

Research Opportunities in Accredited PharmD programs of the United States – Student Involvement

Alina Yanovich, Pharm. D., Kimberly McKeirnan, Pharm. D., BCACP
College of Pharmacy and Pharmaceutical Sciences, Washington State University

Background

Research is one of the key components of moving pharmacy practice forward, so development of research-related skills is essential for building a successful career in the field of pharmacy. Initial exposure to research experiences during education may serve to interest Pharm.D. students in research long-term benefiting the profession and the field as a whole.¹

Out of 144 Schools/Colleges of Pharmacy (S/COPs) across the United States:

✓ **142 are accredited by Accreditation Council for Pharmacy Education (ACPE) in Full/Candidate status, 1 accredited by ACPE in Pre-Candidate status and 1 not ACPE accredited.**²

✓ **74 are private universities and 69 are public institutions.**²

Previous study has provided an overview of the nature of research opportunities available.¹ However, actual involvement of Pharm.D. students in various opportunities as well as outcomes of the involvement have not been previously accessed.¹

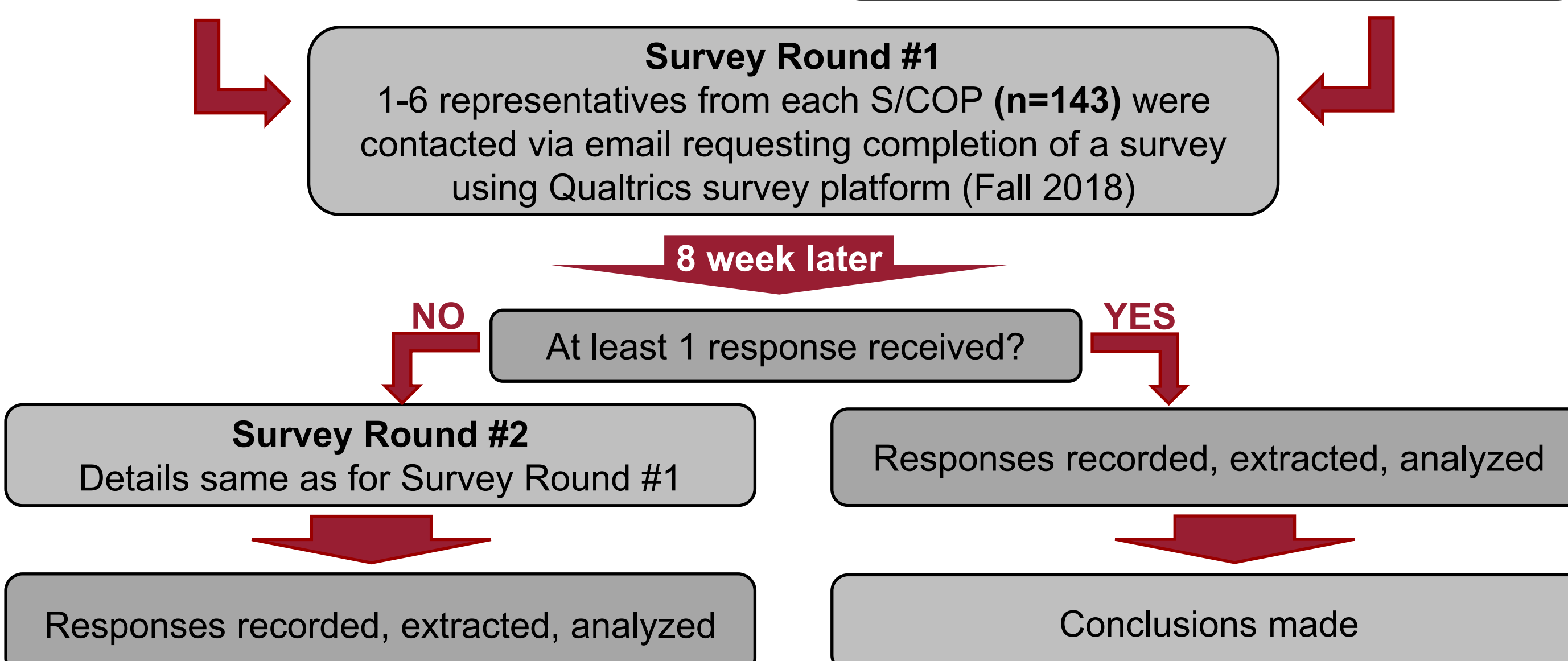
Objective

To identify the most popular types of research opportunities among Pharm.D. students during their professional education and to examine the relationship between the types of research opportunities students are involved in and their choice of research-oriented positions after graduation.

