

Description of Industry Curriculum within Accredited United States Colleges of Pharmacy

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Introduction

Doctor of Pharmacy (PharmD) candidates have numerous post-graduation training opportunities, including completing a fellowship within the pharmaceutical industry. These one or two-year training programs have become more competitive, as the number of graduating PharmD candidates has increased and the interest in industry as a unique pharmacy career has grown. Today, strong candidates require a more robust CV that will demonstrate a desire and understanding of the industry and pharmacist's roles. Early exposure to industry through pharmacy school electives, APPEs, and participating in industry professional development opportunities are all crucial for students to acquire industry practice knowledge and produce a competitive CV.

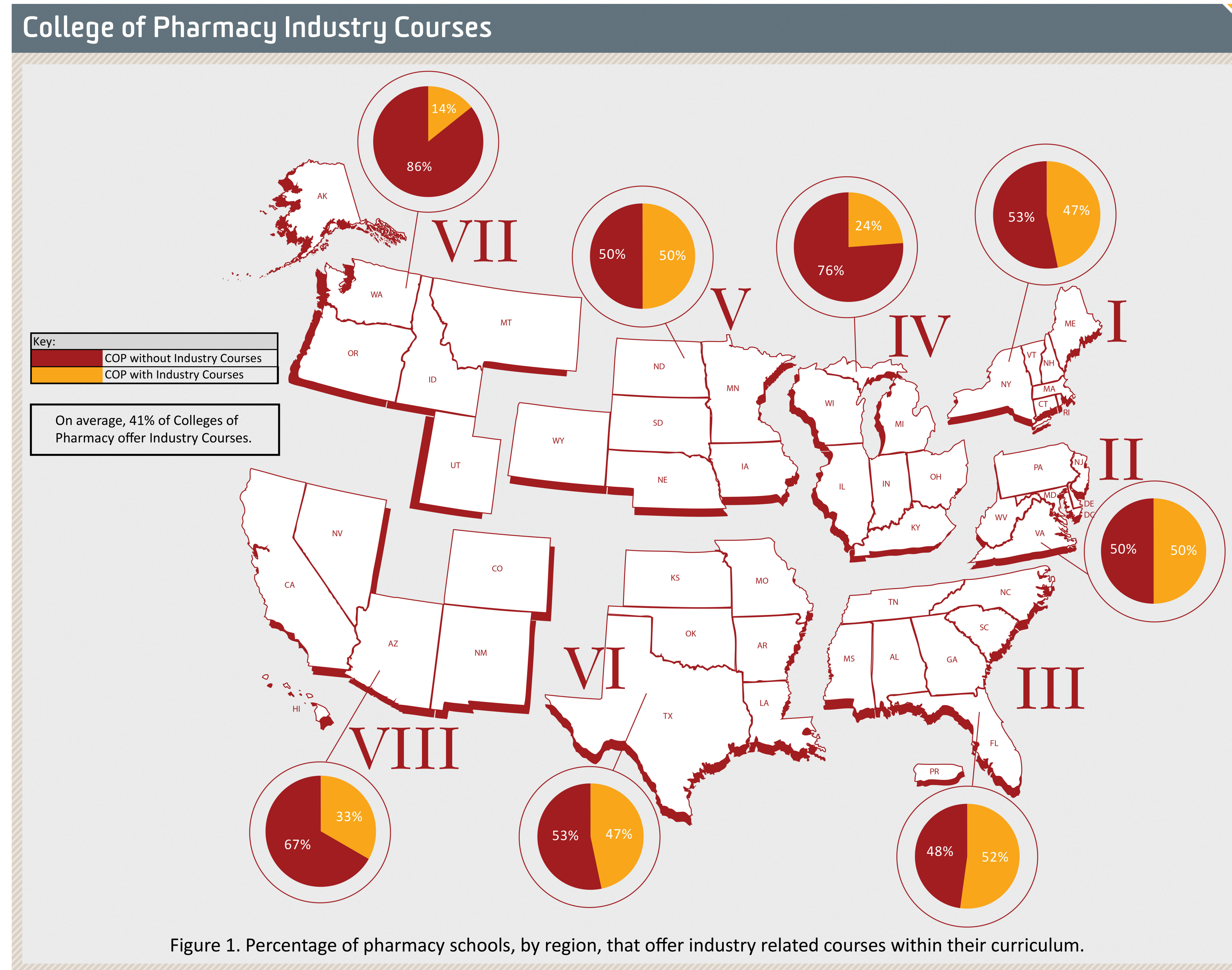
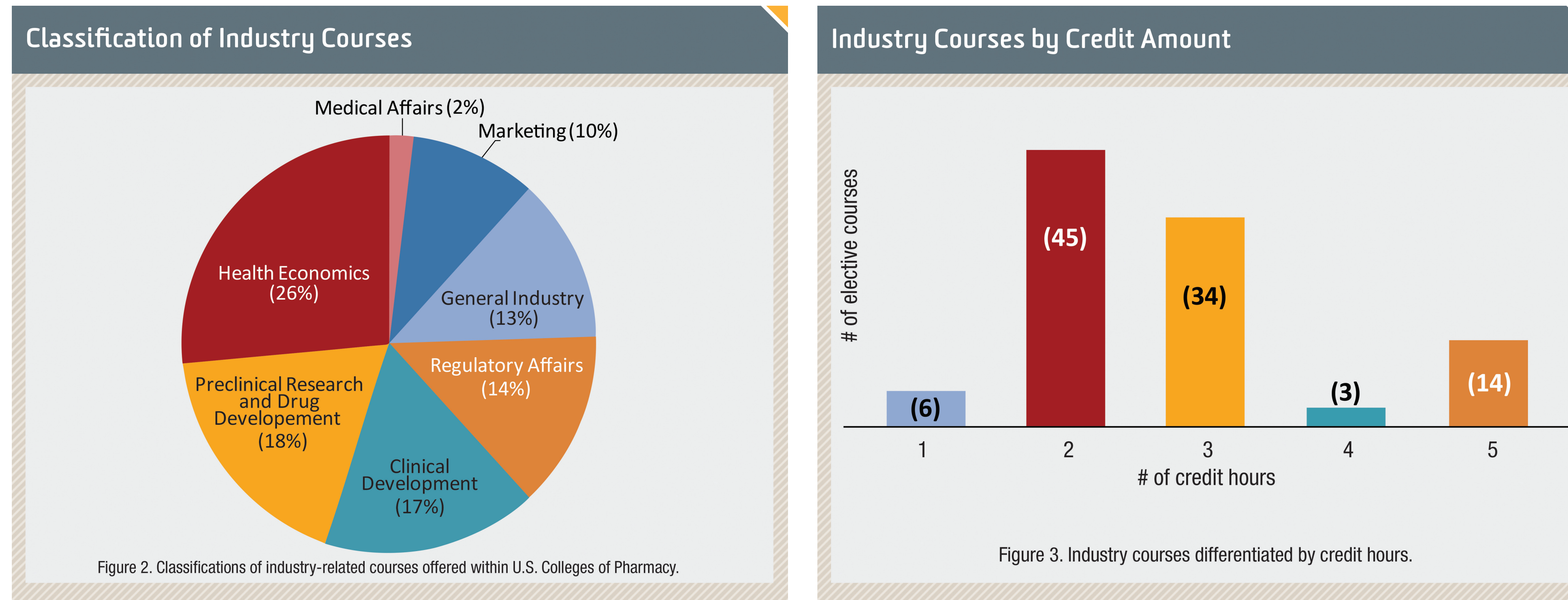
Objectives

