

GC Course Completion Rates for Academic Years 1994/1995 – 1997/1998

Office of Research and Evaluation (ORE)

Contents

- [INTRODUCTION: Data Included](#)
- [GROUP OF STUDENTS COMPRISING THE REPORT](#)
- [COURSE COMPLETION RATES](#)
- [THE BIG PICTURE](#)
- [COURSE COMPLETION FOR GC AND NON GC STUDENTS](#)
- [COURSE COMPLETION FOR COURSES WITH MORE THAN 50 NON-GC STUDENTS](#)
- [CONCLUSION](#)

INTRODUCTION: Data Included

This report is a follow up to the 1993/94 Report on Completion Rates for GC Courses done by Robert DelMas and Cathrine Wambach. This current report considers data on course completion rates from the past four years. It describes any patterns in completion rates over those four years and compares the conclusions about course completion rates from the last report with conclusions drawn from the most current data.

Grades awarded for all GC classes from fall 1994 through fall 1998 comprise this report. Each academic year contains combined information from fall, winter, spring and summer terms. Grades were broken down into two categories; Completed - with grades of A, B, C, D or S; and Non-completed – with grades of F, N, I or W. Students were first broken down into two categories; those registered in General College at the time of the course (GC Student); and those not registered in General College at the time of the course (Non GC Student).. The latter group does not represent a pure population of non-developmental college students, since some of them most likely were registered with GC at some point in time. A sub-category of Non GC Student was created to capture the number of cases in this group. This category, called Transfer Students, contains cases where the student was not registered with GC at the time of the course, but was registered in GC at some other point in time. The transfer group comprised a small percentage of the total cases. For the entire four year period there were 35,781 grade records, 82.7% of which were GC students', 3.2% of which were transfer students' and 14.1% of which were non GC students' (see Table 1). These breakdowns have remained relatively stable throughout each of the four years (see Table 2).

Table 1 – Breakdown of Grade Records by Student Type

	Frequency	Percent	Cumulative Percent
Non GC student	5045	14.1	14.1
Transfer student	1137	3.2	17.3
GC student	29599	82.7	100.0
Total	35781	100.0	

Table 2 – Breakdown of Grade Records by Student Type and Year

	Non GC student		Transfer student		GC student		Total	
	Count	%	Count	%	Count	%	Count	%
94/95	1321	15.7%	241	2.9%	6871	81.5%	8433	100.0%
95/96	1207	13.7%	221	2.5%	7352	83.7%	8780	100.0%
96/97	1121	13.0%	327	3.8%	7174	83.2%	8622	100.0%
97/98	1396	14.0%	348	3.5%	8202	82.5%	9946	100.0%

Courses were classified into 11 course area categories: Preparatory mathematics (611,615,616,617,621,623,625,631,643), Mathematical thinking (1454,1456), Computing (1571,1575), Speech (1461,1465,1464), Composition (1421,1422), Reading (1041,1042,1051), Academic acculturation (1076,1086), Science (1111,1112,1131,1132,1137,1160,1161,1162,1166,1171,1172,1173), Social science (1211,1221,1231,1233,1235,1251,1281,1282,1283,1284,1285,1294,1297,1701,1721,1733,1814,1851) Business (1511,1513,1537,1540,1587), and Humanities (1311,1312,1331,1357,1364,1365,1366,1367,1371,1374,1375,1481,1482,1483,1816,1836).

GROUP OF STUDENTS COMPRISING THE REPORT

From over the four year period of 1994/95-1997/98 there were 35,781 grade records based on 7923 students; 3865 (49%) of whom were GC students, 511 (6%) transfer students, and 3547 (45%) non GC students. An analysis of student entry characteristics brought forth some expected patterns. The non GC group had the highest college entry statistics (mean High School GPA (HSGPA) = 3.25, mean High School Percentile Rank (HSPR) = 78, and mean ACT composite score (ACTCOMP) = 22.56). The other two groups had lower means, with the transfer group being slightly above the GC group on HSGPA (GC = 2.50; transfer = 2.60) and HSPR (GC = 45; transfer = 48), but not on ACTCOMP (GC = 19.85; transfer = 18.75).

GC students comprised the majority (>50%) of all grade records in all course areas except for computing (see Table 3). Over the four year period, the course areas of composition, reading and academic acculturation contained the most GC students (>90%), followed by speech, science, social science and humanities (>80%). The course areas of mathematical thinking and computing contained the most transfer students, while composition, reading and academic acculturation contained the least (as would be expected since these students would have completed these courses while in GC). The course area of computing serves the most non GC students, followed by the areas of mathematics and business, and then by speech, science, social science and humanities.

