



Pre-Admit Characteristics and Behaviors Associated with Student Success

This report aims to identify factors in the pre-admit process that are associated with student success, as well as to identify first fall characteristics associated with success. It is an update to a [previous IRP&E report](#) completed in Summer 2016 that examined similar associations between pre-college academic preparation and third fall persistence. This report expands the range of variables to include population-level socioeconomic indicators by students' US Census block, rather than traditional demographic indicators (sex, first generation, racially minoritized status, Pell recipient status), as this information cannot be used in the admissions process and would be counter to CSU's mission to provide equal access. This report also expands the previous analysis by including an admit status flag, which identifies applicants who meet the academic criteria for admission (auto admit), and those who require further review (holistic review).

Key Findings

In addition to lower pre-college academic preparation, holistic students are more likely to be from more densely populated areas with slightly lower socioeconomic status compared to auto admit students. A significant association is observed between persistence to third fall and registration timing, such that the earlier a student registers, the greater the association with persistence. This association is present in both holistic and auto admits, though slightly stronger for holistic admits. Registration timing is most likely a proxy for an unmeasured characteristic and related to commitment to stay at CSU. Holistic admits who attend an in-person orientation session persist at higher rates compared to those who complete orientation online.

Regardless of admit status, first fall GPA has a strong positive relationship with persistence. This relationship between GPA and persistence is nearly equal across groups, meaning holistic and auto admit students with a similar GPA will persist at a similar rate. However, persistence is also associated with cohort STEM status, cohort major college, and sex. This finding is similar to the previous report, which found a negative association among remedial STEM students. Most notably, persistence gaps between males and females are largest in Health and Human Sciences and Warner College of Natural Resources, such that holistic STEM females persist at a lower rate compared to males.

The 2016 report also found a relationship between population density and persistence among students with lower levels of academic preparation. In the current study, this relationship was not significant. However, a small but significant positive association does exist between advanced education levels in a student's home census block and persistence, meaning the more educated a student's home area, the greater the odds of persistence.

Methodology

The aim of this report is two-fold: 1) to identify any associations between student success (defined as persistence to third fall) and pre-admit characteristics, behaviors, and pre-college academic preparation; and 2) to identify first fall characteristics associated with success.

Population

First-time, full-time (FTFT) students from cohorts FA12 through FA16 (N=22,232) are selected for this analysis, as they reflect CSU's most current admissions criteria and have a persistence rate to the third fall. Admission

decisions are largely based on high school academic preparation (e.g., high school GPA, rigor of coursework, ACT and/or SAT scores). If a student meets these requirements, they are automatically admitted to the University. For the purpose of this study, this group will be referred to as “auto admits.” Students who do not meet CSU’s academic preparation criteria undergo a process known as holistic review. These students are referred to as “holistic admits” in this study.

International students are often missing a significant portion of these criteria, and the majority (85%) undergo the holistic review process. As this is due to missing data rather than lower academic preparation, international students are excluded from this analysis.

Analytical Approach

Logistic regression modeling is used to estimate the association between third fall persistence and pre-admit variables, including: high school GPA and SAT math score, remedial status in math, reading, or writing (holistic admits only), number of weeks registered prior to fall census, residency, cohort, and first fall STEM major status. Separate models are run for holistic admit students and auto admit students to allow these associations to vary by population. The models also control for US Census geographic data and the fall semester that the student started at CSU. The models intentionally do not include demographic attributes that are irrelevant to the admissions decision. For instance, sex and first generation status are not included in statistical modeling but observed persistence rates are used to describe important differences identified by the models. Appendix tables A-7 & A-8 provide observed rates by sex and number of underserved attributes within each department and admit population to help inform campus discussions.

The association of third fall persistence with each of the aforementioned pre-admit variables (covariates) is interpreted using both odds ratios and the percentage point (PP) changes in predicted persistence rates. Odds ratios describe the percent higher (or lower) odds of persisting controlling for all other variables in the model. The difference between an odds ratio and 1 indicate the percent higher (or lower, if the odds ratio is less than 1) odds of persisting after controlling for the other variables. Similarly, the PP change states the difference in predicted persistence rates associated with a variable if we assume constant levels for the other variables in the model. Both of these statistics describe the multivariate association for each pre-admit variable with third fall persistence and provide a sense of the strength of the association, but are in different scales (percent odds and predicted rates).

US Census variables are reported at the census block level, which is more precise than ZIP code, and based on the geographic coordinates of a student’s first home address from the system of record. In this study, US Census variables include population density (number of persons per square mile), percent of households that receive Supplemental Nutrition Assistance Program (SNAP) benefits, and percent of adults age 25 and older with a graduate or professional degree. Population density was selected due to the initial report's finding of a significant association between student’s home area population density and success. Research suggests that assistance programs like SNAP and education level are socioeconomic factors that may play a role in student success.

Limitations

This analysis is limited to student characteristics in the system of record and US Census variables associated with a student’s home census block. It does not account for psychosocial or other factors that may affect student success, creating missing variable bias. In addition, this analysis does not include international students, who make up approximately 1.7% of each FTFT cohort.

Student Characteristics

Table 1 displays pre-college achievement measures, pre-admit behaviors, residency, and US Census attributes by admit status for the FA12 through FA16 FTFT cohorts.

Table 1. Pre-Admit Characteristics by Admit Status, FA12-FA16 FTFT Cohorts (N=22,232)

Attribute	Auto Admit	Holistic Admit
Headcount	15039	7193
% Nonresident	29.0%	22.9%
% Remedial Flag	0.1%	21.4%
HS GPA	3.75	3.30
Avg SAT Composite Score	1251	1102
Avg SAT Math Score	619	533
Avg Weeks Registered Prior to Fall Census	10.7	10.4
% First Fall STEM	45.1%	22.8%
% of Home Households Receiving SNAP Benefits	4.9%	6.1%
Avg Home Population Density (persons per square mile)	2974.6	3220.0
% Home Population with Advanced Degrees	19.5%	18.1%

Auto admit students make up approximately 68% of the new incoming student population across cohorts. Nearly 30% of auto admits are non-residents; this proportion is 7 percentage points (PP) smaller among holistic admits (22.9%). By definition, auto admits have higher levels of academic preparation, earning an average high school GPA of 3.75 compared to 3.30 among holistic admits, as well as a higher average SAT math score (619 v. 533), and higher SAT composite score (1251 v. 1102). Approximately 21% of holistic admits have test scores that place them at a remedial level in one or more areas (math, reading, or writing) based on the state definition of remedial.

In regards to Census indicators, holistic admit students, on average, come from more densely populated areas, have a slightly higher proportion of households who receive SNAP benefits, and a slightly lower proportion of adults with advanced degrees compared to auto admits.

In terms of pre-admit behaviors, both groups register for classes within the 10th week prior to fall census. For the majority of FTFT students, registration occurs during new student summer orientation. Orientation is scheduled from 13 weeks to 7 weeks prior to fall census, with four separate sessions occurring within each week. About 45% of auto admits declare a STEM major, compared to about 23% of holistic admits.

