



# Taking Stock Report: First Year Survey




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The Taking Stock program seeks to better understand students' first year experiences, further their opportunities for success and improve first-year retention. The Taking Stock program has two objectives. The first, and primary, is to promote meaningful conversations between on campus, undergraduates and their Resident Advisors. These interactions provide early feedback and help to inform and create a support network for each student, ultimately improving freshmen retention. The second objective is to better understand students' experiences overtime by exploring how these data are related to student success outcomes. This second objective has led to the integration of Taking Stock data into IRP&E's databases. It is hoped Taking Stock data will inform policies and programs at CSU in order to provide students with a more positive, successful experience at CSU. Please visit the [Taking Stock website](#) for more information.

## Executive Summary





This report focuses on how first-year undergraduate perceptions and experiences, collected via the Taking Stock Survey, relates to student success outcomes. For the purpose of this report, student success is defined by five metrics: freshmen retention, third year persistence, good academic standing at the end of their first year, completed 30 credits in their first year, and first fall CSU GPA.

Looking at data from the past three cohorts in relation to five student success metrics, the results of the taking stock survey indicate the majority of constructs had significant relationships with the student success metrics beyond that of student and personal characteristics. Four of the nine constructs are positive predictors of all five of the student success metrics examined. Commitment to Staying at CSU is the top predictor for three of the five student metrics, while Determined to Succeed was the top predictor for the other two metrics.

-  *Freshmen Retention:* All of the constructs except Grit were significant predictors of freshmen retention. Commitment to Staying at CSU, Determined to Succeed, Social Adjustment, and State of Mind had positive relationships, while Homesickness, Financial Concerns, and Flourishing had negative relationships with freshmen retention. Commitment to Staying was the strongest predictor with a student being 58% more likely to be retained to their second fall with every unit increase in their average response to Commitment to Staying.
-  *Third Fall Persistence:* With the exception of Flourishing, which is too new of a construct to be tested, the same constructs that had significant relationships with freshmen retention had significant relationships with students' persistence to their third fall. Commitment to Staying at CSU (again the strongest predictor), Determined to Succeed, Social Adjustment, and State of Mind, Homesickness, and Financial Concerns all were significant predictors of third fall persistence. A student is 82% more likely to be retained to their third fall with every unit increase in their Commitment to Stay mean score.
-  *Good Academic Standing at end of First Year:* Commitment to Staying at CSU, Determined to Succeed, Social Adjustment, State of Mind, and Homesickness were all significant predictors of Good Academic Standing at End of First Year when looking at those students who finished their first year. Commitment to Staying and Determined to Succeed were the strongest predictors of good academic standing. With one unit increase in Commitment to Staying and Determined to



Succeed mean scores, students who completed their first year have 94% and 31% higher odds, respectively, of being on good academic standing at the end of their first year.

-  *30 Credits Hours Completed at end of First Year:* Commitment to Staying at CSU, Determined to Succeed, Social Adjustment, State of Mind, and Financial Concerns were all significant predictors of completing 30 credits when looking at students who finished their first year. Determined to Succeed was the strongest predictor for whether students' complete thirty credit hours. Students were 21% more likely to complete 30 credits by the end of their first year with one unit increase in their Determined to Succeed mean score.
-  *First Fall GPA:* The same constructs that had significant relationships with 30 credit hour completion had significant relationships with students' fall GPA. Commitment to Staying at CSU, Determined to Succeed, Social Adjustment, and State of Mind had positive relationships, while Financial Concerns had a negative relationship with First Fall GPA. Determined to Succeed was the strongest predictor of first fall GPA. A student who indicated strongly disagree to all Determined to Succeed items had a predicted GPA of 2.73, while if they answered strongly agree to all items they had a predicted GPA of 3.23.
-  With the exception of Financial Concerns, there were not meaningful significant differences in the average score when looking at the constructs by subpopulations. First year students who are first generation, from a minoritized race and/or ethnicity, and who are Pell recipients had significantly more Financial Concerns than their respective comparison groups.
-  Due to the national attention that Grit has received in relation to student perseverance (Duckworth, Peterson, Matthews, & Kelly, 2007), the Fall 2017 Taking Stock instrument included Grit as a construct and utilized the Short Grit Scale (Grit-S) (Duckworth & Quinn, 2009). For CSU's first-year students, the two factors that form the Grit construct did not have any significant relationships with the four students success metrics examined. However, it is important to note Grit's relationship with the student success metrics was only tested for one cohort, Fall 2017, while the other factors were examined over three cohorts. Grit was also included in the Fall 2018 instrument and future testing utilizing both cohorts will provide more information on Grit's relationship with students success.



## Methodology

The Taking Stock program sends an online survey to all new first-year and transfer students at CSU. Students complete the survey during the 4th week of the semester and are encouraged to reflect on their experiences during the first few weeks at CSU. Table 1 displays the number of students who took the survey by living status and student type and shows each group's response rate in parentheses. This report will focus only on first year students that completed the survey in Fall 2015, 2016, or 2017 ( $n = 13,132$ ). The vast majority of responses are from students who live on campus. On-campus, first-year undergraduate students ( $n=12,934$ ) had between a 91% and 92% response rate (depending on cohort). First year off-campus students had a 39% response rate in Fall 2017 and a 23% response rate for Fall 2015 and Fall 2016 ( $n=198$  total).

Table 1. Respondent counts and response rates by term

	<b>On-Campus First Years</b>	<b>On-Campus Transfer</b>	<b>Off-Campus First Years</b>	<b>Off-Campus Transfer</b>
FA15	4,201 (92%)	NA	55 (23%)	NA
FA16	4,394 (91%)	205 (81%)	54 (23%)	160 (13%)
FA17	4,374 (91%)	205 (86%)	89 (39%)	329 (35%)
Total	12,969	410	198	489

## The Instrument

The instrument was designed by the Early Experience Assessment Committee in Fall 2013 and has been used, with slight variations annually, since Fall 2015. The survey is web based and takes about 15 minutes to complete. The full instrument is comprised of agreement statements, expectation statements, perceptions of students' abilities and skills, intended behaviors, reasons they chose CSU, financial support, employment, study behaviors, possible exit reasons, and resources. This report looks specifically at a subset of the instrument by only exploring the 63 agreement statements

The agreement items are asked on a seven point agreement Likert scale (1) = Strongly Disagree - (7) Strongly Agree with the exception of the Grit-S items, which were asked on a five-point Likert scale: (5) Very much like me - (1) Not at all like me. An exploratory factor analysis was conducted on all 63-agreement items. With the exception of Grit-S, items had a minimum .57 correlation with a factor. This resulted in 8 item groupings, or constructs, listed below. A student then received a mean score for each construct based on their average responses to the items in the construct. Items not captured in a construct were still utilized descriptively, but not included in the report. Please see Appendix A for a list of each construct's items and Appendix B for how constructs vary by subpopulation. Table 2 displays the psychometric properties of the Taking Stock survey's constructs.