Methods

Manual search for relevant official representatives and their contacts for each S/COP

Survey questions created to ask for information about the pharmacy program, educational curriculum and success of their students in research



Results

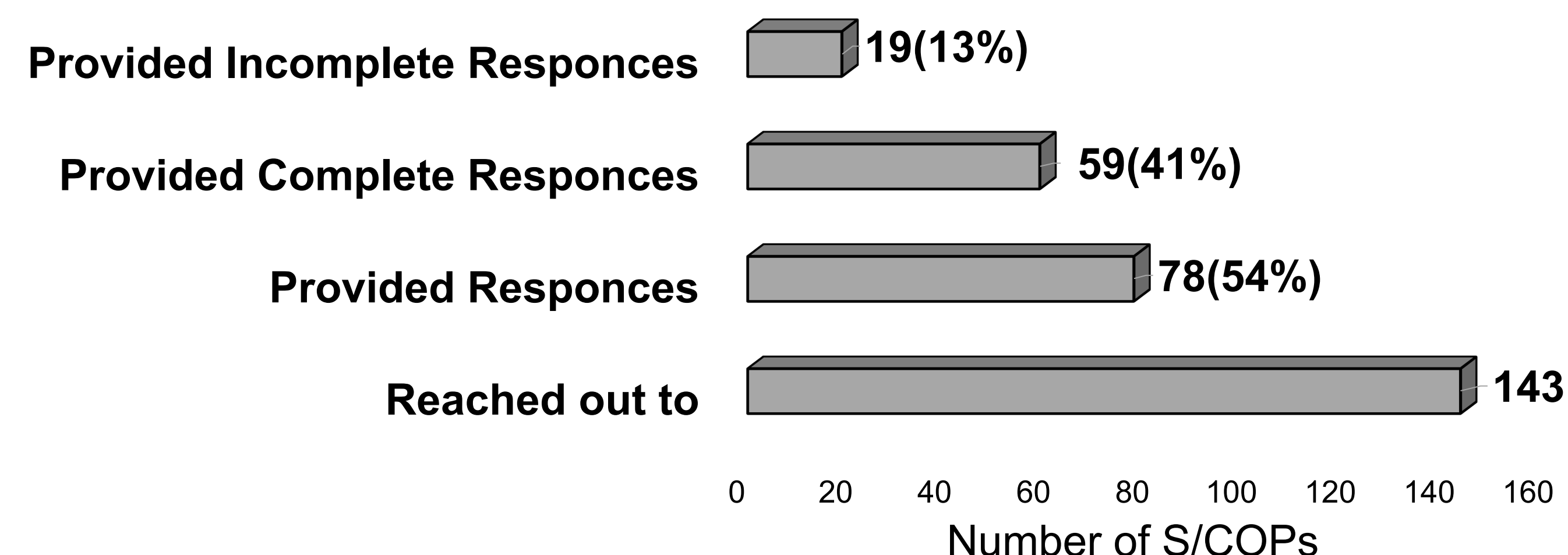


Figure 1. Combined number of S/COPs, survey responses with interpretable data for which have been received after two rounds of survey email request. ***All responses were included in the analysis.**