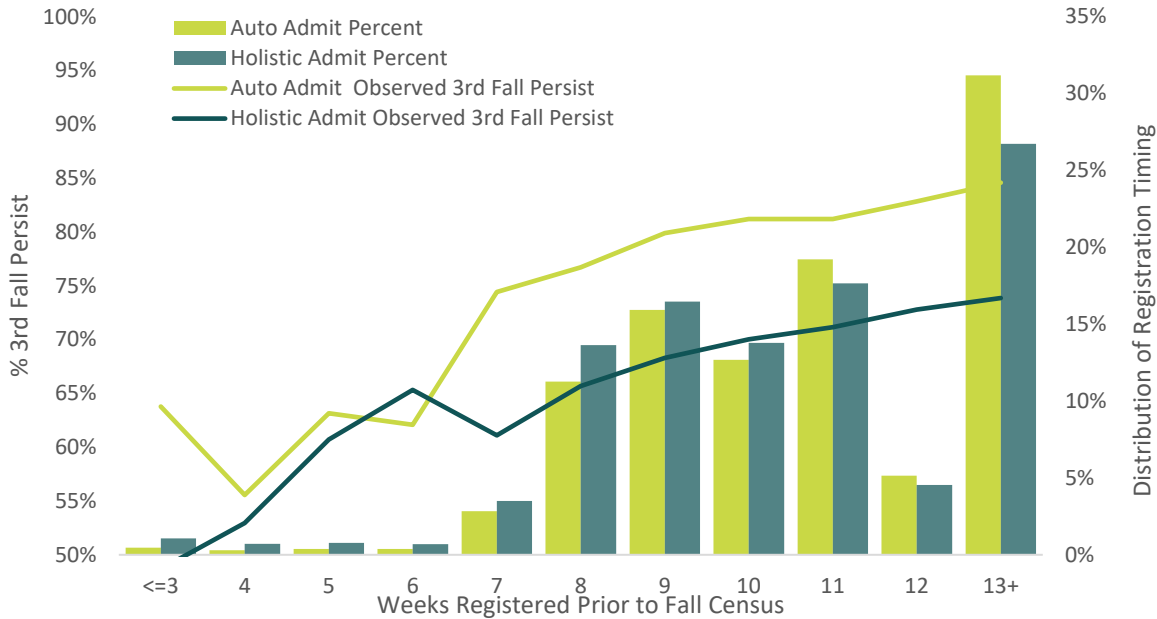
Success Outcomes

In this study, persistence to third fall is used as the primary success indicator for both holistic and auto admits. Previous reports indicate that approximately 85% of students who persist to their third fall graduate within six years; thus, persistence to the third fall is a reasonable proxy for graduation and allows for the inclusion of more recent cohorts. Results are divided into two sections; the first examines persistence within the context of admissions decisions. The key variables of interest in this analysis are pre-admit behaviors (registration timing, type of orientation) that could be used to inform admissions decisions. These were chosen specifically as they are more easily modified if a relationship exists between these behaviors and subsequent success at CSU. The second section addresses gaps in success by first fall end of term GPA and by cohort STEM status, gender, and cohort major college.

Pre-Admit Behaviors and Characteristics Associated with Student Success

Figure 1 displays the observed third fall persistence for holistic and auto admits by number of weeks registered prior to fall census. Third fall persistence is on the primary axis (left), while the distribution of registration timing by admit status is on the secondary axis (right). For the majority of students (98%), registration occurs on campus during summer orientation (weeks 7 through 13).

Figure 1. Observed 3rd Fall Persistence by Admit Status and Weeks Registered Prior to Fall Census, FA12-FA16 FTFT Cohorts



Observed 3rd Fall Persistence

Just over half (56%) of all auto admit students register 11 weeks or more prior to fall census, meaning that nearly all of these students attended the earlier orientation sessions in June. This proportion differs slightly among holistic admits; about 50% registered within this timeframe. Holistic admits were more likely to register during weeks 7 through 10 (47% compared to 43%). The relationship between weeks registered and persistence is less linear among students who registered less than 7 weeks prior to census; at the 7 week mark, the relationship is consistently positive for both holistic and auto admit students. This coincides with orientation; students who register at 6 weeks or less are more likely to complete orientation online or the week prior to the start of the fall semester. Among students who attend a regular orientation session between weeks 7 and 13, auto admit students, on average, persist at 11 PP greater rate compared to holistic students at each interval. Within each group, the persistence rate increases approximately 1-2 PP for every one week increase in registration timing.

Students who register close to fall census (6 weeks or less) differ from those who register during the typical Orientation timeframe. Table 2 displays student characteristics by admit status and registration timing.

Table 2. Student Characteristics by Admit Type and Registration Timing, FA12-FA16 FTFT Cohorts

	Holistic Admits		Auto Admits	
	<= 6 weeks	>= 7 weeks	<= 6 weeks	>= 7 weeks
Headcount	268	6925	272	14767
% 3rd Fall Persistence	53.7%	70.2%	60.1%	81.4%
% Nonresident	32.5%	22.6%	41.5%	28.8%
Avg HS GPA	3.23	3.30	3.58	3.75
Avg SAT Composite	1119	1101	1239	1251
% Remedial	26.1%	21.2%	N/A	N/A
Home: Population Density	3242.7	3219.1	2850.4	2976.8
Home: % Advanced Degrees	16.8%	18.1%	18.8%	19.6%
Home: % Receiving SNAP Benefits	7.4%	6.0%	6.1%	4.9%

Students who do not register during the typical orientation timeframe represent a small overall proportion of FTFT admits (1.3%), which averages out to about 110 students per cohort term. Late registering holistic admits persist at 53.7%, which is about 17 PP lower than holistic admits who register 7 weeks or more prior to fall census (70.2%). This group also tends to have a lower high school average GPA (3.23 v. 3.30), a larger proportion of students with at least one remedial flag (26.1% v. 21.2%), and interestingly, a slightly higher SAT composite average score (1119 v. 1101). Late holistic admits have a larger proportion of nonresidents by 10 PP (33% vs. 23%), a slightly larger home population density (3,243 v. 3,219), a lower proportion of adults with advanced degrees (16.8% v. 18.1%), and a larger proportion of households that receive SNAP benefits (7.4% v. 6.0%). Although not displayed in Table 2, holistic students who complete an online version of orientation persist at 5 PP lower than students who attend in person.

Among auto admits, a large gap in third fall persistence is observed when comparing late registering auto admits to earlier registrants; late registrants persist at 60.1%, which is 21 PP lower than earlier auto admit students (81.4%). Like holistic admits, auto admit students in the <=6 week group who complete an online orientation persist at a 5 PP lower rate than those who attend and register during a last-minute orientation session on campus. Among students who register during the normal timeframe, minimal differences in persistence exist between online and on-campus orientation. Late registering auto admits have a larger proportion of nonresidents by about 12 PP (41.5% v. 28.8%), a lower average high school GPA (3.58 v. 3.75), and a lower SAT composite score (1239 v. 1251). In terms of home census variables, late registrants have a lower population density, a similar proportion of advanced degrees, and a slightly higher proportion of households receiving SNAP benefits.

Predicted 3rd Fall Persistence

Predicted third fall persistence is modeled using logistic regression, with weeks registered prior to fall census as the key variable of interest. Covariates include residency, remedial status, first fall STEM status, cohort, high school GPA, high school SAT math subscore, and the following US Census block variables: population density per square mile, the percentage of households receiving SNAP benefits, and the percentage of adults aged 25 and older with a graduate or professional degree. As mentioned earlier, US Census variables are used as proxies for student characteristics (first generation, Pell recipient and racially-minoritized status) that are irrelevant or unknown in the admissions decision process, but are associated with student success. Models were estimated separately for holistic and auto admits.

