HLC Accreditation 2020-2021

Evidence Document

Academic Affairs | Office of Planning and Analysis

Student Early Alert System (SEAS): End-of-Term Report Fall 2019

Additional information:

QUESTION: Is SEAS being deployed successfully?

Table 1: Student Early Alert System (SEAS) End-of-Term Fall 2019 (COURSE LEVEL Univariate)

565 class sections, 312 instructors (unique headcount) & 9,087 students (unique headcount, 81.5% of census UG degree bound students)

College/Department	Section counts		% students at risk
Total	630	100%	*22.1%*
Business	102	16.2%	*19.4%*
Education	118	18.7%	*18.4%*
Engineering	48	7.6%	*25.6%*
Fine Arts	40	6.3%	*18.3%*
Health Professions	81	12.9%	*21.2%*
LAS Humanities	100	15.9%	*23.6%*
LAS Natural Sciences & Math	46	7.3%	*32.8%*
LAS Social Sciences	88	14.0%	*22.4%*
LAS Other	5	0.8%	*28.8%*
Other College Units (Honors/IIC)	2	0.3%	*72.3%*
(see SEAS College Division Participation Report for department counts)			

	enrolled	at risk	% students at risk
Mean # of students per class	29.9	5.8	22.1%
# Students on Census in SEAS participating class:			9,087
% of all students on Fall census:			57.6%
% all degree bound students on fall census:			65.3%
% undergraduate degree bound on fall census:			81.5%

Class Dimensions:	Section Counts		% students at risk
Course number group:		100%	
0 thru 99	7	1.2%	*56.9%*
100 thru 199	158	28.0%	*23.1%*
200 thru 299	95	16.8%	*24.2%*
300 thru 399	132	23.4%	*21.1%*
400 thru 499	72	12.7%	*16.0%*
500 thru 599	31	5.5%	*22.3%*
600 thru 699	38	6.7%	*21.6%*
700 thru 799	13	2.3%	*15.1%*
800 thru 899	19	3.4%	*25.3%*
900 thru 999	0	0.0%	
Time of day:		100%	
morning	220	38.9%	*21.8%*
afternoon	107	18.9%	*20.8%*
evening	72	12.7%	*23.6%*
arranged	166	29.4%	*22.7%*
Meetings per week:		100%	
meets 1 weekday	96	25.0%	*17.4%*
meets 2 weekdays	256	66.7%	*20.9%*
meets 3 weekdays	23	6.0%	*37.6%*
meets daily	9	2.3%	*53.6%*
Day of class:		100%	
Monday only	24	6.0%	*20.1%*
Tuesday only	24	6%	*13.5%*
Wednesday only	14	4%	*14.9%*
Thursday only	25	6%	*18.5%*
Mon & Wed	115	29%	*23.3%*
Tues & Thur	141	35%	*18.9%*
Mon, Wed, Fri	19	5%	*36.8%*
other	37	9%	*22.1%*

Class Dimensions:	Section Counts		% students at risk
Class Type:		100%	
Lecture	489	87%	*22.2%*
Lab	25	4.4%	*15.7%*
Experiential	16	2.8%	*17.9%*
Activity Course	15	2.7%	*20.1%*
Seminar	13	2.3%	*28.7%*
Other	7	1.2%	*22.3%*
Delivery Method:		100%	
HYB Hybrid	52	9.2%	*17.5%*
HYO Hybrid Online	3	0.5%	*low count*
IIE Internet Only	155	27.4%	*21.5%*
TCI Traditional Classroom	355	62.8%	*22.9%*
General Education:		100%	
non Gen Ed	415	75.9%	*22.3%*
Gen Ed Introduction	82	15.0%	*22.5%*
Gen Ed Further Study	50	9.1%	*23.4%*
Gen Ed I & P	18	3.3%	*12.0%*
Basic skills:		100%	
Basic Skills crs	67	11.9%	*20.2%*
Non Basic Skills crs	498	88.1%	22.3%
Instructor Type:		100%	
Faculty	385	68.1%	*22.1%*
Lecturer	61	10.8%	*16.4%*
GTA	77	13.6%	*25.3%*
Unclassified	42	7.4%	*24.1%*