Table 2. Instrument Summary

Construct	Mean	# of Items	Variance Explained	Cronbach's Alpha	# of Respondents
Homesickness*	3.78	3	60.48%	0.80	8,603
Commitment to Staying at CSU	6.12	6	49.69%	0.85	12,394
Financial Concerns*	3.63	5	60.23%	0.88	12,667
Determined to Succeed	5.88	7	48.5%	0.86	12,852
State of Mind	5.18	4	47.7%	0.77	12,873
Social Adjustment	5.70	6	58.65%	0.92	12,869
Flourishing <sup>1</sup>	5.97	8	44.0%	0.86	4,275
Grit-S <sup>2**</sup> Perseverance of Effort	3.87	4	29.0%	0.72	4,363
Consistency of Interest*	2.92	4	12.9%	0.71	

\*Negative constructs, items scored in support of construct

Note: Construct development and psychometric properties based on First Year, On Campus respondents only; See Appendix A for construct's items.

The instrument goes through slight modifications each year and some data are lost longitudinally. In addition, constructs are tweaked or altered based on the psychometric properties and not all constructs are available for all years. In Fall 2017, items from two previously published scales, the Grit Short Scale (Grit-S) and The Flourishing Scale were added; therefore, students in the Fall 2015 and 2016 cohort do not have mean scores for these constructs. Additionally, students in the Fall 2015 cohort do not have mean scores for Homesickness since the constructs items changed. Further, it is important to note the instrument assesses students their fourth week into their first fall and results capture their early experiences, with many of their perceptions shaped by experiences pre-CSU.

## Associations between Student Success and Taking Stock Constructs

The following section explores the relationship between student success metrics and Taking Stock constructs. The five metrics include freshmen retention, third year persistence, good academic standing at the end of their first year, completed 30 credits in their first year, and first fall CSU GPA. This section includes data for all full-time, first-time undergraduates in Fall 2015, 2016, and 2017 cohorts who took Taking Stock their first fall term.

The relationship between an individual construct and a student success outcome was explored via a bivariate logistic or linear regression. All regressions control for gender, minority status, STEM major, academic index, Pell recipient status, first generation status, and residency. If a construct is a significant predictor of the student success metric, predicted probabilities based on students' average construct response of Strongly disagree (1) - Strongly agree (7) are given for each of the five metrics. These probabilities assume a student who is male, non-minority, non-STEM, average INDEX of 114, non-first generation, non-Pell recipient, and non-resident. Homesickness construct is only available for FA16 and FA17 cohorts, while Flourishing, Consistency of Interest, and Perseverance of Effort are only available for the FA17 cohort. Results of the full regression models are available by request.

<sup>1</sup> The Flourishing Scale (Diener et al., 2009)

<sup>2</sup> The Short Grit Scale (Grit-S) (Duckworth & Quinn, 2009)



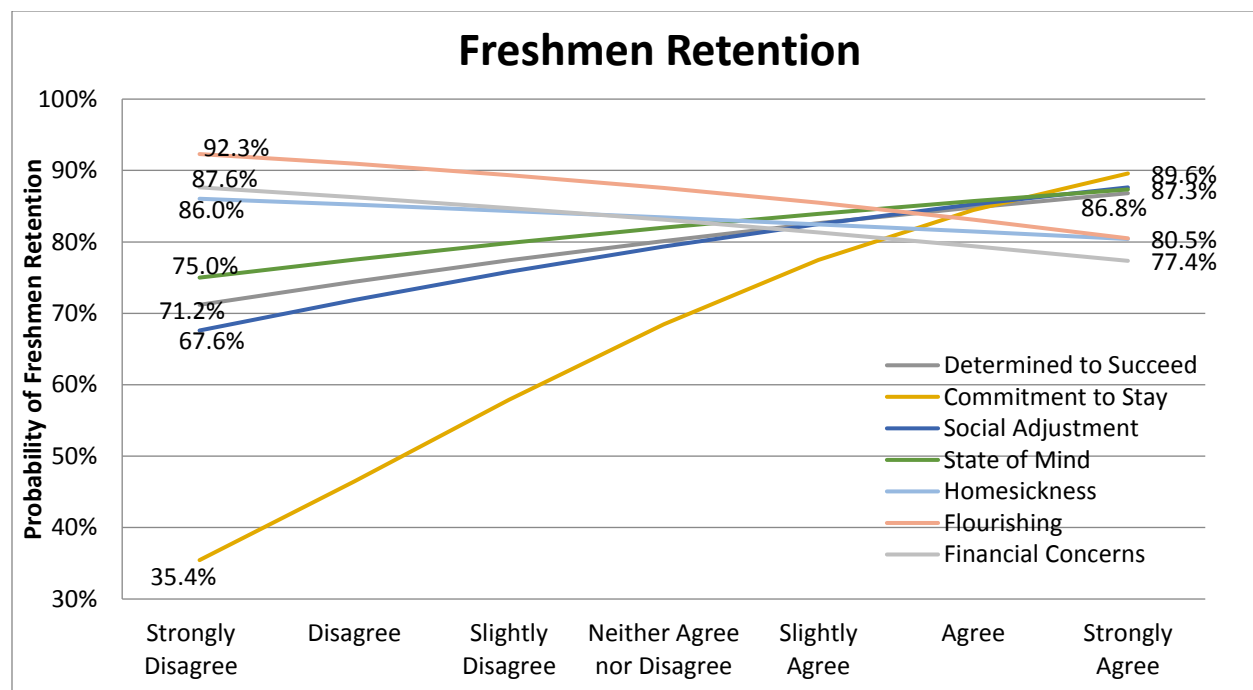
## Freshmen Retention

Figure 1 and Table 3 display the relationship between the constructs and first year students' second fall retention in order to explore the impact of a construct on a student's retention. A logistic regression looked at each construct's relationship with freshmen retention after controlling for gender, minority status, STEM major, academic index, Pell recipient status, first generation status, and residency. The first row in Table 3 shows the odds ratios for those constructs that have a significant relationship with freshmen retention ( $p < .05$ ). The second row in Table 3 displays the percentage point difference in predicted probabilities based on students' mean scores for a construct. The difference is calculated by subtracting the predicted probability for an average construct score of 7 (answering "Strongly Agree" to all items in that construct) minus an average score of 1 (answering all items with "Strongly Disagree"). Figure 8 displays the predicted probabilities of freshmen retention based on students' average constructs scores. Each construct's individual relationship with freshmen retention is graphed. The x-axis shows the average construct score, while the y-axis shows the predicted probability of freshmen retention based on that average construct score.

Table 3. Odds Ratios and percentage point (PP) range of predicted probabilities for Freshmen Retention

	Commitment to Stay	Determined to Succeed	Social Adjustment	State of Mind	Financial Concerns	Homesickness	Flourishing
Odds Ratio	1.58	1.18	1.23	1.15	0.89	0.93	0.84
PP difference in probability (SA-SD)	54.1	15.6	20.0	12.3	-10.3	-5.6	-11.8

Figure 1. Predicted probability of retention to second fall by average construct score



Note: Assumes male, non-minority, non-STEM, average INDEX of 114, non-first generation, non-Pell recipient, and non-resident.



All constructs had a significant relationship with freshmen retention except Consistency of Interest and Perseverance of Effort. The strongest predictor of freshmen retention is a student's Commitment to Staying at CSU. After controlling for gender, minority status, STEM major, academic index, Pell recipient status, first generation status, and residency, a student, on average, is 58% more likely to be retained to their second fall with every unit increase in a student's Commitment to Stay score.