Table 3 displays the odds ratios by attribute for holistic and auto admit students. Complete model results can be found in Appendix Tables A-3 and A-4.

Table 3. Model Results by Admit Status, FA12-FA16 FTFT Cohorts

Attribute	Holistic Admits		Auto Admits	
	Odds Ratio	Probability Difference ¹	Odds Ratio	Probability Difference ¹
Nonresident	0.63*	10 Points	0.62*	8 Points
Weeks registered prior to census	1.07*	11.5 Points	1.06*	9 Points
Remedial status	0.82*	4 Points	N/A	N/A
First fall STEM flag	0.80*	4.5 Points	0.92*	1.4 Points
FA13 cohort	0.84		0.87*	
FA14 cohort	0.89		0.94	
FA15 cohort	0.92		0.97	
FA16 cohort	0.73*		0.78*	
Home population density	1.00		1.00	
Home SNAP benefits	1.00		0.99*	
Home advanced degrees	1.02*		1.02	
High school GPA	2.28*		2.94*	
SAT Math Score	1.00		1.001*	

*p<.05

¹The difference in predicted probability assumes non-resident, non-remedial, non-STEM students from the FA16 cohort with average values for the census variables (pop density, SNAP benefits, advanced degrees) as well as an average HS GPA and SAT math score by group (see averages in Table 1), except where the difference is displayed. For instance, the 10 percentage point difference in predicted probability by residency assumes the preceding levels for all variables in the model and calculates the difference in the predicted probability for residents compared to non-residents. In the weeks registered example the difference is calculated assuming all of the other variables for a student that registers 5 weeks before census compared to a student that registers 13 weeks before census.

Residency

Across all covariates, residency status has the largest negative association with third fall persistence for both holistic and auto admits. Nonresident holistic admits have 37% lower odds of persisting to the third fall compared to resident holistic admits. These lower odds result in a 10 PP lower predicted success rate, assuming the levels of the other variables. Holding everything constant, a nonresident student has a predicted persistence rate of 64%, compared to a resident rate of 74%.

Like holistic students, auto admit nonresident status also has a significant negative association with persistence to third fall. Nonresident auto admits have 38% lower odds of persistence, resulting in an 9 PP lower predicted persistence rate, compared to resident auto admits. Holding everything constant, a nonresident student has a predicted persistence rate of 71%, compared to a predicted rate of 80% among residents.

Weeks Registered Prior to Census

Weeks registered prior to census has a significant positive association for both groups; the earlier a student registers, the greater the likelihood they will persist to third fall. Every one week increase results in a 7.4% increase in the odds of persistence among holistic admits. Holding everything constant, a holistic student who registers 5 weeks prior to fall census has a predicted probability of persistence of 66%, compared to a predicted rate of 77.5% among students who register during the first week of new student orientation (week 13).

Among auto admits, such that registering one week earlier results in 6.4% greater odds of persistence. Holding everything constant, students who register at 5 weeks prior to census have a predicted persistence rate of 73%, compared to a predicted rate of 82% among those who register at 13 weeks.

Remedial Status

Holistic students who are flagged as remedial in at least one subject have 18% lower odds of persisting compared to non-remedial students, resulting in a 4 PP lower predicted probability of persistence. Holding everything constant, a remedial student has a predicted persistence rate of 70%, compared to a predicted rate of 74% among non-remedial holistic students.

Auto admit students do not have any remedial flags; therefore, this covariate was not included in modeling.

STEM Status

Holistic students who declare a STEM major in their first fall have 20% lower odds of persistence compared to non-STEM holistic students, resulting in a 4.5 PP lower predicted success rate. Holding everything constant, a holistic student who declares a STEM major has a predicted persistence rate of 70%, compared to non-STEM holistic students at 74%.

First fall STEM status is marginally related ($p = .07$); the odds of persistence decreases for STEM students by 8% compared to non-STEM. Holding everything constant, an auto admit STEM major has a predicted persistence rate of 78%, compared to a non-STEM student at 79.5%.

High School GPA

High school GPA has the largest positive association with persistence to third fall; among holistic admits, for every full grade point increase in GPA, the odds of persistence increase by 128%. Holding everything constant, a holistic student with a high school GPA of 3.3 (holistic group average) has a predicted persistence rate of 74% and a student with a high school GPA of 2.8 has a predicted probability of 65%.

High school GPA has a significant positive association for auto admits; a one point increase in GPA results in 194% greater odds of persistence to third fall. Holding everything constant, an auto admit student with an average high school GPA of 3.75 has a predicted persistence rate of 80%; a student with a high school GPA of a 3.3 has a predicted probability of 70%.

US Census Indicators

Of the US Census variables for holistic admits, the proportion of adults with an advanced degree in a student's home census block is the only covariate that is positively associated with persistence. For every 1 percent increase in education level, the odds of persistence increase by 2.4%. Holding everything constant, a holistic student from an area where 18% of the adult population has an advanced degree rate has a predicted persistence rate of 74%. No significant association was found between persistence and SAT math score, population density, or SNAP benefits. For full model results, see Table A-3 in the Appendix.

Home SNAP benefits has a significant negative relationship with persistence for auto admits; every one percentage point increase in the proportion of people receiving SNAP benefits results in 1.1% lower odds of persistence. Holding everything constant, an auto admit student with a home SNAP value of 5% has a predicted persistence rate of 80%; a SNAP rate of 10% results in a predicted persistence rate of 79%. The proportion of adults with advanced degrees is significantly and positively related; every one percentage point increase in this value results in 2.3% greater odds of persistence. Holding everything constant, an auto admit student with a home advanced degree rate of 20% has a predicted persistence rate of 80%. SAT Math score also has a small positive association with persistence; every one point increase in a student's score results in a 0.1% increase in the odds of persistence. Holding everything constant, an auto admit student with a SAT Math score of 620 has a

predicted persistence rate of 80% and a student with a score of 700 has a predicted persistence rate of 81%. For full model results, see Table A-4 in the Appendix.

Psychosocial Indicators and Registration Timing

A significant positive association between registration timing and persistence to third fall exists for both holistic and auto admit students. This pre-admit behavior is most likely an indicator for an unmeasured psychosocial factor, perhaps signaling social-emotional readiness or conscientiousness. Taking Stock is a survey administered to all new incoming first-year students within their first 4-6 weeks on campus and measures four psychosocial constructs (financial concerns, determination to succeed, commitment to stay, and social adjustment) shown to be associated with persistence and graduation. Since these data are collected after students arrive, it is not included in the models described above. However, when modeled using commitment to stay as the outcome and including the same covariates as the models detailed above, there is a small yet significant association between weeks registered prior to census and commitment to stay for both holistic and auto admits. Additionally, weeks registered has the strongest association to commitment to stay compared to all other covariates in the models. See Tables A-5 and A-6 in the Appendix for model results. Due to missing variable bias, results are not conclusive.

