



ACADEMIC BENCHMARKING  
CONSORTIUM

## ABC Insights<sup>®</sup> Report Volume 4

Linking administrative spend  
to student outcomes:  
Administrative spending  
matters

**February 2019 (Draft)**

[www.abc-insights.com](http://www.abc-insights.com)



# Overview

How are a university's spending and outcomes driven by its strategy?

## QUESTIONS



1. How do universities differ in their Student Services administrative labor spend?<sup>1</sup>
2. How is Student Services administrative labor<sup>1</sup> spend organized?
3. How does Student Services administrative labor spend (SAM<sup>TM</sup>) relate to outcome measures (e.g., student retention & income post-graduation)?<sup>1</sup>

## FINDINGS



1. ABC members vary considerably in their Student Services investment
2. Student Services sub activities show differences in centralization
3. Student Services administrative labor spend is positively correlated with student outcomes<sup>2</sup>

## DISCUSSION



How do these findings relate to university strategic goals and initiatives?

<sup>1</sup> As assessed by the Standard Activity Model (SAM)<sup>TM</sup> used by members within the Academic Benchmarking Consortium (ABC)

<sup>2</sup> Reported correlations do not imply causation and are presented as relationships between variables



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# Student Services spend at universities is on the rise

- Student services spending per student FTE has increased at both public and private research institutions, masters institutions, and bachelors institutions.
- Both public and private institutions are allocating a greater share of their budgets to "noninstructional student spending". Masters and bachelors institutions allocate a greater share of their budgets to "noninstructional student spending" compared to research institutions.

Source:

1. Desrochers, D. and Hurlburt, S. (January 2016). *Trends in College Spending: 2003 – 2013: Where Does the Money Come From? Where Does It Go? What Does It Buy?* Retrieved from <https://deltacostproject.org/sites/default/files/products/15-4626%20Final01%20Delta%20Cost%20Project%20College%20Spending%2011131.406.P0.02.001%20....pdf>



# Career services, academic advising, and academic coaching are growing in importance

- There is an increased focus on career services as 84.8% of first-year respondents in a national survey rated a college's ability to help them find a good job as "Very Important" in deciding which college to attend. Additionally, 77.9% of the first-year also rated a college's ability to train them for a specific career as "Very Important" as well.<sup>1</sup>
- Several studies have found that the academic advising has a positive effect on student retention and student persistence.<sup>2</sup> In fact, one study found that, on average, each advisor meeting increased the odds of a student will return by 13 percent.<sup>3</sup>
- Students who had an academic coach had higher rates of persistence and retention.<sup>4</sup>

#### Sources:

1. Eagan, Kevin et al (2017). *The American Freshman: National Norms Fall 2016*. Retrieved from <https://www.heri.ucla.edu/monographs/TheAmericanFreshman2016.pdf>.
2. Drake, J. (2011). *The Role of Academic Advising in Student Retention and Persistence*. Retrieved from <http://advising.arizona.edu/sites/default/files/jaynearticle%20%283%29.pdf>.
3. Swecker, H., Fifolt, M., Searby, L. (2013). *Academic Advising and First-Generation College Students: A Quantitative Study on Student Retention*. Retrieved from <http://nacadajournal.org/doi/pdf/10.12930/NACADA-13-192>.
4. Bettinger, E. and Baker, R. (2011). *The Effects of Student Coaching in College: An Evaluation of a Randomized Experiment in Student Mentoring*. Retrieved from <https://www.nber.org/papers/w16881.pdf>.



# Student SAT scores & socioeconomic status are related to college success

SAT Scores and Median Family Income used as control variables because both measures have been shown to correlate with college graduation rates and other college success measures.

- In a report released by College Board the company found that students who are considered "college ready" based on the SAT College Readiness Benchmark of 1550 had higher graduation rates.<sup>1</sup>
- Johns Hopkins Institute for Education Policy released a report that found that students' socioeconomic status is correlated with college completion.<sup>2</sup>

*Source:*

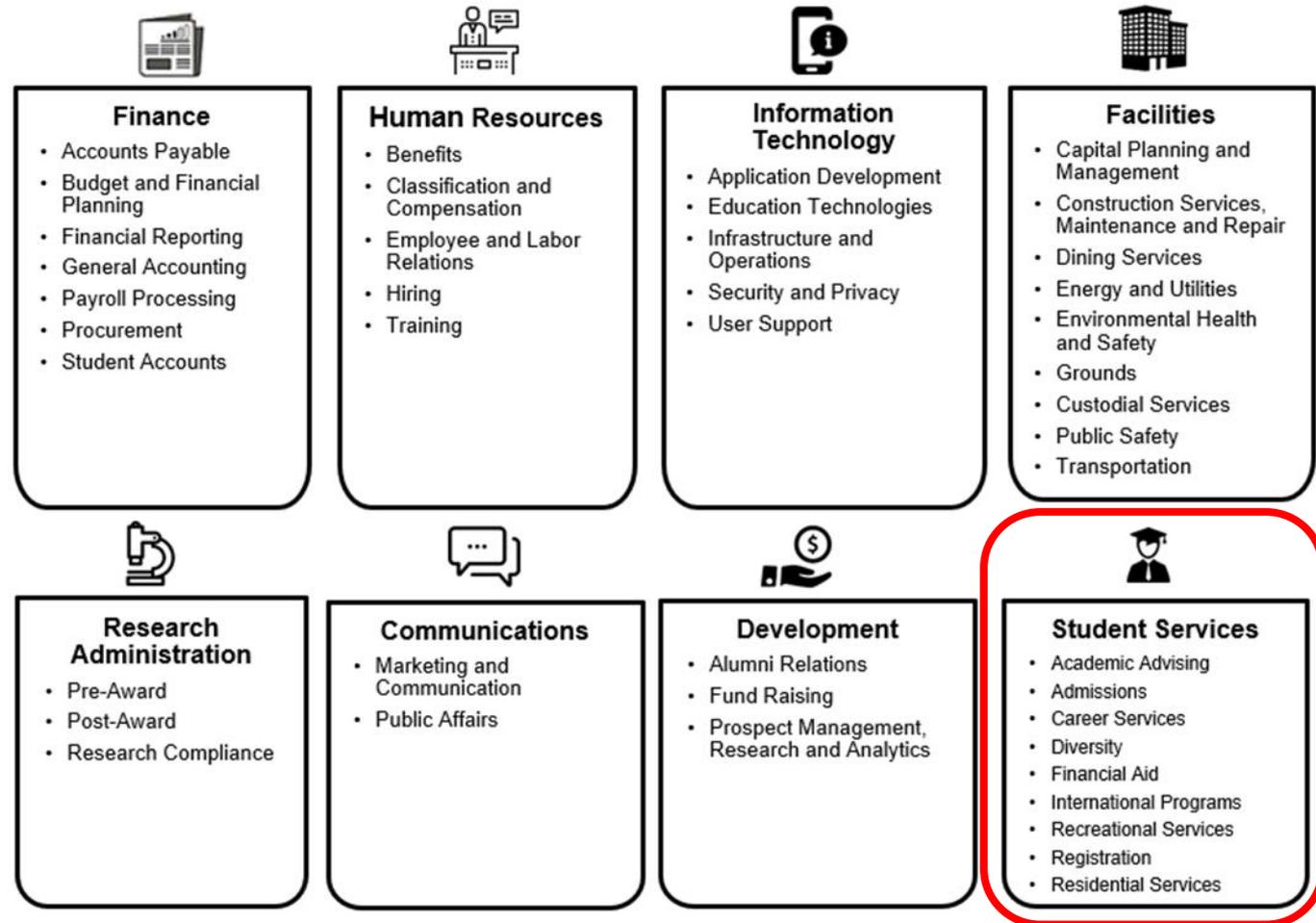
1. Mattern, K., Shaw, E., and Marini, J. (2013). *Does College Readiness Translate to College Completion?* Retrieved from <https://files.eric.ed.gov/fulltext/ED562613.pdf>
2. Bjorklund-Young, A. (2016). *Family Income and the College Completion Gap*. Retrieved from <http://edpolicy.education.jhu.edu/family-income-and-the-college-completion-gap/>



