Presentation to Education, Personnel & Student Life Committee:

Academic Portfolio Recommendations for the Transformation of the Vermont State Colleges System

May 24, 2021

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Agenda

1. Introduction to rpk GROUP

2. Background & Framework of the Analysis

3. Analyzing Castleton University, Northern Vermont University, and Vermont Technical College as a Single Institution

4. Recommendations

5. Q&A

About rpk GROUP

10 years

200+
Colleges, Universities, Associations, and Foundations

32 States

3 Continents

Mix of **public**, **private**, **two-year**, and **four-year** institutions

Specializing in **sustainable** financial models, strategic **platform** creation, and the business model behind **mission and equitable student success**

Rick Staisloff

Katie Hagan

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Background and Framework of Analysis

Project Goals

- Develop a framework for evaluation of current academic programs within the VSCS portfolio.

- Identify gaps in existing academic portfolio relative to Vermont labor market demand.

- Recommend an ideal portfolio that meets the needs of Vermont students and the work force.

- Design action plans to help VSCS implement the recommended academic portfolio.

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Key Deliverable: Program Evaluation Framework

- Inclusive of all programs at Castleton University, Northern Vermont University, and Vermont Technical College.

- The ideal portfolio of programs will:
  - Meet student demand
  - Align with state labor market demand
  - Deliver on student success
  - Achieve financial sustainability
  - Be accessible to all Vermont students

- Framework evaluates all programs based on the above criteria, but **_will not_** prioritize any one metric above another. A portfolio must be balanced. Some programs may excel in one area and not in another, which is appropriate.

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Recommended Metrics to Include in Program Evaluation Framework

By Program:

- Matriculation rate
- Size
- Retention
- Completion
- Labor market demand

By Department:

- Student credit hours taught per faculty FTE
- Average class size
- Faculty by type (full-time, part-time, overload)

How does the Framework support the work of VSCS and the Board?

Identifies strengths in academic offerings

Realizes efficiencies to allow for reinvestment

Meets student and labor market demand

Moves to data-driven decision-making

Supports continuous improvement

Analyzing Castleton University, Northern Vermont University, and Vermont Technical College as a Single Institution

Current State of CU, NVU, and VTC

- 200+ active programs across three institutions covering six campuses

- rpk rolled up programs by CIP code to eliminate duplication across the institutions and determine units of analysis, resulting in 126 Associates, Bachelors and Masters "rolled-up" programs, enrolling ~5,000 students annually

- Rolled-up programs were organized into 15 areas of focus

1. *Agriculture, Plant and Animal Sciences*
2. *Athletic Training, Exercise and Health Sciences*
3. *Business/Accounting*
4. *Communications/Journalism*
5. *Computer Information Systems*
6. *Counseling and Psychology*
7. *Education*
8. *Engineering Technology*