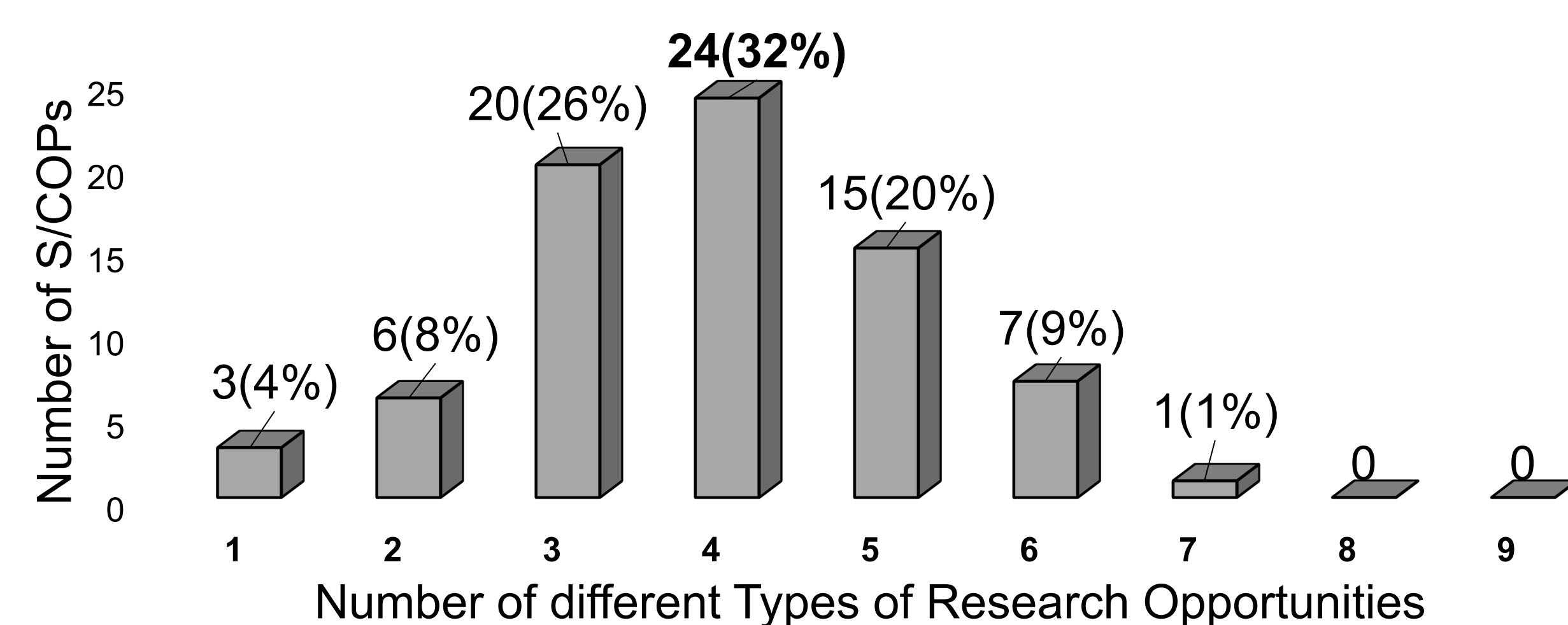


Figure 2. Number of different types of research opportunities available for PharmD. students received from 76 responded S/COPs (complete and incomplete responses) in response to the survey question inquiring best description of such opportunities available at their institution