# We utilized the Standard Activity Model™ (SAM)

**Our Standard Activity Model™ (SAM)** is focused on a subset of non-faculty “staff” labor expenses.

**Overarching philosophy:** We map employees based on **what** they do, **not where** they work.



# Data Sources

## Student Services Outcome Data Source

- College Scorecard: a federal data source sponsored by the US Dept of Education
- College Scorecard reports data on students receiving federal aid
  - ~70% of graduating post-secondary students receive federal Pell grants and/or federal loans

## Human Capital Investment Data Source

- SAM<sup>TM</sup> labor spend obtained from the ABC Insights<sup>®</sup> platform and includes data from ABC members

*Outcome Data Source:* <https://collegescorecard.ed.gov/assets/UsingFederalDataToMeasureAndImprovePerformance.pdf>



# Student Services Outcome & Control Variables

## Outcome Variables

- *Income post-enrollment*: Portion of former students earning more than the median wage (\$28K) of high school graduates ages 25-34 six years post-enrollment (measured in 2015, inflation adjusted to 2017)
- *Graduation rate*: Completion rate for first-time, full-time students at four-year institutions (150% of expected time to completion), pooled for two year rolling averages (Fall 2010 cohort, reported in IPEDS Data Collection Year 2016-2017)
- *Retention rate*: The proportion of full-time, first-time, degree/certificate-seeking undergraduates who were enrolled at the institution in the fall 1 year after starting at the institution, calculated from the IPEDS Fall Enrollment component, pooled for two year rolling averages (Fall 2015 cohort, reported in IPEDS Data Collection Year 2016-2017)

## Control Variables

- *Average SAT Score*: Average SAT equivalent score of students admitted (averaged across campuses for universities with multiple campuses) (Fall 2016, reported in IPEDS Data Collection Year 2016-2017)
- *Median Family Income*: Median family income in real 2015 dollars

Source: <https://collegescorecard.ed.gov/data/documentation/>



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2. Student Services sub activities show differences in centralization
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How do these findings relate to university strategic goals and initiatives?

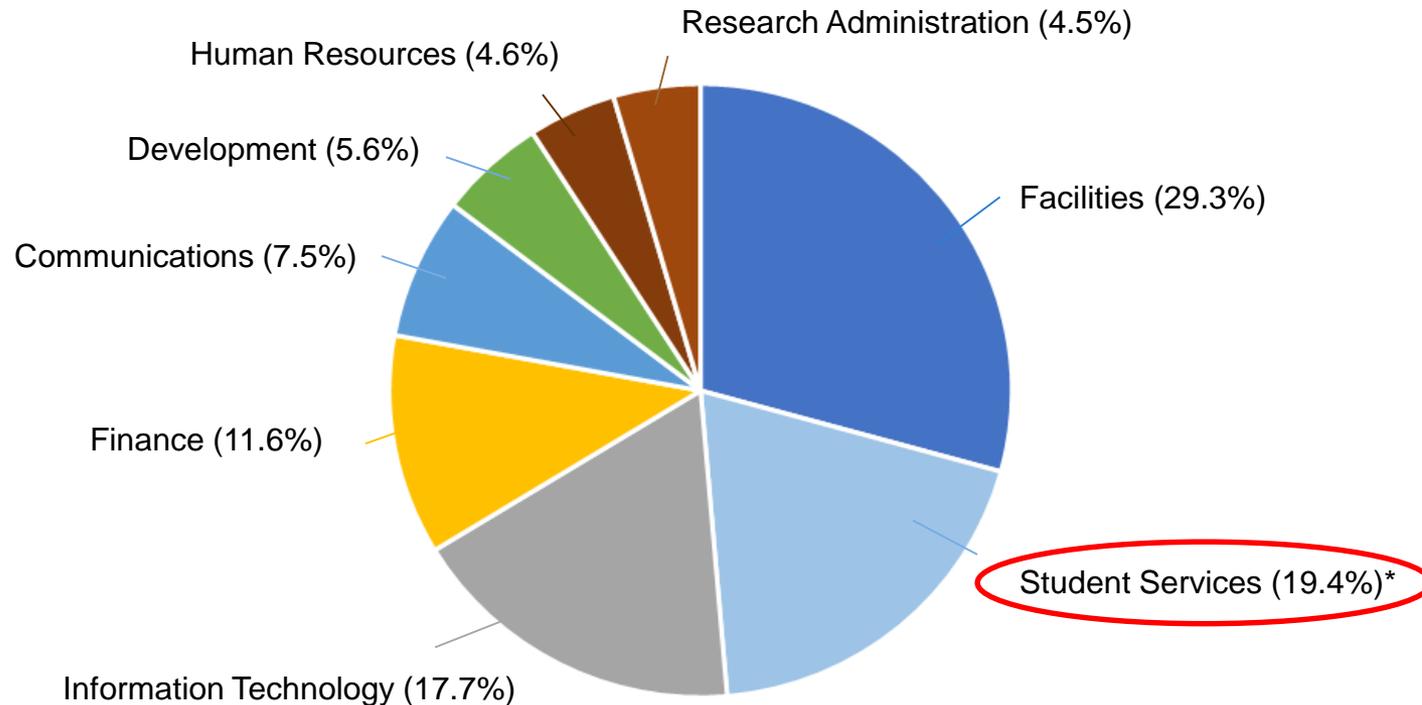
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# Student Services is the second highest area of SAM™ human capital investment across ABC members

