Epilogue and Prologue: A National Picture of Senior Capstone Experiences

Jennifer R. Keup

@jrkeup

2018 Annual Meeting of AAC&U

Washington, DC

Session Learning Outcomes

As the result of attending this session, participants will:

- Gain a greater understanding of the administrative & educational characteristics of senior capstones & their relationship with 21st Century learning outcomes

- Have the opportunity to compare the structural and instructional characteristics of their senior capstones to a national profile and to consider innovations or refinements to their program

- Discuss institutional challenges and promising practices with respect to the delivery of senior capstones

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

www.sc.edu/fye

Section 1:

INTRODUCTION & BACKGROUND

Why Examine the Senior Year?

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

Senior year represents the final opportunity to serve students to prepare them to face the demands that lie ahead.

(*Chickering & Schlossberg, 1998; Cuseo, 1998; Gardner, Van der Veer, & Associates, 1998*)

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

High-Impact Educational Practices

First-Year Seminars and Experiences

Many schools now build into the curriculum first-year seminars or other programs that bring small groups of students together with faculty or staff on a regular basis. The highest-quality first-year experiences place a strong emphasis on critical inquiry, frequent writing, information literacy, collaborative learning, and other skills that develop students' intellectual and practical competencies. First-year seminars can also involve students with cutting-edge questions in scholarship and with faculty members' own research.

Common Intellectual Experiences

The older idea of a "core" curriculum has evolved into a variety of modern forms, such as a set of required common courses or a vertically organized general education program that includes advanced integrative studies and/or required participation in a learning community (see below). These programs often combine broad themes—e.g., technology and society, global interdependence—with a variety of curricular and cocurricular options for students.

Learning Communities

The key goals for learning communities are to encourage integration of learning across courses and to involve students with "big questions" that matter beyond the classroom. Students take two or more linked courses as a group and work closely with one another and with their professors. Many learning communities explore a common topic and/or common readings through the lenses of different disciplines. Some deliberately link "liberal arts" and "professional courses"; others feature service learning.

Writing-Intensive Courses

These courses emphasize writing at all levels of instruction and across the curriculum, including final-year projects. Students are encouraged to produce and revise various forms of writing for different audiences in different disciplines. The effectiveness of this repeated practice "across the curriculum" has led to parallel efforts in such areas as quantitative reasoning, oral communication, information literacy, and, on some campuses, ethical inquiry.

Collaborative Assignments and Projects

Collaborative learning combines two key goals: learning to work and solve problems in the company of others, and sharpening one's own understanding by listening seriously to the insights of others, especially those with different backgrounds and life experiences. Approaches range from study groups within a course, to team-based assignments and writing, to cooperative projects and research.

Undergraduate Research

Many colleges and universities are now providing research experiences for students in all disciplines. Undergraduate research, however, has been most prominently used in science disciplines. With strong support from the National Science Foundation and the research community, scientists are reshaping their courses to connect key concepts and questions with students' early and active involvement in systematic investigation and research. The goal is to involve students with actively contested questions, empirical observation, cutting-edge technologies, and the sense of excitement that comes from working to answer important questions.

Diversity/Global Learning

Many colleges and universities now emphasize courses and programs that help students explore cultures, life experiences, and worldviews different from their own. These studies—which may address U.S. diversity, world cultures, or both—often explore "difficult differences" such as racial, ethnic, and gender inequality, or continuing struggles around the globe for human rights, freedom, and power. Frequently, intercultural studies are augmented by experiential learning in the community and/or by study abroad.

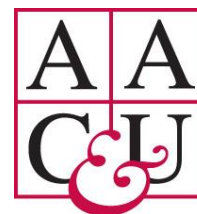## Service Learning, Community-Based Learning

In these programs, field-based "experiential learning" with community partners is an instructional strategy—and often a required part of the course. The idea is to give students direct experience with issues they are studying in the curriculum and with ongoing efforts to analyze and solve problems in the community. A key element in these programs is the opportunity students have to both *apply* what they are learning in real-world settings and *reflect* in a classroom setting on their service experiences. These programs model the idea that giving something back to the community is an important college outcome, and that working with community partners is good preparation for citizenship, work, and life.

Internships

Internships are another increasingly common form of experiential learning. The idea is to provide students with direct experience in a work setting—usually related to their career interests—and to give them the benefit of supervision and coaching from professionals in the field. If the internship is taken for course credit, students complete a project or paper that is approved by a faculty member.

Capstone Courses and Projects

Whether they're called "senior capstones" or some other name, these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they've learned. The project might be a research paper, a performance, a portfolio of "best work," or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in general education as well.

LEAP

College Learning for the New Global Century

A Report from the National Leadership Council for Liberal Education & America's Promise

The LEAP Vision for Learning

Outcomes, Practices, Impact, and Employers' Views

Liberal Education & America's Promise

High-Impact Educational Practices

What They Are, Who Has Access to Them, and Why They Matter

Five High-Impact PRACTICES

Ensuring Quality & Taking High-Impact Practices to Scale

Capstone Courses and Projects

Whether they're called "senior capstones" or some other name, **these culminating experiences require students nearing the end of their college years to create a project of some sort that integrates and applies what they've learned**. The project might be a research paper, a performance, a portfolio of "best work," or an exhibit of artwork. Capstones are offered both in departmental programs and, increasingly, in general education as well.

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

A A C U
Association of American Colleges and Universities

www.sc.edu/fye

Gains from Senior Capstones

➢ student satisfaction and self-rated gains

➢ active and collaborative learning

➢ student-faculty interaction,

➢ critical thinking skills

➢ understanding of global problems

➢ acquisition of work-related skills

(*Brownell & Swaner, 2010, Kuh, 2008; NSSE, 2009*)