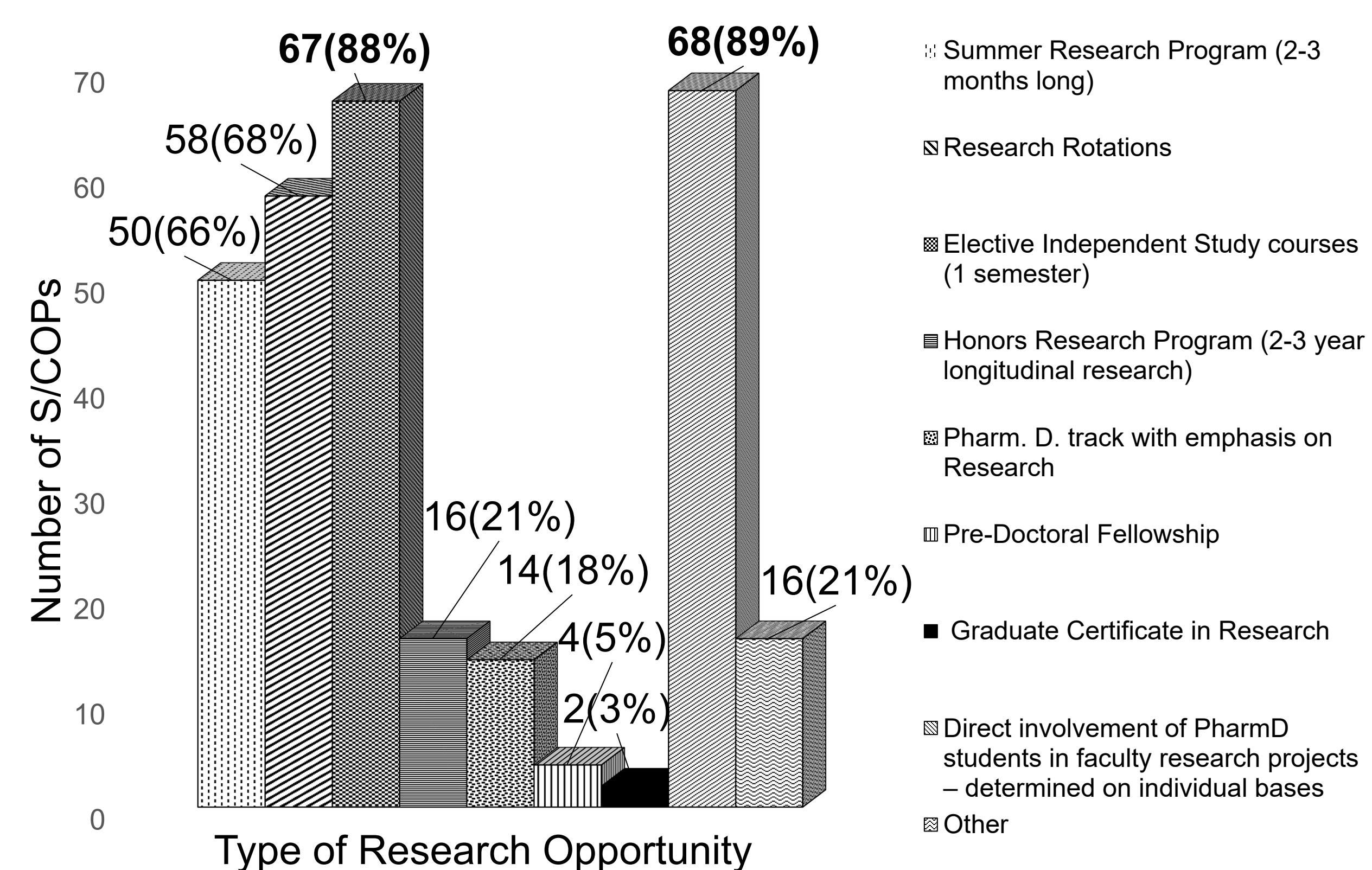


Figure 3. Number of 76 responded S/COPs (complete and incomplete responses) that reported offering each type of various research opportunities commonly available for PharmD. students (selected based on publicly available S/COPs website information) in response to the survey question inquiring best description of such opportunities available at their institution.