## Average Human Capital Allocation by SAM™ Activity

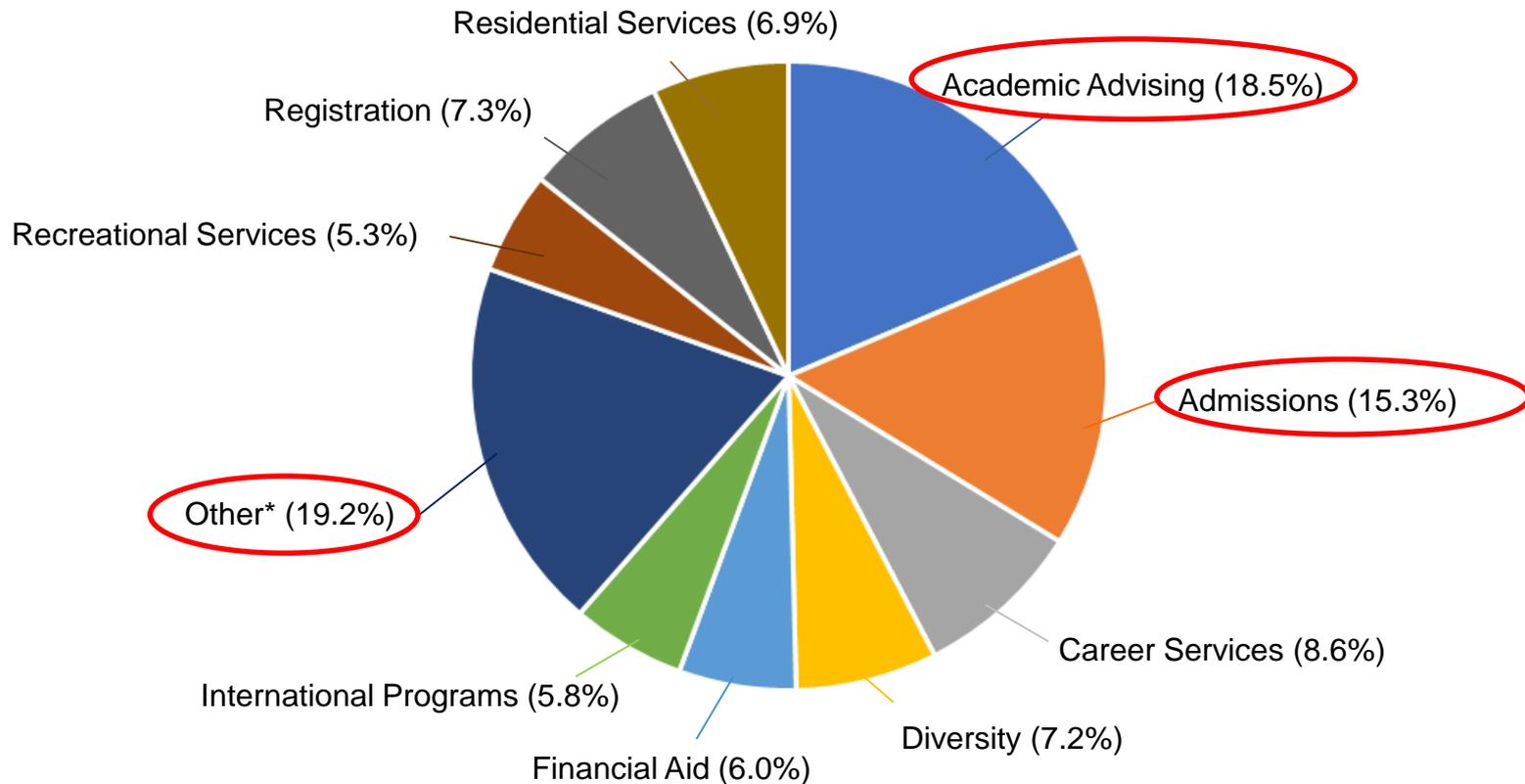


*\*Allocation of total SAM™ spend to Student Services ranges from 13% to 28% across ABC members*

Source: **ABC Insights**® FY15-FY18 data, N=23 universities

# Other, Academic Advising, & Admissions are the top 3 highest areas of Student Services human capital investment

## Average Student Services SAM™ Sub Activity Allocation



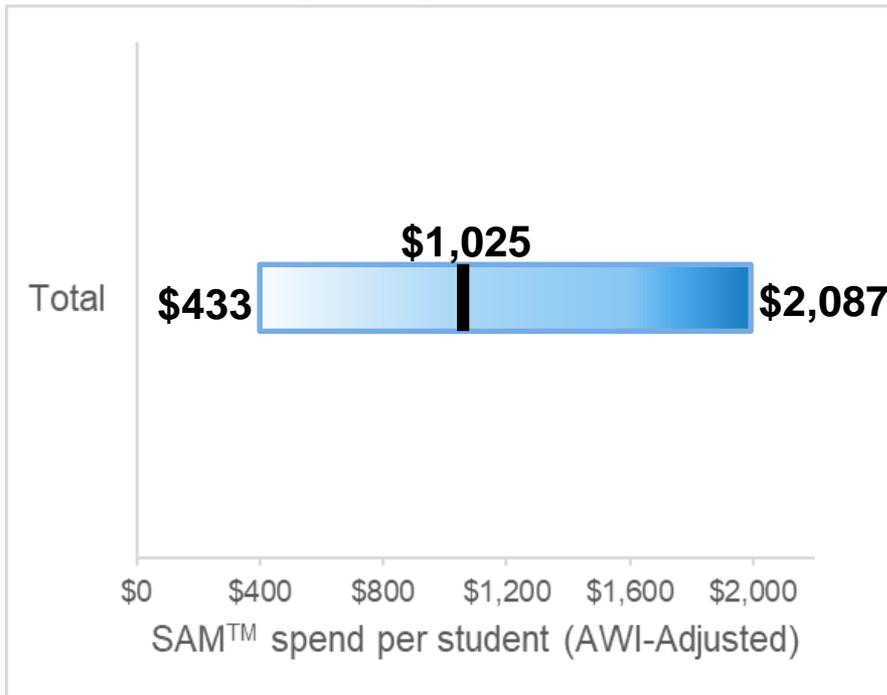
\*"Other" includes activities such as orientation management/coordination, student conduct, Greek life, learning centers, writing centers, public service programs, new student and parent programs, honors programs and non-academic student seminar programs

Source: ABC Insights® FY15-FY18 data, N=23 universities

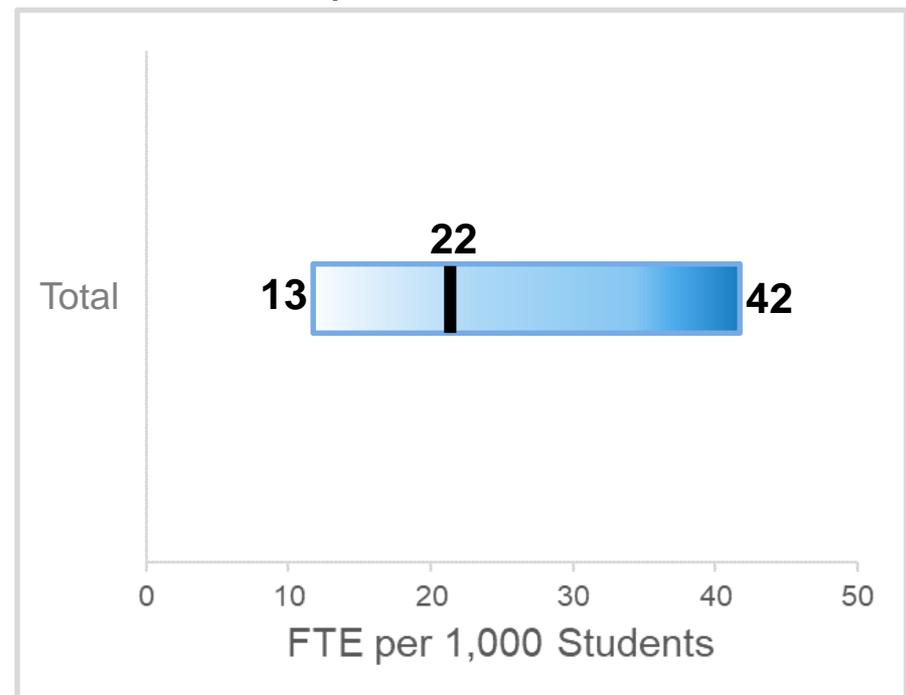
# ABC members vary considerably in their student services investment on a per student basis