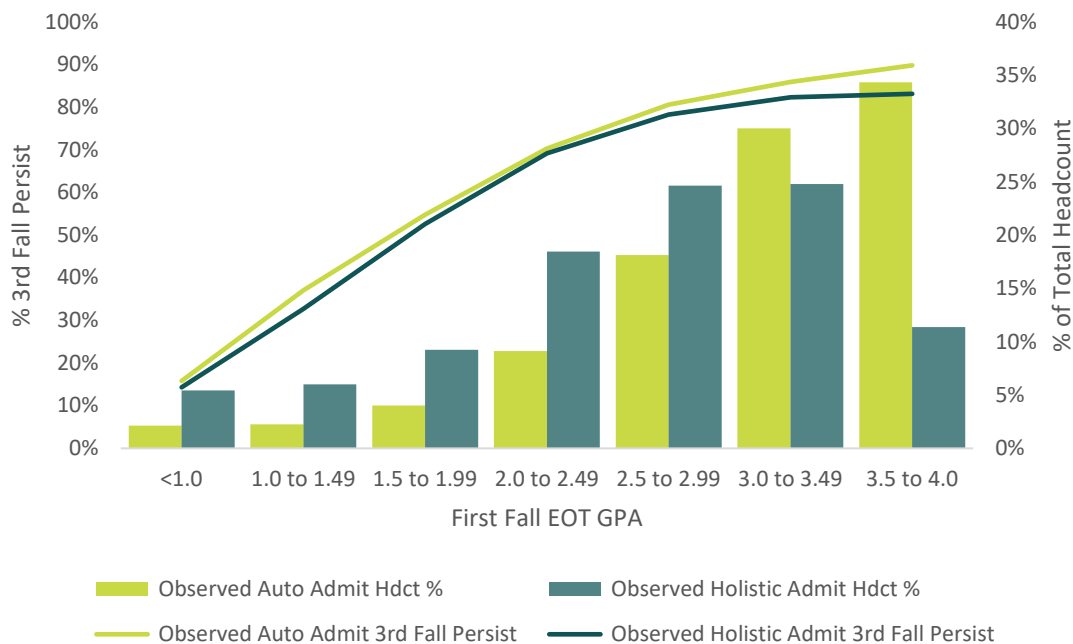
Post-Admit Factors Associated with Student Success

This section explores associations between third fall persistence and first year behaviors and characteristics. These associations may be useful in identifying students who could benefit from intervention early in their academic career. They may also prompt a more thorough exploration of institutional factors that promote or inhibit success for different subpopulations.

First Fall GPA

Figure 2 displays third fall persistence by first fall end of term GPA and admit status. GPA distribution by admit status is displayed on the secondary (right) axis.

Figure 2. Observed Third Fall Persistence by First Fall End of Term GPA and Admit Status



The majority of holistic admits earn less than a 3.0 in their first term (64%); in contrast, the majority of auto admits earn a 3.0 or above (64%). GPA and third fall persistence exhibit a positive linear relationship, such that as GPA increases, so does persistence. Minimal difference exists between holistic and auto admit persistence across GPA with the exception of students who earn a 3.5 or greater. Auto admits persist at a 7 PP higher rate than holistic admits (90% v. 83%). Regardless of admit status, first fall GPA is an equally strong predictor of third fall persistence.

Students with a first fall GPA in the 2.0-2.49 range are above the probation cutoff, comprise about 20% of holistic admits, and persist to third fall at 69%. If these holistic students were able to persist at 79%, the overall persistence rate (including auto admits) would increase from 77.3% to 77.9%. This represents an increase of about 130 students who persist to third fall, or 26 per cohort term.

Gender, STEM Status, and Cohort Major College

Further exploration of observed success rates demonstrates that the association between STEM and persistence differs by both gender and cohort college. Table 4 displays third fall persistence by admit status, STEM status, gender, and cohort major college. Persistence gaps between females and males that are larger than 5 PP are highlighted in green. Rates by major department can be found in Table A-7 in the Appendix.

Table 4. Third Fall Persistence by Admit Status, STEM, Gender, and Cohort College

College	Holistic STEM		Holistic Non-STEM		Auto STEM		Auto Non-STEM	
	Hdct*	3rd Fall Persist %	Hdct	3rd Fall Persist %	Hdct	3rd Fall Persist %	Hdct	3rd Fall Persist %
Agricultural Sciences	197	68.5%	225	64.9%	400	78.8%	429	78.6%
Female	163	69.3%	159	64.2%	312	78.2%	337	79.8%
Male	34	64.7%	66	66.7%	88	80.7%	92	73.9%
College of Business	N/A	N/A	222	76.6%	N/A	N/A	1520	86.2%
Female	N/A	N/A	97	78.4%	N/A	N/A	662	88.5%
Male	N/A	N/A	125	75.2%	N/A	N/A	858	84.4%
Health and Human Sciences	221	79.1%	935	73.5%	328	82.0%	1274	80.8%
Female	69	71.0%	709	75.0%	138	80.4%	1002	82.5%
Male	152	82.8%	226	68.6%	190	83.2%	272	74.3%
Intra-University	N/A	N/A	2855	69.7%	28	78.6%	2677	79.1%
Female	N/A	N/A	1286	70.1%	21	76.2%	1419	81.5%
Male	N/A	N/A	1569	69.4%	N/A	N/A	1258	76.6%
Liberal Arts	N/A	N/A	899	71.9%	N/A	N/A	1685	78.1%
Female	N/A	N/A	538	74.3%	N/A	N/A	1125	78.6%
Male	N/A	N/A	361	68.1%	N/A	N/A	560	77.3%
Natural Sciences	739	59.8%	365	64.7%	2314	79.2%	565	79.1%
Female	443	59.6%	292	65.4%	1400	79.9%	442	79.1%
Male	296	60.1%	73	61.6%	914	78.3%	123	78.9%
Vet Med & Biomedical Sciences	86	67.4%	N/A	N/A	630	86.7%	N/A	N/A
Female	56	66.1%	N/A	N/A	475	86.9%	N/A	N/A
Male	30	70.0%	N/A	N/A	155	85.8%	N/A	N/A
Walter Scott Jr College of Engr	193	76.7%	N/A	N/A	2599	83.9%	N/A	N/A
Female	40	80.0%	N/A	N/A	702	87.0%	N/A	N/A
Male	153	75.8%	N/A	N/A	1897	82.7%	N/A	N/A
Warner College of Natural Res	192	66.7%	55	67.3%	472	78.6%	103	80.6%
Female	75	61.3%	17	70.6%	251	80.9%	38	81.6%
Male	117	70.1%	38	65.8%	221	76.0%	65	80.0%
Overall	1637	66.7%	5556	70.4%	6786	81.7%	8253	80.5%

*Headcounts less than 10 are not displayed.

Green shading denotes PP gaps greater than 5 PP.

Among holistic STEM students, females in the College of Health and Human Sciences persist to third fall at 71%, compared to almost 83% of males (12 PP). When examining this gap at the department level, females within Construction Management persist at a 10 PP lower rate compared to males (75% v. 85%). The rate for females, however, is extremely volatile given that only 8 females declared construction management during this timeframe. Among auto admit STEM students, the gap is much smaller; however, females still persist at a lower rate (80.4% female, 83.2% male). Among holistic non-STEM students, females tend to persist at a 6.4 PP higher rate (75% for females, 68.6% for males). Female auto admit non-STEM students also persist at a higher rate compared to males (8.2 PP).