CCa CALIFORNIA COLLEGE OF THE ARTS
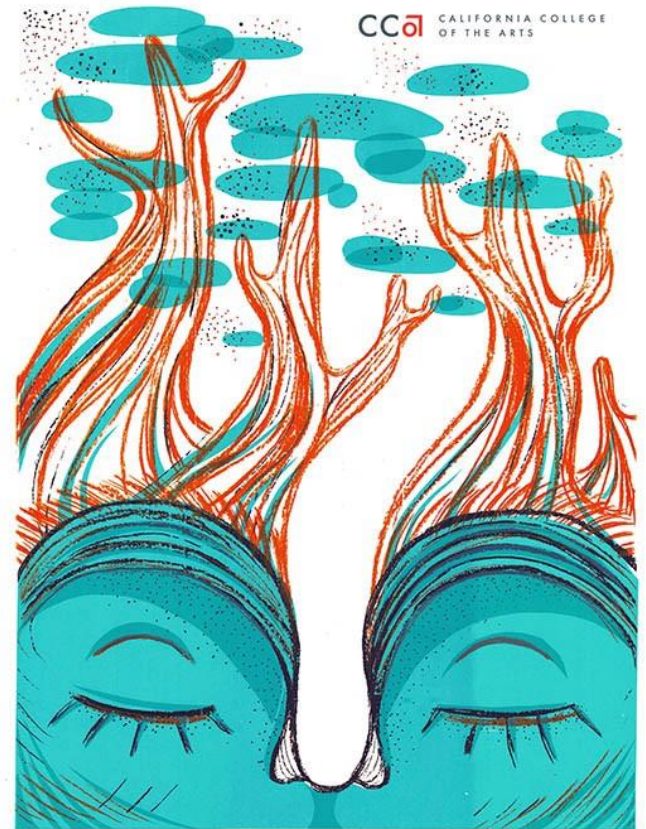
SPRING 2016 CCA ILLUSTRATION PROGRAM

SENIOR THESIS SHOW

May 3-15, 350 Kansas St. San Francisco   Reception May 5, 6:30pm

Illustration by Alex Campbell

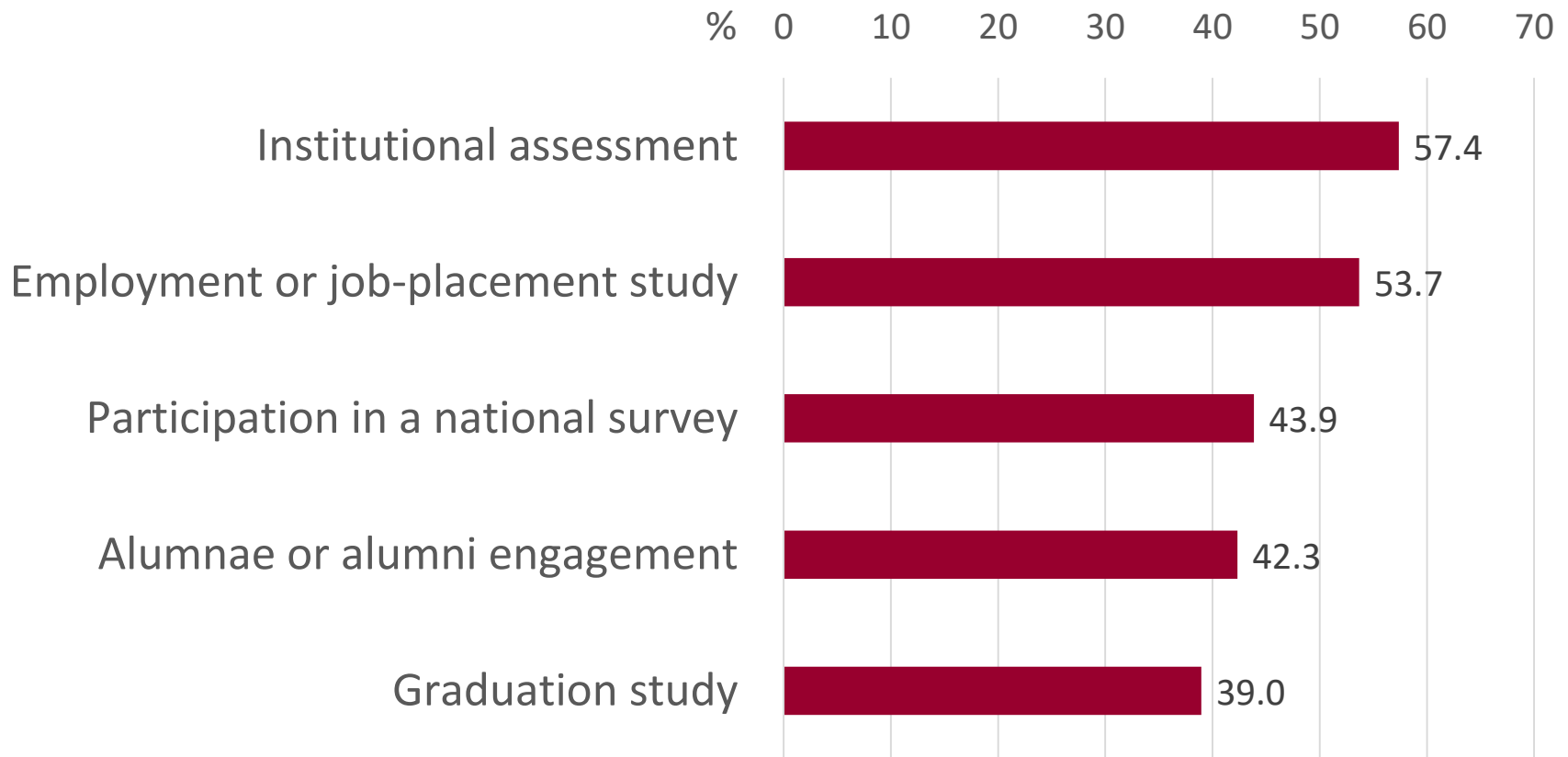NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

www.sc.edu/fye

Section 2:

2016 NATIONAL SURVEY OF SENIOR CAPSTONE EXPERIENCES (NSSCE)

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

National Survey of Senior Capstone Experiences

- Designed to identify senior-specific practices and characteristics of senior capstone experiences
- 2016 Administration (third; previous in 1999, 2011)
  - Online survey
  - 3,419 **institutions** were invited to participate
  - 383 responded (11.2% response rate)
  - **332** (93.2% of sample) currently offered at least one capstone experience
    - 99.3% of 4-year institutions (n = 297/299)
    - 61.4% of 2-year colleges (n = 35/57)

Institutional Attention to the Senior Year

% 0 10 20 30 40 50 60 70

Category	Percentage
Institutional assessment	57.4
Employment or job-placement study	53.7
Participation in a national survey	43.9
Alumnae or alumni engagement	42.3
Graduation study	39.0

Top 10 Campus-Wide Objectives for Seniors

Objective	%
Career preparation	71.1
Employment or job placement	62.6
Graduation	61.3
Graduate or professional school enrollment	50.5
Critical-thinking skills	43.3
Preparation for graduate school	39.7
Writing skills	37.0
Alumni/ae support	36.4
Leadership development	35.1
Student satisfaction	34.8

Types of Capstone Experiences
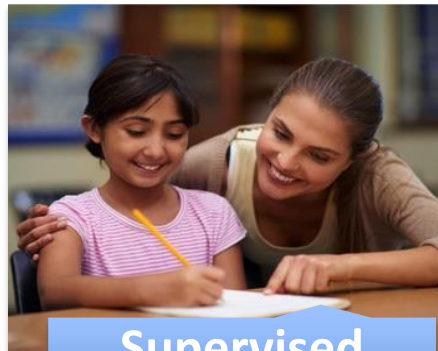
Capstone course

Exam

Arts performance or exhibition

Supervised practice

Project

Types of Capstone Experiences

- **Capstone course**
  - Department or discipline-based
  - General education focused (campus-wide capstones only)
  - Other

- **Exam**
  - Comprehensive
  - Leading to certification or professional licensure

- **Exhibition of performing, musical, or visual arts**

- **Project**
  - Senior integrative portfolio
  - Senior integrative or applied learning project
  - Senior thesis or independent research paper
  - Service-learning or community-based learning project