█ = Average

*Spend per student*

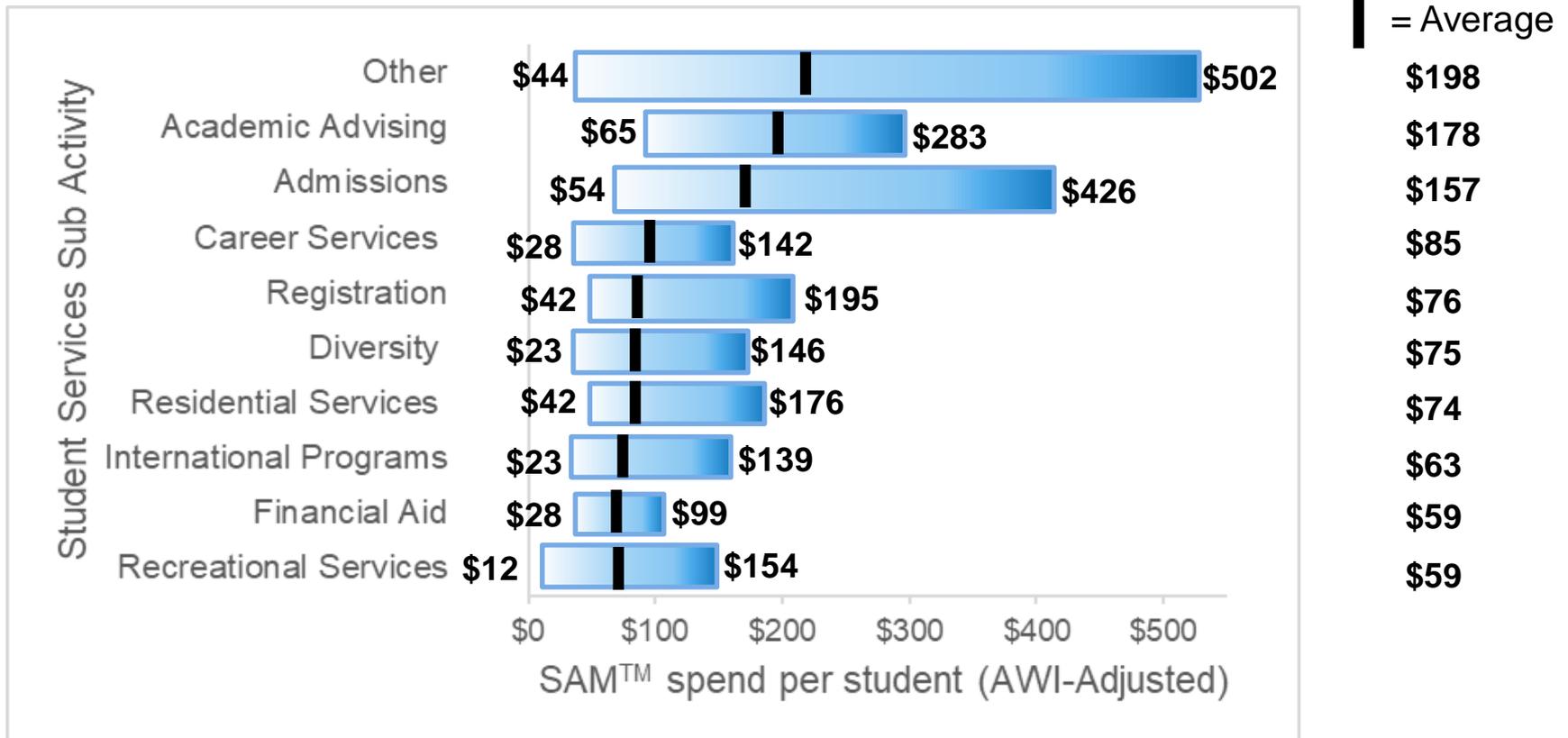


*FTE per 1,000 students*



Source: **ABC Insights**® FY15-FY18 data, N=23 universities  
Note: IPEDS Student Fall Enrollment used to calculate per student values

# Other, Academic Advising, & Admissions are the top 3 highest areas of investment per student



*Other, Academic Advising, & Admissions are also the top 3 allocated sub activities in terms of % of total SAM™ spend*

Source: **ABC Insights**® FY15-FY18 data, N=23 universities

Note: IPEDS Student Fall Enrollment used to calculate per student values

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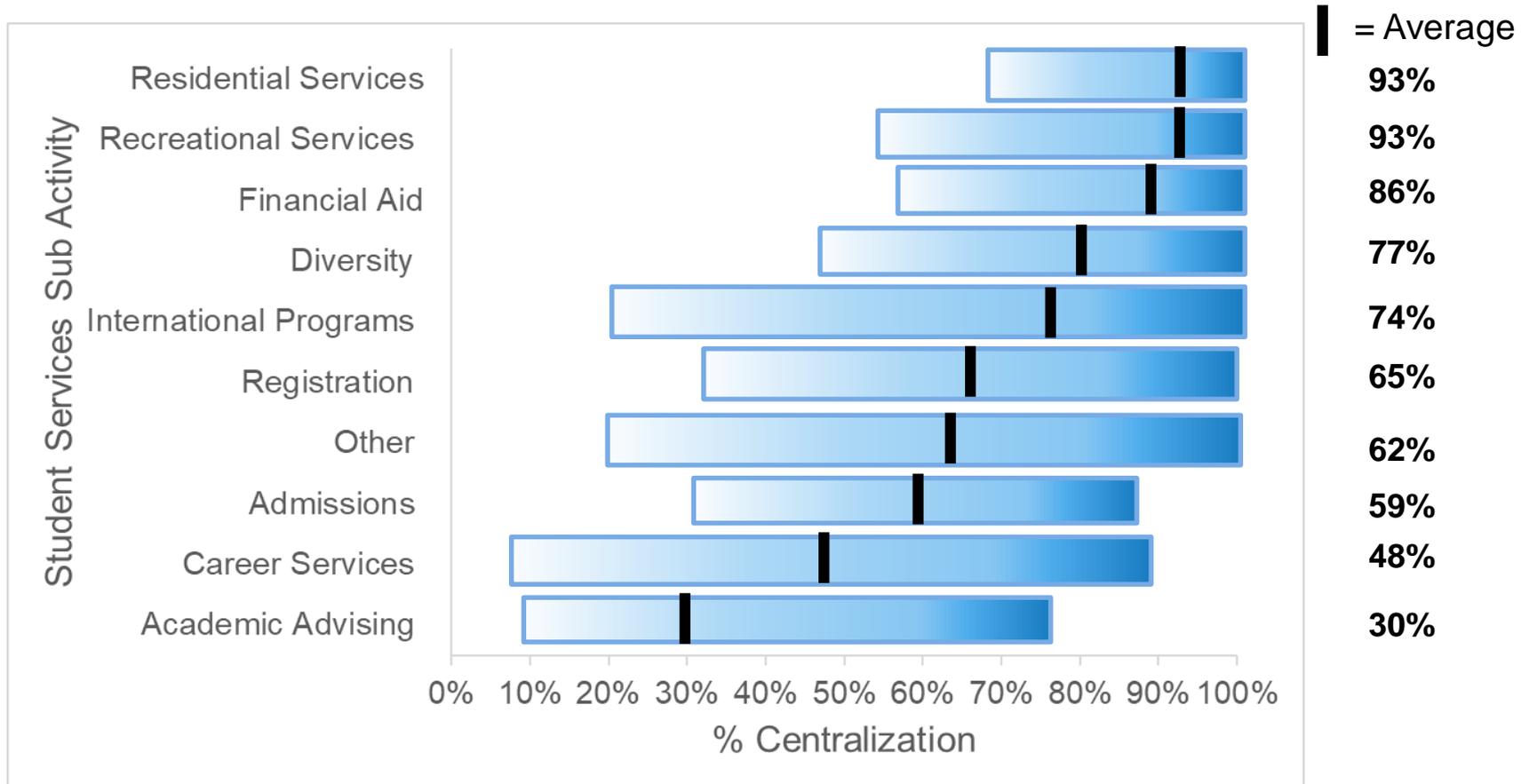
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# Academic Advising, Career Services, & Admissions are the three least centralized Student Services sub activities



