine Park		1				7					1			24	33
Nicolet		1		1		4		2	1	1		4		4	18
Northcentral			1	2	1	3			1	6				21	35
Northeast WI		6	1	61	1	11	2	2		3				14	101
Southwest WI						1		3						1	5
Waukesha		28			1		3		1		1		8	36	78
Western WI			1	1	27	1	1	5		3	4			1	44
WI Indianhead			2						1		10	12		13	38
* Overall Total	9	190	32	69	37	75	90	39	8	40	66	24	47	225	951
* Major-Specific Total	0	56	12	6	1	29	16	16	1	0	0	2	3	0	142

Note: Shaded areas indicate WTCS/UWS institutions with transfer agreements in criminal justice.
* Overall Total includes all WTCS Criminal Justice students who enrolled in the UWS; Major-Specific Total includes only WTCS Criminal Justice students enrolled in UWS Criminal Justice or Public Administration Majors.

Appendix R
WTCS/UWS Program-to Program Transfer Agreements
for WTCS Criminal Justice Programs

	MSN	MIL	EAU	GBY	LAC	OSH	PKS	PLT	RVF	STP	STO	SUP	WTW
Blackhawk													
Chippewa Valley											P5		
Fox Valley						P3							
Gateway							P4						P6
Lakeshore													
Madison		P1											P6
Mid-State													
Milwaukee		P1											P6
Moraine Park													
Nicolet													
Northcentral													
Northeast WI				P2			P4						
Southwest WI													
Waukesha		P1											P6
Western WI													
WI Indianhead													

P1 = WTCS Criminal Justice to UW-Milwaukee Criminal Justice (2000, 2003, 2004)
P2 = WTCS Criminal Justice to UW-Green Bay Interdisciplinary Studies (1996, 2000)
P3 = WTCS Criminal Justice to UW-Oshkosh Criminal Justice (2002)
P4 = WTCS Criminal Justice to UW-Parkside Criminal Justice (2000-2001)
P5 = WTCS Criminal Justice to UW-Stout Psychology (2001) & Vocational-Rehabilitation (Criminal Justice Certification) (2002)
P6 = WTCS Criminal Justice to UW-Whitewater Sociology Major-Criminal Justice Emphasis (2002, 2005)

END NOTES

¹ Under current WTCS/UWS transfer policy, courses from WTCS associate degree occupational programs may be accepted by UW System institutions in two ways: (1) A maximum of 30 credits from approved general education courses in social science, behavioral science, communications, mathematics, and natural science may transfer; and (2) WTCS students in associate degree programs may transfer additional occupational coursework where WTCS/UWS program to program articulation agreements exist or the occupational coursework may transfer on a course-to-course basis.

² The WTCS/UWS Assessment Cohort included WTCS students who enrolled in FTE-generating courses at the associate degree, college parallel or technical diploma level in fiscal years 1994-95 through 2003-04. It excluded students who enrolled in WTCS courses as part of their high school curriculum ("high school specials"). Within the UWS, the cohort included only students who enrolled at the undergraduate level, excluding high school specials. Students were also excluded from the study if they attended a UW campus first and later enrolled at a WTCS district, and if this UWS enrollment was in the 1989-90 academic year or later.

³ Student classification is based on the total number of degree credits, which may have been accumulated from more than one transfer institution. While credit ranges differ among UW institutions, in general, freshman students have 0-29 degree credits, sophomore students between 30 and 59 credits, juniors have between 60 and 89 credits, and seniors have 90 or more credits. The classifications used for this report are those provided by the UW institutions.

⁴ Students were grouped into an academic year cohort based on their initial UWS enrollment year, combining summer, fall, winter and spring term enrollees. They were counted as retained to a second year if they enrolled in any term in the following year or received a bachelor's degree in either their first or second enrollment year.

⁵ Classification of Instructional Programs (CIP) is the U.S. Department of Education's standard educational program classification system. Postsecondary institutions assign each of their programs to a CIP code for federal reporting purposes. The first two digits of the six digit CIP code designate a discipline area. For this report CIP discipline areas were combined into program groups as follows:

Group	Program Group Title	CIP Areas in Group
1	Ag & Nat Resources	01 - Agriculture, Agriculture Operations, and Related Sciences 03 - Natural Resources and Conservation
2	Biological/Physical Sciences	26 - Biological and Biomedical Sciences 40 - Physical Sciences 41 - Science Technologies/Technicians
3	Business	52 - Business, Management, Marketing, and Related Support Services
4	Communications/Arts	09 - Communications, Journalism, and Related Programs 10 - Communications Technologies/Technicians and Support Services 50 - Visual and Performing Arts
5	Education	13 - Education
6	Engineering & Architecture	14 - Engineering 15 - Engineering Technologies/Technicians 04 - Architecture and Related Services
7	Health-Related Professions	51 - Health Professions and Related Clinical Sciences 31 - Parks, Recreation, Leisure and Fitness Studies
8	Home Economics/Personal Services	19 - Family and Consumer Sciences/Human Sciences 12 - Personal & Culinary Services
9	Humanities/Liberal Arts	05 - Area, Ethnic, Cultural and Gender Studies 16 - Foreign Languages, Literatures and Linguistics 23 - English Language and Literature/Letters 24 - Liberal Arts and Sciences, General Studies and Humanities 30 - Multi/Interdisciplinary Studies 38 - Philosophy and Religious Studies 39 - Theology and Religious Vocations
10	Math, Computer & Info Sciences	11 - Computer and Information Sciences and Support Services 25 - Library Science 27 - Mathematics and Statistics
11	Public Admin/Legal Services	22 - Legal Professions and Studies 43 - Security and Protective Services 44 - Public Administration and Social Service Professions 49 - Transportation and Materials Moving 29 - Military Technologies
12	Social Sciences	42 - Psychology 45 - Social Sciences 54 - History
13	Trades/Technical	46 - Construction Trades 47 - Mechanic and Repair Technologies/Technicians 48 - Precision Production Trades

⁶ The table below lists the (1) WTCS programs and their associated program codes and (2) UWS majors and their major codes that were included in the program-specific sections of this report.

WTCS Program	WTCS Program Code	UWS Major	UWS Major Code
Early Childhood Education	103071	Early Childhood Education	8231
		Elementary Education	8021
Computer Information Systems (CIS)	101070 through 101079	Business Administration/Management	5061-5062
	101521 through 101528		5011
	101501 through 101504	5069	
	101541 through 101548 101352 through 101353	Computer Science/Information Systems	7011 7021 through 7024 7071
Marketing	101043	Marketing	5091
	101046		8381
	101048		
	101111		
Nursing	105101	Nursing	12031
			12032
Criminal Justice	105041	Criminal Justice	21051
	105042		