# Income Quintile Report

**FALL 2016 UNDERGRADUATE STUDENTS** 



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## Introduction

This report illustrates the socio-economic class or "income quintiles" of UCCS undergraduate students in an effort to contextualize decisions students make to pursue (and pay for) a baccalaureate degree. I presume that students and their families from the bottom 60% are facing difficult decisions regarding short-term risk and affordability versus the long-term payoff of upward social mobility that higher education provides. By providing this report, I hope to add useful information to inform institutional decisions regarding access, affordability, and student success.

Thank you,

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# Methodology

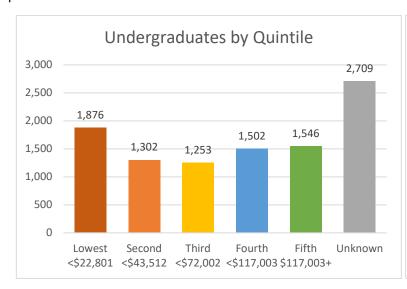
The United States Census Bureau publishes income limits for each fifth or quintile of the population. The quintile tables are online at <a href="https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-households.html">https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-income-households.html</a>. The demographers working for the Census Bureau sort the population by income and determine the upper income limit for each quintile. The lowest quintile contains 20% of the population and the income of people in this category is less than \$24,002 (in 2016).

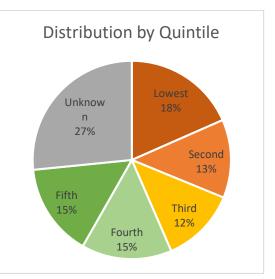
Year	Lowest Quintile Max	Second Quintile Max	Third Quintile Max	Fourth Quintile Max	Top 5 Percent Minimum
2016	\$24,002	\$45,600	\$74,869	\$121,018	\$225,251+
2015	\$22,800	\$43,511	\$72,001	\$117,002	\$214,462+
2014	\$21,432	\$41,186	\$68,212	\$112,262	\$206,568+

In order to place UCCS undergraduate students into these quintiles, we rely on the information students have submitted on the Free Application for Federal Student Aid (FAFSA) and which is returned to the institution via the Institutional Student Information Records (ISIRs). The ISIRs include students' adjusted gross income which is based on their own income if they are independent or their household income if they are dependents. For the purposes of this report, we categorize students' adjusted gross income from an aid year into the household income quintiles of the previous year. The quintile is unknown for students who did not submit the FAFSA.

# Undergraduates' Income Quintiles

About 43% of the UCCS undergraduate students in Fall 2016 were in the bottom three quintiles with incomes of less than \$72,003. About 18% of undergraduates were in the lowest quintile with incomes less than \$22,801. To put this into perspective, about 70% of Harvard students<sup>1</sup> and approximately  $1/3^{rd}$  of Boulder students<sup>2</sup> are in the fifth (the highest) quintile while the poverty threshold for a four-person household in 2016 was \$24,755. About 30% are in the fourth and fifth quintiles in which the affordability of tuition might not pose as much of a challenge. A rather substantial proportion of undergraduates (27%) did not submit a FAFSA; their quintile placement is unknown because we do not have an estimate of their income.

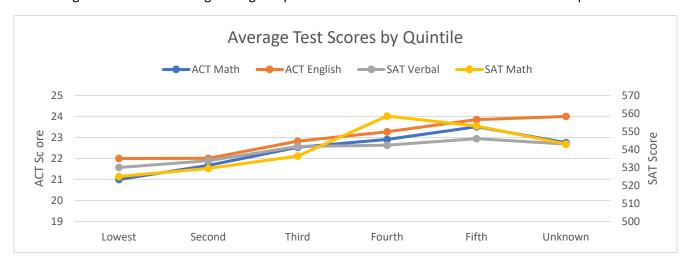




# **Admissions Characteristics**

#### **Test Scores**

We see higher test scores among the higher quintiles and the lowest test scores in the lowest quintile.

