

First Semester Credit Loads for New Freshmen and Post-SOAR Course and Credit Changes

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UW-Madison expends considerable institutional effort and resources in advising new students at SOAR (Student Orientation, Advising, and Registration), a required program for all new students. Academic advisors help students select courses that they need to satisfy general education requirements, meet prerequisites for subsequent courses, make progress on meeting degree requirements, and contribute to their Wisconsin Experience.

Advising leadership is interested in information about the outcomes of this initial advising experience at SOAR including:

- The number of credits students are enrolled in at the end of their SOAR advising period
- The number and magnitude of changes in courses and credit loads between the end of SOAR and the official first semester census date (10th day of class)
- Timing of the post-SOAR course changes
- Post-SOAR courses most frequently added or dropped
- Disaggregation of data, when relevant, by SOAR advising unit

Key Data Elements Used

To conduct this analysis we used information from UW-Madison's student information system (ISIS). Data for new freshmen who attended SOAR between May and August 2013 were analyzed. Specifically, the following data elements were necessary to address the analytic questions:

1. **The SOAR advising unit.** The academic advisor that the students met with at SOAR was representing one of 12 academic advising units that advised new students for fall 2013.
2. **Fall 2013 census date.** In this analysis we compare enrollments at SOAR to enrollments on the 10th day of class. The 10th day of class each semester is UW-Madison's official census date. The courses that students have on this date are the basis for official reporting, budgeting, tuition and fee assessments, and financial aid eligibility. This date coincides with the last date students can add courses meaning that, except in rare circumstances, a student's course and credit load will not be higher than it is on the 10th day.
3. **Course enrollment dates.** Every student's course enrollment history (enrollment, changes, drops etc.) are recorded by date. These dates were used to find the first time each student enrolled in each course between their SOAR date and the 10th day of class in fall 2013. Subsequent changes to courses (such as changes to lecture times or discussion sections) were not considered in this analysis and did not affect the determination of the course enrollment date.
4. **SOAR Date.** The date that students attended SOAR is an important component of this analysis and is the basis for the determination of whether courses were added at, or after, SOAR.

Summary of Key Findings

1. On average, new freshmen leave SOAR with 14 credits. There is more than a 1 credit difference in average credits between the advising unit with the lowest credit average and the advising unit with the highest average.
2. More than half of new freshmen (55%) had the same number of credits on the 10th day of class (official UW-Madison census date) as they did when they left SOAR. This underscores the importance of advising in setting the tone for expected first semester credit loads.
3. More than one quarter (29%) of new freshmen made one or more course changes to their first semester schedule after SOAR.
4. Overall, as of the 10th day of class, new freshmen were still enrolled in 80% of credits that they added at SOAR.
5. Twelve percent (12%) of the credits new freshmen added at SOAR were dropped by the 10th day of class.
6. Six percent (6%) of the credits new freshmen had on the 10th day of class were added after SOAR.
7. Ten courses account for 24% of the 476 different courses new freshmen added after SOAR. The reasons behind these course additions are not strongly evident. We investigated whether later receipt of Advanced Placement scores or retakes of the math placement test were contributing factors in the later course adds and these factors do not explain more than a handful of cases.
8. Ten courses account for 27% of the 425 different courses that new freshmen dropped after SOAR and before the 10th day of class. There is a large overlap in the courses that are added after SOAR and the courses that are dropped after SOAR.
9. Topics for potential follow up and discussion by the advising community related to this analysis include: further exploration of the reasons behind the differences in average credits and volume of credit changes between advising units; what, if any, standardized advising expectations for first semester credit loads should be; and, given the volume of post-SOAR course changes, whether new students are given adequate information about making course change decisions and training on the technology used to do it.

SOAR Advising Units

New students receive academic advising at SOAR from an advisor representing a UW-Madison advising unit. The assignment of a new student to a SOAR advising unit is based on the student's intended major (or lack of one) and, in some cases, their level of certainty in that intention and/or participation in academic support programs. There were 12 different advising units that advised fall 2013 new freshmen during SOAR (Table 1).

