

ACADEMIC WORK ETHIC AS AN ENROLLMENT MANAGEMENT MEASURE

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BACKGROUND

- National retention and graduation rates have increased over the past 30 years.
- Unfortunately, these rates are stagnating at many institutions.

WHY?



EARLY ALERT SYSTEMS

- Definition – “Formal communication systems institutions put into place to help with the timely identification of students who display attrition risk factors” (Simons, 2011).



BEST PRACTICES FOR EARLY ALERT SYSTEMS:

- Focus on subpopulations (Hanover, 2014; Stillman, n.d.)
- Identification of populations with low retention and graduation success rates (Hanover, 2014)
- Identification of subpopulations within six weeks of the term (Simons, 2011)
- Analysis of cost-benefit solutions (Lotkowski, Robbins, & Noeth, 2004)
- Use of measures readily available on all students in the population (Tinto, 2006)

MATRIX

		SAT Total										TOTAL
		400 - 1050	1070 - 1120	1130 - 1160	1170 - 1190	1200 - 1230	1240 - 1260	1270 - 1300	1310 - 1340	1350 - 1400	1410 - 1600	
Weighted Core GPA		47	55	53	52	57	43	35	29	16	2	389
1.28 - 3.06	Frequency											
	6 Yr Graduation Average Rate	0.57	0.53	0.57	0.56	0.63	0.72	0.43	0.55	0.63	0.00	0.57
3.061 - 3.32	Frequency	27	59	52	54	37	38	46	29	13	8	363
	6 Yr Graduation Average Rate	0.48	0.58	0.58	0.67	0.70	0.65	0.74	0.62	0.46	0.50	0.62
3.33 - 3.52	Frequency	21	37	47	26	54	29	41	34	26	8	323
	6 Yr Graduation Average Rate	0.50	0.70	0.64	0.62	0.78	0.59	0.71	0.76	0.65	0.50	0.70
3.53 - 3.69	Frequency	22	49	48	42	53	43	54	37	33	10	391
	6 Yr Graduation Average Rate	0.62	0.71	0.71	0.74	0.75	0.81	0.72	0.65	0.67	0.70	0.74
3.7 - 3.86	Frequency	33	41	53	46	52	43	46	38	29	23	404
	6 Yr Graduation Average Rate	0.73	0.73	0.85	0.72	0.79	0.85	0.76	0.76	0.79	0.48	0.74
3.87 - 4.03	Frequency	18	45	49	44	50	34	56	63	39	25	423
	6 Yr Graduation Average Rate	0.69	0.76	0.73	0.75	0.70	0.79	0.77	0.78	0.88	0.84	0.75
4.031 - 4.19	Frequency	19	33	36	33	45	30	53	45	51	36	381
	6 Yr Graduation Average Rate	0.74	0.64	0.83	0.88	0.82	0.88	0.72	0.71	0.82	0.78	0.77
4.191 - 4.38	Frequency	13	14	27	25	42	27	51	63	48	37	347
	6 Yr Graduation Average Rate	0.69	0.79	0.78	0.88	0.86	0.78	0.86	0.88	0.73	0.81	0.81
4.39 - 4.61	Frequency	3	23	40	26	51	25	65	82	83	83	481
	6 Yr Graduation Average Rate	0.68	0.74	0.75	0.77	0.76	0.82	0.88	0.80	0.86	0.82	0.82
4.62 - 5	Frequency	-	6	13	14	17	25	40	55	70	151	391
	6 Yr Graduation Average Rate	-	0.60	0.77	0.79	0.83	0.72	0.78	0.84	0.88	0.86	0.84
TOTAL	Frequency	203	362	418	362	458	337	487	475	408	383	3893
	6 Yr Graduation Average Rate	0.70	0.67	0.72	0.71	0.74	0.73	0.73	0.76	0.76	0.82	0.74

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ACADEMIC WORK ETHIC RATIONALE

- Academic Potential = Admissions Test Score
- Academic Performance = High School GPA
 - Academic Potential + Academic Work Ethic
- Academic Work Ethic = Academic Performance – Academic Potential



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RETENTION AND GRADUATION COMPARISONS