Commitment to Staying had the largest difference in predicted probabilities with 54-percentage point change. This can be interpreted as a student with a mean score of '1-Strongly Disagree' for their Commitment to Staying at CSU only has a 36% predicted probability of being retained to their second fall; however, if they have a score of '7-Strongly Agree' they had a 90% predicted probability of being retained. Determined to Succeed, Social Adjustment, and State of Mind were also significant and positive predictors of freshmen retention. For example, students who had a mean score of '1' for Social Adjustment only had a 68% predicted probability of being retained, but an 88% predicted probability if they had a score of '7' (a 20 percentage point difference in probabilities). Expectedly, since a higher score for these constructs is less favorable, Homesickness and Financial Concerns had a negative relationship with freshmen retention; however, unexpectedly, Flourishing, which is a construct only available for Fall 2017 students, also had a negative relationship with freshmen retention and a 12 percentage point difference in freshmen retention based on the range of scores. Students with a high Flourishing score had a lower predicted probability of being retained (score of 1 =81% predicted probability) than if they had a low flourishing score (score of 7 =92% predicted probability).

## Persistence to Third Fall

Table 4 and Figure 2 display the relationship between constructs and first year students' persistence to third fall in order to explore the impact of an individual construct on a student's third fall persistence. Only those constructs with significant relationships to third fall persistence are shown.

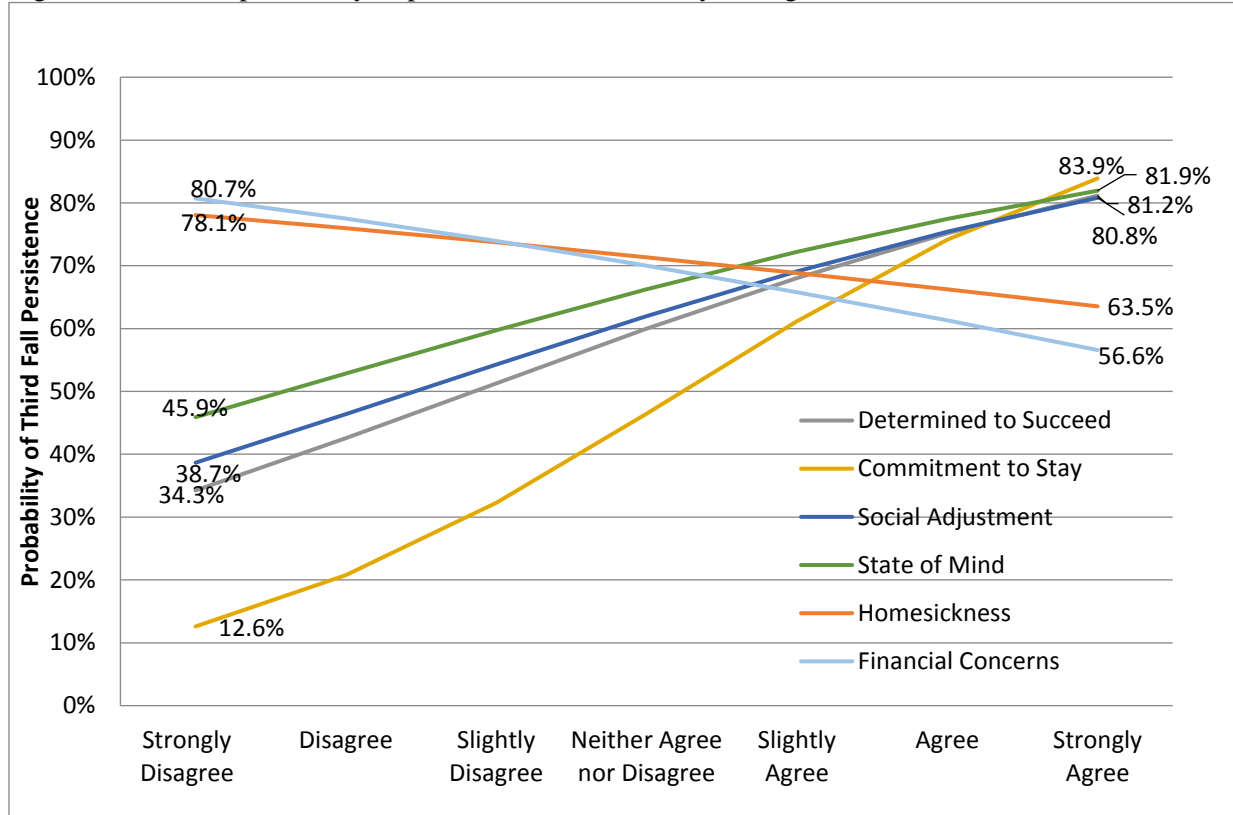
Table 4. Odds ratios and percentage point (PP) range of predicted probabilities for persistence to third fall

	<b>Commitment to Stay</b>	<b>Determined to Succeed</b>	<b>Social Adjustment</b>	<b>State of Mind</b>	<b>Financial Concerns</b>	<b>Homesickness</b>
Odds Ratio	1.82	1.42	1.37	1.32	0.82	0.89
PP difference in probability (SA-SD)	71.3	46.9	42.2	36	-24.1	-14.5





Figure 2. Predicted probability of persistence to third fall by average construct score



Note: Assumes male, non-minority, non-STEM, average INDEX of 114, non-first generation, non-Pell recipient, and non-resident.

All constructs had a significant relationship with persistence to third fall. Flourishing, Consistency of Interest and Perseverance of Effort could not be tested since they were asked in Fall 2017 only and those students have not had a third fall yet. Similar to freshmen retention, Commitment to Staying was the strongest predictor of persistence to third fall. After controlling for gender, minority status, STEM major, academic index, Pell recipient status, first generation status, and residency, a student, on average, has 82% higher odds of being retained to their third fall with every unit increase in a student's Commitment to Stay score. In practical interpretation, students with an average Commitment to Staying score of '1' only had a 13% predicted probability of being retained to their third fall, while those who had an average score of '7' had an 84% predicted probability of being retained (a 71 percentage point difference in predicted probabilities). The other constructs also paralleled freshmen retention: Determined to Succeed, Social Adjustment, and State of Mind were significant and positive predictors of third fall persistence, while Homesickness and Financial Concerns were negative predictors.



