This study examined salary data for 2,535 college faculty in the field of geological and related studies for both public and private institutions for the years 1995-1996 and 1998-1999. The study reflects data obtained from the 279 public and 386 private institutions that participated in both study years. The study found that the average faculty salary in the field of geological and related studies for public institutions was 4.8 percent higher than the average salary for faculty in all major fields in 1995-1996 and 4.0 percent higher than the average salary for faculty in all major fields in 1998-1999. It also found that the average faculty salary for private institutions was 18.3 percent higher than the average salary for faculty in all major fields in 1995-1996 and 15.9 percent higher than the average salary for faculty in all major fields in 1998-1999. For the study period, faculty in public and private institutions received average annual salary increases of 0.8 percent and 1.2 percent, respectively, above the cost of living (as reflected by the Consumer Price Index). Three appendixes provide a list of disciplines and participating institutions. (MDM)
Since 1982-83 the College and University Personnel Association (CUPA) in Washington, DC, in cooperation with Appalachian State University in Boone, NC, have conducted annual national faculty salary surveys by discipline and rank each year through 1998-99. Two separate surveys are conducted each year, one for public senior colleges and universities and the other for private senior colleges and universities.

Salary data from the 1995-96 and 1998-99 surveys were collected and tabulated for full-time teaching faculty in 53 selected academic disciplines/major fields chosen from among those defined by A Classification of Instructional Programs, 1990.

Each of the 53 academic disciplines/major fields presents a summary of the overall average salary increase in that academic discipline/major field from the “baseline year” of 1995-96 to and including the “trend year” of 1998-99 for both public and private participating institutions. Of the 329 public institutions which participated in CUPA’s public survey of 1995-96, 279 also participated in the 1998-99 survey. Data from those same 279 institutions were used in both the baseline year and the trend year studies. Of the 530 institutions which participated in CUPA’s private survey of 1995-96, 386 also participated in the 1998-99 survey. Data from those same 386 institutions were used in both the baseline year and the trend year.

In addition to listing the average salaries in Geological and Related Studies for both public and private participating institutions by rank, including “new assistant professor,” and listing the faculty mix percentage (FAC MIX PCT) and the salary factor, comparisons are made between the two public surveys and the two private surveys for each of the two study years (1995-96 and 1998-99) and with the CPI (Consumer Price index) of changes in cost-of-living.

The list of all 53 selected academic disciplines/major fields surveyed, including Geological and Related Studies, is found in appendix A, and the lists of all participating senior colleges and universities are found in appendixes B (public) and C (private) of this article.
Since 1982-83 the College and University Personnel Association (CUPA) in Washington, D.C., in cooperation with Appalachian State University in Boone, North Carolina, has conducted two annual national faculty salary studies by discipline and rank through 1998-99: one for public senior colleges and universities, and the other for private senior colleges and universities.

Salary data for each study were collected and tabulated for full-time teaching faculty in 53 selected academic disciplines/major fields chosen from among those defined by A Classification of Instructional Programs *(CIP), 1990, including Geological and Related Studies. The CIP defines the discipline/major field of Geological and Related Studies as,

A group of instructional programs that describes the natural history and physical properties of the earth.*


This article summarizes the overall average salary increases in the discipline/major field of Geological and Related Studies for both public and private institutions from the “baseline year” of 1995-96 to and including the “trend year” of 1998-99. Of the 329 institutions which participated in CUPA’s PUBLIC study of 1995-96, 279 also participated in 1998-99. Data from those same 279 institutions were used in both the baseline year and the trend year. Of the 530 institutions which participated in CUPA’s PRIVATE study of 1995-96, 386 also participated in 1998-99. Data from those same 386 institutions were used in both the baseline year and the trend year.
This article lists the average salaries for the discipline/major field of Geological and Related Studies for both public and private participating institutions by rank, including NEW ASST PROF (new assistant professor), the FAC MIX PCT (faculty mix percentage), and the SALARY FACTOR. Comparisons are also made using the CPI’s (Consumer Price Index) changes in cost-of-living between the two studies for each of the two study years (1995-96 and 1998-99).

The CPI uses a base period of 1982-84 and measures/tabulates prices of food, clothing, shelter and fuels, transportation, medical care, entertainment and other goods and services people buy for day-to-day living. When examining trends in faculty salary, it is important to consider any changes in the purchasing power of salaries due to inflation. Comparing changes in the faculty salaries with the CPI gives one a more precise view of what “real” salary increases are, that is, buying power.

The salary is based on a nine- or 10-month academic year salary of full-time faculty, and does not include any faculty teaching less than 51 percent. Salary for summer academic work, fringe benefits, and perquisites are also not included in the salary data. The average salary is based on the study information with the assumption that all employees are full-time. The average salary displayed is an average of all faculty salaries reported for a given rank and discipline.

“NUM” refers to the number of faculty members whose salaries were included to compute the average salary.

“N/IN” refers to the number of institutions that reported salary data for a given academic rank and discipline/major field.

The FAC MIX PCT represents the percentage of faculty in a given discipline/major field who hold a given academic rank. For example, a FAC MIX PCT factor of 28.1 for associate professors of Geological and Related Studies in the 1995-96 public study means that 28.1 percent of the fac
ulty in that discipline/major field held the rank of associate professor.