9. *Fine and Performing Arts*
10. *Humanities*
11. *Math and Science*
12. *Health Professions*
13. *Professional Programs*
14. *Ski Resort Management/Outdoor Education and Adventure*
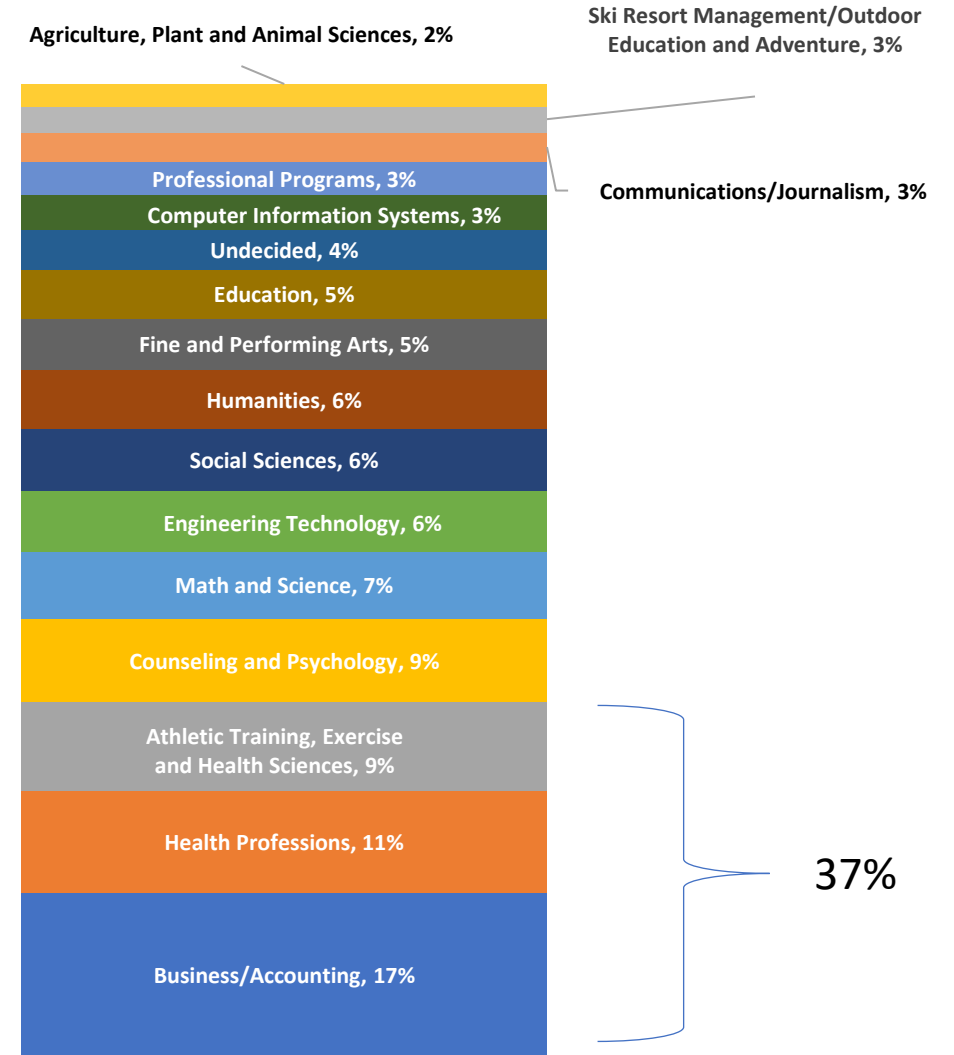15. *Social Sciences*

The Classification of Instructional Programs (CIP) provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity. CIP was originally developed by the U.S. Department of Education's National Center for Education Statistics (NCES) in 1980, with revisions occurring in 1985, 1990, 2000, 2010 and 2020. Source: NCES

Program Evaluation Framework Summary Findings

- Strong concentrations within areas of focus

- Clear areas for investment and optimization when looking at size and growth

- Areas of focus are largely serving Vermont students

- Opportunities to enhance teaching efficiencies through streamlining program portfolio and reducing duplication of effort

Enrollment Percentage by Area of Focus, 2016-2020

The VSCS demonstrates clear compression in student demand, which is common across all of higher education. **Top three areas of focus capture almost 40% of students**.

Agriculture, Plant and Animal Sciences, 2%

Ski Resort Management/Outdoor Education and Adventure, 3%

Communications/Journalism, 3%

Professional Programs, 3%
Computer Information Systems, 3%
Undecided, 4%
Education, 5%
Fine and Performing Arts, 5%
Humanities, 6%
Social Sciences, 6%
Engineering Technology, 6%
Math and Science, 7%
Counseling and Psychology, 9%
Athletic Training, Exercise and Health Sciences, 9%
Health Professions, 11%
Business/Accounting, 17%

37%

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Fall 2019 Headcount and Headcount Growth Since Fall 2015