The largest advising unit is the Cross College Advising Service (CCAS) which advised almost one third of new freshmen (32%). CCAS is the advising unit for undergraduates who are undecided on a major. New freshmen advised by the College of Engineering represented 18% of new freshmen. New freshmen advised by College of Letters and Science and School of Business advisors each represented 14% of new freshmen. The other eight advising units each advised less than 10% of new freshmen.

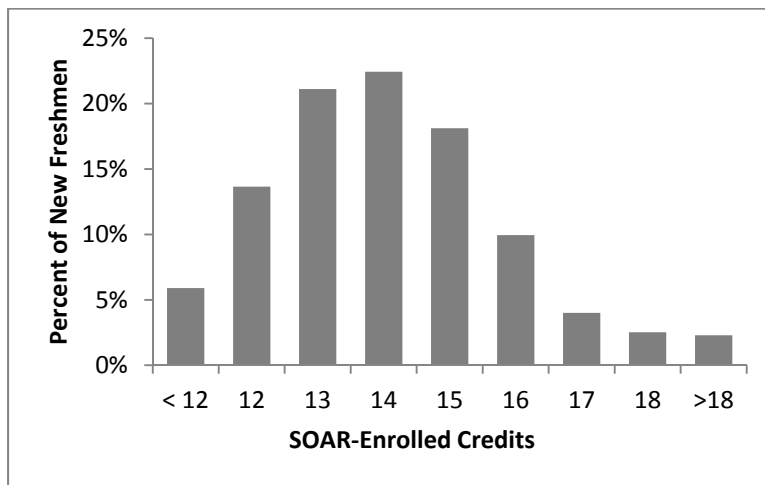
Table 1: Fall 2013 Number of New Freshmen by SOAR Advising Unit

Unit Abbreviation and Name		New Freshmen	
		Number	% of Total
ALS	College of Agricultural and Life Sciences	480	8%
BUS	School of Business	876	14%
CAE	Center for Academic Excellence	97	2%
CCA	Cross College Advising Service	2,006	32%
EDU	School of Education	214	3%
EGR	College of Engineering	1,168	18%
HEC	School of Human Ecology	36	1%
L&S	College of Letters and Science	911	14%
LSH	College of Letters and Science Honors	272	4%
NUR	School of Nursing	128	2%
PHM	School of Pharmacy	104	2%
PRM	Pre-Music	33	1%
---	Total	6,339	100%

Number of SOAR-Enrolled Credits

On average, students left their SOAR advising session with 14 credits. Twenty-two percent (22%) left SOAR with exactly 14 credits, 37% had 15 or more credits, and 41% left SOAR with fewer than 14 credits (Figure 1).

Figure 1: Fall 2013 Distribution of Number of Credits at End of SOAR



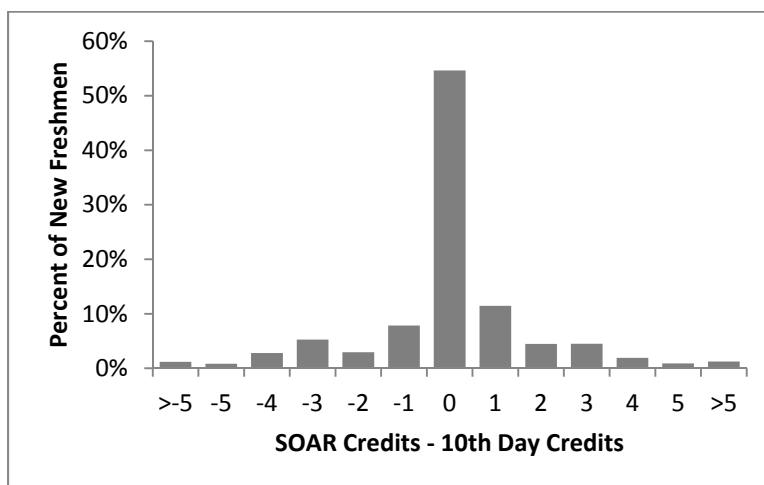
Appendix 1 shows the average SOAR enrollment credits by advising unit. Average SOAR enrollment credits range from 13.2 (students advised by the Center for Academic Excellence) to 14.5 (students advised by the College of Letters and Science Student Academic Affairs). The overall UW-Madison average credits of 14 is mainly due to higher average credit loads for new freshmen advised in the two