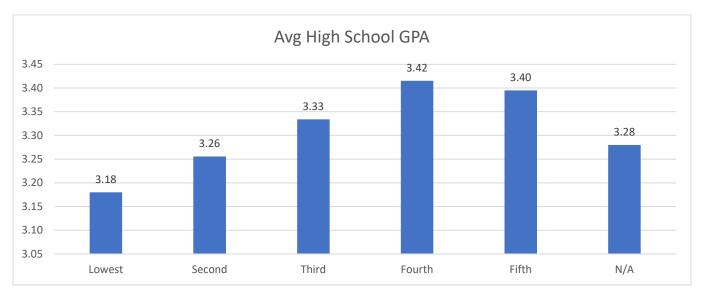


<sup>&</sup>lt;sup>1</sup> Raj Chetty, John Friedman, Emmanuel Saez, Nicholas Turner, and Danny Yagan. 2017. "Mobility Report Cards: The Role of Colleges in Intergenerational Mobility." NBER Working Paper No.23618, Revised Version, July 2017. <a href="http://www.equality-of-opportunity.org/assets/documents/coll\_mrc\_slides.pdf">http://www.equality-of-opportunity.org/assets/documents/coll\_mrc\_slides.pdf</a>.

<sup>&</sup>lt;sup>2</sup> Estimate based on adjusted income for undergraduates in financial aid year 2017 regardless of their fall 2016 enrollment status.

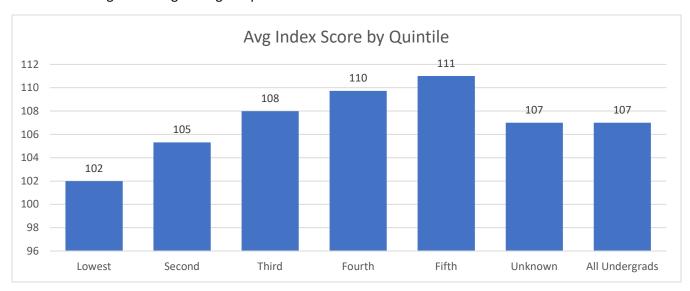
#### **High School GPA**

There is a similar pattern with students' high school GPA. Students in higher income quintiles have higher high school GPAs.



#### **Index Score**

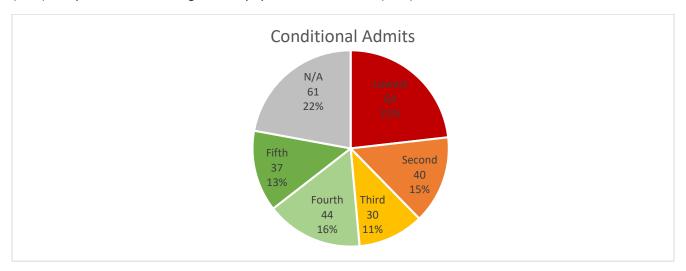
The average admissions index score<sup>3</sup> for the Fall 2016 undergraduate students was 107, several points above the minimum of 93 needed for admission into the university. The average index by quintile ranges from 102 among undergraduates in the lowest quintile to 111 among students in the fifth quintile. As anticipated, the average index score is higher among the higher quintiles.



<sup>&</sup>lt;sup>3</sup> The recorded index score could be unreliable due to missing data, index scores of zero, and the inclusion or exclusion of new SAT scores, among other issues. Please use with discretion until we are able to recalculate and independently verify the admission index scores for all students.