Examining areas of focus by their size/growth profile highlights potential opportunities for investment.
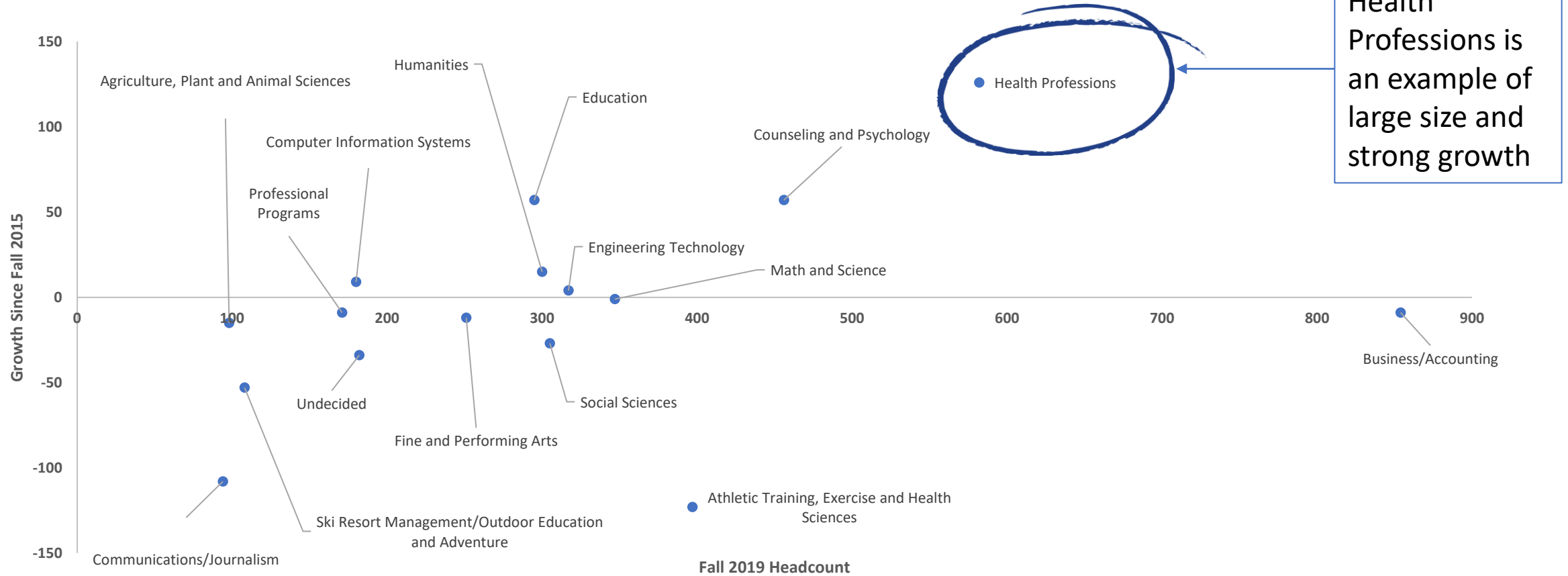
Health Professions is an example of large size and strong growth

Chart axes: Y-axis "Growth Since Fall 2015" ranging from -150 to 150; X-axis "Fall 2019 Headcount" ranging from 0 to 900.