- Non-AWE students have a **10%** lower retention rate and a **17%** lower graduation rate.
- Non-AWE students result in a net tuition loss of approximately **\$3.7M/year**

Metric	Population	Not At Risk	At Risk	Revised Population	Revised Population - Population
Number of Students	4404	3530	874	4404	
Retention	0.87	0.89	0.79	0.89	0.02
Six-Year Graduation Rate	0.72	0.75	0.58	0.75	0.03
Net Tuition	\$224.08M	\$182.56M	\$41.52M	\$227.76M	\$3.68M

FOLLOWING BEST PRACTICES

- Calculated using measures available on most students
- Calculated during the admissions process
- Focuses on a subpopulation of first-year freshmen
- Easily determined impact on net tuition



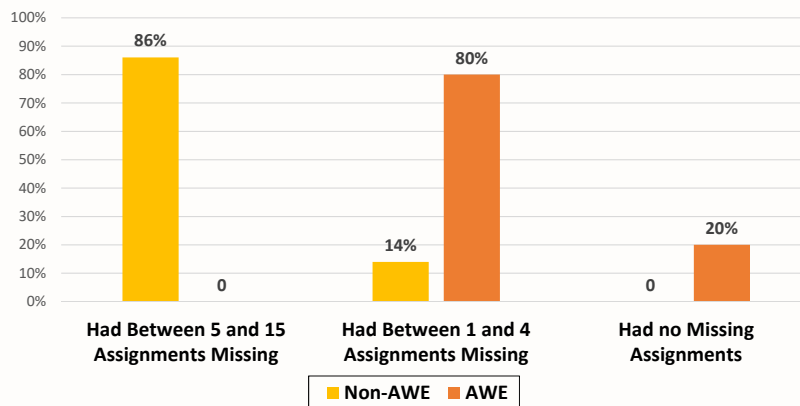
OTHER THINGS WE KNOW ABOUT NON-AWE STUDENTS

- Non-AWE students less likely to complete NSSE
- Non-AWE students less likely to finish NSSE once started
- Non-AWE freshmen drop their web-based courses at a higher rate compared to lecture courses



AWE and the First Year Experience

Preliminary data indicate that AWE students' behaviors differ from their Non-AWE peers. Evidence of this emerged when they were taking the First Year Experience course in the fall of 2018 (N=17).



10



"Four Corners" Activity in the First-Year Experience Course

(Students Go to the Corner that Reflects Their Answer to a Specific Question)



- When the students were asked, **"If you could continue to access a complete semester's worth of notes online for a class, would you continue to attend that class?"** Almost all Non-AWE students said, **"Strongly Disagree/I would no longer attend the class."** AWE student's either "agreed" or "strongly agreed."
- When asked, **"If you ran out of time and did not finish your math homework, would you copy a classmate's homework and turn it in?"** **86% of the Non-AWE students "Strongly Agreed."** Reasons included:
 - "Math is easy. I'm so busy doing papers and homework. If I am awake until 1 a.m., I'm not going to worry about doing math that I can easily pick up."
 - "I would not do the homework because I am too busy with other subjects and math is easy." (This student transferred out of Computer Science by the end of his first semester freshmen year because he found the math to be too difficult.)
 - "I would copy the homework, but make sure to change a few answers so I would get some of them wrong."
- Attendance at Cultural Events
- Following Directions to Submit Papers
- Losing the Planner
- Final Projects

11



There were several statistically significant differences between AWE and non-AWE students responses to the National Survey of Student Engagement (NSSE) that I will describe on the subsequent slides.

Total # of Freshmen Participants = 387	Total # of Senior Participants = 604	Total # of Participants = 991
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It was not possible to calculate AWE for every NSSE participant, as some students do not have SAT/ACT scores. Please see the breakdown of participants below.

Freshman	AWE = 266	Non-AWE = 109	Total = 375 (97% of the overall sample)
Seniors	AWE = 237	Non-AWE = 96	Total = 333 (55% of the overall sample)

Overall, non-AWE students were 10% less likely to complete NSSE as compared to their AWE counterparts. Non-AWE students at the University of South Carolina were 18% less likely to complete NSSE as compared to their AWE counterparts.