Summary: With 81.5% of all degree bound undergraduate students in a SEAS participating class, deployment of SEAS is exceeding expectations, especially given this is a voluntary commitment by faculty. Review of the class dimensions reflect participation in nearly every level of measurement from across colleges, course levels, time and day of week, class types and methods, general education and basic skills and instructor type. A notable increase this year was an increase in GTAs who now are equivalent to lecturers in participating SEAS classes, especially important given the concentration of GTAs in lower level course offerings.

QUESTION: Is there a relationship between SEAS risk and at-risk populations and does SEAS change behavior?

Table 2: Student Early Alert System (SEAS) End-of-Term Fall 2019 (STUDENT LEVEL Bivariate)
(sample: unique count 9,087 students in SEAS participating classes; source: end of term data from BIPMS SS_SEAS)

All Students in SEAS courses at end of term (includes undergraduate and graduate)

total students	not at-risk	at-risk	% at-risk	Risk type:	of all eligible SEAS stds	of those marked at-risk	% removed from at-risk after notification
9,087	6,819	2,268	25.0%	attendance	8.5%	33.2%	30.4%
65.3% of Fall 2018 census degree bound students (UG & GR)				participation	7.6%	29.8%	33.3%
8,505	6,326	2,179	25.6%	assignments	15.0%	58.5%	25.2%
81.5% of Fall 2018 census degree bound students undergraduates				exams	17.3%	67.5%	35.5%

students who withdraw after at-risk notification:**			**num at-risk dimensions per student marked at-risk:**		
num withdrew from course after notification	513 *(23.5% of at-risk)*	num risk type cnt	100%	cuml %
of withdrawals % within 1 week of at-risk	50.3%	1	54.2%	54%
of withdrawals % within 2 week of at-risk	15.2%	2	22.2%	76%
of withdrawals % within 3 week of at-risk	34.5%	3	10.9%	87%
		4	12.8%	100%

Bivariate Comparison of Undergraduates degree bound in SEAS Participating Classes

CAUTION-- differences are impacted by course selectivity bias

Dimension:	All UG	not at-risk*	at-risk1*	Dimension:	All UG	not at-risk1*	at-risk1*
unique head counts	8,505	6,326	2,179	**Academic performance:**			
	100%	74.4%	25.6%	cumulative hours	83.3	85.1a	78.8b
Major type:	100%	100%	100%	cumulative gpa	3.08	3.22a	**2.66b^**
Bachelor degree major	84.7%	84.8%a	84.4%a	WSU gpa	3.00	3.19a	**2.44b^**
Bachelor field major	0.9%	0.8%a	1.1%a	transfer gpa	3.28	3.35a	3.06b
Bachelor general studies	2.4%	2.3%a	2.8%a	***end-of term gpa***	2.87	3.16a	**2.04b^**
Pre Major	11.9%	12.1%a	11.6%a	% cumulative gpa <2.00	5.1%	2.7%a	**12.3%b^**
				WSU gpa <2.00	9.8%	5.0%a	**23.5%b^**
% Undecided Major	*3.2%*	*3.0%a*	*3.8%a*	% current probation	8.1%	4.5%a	**18.6%b^**
				% with probation history	20.8%	14.6%a	**38.8%b^**
Student class:	100%	100%	100%				
freshmen	15.4%	14.4%a	**18.3%b^**	**Performance scores (means):**			
sophomore	18.4%	19.0%a	**16.5%b^**	ACT(incl SAT)	23.1	23.4a	22.1b
junior	23.5%	23.2%a	24.4%a	incoming academic preparation**	41.7	45.2a	31.2b
senior	42.7%	43.3%a	40.9%b	probability on probation 1st year	17.6%	18.0a	16.5a
new student	29.9%	30.4%a	28.4%a	High School gpa or application gpa	3.40	3.45a	3.27b
				High School percentile	67.6	69.4a	62.2b
Demographics:				remedial need	35.4%	33.6%a	40.7%b
age in years (mean)	22.7	22.6a	23.0b				
% female	52.8%	54.0%a	49.2%b	**SSC Degree Completion & Risk:**			
% under-represented minority**	20.0%	18.6%a	23.9%b	SSC graduation probability	52.7%	55.4%a	44.7%b
Residency:	100%	100%	100%				
resident	82%	82.7%a	81.0%a	Degree completion low risk	35.0%	38.5%a	**24.7%b^**
non-resident	11.0%	11.4%a	10.0%a	Degree completion moderate risk	37.2%	37.7%a	35.9%a
international	6.7%	5.9%a	9.0%b	Degree completion high risk	27.8%	23.8%a	**39.4%b^**
% first generation	44.9%	44.1%a	47.1%b				
% family income <= 125% of poverty	15.7%	14.3%a	19.6%b				
% on financial aid	79.3%	81.1%a	73.9%b				
% in university housing	13.2%	13.6%a	12.0%a				

