

Effective Educational Practices and Essential Learning Outcomes in General Education Courses

Differences by Discipline



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Overview

- Essential learning outcomes (ELOs) and the college curriculum
- Comparing faculty teaching general education courses (GECs) and those teaching non-GECs by disciplinary area
- Questions for you and your campus
- Discussion



A National Imperative

- While there is a clamoring about access to, affordability of, and accountability for U.S. higher education...
- Example: Secretary Spelling's Commission on the Future of Higher Education

**“...there has been a near-total
public silence about what
contemporary college
graduates need to know and
be able to do”**

AAC&U, College Learning for the New Global Century, p. 7

**“This public silence about
what matters in college is
dangerous”**

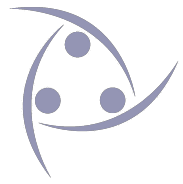
AAC&U, College Learning for the New Global Century, p. 8



Essential Learning Outcomes

- Fortunately, consensus is emerging within higher education as to the essential learning outcomes (ELOs) for the 21st century

- See the following AAC&U reports
 - College Learning for the New Global Century (2007)
 - Liberal Education Outcomes: A Preliminary Report on Achievement in College (2005)
 - Taking Responsibility for the Quality of the Baccalaureate Degree (2004)
 - Greater Expectations: A New Vision for Learning as a Nation Goes to College (2002)



Knowledge...

- ...of human cultures and the physical and natural world
- Through study in the sciences and mathematics, social sciences, humanities, histories, languages and the arts

Focused by engagement with big questions,
both contemporary and enduring



Intellectual & Practical Skills

■ Including

- Inquiry & analysis
- Critical & creative thinking
- Written & oral communication
- Quantitative literacy
- Information literacy
- Teamwork & problem solving

Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance



Personal & Social Responsibility

■ Including

- Civic knowledge & engagement--local & global
- Intercultural knowledge & competence
- Ethical reasoning & action
- Foundations & skills for lifelong learning

Anchored through active involvement with diverse communities and real-world challenges



Integrative Learning

■ Including

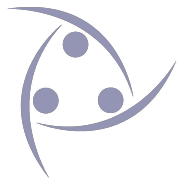
- Synthesis and advanced accomplishment across general and specialized studies and the arts

Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems



Organizing the Curriculum

- American curricular models
 - **No choice** – all students takes the same courses
 - **Free choice** – course selection is dictated by a student's preferences
 - **Mixed choice** – choices limited by categories and rules



Implications for Liberal Ed

- **No choice** – the curriculum was set and assumed to produce liberal learning
- **Free choice** – student control leads to concern for the complete loss of a coherent liberal education
- **Mixed choice** – general education is seen as the part of the curriculum responsible for liberal learning, but does liberal learning then take a back seat in the major?



Curricular Shift

20th Century

21st Century

Liberal education

A set of courses

A set of outcomes

What to worry about

Taking the right courses

Promoting the right outcomes

Registration

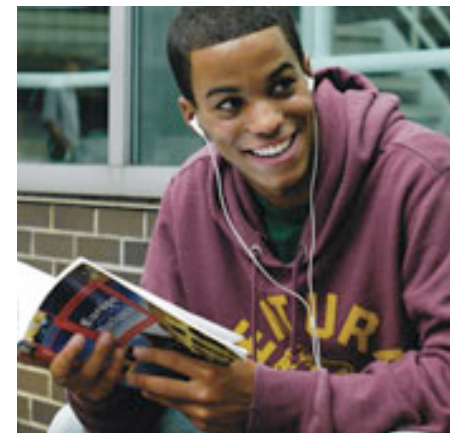
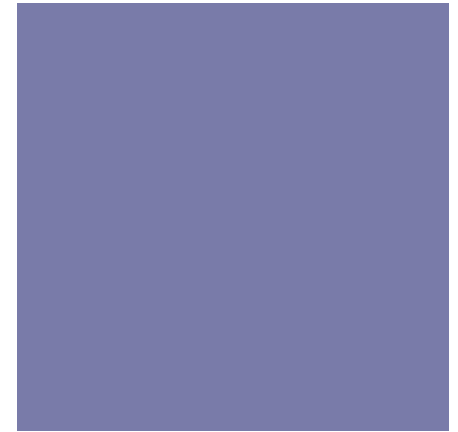
Teaching & learning

