

# History, Development, and Current Status of Post-PharmD Industry Fellowship Programs at Northeastern University

Michael Silberstein, PhD<sup>a</sup> ; John R. Reynolds, PharmD<sup>b</sup>

<sup>a</sup>. Pharmacy Student (P4 year), <sup>b</sup>. Professor Emeritus

School of Pharmacy and Pharmaceutical Sciences, Bouvé College of Health Sciences, Northeastern University, Boston, MA



## Introduction

- Northeastern University School of Pharmacy and Pharmaceutical Sciences post-PharmD fellowship program was founded in 2012.
- In 2022-2023 (i.e., the year that this study occurred), the program had 52 (28 first-year and 24 second-year) fellows spanning 15 pharmaceutical companies. In 2023-2024, the program added 38 incoming first-year fellows (27% increase).
- The fellowships provide opportunities for graduates to contribute to the operations and pharmaceutical product development within the biotechnology industry.
- The fellowships are perceived to have mutually beneficial aspects relating to the fellows and the companies.
- Primary Goal of Study: To describe the development and assess the status of the Northeastern University fellowship program from the perspectives of various program stakeholders.

## Primary Participants:

- Post-PharmD industry fellows
- Liaisons from partner biotechnology companies
- Northeastern University faculty/staff principals

## Methods

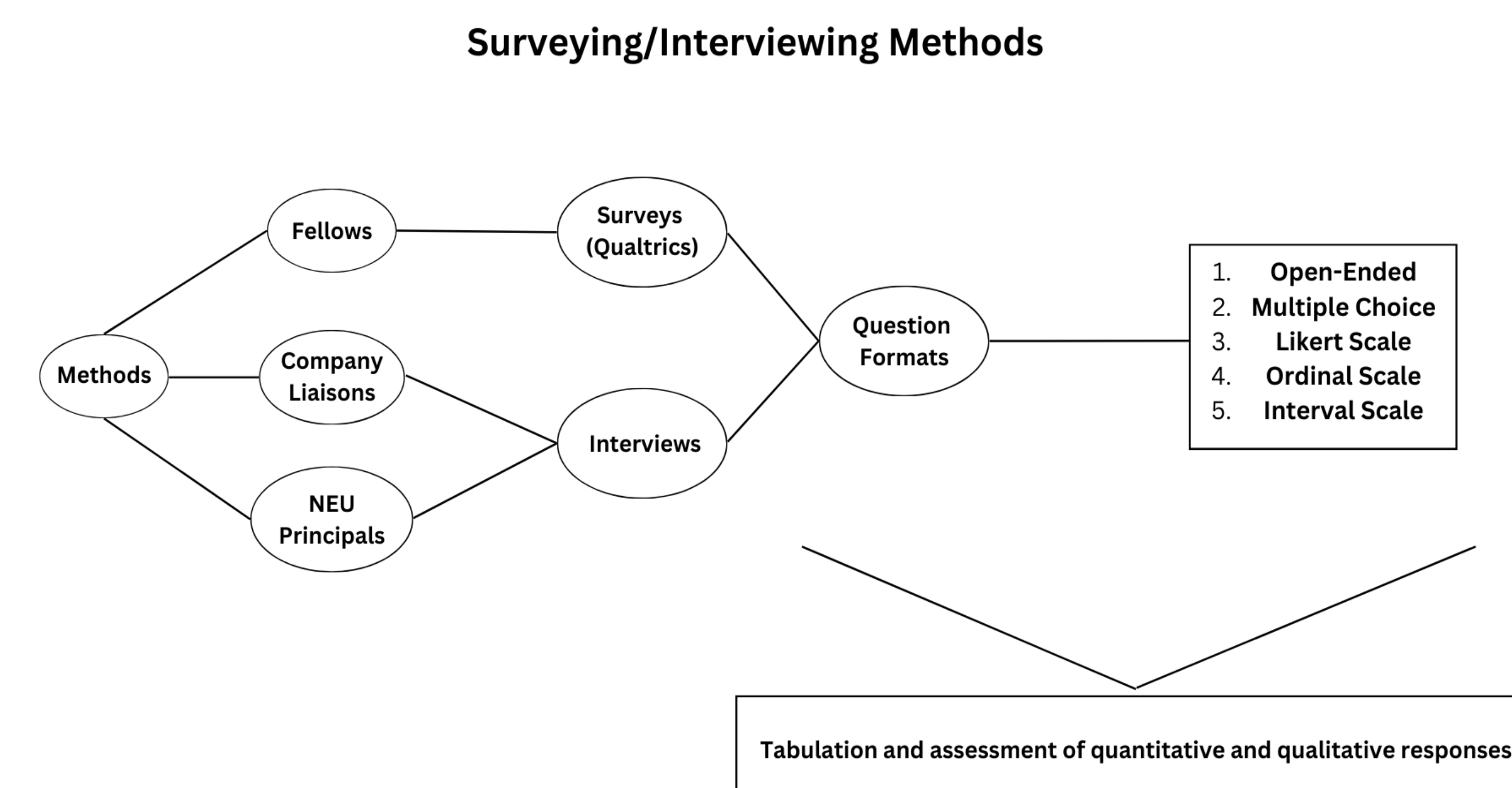
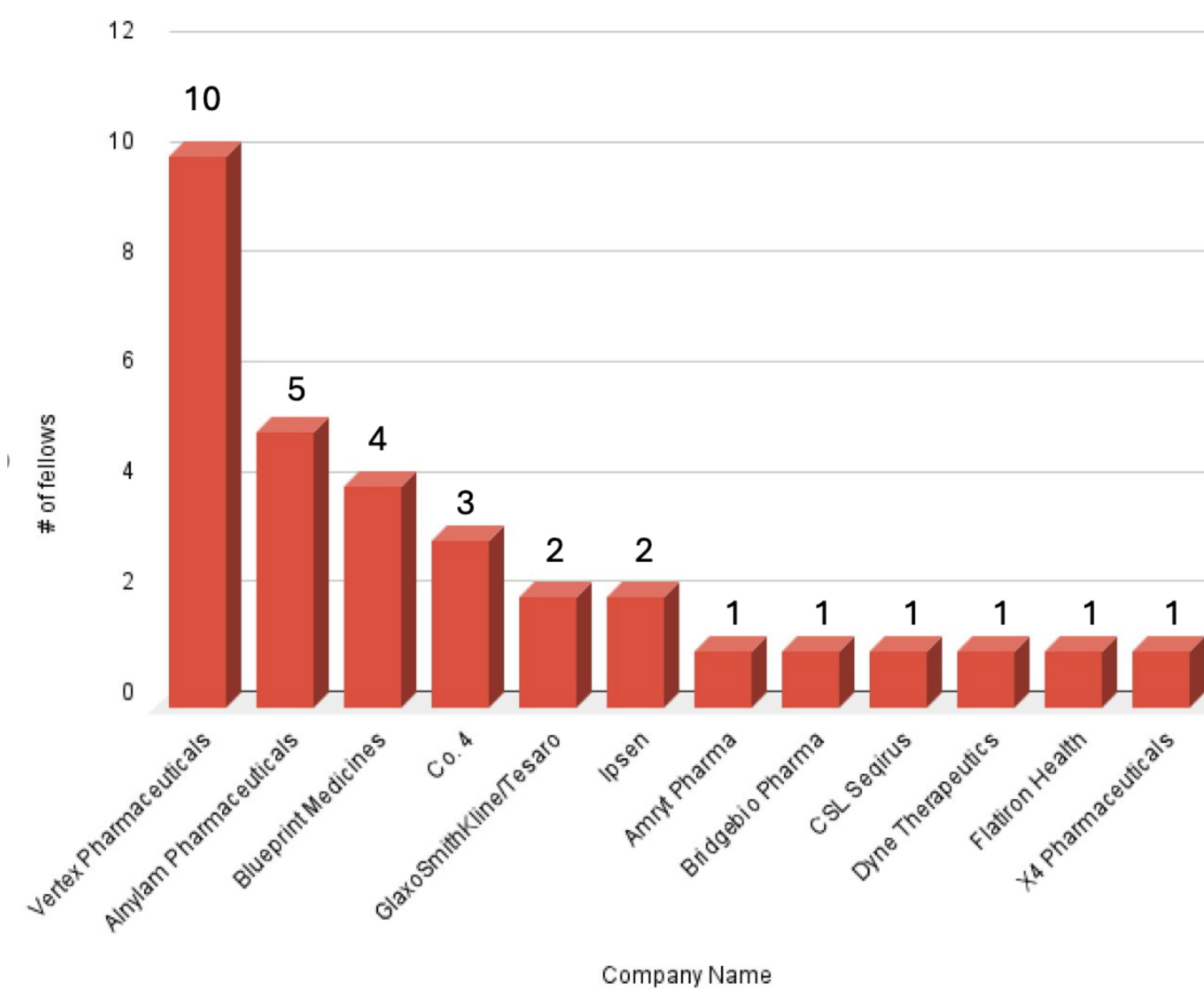