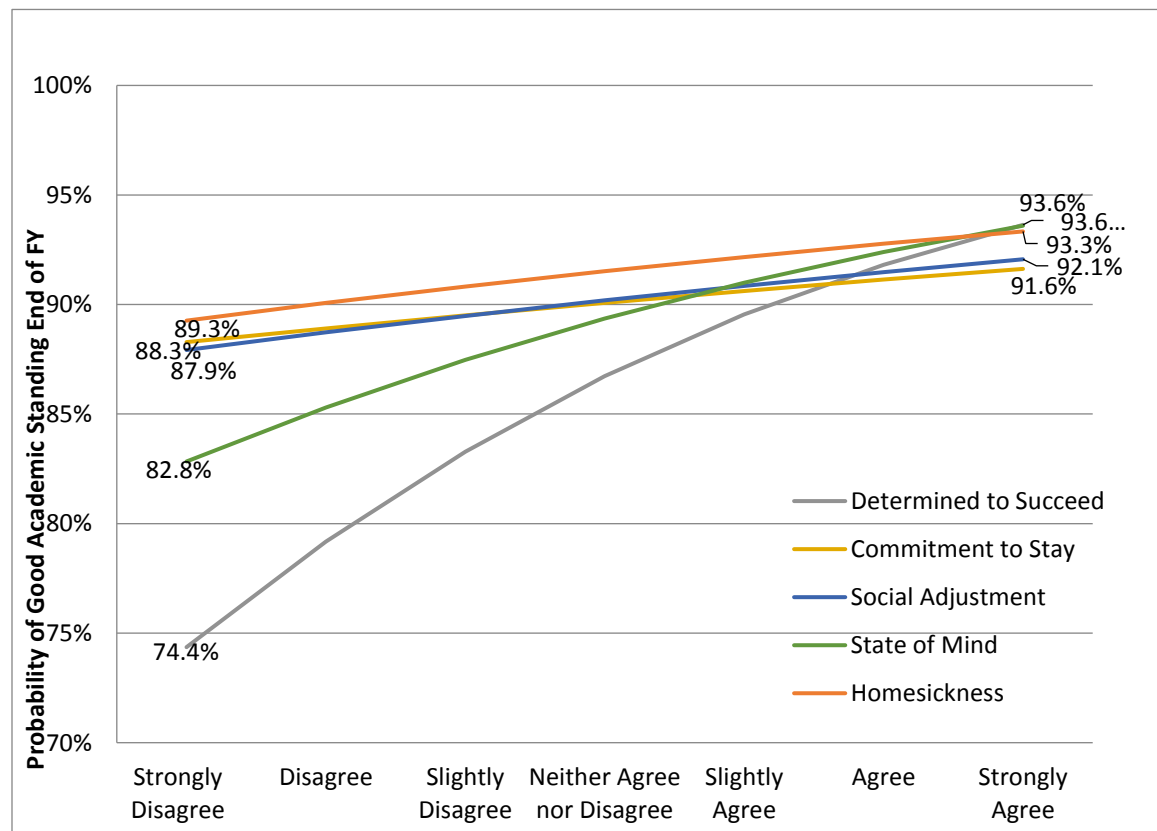
## Good Academic Standing at end of First Year

Table 5 and Figure 3 display the relationship between individual constructs and academic standing at the end of the first year order to explore the magnitude of the association between each construct and this student success metric. A student is categorized as being in good academic standing if they are not on probation or academically dismissed academically at the end of their first year among all students that persist to the end of the first spring. Only those constructs with a significant relationship to academic standing are shown and only those students who completed their first year were included in the analysis.

Table 5. Odds ratios and percentage point (PP) range of predicted probabilities for good academic standing at end of first year

	Commitment to Stay	Determined to Succeed	Social Adjustment	State of Mind	Homesickness
Odds Ratio	1.94	1.31	1.08	1.20	1.09
PP difference in probability (SA-SD)	3.3	19.3	4.1	10.8	4.1

Figure 3. Predicted probability of good academic standing at the end of first year by average construct score



Note: Assumes male, non-minority, non-STEM, average INDEX of 114, non-first generation, non-Pell recipient, and non-resident.





Five of the nine constructs positively predicted good academic standing at the end of the first year. Financial Concerns, Flourishing, Consistency of Interest and Perseverance of Effort were not significant predictors of good academic standing. Similarly to the two previous student success metrics, Commitment to Staying at CSU was the strongest predictor of good academic standing, while Determined to Succeed was the second. After controlling for student characteristics every unit increase in Determined to Succeed is associated with a 31% higher odds for being in good academic standing. Students with a Determined to Succeed had a 19-percentage point difference in their predicted probabilities of being on good academic standing. Students with an average score of '1' had a 74% predicted probability of being on good academic standing, while those with an average score of '7' had a 94% predicted probability of being on good academic standing at the end of their first year.

Homesickness has a negative relationship with persistence, but a positive relationship with good academic standing. Students who answered Strongly Disagree to all the items about homesickness (average score of '1') had an 89% predicted probability of good academic standing at the end of their first year, but those who were very homesick (average score of '7') had a 93% predicted probability of good academic standing (a four percentage point difference in predicted probabilities).



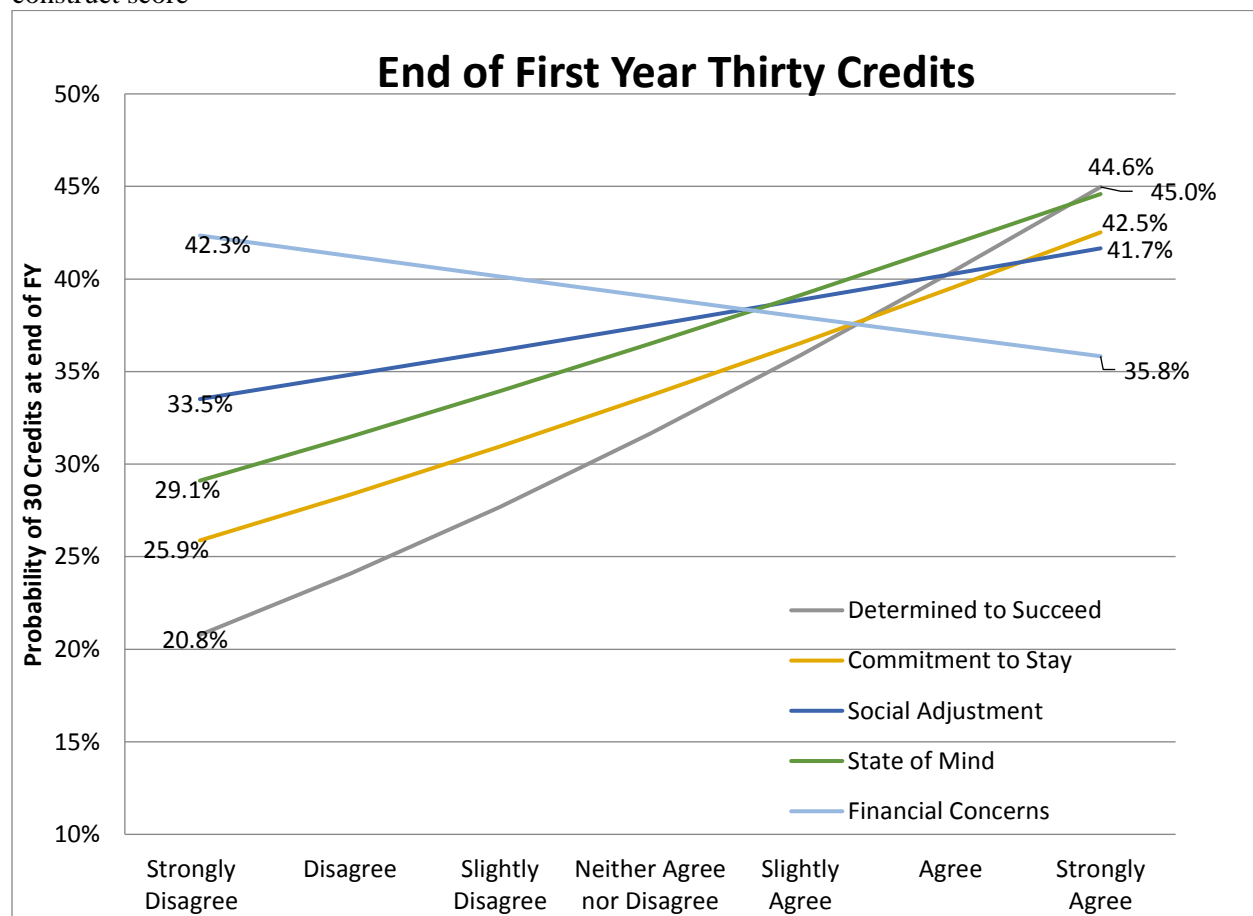
### 30 Credit Hours Completed at end of their First Year

First-year students who have achieved thirty credit hours by the end of their first year obtain sophomore student level status as they enter their second year. Table 6 and Figure 4 display the relationship between the constructs and first year students' completion of thirty credit hours (yes/no) in their first year in order to explore how the constructs are related to the recommended 30 credit hour completion. Only those constructs with significant relationships to third fall persistence are shown and only students who have completed their first year are included in the analysis.