Table 3 - Breakdown of Grade Records by Student Type and Course Area

	Non GC student		Transfer student		GC student		Total	
	Count	%	Count	%	Count	%	Count	%
preparatory mathematics	1398	22.7%	144	2.3%	4623	75.0%	6165	100.0%
mathematical thinking	314	28.7%	113	10.3%	668	61.0%	1095	100.0%
computing	253	45.8%	49	8.9%	251	45.4%	553	100.0%
speech	132	13.6%	32	3.3%	806	83.1%	970	100.0%
composition	87	1.5%	43	.8%	5603	97.7%	5733	100.0%
reading	1	.1%	0	0%	667	99.9%	668	100.0%
academic acculturation	32	5.6%	5	.9%	538	93.6%	575	100.0%
science	893	14.7%	285	4.7%	4896	80.6%	6074	100.0%
social science	1026	14.0%	240	3.3%	6073	82.7%	7339	100.0%
business	241	29.2%	26	3.2%	558	67.6%	825	100.0%
humanities	544	10.1%	162	3.0%	4674	86.9%	5380	100.0%

The distribution of grade records for course area by student type was further broken down by year to examine any trends in the types of students registering in each area (see table 4). Over the four years the following course areas appear to be attracting more GC students; preparatory mathematics (69% in 1994: 81% in 1997), business (55% in 1009: 84% in 1997) and, to some extent, academic acculturation (88% in 1994: 95% in 1997). The following areas appear to be attracting less GC students; mathematical thinking (69% in 1994: 54% in 1997), computing (31% in 1994: 67% in 1995: 69% in 1996: 21% in 1997) and, to some extent, speech (83% in 1994: 79% in 1997).

Table 4 - Breakdown of Grade Records by Student Type, Course Area and Year

		Non GC student		Transfer student		GC student		Total	
		Count	%	Count	%	Count	%	Count	%
preparatory mathematics	94/95	502	28.7%	37	2.1%	1212	69.2%	1751	100.0%
	95/96	365	24.0%	31	2.0%	1128	74.0%	1524	100.0%
	96/97	281	20.3%	40	2.9%	1064	76.8%	1385	100.0%
	97/98	250	16.6%	36	2.4%	1219	81.0%	1505	100.0%
mathematical thinking	94/95	58	22.7%	22	8.6%	176	68.8%	256	100.0%
	95/96	46	20.5%	13	5.8%	165	73.7%	224	100.0%
	96/97	83	34.6%	34	14.2%	123	51.3%	240	100.0%
	97/98	127	33.9%	44	11.7%	204	54.4%	375	100.0%
computing	94/95	89	57.4%	18	11.6%	48	31.0%	155	100.0%
	95/96	38	27.7%	7	5.1%	92	67.2%	137	100.0%
	96/97	31	26.3%	6	5.1%	81	68.6%	118	100.0%
	97/98	95	66.4%	18	12.6%	30	21.0%	143	100.0%
speech	94/95	25	11.4%	2	.9%	193	87.7%	220	100.0%
	95/96	32	13.7%	8	3.4%	194	82.9%	234	100.0%
	96/97	33	12.9%	10	3.9%	212	83.1%	255	100.0%
	97/98	42	16.1%	12	4.6%	207	79.3%	261	100.0%
composition	94/95	12	.9%	19	1.5%	1265	97.6%	1296	100.0%
	95/96	5	.4%	1	.1%	1385	99.6%	1391	100.0%
	96/97	37	2.7%	12	.9%	1338	96.5%	1387	100.0%
	97/98	33	2.0%	11	.7%	1615	97.3%	1659	100.0%
reading	94/95	0	0%	0	0%	185	100.0%	185	100.0%
	95/96	0	0%	0	0%	195	100.0%	195	100.0%
	96/97	0	0%	0	0%	151	100.0%	151	100.0%
	97/98	1	.7%	0	0%	136	99.3%	137	100.0%
academic acculturation	94/95	10	10.9%	1	1.1%	81	88.0%	92	100.0%
	95/96	4	4.5%	0	0%	84	95.5%	88	100.0%
	96/97	9	4.7%	2	1.0%	180	94.2%	191	100.0%
	97/98	9	4.4%	2	1.0%	193	94.6%	204	100.0%
science	94/95	214	15.4%	59	4.3%	1114	80.3%	1387	100.0%
	95/96	206	14.0%	47	3.2%	1215	82.8%	1468	100.0%
	96/97	188	12.6%	84	5.6%	1218	81.7%	1490	100.0%
	97/98	285	16.5%	95	5.5%	1349	78.0%	1729	100.0%
social science	94/95	177	11.5%	37	2.4%	1327	86.1%	1541	100.0%
	95/96	256	14.5%	58	3.3%	1451	82.2%	1765	100.0%
	96/97	293	15.6%	74	3.9%	1513	80.5%	1880	100.0%
	97/98	300	13.9%	71	3.3%	1782	82.8%	2153	100.0%
business	94/95	97	41.1%	9	3.8%	130	55.1%	236	100.0%
	95/96	84	39.8%	7	3.3%	120	56.9%	211	100.0%
	96/97	33	17.7%	6	3.2%	147	79.0%	186	100.0%