Control over learning

Greater faculty responsibility

Greater student responsibility

Findings from the Faculty Survey of Student Engagement





Faculty Survey of Student Engagement

- **A companion survey to the National Survey of Student Engagement (NSSE) started in 2003**
- **Administered each spring to faculty teaching undergraduate courses across the country to assess faculty practices, emphases, and observations**
- **Used to bring faculty into the conversation about student engagement and to inform the improvement of undergraduate education**
- **Almost 100,000 faculty members from more than 465 colleges and universities have responded to the survey**



Past Research Suggests...

- GECs place greater emphasis on
 - Intellectual skills
 - Individual and social responsibility
 - Deep approaches to learning
- Non-GECs place greater emphasis on
 - Practical skills
- Faculty emphasis on these outcomes and practices varies by disciplinary area



Purpose

- **To understand how the gaps between GECs and non-GECs vary by disciplinary area**



For this study...

- Over 8,000 faculty from 100 U.S. baccalaureate degree-granting institutions
- Faculty responded about a particular course taught during the current academic term (course-based survey)
- Sample characteristics
 - 44% women
 - 76% White
 - 85% full-time
 - median course load=5
 - Approx equal representation by rank
 - Median year taught=14
 - 60% taught upper div
 - 27% at private inst
 - **50% taught GEC**



Categorizing Disciplines

- Biglan's (1973) categorization is used to group disciplinary areas
 - Hard v Soft
 - Pure v Applied
 - Life v Non-Life
- 8 resulting categories
 - Hard-Pure-Life (biology)
 - Hard-Pure-Non-Life (chemistry)
 - Hard-Applied-Life (agriculture)
 - Hard-Applied-Non-Life (eng)
 - Soft-Pure-Life (sociology)
 - Soft-Pure-Non-Life (history)
 - Soft-Applied-Life (educ)
 - Soft-Applied-Non-Life (bus)