* Values in the same row not sharing the same subscript (a or b) are significantly different at p< .05 level; **bold** values with ^ are meaningfully significant at moderate or higher level.

** **under-represented minority** includes American Indian/Alaskan Native, Black non-Hispanic, Hawaiian & Hispanic; **incoming academic preparation** is a standardized composite of HS gpa, HS percentile and ACT/SAT (0-100 lower scores the greater likelihood of academic failure); **low income** is defined as total family income (2017 dollars, cpi) at or below 125% of the poverty threshold based on family size.

Summary: While there are few statistically significant differences between at-risk and non-risk students among academic profiles and demographic measures, there are several academic performance measures where at-risk students are performing below non-risk students. These findings support the assumption that SEAS risk behavior dimensions (attendance, participation, assignments, exams/quizzes) are correlated with behavior that increases the odds of being academically at-risk. The data also supports the belief that informing students of their behavior risk during the semester can cause students to modify their behavior to reduce risk.

QUESTION: Does SEAS behavioral risk activity have an independent impact on performance outcomes net of controls?

Table 3: Student Early Alert System (SEAS) End-of-Term Fall 2019 (Multi-variate Analysis)

Course-level analysis (OLS regression) regressing predictors on course grade gpa outcome (dependent variable = course grade gpa 0 - 4) among undergraduate degree seeking SEAS students.

Predictors (predicting end of term class gpa)	unstd beta	std beta	sig.	share of unique
SEAS Risk dimensions:				
attendance risk (0,1)	-0.233	-0.076	0.000	4.0%
Demographics:				
age in years	n/a (student earned hours is proxy)			
female (0,1)	0.114	0.043	0.013	1.2%
under-represented minority* (0,1)		not significant		
first generation (0,1)		not significant		
low income <= 125% of poverty (0,1)	-0.132	-0.038	0.023	1.0%
international (0,1)		not significant		
university housing (0,1)	0.229	0.053	0.003	1.7%
Academic status:				
enrolled full-time (0,1)		not significant		
cumulative earned hours (student class proxy)	0.006	0.209	0.000	21.1%
student is college division major (0,1)	0.173	0.062	0.000	2.3%
undecided major (0,1)		not significant		
Performance & entering academic ability:				
history of probation	-0.936	-0.349	0.000	68.7%
incoming academic preparation composite*		not significant		
Rsq	0.243		0.000	

Summary: The above OLS regression shows that class attendance issues have a negative independent impact on end-of-term gpa net of controls. These findings lend support to the argument that SEAS dimensions not only correlate with negative academic performance but that SEAS dimensions can have an important negative consequences on performance outcomes.

* Under-represented minority includes Black non-Hispanic, Hispanic, American Indian, Alaskan Native & Hawaiian; incoming academic preparation is a standardized composite of application gpa and high school percentile (ACT/SAT has no significance).