	97/98	27	14.1%	4	2.1%	161	83.9%	192	100.0%
humanities	94/95	116	9.4%	23	1.9%	1095	88.7%	1234	100.0%
	95/96	153	10.4%	40	2.7%	1277	86.9%	1470	100.0%
	96/97	116	9.1%	46	3.6%	1114	87.3%	1276	100.0%
	97/98	159	11.4%	53	3.8%	1188	84.9%	1400	100.0%

It must be taken into account that these trends (and any trends to be discussed in the remainder of this report) could be confounded to some degree by trends in volume of student enrollment for each area, especially when enrollment in a particular area is relatively small to begin with. From 1994/95 to 1997/98, enrollment in the following course areas appears to have increased; academic acculturation (+122%), mathematical thinking (+46%), social science (+40%), composition (+28%), science (+25%), speech (+19%) and humanities (+13%): Enrollment in the following areas appears to have decreased; reading (-26%), business (-19%), preparatory mathematics (-14%) and computing (-8%). The smaller changes could reflect some random fluctuation in registration activity, rather than a true change in enrollment.

COURSE COMPLETION RATES

Because the transfer students are more akin to the GC students, but farther along on their developmental trajectory, it might be expected that this group would have slightly higher completion rates than GC students. For the most part, this pattern holds (contact ORE for more information).. Because of the relatively small number of grade records for transfer students, subsequent discussion will be based upon grouping transfer students with non GC students (i.e. a group containing all those *not* registered in GC *at the time of* the course, regardless of their history)

First consideration will be given to course area completion rates over the four years for all students combined. Then the course area completion rates over the four years will be considered separately for GC and non GC students.

THE BIG PICTURE

Table 5 contains the overall course completion rates for each area and each of the four years. From 1994/95 to 1997/98, the course completion rates appear to have slightly increased (difference from 94/94 to 97/98 of about 3%-5%) in all areas except for speech, composition, and reading. The only area where course completion seems to have increased markedly is academic acculturation (with a difference from 94/95 to 97/98 of 16%). Again, it must be taken into account that these trends could be confounded to some degree by trends in volume of student enrollment for each area, especially when enrollment in a particular area is relatively small to begin with.

Table 5 - Course Completion Rates for Course Area by Year

		Non-completed		Completed		Total	
		Count	%	Count	%	Count	%
preparatory mathematics	94/95	444	25.4%	1307	74.6%	1751	100.0%
	95/96	374	24.5%	1150	75.5%	1524	100.0%
	96/97	364	26.3%	1021	73.7%	1385	100.0%
	97/98	325	21.6%	1180	78.4%	1505	100.0%
mathematical thinking	94/95	29	11.3%	227	88.7%	256	100.0%
	95/96	41	18.3%	183	81.7%	224	100.0%
	96/97	27	11.3%	213	88.8%	240	100.0%
	97/98	29	7.7%	346	92.3%	375	100.0%
computing	94/95	10	6.5%	145	93.5%	155	100.0%
	95/96	14	10.2%	123	89.8%	137	100.0%
	96/97	14	11.9%	104	88.1%	118	100.0%