The SALARY FACTOR for a given rank in a given discipline/major field represents the ratio of the average salary to the total average salary of all institutions in each of the four studies: PUBLIC 1995-96, PUBLIC 1998-99, PRIVATE 1995-96 and PRIVATE 1998-99. For example, a SALARY FACTOR of 0.97 for associate professors in the discipline/major field of Geological and Related Studies in the 1995-96 public study means that their average salary is three percent higher than the average salary for all associate professors in all institutions in that study.

NEW ASST PROF refers to the grouping of assistant professors hired for the first time in the fall of the study year (1995-96 or 1998-99). All information for this group was included in the ASST PROF group for reporting purposes.

ALL MAJOR FIELDS refers to the entire data base for all 53 disciplines/major fields in each of the four studies. Among other things, it is used to compare the discipline/major field of Geological and Related Studies with the entire data base for each study.

The reader will find the size of the sample on which each percentage or dollar value is based to be of particular importance. The smaller the number in the group, the greater the effect of extreme scores on a descriptive statistic such as the average. It should also be noted that any large disparity in the sample sizes between the “baseline year” of 1995-96 and the “trend year” of 1998-99 will lessen the reliability and validity of any conclusions that one might make based on a simple comparison of averages.
## DISCIPLINE: PHYSICAL SCIENCES

### PUBLIC. 1995-96:

<table>
<thead>
<tr>
<th>Major Field: Geological and Related Studies</th>
<th>AVERAGE</th>
<th>FAC MIX</th>
<th>Profit Factor</th>
<th>Prof</th>
<th>Assoc Prof</th>
<th>Asst Prof</th>
<th>New Asst Prof</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Salary: 60361</td>
<td>480</td>
<td>122</td>
<td>1.00</td>
<td>$45,901</td>
<td>$28,001</td>
<td>$30,000</td>
<td>$30,000</td>
<td>$31,000</td>
</tr>
<tr>
<td>PCT: 48.2%</td>
<td></td>
<td></td>
<td></td>
<td>$28,1%</td>
<td>$22.4%</td>
<td>$3.7%</td>
<td>$3.7%</td>
<td>$3.7%</td>
</tr>
<tr>
<td>Salary Factor: 1.00</td>
<td></td>
<td></td>
<td></td>
<td>0.97</td>
<td>0.97</td>
<td>0.99</td>
<td>0.99</td>
<td>0.96</td>
</tr>
</tbody>
</table>

**ALL MAJOR FIELDS**

<table>
<thead>
<tr>
<th>Average Salary: 60591</th>
<th>32113</th>
<th>279</th>
<th>35.4%</th>
<th>$47,365</th>
<th>$27,143</th>
<th>$27,329</th>
<th>$27,329</th>
<th>$27,329</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Factor: 29.9%</td>
<td></td>
<td></td>
<td></td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
</tr>
</tbody>
</table>

### PUBLIC. 1998-99:

<table>
<thead>
<tr>
<th>Major Field: Geological and Related Studies</th>
<th>Average Salary: 67149</th>
<th>FAC MIX</th>
<th>Profit Factor</th>
<th>Prof</th>
<th>Assoc Prof</th>
<th>Asst Prof</th>
<th>New Asst Prof</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Salary: 67352</td>
<td>472</td>
<td>127</td>
<td>46.0%</td>
<td>$50,280</td>
<td>$285</td>
<td>$111</td>
<td>$38,895</td>
<td>$41,092</td>
</tr>
<tr>
<td>PCT: 27.8%</td>
<td></td>
<td></td>
<td></td>
<td>$23.8%</td>
<td>$4.0%</td>
<td>$2.5%</td>
<td>$2.5%</td>
<td>$2.5%</td>
</tr>
<tr>
<td>Salary Factor: 0.96</td>
<td></td>
<td></td>
<td></td>
<td>0.98</td>
<td>0.95</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
</tr>
</tbody>
</table>

**ALL MAJOR FIELDS**

<table>
<thead>
<tr>
<th>Average Salary: 67342</th>
<th>31095</th>
<th>279</th>
<th>34.9%</th>
<th>$52,140</th>
<th>$26,937</th>
<th>$27,497</th>
<th>$27,497</th>
<th>$27,497</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Factor: 30.2%</td>
<td></td>
<td></td>
<td></td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
</tr>
</tbody>
</table>

### PRIVATE. 1995-96:

<table>
<thead>
<tr>
<th>Major Field: Geological and Related Studies</th>
<th>Average Salary: 67149</th>
<th>FAC MIX</th>
<th>Profit Factor</th>
<th>Prof</th>
<th>Assoc Prof</th>
<th>Asst Prof</th>
<th>New Asst Prof</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Salary: 67352</td>
<td>129</td>
<td>47</td>
<td>51.2%</td>
<td>$50,504</td>
<td>79</td>
<td>41</td>
<td>$39,633</td>
<td>$41,666</td>
</tr>
<tr>
<td>PCT: 31.3%</td>
<td></td>
<td></td>
<td></td>
<td>$16.3%</td>
<td>$1.6%</td>
<td>$1.2%</td>
<td>$1.2%</td>
<td>$1.2%</td>
</tr>
<tr>
<td>Salary Factor: 1.09</td>
<td></td>
<td></td>
<td></td>
<td>1.04</td>
<td>1.02</td>
<td>0.96</td>
<td>0.96</td>
<td>0.96</td>
</tr>
</tbody>
</table>