Substantial persistence gaps by gender are also observed within Warner College of Natural Resources. Among holistic STEM majors, females persist to third fall at 61.3%, compared to males at 70.1%, a nearly 9 PP gap. When examining this gap at the department level, holistic females in Fish, Wildlife, and Conservation Biology persist at 47%, compared to 71% of males, a gap of 24 PP. Among auto STEM students, females persist at 81%, compared to 76% of males. Among holistic non-STEM, females persist at about 5 PP higher than males (70.6% v. 65.8%); among auto non-STEM, rates are nearly equal (81.6% for females, 80% for males).

Conclusions

Registration timing is positively associated with persistence to third fall for both auto and holistic admit students. Results indicate that the earlier a student registers, the greater the association with persistence. This association is slightly greater for holistic admits, who are more likely to register closer to fall census compared to auto admits. Registration timing is most likely a proxy for an unmeasured characteristic and related to commitment to stay at CSU. Results also suggest that in-person orientation is associated with higher persistence among holistic admits, but is less important for auto admits. It is unclear whether this relationship is due to the experience of on-campus orientation, or the additional financial burden to attend. Orientation and Transition Programs might consider additional messaging to these students to encourage attendance at summer orientation or adjusting the cost associated with attendance.

In terms of academic performance once students arrive, end of term first fall GPA is an equally strong predictor of third fall persistence, regardless of admit status. However, differences do exist when examining persistence rates by sex, cohort STEM status, and cohort major college. Among holistic STEM students, persistence gaps between males and females are largest in Health and Human Sciences and Warner College of Natural Resources, such that females persist at a lower rate. However, holistic non-STEM females persist at higher rates within these colleges. Among auto admit STEM students, gaps between males and females are minimal. Among auto admit non-STEM students, females persist at higher rates within Agricultural Sciences and Health and Human Sciences. These differential gaps by sex and STEM status within cohort major colleges and departments warrant further investigation.

In contrast to the previous report, no significant association was found between population density and persistence to third fall. One possible explanation is that the US Census data for this report was at the census block level, while the previous report used ZIP code. Populations were also constructed differently; the initial report ran models based on residency and index. The current report models are based on holistic review status, and include residency and high school achievement as covariates rather than population selection criteria.

Appendix A

Table A-1. Demographics and High School Achievement by Admit Status, FA12-FA16 FTFT Cohorts

		Headcount	% Male	% First Gen	% Racially Minoritized	% Pell Recipient	% Remedial Flag	% First Fall STEM	% Nonres	HS GPA	Avg SAT Composite Score	Avg SAT Math Score
FA12	Auto Admit	3188	44.6%	21.9%	16.1%	19.7%	0.0%	41.4%	25.7%	3.69	1245	617
	Holistic Admit	1207	42.3%	38.3%	28.7%	31.5%	22.4%	18.2%	20.5%	3.28	1073	522
FA13	Auto Admit	3159	45.0%	20.9%	17.2%	18.6%	0.0%	43.0%	27.1%	3.73	1243	616
	Holistic Admit	1154	45.3%	33.4%	30.1%	29.5%	21.7%	19.7%	19.1%	3.31	1073	522
FA14	Auto Admit	3063	45.8%	20.6%	16.9%	17.7%	0.0%	44.8%	28.0%	3.73	1247	617
	Holistic Admit	1140	41.8%	32.4%	31.4%	30.5%	24.3%	21.6%	21.1%	3.3	1078	518
FA15	Auto Admit	2682	44.9%	20.3%	17.8%	16.7%	0.4%	49.4%	32.1%	3.8	1258	623
	Holistic Admit	1883	48.5%	33.4%	27.2%	26.4%	20.4%	25.4%	24.0%	3.3	1126	545
FA16	Auto Admit	2947	42.7%	16.9%	20.0%	16.5%	0.3%	47.8%	32.8%	3.82	1262	625
	Holistic Admit	1809	45.3%	30.9%	33.4%	27.5%	19.7%	25.7%	27.0%	3.3	1129	545

Table A-2. US Census Indicators* by Admit Status, FA12-FA16 FTFT Cohorts

		Headcount	% of Home Households Receiving SNAP Benefits	Avg Home Population Density	% Home Population with Advanced Degrees
FA12	Auto Admit	3188	4.9%	2936.4	19.6%
	Holistic Admit	1207	6.2%	3231.6	17.6%
FA13	Auto Admit	3159	4.8%	2990.1	19.5%
	Holistic Admit	1154	5.9%	3171.3	18.3%
FA14	Auto Admit	3063	5.0%	3001.3	19.5%
	Holistic Admit	1140	6.1%	3195.6	17.8%
FA15	Auto Admit	2682	5.0%	3036.6	19.4%
	Holistic Admit	1883	5.8%	3193.9	18.3%
FA16	Auto Admit	2947	5.0%	2914.9	19.8%
	Holistic Admit	1809	6.3%	3286.2	18.1%

*Data are reported at the census block level using students' first home address.

Table A-3. Logistic Regression Model Results for 3rd Fall Persistence and Holistic Admits, FA12-FA16 FTFT Cohorts

	B	S.E.	Wald	df	Sig.	Exp(B)
Nonresident	-0.47	0.06	55.09	1	.000	0.63
Weeks registered prior to census	0.07	0.01	35.30	1	.000	1.07
Remedial status	-0.20	0.07	7.23	1	.007	0.82
First fall STEM flag	-0.22	0.06	11.97	1	.001	0.80
FA13 cohort	-0.17	0.10	3.35	1	.067	0.84
FA14 cohort	-0.12	0.10	1.58	1	.209	0.89
FA15 cohort	-0.09	0.09	1.01	1	.315	0.92
FA16 cohort	-0.32	0.09	13.72	1	.000	0.73
Home population density	0.00	0.00	1.29	1	.257	1.00
Home SNAP benefits	0.00	0.01	0.72	1	.396	1.00
Home advanced degrees	0.02	0.00	40.10	1	.000	1.02
High school GPA	0.83	0.08	117.47	1	.000	2.28
SAT Math Score	0.00	0.00	0.28	1	.596	1.00
Constant	-2.48	0.40	38.94	1	.000	0.08

$\chi^2(13, N=7027)=292.6, p<.05$

$R^2=.058$

Table A-4. Logistic Regression Model Results for 3rd Fall Persistence and Auto Admits, FA12-FA16 FTFT Cohorts

	B	S.E.	Wald	df	Sig.	Exp(B)
Nonresident	-0.48	0.05	105.86	1	.000	0.62
Weeks registered prior to census	0.06	0.01	36.94	1	.000	1.06
First fall STEM flag	-0.08	0.05	3.35	1	.067	0.92
FA13 cohort	-0.14	0.07	4.54	1	.033	0.87
FA14 cohort	-0.06	0.07	0.82	1	.365	0.94
FA15 cohort	-0.03	0.07	0.23	1	.631	0.97
FA16 cohort	-0.25	0.07	13.11	1	.000	0.78
Home population density	0.00	0.00	1.05	1	.305	1.00
Home SNAP benefits	-0.01	0.01	5.21	1	.022	0.99
Home advanced degrees	0.02	0.00	60.91	1	.000	1.02
High school GPA	1.08	0.06	295.07	1	.000	2.94
SAT Math Score	0.001	0.00	14.70	1	.000	1.001
Constant	-4.11	0.29	196.34	1	.000	0.02

