

Fall 2000 General College Cohort: The Relationship Between Credit Load, GPA Performance, and Retention

Fall 2001

Since the Fall 2001 release of the “Improving Our Graduation Rates” report by the Council of Undergraduate Deans, the “push is on” at the university to ensure that students carry somewhat heavier credit loads. However, a perusal of GC meeting minutes indicates some hesitation in the GC community regarding whether it is appropriate that General College students take heavier credit loads. This report was created in an attempt to shed some light on the credit load debate.

This report examines credit load taken by General College students who were newly admitted to the University in Fall 2000. Throughout this report credit load reflects enrollment in 0-level courses. Distributions of credits taken in each term of students’ first year (Fall 2000 and Spring 2001) are presented. One-year retention rates are presented for five levels of first term credit load. First term and second term GPA performance are compared against credits taken in each respective term.

Larger credit loads do not appear to relate negatively with Student performance. In fact, a slight linear trend is evident whereby term GPA and student retention increases with credit load. Credit load accounts for between 5% and 10% of the variance in term GPA. While students with lower AAR scores are slightly more likely to take lighter credit loads (AAR explains approximately 4% of the variance in credit load) there does not appear to be any interaction effects between AAR and credit load on student performance: The Positive relationship between credit load and student performance holds across AAR levels.

While certainly a lighter credit load might be more beneficial for some *individual* students, upon inspection of data from the 2000-2001 academic year, there is no evidence to support a default attitude that our students *as a group* should be recommended to take lighter credit loads. The slight positive linear relationship between term GPA and student retention does not imply causation. It is simply a statement that students can take larger credit loads and do well.

Some might argue that requiring lighter-load takers to take even more credits might be deleterious since GC students who take lighter loads are already performing less well than their peers who carry a heavier credit load. However, we do not know the reasons that underlie these performance differences. Another person might argue that lighter-load takers fare less well because they are less engaged with the university and that perhaps a larger credit load (when feasible in light of non-negotiable extracurricular demands) might facilitate engagement.

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Descriptive Statistics for Credit Load

Table 1. Distribution of Fall 2000 Credit Load for Fall 2000 GC Cohort

<i>Number of credits Fall 2000</i>	<i>Frequency</i>	<i>Percent</i>	<i>Cumulative Percent</i>
0	20	2.2	2.2
2.0	1	.1	2.3
3.0	1	.1	2.4
4.0	2	.2	2.6
6.0	3	.3	2.9
7.0	12	1.3	4.2
8.0	12	1.3	5.5

9.0	31	3.4	8.9
10.0	39	4.2	13.1
11.0	34	3.7	16.8
12.0	207	22.4	39.2
13.0	202	21.9	61.1
14.0	215	23.3	84.4
15.0	117	12.7	97.1
16.0	17	1.8	98.9
17.0	9	1.0	99.9
20.0	1	.1	100.0
Total	923	100.0	

Table 2. Distribution of Spring 2001 Credit Load for Fall 2000 GC Cohort

<i>Number of credits Spring 2001</i>	<i>Frequency</i>	<i>Percent</i>	<i>Valid Percent</i>	<i>Cumulative Percent</i>
0	98	10.6	10.7	10.7
3.0	8	.9	.9	11.5
4.0	3	.3	.3	11.8
6.0	11	1.2	1.2	13.0
7.0	14	1.5	1.5	14.6
8.0	14	1.5	1.5	16.1
9.0	41	4.4	4.5	20.5
10.0	58	6.3	6.3	26.8
11.0	57	6.2	6.2	33.0
12.0	121	13.1	13.2	46.2
13.0	160	17.3	17.4	63.6
14.0	198	21.5	21.5	85.1
15.0	87	9.4	9.5	94.6
16.0	28	3.0	3.0	97.6
17.0	11	1.2	1.2	98.8
18.0	9	1.0	1.0	99.8
19.0	2	.2	.2	100.0
Total available	920	99.7	100.0	
Not available	3	.3		
Total	923	100.0		

Table 3. Fall 2000 Credit Load Frequencies by AAR Category for Fall 2000 GC Cohort

<i>Fall 2000 credits</i>	AAR category				<i>Row Total</i>
	<i>no AAR</i>	<i>AAR < 70</i>	<i>AAR 70-99</i>	<i>AAR ≥ 100</i>	
0	1	5	12	2	20
1-11	18	23	75	19	135
12	22	25	125	35	207
13	30	25	99	48	202
14	22	27	111	55	215
15 or more	17	8	77	42	144
Column Total	110	113	499	201	923

Table 4. Fall 2000 Credit Load Percentage Distribution by AAR Category for Fall 2000 GC Cohort

<i>Fall 2000 credits</i>	<i>AAR category</i>				<i>Row Total</i>
	<i>no AAR</i>	<i>AAR<70</i>	<i>AAR 70-99</i>	<i>AAR>=100</i>	
0	.9%	4.4%	2.4%	1.0%	2.2%
1-11	16.4%	20.4%	15.0%	9.5%	14.6%
12	20.0%	22.1%	25.1%	17.4%	22.4%
13	27.3%	22.1%	19.8%	23.9%	21.9%
14	20.0%	23.9%	22.2%	27.4%	23.3%
15 or more	15.5%	7.1%	15.4%	20.9%	15.6%
Column Total	100.0%	100.0%	100.0%	100.0%	100.0%