Figure 1 - Partner company distribution of participating fellows (n = 32)



## Participation

- Ninety-three percent (26/28) of first-year fellows and 25% (6/24) of second-year fellows, respectively participated (**Figure 1**). (Note: Since responses to all questions were optional, not all 32 participants responded to every question).
- Eight out of twelve (75%) company liaisons also participated.

## Results

- Every responding fellow reported an impression of making a strong impact in the work/operations within the partner company. (**Figure 2**)
- Eighty-one percent of surveyed fellows agreed that their impact within the university is strong. (**Figure 3**)
- Seven of the eight interviewed company liaisons stated that the fellows exhibited distinct leadership qualities.
- According to both fellows and company liaisons, the most important qualities that signified a successful fellowship included:
  - Ability to effectively manage a team while overseeing a project from start to finish
  - Attaining a position at the sponsored or similar company upon fellowship completion
  - Building a growing network while enhancing communication skills, people skills, and presentation skills.

Figure 2 - Fellows' impression regarding whether they had a strong impact in the work/operations within their company (n = 31)

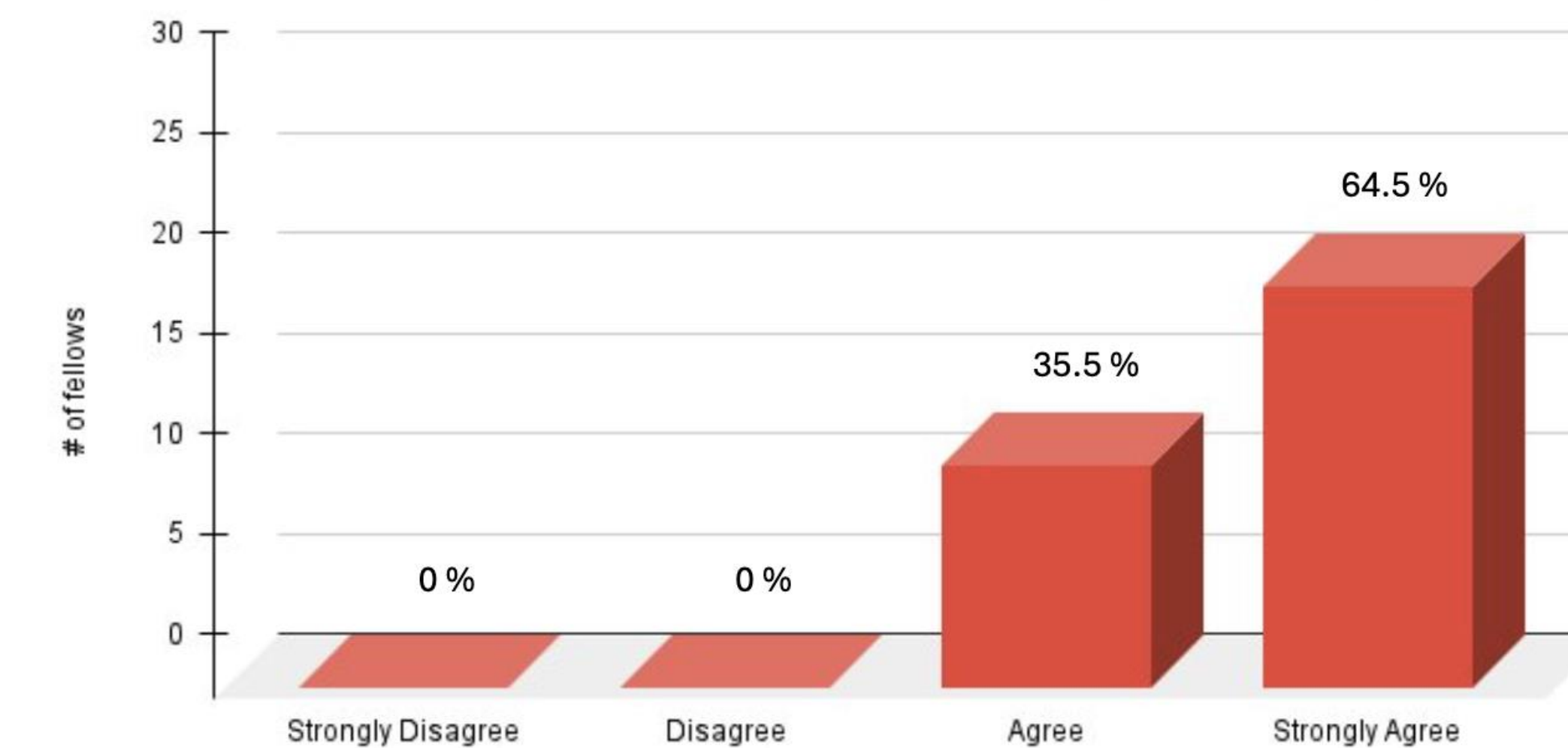


Figure 3 - Fellows' impression regarding whether they had a strong impact within the Northeastern University School of Pharmacy and Pharmaceutical Sciences community (n = 31)