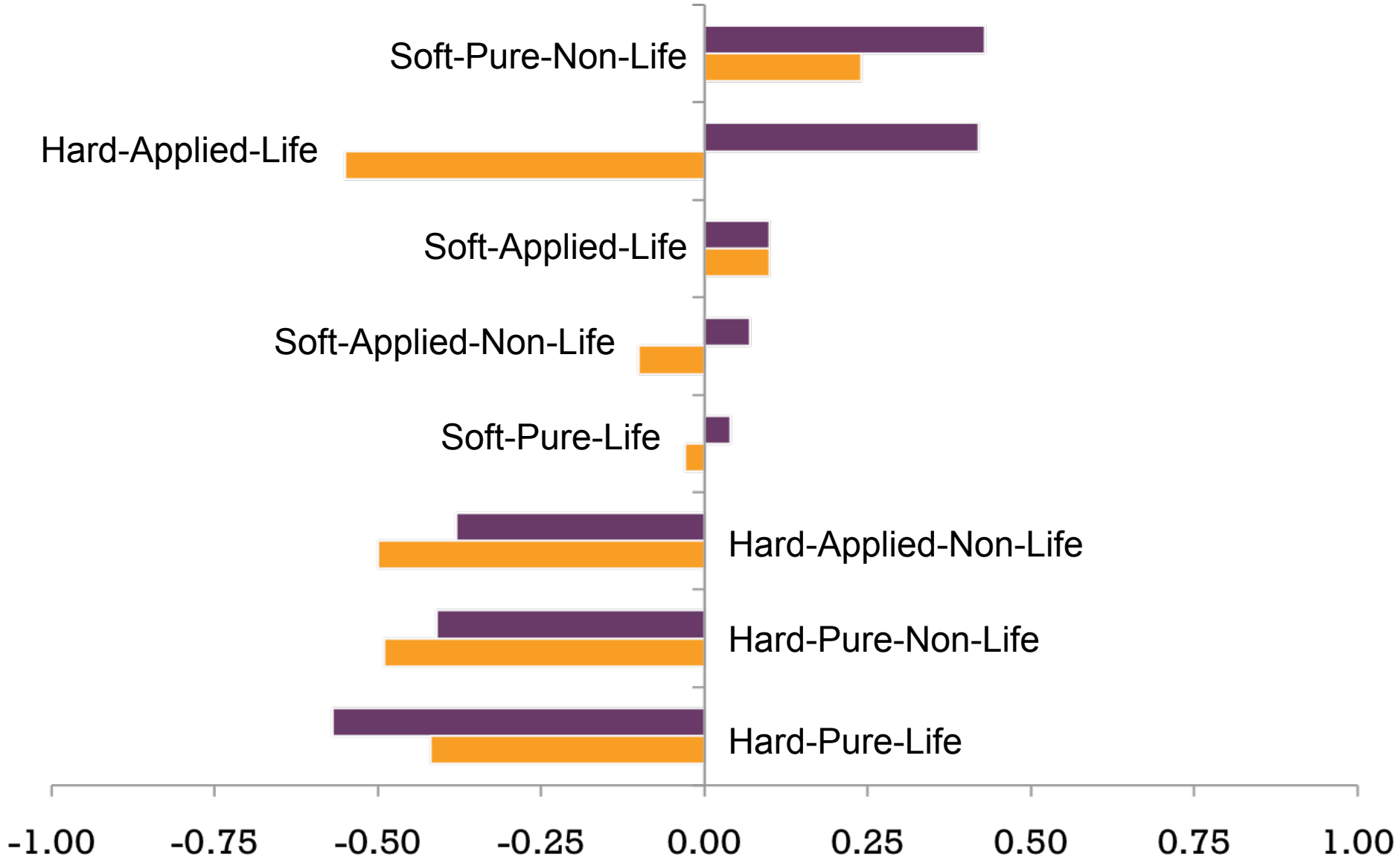


Measures

- Intellectual skills ($\alpha = 0.60$)
- Practical skills ($\alpha = 0.63$)
- Individual & social responsibility ($\alpha = 0.82$)
- Emphasis on deep approaches to learning ($\alpha = 0.75$)