Source: **ABC Insights**® FY15-FY18 data, N=23 universities  
 Note: IPEDS Student Fall Enrollment used to calculate per student values

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# Student Services SAM™ investment per student is positively correlated with higher earnings post-enrollment

Student Services Total, Career Services, Other, & Admissions spend per student are positively correlated with earnings post-enrollment (before controlling for other variables)



After controlling for Average SAT Score and Median Family Income, Career Services correlation remained significant



No significant correlations found between earnings post-enrollment and Academic Advising, Financial Aid, Diversity, Registration, Recreational Services, and Recreational Services

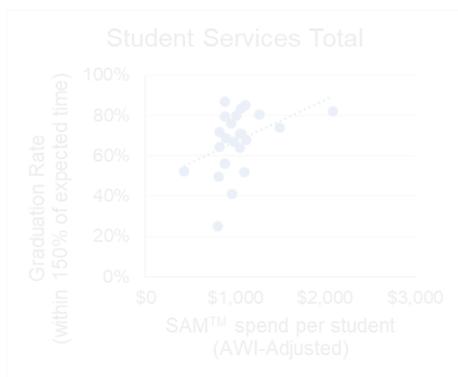
Similar relationships found between SAM activity spend and Median Earnings 6 years post-enrollment

Source: **ABC Insights®** FY15-FY18 data, N=23 universities

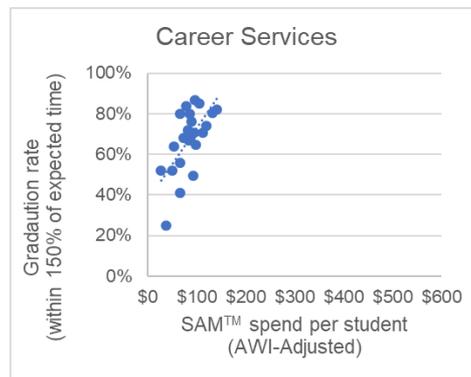
Note: IPEDS Student Fall Enrollment used to calculate per student values

# Universities that spend more per student on Career Services tend to have a higher graduation rate

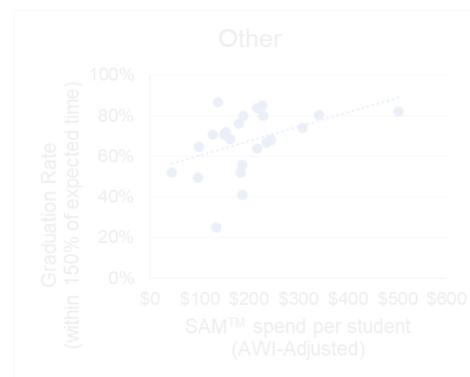
Student Services Total, Career Services, & Other spend per student are positively correlated with graduation rate (before controlling for other variables)



$r = 0.41, p < 0.05$



$r = 0.64, p < 0.05$



$r = 0.44, p < 0.05$

After controlling for Average SAT Score and Median Family Income, Career Services correlation was marginally significant

Student Services Total  
 $r = 0.04, p = 0.87$

Career Services  
 $r = 0.45, p = 0.05$

Other  
 $r = 0.08, p = 0.74$

No significant correlations found between graduation rate and Admissions, Academic Advising, Financial Aid, Diversity, Registration, Recreational Services, and Recreational Services

Similar relationships found between SAM activity spend and graduation rate within 100% of expected time

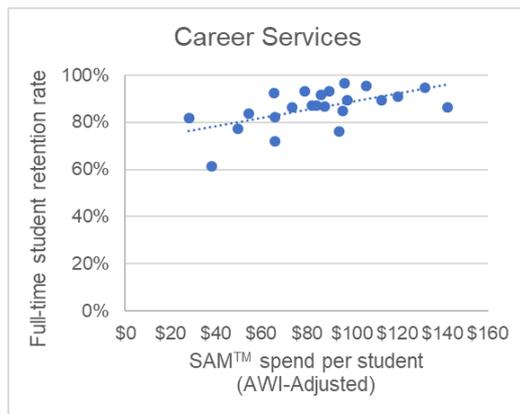
Source: **ABC Insights**® FY15-FY18 data, N=23 universities

Note: IPEDS Student Fall Enrollment used to calculate per student values



# Universities that spend more per student on Career Services tend to have a higher full-time student retention rate

Career Services spend per student is positively correlated with full-time student retention rate (before controlling for other variables)



$r = 0.58, p < 0.05$

After controlling for Average SAT Score and Median Family Income, Career Services correlation remained significant at  $p < 0.05$

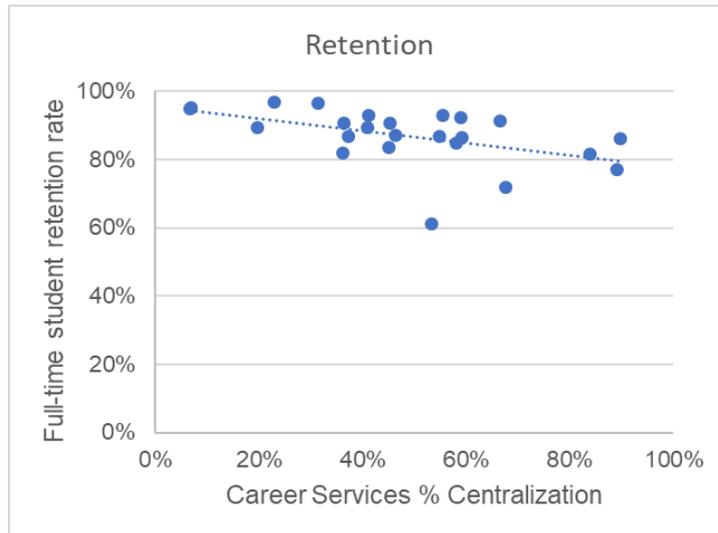
Career Services  
 $r = 0.47, p < 0.05$

No significant correlations found between retention rate and Admissions, Academic Advising, Financial Aid, Diversity, International Programs, Other, Registration, Recreational Services, and Recreational Services