Data points labeled: Agriculture, Plant and Animal Sciences; Humanities; Education; Computer Information Systems; Professional Programs; Counseling and Psychology; Health Professions; Engineering Technology; Math and Science; Undecided; Social Sciences; Fine and Performing Arts; Ski Resort Management/Outdoor Education and Adventure; Communications/Journalism; Athletic Training, Exercise and Health Sciences; Business/Accounting.
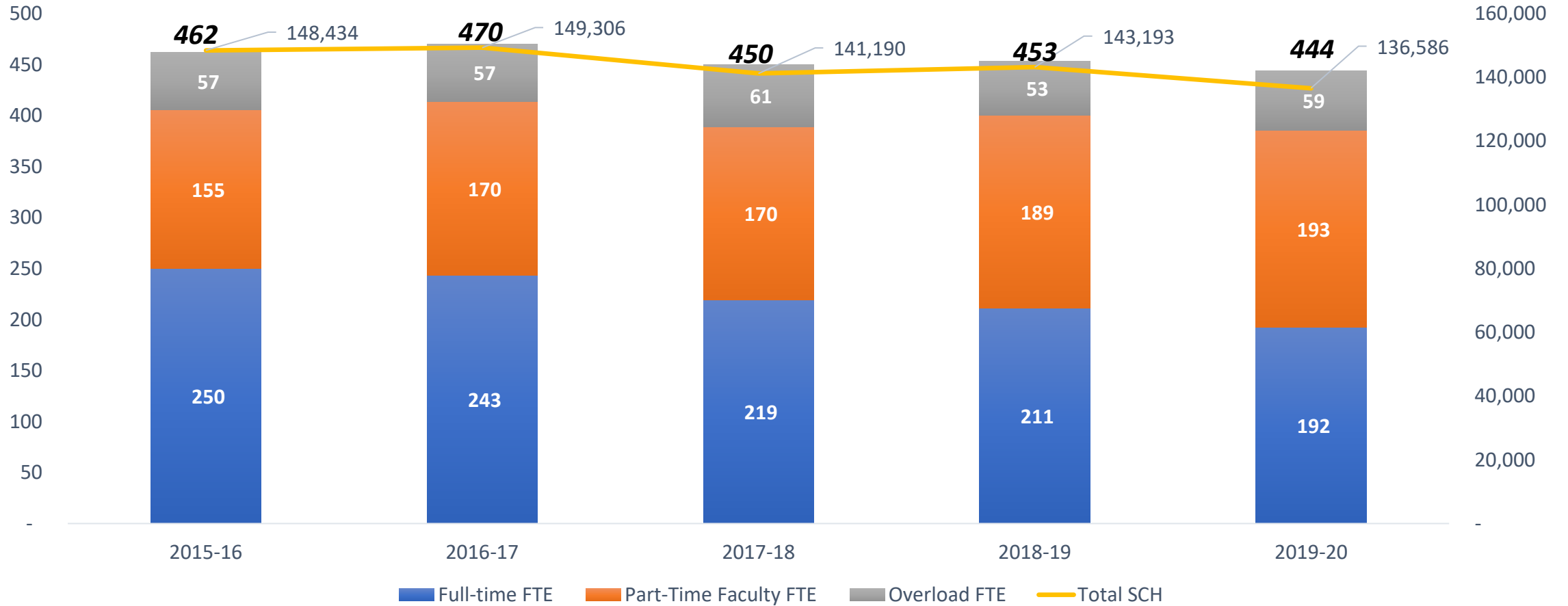
Out of State vs. In-State Undergraduate Headcount by Area of Focus
(2016-2020)

77% of undergraduate students are in-state, and 54% enrolled in programs within 49 miles of their home address.