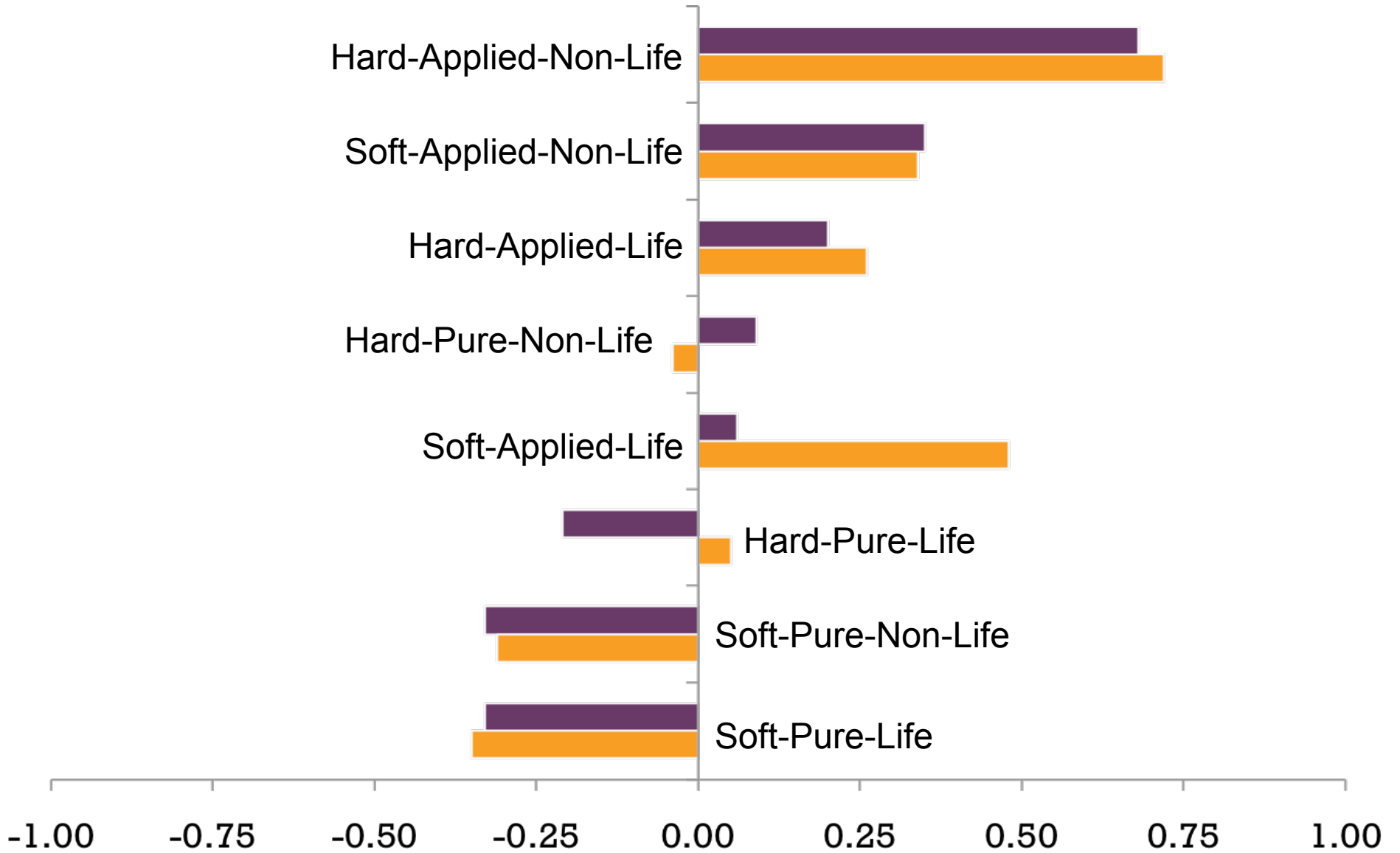
INTELLECTUAL SKILLS

■ GEC ■ non-GEC



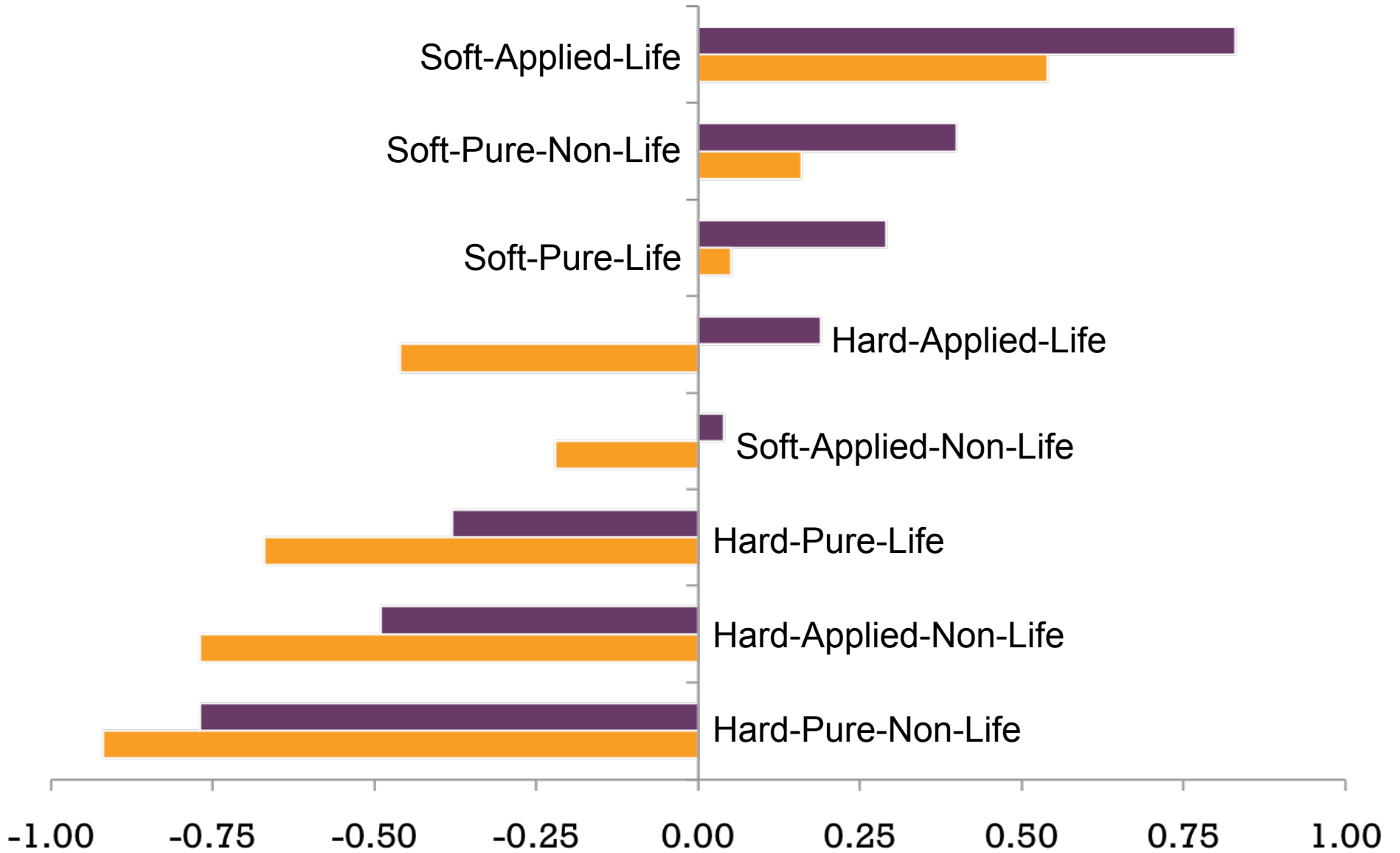
PRACTICAL SKILLS

■ GEC ■ non-GEC



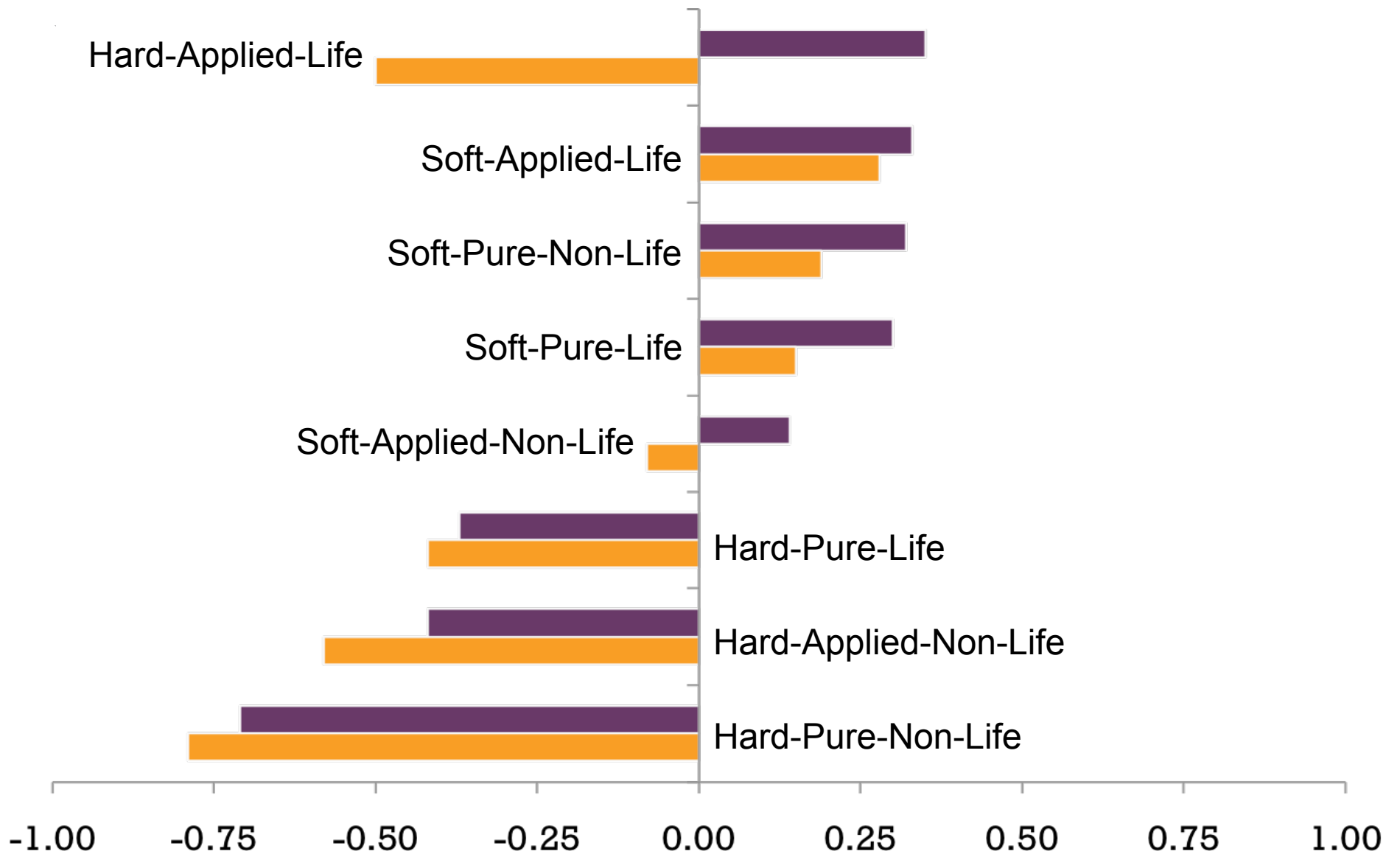
INDIVIDUAL & SOCIAL RESPONSIBILITY

■ GEC ■ non-GEC



DEEP APPROACHES TO LEARNING

■ GEC ■ non-GEC





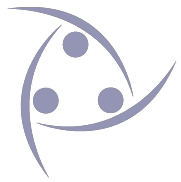
Implications

- Room for greater emphasis on all essential learning outcomes in courses across course type and field
- Differences between GECs and non-GEC depend on discipline
- Results can help feed campus conversations about what outcomes and practices should be emphasized in each part of the curriculum
- Raises questions about how and whether to approach promoting essential learning outcomes across the curriculum



Campus Questions

- How are essential learning outcomes (ELOs) and good educational practices defined across campus?
- How is the curriculum structured to achieve these outcomes? How should different parts of the curriculum work together to promote certain outcomes (e.g. integrative learning)?
- How are faculty from across disciplinary areas involved in conversations about promoting ELOs? How are faculty changing their teaching to promote ELOs?
- How are assessment initiatives informing dialogue about ELOs on your campus?



Questions for You

- Thinking about your own discipline, do you think these outcomes and practices are sufficiently emphasized in general education courses? In non-general education courses?
- What do you make of the differences between disciplinary clusters in their emphasis on these practices and outcomes?
- Should the gaps between course types and disciplines be cause for concern? If so, what should be done?



For more information...

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