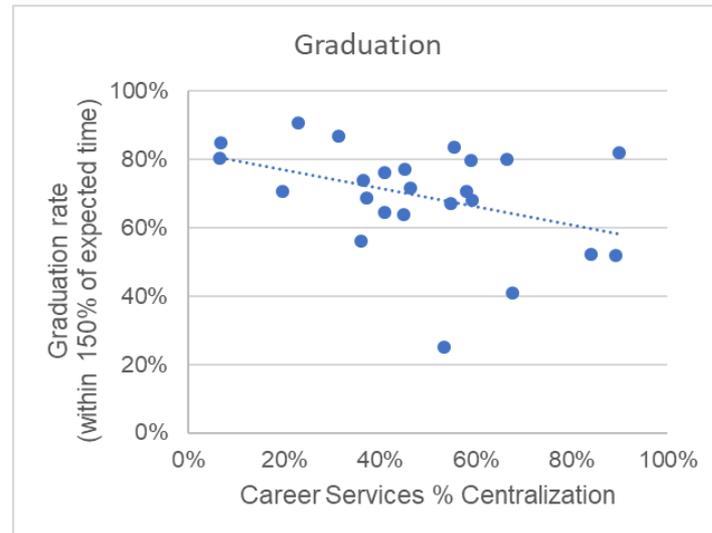
Source: **ABC Insights**® FY15-FY18 data, N=23 universities  
Note: IPEDS Student Fall Enrollment used to calculate per student values

# Universities with less centralized Career Services tend to have higher retention and graduation rates

Career Services centralization is negatively correlated with full-time student retention rate & graduation rate



$r = -0.49, p < 0.05$



$r = -0.39, p = 0.06$

Source: **ABC Insights**® FY15-FY18 data, N=23 universities

# Summary: 3 main findings

- Universities vary considerably in their allocation of human capital investment to Student Services
  - Other, Academic Advising, & Admissions are the top 3 areas of highest allocation
- Academic Advising, Career Services, & Admissions are the least centralized Student Services sub activities
- Student Services investment, particularly in Career Services, is related to better student outcomes (income post-enrollment, graduation, & retention rate)



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# APPENDIX

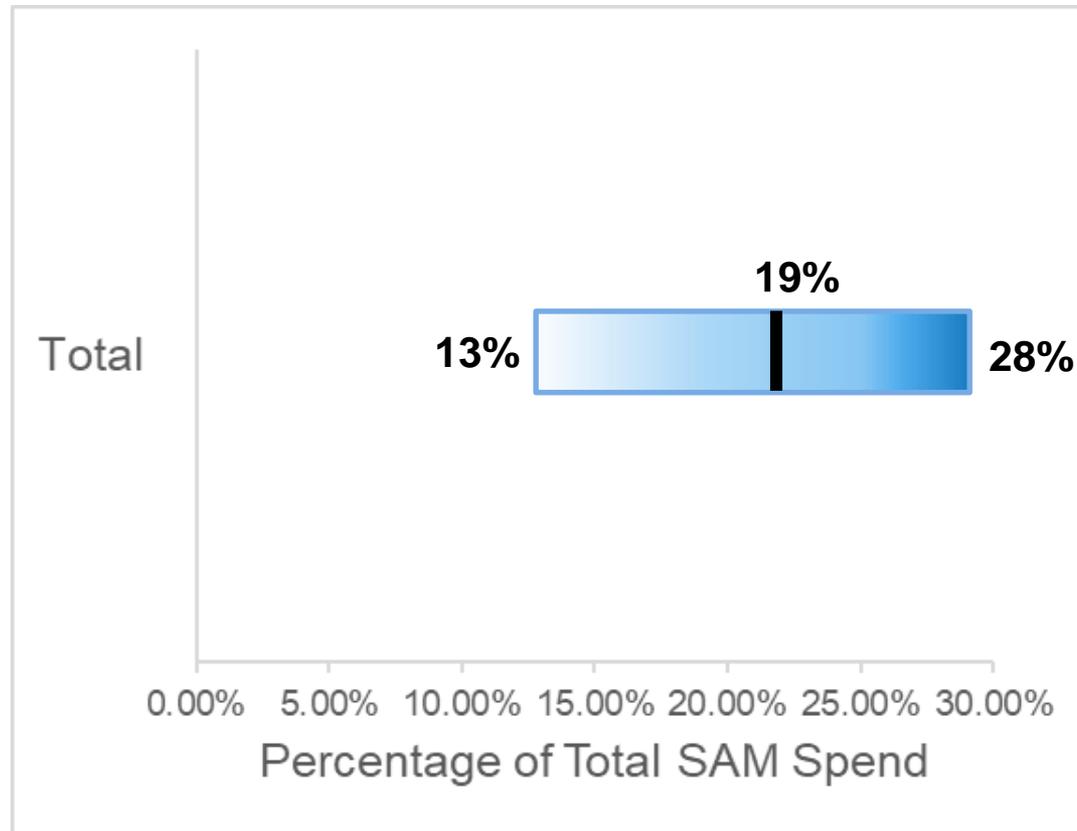


# Sample Characteristics

University	FY	Public/Private	Student Fall Enrollment (IPEDS)	Employees (IPEDS)	Carnegie Classification
Arizona State University	FY16	Public	91,322	11,241	R1
Auburn University	FY16	Public	27,287	6,203	R2
Florida Atlantic University	FY17	Public	30,541	3,467	R2
Florida State University	FY16	Public	40,830	6,918	R1
Kent State University	FY17	Public	47,094	5,905	R2
Loyola University Maryland	FY16	Private	6,050	1,339	M1
Miami University of Ohio	FY16	Public	23,983	4,252	R2
North Carolina State University at Raleigh	FY15	Public	33,989	8,944	R1
Oregon State University	FY17	Public	30,354	6,389	R1
Rutgers University	FY17	Public	68,942	23,385	R1
San Francisco State University	FY17	Public	29,045	3,260	R3
Temple University	FY16	Public	38,007	8,405	R1
Tennessee Technological University	FY16	Public	10,900	1,413	R3
The University of Alabama	FY17	Public	37,663	6,665	R2
The University of Texas at Austin	FY16	Public	50,950	14,755	R1
The University of Texas at Dallas	FY16	Public	24,554	3,830	R1
University of Colorado Boulder	FY16	Public	33,056	7,696	R1
University of Delaware	FY18	Private/Public	23,009	4,668	R1
University of Florida	FY17	Public	54,607	14,870	R1
University of Oregon	FY16	Public	24,032	5,272	R1
University of Utah	FY17	Public	31,860	5,628	R1
University of Wisconsin-Madison	FY15	Public	42,598	16,257	R1
Virginia Polytechnic Institute and State University	FY15	Public	31,224	7,919	R1