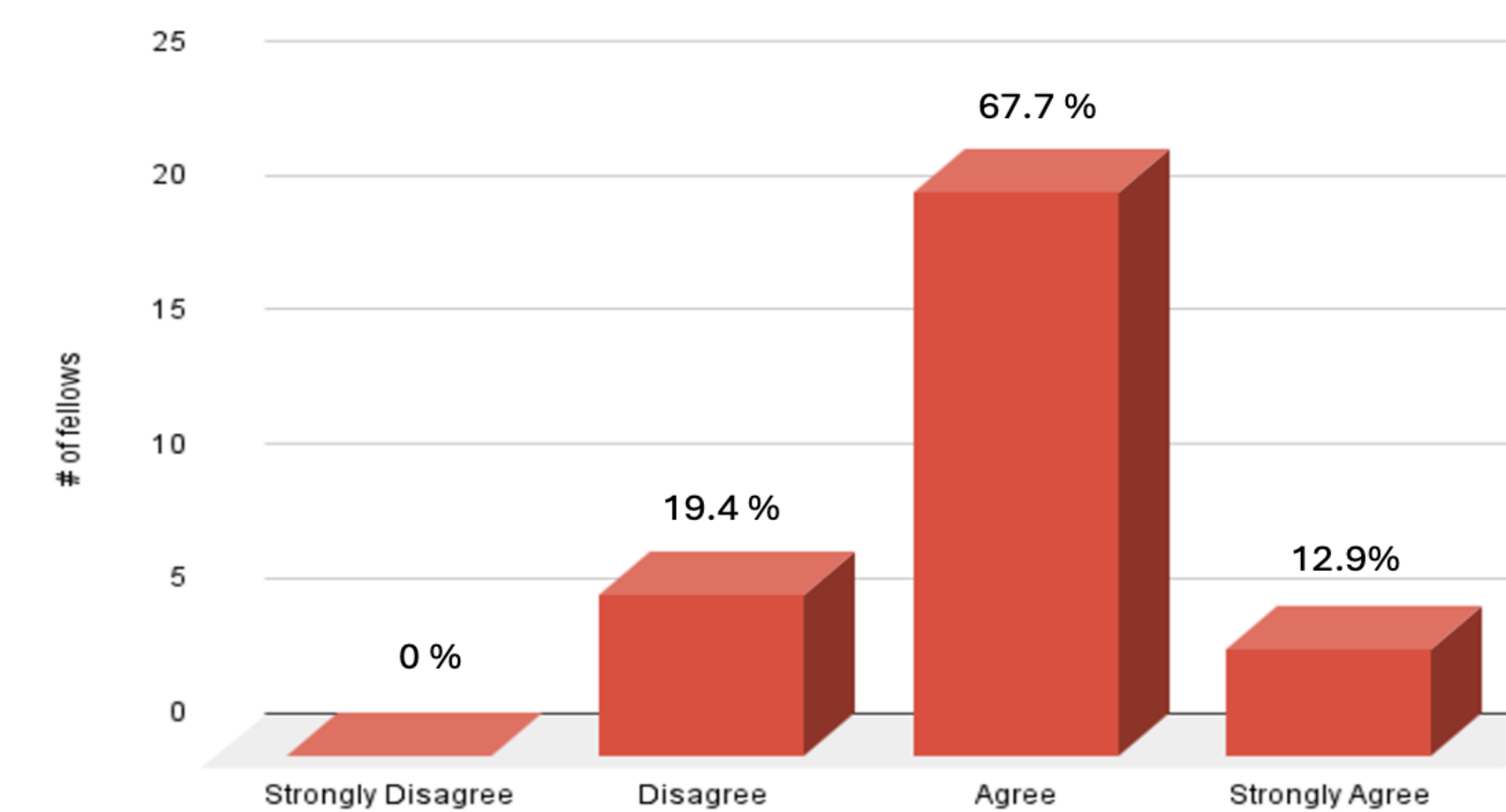


Table 1 - Summary of SWOT analysis reported by Northeastern University School of Pharmacy and Pharmaceutical Science faculty/staff coordinators

| Category      | Description  |
|---------------|--|
| Strengths     | Stream of open communication, connection; feedback with the fellows; team-building amongst the fellows.  |
| Weaknesses    | Level of standardization in the program policies and procedures; culturally-oriented lingering effects of prolonged remote communications/interactions (due to COVID-19 pandemic) hindering interdependence. |
| Opportunities | Generating an expansive alumni network; peer-mentoring program.  |
| Threats       | Company acquisitions; headhunters; and premature departures  |

Faculty/staff principals performed a Strengths / Weaknesses / Opportunities / Threats (SWOT) analysis of the program (**Table 1**). This analysis highlighted distinct stabilizing and destabilizing aspects that affect the program's overall cohesiveness, camaraderie and continuity.

For example, overall program growth relies upon the following interplay of external factors:

- Companies on a growth surge may be more likely to include fellows on novel projects
- Fellow involvement in recruitment activities and committees
- Companies at risk of being purchased by larger and more established companies, eliminating specific fellowship opportunities
- Premature departures of fellows

## Study Limitations

- Under-sampled second-year fellows
- Only single (rather than multiple) surveying opportunity per individual
- Overemphasis on consensus outcomes (vs. singletons)

## Conclusion

- Findings reveal that the fellowships are in an auspicious stage, with growth and expansion expected as we move into our second decade of partnerships.