#### **Conditional Admits**

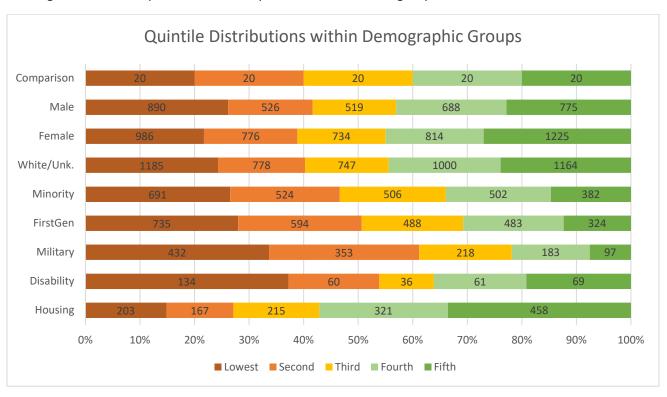
There were 276 students in the "conditional admit" program at the end of Fall 2016 and they comprised 2.7% of the undergraduate population. The conditional admits are slightly more concentrated in the lowest quintile (23%) compared to the undergraduate population as a whole (18%).



# **Demographic Characteristics**

## Gender, Ethnicity, First Generation, Military, Disability, and Housing

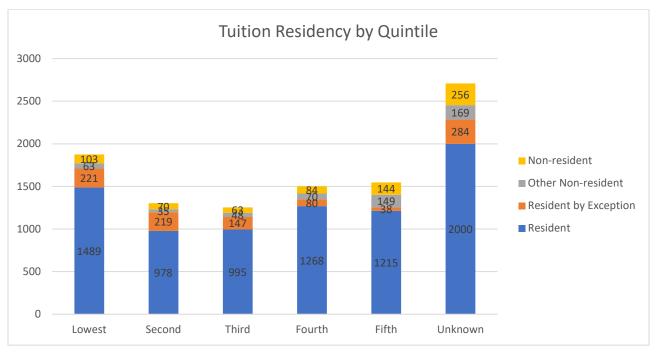
The following bar chart depicts the quintile distribution for several demographic groups. Several minoritized groups (women, ethnic minority, first-generation) have more representation in the lower quintiles. Students in housing reflect a different pattern that we have seen thus far in which nearly half (48%) of the students in housing are from the top fourth and fifth quintiles. The unknown group is excluded from the denominators.

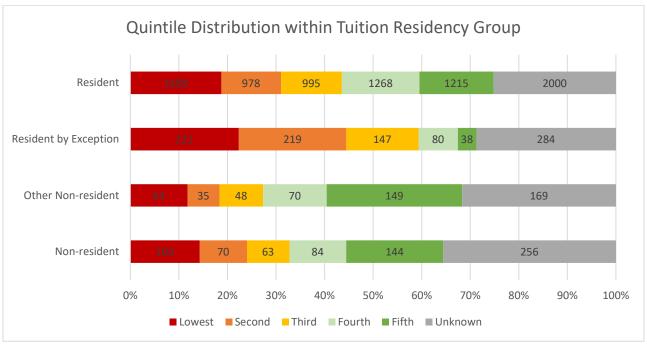




## Residency

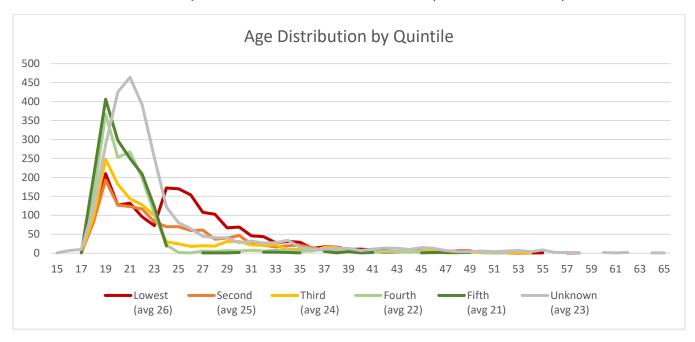
The tuition residency of students is re-categorized as resident, non-resident, residents-by-exception (non-residents with an exception that allows them to pay the resident rate), and other non-residents. The other category includes students in an exchange agreement or in the presidential scholar or Western Undergraduate Exchange programs in which they pay a rate less than the non-resident rate but more than the resident rate. Non-residents are more concentrated in the fifth quintile whereas residents-by-exception are more concentrated in the lowest and second quintiles.