**ALL MAJOR FIELDS**

<table>
<thead>
<tr>
<th>Average Salary: 67342</th>
<th>14431</th>
<th>382</th>
<th>33.5%</th>
<th>$46,184</th>
<th>$13,559</th>
<th>$38,5</th>
<th>$38,5</th>
<th>$38,5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Factor: 31.4%</td>
<td></td>
<td></td>
<td></td>
<td>1.09</td>
<td>1.09</td>
<td>1.09</td>
<td>1.09</td>
<td>1.09</td>
</tr>
</tbody>
</table>

### PRIVATE. 1998-99:

<table>
<thead>
<tr>
<th>Major Field: Geological and Related Studies</th>
<th>Average Salary: 77009</th>
<th>FAC MIX</th>
<th>Profit Factor</th>
<th>Prof</th>
<th>Assoc Prof</th>
<th>Asst Prof</th>
<th>New Asst Prof</th>
<th>Instructor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Salary: 77009</td>
<td>137</td>
<td>45</td>
<td>52.7%</td>
<td>$52,799</td>
<td>63</td>
<td>38</td>
<td>$41,991</td>
<td>$40,354</td>
</tr>
<tr>
<td>PCT: 24.2%</td>
<td></td>
<td></td>
<td></td>
<td>$21.9%</td>
<td>$5.8%</td>
<td>$1.2%</td>
<td>$1.2%</td>
<td>$1.2%</td>
</tr>
<tr>
<td>Salary Factor: 1.09</td>
<td></td>
<td></td>
<td></td>
<td>1.03</td>
<td>1.01</td>
<td>0.94</td>
<td>0.94</td>
<td>0.94</td>
</tr>
</tbody>
</table>

**ALL MAJOR FIELDS**

<table>
<thead>
<tr>
<th>Average Salary: 70365</th>
<th>15405</th>
<th>383</th>
<th>34.4%</th>
<th>$51,127</th>
<th>$14,285</th>
<th>$38,6</th>
<th>$38,6</th>
<th>$38,6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary Factor: 31.9%</td>
<td></td>
<td></td>
<td></td>
<td>0.97</td>
<td>0.97</td>
<td>0.97</td>
<td>0.97</td>
<td>0.97</td>
</tr>
</tbody>
</table>

In the PUBLIC 1995-96 study in the above table, the discipline/major field of Geological and Related Studies was reported in 147 of the 279 public institutions. The average salary of the 996 faculty was $50,870. This average salary was approximately 4.8 percent higher than the average salary of $48,543 for all 90,660 faculty in ALL MAJOR FIELDS in the same 1995-96 public study.

For the PUBLIC 1998-99 salary study in the above table, Geological and Related Studies was reported in 154 of the same 279 public institutions. The average salary of the 1,027 faculty was $55,500. This average salary was approximately 4.0 percent higher than the average salary of $53,370 for all 89,174 faculty in ALL MAJOR FIELDS in the 1998-99 public study.

The three-year increase in average salaries for all faculty in the discipline/major field of Geological and Related Studies in the public institutions studied was 9.1 percent ($55,500 minus $50,870 equals $4,630). The CPI of increase cost-of-living between October 1995 and October 1998 was 6.7 percent. In comparison, with the CPI, there was a relative increase in Geological and Related Studies average faculty salaries over the three-year period by 2.4 percent or an average of 0.8 percent each year above the cost-of-living.

The increase in average salaries for all faculty in ALL MAJOR FIELDS over three years in the public institutions studied was 9.9 percent ($53,370 minus $48,543 equals $4,827). In comparison to the discipline/major field of Geological and Related Studies (9.1%), the faculty in ALL MAJOR FIELDS received a relative increase in their salaries of 0.8 percent more than the faculty in the discipline/major field of Geological and Related Studies.

In the 1995-96 study the faculty mix percentage in Geological and Related Studies is higher at the professor rank than at the assistant professor rank: 48.2 percent vs. 22.4 percent; in the 1998-99 study it is 46.0 percent vs. 23.8 percent. The differences in faculty mix percentage at the ranks
of professor and assistant professors in ALL MAJOR FIELDS for both public studies are 35.4 percent vs. 28.1 percent (1995-96) and 34.9 percent vs. 27.9 percent (1998-99).

Finally, the hiring rate of new assistant professors in Geological and Related Studies in the public studies was lower than the hiring rate of ALL MAJOR FIELDS in 1995-96, 3.7 percent (37/996) vs 4.6 percent (4,205/90,660) and lower in 1998-99, 4.0 percent (41/1,027) vs. 4.9 percent (4,386/89,174).


The PRIVATE 1995-96 salary study in the above table indicates that the discipline/major field of Geological and Related Studies was reported in 67 of the 386 private institutions. The average salary of the 252 faculty was $57,111, an average salary 18.3 percent higher than the average salary of $48,264 for all 43,114 faculty in ALL MAJOR FIELDS in the 1995-96 private study.