- **Supervised practice**
  - Internship
  - Student teaching
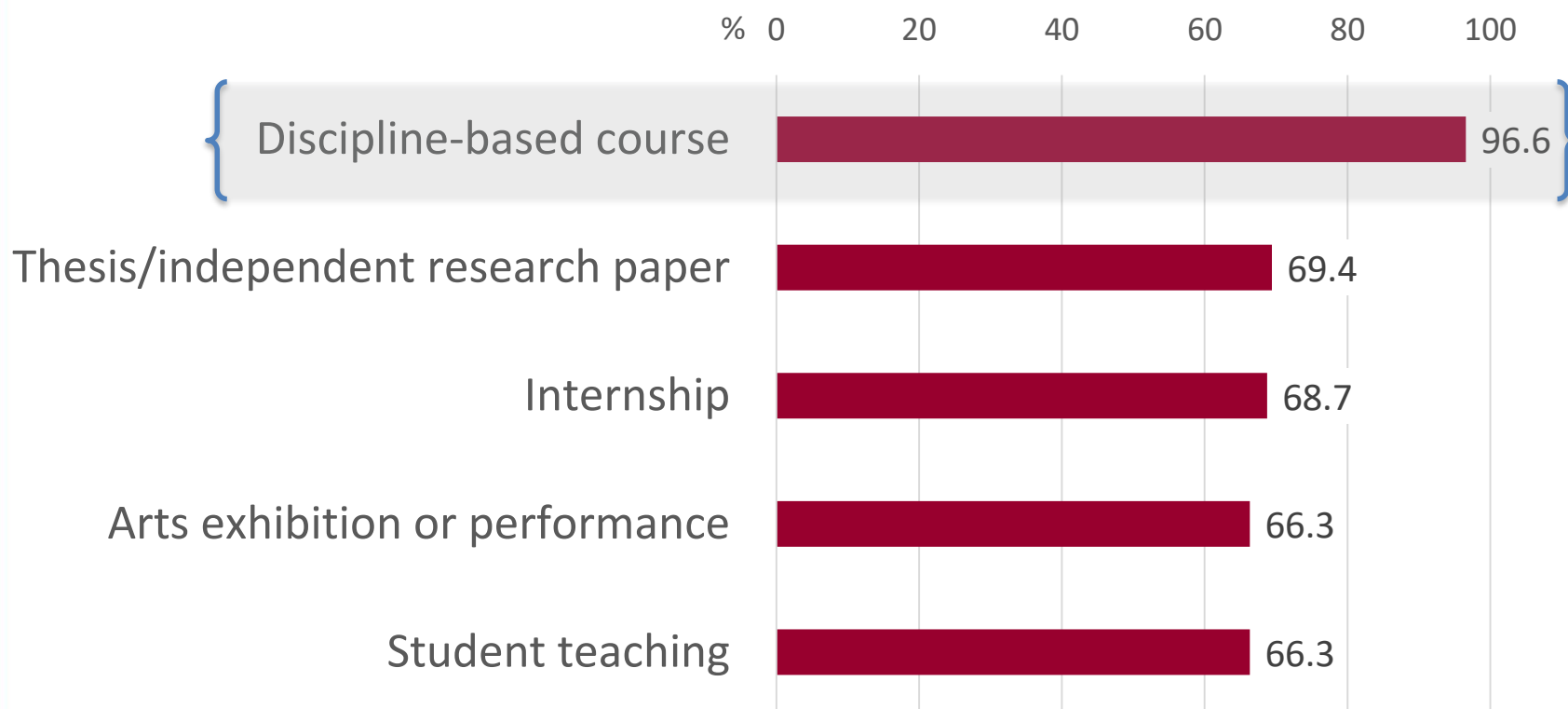 - Other

www.sc.edu/fye

Section 3:

FIVE MAIN TAKEAWAYS FROM THE SURVEY DATA

Takeaway #1:

Capstone courses are the most predominant form of culminating senior experience on campuses.

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

Overall Capstone Experiences Offered in Academic Department

% 0   20   40   60   80   100

Discipline-based course 96.6

Thesis/independent research paper 69.4

Internship 68.7

Arts exhibition or performance 66.3

Student teaching 66.3

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

www.sc.edu/fye

Capstone Courses

- Discipline-based course closely aligned with Arts & Humanities

- More than half of respondents used discipline-based capstone courses in all but two areas of study (social services and engineering)

Discipline-Based Capstone Courses

- ➤ Arts & Humanities (82.4%)
- ➤ Social Sciences (76.2%)
- ➤ Business (72.5%)
- ➤ Education (67.0%)
- ➤ Biological Sciences, Agriculture, and Natural Resources (66.3%)
- ➤ Physical Sciences, Mathematics, and Computer Sciences (62.6%)
- ➤ Communications, Media, and Public Relations (56.0%)
- ➤ Health Professions (50.9%)

Takeaway #2:

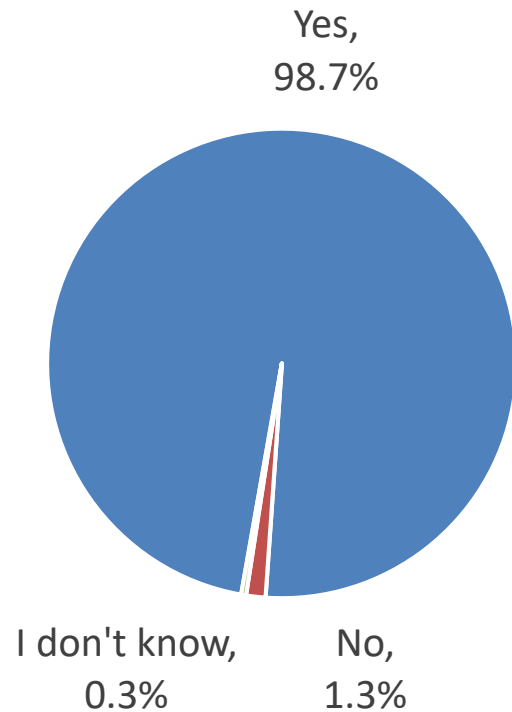## The co-curriculum is becoming an important venue for senior capstones and culminating experiences.

Where are Capstones Offered on Campus?

Academic Department

Co-Curricular Program

Academic Department:
- Yes, 98.7%
- I don't know, 0.3%
- No, 1.3%

Co-Curricular Program:
- Yes, 51.5%
- No, 37.5%
- I don't know, 11.4%
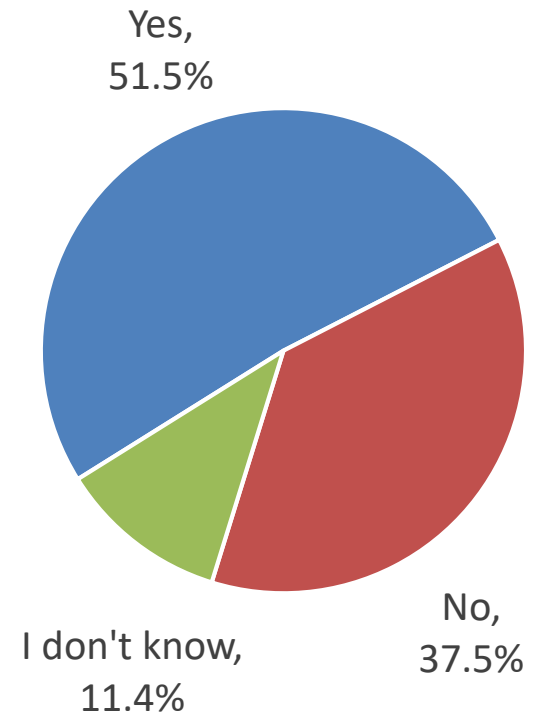
Overall Co-Curricular Programs Offering Capstone Experiences