12



AWE versus Non-AWE Seniors

Statistically Significant Differences in Students' Behavior

- **AWE seniors (62%) are more likely to prepare for exams by “discussing or working through course material with other students,”** than their Non-AWE peers (50%).
- **AWE seniors (46%) were more likely to “work with a faculty member on activities other than coursework, -- such as committees and student groups” --** than their Non-AWE peers (26%).
- **AWE seniors (48%) were more likely to “discuss their academic performance with a faculty member, – on a frequent basis” --** in comparison to their Non-AWE peers (37%).
- **AWE seniors (13%) were more likely to “work on campus 16 hours or more,”** than their Non-AWE peers (5.3%).

13



AWE versus Non-AWE Seniors

Statistically Significant Differences in Students' Beliefs

Perspective Taking: AWE seniors (78%) tried on a more frequent basis to “understand someone else’s views by imagining how the issue looks from their perspective,” than their Non-AWE peers (65%).

Perceptions of Winthrop University: Seniors’ with higher AWE scores **perceive the university to be a “very supportive” environment**, and seniors with lower AWE scores perceive it to be less supportive.

Beliefs about Winthrop University: AWE seniors (82%) also tend to believe more strongly in the institution’s “emphasis on providing students with opportunities to be involved socially,” than their Non-AWE peers (74%) (approaches statistical significance).

AWE seniors (77%) also believe more strongly in the institution’s “emphasis on supporting” their “overall well-being” (through the provision of recreational experience, health care, counseling, etc.) (approaches statistical significance), than their Non-AWE peers (67%).

14



Non-AWE versus AWE Freshmen

Statistically Significant Differences in Students' Allocation of Time, and Beliefs Regarding What They Have Done

- **Non-AWE freshman (15%)** were more likely to “dedicate more than 15 hours per week to participating in co-curricular activities and organizations such as student government,” than their AWE peers (6%).
- **Non-AWE freshman (5%)** were also more likely to “spend 16 or more hours per week caring for dependents,” than their AWE peers (1%).
- **Non-AWE freshman (52%)** were more likely to have frequently “engaged in evaluating what others have concluded from numerical information,” than their AWE peers (39%).
- **Non-AWE freshman (48%)** tend to report having more frequently (“often” or “very often”) “used numerical information to examine a real world problem or issue (unemployment, climate change, public health, etc.),” than their AWE peers (38%).

15



Non-AWE versus AWE Seniors

Statistically Significant Differences in Students' Allocation of Time, and Beliefs Regarding What They Have Done

- **Non-AWE seniors (49%)** were more likely to “work over 16 hours per week for pay off campus,” than their AWE peers (27%).
- **Non-AWE seniors (82%)** were more likely to believe their coursework “frequently required them to form a new idea or understanding from various pieces of information,” than their AWE peers (73%).
- **Non-AWE seniors (87%)** were more likely to report having “frequently identified key information from reading assignments,” than their AWE peers (76%).
- **Non-AWE students (87%)** were more likely to report their “gains in speaking clearly and effectively” as “quite a bit” or “very much,” than their AWE peers (77%) (this approaches statistical significance).

16



AWE and Predictive Analytics

- Conducted an analysis of predictors of graduation from the 2012 cohort group, as these are students who could have graduated in six years by 2019. Predictors included gender, predicted first semester GPA, race, & Expected Family Contribution.
- The two significant predictors of six-year graduation for this cohort was their **Expected Family Contribution and their predicted first-semester GPA.**
- **AWE** is an important metric in determining who is less likely to graduate as is **first semester GPA.**

17



Gershenfeld, Hood, and Zhan (2016) and others have documented the important role of students first semester GPA and their six year graduation rate

- I calculated significant predictors of first semester GPA (three cohort groups) for the College of Education at Winthrop University. Their AWE score, race, gender, whether they have a Hope Scholarship and whether they are a Palmetto Fellow, were all predictive of their first-semester GPA (almost 1/4th of the variation in first semester GPA was explained by these predictors).
- **Early intervention is key:** Wischusen & Wischusen (2019) published the efficacy of a “One-Week Freshmen Boot Camp that Increases Second Year Retention Rates by 5% and Four-Year Graduation Rates by 10%.”

18