largest SOAR advising units – the Cross College Advising Service (average SOAR credits of 14.1) and the College of Engineering (average SOAR credits of 14.3). We suggest that advising leadership explore the reasons for these differences with the directors of the advising units since the reason for these differences is not discernable from the data.

Comparison of SOAR-Enrolled Credits and Census Date Credits

New freshmen, on average, had the same number of credits on the 10th day of the semester that they had at the end of SOAR (14 credits). Compared to the SOAR-enrolled credits, more than half of new freshmen (55%) had the same number of credits (0 difference) on the 10th day of the fall 2013 semester (Figure 2). Twenty-four percent (24%) of new freshmen had more credits on the 10th day than they had at the end of SOAR (most typically one credit more). Twenty-one percent (21%) had fewer credits on the 10th day than they had at the end of SOAR (most typically one credit less). The fact that most students make no changes to their credits underscores the importance of SOAR advisors in setting the tone for appropriate credit loads.

Figure 2: Fall 2013 Difference between SOAR-Enrolled Credits and Census Date Credits



Appendix 2 shows these percentages by SOAR advising unit. The overall averages are heavily driven by the larger advising units masking large differences that exist between advising units. For example, overall, 55% of new freshmen had the same number of credits on the 10th day that they had at the end of SOAR. By advising unit, that percentage ranges from 6% for pre-Music students to 69% for pre-Pharmacy students. The percentage of new freshmen with more credits on the 10th day compared to the end of SOAR ranged from 13% for pre-Pharmacy students to 40% for new freshmen advised by the Center for Academic Excellence. Further exploration is needed to get to the root of the cause of these differences.

Magnitude and Timing of Post-SOAR Credit and Course Changes

The fact that most new freshmen have similar credit loads on the 10th day compared to when they attended SOAR masks the volume of course changing that occurred between the two dates. Twenty-nine percent (29%) of new freshmen (1,818 of 6,339) made one or more course changes between the

end of their SOAR date and the 10th day of the semester (not including changes made within the same course, such as changing discussion sections).

Overall, 6,339 new freshmen registered for 103,343 credits between SOAR and the 10th day of the fall 2013 semester. Figure 3 shows these credits grouped on two dimensions – whether they were added at SOAR or not and whether or not they were still enrolled on the 10th day of class. These credits fall into four categories, in descending order of volume:

- 82,849 credits (80% of 103,343 total) were credits that new freshmen added at SOAR and still had on the 10th day of class.
- 12,427 credits (12% of 103,343 total) were credits that new freshmen added at SOAR but did not have (were dropped) before the 10th day of class.
- 5,870 credits (6% of 103,343 total) were credits that new freshmen added after SOAR and still had on the 10th day of class.
- 2,197 credits (2% of 103,343 total) were credits that new freshmen added after SOAR but did not have (were dropped) before the 10th day of class.

Of the credits fall 2013 new freshmen had on the 10th day of class, 7% (5,870/88,719) were added after SOAR. Conversely, of the credits fall 2013 new freshmen added at SOAR, 13% (12,427/95,276) were dropped by the 10th day of class.

Figure 3: Fall 2013 Magnitude of Credit Changes between SOAR and Census Date

	Added at SOAR	Added After SOAR	Total
Dropped Before 10th Day	12,427	2,197	14,624
Still Enrolled on 10th Day	82,849	5,870	88,719
Total	95,276	8,067	103,343

Appendix 3 shows the number of new freshmen who made one or more course changes by advising unit. Compared to the overall average of 29% of new freshmen who made one or more course changes after SOAR, averages by advising unit range from 20% of new freshmen (Nursing and Pharmacy advising) to 97% (Music advising). Further exploration is needed to get to the root of the cause of these differences.