$\chi^2(13, N=14881)=643.9, p<.05$

$R^2=.068$

Table A-5. Linear Regression Model Predicting Commitment to Stay for Holistic Admits

	B	S.E.	Beta	t	Sig.
(Constant)	5.12	0.19			
Nonresident	0.06	0.03	0.03	1.78	.076
Weeks registered prior to census	0.04	0.01	0.09	6.16	.000
Remedial status	0.02	0.04	0.01	0.52	.606
First fall STEM flag	0.10	0.03	0.05	3.06	.002
FA16 cohort	-0.12	0.03	-0.06	-4.07	.000
Home population density	0.00	0.00	0.02	1.09	.278
Home SNAP benefits	0.00	0.00	-0.01	-0.40	.692
Home advanced degrees	0.00	0.00	-0.01	-0.70	.483
High school GPA	0.13	0.04	0.06	3.45	.001
SAT Math Score	0.00	0.00	0.02	1.13	.258

$F(11,4484)=8.3, p<.05$

Adjusted $R^2=.018$

Table A-6. Linear Regression Model Predicting Commitment to Stay for Auto Admits

	B	S.E.	Beta	t	Sig.
(Constant)	5.30	0.13			
Nonresident	-0.01	0.02	0.00	-0.26	.799
Weeks registered prior to census	0.04	0.01	0.10	8.09	.000
First fall STEM flag	0.00	0.02	0.00	0.06	.951
FA16 cohort	-0.03	0.02	-0.02	-1.69	.091
Home population density	0.00	0.00	0.02	1.36	.175
Home SNAP benefits	-0.01	0.00	-0.04	-2.48	.013
Home advanced degrees	0.00	0.00	0.01	0.73	.466
High school GPA	0.09	0.03	0.04	3.13	.002
SAT Math Score	0.00	0.00	0.02	1.23	.218

$F(10, 7395)=11.1, p<.05$

Adjusted $R^2=.013$

Table A-7. 3rd Fall Persistence by Admit Status, Cohort STEM Status, Sex, and Cohort Major and College, FA12-FA16 FTFT Cohorts

			Holistic Admit STEM		Holistic Admit Non-STEM		Auto Admit STEM		Auto Admit Non-STEM	
			Headcount	% 3rd Fall Persist ¹	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist
Agricultural Sciences	Agricultural & Resource Economics	Female	3	66.7%	35	65.7%	0		38	73.7%
		Male	0		38	60.5%	0		51	68.6%
	Animal Sciences	Female	142	67.6%	117	64.1%	282	79.1%	288	80.6%
		Male	19	63.2%	9	77.8%	64	78.1%	9	88.9%
	Horticulture & Landscape Archtctr	Female	11	81.8%	7	57.1%	15	60.0%	11	81.8%
		Male	10	70.0%	19	73.7%	15	86.7%	32	78.1%
	Soil and Crop Sciences	Female	7	85.7%	0		15	80.0%	0	
		Male	5	60.0%	0		9	88.9%	0	
Business	Accounting	Female	0		0		0		1	0.0%
		Male	0		0		0		1	100.0%
	Business Intra-College	Female	0		95	78.9%	0		651	88.8%
		Male	0		123	74.8%	0		846	84.3%
	Computer Information Systems	Female	0		0		0		0	
		Male	0		0		3	33.3%	0	
	Finance & Real Estate	Female	0		1	100.0%	0		2	100.0%
		Male	0		1	100.0%	0		4	100.0%
	Management	Female	0		0		0		2	100.0%
		Male	0		0		0		3	66.7%
	Marketing	Female	0		1	0.0%	0		6	66.7%
		Male	0		1	100.0%	0		4	100.0%
Health and Human Sciences	Construction Management	Female	8	75.0%	0		7	71.4%	0	
		Male	131	84.7%	0		163	83.4%	0	
	Design and Merchandising	Female	0		180	76.1%	0		182	86.3%
		Male	0		15	86.7%	0		12	83.3%

¹ Male and female persistence gaps of 5 PP or larger are highlighted in green. If headcounts are less than 10, percentage point gaps are not highlighted.

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			Holistic Admit STEM		Holistic Admit Non-STEM		Auto Admit STEM		Auto Admit Non-STEM	
			Headcount	% 3rd Fall Persist ¹	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist
Food Science & Human Nutrition	Female	61	70.5%	36	77.8%	131	80.9%	53	73.6%	
	Male	21	70.0%	17	82.4%	27	81.5%	10	70.0%	
Health and Exercise Science	Female	0		273	74.7%	0		502	80.5%	
	Male	0		189	66.1%	0		238	73.5%	
Human Development & Family Studies	Female	0		134	73.1%	0		174	83.3%	
	Male	0		1	0.0%	0		5	100.0%	
School of Education	Female	0		11	72.7%	0		14	78.6%	
	Male	0		1	100.0%	0		1	0.0%	
School of Social Work	Female	0		75	76.0%	0		77	92.2%	
	Male	0		3	66.7%	0		6	83.3%	
Intra-University	Provost / Acad Vice President	Female	1	100.0%	1,286	70.1%	21	76.2%	1,419	81.5%
		Male	1	100.0%	1,569	69.4%	7	85.7%	1,258	76.6%
Liberal Arts	Anthropology	Female	5	80.0%	14	64.3%	7	85.7%	38	73.7%
		Male	1	0.0%	4	25.0%	4	100.0%	4	75.0%
	Art and Art History	Female	0		70	72.9%	0		189	70.4%
		Male	0		23	47.8%	0		56	75.0%
	Communication Studies	Female	0		68	75.0%	0		63	74.6%
		Male	0		45	68.9%	0		26	88.5%
	Economics	Female	0		3	100.0%	0		14	85.7%
		Male	0		27	70.4%	0		42	85.7%
	English	Female	0		63	76.2%	0		143	83.9%
		Male	0		22	59.1%	0		39	74.4%
	Ethnic Studies	Female	0		4	75.0%	0		3	33.3%
		Male	0		3	33.3%	0		0	
	History	Female	0		16	75.0%	0		38	86.8%
		Male	0		28	71.4%	0		46	75.6%
	Journalism & Media Communication	Female	0		38	68.4%	0		173	82.7%
		Male	0		16	68.8%	0		69	75.4%
		Female	0		6	100.0%	0		30	80.0%

