Figure 5
Examples of Direct and Indirect Measures of Student Learning (Course, Program, and Institutional Levels)

	Direct Measures	Indirect Measures
	* Course and homework assignments	★ Course evaluations
Course	* Examinations and quizzes	* Test blueprints (outlines of the concepts and
	★ Standardized tests	skills covered on tests)
	* Term papers and reports	★ Percent of class time spent in active learning
	* Observations of field work, internship performance, service learning, or clinical	★ Number of student hours spent on service learning
	experiences	* Number of student hours spent on homework
	★ Research projects	* Number of student hours spent at intellectual or
	★ Class discussion participation	cultural activities related to the course
	★ Case study analysis	* Grades that are not based on explicit criteria related to clear learning goals
	★ Rubric (a criterion-based rating scale) scores for writing, oral presentations, and performances	
	* Artistic performances and products	
	★ Grades that are based on explicit criteria related to clear learning goals	
Program	Capstone projects, senior theses, exhibits, or performances Pass rates or scores on licensure, certification, or subject area tests Student publications or conference presentations Employer and internship supervisor ratings of students' performance	Focus group interviews with students, faculty members, or employers Registration or course enrollment information Department or program review data Job placement Employer or alumni surveys Student perception surveys Proportion of upper-level courses compared to the same program at other institutions Graduate school placement rates
Institutional	* Performance on tests of writing, critical thinking, or general knowledge * Rubric (criterion-based rating scale) scores for class assignments in General Education, interdisciplinary core courses, or other courses required of all students * Performance on achievement tests * Explicit self-reflections on what students have learned related to institutional programs such as service learning (e.g., asking students to name the three most important things they have learned in a program).	Locally-developed, commercial, or national surveys of student perceptions or self-report of activities (e.g., National Survey of Student Engagement) Transcript studies that examine patterns and trends of course selection and grading Annual reports including institutional benchmarks, such as graduation and retention rates, grade point averages of graduates, etc.