In the PRIVATE 1998-99 salary study in the above table, 68 of the same 386 private institutions reported Geological and Related Studies. The average salary of the 260 faculty was $62,953, an average salary 15.9 percent higher than the average salary of $54,316 for all 44,803 faculty in ALL MAJOR FIELDS in the 1998-99 private study.

The three-year increase in average salaries for all faculty in Geological and Related Studies in the private institutions studied was 10.2 percent ($62,953 minus $57,111 equals $5,842). The CPI increased cost-of-living between October 1995 and October 1998 was 6.7 percent. A more realistic increase, therefore, in the average faculty salaries of Geological and Related Studies over the three-year time period, is 3.5 percent or 1.2 percent each year above the cost-of-living.

The three-year increase in average salaries for all faculty in ALL MAJOR FIELDS in the private institutions studied was 12.5 percent ($54,316 minus $48,264 equals $6,052). In comparison
to Geological and Related Studies (10.2%), the faculty in ALL MAJOR FIELDS increased their salaries 2.3 percent more than faculty in Geological and Related Studies.

For both studies in the discipline/major field of Geological and Related Studies, the faculty mix percentage is higher at the professor rank in comparison to the assistant professor rank: 51.2 percent vs. 16.3 percent (1995-96); and 52.7 percent vs 21.9 percent, (1998-99). The differences in the ranks of professor and assistant professor in ALL MAJOR FIELDS for both private studies are 33.5 percent vs. 30.5 percent (1995-96) and 34.4 percent vs. 29.3 percent (1998-99).

Finally, the hiring rate for new assistant professors in Geological and Related Studies was lower than the hiring rate in ALL MAJOR FIELDS in the 1995-96 private study: 1.6 percent (4/252) vs. 4.7 percent (2,041/43,114) and higher in the 1998-99 private study: 5.8 percent (15/260) vs. 4.9 percent (2,178/44,803).

CONCLUSION

This article presents salary-trend information on the academic discipline/major field of Geological and Related Studies and compares that information with both ALL MAJOR FIELDS and the CPI over a period of three years, from the "baseline year" of 1995-96 through the "trend year" of 1998-99. Two studies—one for public institutions, and the other for private institutions—were conducted for the baseline year and for the trend year—a total of four studies. A total of 2,535 (1.0%) faculty in the discipline/major field of Geological and Related Studies participated and were included in the 53 disciplines/major fields in each of the four studies and in the overall total of 267,751 participating faculty. The same 279 public institutions and the same 386 private institutions in the United States participated in the baseline year and in the trend year.

Although the public and private studies data may be interpreted in a variety of ways, several
significant points are as follows. First, the average faculty salary factors in the discipline/major field of Geological and Related Studies for the 1995-96 public study was 5.0 percent higher than that of all ranks in ALL MAJOR FIELDS (1.00); and for the 1995-96 private study it was 4.0 percent higher than the average faculty salary factors for all ranks in ALL MAJOR FIELDS (1.00). In both the public and private studies the average faculty salary factors for all ranks in Geological and Related Studies in 1998-99 were 4.0 percent higher and 16.0 percent higher than the average salary factors for all ranks in ALL MAJOR FIELDS (1.00), respectively.

Second, the October 1998 CPI reflects an 6.7 percent increase over the October 1995 CPI and indicates that the faculty in Geological and Related Studies in the public institutions received an average annual salary increase of 0.8 percent above the cost-of-living. In the private institutions the annual average salary increase was 1.2 percent above the cost-of-living.

Third, in both the 1995-96 and 1998-99 public studies in Geological and Related Studies, the professor rank FAC MIX PCTs are higher than those for the assistant professor rank; and, in the 1995-96 and 1998-99 private studies the FAC MIX PCTS were higher at the professor rank than at the assistant professor rank, as well.

Finally, the hiring rate of new assistant professors in Geological and Related Studies in the 1995-96 and 1998-99 public studies and in the 1995-96 private study were lower than the hiring rate of ALL MAJOR FIELDS. However, in the hiring for new assistant professors in the 1998-99 private study was higher than the hiring rate for ALL MAJOR FIELDS.

Because a significant data base of average faculty salaries in the academic discipline/major field of Geological and Related Studies has now been developed, it is anticipated that this information will serve as a valuable reference and evaluation tool for interested administrators and professors.
Richard D. Howe is the originator and director of the annual CUPA faculty salary studies. He is a professor of leadership and educational studies at Appalachian State University, Boone, North Carolina.