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		Holistic Admit STEM		Holistic Admit Non-STEM		Auto Admit STEM		Auto Admit Non-STEM	
		Headcount	% 3rd Fall Persist ¹	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist
Languages, Literatures and Cultures	Male	0		8	75.0%	0		11	63.6%
	Female	0		69	66.7%	0		114	82.5%
Liberal Arts Intra-College	Male	0		24	66.7%	0		53	69.8%
	Female	0		2	50.0%	0		5	20.0%
Philosophy	Male	0		9	66.7%	0		11	81.8%
	Female	0		47	80.9%	0		63	71.4%
Political Science	Male	0		54	72.2%	0		66	74.2%
	Female	0		65	80.0%	0		174	83.3%
School Music, Theatre, & Dance	Male	0		38	68.4%	0		82	76.8%
	Female	1	0.0%	73	74.0%	1	0.0%	78	74.0%
Sociology	Male	0		60	76.7%	0		55	87.3%
	Natural Sciences	Biochemistry & Molecular Bio	Female	50	60.0%	0		136	76.5%
Male		31	64.5%	0		91	81.3%	0	
Biology	Female	349	59.0%	0		1,037	80.0%	0	
	Male	114	64.9%	0		335	77.3%	0	
Chemistry	Female	16	56.3%	0		81	81.5%	0	
	Male	20	45.0%	0		51	70.6%	0	
Computer Science	Female	10	50.0%	0		52	78.8%	0	
	Male	85	60.0%	0		339	79.2%	0	
Mathematics	Female	7	85.7%	0		58	86.2%	0	
	Male	11	27.3%	0		51	80.4%	0	
Natural Sciences Intra-College	Female	4	50.0%	0		14	64.3%	0	
	Male	6	33.3%	0		3	100.0%	0	
Physics	Female	4	75.0%	0		17	76.5%	0	
	Male	23	65.2%	0		36	75.0%	0	
Psychology	Female	0		292	65.4%	0		442	79.1%
	Male	0		73	61.6%	0		123	78.9%
Statistics	Female	3	100.0%	0		5	100.0%	0	

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			Holistic Admit STEM		Holistic Admit Non-STEM		Auto Admit STEM		Auto Admit Non-STEM		
			Headcount	% 3rd Fall Persist ¹	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist	
Veterinary Medicine & Biomedical Sci	Biomedical Sciences	Male	6	66.7%	0		8	87.5%	0		
		Female	26	61.5%	0		368	87.8%	0		
	Environmntl & Radiolgicl Health Sci	Male	16	75.0%	0		117	85.5%	0		
		Female	8	75.0%	0		12	75.0%	0		
	Microbiology, Immunolgy and Patholgy	Male	5	40.0%	0		8	100.0%	0		
		Female	22	68.2%	0		95	85.3%	0		
Walter Scott Jr College of Engr	Chemical and Biological Engineering	Female	1	100.0%	0		83	84.3%	0		
		Male	10	100.0%	0		136	85.3%	0		
	Civil and Environmental Engineering	Female	11	81.8%	0		167	89.8%	0		
		Male	35	80.0%	0		316	81.6%	0		
	Electrical and Computer Engineering	Female	3	100.0%	0		32	78.1%	0		
		Male	16	62.5%	0		271	77.1%	0		
	Engineering Intra-College	Female	21	76.2%	0		325	88.0%	0		
		Male	47	78.7%	0		568	85.0%	0		
	Mechanical Engineering	Female	4	75.0%	0		95	84.2%	0		
		Male	45	68.9%	0		606	83.0%	0		
	Warner College of Natural Resources	Ecosystem Science & Sustainability	Female	24	70.8%	0		65	87.7%	0	
			Male	22	68.2%	0		50	80.0%	0	
Fish/Wildlife/Conservation Biology		Female	36	47.2%	0		133	80.5%	0		
		Male	45	71.1%	0		99	71.7%	0		
Forest & Rangeland Stewardship		Female	10	80.0%	8	62.5%	43	72.1%	10	90.0%	
		Male	29	69.0%	23	69.6%	44	81.8%	37	81.1%	
Geosciences		Female	5	80.0%	0		10	80.0%	0		
		Male	21	71.4%	0		28	75.0%	0		
Human Dimensions of Natural Res.		Female	0		9	77.8%	0		28	78.6%	
		Male	0		15	60.0%	0		28	78.6%	

Table A-8. Third Fall Persistence by Admit Status, Number of Historically Underserved Attributes², Cohort Major and College, FA12-FA16 FTFT Cohorts

			Auto Admit		Holistic Admit		
			Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist	
Agricultural Sciences	Agricultural & Resource Economics	0 Attributes	50	76.0%	40	67.5%	
		1 Attribute	29	62.1%	26	61.5%	
		2 or More Attributes	10	70.0%	10	50.0%	
	Animal Sciences	0 Attributes	350	83.7%	104	79.8%	
		1 Attribute	202	76.7%	87	55.2%	
		2 or More Attributes	91	71.4%	96	61.5%	
	Horticulture & Landscape Archtctr	0 Attributes	48	83.3%	22	77.3%	
		1 Attribute	20	65.0%	14	71.4%	
		2 or More Attributes	5	60.0%	11	63.6%	
	Soil and Crop Sciences	0 Attributes	18	83.3%	5	60.0%	
		1 Attribute	6	83.3%	3	66.7%	
		2 or More Attributes	0		4	100.0%	
	Business	Accounting	0 Attributes	2	50.0%	0	
			1 Attribute	0		0	
			2 or More Attributes	0		0	
Business Intra-College		0 Attributes	991	88.9%	104	76.9%	
		1 Attribute	354	81.9%	66	78.8%	
		2 or More Attributes	152	78.9%	48	72.9%	
Computer Information Systems		0 Attributes	2	50.0%	0		
		1 Attribute	0		0		
		2 or More Attributes	1	0.0%	0		
Finance & Real Estate		0 Attributes	5	100.0%	0		
		1 Attribute	0		2	100.0%	
		2 or More Attributes	1	100.0%	0		
Management		0 Attributes	1	100.0%	0		
		1 Attribute	2	100.0%	0		

² Includes Pell recipient status, racially minoritized status, and first generation status.

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		Auto Admit		Holistic Admit			
		Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist		
		2 or More Attributes	2	50.0%	0		
	Marketing	0 Attributes	10	80.0%	1	0.0%	
		1 Attribute	0		0		
		2 or More Attributes	0		1	100.0%	
Health and Human Sciences	Construction Management	0 Attributes	122	86.1%	68	83.8%	
		1 Attribute	34	76.5%	43	79.1%	
		2 or More Attributes	14	71.4%	28	92.9%	
	Design and Merchandising	0 Attributes	120	87.5%	92	79.3%	
		1 Attribute	53	84.9%	58	75.9%	
		2 or More Attributes	21	81.0%	45	73.3%	
	Food Science & Human Nutrition	0 Attributes	159	78.6%	73	76.7%	
		1 Attribute	40	75.0%	42	71.4%	
		2 or More Attributes	22	86.4%	20	68.4%	
	Health and Exercise Science	0 Attributes	437	82.2%	201	73.6%	
		1 Attribute	200	77.0%	138	69.6%	
		2 or More Attributes	103	64.1%	123	69.1%	
	Human Development & Family Studies	0 Attributes	108	85.2%	48	77.1%	
		1 Attribute	54	81.5%	52	69.2%	
		2 or More Attributes	17	82.4%	35	71.4%	
	School of Education	0 Attributes	10	80.0%	5	60.0%	
		1 Attribute	4	50.0%	4	75.0%	
		2 or More Attributes	1	100.0%	3	100.0%	
	School of Social Work	0 Attributes	46	95.7%	28	78.6%	
		1 Attribute	22	86.4%	19	73.7%	
		2 or More Attributes	15	86.7%	31	74.2%	
	Intra-University	Provost / Acad Vice President	0 Attributes	1595	81.9%	1333	72.3%
			1 Attribute	714	74.1%	779	69.2%
			2 or More Attributes	396	77.0%	745	65.8%
Liberal Arts	Anthropology	0 Attributes	32	78.1%	10	50.0%	

