

INTERNSHIP PARTICIPATION: EXPLORING EMPLOYMENT SUCCESS DIFFERENCES IN WHITE AND NON-WHITE STUDENTS (CLASS of 2020)

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PURPOSE

The purpose of the current report is to examine how participating in internship impacts the likelihood of securing employment for students seeking employment opportunities after completing their undergraduate degrees.

The Office of Academic Assessment (OAA) chose to investigate the relationship between internship as a high impact practice and employment success because research has shown that:

1. Applicants with internship experience have, on average, a 12.6% higher probability of being invited to a job interview (Baert et al., 2019) ¹.
2. Students who completed an internship were 4.43 times more likely to obtain employment after graduation (Callanan & Benzing, 2004) ².

PRIMARY FINDINGS

1. Internship positively impacts student chances of securing employment at graduation and 6-months-post graduation.
2. Internship reduces the gap in employment success between white and non-white students.

RECOMMENDATIONS

To increase employment success rates at Auburn, we recommend initiatives to increase participation in internships for all students seeking employment and non-white students seeking employment in particular. Our report strongly suggests that internship is particularly impactful for those non-white students seeking employment.

INTERNSHIP PARTICIPATION

Self-reported data from the Fall 2019 (N = 1258) and Spring 2020 (N=3184) graduates (approximately 97% of all graduates in those cohorts) was examined. 2863 of these students indicating they were seeking employment. The table below reflects the demographics of these students broken into two groups: 1) having participated in internship and 2) no participation in internship.

	GPA	ACT	FEMALE %	FIRST GEN %	WHITE %	TRANSFER %
Internship (N=1713)	3.26	26.5	48.8% (N=836)	13.95% (N=239)	86.3% (N=1479)	19.4% (N=332)
No Internship (N=1150)	3.06	26.7	36.3% (N=417)	18.4% (N=212)	79.8% (N=918)	25.6% (N=294)

Note. GPA, ACT, Female %, First Gen%, White%, and Transfer% are broadly representative of Auburn University graduates.

The groups are inequivalent in terms of GPA, Gender, First-Generation Status, Race, and Transfer Status.

- Those who participated in internship tend to have higher GPA.
 - Differences may be due to: 1) a selection effect where there are GPA requirements to participate in internship, or 2) a vocational effect, where students with lower GPA may be seeking internships at a lower rate.
- First-generation students and/or transfer students may participate at a lower rate due to factors of accessibility such as availability of time and resources.

¹ Baert, S., Neyt, B., Siedler, T., Tobback, I., & Verhaest, D. (2019). Student internships and employment opportunities after graduation: A field experiment.

² Callanan, G., & Benzing, C. (2004). Assessing the role of internships in the career-oriented employment of graduating college students. *Education+ Training, 46*(2), 82-89.

INTERNSHIP AND SUCCESS

Of the 2863 students seeking employment at graduation, 1519 reported that they had secured employment (**53.1%**), whereas 1344 students indicated they were still seeking employment. There is a large increase in employment success rate for students participating in internship (~**12%**).

The table below illustrates the at-graduation success rates of several sub-groups of students by internship participation.

EMPLOYMENT SUCCESS RATES	
At-Graduation Success	
Internship (N = 1713)	57.97%
No Internship (N = 1150)	45.74%
Overall (N = 2863)	53.06%

	MALE ---- FEMALE	FIRST GEN ---- NOT FIRST GEN	WHITE ---- NON-WHITE	TRANSFER ---- FRESHMEN
Internship (N=1713)	66.82% (586/877) ---- 48.68% (407/836)	57.74% (138/239) ---- 58.01% (855/1474)	58.89% (871/1479) ---- 53.95% (116/215)	60.54% (201/332) ---- 57.37% (786/1370)
No Internship (N=1150)	48.98% (359/733) ---- 40.05% (167/417)	45.75% (97/212) ---- 45.74% (429/938)	49.35% (453/918) ---- 35.98% (59/164)	50.34% (148/294) ---- 45.78% (369/806)

Note. GPA, ACT, Female %, First Gen%, White%, and Transfer% are broadly representative of Auburn University graduates. Non-White group consists of American Indian or Alaska Native, Native Hawaiian/Pacific Isl., Hispanic, Asian, Black or African-American, Two or More Races, and Unknown; non-resident aliens excluded.

The impact of internship on success rate may depend on the demographics of the student.

