Table 2. High Impact Practices: Outcomes, Variables, and Research Issues

HIGH IMPACT PRACTICE	General Outcomes	1	Outcomes for Underserved Students		Moderating Variables	1	Research Issues
Learning Communities	<ul> <li>Higher grades</li> <li>Higher persistence rates</li> <li>Ease college transition</li> <li>Higher levels of academic engagement</li> <li>Greater interaction with faculty and peers</li> <li>Perception of campus as more supportive</li> <li>Self-report of critical thinking gains</li> <li>Gains for intellectual development</li> <li>Higher levels of integrative thinking</li> <li>Greater appreciation for diversity/different viewpoints</li> <li>Higher rate of civic engagement</li> </ul>		Higher grades Higher persistence rates Ease college transition Greater interaction with faculty and peers Helps build identity as learner/ recognize academic potential Sense of belonging Gains for intellectual development		Variability of LC fonnulation/type (residential, non-residential, linked courses, etc.) Degree of student and faculty interaction Classroom environment (positive, negative. mixed)	•	Predominance of single- institution studies Variability of LC fonnulation/type Lack of comparison group data across LC type Short-tenn nature of most research Reliance on self-report data Examination of outcomes for specific populations rare
Service-Learning	<ul> <li>Higher grades</li> <li>Higher persistence rates</li> <li>Academic gains (including applying course learning)</li> <li>Higher levels of academic engagement</li> <li>Increases in critical thinking and writing skills</li> <li>Greater interaction with faculty</li> <li>Greater levels of civic behavior, social responsibility, social justice, and sense of self-efficacy</li> <li>Gains in moral reasoning</li> <li>Greater tolerance and reduced stereotyping</li> <li>Greater commitment to service-oriented career</li> </ul>		Increased retention rates Better academic perfonnance (grades) Positive changes in civic attitudes Negative experiences/ isolation due to orientation of service experience	•	Characteristics of service experience (type, hours. contact, supervision) Characteristics of learning experience (reflection, faculty connection of material with service experience)	•	Self-selection bias Short-tenn nature of most research Lack of involvement in service-learning experiences by underserved students Lack of research on experiences of underserved students

HIGH IMPACT PRACTICE	General Outcomes	Outcomes for Underserved Students	Moderating Variables	Research Issues
Undergraduate Research	<ul> <li>Higher rate of persistence</li> <li>Higher rate of graduate school enrollment</li> <li>Improvement in research skills</li> <li>Increased interaction with faculty and peers</li> <li>Gains in problem-solving and critical thinking</li> <li>Greater satisfaction with educational experience</li> </ul>	<ul> <li>Higher rate of persistence</li> <li>Higher rate of graduate school emo liment</li> <li>Findings mostly limited to studies of UROP/SROP students</li> </ul>	<ul> <li>Role of faculty mentor</li> <li>Quality of mentoring relationship</li> </ul>	<ul> <li>Lack of empirical studies (vs. program descriptions)</li> <li>Selection bias (promising students often selected for UR opportunities)</li> <li>Impact of mediating variables unknown</li> <li>Lack of research on outcomes beyond retention and graduate school enrollment</li> </ul>
First-Year Seminars	<ul> <li>Higher rate of persistence</li> <li>Higher graduation rate</li> <li>Short-tenn positive effect on grade point average</li> <li>Gains in commitment to social justice/multicultural awareness</li> <li>Greater academic and campus engagement</li> <li>Greater faculty and peer interaction</li> </ul>	Some evidence for short-tenn increase in grades and persistence rates	<ul><li>FYS type</li><li>Course content</li><li>Contact horns</li></ul>	<ul> <li>Predominance of single-institution studies</li> <li>Variability of FYS fonnulation/type</li> <li>Lack of comparison group data</li> <li>Short-tenn nature of most research</li> <li>Outcomes limited to persistence and grades</li> <li>Examination of outcomes for specific populations rare</li> </ul>
Capstone Courses & Projects	Limited evidence for applying and integrating knowledge	• Not found	Not found	<ul> <li>Lack of empirical studies on outcomes (for any population)</li> <li>Impact of mediating variables unknown</li> </ul>