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

<table>
<thead>
<tr>
<th>Course</th>
<th>Direct Measures</th>
<th>Indirect Measures</th>
</tr>
</thead>
</table>
| * Course and homework assignments  
* Examinations and quizzes  
* Standardized tests  
* Term papers and reports  
* Observations of field work, internship performance, service learning, or clinical  
* Research projects  
* Class discussion participation  
* Case study analysis  
* 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 | * Course evaluations  
* Test blueprints (outlines of the concepts and skills covered on tests)  
* Percent of class time spent in active learning  
* Number of student hours spent on service learning  
* Number of student hours spent on homework  
* Number of student hours spent at intellectual or cultural activities related to the course  
* Grades that are not based on explicit criteria related to clear learning goals |

<table>
<thead>
<tr>
<th>Program</th>
<th>Direct Measures</th>
<th>Indirect Measures</th>
</tr>
</thead>
</table>
| * 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 |

<table>
<thead>
<tr>
<th>Institutional</th>
<th>Direct Measures</th>
<th>Indirect Measures</th>
</tr>
</thead>
</table>
| * 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  
* 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 | * 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. |