■ Out of State ■ In-State

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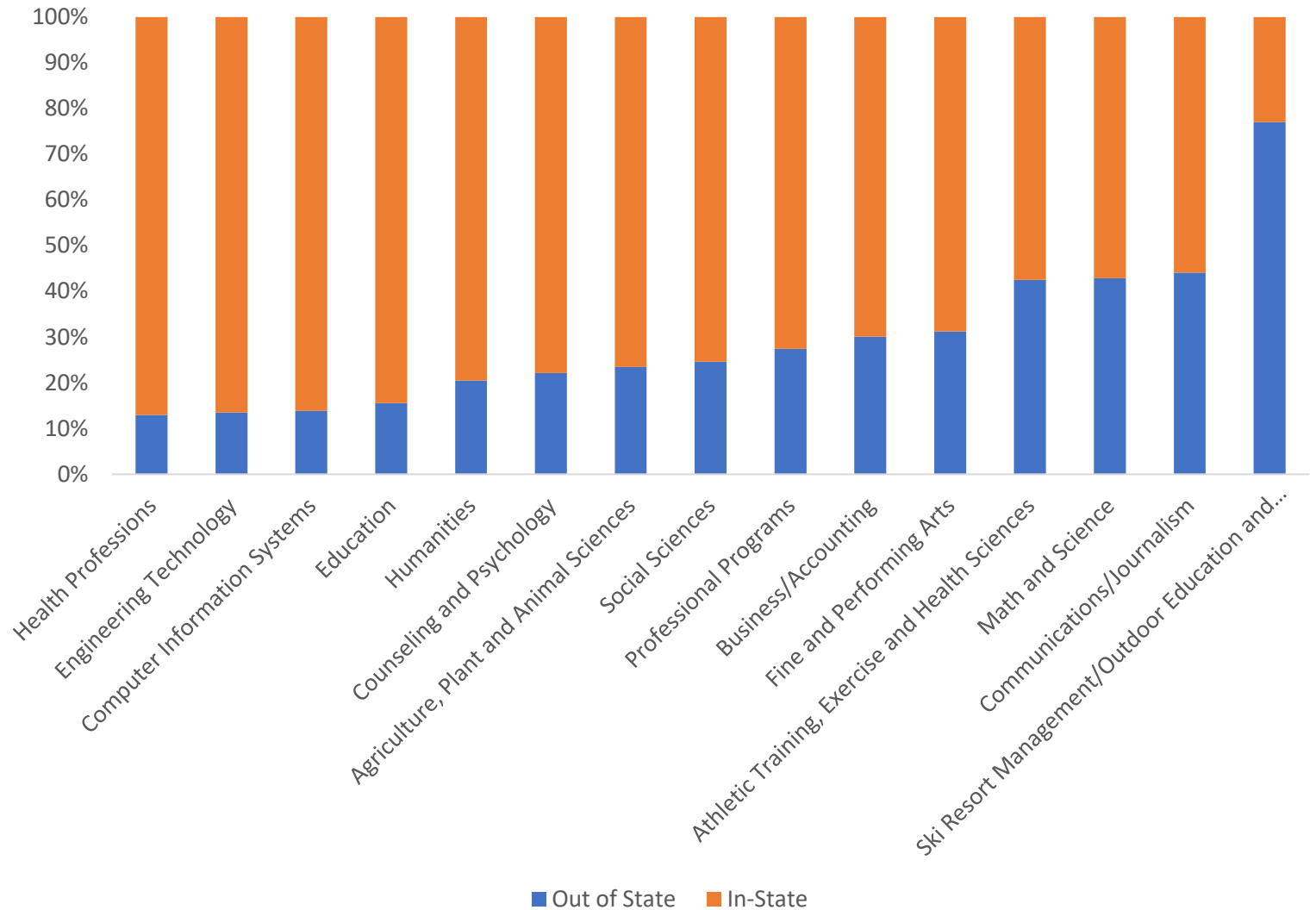
Faculty Full Time Equivalents (FTE) from 2016-2020

Part-time faculty FTE increased while full-time faculty decreased. Overall faculty FTEs declined, as did student credit hours.

	2015-16	2016-17	2017-18	2018-19	2019-20
Total (italic)	462	470	450	453	444
Total SCH	148,434	149,306	141,190	143,193	136,586
Overload FTE	57	57	61	53	59
Part-Time Faculty FTE	155	170	170	189	193
Full-time FTE	250	243	219	211	192