Program	%
Honors	74.0
Leadership	42.5
Service-learning or community engagement	30.8
Career center	25.3
Preprofessional organization	18.5
Student clubs and organizations	17.8
Student athletics	13.0
Other, please specify.	11.6
Greek life	4.1
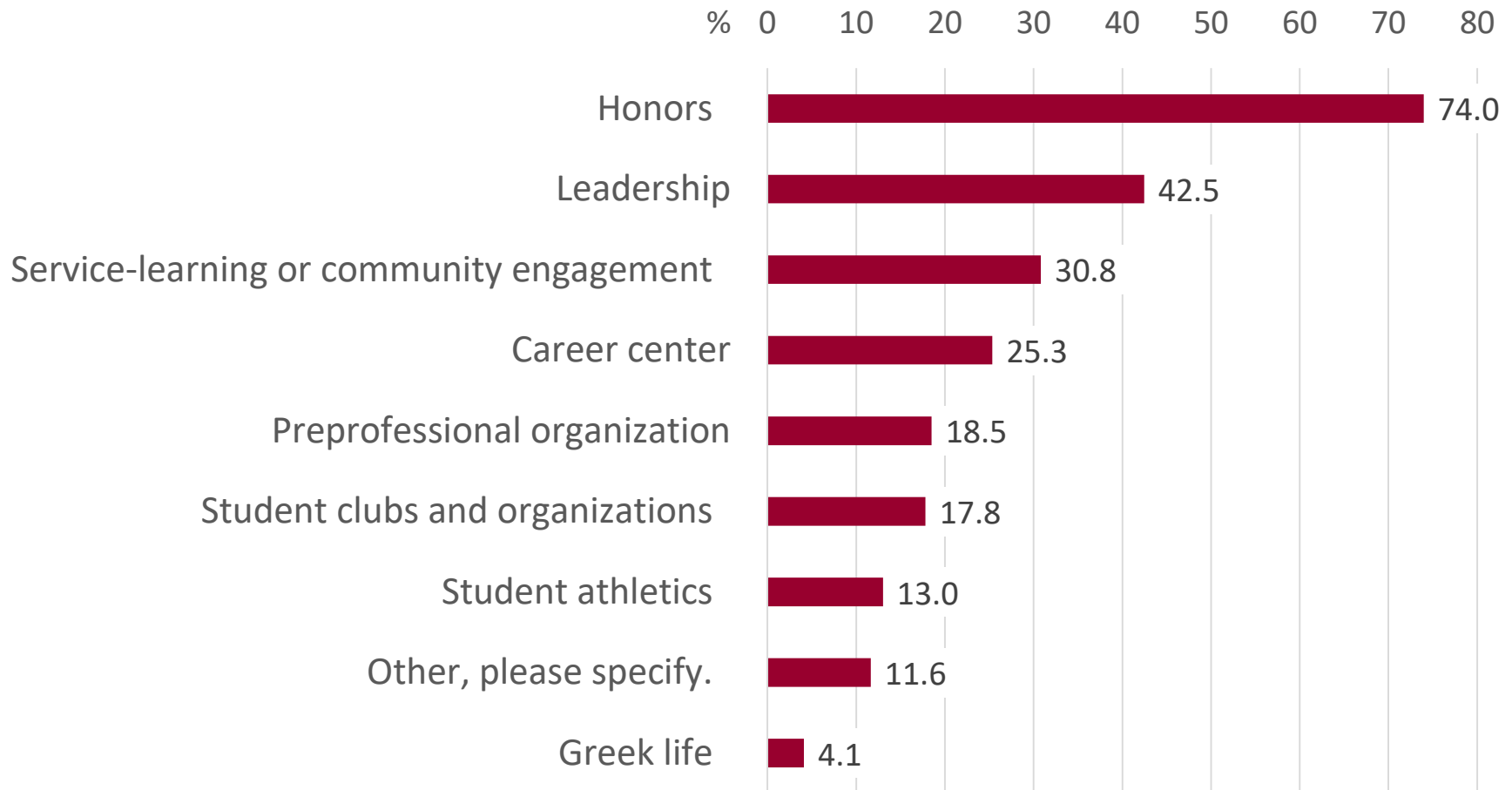
Co-Curricular Capstone <u>Courses</u>

- Capstone courses are most often in the disciplines
- When courses show up in co-curricular programs:
  - ➢ Honors: 47.2% (#2)
  - ➢ Pre-professional organizations: 22.2% (#3)
  - ➢ Service-learning – 22.7% (#4)

Most Common Capstone by Co-Curricular Program

Program	Type of Capstone
Career center	Supervised practice - internship
Honors	Senior thesis or independent research paper
Greek life	Service-learning or community-based learning project
Leadership	Service-learning or community-based learning project
Preprofessional organization	Supervised practice - internship
Service-learning or community engagement	Service-learning or community-based learning project
Student athletics	Service-learning or community-based learning project
Student clubs and organizations	Service-learning or community-based learning project

Most Common Co-Curricular Program by Capstone Experience

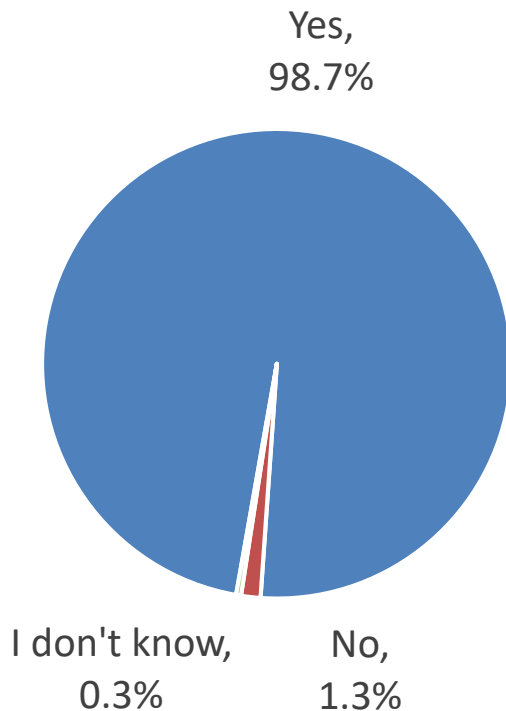| Type of Capstone	Co-curricular Program
Department or discipline-based course	Honors
Capstone course -other	Honors
Exam - comprehensive	Honors
Certification or professional licensure exam	Honors, Preprofessional organization
Exhibition of performing, musical, or visual arts	Honors
Senior integrative portfolio	Service-learning or community engagement
Senior integrative or applied learning project	Service-learning or community engagement
Senior thesis or independent research paper	Honors
Service-learning or community-based learning project	Service-learning or community engagement
Supervised practice - internship	Career center
Supervised practice - student teaching	Service-learning or community engagement
Supervised practice - other	Other, please specify.