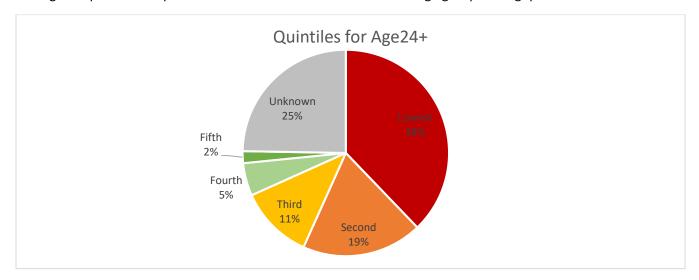


#### Age

Among the students' demographic characteristics, their average age poses a striking pattern by quintile. Students in the lower quintiles are older than students in the higher quintiles. This suggests an important distinction in our student body: non-traditional students are most likely to be in the lowest quintile.



Among the 3043 undergraduates who are 24 years or older, 38% are in the lowest quintile and only 2% are in the highest quintile. The pie chart illustrates the distribution of this age group among quintiles.

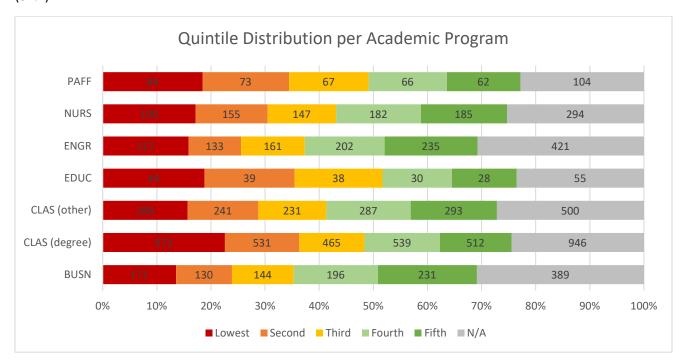


## **Academic Characteristics**

## College

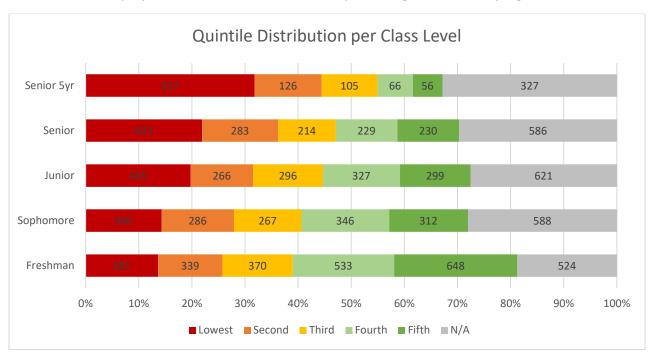
The quintile distribution per academic program is intended to illustrate potential sorting among students or whether students of certain quintiles would concentrate or sort themselves into certain programs. We don't see obvious patterns of sorting. The College of Letters, Arts, and Sciences is divided into two areas to distinguish the students who are in degree-granting programs within CLAS from students who are in undecided, pre/prep, and

non-degree-granting programs that are housed within CLAS. The proportion of students in the bottom 60% is highest in Education (52%) followed by Public Affairs (49%). The proportion in the top 40% is highest in Business (34%).



#### Class Level

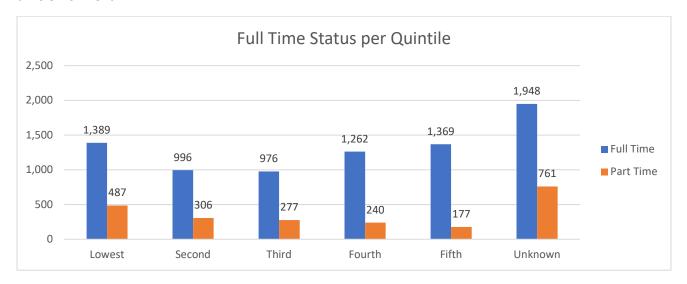
Class level is shown here as it relates to the cost of attendance (tuition is higher at the junior and senior levels) and financial aid dependency (the likelihood of independence is more likely as students age and progress to the senior level). Students whose level is considered "unclassified" are excluded from this chart because 93% of them are in the unknown group. By looking at the number of students in the fifth quintile, most of them (648) are freshman. The proportion of students in the lowest quintile is greater at each progressive class level.