APPENDICES:

A - OVERALL LIST OF SELECTED DISCIPLINES, page 10
B - LIST OF PUBLIC PARTICIPATING INSTITUTIONS, page 11
C - LIST OF PRIVATE PARTICIPATING INSTITUTIONS, page 14
APPENDIX A

OVERALL LIST OF SELECTED DISCIPLINES

ACCOUNTING
ADMINISTRATIVE ASSISTANT AND SECRETARIAL SERVICES
ANTHROPOLOGY
ARCHITECTURE AND RELATED PROGRAMS
AREA, ETHNIC, AND CULTURAL STUDIES
BIOLOGY, GENERAL
BUSINESS ADMINISTRATION AND MANAGEMENT
BUSINESS MANAGEMENT AND ADMINISTRATIVE SERVICES
BUSINESS/MANAGERIAL ECONOMICS
CHEMISTRY
COMMUNICATIONS
COMMUNICATIONS TECHNOLOGIES
COMPUTER AND INFORMATION SCIENCES
COUNSELOR EDUCATION/STUDENT COUNSELING AND GUIDANCE SERVICES
CRIMINAL JUSTICE AND CORRECTIONS
CURRICULUM AND INSTRUCTION
Drama/Theater Arts and Stagecraft
ECONOMICS
EDUCATION
EDUCATION ADMINISTRATION AND SUPERVISION
ENGINEERING, GENERAL
ENGINEERING-RELATED TECHNOLOGIES
ENGLISH LANGUAGE AND LITERATURE/LETTERS, GENERAL
ENTERPRISE MANAGEMENT AND OPERATION
FINE ARTS AND ART STUDIES
FOREIGN LANGUAGES AND LITERATURES
GEOGRAPHY
GEOLOGICAL AND RELATED STUDIES
HISTORY, GENERAL
HOME ECONOMICS, GENERAL
LIBRARY SCIENCE
MARKETING MANAGEMENT AND RESEARCH
MATHEMATICS
MULTI/INTERDISCIPLINARY STUDIES
MUSIC
NURSING (R.N. TRAINING)
OCCUPATIONAL THERAPY
PARKS, RECREATION AND LEISURE STUDIES
PHILOSOPHY AND RELIGION
PHYSICAL SCIENCES, GENERAL
PHYSICAL THERAPY
PHYSICS
POLITICAL SCIENCE AND GOVERNMENT
PSYCHOLOGY, GENERAL
PUBLIC HEALTH
READING TEACHER EDUCATION
SOCIAL SCIENCES, GENERAL
SOCIAL WORK
SOCIOLOGY
SPECIAL EDUCATION
SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY
TEACHER EDUCATION, SPECIFIC ACADEMIC AND VOCATIONAL PROGRAMS
VISUAL AND PERFORMING ARTS

TOTAL 53
APPENDIX B

Institutions Participating in Both Studies:

Alcorn State University (MS)
Angelo State University (TX)
Appalachian State University (NC)
Arizona State University-West (AZ)
Arkansas State University (AR)
Arkansas Tech University (AR)
Armstrong Atlantic State University (GA)
Auburn University-Montgomery (AL)
Augusta State University (GA)
Austin Peay State University (TN)
Ball State University (IN)
Bemidji State University (MN)
Black Hills State University (SD)
Bloomsburg University of Pennsylvania (PA)
Bluefield State College (WV)
Boise State University (ID)
Bowie State University (MD)
Bridgewater State College (MA)
California Polytechnic State University-San Luis Obispo (CA)
California State University-Los Angeles (CA)
California State University-Northridge (CA)
California State University-Stanislaus (CA)
Central Michigan University (MI)
Central Missouri State University (MO)
Central Washington University (WA)
Citadel, the Military College of South Carolina, The (SC)
City University of New York-Bernard M. Baruch College (NY)
Clarion University of Pennsylvania (PA)
Clayton College and State University (GA)
Clemson University (SC)
Cleveland State University (OH)
Clinch Valley College of the University of Virginia (VA)
Coastal Carolina University (SC)
College of Charleston (SC)
College of New Jersey, The (NJ)
College of William and Mary (VA)
Colorado School of Mines (CO)
Columbus State University (GA)
Dakota State University (SD)
Delta State University (MS)
East Carolina University (NC)
East Central University (OK)
East Tennessee State University (TN)
Eastern Illinois University (IL)
Eastern Kentucky University (KY)
Eastern Michigan University (MI)
Eastern New Mexico University Main Campus (NM)
Eastern Washington University (WA)
Edinboro University of Pennsylvania (PA)
Emporia State University (KS)
Fairmont State College (WV)
Ferris State University (MI)
Fitchburg State College (MA)
Florida International University (FL)
Fort Hays State University (KS)
Fort Lewis College (CO)
Francis Marion University (SC)
Frostburg State University (MD)
George Mason University (VA)
Georgia College & State University (GA)
Georgia Institute of Technology (GA)
Georgia Southern University (GA)
Georgia Southwestern State University (GA)
Georgia State University (GA)
Glenville State College (WV)
Grand Valley State University (MI)
Henderson State University (AR)
Idaho State University (ID)
Illinois State University (IL)
Indiana State University (IN)
Indiana University-Bloomington (IN)
Indiana University-East (IN)
Indiana University- Kokomo (IN)
Indiana University-Northwest (IN)
Indiana University-Purdue University Fort Wayne (IN)
Indiana University-Purdue University Indianapolis (IN)
Indiana University-South Bend (IN)
Indiana University-Southeast (IN)
Indiana University of Pennsylvania (PA)
Jacksonville State University (AL)
James Madison University (VA)
Keene State College (NH)
Kennesaw State University (GA)
Kent State University (OH)
Kutztown University of Pennsylvania (PA)
Lamar University-Beaumont (TX)
Lander University (SC)
Lock Haven University of Pennsylvania (PA)
Longwood College (VA)
Louisiana State University and A & M College (LA)
Louisiana State University-Shreveport (LA)
Louisiana Tech University (LA)
Marshall University (WV)
Massachusetts College of Liberal Arts (MA)
Mayville State University (ND)
McNeese State University (LA)
Mesa State College (CO)
Metropolitan State College of Denver (CO)
Metropolitan State University (MN)
Miami University (OH)
Middle Tennessee State University (TN)
Millersville University of Pennsylvania (PA)
Minot State University (ND)
Mississippi State University (MS)
Mississippi University for Women (MS)
Missouri Southern State College (MO)
Missouri Western State College (MO)
Montana State University-Billings (MT)
Montana State University-Bozeman (MT)
Montclair State University (NJ)
Moorhead State University (MN)
Morehead State University (KY)
Murray State University (KY)
Nicholls State University (LA)
North Carolina Central University (NC)
North Carolina State University-Raleigh (NC)
North Dakota State University Main Campus (ND)
North Georgia College and State University (GA)
Northeast Louisiana University (LA)
Northeastern Illinois University (IL)
Northeastern State University (OK)
Northern Arizona University (AZ)
Northern Kentucky University (KY)
Northern Michigan University (MI)
Northwest Missouri State University (MO)
Northern State University of Louisiana (LA)
Oakland University (MI)
Ohio State University Main Campus, The (OH)
Old Dominion University (VA)
Oregon Institute of Technology (OR)
Peru State College (NE)
Plymouth State College (NH)
Portland State University (OR)
Prairie View A & M University (TX)
Purdue University-Calumet (IN)
Radford University (VA)
Ramapo College of New Jersey (NJ)
Rhode Island College (RI)
Rowan University (NJ)
Rutgers, the State University of New Jersey (NJ)
Saginaw Valley State University (MI)
Saint Mary's College of Maryland (MD)
Salisbury State University (MD)
Sam Houston State University (TX)
Shippensburg University of Pennsylvania (PA)
Slippery Rock University of Pennsylvania (PA)
South Dakota School of Mines and Technology (SD)
South Dakota State University (SD)
Southeastern Louisiana University (LA)
Southeastern Oklahoma State University (OK)