Takeaway #3:

Senior capstones and culminating experiences are no longer the domain of only one area of the campus.
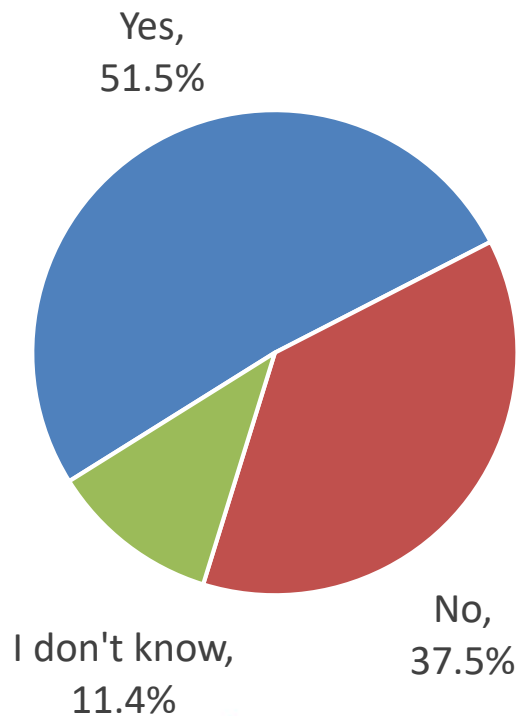
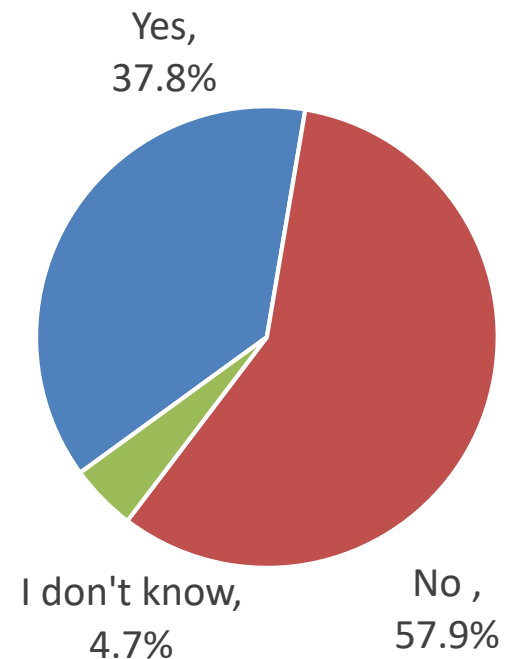# Where are Capstones Offered on Campus?
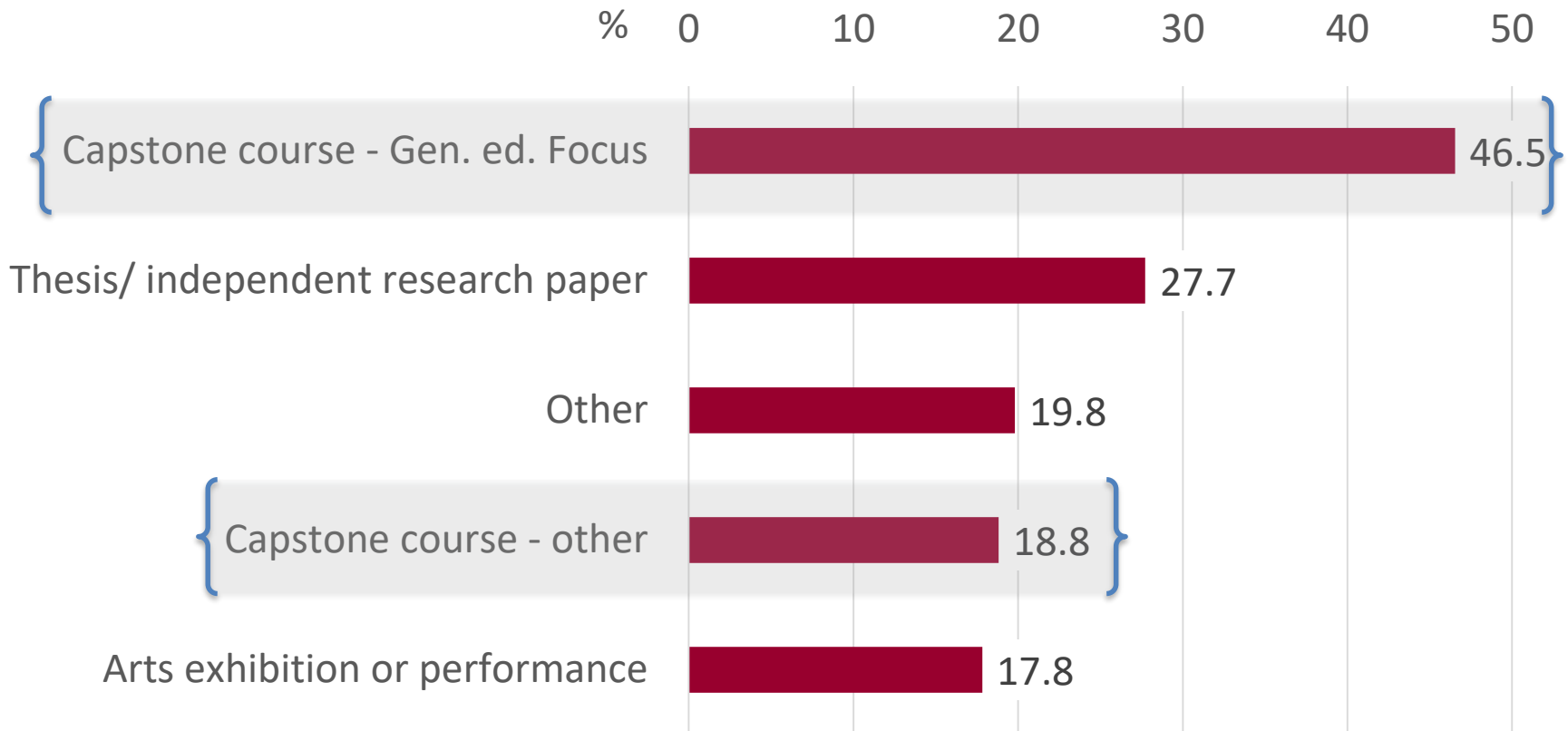
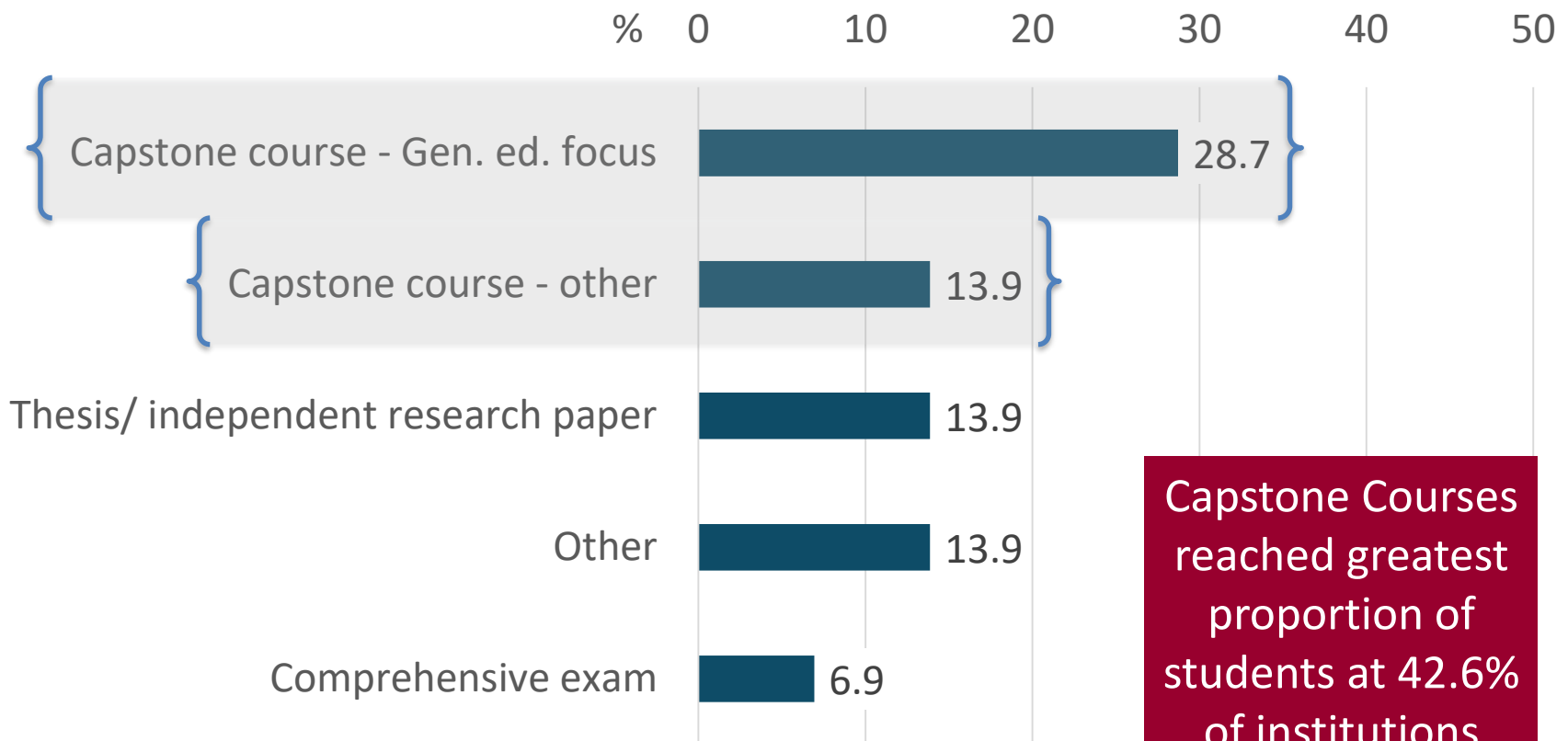Academic Department