Table 6. Odds ratios and percentage point (PP) range of predicted probabilities for thirty credit hour completion in the first year

	Commitment to Stay	Determined to Succeed	Social Adjustment	State of Mind	Financial Concerns
Odds Ratio	1.13	1.21	1.06	1.12	0.96
PP difference in probability (SA-SD)	16.6	24.2	8.1	4.1	-6.5

Figure 4. Predicted probability of completing thirty credit hours by the end of the first year by average construct score



Note: Assumes male, non-minority, non-STEM, average INDEX of 114, non-first generation, non-Pell recipient, and non-resident.



Five of the nine constructs positively predicted students completing 30 credit hours. Homesickness, Flourishing, Consistency of Interest and Perseverance of Effort were not significant predictors of 30 hour credit completion at the end of the first year. Determined to Succeed was the strongest predictor of completing 30 credits in the first year, with Commitment to Staying and State of Mind being the second and third strongest predictors respectively. After controlling for student characteristics, a one unit increase in the Determined to Succeed score is associated with 21% higher odds of completing 30 credits in the first year.

Financial Concerns had a negative relationship with 30-hour credit completion. Students who had no financial concerns (average score of '1') had a 42% predicted probability of completing 30 credit hours at the end of their first year, but those who had high financial concerns (average score of '7') had a 36% predicted probability of completing 30 credits (6.5 percentage point difference in predicted probabilities).

### First Fall Grade Point Average (GPA)

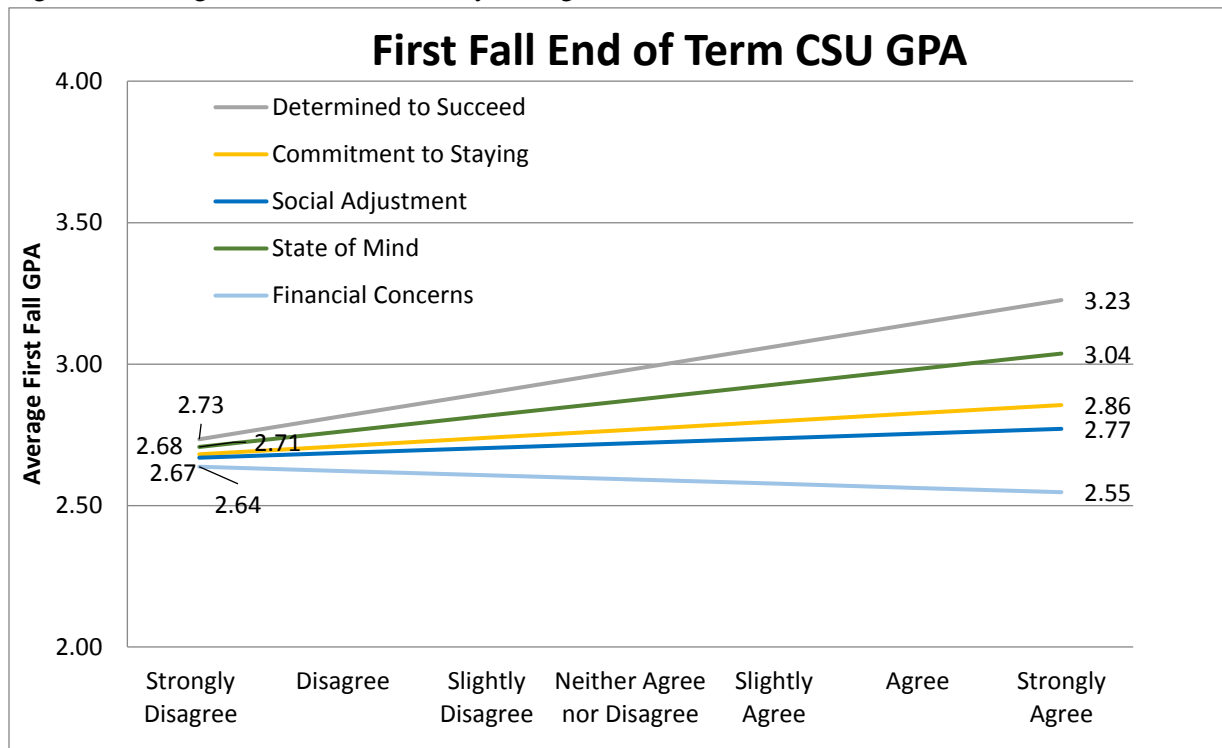
A linear regression was conducted on each construct to test whether a construct has a statistically significant association with first fall GPA after controlling for gender, minority status, STEM major, academic index, Pell recipient status, first generation status, and residency. Table 7 displays a summary of the regression analyses and the range of predicted GPAs based on the response to a construct. Figure 5 graphs the average GPA in relation to the construct response. Only those constructs with significant relationships to third fall persistence are shown and only those students who completed their first fall are included in the analysis.

Table 7. Regression coefficients and average range of mean scores for first fall GPA for thirty credit hour completion in the first year

	<b>Commitment to Stay</b>	<b>Determined to Succeed</b>	<b>Social Adjustment</b>	<b>State of Mind</b>	<b>Financial Concerns</b>
Unstandardized Regression Coefficient (B)	0.03	0.08	0.02	0.06	-0.02
Average mean difference in predicted GPA (SA-SD)	0.17	0.49	0.10	0.33	-0.09



Figure 5. Average first fall CSU GPA by average construct score



Note: Assumes male, non-minority, non-STEM, average INDEX of 114, non-first generation, non-Pell recipient, and non-resident.

Five of the nine constructs have significant relationships with students' first fall CSU GPA. The strongest predictors of first fall CSU GPA were Determined to Succeed and State of Mind constructs. Consistency of Interest, Perseverance of Effort, Flourishing, and Homesickness did not significantly predict first fall CSU GPA. After controlling for student characteristics, students who strongly disagreed with Determined to Succeed items (mean score of '1') had a predicted average GPA of 2.73, while those who strongly agreed with the items (mean score of '7') had a predicted average GPA score of 3.23 (a .49 predicted grade point difference). Although Determined to Succeed, Commitment to Staying, Social Adjustment, and State of Mind all had positive relationships with GPA, Financial Concerns had a negative relationship with first fall GPA. Students who had very low financial concerns (mean score of '1') had a predicted average GPA of 2.64, while those who had high financial concerns (mean score of '7') had a predicted average GPA score of 2.55 (a .09 predicted grade point difference).