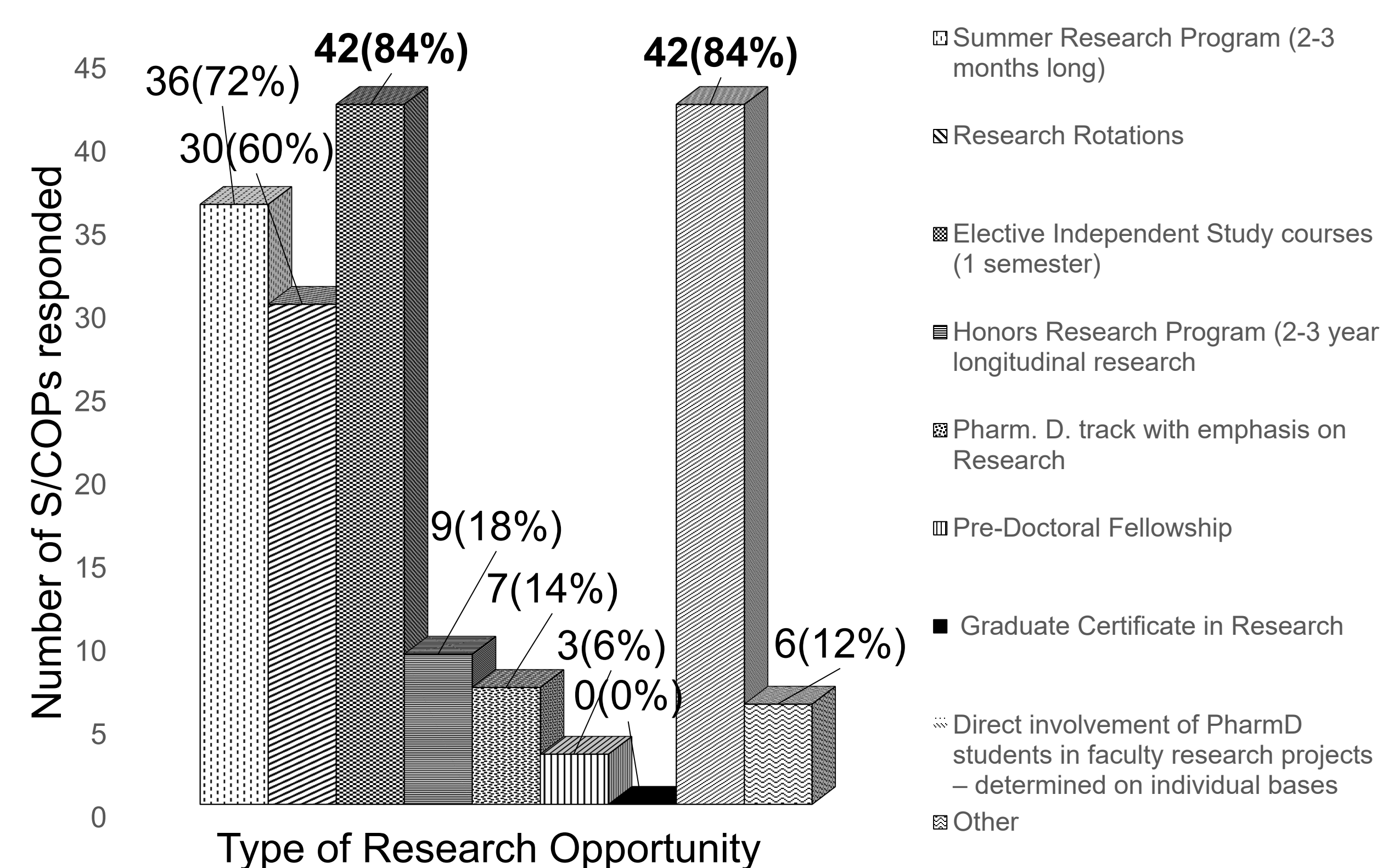


Figure 4. Number of 50 responded S/COPs that reported total student involvement each year in each kind of research opportunities commonly available for PharmD. Students (selected based on publicly available S/COPs website information) in response to the survey question inquiring student involvement in such opportunities if available at their institution. The number of students generally involved in any kind of research opportunities in many of responded S/COP did not exceed 5 (19 of 50 responded S/COPs (40%)).