Most Common Courses Added After SOAR

Fall 2013 new freshmen added 476 different courses after SOAR and before the 10th day of the semester. Only two courses, Interdis Courses (CAL) 250 and Counseling Psychology 115 accounted for 3% or more of the course additions (Table 2). These two one-credit courses account for much of the new

freshmen who have an additional credit on the 10th day compared to their credits at SOAR. The ten most commonly added courses account for 24% of the credits added after SOAR.

Table 2: Fall 2013 Top 10 Courses Most Often Added by New Freshmen after SOAR

Subject Number and Name	Credits	New Freshmen	
		Number	% of adds after SOAR
Interdis Courses (CALIS) 250	1	109	3.6%
Counseling Psychology 115	1	108	3.6%
Psychology 202*	3	84	2.8%
English 100	3	73	2.4%
Mathematics 221*	5	73	2.4%
Mathematics 222*	5	63	2.0%
Counseling Psychology 125	1	57	1.9%
Chemistry 103*	4	53	1.8%
Economics 101	4	50	1.7%
Nutritional Sciences 132	3	48	1.6%

* indicates that the course used waitlists for fall 2013.

The courses notated with an asterisk in Table 2 are courses that were utilizing electronic waitlists to manage enrollments in fall 2013. Some of the students who added these courses may have been on a waitlist. However, this only explains a small portion of these additions.

Scores on the College Board’s Advanced Placement exams (as well as scores from the International Baccalaureate program) are not posted until mid-July, well after SOAR is underway. This complicates advising at SOAR because students who came to SOAR prior to these scores being posted may need to make course changes based on these scores. Many advisors gauge students’ confidence in their scores and advise on course placement based on this confidence when they attend SOAR before scores are available. They also give students instructions and options of what course changes to consider on their own if the scores are not what they expected. We investigated how many post-SOAR course changes were due to the later posting of AP scores and found that very few post-SOAR course changes were driven by later posting of AP scores. Only a handful of the students adding Chemistry 103, Psychology 202, Math 221, and Math 222 after SOAR even took the related Advanced Placement tests much less scored in a way that would account for the course changes.

Another hypothesis that we investigate is that new freshmen may have retaken the math placement test and scored in a way that allowed them into a course for which they were not previously eligible. For example, Chemistry 103 requires completion of Math 112 as a prerequisite. A student who did not meet this prerequisite at the time they attended SOAR may have retaken the placement test and scored high enough to test out of Math 112 and enter into eligibility for Chemistry 103. However, in this group of new freshmen, only 1 of the 53 who added it after SOAR retook the placement test.

Most Common Courses Dropped After SOAR

Fall 2013 new freshmen dropped 425 different courses after SOAR and before the 10th day of the semester. The ten most commonly dropped courses account for 27% of the credits dropped for these

students. Five of most commonly dropped courses after SOAR and before the 10th day are also on the list of the most commonly added courses (Psychology 202, Math 221, Math 222, Chemistry 103, and Economics 101).

Table 3: Fall 2013 Top 10 Courses Most Often Dropped by New Freshmen after SOAR

Subject Number and Name	Credits	New Freshmen	
		Number	% of drops after SOAR
Mathematics 221	5	204	5.5%
Psychology 202	3	119	3.2%
Communication Arts 100	3	100	2.6%
Philosophy 101	4	80	2.2%
Anthropology 100	3	77	2.1%
Mathematics 222	5	73	2.0%
Mathematics 112	3	73	2.0%
Economics 101	4	72	1.9%
Chemistry 103	4	69	1.9%
Counseling Psychology 125	1	69	1.9%
Spanish 102	4	69	1.9%

Previous analyses of first semester credit loads for new freshmen demonstrate that a moderate first semester credit load (14-16 credits) is positively associated with first semester GPAs (see http://apir.wisc.edu/advising/Credit_Load_Study.pdf). This is also the average semester credit load needed to graduate in four academic years. This analysis demonstrates that most of the courses and credits that make up a new freshman's first semester schedule are added at SOAR with advising input and consultation. Still, more than one in four new freshmen made at least one course change after SOAR and the most frequently dropped courses are common courses needed to meet general education requirements or are prerequisites for subsequent courses.