## Exploratory Analysis: Interactions

It was of interest to further explore whether the relationships between constructs and students success metrics varied by subpopulation. This exploratory analysis focused on the most commonly utilized student success metric, Freshmen Retention, and the most strongest predictor, Commitment to Staying, and tested whether the above significant relationships varied by student characteristics (including race/ethnicity, gender, first generation status, Pell status, and residency).

Significant interactions emerged between Commitment to Staying and Freshmen Retention for gender and race/ethnicity ( $p < .05$ ). This indicates students' average mean score to Commitment to Staying impacts Freshmen Retention differently for males compared to females and for students of a racially minoritized race/ethnicity compared to those students not from a racially minoritized race/ethnicity. As noted above, students are 58% more likely to be retained their second fall with every one unit increase in their Commitment to Staying response. However, a significant interaction by gender for this relationship indicates males are only 48% more likely to be retained with every one-unit increase in their Commitment to Staying score, while females are 66% more likely. Similarly, students who identify as a minoritized race/ethnicity are 45% more likely to be retained to second fall for each unit increase in Commitment to Staying, while students who do not identify as a minoritized race/ethnicity are 64% more likely to be retained with a unit increase in Commitment to Staying.



## Conclusion

The Taking Stock constructs can contribute to the student success models in conjunction with the other demographic and academic attributes stored in the system of record. Additionally, these constructs can be used to understand students' variation in success and for identifying student populations that may need additional assistance to succeed at CSU. Some constructs are stronger contributors to others. Looking back over three cohorts, a student's Commitment to Staying at CSU, Determined to Succeed, Social Adjustment and State of Mind constructs are positively and significantly predictive of all five-student success metrics, while Homesickness and Financial Concerns were each significantly related to three and four metrics respectively. GRIT (Consistency of Interest and Perseverance of Effort) was not a significant predictor and Flourishing's only significant relationship was with freshmen retention; however, the lack of statistical significance could be due to these constructs only being used with the FA17 cohort and having less statistical power.

This preliminary report on Taking Stock data is an initial overview of the constructs' relationships with student success metrics for first-time students. Follow-up reports will include analyses specific to transfer students, international students, and off campus students. A small survey is also conducted in the spring with returning students and an analysis on spring data would also be worthwhile.

## References

- Diener, E., Wirtz, D., Tov, W., Kim-Prieto, C. Choi, D., Oishi, S. & Biswas-Diener, R. (2009). New measures of well-being: Flourishing and positive and negative feelings. *Social Indicators Research*, 39, 247-266.
- Duckworth, A. L., Peterson, C., Matthews, M. D. & Kelly, D. R. (2007). Grit: Perseverance and passion for long-term goals. *Journal of Personality and Social Psychology*, 92, 1087–1101.
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## Appendix A

### Financial Concerns

- Financial obligations are interfering with my ability to focus on my academics
- College expenses are causing a strain on my family
- I feel confident that I will be able to pay for next semester's tuition and fees\*<sup>3</sup>
- I often feel worried about paying for college
- I have concerns about my ability to pay for my college education through graduation

### Commitment to CSU

- I'm committed to completing my degree at CSU
- If I could do things over again, I would still choose to attend CSU
- I would recommend CSU as a place to go to school
- I intend to return to CSU in the spring
- I will most likely transfer to another institution before graduating\*
- I'm confident that attending college was the best decision for me

### Homesickness

- I feel homesick
- It is hard being away from my home, family, significant other, and/or friends
- My homesickness is affecting my ability to engage at CSU

### Determined to Succeed

- No matter what obstacles are placed before me, I'm confident in my abilities to succeed
- I feel I can handle most things that come my way
- I am confident that I will succeed at CSU
- By working hard I can almost always achieve my goals
- When I fail at something, I work harder to succeed the next time
- I am able to make a plan when a challenge arises
- I am able to ask for help when needed

### State of Mind

- I am emotionally healthy
- I'm generally optimistic, even when things are difficult
- I feel that I cope with academic stress in a healthy way
- Sometimes I feel hopeless

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<sup>3</sup> Items with an \* are reverse scored





### Social Adjustment

- I feel I am adjusting well to CSU socially
- So far this semester I've been able to make friends with other students
- So far this semester I've been able to connect with others who share common interests with me
- CSU is meeting my expectations socially
- I feel that I am a part of the CSU community

### Flourishing

- I lead a purposeful and meaningful life
- I am a good person and live a good life
- I am optimistic about the future
- I feel competent and capable in the activities that are important to me
- My social relationships are supportive and rewarding
- I am engaged and interested in my daily activities
- People respect me
- I actively contribute to the happiness and well-being of others

### Grit-S

- Perseverance of Effort
  - I am diligent
  - I am a hard worker
  - I finish whatever I begin
  - Setbacks don't discourage me
- Consistency of Interest
  - I have been obsessed with a certain idea or project for a short time but later lost interest
  - I often set a goal but later choose to pursue a different one
  - I have difficulty maintaining my focus on projects that take more than a few months to complete
  - New ideas and projects sometimes distract me from previous ones



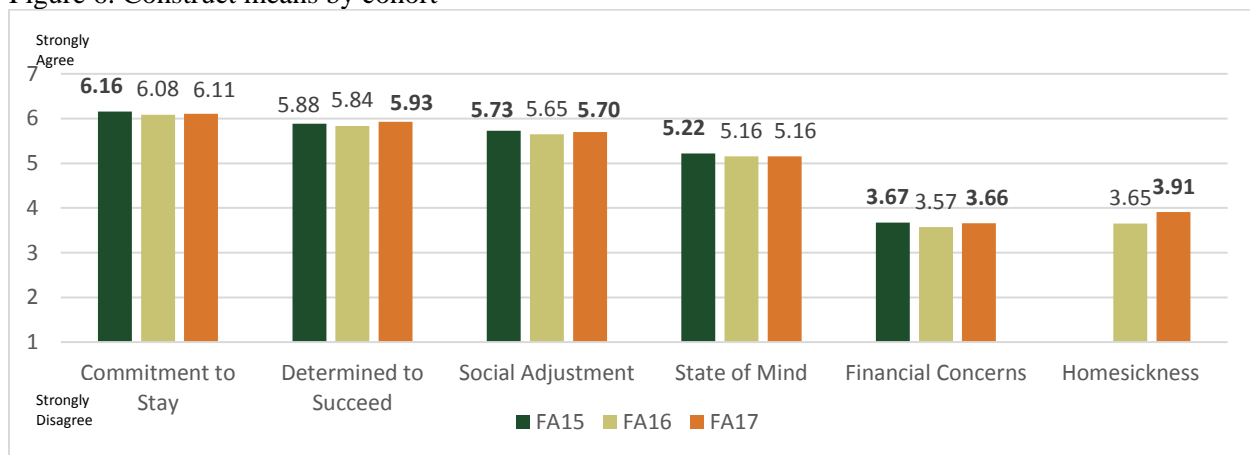
## Appendix B

### Student Characteristics by Construct

Figures 6-12 explore whether there are differences in the nine Taking Stock constructs by subpopulations. These subpopulations include cohort, gender, first generation status, race/ethnicity, Pell recipient, residency, and STEM major.

Significant mean differences ( $p < .05$ ) are bolded below; however, effect sizes show the differences are largely not of practical significance<sup>4</sup>. Differences in Financial Concerns were the only significant differences that had an effect sizes above .20. First year students who are continuing generation, from a non-minoritized race and/or ethnicity, and who are not Pell recipients had significantly less Financial Concerns than their respective comparison groups (first generation students, students from a minoritized race/ethnicity, and Pell recipients) ( $d = .35$ , .24, and .39 respectively).