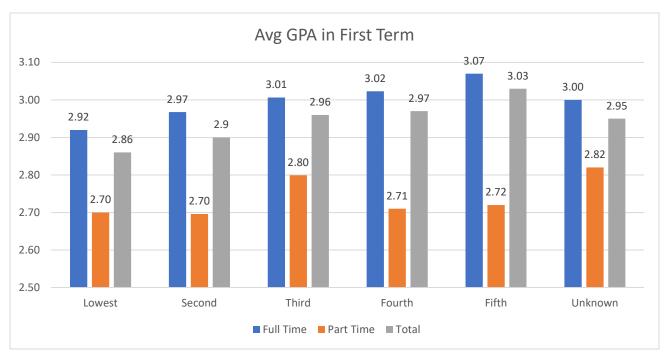
#### **Full Time Status**

As we move up the quintiles, the proportion of part-timers in each quintile decreases from 26% (lowest) to 11% (fifth quintile). This pattern suggests that students' with more adjusted income may be more able to afford full-time enrollment.



#### First Term GPA

Undergraduates' first term GPA increases per quintile for (the gray bars range from 2.86 to 3.07 among the quintiles). Parsing the data by full-time status reveals a difference within each quintile where the part-time students earn average GPAs that are about 0.25 points less than their full-time counterparts.

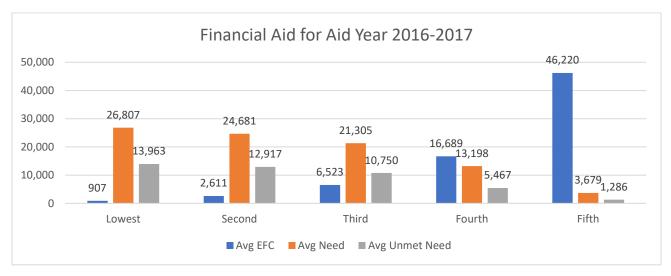




#### **Financial Aid**

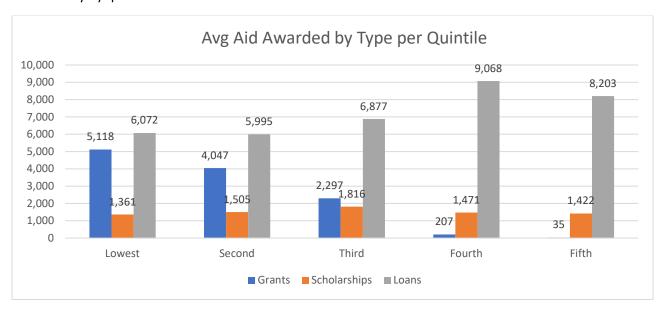
# Expected Family Contribution, Need, & Unmet Need

Within the realm of financial aid, an expected family contribution (EFC) is determined for each student who submits a FAFSA. The pattern of increasing EFC per quintile is expected as many students in the lowest quintile have zero EFC and students in the highest income quintile are more likely to have disposable income. The average need (one's budget or cost of attendance minus the EFC) and unmet need (budget minus EFC minus total aid) also vary per quintile.