Co-curricular Program

Campus-Wide Capstone

Yes, 98.7%

I don't know, 0.3%

No, 1.3%

Yes, 51.5%

I don't know, 11.4%

No, 37.5%

Yes, 37.8%

I don't know, 4.7%

No, 57.9%

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

www.sc.edu/fye

Overall Capstone Experiences Offered Campus-Wide

% | 0 | 10 | 20 | 30 | 40 | 50

- Capstone course - Gen. ed. Focus — 46.5
- Thesis/ independent research paper — 27.7
- Other — 19.8
- Capstone course - other — 18.8
- Arts exhibition or performance — 17.8

Primary Capstone Experiences Offered Campus-Wide

% 0 10 20 30 40 50

Capstone course - Gen. ed. focus — 28.7

Capstone course - other — 13.9

Thesis/ independent research paper — 13.9

Other — 13.9

Comprehensive exam — 6.9

Capstone Courses reached greatest proportion of students at 42.6% of institutions

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

www.sc.edu/fye

Primary Campus-Wide Capstone Objectives

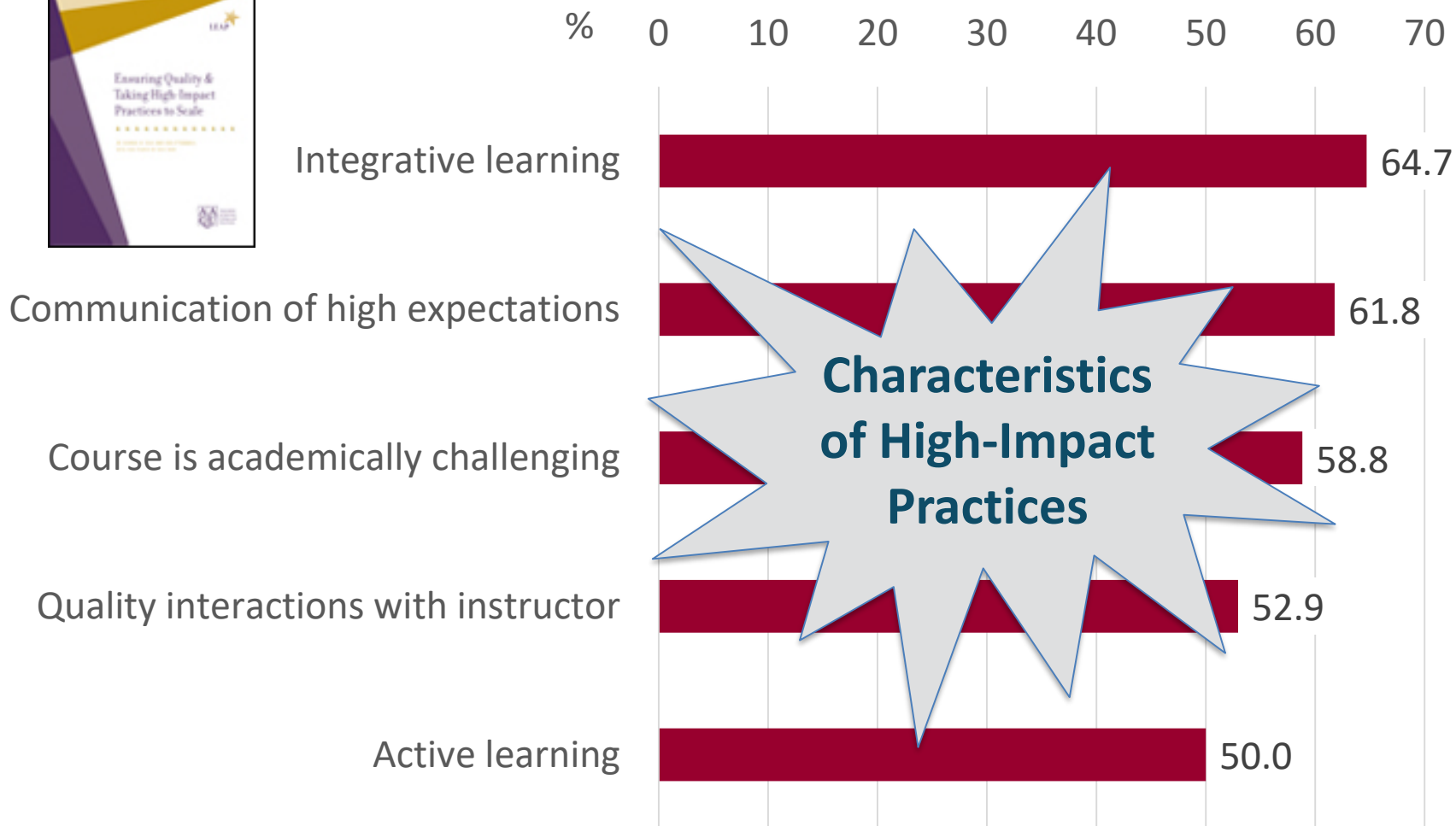| Objective	%
Critical-thinking skills	43.0
Integrative and applied learning	32.7
Academic skills	19.6
Career preparation (e.g., internships, co-ops)	16.8
Writing skills	16.8
Analytical or inquiry-based skills	15.9
Self-exploration or personal development	13.1
Graduation	12.1
Employment or job placement	11.2
Ethical reasoning	11.2