Figure 6. Construct means by cohort



Note: Homesickness is not available for Fall 15; Grit-S and Flourishing are only available for FA17 cohort and thus excluded from Figure 1.

<sup>4</sup> For a statistically significant result, an effect size, reported as Cohen's  $d$ , is included. An effect size is a standardized measure that describes the magnitude of the difference between the two group means. This allows for a practical interpretation for understanding to what extent the two groups differ. Although there is no objective rule, Cohen (1988) suggests the following guide for interpreting an effect size: small = .20, moderate = .50, large = .80.



Figure 7. Significant construct differences by gender

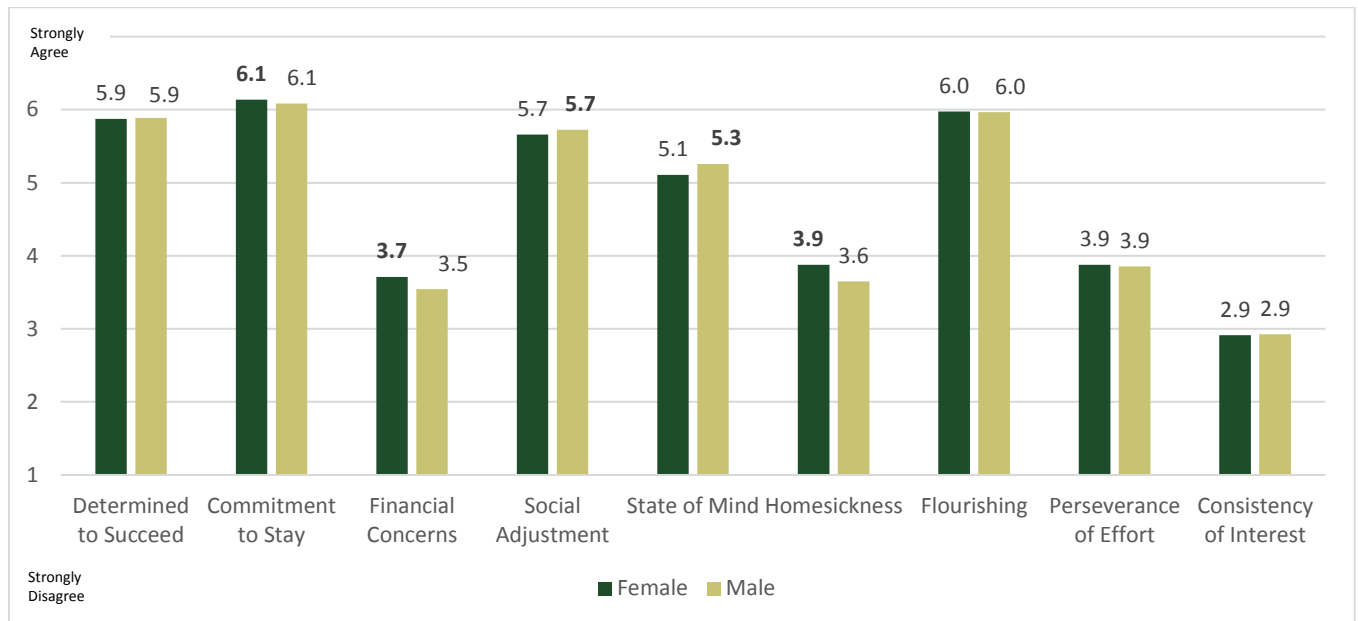


Figure 8. Significant construct differences by first generation status

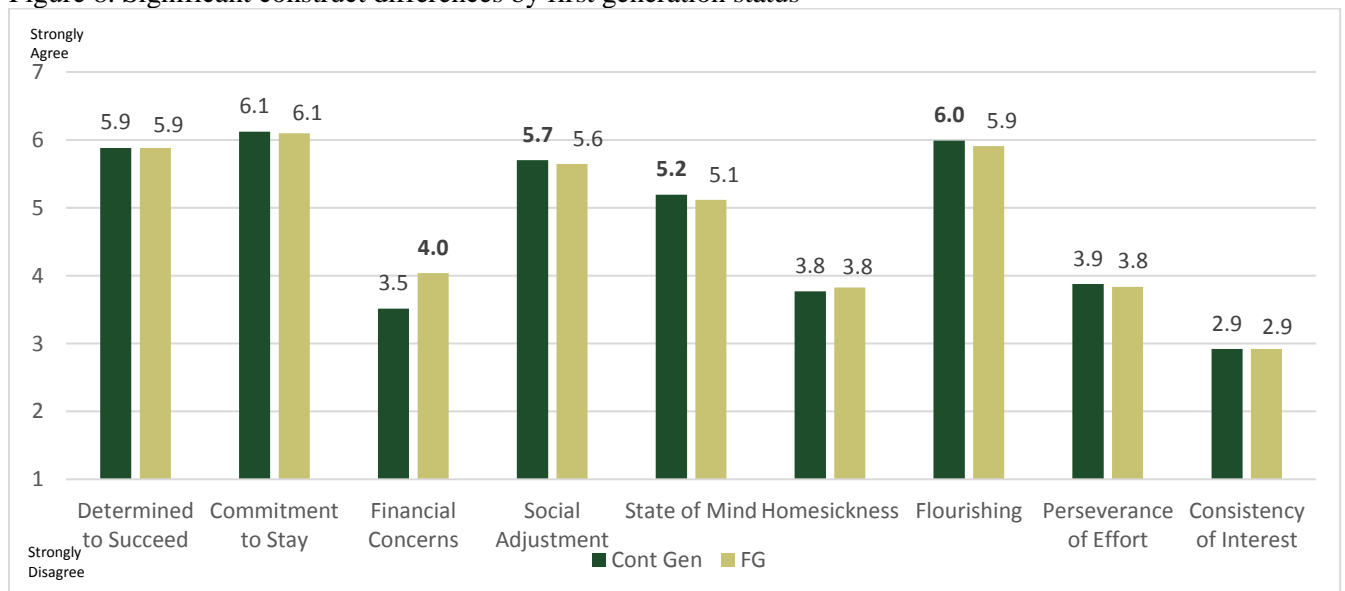




Figure 9. Significant construct differences by racially minoritized status

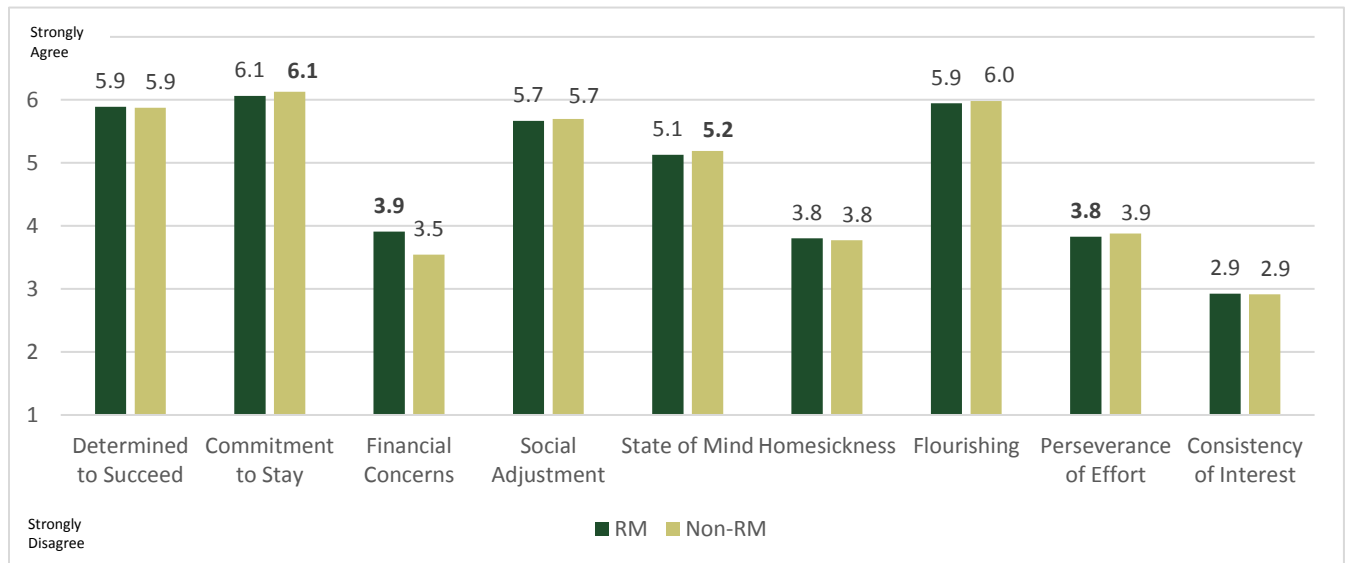


Figure 10. Significant construct differences by Pell grant recipient

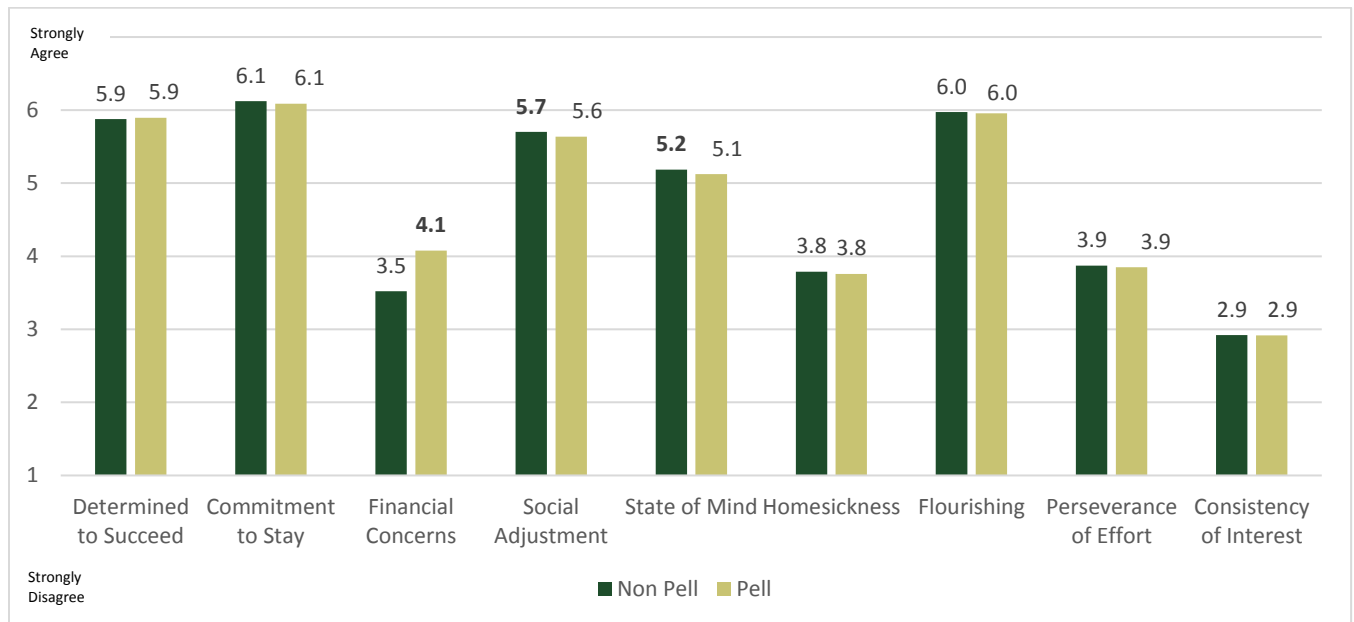




Figure 11. Significant construct differences by residency

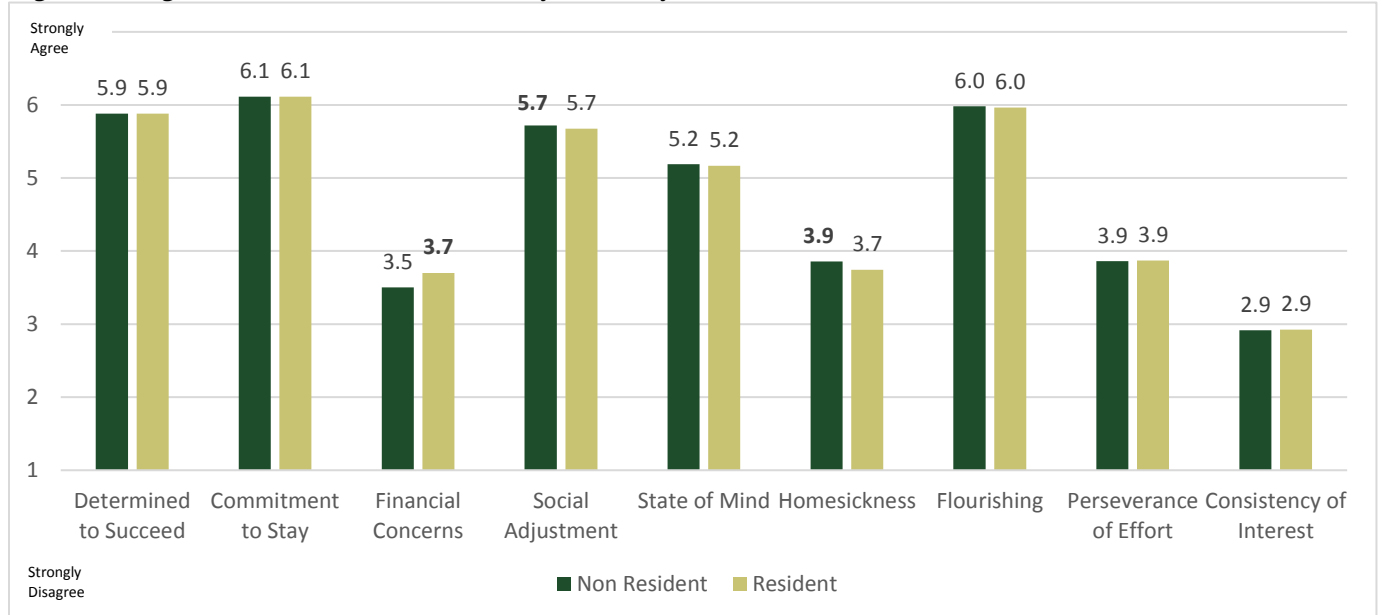


Figure 12. Significant construct differences by STEM major