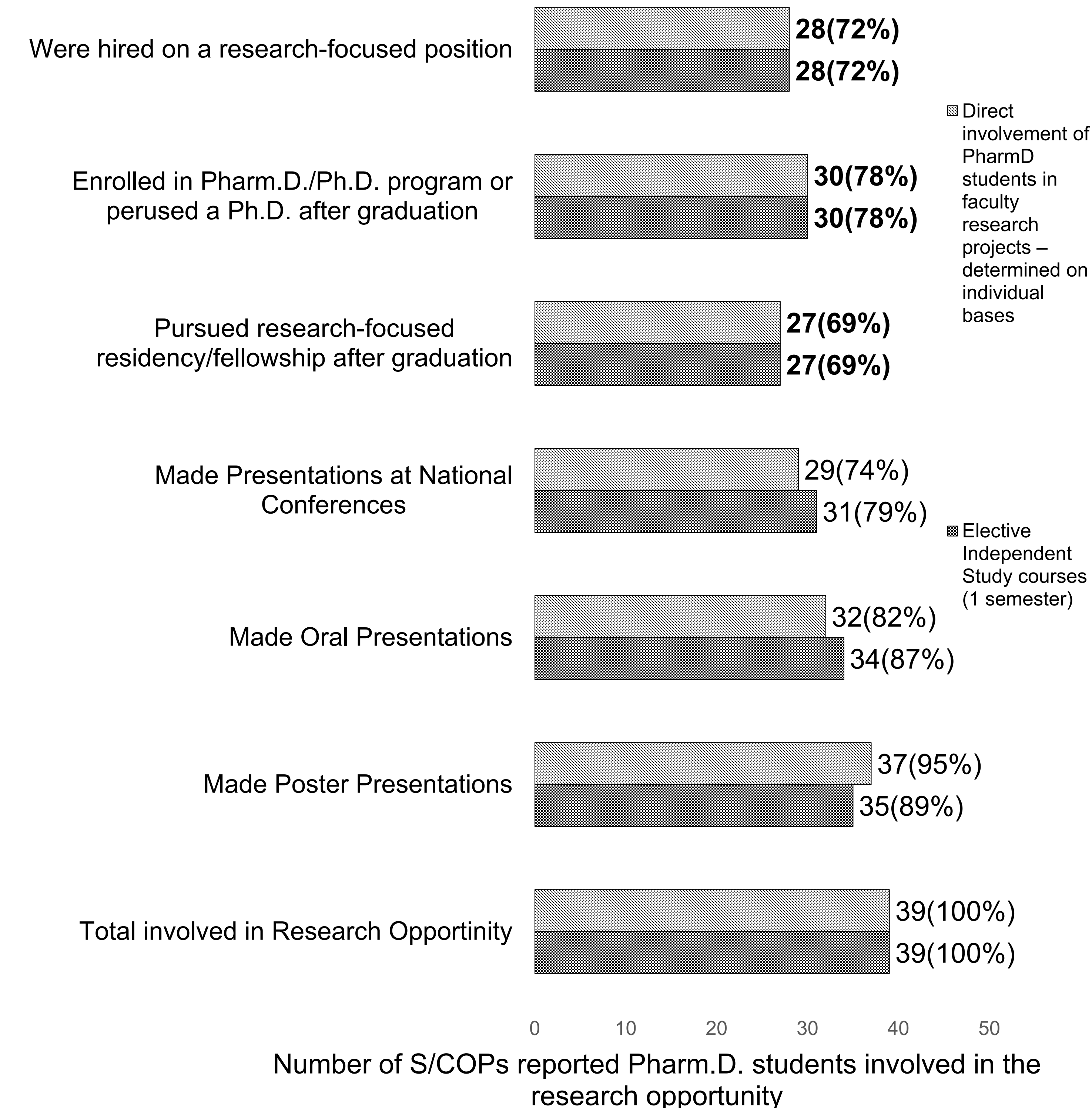


Figure 5. Number of 39 S/COPs that reported Pharm.D. student involvement in most popular types of research opportunities each year and various useful outcomes of involved Pharm.D. student in most popular types of research opportunities commonly available for PharmD. students (selected based on publicly available S/COPs website information) in response to the survey question inquiring student involvement in such opportunities if available at their institution.

Conclusions

- The study suggests that in the majority of responded S/COPs Elective Independent Study courses and direct involvement of students in faculty research projects were identified as the most prevalent for Pharm.D. students to engage in.
- Analysis of collected data demonstrated a positive association between involvement in these particular research opportunities while pursuing a Pharm.D. degree and students' choice to pursue additional education or a pharmacy career strongly connected to pharmacy research.
- The study also shows a variable involvement of the pharmacy students in research opportunities between S/COPs, raising the possibility of a variable and unequal exposure of PharmD students to research across the country
The number of students generally involved in any kind of research opportunities in many of responded S/COP did not exceed 5 (19 of 50 responded S/COPs (40%)).
- Future studies are thus needed to correlate pharmacy program sizes with student involvement in research in S/COPs and to identify reasons behind students favoring certain types of research opportunities over others.

References

1. John E. Murphy, Marion K. Slack, Kevin P. Boesen, and Duane M. Kirking (2007). Research-related Coursework and Research Experiences in Doctor of Pharmacy Programs. *American Journal of Pharmaceutical Education*: Volume 71, Issue 6, Article 113. <https://doi.org/10.5688/aj7106113>
2. Accreditation Council for Pharmacy Education, official webpage. <https://www.acpe-accredit.org/>