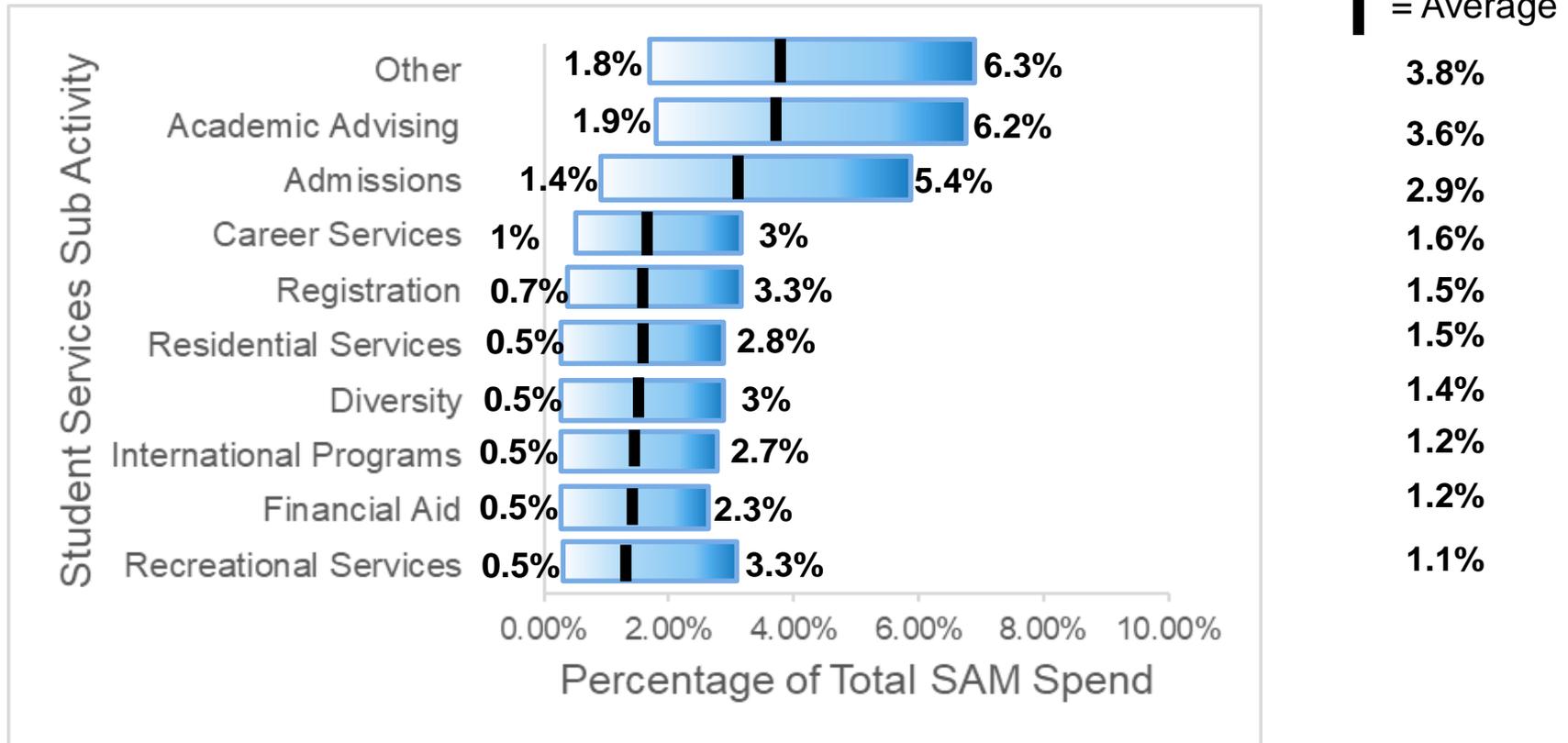


# ABC members vary in their allocation of total SAM investment to student services

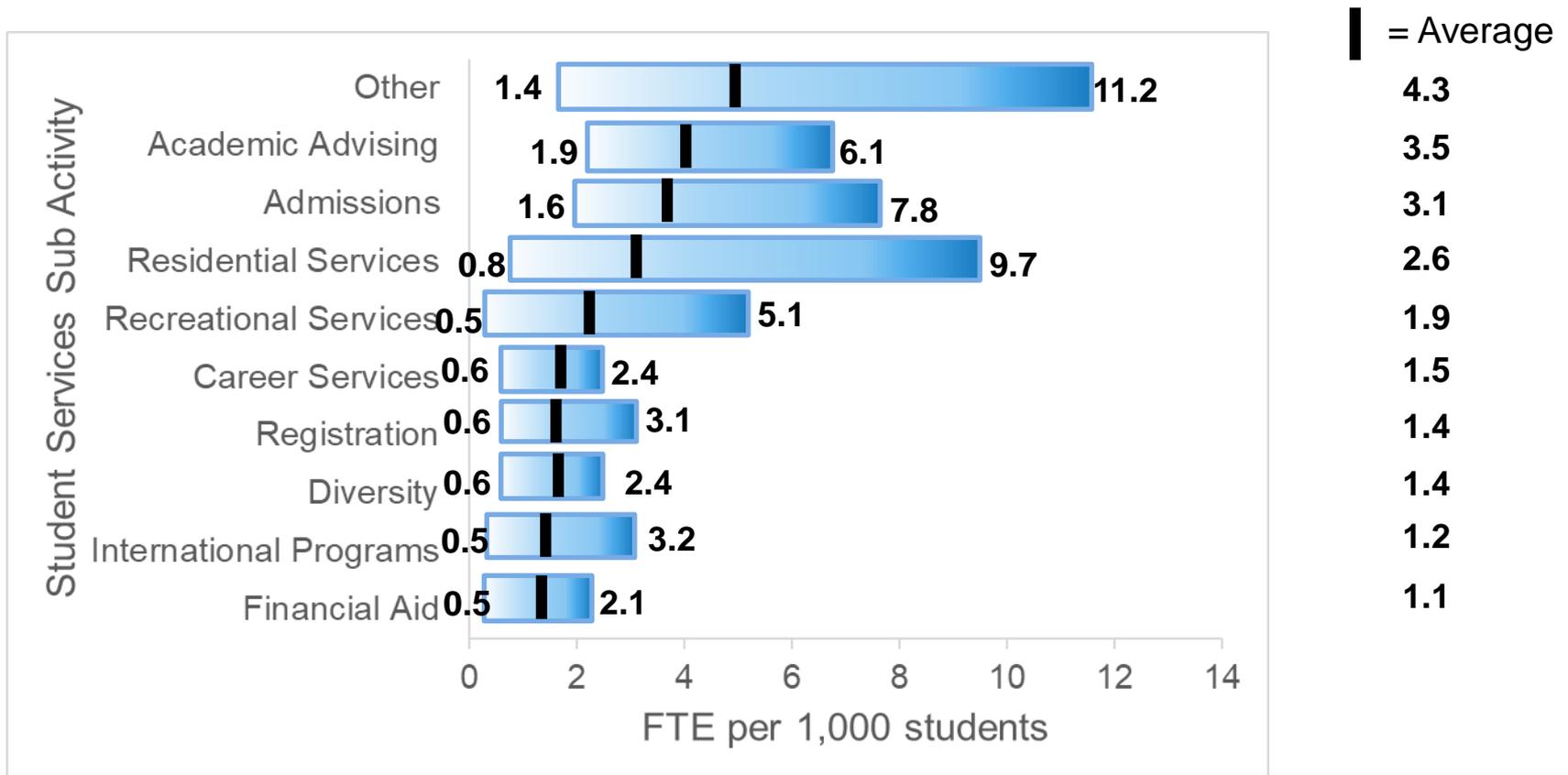


| = Average

# Other, Academic Advising, & Admissions are the top 3 highest allocated sub activities (as a % of total SAM spend)



# Other, Academic Advising, & Admissions are the top 3 highest areas of investment per student

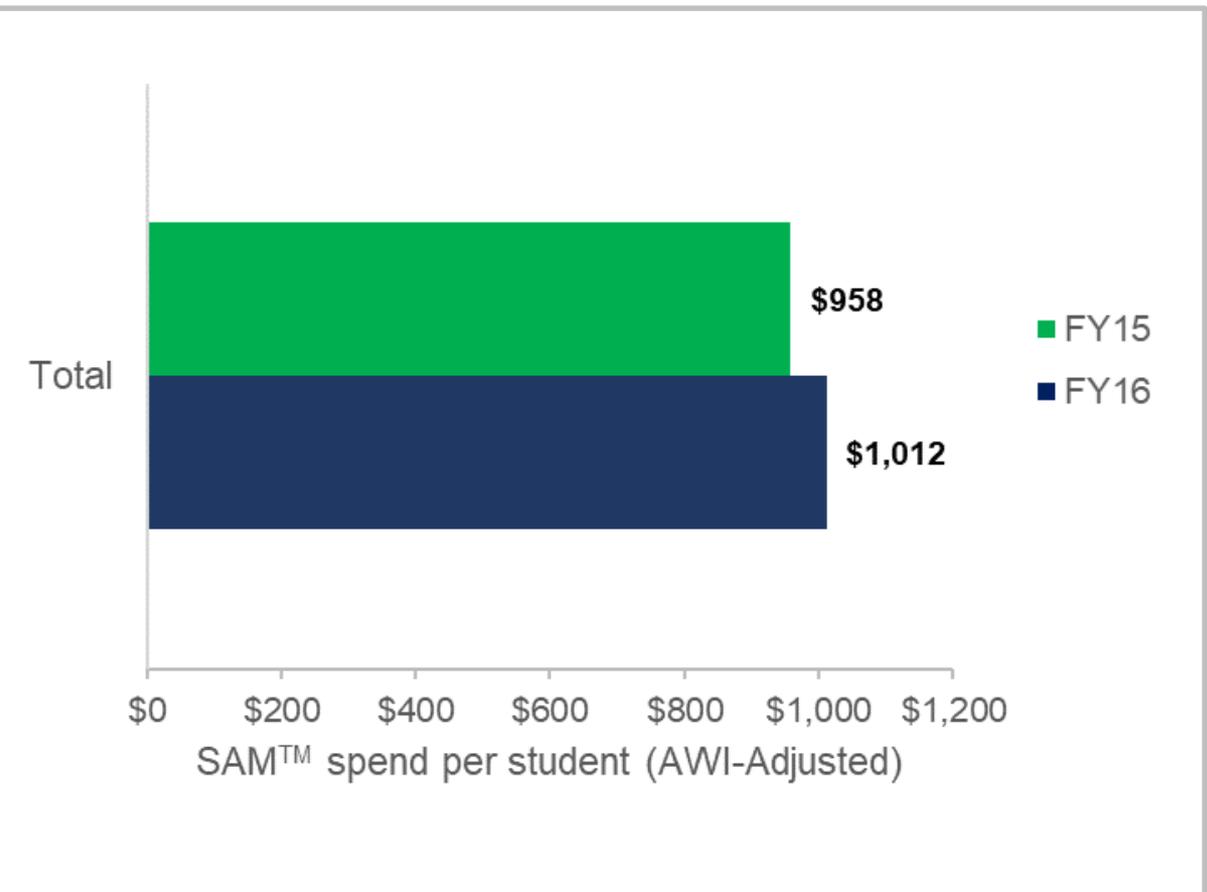


*Other, Academic Advising, & Admissions are also the top 3 allocated sub activities in terms of % of total SAM<sup>TM</sup> spend*

Source: **ABC Insights**® FY15-FY18 data, N=23 universities

Note: IPEDS Student Fall Enrollment used to calculate per student values