- Internship appears to be more impactful for males than females seeking employment.
- Internship appears to be more impactful for non-white students seeking employment.*

Furthermore, the effect of internship on employment is evident even 6-months post-graduation for both white and non-white students. However, the positive effect of internship participation seems to be larger for non-white students.

To examine these claims further, we ran five logistic regression analyses examining the predictiveness of internship on the white and non-white sub-groups. All coefficients were reported as logits then converted to probabilities for the ease of interpretation.

	AT-GRADUATION SUCCESS	SIX-MONTHS POST-GRADUATION SUCCESS
	WHITE ---- NON-WHITE	WHITE ---- NON-WHITE
Internship (N ₁ =1694; N ₂ =1771)	58.89% (871/1479) ---- 53.95% (116/215)	82.21% (1266/1540) ---- 78.79% (182/231)
No Internship (N ₁ =1082; N ₂ =1134)	49.35% (453/918) ---- 35.98% (59/164)	68.98% (665/964) ---- 60.59% (103/170)

LOGISTIC REGRESSION

- 1) We conducted the first logistic regression to serve as a baseline on all students seeking employment (N = 2863), where internship participation was the single predictor variable, and **at-graduation success** was the binary outcome variable.

Results show that there was a significant effect of internship predicting Success, **at graduation**, at the $\alpha = .004$ level. The initial constant contains an initial log-odd of $B = -0.171$, $SE = .06$, $p < .001$. The predictor, internship, increased the log-odd by $B = 0.492$, $SE = .08$, $p < .001$.

All students' probability of success in securing employment, keeping all other factors constant, significantly increases from 45.73% to 57.96% if they participated in internship.

- 2) The second logistic regression was conducted on only white students (N = 2397) to examine the impact of internship as a single predictor of **at-graduation success**.

Results indicate that there was a significant effect of internship predicting Success, **at graduation**. The initial constant contains an initial odds ratio of $B = -.026$, $SE = 0.07$, $p = .692$. The predictor, internship, increased the log-odd by $B = 0.385$, $SE = .08$, $p < .001$.

White students' probability of success, keeping all other factors constant, significantly increases from 49.35% to 58.88% if they participated in internship.

- 3) The third logistic regression was conducted on only white students (N = 2504) to examine the impact of internship as a single predictor of **success, 6-months after graduation**. *Some cases were added due to a change of career plans to seeking employment.*

Results indicate that there was a significant effect of internship predicting Success, **6-months post-graduation**. The initial constant indicates an initial odds ratio of $B = .799$, $SE = 0.07$, $p < .001$. The predictor, internship, increased the odds ratio by $B = 0.731$, $SE = .10$, $p < .001$.

White students' probability of success 6-months after graduation, keeping all other factors constant, significantly decreases from 68.98% to 82.20% if they participated in internship.

- 4) The fourth logistic regression was conducted on only non-white students (N = 379) to examine the impact of internship as a single predictor of **at-graduation success**.

Results indicate that there was a significant effect of internship predicting Success, **at graduation**. The initial constant contains an initial odds ratio of $B = -0.576$, $SE = 0.16$, $p < .001$. The predictor, internship, increased the log-odd by $B = 0.735$, $SE = .21$, $p < .001$.

Non-white students' probability of success, keeping all other factors constant, significantly increases from 35.98% to 53.97% if they participated in internship.

- 5) The final logistic regression was conducted on only non-white students (N = 401) to examine the impact of internship as a single predictor of **success, 6-months after graduation**. *Some cases were added due to a change of career plans to seeking employment.*

Results indicate that there was a significant effect of internship predicting Success, **6-months post-graduation**. The initial constant indicates an initial odds ratio of $B = 0.430$, $SE = 0.16$, $p = .006$. The predictor, internship, increased the odds ratio by $B = 0.882$, $SE = .22$, $p < .001$.

Non-white students' probability of success 6-months after graduation, keeping all other factors constant, significantly increases from 60.59% to 78.78% if they participated in internship.

DISCUSSION

Internship is a significant high impact practice for those securing employment because it exposes students at the undergraduate level to the type of work they will be doing in the workplace. The results indicate that internship may lead to greater chances of success when students seek employment. The increased success is evident from the changes in success rates and the baseline logistic regression. However, it may be more impactful for certain groups of people.

After further exploration, the results showed that internship participation is particularly impactful for non-white students seeking employment as it closes the existing gap in success rates between white and non-white students. Further analysis is required to support this claim and rule out the effects of higher ACT scores (though ACT is traditionally not a strong predictor of post-graduate success).