UNIVERSITY OF SOUTH CAROLINA

Primary Campus-Wide Capstone Objectives

Objective	%
Critical-thinking skills	43.0
Integrative and applied learning	32.7
Academic skills	19.6
Career preparation (e.g., internships, co-ops) [#1]	**16.8**
Writing skills	16.8
Analytical or inquiry-based skills	15.9
Self-exploration or personal development	13.1
Graduation [#3]	**12.1**
Employment or job placement [#2]	**11.2**
Ethical reasoning	11.2

Educationally Effective Practices in Campus-Wide Capstone Course

Educationally Effective Practices in Campus-Wide Capstone Course

% 0 10 20 30 40 50 60 70

Integrative learning — 64.7

Communication of high expectations — 61.8

Course is academically challenging — 58.8

Quality interactions with instructor — 52.9

Active learning — 50.0

Characteristics of High-Impact Practices
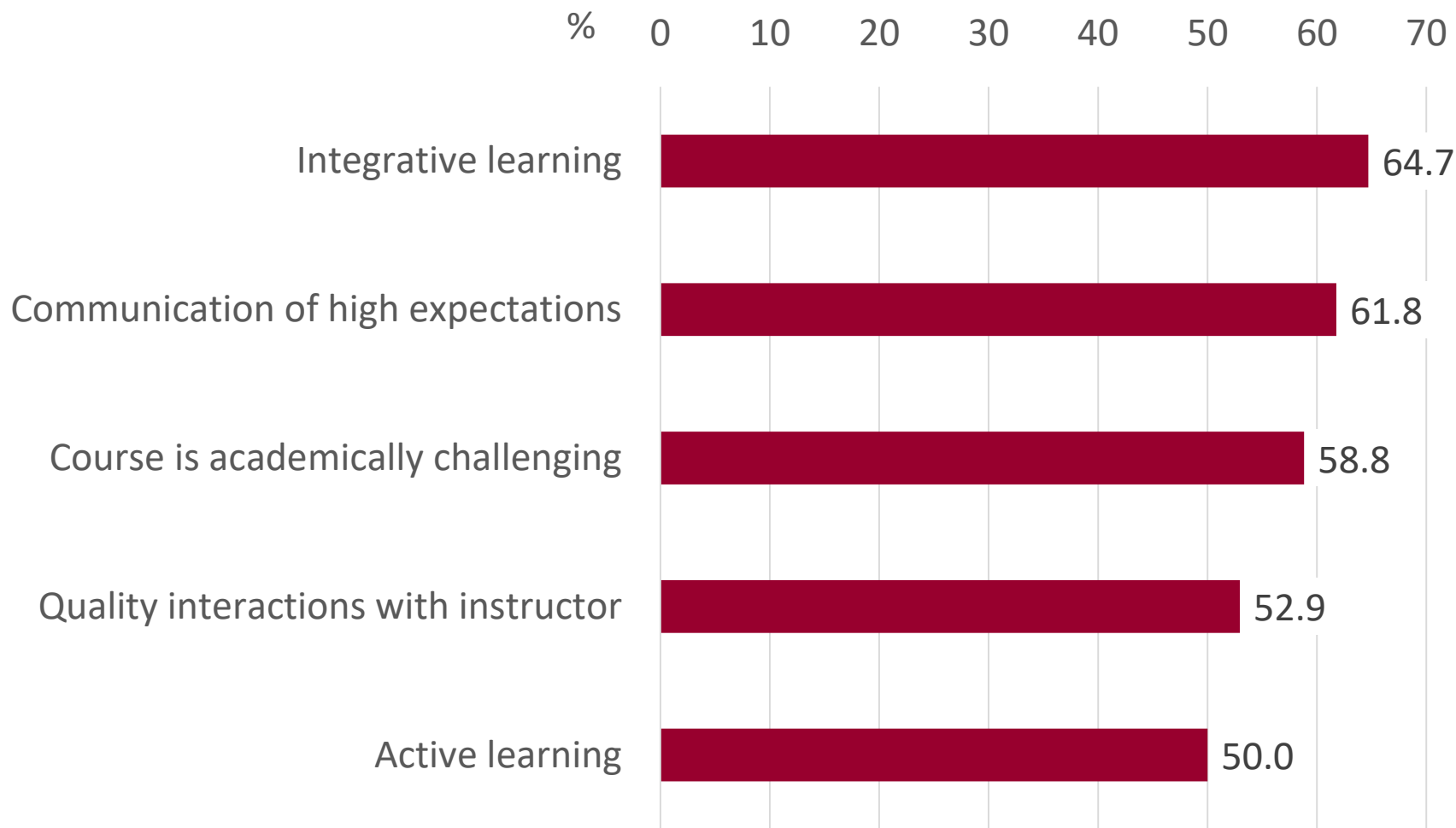
Takeaway #4:

To fully understand senior capstones and culminating experiences, we must disaggregate the data by discipline, major, school, and/or area of study.

www.sc.edu/fye

Most Common Capstone by Field of Study

Field of Study	Type of Capstone
Arts and Humanities	Exhibition of performing, musical, or visual arts
Biological Sciences, Agriculture, and Natural Resources	Department or discipline-based course
Physical Sciences, Mathematics, and Computer Science	Department or discipline-based course
Social Sciences	Department or discipline-based course
Business	Department or discipline-based course
Communications, Media, and Public Relations	Department or discipline-based course
Education	Supervised practice - student teaching
Engineering	Department or discipline-based course
Health Professions	Certification or professional licensure exam
Social Service Professions	Internship

Most Common Field of Study by Capstone Experience

Type of Capstone	Field of Study
Department or discipline-based course	Arts and Humanities
Capstone course - other	Arts and Humanities
Exam - comprehensive	Physical Sciences, Mathematics, and Computer Science
Certification or professional licensure exam	Health Professions
Exhibition of performing, musical, or visual arts	Arts and Humanities
Senior integrative portfolio	Arts and Humanities
Senior integrative or applied learning project	Arts and Humanities, Business
Senior thesis or independent research paper	Arts and Humanities
Service-learning or community-based learning project	Social Sciences
Supervised practice - internship	Business
Supervised practice - student teaching	Education
Supervised practice - other	Health Professions

Connecting Capstone Type to Curriculum: Specificity

- 95.7% of institutions with arts performances or exhibitions offered to majors in arts and humanities

  – Second-most frequent major: communications, media, and public relations (16.0%)

- 97.9% of institutions offering student teaching did so in education

  – Second largest group: Arts and humanities (12.3%)

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA

www.sc.edu/fye

Connecting Capstone Type to Curriculum: Mass Appeal

- Internships
  - 2/3 reported offering to students in business
  - At least 1/3 offered to students in all other areas of study but engineering and physical sciences

- Discipline-based courses
  - 82.4% offered in arts and humanities
  - At least ½ used them in all other areas but social services and engineering

Top 10 Campus-wide Objectives for Seniors

Objective	%
Career preparation	71.1
Employment or job placement	62.6
Graduation	61.3
Graduate or professional school enrollment	50.5
Critical-thinking skills	43.3
Preparation for graduate school	39.7
Writing skills	37.0
Alumni/ae support	36.4
Leadership development	35.1
Student satisfaction	34.8

Takeaway #5:

Capstone experiences are present at two-year colleges.