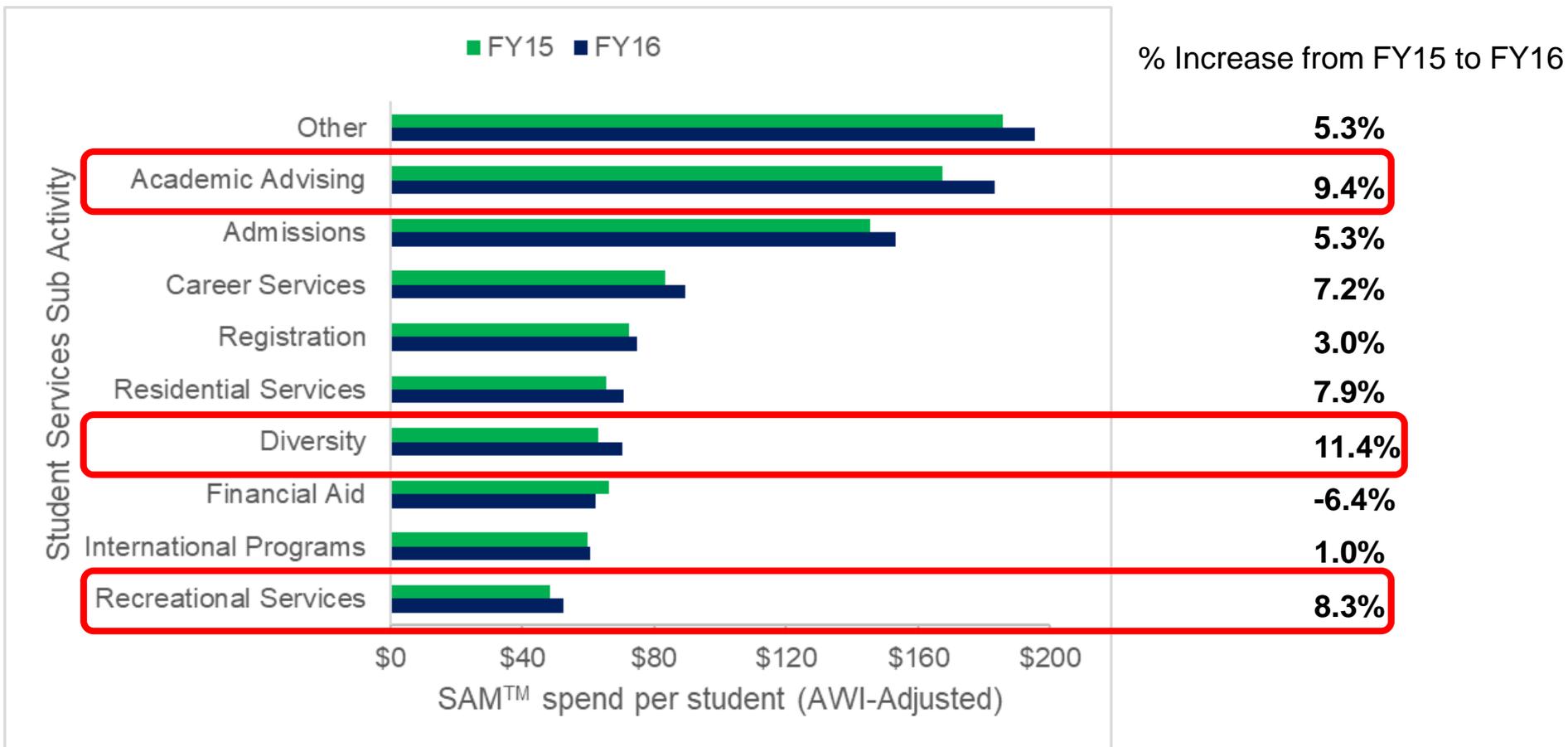
# Student Services SAM™ human capital investment per student is increasing over time



} 5.7% increase from FY15 to FY16

Source: **ABC Insights**® FY15-FY16, N=12 universities with FY15 and FY16 data (Provisional: N=6; Finalized: N=6)  
Note: IPEDS Student Fall Enrollment used to calculate per student values

# Diversity, Academic Advising, & Recreational Services had the highest % increase in SAM™ human capital investment per student from FY15 to FY16



Source: **ABC Insights**® FY15-FY16, N=12 universities with FY15 and FY16 data (Provisional: N=6; Finalized: N=6)

Note: IPEDS Student Fall Enrollment used to calculate per student values