	97/98	5	3.5%	138	96.5%	143	100.0%
speech	94/95	17	7.7%	203	92.3%	220	100.0%
	95/96	19	8.1%	215	91.9%	234	100.0%
	96/97	20	7.8%	235	92.2%	255	100.0%
	97/98	19	7.3%	242	92.7%	261	100.0%
composition	94/95	135	10.4%	1161	89.6%	1296	100.0%
	95/96	139	10.0%	1252	90.0%	1391	100.0%
	96/97	133	9.6%	1254	90.4%	1387	100.0%
	97/98	150	9.0%	1509	91.0%	1659	100.0%
reading	94/95	3	1.6%	182	98.4%	185	100.0%
	95/96	0	0%	195	100.0%	195	100.0%
	96/97	2	1.3%	149	98.7%	151	100.0%
	97/98	1	.7%	136	99.3%	137	100.0%
academic acculturation	94/95	21	22.8%	71	77.2%	92	100.0%
	95/96	12	13.6%	76	86.4%	88	100.0%
	96/97	27	14.1%	164	85.9%	191	100.0%
	97/98	13	6.4%	191	93.6%	204	100.0%
science	94/95	223	16.1%	1164	83.9%	1387	100.0%
	95/96	182	12.4%	1286	87.6%	1468	100.0%
	96/97	200	13.4%	1290	86.6%	1490	100.0%
	97/98	214	12.4%	1515	87.6%	1729	100.0%
social science	94/95	238	15.4%	1303	84.6%	1541	100.0%
	95/96	274	15.5%	1491	84.5%	1765	100.0%
	96/97	327	17.4%	1553	82.6%	1880	100.0%
	97/98	258	12.0%	1895	88.0%	2153	100.0%
business	94/95	30	12.7%	206	87.3%	236	100.0%
	95/96	21	10.0%	190	90.0%	211	100.0%
	96/97	18	9.7%	168	90.3%	186	100.0%
	97/98	13	6.8%	179	93.2%	192	100.0%
humanities	94/95	142	11.5%	1092	88.5%	1234	100.0%
	95/96	154	10.5%	1316	89.5%	1470	100.0%
	96/97	142	11.1%	1134	88.9%	1276	100.0%
	97/98	121	8.6%	1279	91.4%	1400	100.0%

In terms of the most current academic year, course completion rates for all areas are above 90% except for preparatory mathematics (78%), science (88%), and social science (88%). Preparatory mathematics has the lowest course completion rate, at 78%. Computing (97%), and reading (99%) have the highest completion rates, at above 95%.

In general, since this report was last completed for the 1993/94 school year, course completion rates appear to have slightly increased (by 5% on average). Whereas in the last report, completion rates were the highest for speech and reading, they now appear to be highest for computing and reading.

COURSE COMPLETION FOR GC AND NON GC STUDENTS

In taking a closer look at completion rates between GC and non GC students, figures for the 1994/95 year were

compared to the most recent 1996/97 year. These completion rates are presented in table 6 and do not include the areas of composition, reading and academic acculturation since these contain predominantly GC students' records (97%, 99%, and 93% respectively).

Table 6 - Course Completion Rates for Course Area by Student Type For the 1994/95 and 1997/97 Academic Years

			Non-completed		Completed		Total	
			Count	%	Count	%	Count	%
preparatory mathematics	94/95	non-GC students	102	18.9%	437	81.1%	539	100.0%
		GC students	342	28.2%	870	71.8%	1212	100.0%
	97/98	non-GC students	66	23.1%	220	76.9%	286	100.0%
		GC students	259	21.2%	960	78.8%	1219	100.0%
mathematical thinking	94/95	non-GC students	6	7.5%	74	92.5%	80	100.0%
		GC students	23	13.1%	153	86.9%	176	100.0%
	97/98	non-GC students	8	4.7%	163	95.3%	171	100.0%
		GC students	21	10.3%	183	89.7%	204	100.0%
computing	94/95	non-GC students	4	3.7%	103	96.3%	107	100.0%
		GC students	6	12.5%	42	87.5%	48	100.0%
	97/98	non-GC students	4	3.5%	109	96.5%	113	100.0%
		GC students	1	3.3%	29	96.7%	30	100.0%
speech	94/95	non-GC students	0	0%	27	100.0%	27	100.0%
		GC students	17	8.8%	176	91.2%	193	100.0%
	97/98	non-GC students	0	0%	54	100.0%	54	100.0%
		GC students	19	9.2%	188	90.8%	207	100.0%
science	94/95	non-GC students	26	9.5%	247	90.5%	273	100.0%
		GC students	197	17.7%	917	82.3%	1114	100.0%
	97/98	non-GC students	29	7.6%	351	92.4%	380	100.0%
		GC students	185	13.7%	1164	86.3%	1349	100.0%
social science	94/95	non-GC students	22	10.3%	192	89.7%	214	100.0%
		GC students	216	16.3%	1111	83.7%	1327	100.0%
	97/98	non-GC students	30	8.1%	341	91.9%	371	100.0%
		GC students	228	12.8%	1554	87.2%	1782	100.0%
business	94/95	non-GC students	5	4.7%	101	95.3%	106	100.0%
		GC students	25	19.2%	105	80.8%	130	100.0%
	97/98	non-GC students	2	6.5%	29	93.5%	31	100.0%
		GC students	11	6.8%	150	93.2%	161	100.0%
humanities	94/95	non-GC students	10	7.2%	129	92.8%	139	100.0%
		GC students	132	12.1%	963	87.9%	1095	100.0%
	97/98	non-GC students	2	.9%	210	99.1%	212	100.0%
		GC students	119	10.0%	1069	90.0%	1188	100.0%