Legend: Full-time FTE · Part-Time Faculty FTE · Overload FTE · Total SCH

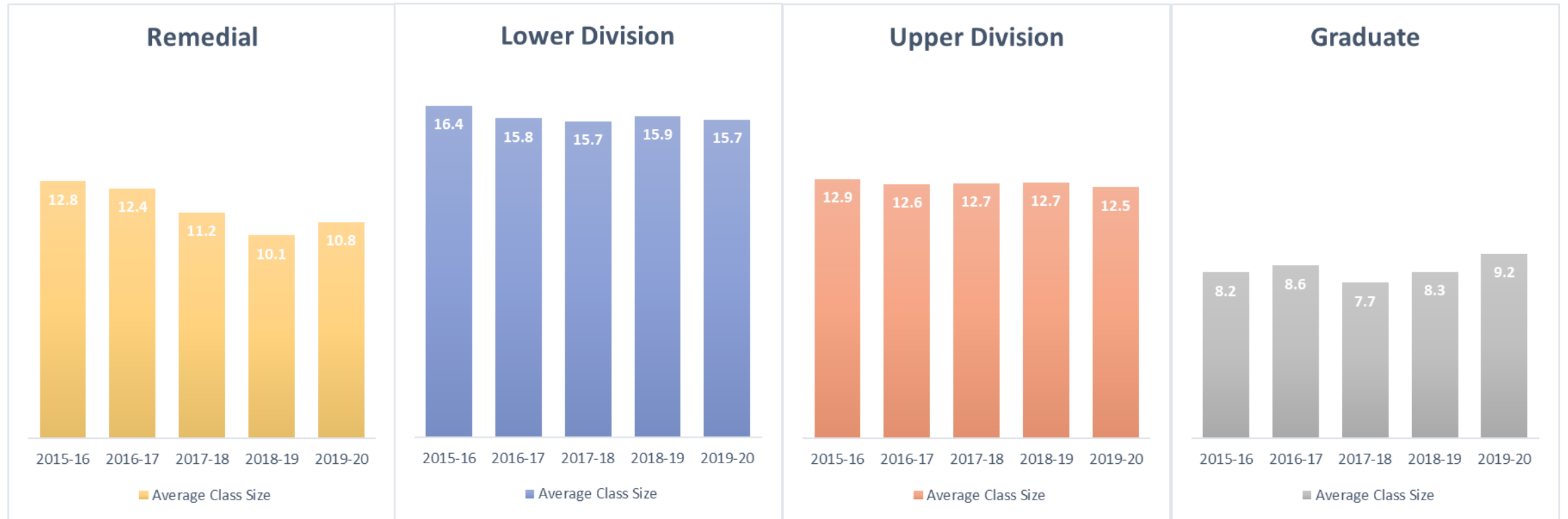# Average Faculty FTE and Student Credit Hours (SCH) per FTE, by Area of Focus