Most students do not make any course or credit changes after SOAR. This demonstrates the importance of SOAR advising in setting the tone for semester credit loads. Given that there is more than a one credit difference across advising units in average first semester credit loads we suggest that advising leadership explore the advising practices that lead to these differences. Also, given the volume of course and credit changes outside of SOAR, we suggest that advising leadership consider whether students are given adequate information about how to make course changes and the implications for doing so.

Appendix 1: Fall 2013 Average SOAR and 10th Day Credits by Advising Unit

Unit Abbreviation and Name		# New Freshmen	Avg. SOAR Credits	Avg. 10th Day Credits
ALS	College of Agricultural and Life Sciences	480	13.7	13.9
BUS	School of Business	876	13.4	13.5
CAE	Center for Academic Excellence	97	13.2	13.8
CCA	Cross College Advising Service	2,006	14.1	14.0
EDU	School of Education	214	13.4	13.7
EGR	College of Engineering	1,168	14.3	14.3
HEC	School of Human Ecology	36	13.3	13.2
L&S	College of Letters and Science	911	14.5	14.2
LSH	College of Letters and Science Honors	272	14.1	14.3
NUR	School of Nursing	128	14.1	13.9
PHM	School of Pharmacy	104	13.8	13.6
PRM	Pre-Music	33	13.7	15.0
---	Total	6,339	14.0	14.0

Appendix 2: Fall 2013 Comparison of 10th Day Credits to SOAR Credits by Advising Unit

		Comparison of 10th Day Credits to SOAR Credits (% of New Freshmen)			
Unit Abbreviation and Name		# New Freshmen	10th Day < SOAR	10th Day = SOAR	10th Day > SOAR
ALS	College of Agricultural and Life Sciences	480	22%	51%	27%
BUS	School of Business	876	17%	60%	23%
CAE	Center for Academic Excellence	97	18%	42%	40%
CCA	Cross College Advising Service	2,006	22%	53%	25%
EDU	School of Education	214	14%	60%	26%
EGR	College of Engineering	1,168	18%	61%	21%
HEC	School of Human Ecology	36	31%	39%	31%
L&S	College of Letters and Science	911	26%	49%	25%
LSH	College of Letters and Science Honors	272	19%	50%	30%
NUR	School of Nursing	128	36%	43%	21%
PHM	School of Pharmacy	104	17%	69%	13%
PRM	Pre-Music	33	12%	6%	82%
---	Total	6,339	21%	55%	24%

Appendix 3: Fall 2013 Course Changes after SOAR by Advising Unit

		Course Changes after SOAR			
Unit Abbreviation and Name		# New Freshmen	# Changed one or more	# Did not change any	% Changed one or more
ALS	College of Agricultural and Life Sciences	480	162	318	34%
BUS	School of Business	876	201	675	23%
CAE	Center for Academic Excellence	97	43	54	44%
CCA	Cross College Advising Service	2,006	600	1,406	30%
EDU	School of Education	214	65	149	30%
EGR	College of Engineering	1,168	273	895	23%
HEC	School of Human Ecology	36	15	21	42%
L&S	College of Letters and Science	911	267	644	29%
LSH	College of Letters and Science Honors	272	109	163	40%
NUR	School of Nursing	128	25	103	20%
PHM	School of Pharmacy	104	21	83	20%
PRM	Pre-Music	33	32	1	97%
---	Total	6,339	1,817	4,522	29%