For preparatory mathematics and business, non GC students completion rates have decreased somewhat (-5% and -2% respectively), whereas those for GC students have increased (+7% and +12% respectively). Completion rates have

slightly increased for both groups in the following areas; mathematical thinking (non GC, +3%: GC, +3%), science (non GC, +2%: GC, +4%), social science (non GC, +2%: GC, +4%), and humanities (non GC, +6%: GC, +2%). For computing, completion rates have remained stable for non GC students but have increased for GC students (+9%). For speech, completion rates for the two groups have remained stable. The greatest changes were for GC students course completion in business (+12%), computing (+9%) and preparatory mathematics (+7%). Otherwise the changes were small (+ or - 2% - 4%).

Considering the most current data, GC students have lower course completion rates than non GC students in all areas, except for preparatory mathematics where they have a slightly higher completion rate (by 2%). The most marked differences are in the areas of speech and humanities, with differences of approximately 10 and 9 percentage points respectively. However, courses in these area are very sparsely populated by non GC students. Mathematical thinking, science and social science show moderate differences between the two groups, with differences of approximately 6, 6, and 5 percentage points respectively.

In terms of how things have changed since the last report was completed, there are some interesting things to note. When the last report was completed, the greatest differences between the two groups were for the areas of preparatory mathematics, computing and business. These differences have virtually disappeared in the most current data. The differences that do exist for speech and humanities are not tremendously alarming given that both areas have high completion rates for GC students, and that both areas are sparsely populated by non GC students.

COURSE COMPLETION FOR COURSES WITH MORE THAN 50 NON-GC STUDENTS

At the time of the last course completion report, completion rates were compared between GC and non GC students for courses in which the non GC enrollment was greater than 50. This analysis was repeated with the 1997/98 data, and results can be found in table 7. Course areas not in the table did not contain any courses which met the criterion. The courses embodied by each of the relevant areas are as follows; preparatory mathematics – 625, 631; mathematical thinking – 1454, 1456; science – 1131, 1132, 1137, 1166; social science – 1235, 1281, 1283; humanities – 1371. The computing area is not represented because there was only one computer course offered during the year (which did contain more than 50 non GC students), so results for this area would be the same as previously presented. Results are essentially the same as those presented above, with some minor changes in completion rates between the two groups for preparatory mathematics, social science and humanities.

Table 7 - Course Completion Rates for Course Area by Student Type For the 1997/97 Academic Year: Based on courses with more than 50 non GC students

		Non completed		Completed		Total	
		Count	%	Count	%	Count	%
preparatory mathematics	non GC student	59	24.9%	178	75.1%	237	100.0%
	GC student	174	20.0%	697	80.0%	871	100.0%
mathematical thinking	non GC student	8	4.7%	163	95.3%	171	100.0%
	GC student	21	10.3%	183	89.7%	204	100.0%
science	non GC student	25	7.6%	306	92.4%	331	100.0%
	GC student	133	13.9%	825	86.1%	958	100.0%
social science	non GC student	16	7.2%	206	92.8%	222	100.0%
	GC student	75	15.6%	407	84.4%	482	100.0%
humanities	non GC student	2	3.7%	52	96.3%	54	100.0%
	GC student	15	7.0%	198	93.0%	213	100.0%

CONCLUSION

Course completion rates look better than they did 5 years ago. The average completion rate over all course areas is

91% in the most current data: It was 83% five years ago at the time of the last report. The most notable changes in completion rates have occurred in preparatory mathematics, computing and academic acculturation. At the time of the last report, GC students had much lower completion rates in preparatory mathematics and computing than did non GC students (by 15% in both areas). The most recent data show that GC students have completion rates comparable to non GC students' in both areas, with actually slightly higher completion rates in preparatory mathematics. It is also noteworthy that preparatory mathematics contain a higher proportion of GC students than in the past. Computing has had an erratic history in terms of the proportion of GC students enrolled, but it does contain a smaller proportion of GC students than it did at the time of the last report. Completion rates in academic acculturation have increased 9 percentage points from the time of the last report, but registration in this area has had a substantial increase as well, by about 64%.

Pinning down these changes in course completion rates to any one cause would not capture the entire picture. Indeed, a variety of changes have occurred at General College and the University over the past four years which could have bearing on our course completion rates. Please feel free to contact me with any input you may have on reasons for the completion rate changes. It would be informative to begin a working dialogue about these topics. Also, feel free to contact me if you would like more detailed information on completion rates (like for a particular course), or if you have any questions and comments about the report in general.

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