- Identify and describe industry related course trends within US accredited colleges of pharmacy.
- Increase awareness of pharmacy students and stakeholders for the need to enhance access and increase the variety of pharmaceutical industry courses within colleges of pharmacy to meet the growing student demand for industry practice.

Methods

School-specific curriculum information was collected using course catalogues and student handbooks listed on college of pharmacy websites. Any course providing knowledge or information on a specific area relevant to industry was included, specifically those within the areas of: health economics, clinical science/development, marketing, regulatory affairs (including the FDA), medical affairs, and pharmaceutical research/development. A standardized email was sent to deans of their respective schools inquiring about specific industry courses, their credit-hour qualification, and a brief course description.

Results



Discussion

Overall, 41% of pharmacy schools (Figure 1) offered at least one elective course that met the entry criteria related to the pharmaceutical industry and/or includes a discipline, such as clinical research or pharmacogenomics that is relevant to the pharmaceutical industry.

The majority of these elective courses were in disciplines, such as health economics (26%), preclinical research (18%), or clinical development (17%) (Figure 2). Fifty six percent of all industry courses offered were in pharmacy schools located along the east coast of the US. The lowest percentage of industry courses offerings, 14%, were from schools located in the Pacific Northwest.

Only 13% of the elective courses identified from their syllabus included a broad review of the continuum of pharmaceutical commercialization from drug development and regulatory approval through life-cycle management. The majority of industry courses identified (45%) were worth two credit hours (Figure 3).

Conclusion

Pharmacy students have minimal opportunity to explore the biotech and pharmaceutical industry, as less than half of colleges offer relevant courses. When industry courses are offered, they explore a very narrow commercial function or discipline. Unfortunately, a narrow scope of the pharmaceutical and biotech industry does not provide students with an understanding and appreciation of the functional relationships, responsibilities, and collaborations that industry pharmacy practice provides. This knowledge is essential for those students applying for post-graduate industry fellowship programs and entry-level industry positions, as the competitiveness for securing these positions continues to increase.

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