Southern Arkansas University (AR)
Southern Illinois University-Carbondale (IL)
Southern Illinois University-Edwardsville (IL)
Southern Oregon University (OR)
Southern Polytechnic State University (GA)
Southern University and A & M College-Baton Rouge (LA)
Southern Utah University (UT)
Southwest Missouri State University-Springfield (MO)
Southwest State University (MN)
Southwest Texas State University (TX)
Southwestern Oklahoma State University (OK)
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State University of New York-Stony Brook (NY)
State University of New York College-Brockport (NY)
State University of New York College-Geneseo (NY)
State University of New York College-Oswego (NY)
State University of New York College-Potsdam (NY)
State University of West Georgia (GA)
Tarleton State University (TX)
Temple University (PA)
Tennessee State University (TN)
Tennessee Technological University (TN)
Texas A & M University-Commerce (TX)
Texas A & M University-Corpus Christi (TX)
Texas Tech University (TX)
Towson University (MD)
Truman State University (MO)
United States Naval Academy (MD)
University of Alabama-Huntsville (AL)
University of Alaska-Southeast (AK)
University of Arkansas-Little Rock (AR)
University of Central Arkansas (AR)
University of Central Florida-Orlando (FL)
University of Central Oklahoma (OK)
University of Colorado-Colorado Springs (CO)
University of Colorado-Denver (CO)
University of Delaware (DE)
University of Georgia (GA)
University of Houston (TX)
University of Houston-Clear Lake (TX)
University of Houston-Downtown (TX)
University of Houston-Victoria (TX)
University of Maine-Farmington (ME)
University of Maine-Fort Kent (ME)
University of Maine-Orono (ME)
University of Maine-Presque Isle (ME)
University of Maryland-Eastern Shore (MD)
University of Massachusetts-Amherst (MA)
University of Massachusetts-Boston (MA)
University of Massachusetts-Dartmouth (MA)
University of Memphis, The (TN)
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<td>Valdosta State University (GA)</td>
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</table>


APPENDIX C


Institutions Participating in Both Studies:

Abilene Christian University (TX)
Adrian College (MI)
Agnes Scott College (GA)
Albertson College (ID)
Albertus Magnus College (CT)
Albion College (MI)
Albright College (PA)
Alderson Broaddus College (WV)
Alfred University (NY)
Allegheny College (PA)
Allentown College of Saint Francis De Sales (PA)
Alma College (MI)
Alvernia College (PA)
Alverno College (WI)
American University, The (DC)
Amherst College (MA)
Anderson University (IN)
Anna Maria College (MA)
Ashland University (OH)
Assumption College (MA)
Aurora University (IL)
Averett College (VA)
Avila College (MO)
Azusa Pacific University (CA)
Babson College (MA)
Baldwin-Wallace College (OH)
Barat College (IL)
Barnard College (NY)
Barry University (FL)
Bastyr University (WA)
Baylor University (TX)
Beaver College (PA)
Bellarmine College (KY)
Belmont Abbey College (NC)
Belmont University (TN)
Benedict College (SC)
Bennett College (NC)
Bentley College (MA)
Berea College (KY)
Bethany College (KS)
Bethany College (WV)
Bethel College (IN)
Bethel College (KS)
Bethel College (MN)
Biola University (CA)
Birmingham-Southern College (AL)
Bluefield College (VA)
Bradley University (IL)
Brandeis University (MA)
Briar Cliff College (IA)
Brown University (RI)
Bryant College (RI)
Bryn Mawr College (PA)
Bucknell University (PA)
Buena Vista University (IA)
Butler University (IN)
Cabrini College (PA)
Caldwell College (NJ)
California Baptist University (CA)
Calvin College (MI)
Campbellsville University (KY)
Canisius College (NY)
Capitol College (MD)
Cardinal Stritch College (WI)
Carlow College (PA)
Carroll College (MT)
Case Western Reserve University (OH)
Catawba College (NC)
Catholic University of America, The (DC)
Cazenovia College (NY)
Cedarville College (OH)
Centenary College of Louisiana (LA)
Central Baptist College (AR)
Central College (IA)
Central Methodist College (MO)
Chapman University (CA)
Charleston Southern University (SC)
Christian Brothers University (TN)
Christian Heritage College (CA)
Cincinnati Bible College and Seminary (OH)
Claremont Graduate University (CA)
Clarke College (IA)
Clarkson College (NE)
Clarkson University (NY)
Clear Creek Baptist Bible College (KY)
Colby-Sawyer College (NH)
Colgate University (NY)
College Misericordia (PA)
College of Mount Saint Joseph (OH)
College of New Rochelle (NY)
College of Notre Dame of Maryland (MD)
College of Our Lady of the Elms (MA)
College of Saint Catherine (MN)
College of Saint Elizabeth (NJ)
College of Saint Mary (NE)
College of Saint Rose (NY)
College of Saint Scholastica (MN)
College of Santa Fe (NM)
College of the Southwest (NM)
Columbia International University (SC)
Concordia College-Moorhead (MN)
Concordia University (CA)
Concordia University-Wisconsin (WI)
Converse College (SC)
Cornerstone College and Grand Rapids Baptist Seminary (MI)
Covenant College (GA)
Creighton University (NE)
Culver-Stockton College (MO)
D'Youville College (NY)
Dakota Wesleyan University (SD)
Davidson College (NC)
Davis & Elkins College (WV)
Defiance College, The (OH)
DePaul University (IL)
Dickinson College (PA)
Doane College (NE)
Dominican College of Blauvelt (NY)
Dominican College of San Rafael (CA)
Dominican University (IL)
Drake University (IA)
Drury College (MO)
Duquesne University (PA)
Eastern Mennonite University (VA)
Eckerd College (FL)
Edgewood College (WI)
Elizabethtown College (PA)
Elon College (NC)
Emory-Riddle Aeronautical University (FL)
Emerson College (MA)
Emory University (GA)
Fairfield University (CT)
Fisk University (TN)
Florida Southern College (FL)
Fontbonne College (MO)
Franciscan University of Steubenville (OH)
Franklin College of Indiana (IN)
Freed-Hardeman University (TN)
Friends University (KS)
Gannon University (PA)
Gardner-Webb University (NC)
George Washington University (DC)
Georgetown College (KY)
Georgian Court College (NJ)
Gonzaga University (WA)
Gordon College (MA)
Goshen College (IN)
Grand Canyon University (AZ)
Grand View College (IA)
Grinnell College (IA)
Guilford College (NC)
Gustavus Adolphus College (MN)
Gwynedd-Mercy College (PA)
Hampden-Sydney College (VA)
Hartwick College (NY)
Heidelberg College (OH)
Hendrix College (AR)
Hilbert College (NY)
Hiram College (OH)
Holy Family College (PA)
Hope College (MI)
Houghton College (NY)
Houston Baptist University (TX)
Howard University (DC)
Husson College (ME)
Illinois Institute of Technology (IL)
Immaculata College (PA)
Inter American University of Puerto Rico-Barranquitas (PR)
Inter American University of Puerto Rico-Bayamon (PR)
Iona College (NY)
Ithaca College (NY)
Jacksonville University (FL)
Jamestown College (ND)
John Brown University (AR)
John Carroll University (OH)
Johns Hopkins University (MD)
Judson College (AL)
Kalamazoo College (MI)
Kenyon College (OH)
Keuka College (NY)
King's College (PA)
La Roche College (PA)
La Salle University (PA)
La Sierra University (CA)
Lakeland College (WI)
Le Moyne College (NY)
Lebanon Valley College (PA)
Lees-McRae College (NC)
Lenoir-Rhyne College (NC)
LeTourneau University (TX)