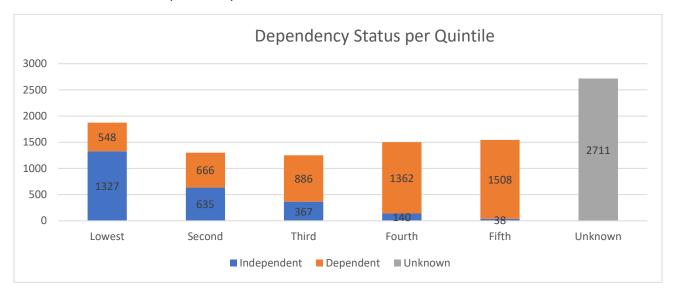
## Grant, Scholarship, and Loan Aid

The average grant, scholarship, and loan amounts per quintile are shown in the bar chart below; note that the denominator is the total number of students in each quintile so the average award includes the zero values for students who did not receive the award. The average grant is highest among the lowest and second quintiles because the typical grant is the Pell Grant which is only available to those students who are considered low-income. The average scholarship aid is relatively consistent among the quintiles while the average loan increases dramatically by quintile.



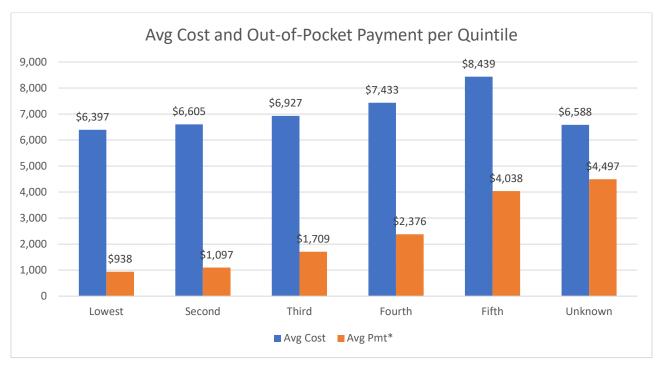
## Dependency

When students are independent, their adjusted income is usually only their own income whereas dependent students' adjusted income is more likely to reflect the students' and his/her parents' income. Students aged 23 or more do not need to report their parental income.



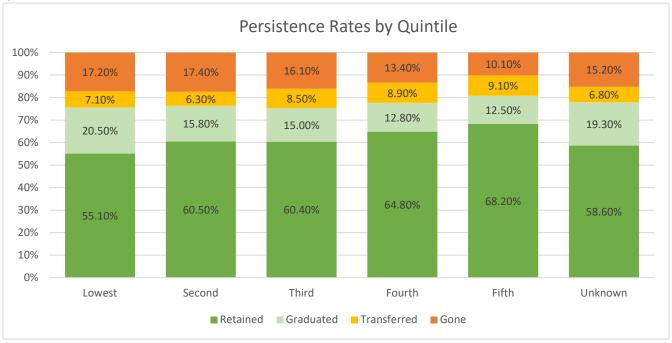
#### **Financial Transactions**

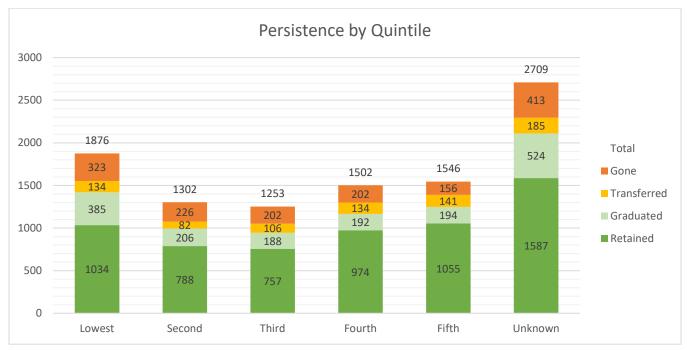
By aggregating financial transactions, we are able to determine the dollar amount students were billed and the source of their payments. Their cost is the sum of tuition, mandatory fees, course or program fees, housing, and miscellaneous service fees (like parking or printing). Their payment is the sum of "out of pocket" payments which excludes financial aid, COF, waivers, and third-party payments (all of which fill the gap between the cost and the payment shown in the chart).