2011 National Survey of Senior Capstone Experiences
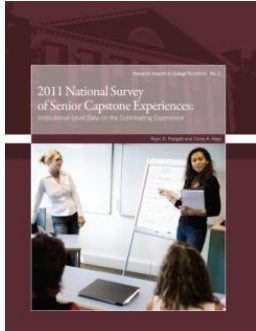
"The 2011 NSSCE demonstrated that capstone experiences were offered at two-year colleges. The results from **the previous survey found the presence of capstones at nearly two thirds of responding two-year campuses**. Two-year colleges offered a variety of culminating experiences; however, **discipline-based courses were offered by a majority of institutions**."
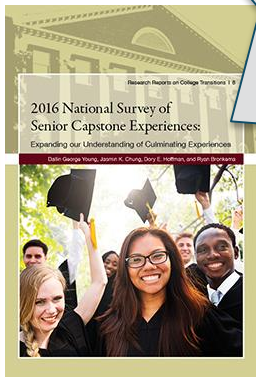
NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
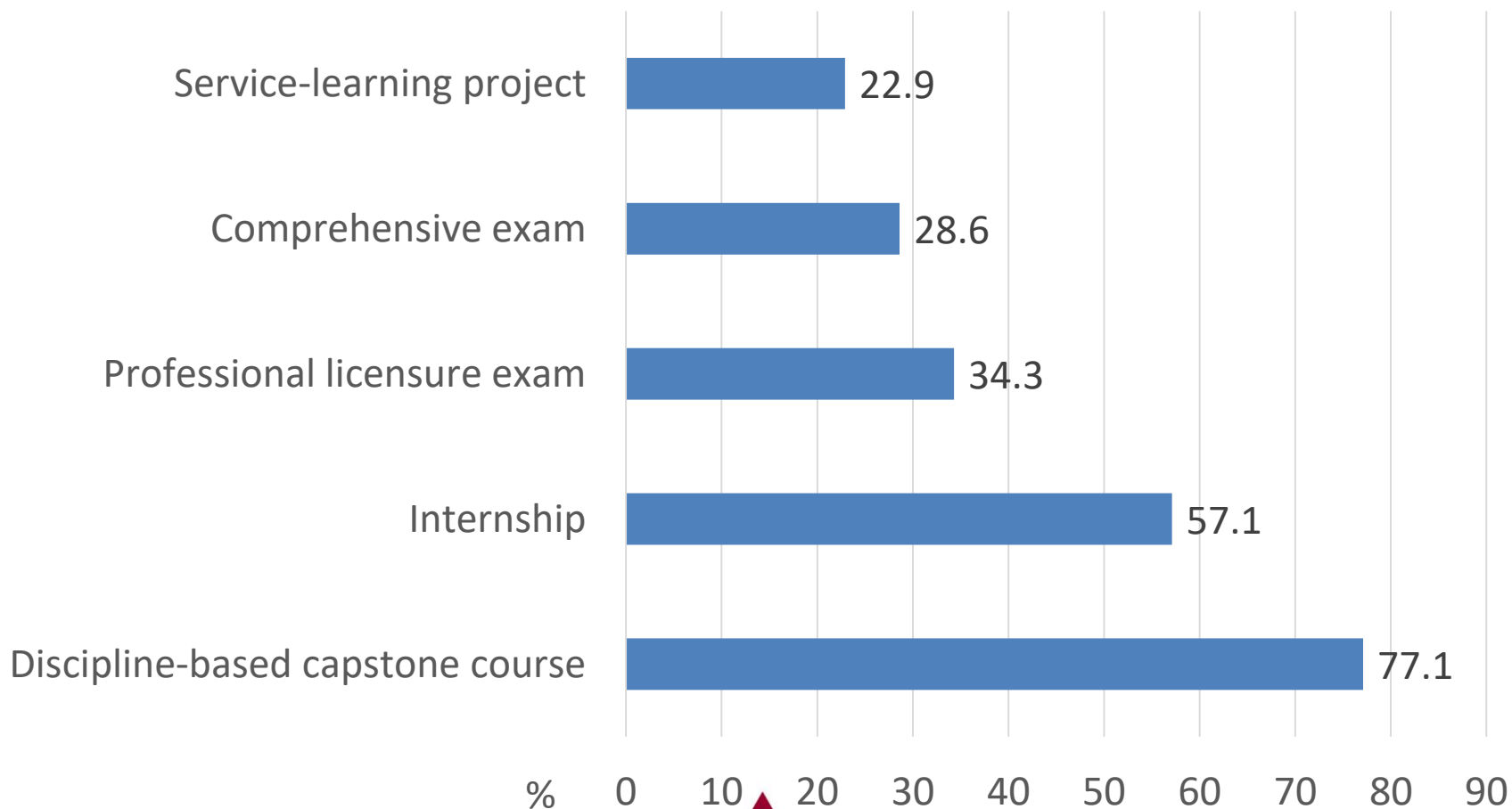UNIVERSITY OF SOUTH CAROLINA

Capstones at 2-Year Campuses

- 61.4% of 2-year campuses in the sample offered at least one capstone experience on campus
- Reach fewer students: half of respondents indicated that < 30% of students participated
- Most common objectives:
  - Career preparation (42.9%)
  - Critical-thinking skills (34.3%)
  - Integrative and applied learning (28.6%)
  - Academic skills (22.9%)
  - Analytical/inquiry-based skills (22.9%)
  - Professional certification (22.9%)

Capstones at 2-Year Campuses

- 61.4% of 2-year campuses in the sample offered at least one capstone experience on campus
- Reach fewer students: half of respondents indicated that < 30% of students participated
- Most common objectives:
  - Career preparation (42.9%)
  - Critical-thinking skills (34.3%)
  - Integrative and applied learning (28.6%)
  - Academic skills (22.9%)
  - Analytical/inquiry-based skills (22.9%)
  - Professional certification (22.9%)

Transfer

Think, plan, do.
"Thought is action in rehearsal."
Sigmund Freud

Section 4:

IMPLICATIONS AND APPLICATION

Concluding Thoughts

- We need to expand our definition of "capstones" to include a variety of culminating experiences, which may attract a wider diversity of students

- Capstones are no longer the domain of one program or even one institutional type

- We have incredible potential to be more intentional in recognizing, offering, and engaging students in a wide range of capstone experiences

- Capstones do appear to be HIP

- Others?

NATIONAL RESOURCE CENTER
FIRST-YEAR EXPERIENCE® AND STUDENTS IN TRANSITION
UNIVERSITY OF SOUTH CAROLINA