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		Auto Admit		Holistic Admit	
		Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist
	1 Attribute	9	77.8%	6	66.7%
	2 or More Attributes	12	75.0%	8	62.5%
Art and Art History	0 Attributes	160	74.4%	36	80.6%
	1 Attribute	60	71.7%	37	54.1%
	2 or More Attributes	25	52.0%	20	65.0%
	0 Attributes	58	86.2%	62	79.0%
Communication Studies	1 Attribute	17	58.8%	33	57.6%
	2 or More Attributes	14	71.4%	18	77.8%
Economics	0 Attributes	37	89.2%	18	66.7%
	1 Attribute	12	66.7%	10	90.0%
	2 or More Attributes	7	100.0%	2	50.0%
	0 Attributes	107	84.1%	44	84.1%
English	1 Attribute	45	82.2%	24	50.0%
	2 or More Attributes	30	73.3%	17	70.6%
Ethnic Studies	0 Attributes	2	50.0%	1	100.0%
	1 Attribute	1	0.0%	2	100.0%
	2 or More Attributes	0		4	25.0%
	0 Attributes	50	79.6%	23	69.6%
History	1 Attribute	23	78.3%	11	90.9%
	2 or More Attributes	11	90.9%	10	60.0%
Journalism & Media Communication	0 Attributes	134	84.3%	22	77.3%
	1 Attribute	70	74.3%	16	62.5%
	2 or More Attributes	38	78.9%	16	62.5%
	0 Attributes	24	79.2%	8	75.0%
Languages, Literatures and Cultures	1 Attribute	9	77.8%	2	100.0%
	2 or More Attributes	8	62.5%	4	100.0%
Liberal Arts Intra-College	0 Attributes	95	81.1%	38	68.4%
	1 Attribute	47	78.7%	29	69.0%
	2 or More Attributes	25	68.0%	26	61.5%

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		Auto Admit		Holistic Admit	
		Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist
Philosophy	0 Attributes	7	71.4%	5	80.0%
	1 Attribute	5	80.0%	4	50.0%
	2 or More Attributes	4	25.0%	2	50.0%
Political Science	0 Attributes	67	67.2%	37	73.0%
	1 Attribute	43	81.4%	32	75.0%
	2 or More Attributes	19	73.7%	32	81.3%
School Music, Theatre, & Dance	0 Attributes	140	81.4%	41	70.7%
	1 Attribute	83	81.9%	26	88.5%
	2 or More Attributes	33	78.8%	36	72.2%
Sociology	0 Attributes	71	80.3%	57	75.4%
	1 Attribute	40	80.0%	33	69.7%
	2 or More Attributes	23	72.7%	44	77.3%
Natural Sciences Biochemistry & Molecular Bio	0 Attributes	123	84.6%	28	60.7%
	1 Attribute	60	73.3%	22	72.7%
	2 or More Attributes	44	68.2%	31	54.8%
Biology	0 Attributes	776	82.1%	159	66.7%
	1 Attribute	378	76.2%	124	57.3%
	2 or More Attributes	218	75.2%	180	57.2%
Chemistry	0 Attributes	72	77.8%	12	50.0%
	1 Attribute	33	81.8%	13	61.5%
	2 or More Attributes	27	70.4%	11	36.4%
Computer Science	0 Attributes	240	81.1%	46	63.0%
	1 Attribute	104	73.1%	27	48.1%
	2 or More Attributes	47	83.0%	22	63.6%
Mathematics	0 Attributes	74	87.8%	7	71.4%
	1 Attribute	19	63.2%	6	16.7%
	2 or More Attributes	16	87.5%	5	60.0%
Natural Sciences Intra-College	0 Attributes	9	77.8%	5	40.0%
	1 Attribute	6	66.7%	4	25.0%

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			Auto Admit		Holistic Admit	
			Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist
Physics	2 or More Attributes	2	50.0%	1	100.0%	
	0 Attributes	32	81.3%	12	50.0%	
	1 Attribute	13	61.5%	10	80.0%	
	2 or More Attributes	8	75.0%	5	80.0%	
	Psychology	0 Attributes	291	78.6%	155	62.6%
		1 Attribute	164	78.0%	98	62.2%
		2 or More Attributes	110	81.8%	112	69.6%
	Statistics	0 Attributes	10	90.0%	5	60.0%
		1 Attribute	2	100.0%	2	100.0%
2 or More Attributes		1	100.0%	2	100.0%	
Veterinary Medicine & Biomedical Sci	Biomedical Sciences	0 Attributes	311	90.4%	11	63.6%
		1 Attribute	125	85.6%	16	75.0%
		2 or More Attributes	49	71.4%	15	60.0%
	Environmntl & Radiolgical Health Sci	0 Attributes	14	78.6%	5	80.0%
		1 Attribute	4	100.0%	3	33.3%
		2 or More Attributes	2	100.0%	5	60.0%
	Microbiology, Immunolgy and Patholgy	0 Attributes	73	87.7%	5	80.0%
		1 Attribute	26	84.6%	13	61.5%
		2 or More Attributes	26	76.9%	13	76.9%
Walter Scott Jr College of Engr	Chemical and Biological Engineering	0 Attributes	146	87.0%	4	100.0%
		1 Attribute	44	86.4%	6	100.0%
		2 or More Attributes	29	72.4%	1	100.0%
	Civil and Environmental Engineering	0 Attributes	305	86.6%	25	84.0%
		1 Attribute	115	82.6%	14	78.6%
		2 or More Attributes	63	77.8%	7	71.4%
	Electrical and Computer Engineering	0 Attributes	191	82.2%	10	60.0%
		1 Attribute	62	69.4%	5	80.0%
		2 or More Attributes	50	68.0%	4	75.0%
	Engineering Intra-College	0 Attributes	605	87.3%	35	77.1%

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		Auto Admit		Holistic Admit	
		Headcount	% 3rd Fall Persist	Headcount	% 3rd Fall Persist
Warner College of Natural Resources	1 Attribute	210	82.4%	21	81.0%
	2 or More Attributes	78	87.2%	12	75.0%
	Mechanical Engineering	485	85.4%	30	66.7%
	1 Attribute	151	80.1%	12	83.3%
	2 or More Attributes	65	73.8%	7	57.1%
	Ecosystem Science & Sustainability	85	84.7%	26	76.9%
Warner College of Natural Resources	1 Attribute	22	90.9%	13	53.8%
	2 or More Attributes	8	62.5%	7	71.4%
	Fish/Wildlife/Conservation Biology	149	80.5%	38	71.1%
	1 Attribute	65	70.8%	28	50.0%
	2 or More Attributes	18	66.7%	15	53.3%
	Forest & Rangeland Stewardship	88	81.8%	44	72.7%
	1 Attribute	36	72.2%	18	72.2%
	2 or More Attributes	10	80.0%	8	50.0%
	Geosciences	24	83.3%	14	71.4%
Warner College of Natural Resources	1 Attribute	8	62.5%	9	77.8%
	2 or More Attributes	6	66.7%	3	66.7%
	Human Dimensions of Natural Res.	39	76.9%	19	68.4%
	1 Attribute	15	80.0%	4	50.0%
	2 or More Attributes	2	100.0%	1	100.0%