# Persistence by Quintile

For the Fall 2016 undergraduate students, we document their status one year later at the beginning of the Fall 2017 semester. The proportion of students who persist increases from 55% in the lowest quintile to 68% in the fifth quintile, a substantial difference. Note that the proportion graduating declines as we move up the quintiles, most likely due to the concentration of independent seniors (who are most likely to graduate) in the lowest quintile.

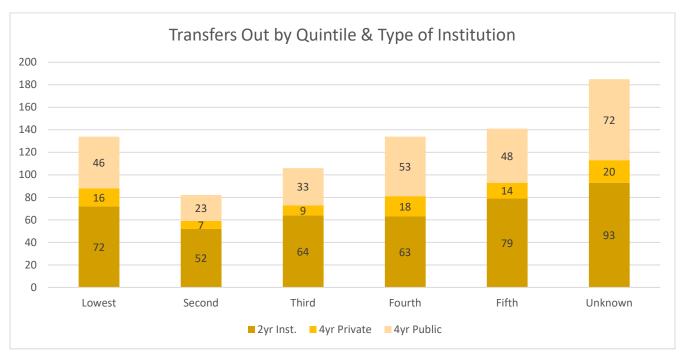






#### **Transfers Out**

Although the proportion of students who transfer out *within one year* is relatively small, other analyses indicate that about 45% of students in an incoming cohort transfer out of UCCS over the course of six years or the "normal time" to completion. Thus, we look at the transfers out and determine the type of institution where they have continued their education as it is a clue to both their fit and affordability at UCCS. Of the 782 who transferred out, 54% transferred to a two-year institution.



# Quintile Unknown

Throughout this report, the unknown group of students is often the modal group. Their adjusted income is unknown because they did not submit a FAFSA, which is where the adjusted income is collected. Among the unknown group, international students who are ineligible for financial aid are unlikely to submit a FAFSA. Likewise, Chapter 33 students receiving GI Bill tuition assistance are not as likely to submit a FAFSA. For these two groups of students, it is reasonable that we do not have an adjusted income value. However, they make up only 17% of the unknown group. The majority – 2256 or 83% -- have not submitted a FAFSA and we are not sure why. The unknown group includes 423 students who received private scholarships (77), private loans (74), or institutional merit (280), and/or institutional athletic aid (73) which are all types of awards that do not require a FAFSA. It's possible that these aided students who did not submit a FAFSA might do so in the following year or may have some aversion to need-based aid or feel as though they do not need it, but with them and the other students who did not submit a FAFSA, further investigation is needed to understand why they opt out. Ensuring these students are informed and aware of advising and financial aid services could reduce their out-of-pocket costs.

# Conclusion

Higher education is often considered the primary means of upward social mobility in the United States. The bundle of behaviors associated with socio-economic class are not tested for statistical significance in this report, but the data are intended to improve our understanding of socio-economic contexts that may underly students'

decisions to pursue the American Dream at UCCS and to inform institutional decisions regarding access, affordability, academic programming, and student success. Thus far, via the information in this report, we have learned:

- We have learned that at least 43% of undergraduate students are in the bottom three quintiles in which their estimated adjusted income is a substantial proportion of the annual full-time tuition and fees.
- The impact of socio-economic class is baked into many of the admissions characteristics students present: high school GPA, ACT and SAT test scores, and admission index scores are all better among the higher quintiles.
- Among demographic variables, students who belong to an ethnic minority group or who are firstgeneration, affiliated with the military, or registered with the Disability Services Office are all overrepresented at the lower income quintiles.
- Non-residents and students in housing are overrepresented at the higher income levels.
- We discovered that age and income quintiles matter: the higher the income, the younger the student.
- And, of course, academic progress, persistence, financial aid, and out-of-pocket expenses are intricately tied to adjusted income as well.
- We suspect affordability could be an issue for about 400 students who transfer to two-year institutions.
- And, finally, we discover the need to understand more about the students who do not submit the FAFSA.