Table 5. Spring 2001 Credit Load Frequencies by AAR Category for Fall 2000 GC Cohort

<i>Spring 2001 credits</i>	<i>AAR category</i>				<i>Row Total</i>
	<i>no AAR</i>	<i>AAR<70</i>	<i>AAR 70-99</i>	<i>AAR>=100</i>	
0	14	19	54	14	101
1-11	27	28	119	32	206
12	16	9	72	24	121
13	15	22	89	34	160
14	24	22	93	59	198
15 or more	14	13	72	38	137
Column Total	110	113	499	201	923

Table 6. Spring 2001 Credit Load Percentage Distribution by AAR Category for Fall 2000 GC Cohort

<i>Spring 2001 credits</i>	<i>AAR category</i>				<i>Row Total</i>
	<i>no AAR</i>	<i>AAR<70</i>	<i>AAR 70-99</i>	<i>AAR>=100</i>	
0	12.7%	16.8%	10.8%	7.0%	10.9%
1-11	24.5%	24.8%	23.8%	15.9%	22.3%
12	14.5%	8.0%	14.4%	11.9%	13.1%
13	13.6%	19.5%	17.8%	16.9%	17.3%
14	21.8%	19.5%	18.6%	29.4%	21.5%
15 or more	12.7%	11.5%	14.4%	18.9%	14.8%
Column Total	100.0%	100.0%	100.0%	100.0%	100.0%

Relationship Between Credit Load and GPA Performance

Table 7. Fall 2000 GPA by Fall 2000 Credits for Fall 2000 GC Cohort

<i>Fall 2000 credits</i>	<i>Mean term GPA-Fall 2000</i>	<i>Std Deviation</i>	<i>Valid N</i>
1-11	2.27	1.17	N=135
12	2.78	.98	N=207
13	2.82	.94	N=202
14	2.82	.97	N=215
15 or more	3.01	.77	N=144

Table 8. Proportion of Students with Fall 2000 GPA of 2.0 or Greater by Fall 2000 Credits

<i>Fall 2000 credits</i>	<i>Proportion with GPA ≥ 2.0</i>	<i>Number with GPA ≥ 2.0</i>	<i>Valid (Total) N</i>
1-11	.64	86	N=135
12	.83	171	N=207
13	.86	174	N=202
14	.84	181	N=215
15 or more	.92	132	N=144

Table 9. Spring 2001 GPA by Spring 2001 Credits for Fall 2000 GC Cohort

<i>Spring 2001 credits</i>	<i>Mean term GPA - Spring 2001</i>	<i>Std Deviation</i>	<i>Valid N</i>
1-11	2.02	1.17	N=203
12	2.65	.92	N=121
13	2.61	.93	N=160
14	2.75	.83	N=198
15 or more	2.85	.84	N=137

Table 10. Proportion of Students with Spring 2001 GPA of 2.0 or Greater by Spring 2001 Credits

<i>Spring 2001 credits</i>	<i>Proportion with GPA ≥ 2.0</i>	<i>Number with GPA ≥ 2.0</i>	<i>Valid (Total) N</i>
1-11	.59	121	N=206
12	.80	97	N=121
13	.79	126	N=160
14	.85	168	N=198
15 or more	.88	121	N=137

Relationship Between Credit Load and Retention

Table 11. One-Year Retention Rates by Fall 2000 credits for Fall 2000 GC Cohort

<i>Fall 2000 credits</i>	<i>Proportion retained in Fall 2001</i>	<i>Total N (upon which proportion is based)</i>
0	.40	20
1-11	.66	135
12	.77	207
13	.80	202
14	.80	215
15 or more	.83	144

Table 12. One-Year Retention Rates by AAR Category and Fall 2000 Credits for Fall 2000 GC Cohort

<i>Fall 2000 credits</i>	<i>AAR category</i>			
	<i>no AAR</i>	<i>AAR < 70</i>	<i>AAR 70-99</i>	<i>AAR ≥ 100</i>
	Proportion Retained Fall 2001	Proportion Retained Fall 2001	Proportion Retained Fall 2001	Proportion Retained Fall 2001
0	1.00 ¹	.20 ¹	.42 ²	.50 ¹

1-11	.61 ²	.61 ³	.64 ⁵	.84 ²
12	.73 ³	.76 ³	.77 ⁵	.80 ⁴
13	.80 ⁴	.72 ³	.78 ⁵	.90 ⁴
14	.91 ³	.56 ³	.80 ⁵	.89 ⁴
15 or more	.76 ²	.75 ¹	.81 ⁵	.90 ⁴

Table 13. Retention from Spring to Fall 2001 by Spring 2001 Credits for Fall 2000 GC Cohort

<i>Spring 2001 credits</i>	<i>Proportion retained in Fall 2001</i>	Total N (<i>upon which proportion is based</i>)
0	.21	101
1-11	.73	206
12	.87	121
13	.84	160
14	.87	198
15 or more	.93	137

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