Faculty "throughput" (SCH per FTE faculty) provides an important efficiency metric.
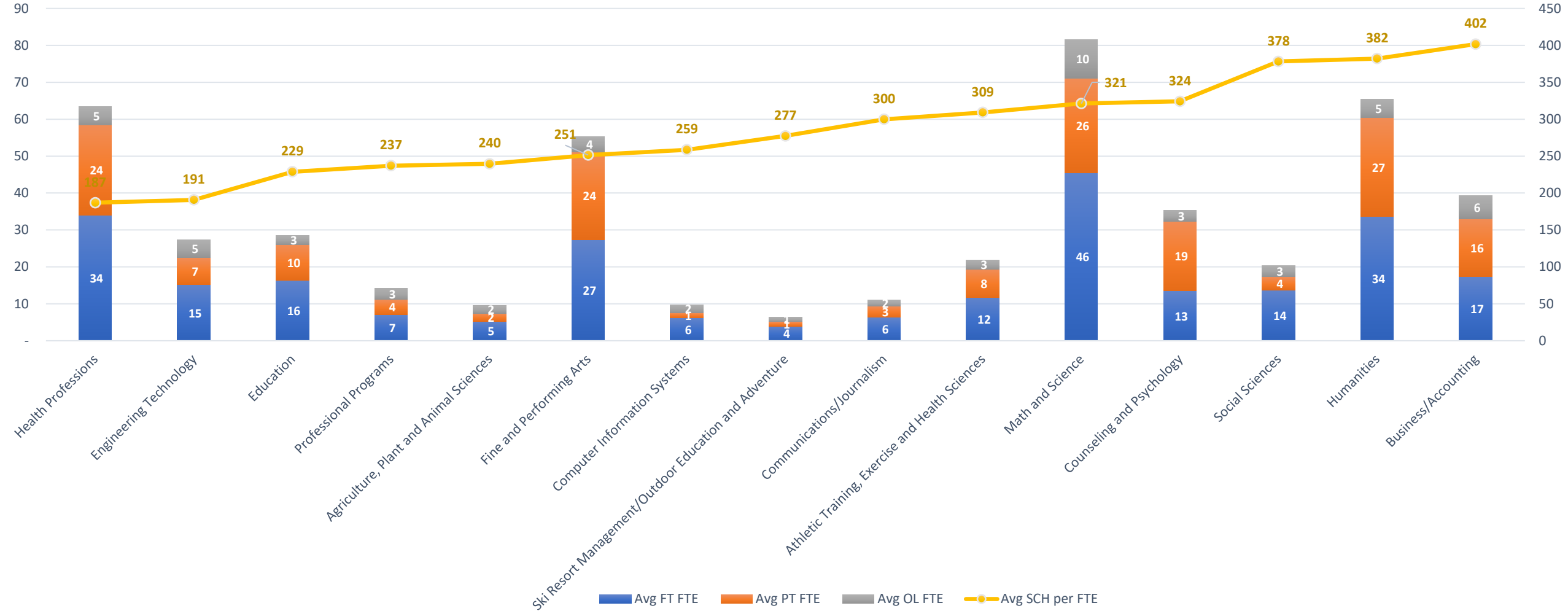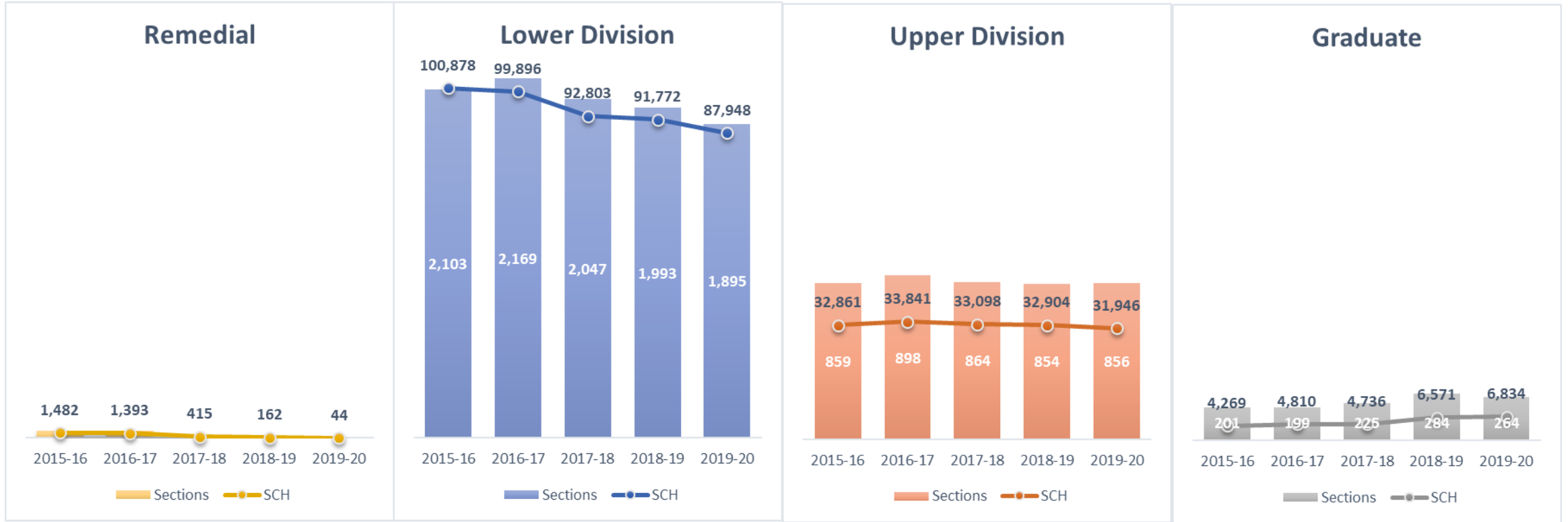
Average Class Size by Course Level