Limestone College (SC)
Lincoln Memorial University (TN)
Lindsey Wilson College (KY)
Long Island University (NY)
Louisiana College (LA)
Loyola College in Maryland (MD)
Loyola Marymount University (CA)
Loyola University New Orleans (LA)
Luther College (IA)
Lycoming College (PA)
Lynchburg College (VA)
Lyon College (AR)
Madonna University (MI)
Malone College (OH)
Manhattan Christian College (KS)
Marian College (IN)
Marion College of Fond du Lac (WI)
Marietta College (OH)
Marist College (NY)
Mars Hill College (NC)
Mary Baldwin College (VA)
Marycrest International University (IA)
Marymount College of Tarrytown (NY)
Marymount University (VA)
Maryville University of Saint Louis (MO)
Marywood University (PA)
Massachusetts Institute of Technology (MA)
McMurry University (TX)
Medaille College (NY)
Mercer University (GA)
Mercy College (NY)
Merrimack College (MA)
Messiah College (PA)
Midland Lutheran College (NE)
Midway College (KY)
Milligan College (TN)
Millikin University (IL)
Missouri Baptist College (MO)
Monmouth College (IL)
Morningside College (IA)
Mount Saint Clare College (IA)
Mount Saint Mary's College and Seminary (MD)
Muhlenberg College (PA)
Muskingum College (OH)
National University (CA)
Neumann College (PA)
New Hampshire College (NH)
Niagara University (NY)
North Central College (IL)
Northeastern University (MA)
Northland College (WI)
Northwest Christian College (OR)
Northwestern College (IA)
Northwestern College (MN)
Norwich University (VT)
Notre Dame College (NH)
Oakwood College (AL)
Occidental College (CA)
Oglethorpe University (GA)
Ohio Northern University (OH)
Oklahoma Baptist University (OK)
Our Lady of the Lake University (TX)
Pacific Lutheran University (WA)
Palm Beach Atlantic College (FL)
Pepperdine University (CA)
Piedmont College (GA)
Pikeville College (KY)
Point Park College (PA)
Presbyterian College (SC)
Providence College (RI)
Quincy University (IL)
Randolph-Macon College (VA)
Reed College (OR)
Regent University (VA)
Regis College (MA)
Rensselaer Polytechnic Institute (NY)
Rhode Island School of Design (RI)
Rhodes College (TN)
Rider University (NJ)
Ripon College (WI)
Rivier College (NH)
Roanoke College (VA)
Robert Morris College (PA)
Rockford College (IL)
Rockhurst College (MO)
Rocky Mountain College (MT)
Rollins College (FL)
Roosevelt University (IL)
Rose-Human Institute of Technology (IN)
Sacred Heart Major Seminary/College and Theologiate (MI)
Sacred Heart University (CT)
Sage Colleges, The (NY)
Saint Andrews Presbyterian College (NC)
Saint Bonaventure University (NY)
Saint Edward's University (TX)
Saint Francis College (PA)
Saint John Fisher College (NY)
Saint Joseph's College (IN)
Saint Martin's College (WA)
Saint Mary College (KS)
Saint Mary's College (IN)
Saint Mary's College of California (CA)
Saint Mary's University (TX)
Saint Mary's University of Minnesota (MN)
Saint Peter's College (NJ)
Saint Xavier University (IL)
Salem College (NC)
Salve Regina University (RI)
Santa Clara University (CA)
Scripps College (CA)
Seattle Pacific University (WA)
Seattle University (WA)
Seton Hill College (PA)
Shorter College (GA)
Siena College (NY)
Siena Heights University (MI)
Simpson College (IA)
Smith College (MA)
Southeastern College of the Assemblies of God (FL)
Southern Adventist University (TN)
Southern California College (CA)
Southern Methodist University (TX)
Spalding University (KY)
Spring Hill College (AL)
Springfield College (MA)
Stanford University (CA)
Susequehanna University (PA)
Sweet Briar College (VA)
Tabor College (KS)
Teikyo Post University (CT)
Texas Christian University (TX)
Texas Wesleyan University (TX)
Thomas College (ME)
Trinity Christian College (IL)
Trinity College (VT)
Tufts University (MA)
Tulane University (LA)
Tusculum College (TN)
Tuskegee University (AL)
Union College (NE)
Union Theological Seminary and Presbyterian School of Christian Education (VA)
Union University (TN)
United States International University (CA)
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University of Tampa (FL)
University of the Incarnate Word (TX)
University of the Ozarks (AR)
University of the Pacific-Stockton (CA)
University of the South (TN)
University of Tulsa (OK)
Upper Iowa University (IA)
Ursuline College (OH)
Utica College of Syracuse University (NY)
Valparaiso University (IN)
Viterbo College (WI)
Walsh College (OH)
Warren Wilson College (NC)
Wartburg College (IA)
Washington and Jefferson College (PA)
Washington College (MD)
Webster University (MO)
Wesley College (DE)
Western Baptist College (OR)
Western Maryland College (MD)
Western New England College (MA)
Westminster College of Salt Lake City (UT)

Wheaton College (MA)
Widener University (PA)
William Jewell College (MO)
William Penn College (IA)
Williams Baptist College (AR)
Wilmington College (OH)
Wisconsin Lutheran College (WI)
Woodbury University (CA)
Worcester Polytechnic Institute (MA)
Xavier University (OH)
York College of Pennsylvania (PA)
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