Like low faculty throughput, small average class sizes point to the efficiency gains transformation will achieve.

Remedial

Year	Average Class Size
2015-16	12.8
2016-17	12.4
2017-18	11.2
2018-19	10.1
2019-20	10.8

Lower Division

Year	Average Class Size
2015-16	16.4
2016-17	15.8
2017-18	15.7
2018-19	15.9
2019-20	15.7

Upper Division

Year	Average Class Size
2015-16	12.9
2016-17	12.6
2017-18	12.7
2018-19	12.7
2019-20	12.5

Graduate

Year	Average Class Size
2015-16	8.2
2016-17	8.6
2017-18	7.7
2018-19	8.3
2019-20	9.2

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Student Credit Hours and Number of Sections

Streamlining the academic portfolio to better reflect student and employer demand should increase efficiencies and create a more financially sustainable model.

Remedial

1,482 1,393 415 162 44

2015-16 2016-17 2017-18 2018-19 2019-20

Sections — SCH

Lower Division

100,878 99,896 92,803 91,772 87,948

2,103 2,169 2,047 1,993 1,895

2015-16 2016-17 2017-18 2018-19 2019-20

Sections — SCH

Upper Division

32,861 33,841 33,098 32,904 31,946

859 898 864 854 856

2015-16 2016-17 2017-18 2018-19 2019-20

Sections — SCH

Graduate

4,269 4,810 4,736 6,571 6,834

201 199 225 284 264

2015-16 2016-17 2017-18 2018-19 2019-20

Sections — SCH

Connecting SCH per Faculty FTE and Class Size

- Delivering more student credit hours per faculty FTE will result in savings for reinvestment.

- Most easily achieved by increasing class sizes where pedagogically appropriate and where modality or physical space allows.

- Average SCH per FTE in VSCS is 300 and average class size is 13 students.

- A 25% increase in SCH per FTE is equivalent to shifting the average class size from 13 to 15.

Number of Students (Average Class Size)	Number of Students Multiplied by 24 Credits (SCH/FTE)
15	360
16	384
17	408
18	432
19	456
20	480

Recommendations

Recommendation #1: Adopt Program Evaluation Framework

VSCS should **adopt the Program Evaluation Framework** for portfolio review and use this framework to report on the portfolio health to the Board annually. This recommendation could include an update to Policy 109 (Annual Enrollment and Cost Effectiveness Review of Existing Academic Programs).

Results of Program Evaluation Framework

- Programs to Invest In:
  - 10 rolled-up programs

- Programs to Optimize:
  - 83 rolled-up programs

- Programs to Eliminate:
  - 20 rolled-up programs (2% of average annual enrollments)

Thirteen programs were launched within the timeframe of the analysis and were labeled in the analysis as 'New Programs.' These new programs did not receive a recommendation.

Recommendation #2: Optimize the Academic Portfolio

VSCS leadership should move forward to **carry out the work of optimizing the academic portfolio,** beginning in the Summer of 2021. This will allow VSCS to recruit a new class of students into the unified academic portfolio for Fall 2022. In pursuing optimization, VSCS should target an initial 25% improvement in student credit hours per faculty FTE.

Recommendation #3: Invest and Eliminate

VSCS leadership should review and **make final decisions on the recommendations for program investment and elimination.** That decision making could be further informed by the Summer 2021 optimization work.

Thank you

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