

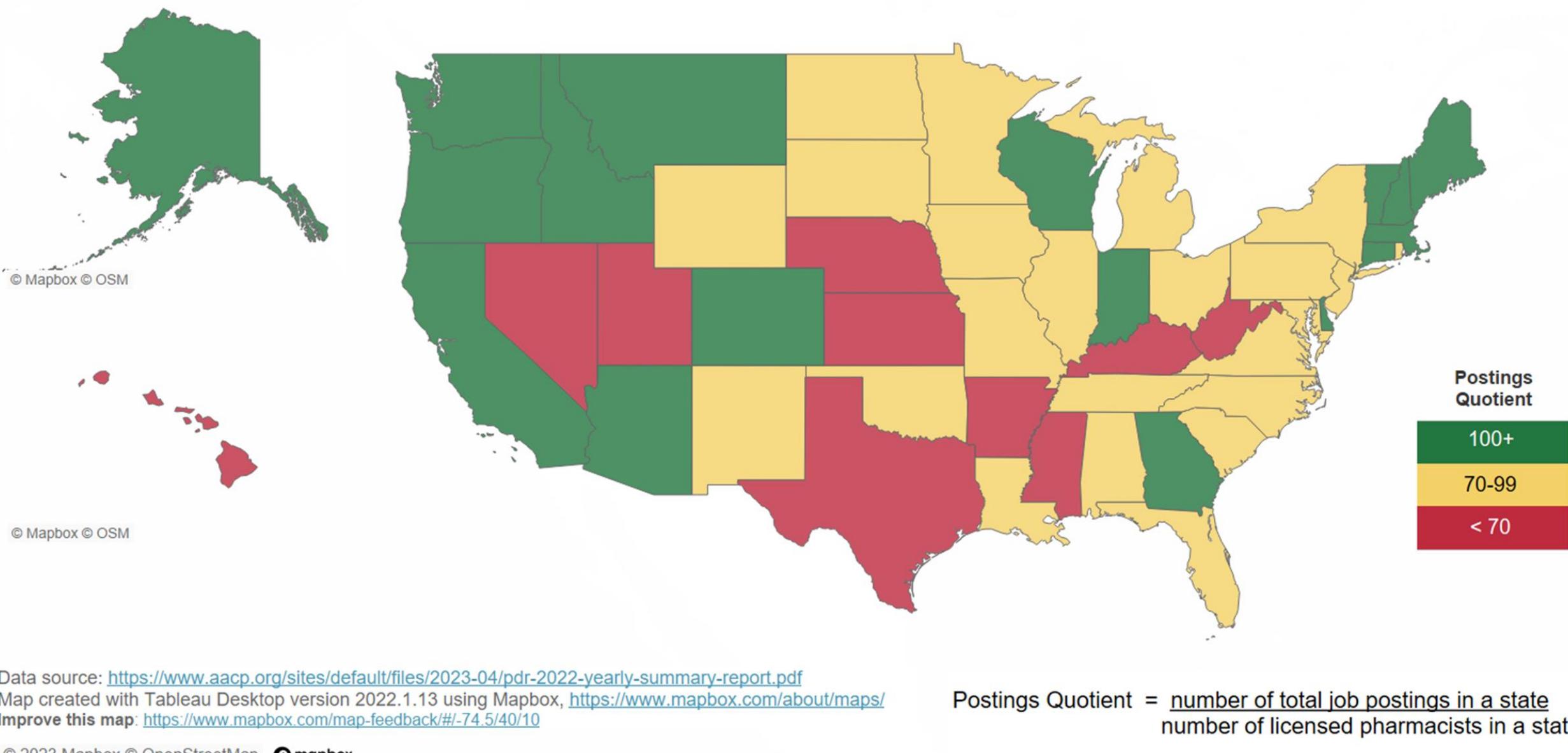
Initial Employment Plans of PharmD Graduates From Ten Public Colleges/Schools of Pharmacy, 2018 – 2022

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Background

- Since 2009, the Big Ten Pharmacy Assessment Collaborative has surveyed its PharmD graduates within three weeks of graduation regarding first employment plans
- From 2018-2022, nationwide enrollment in pharmacy programs dropped by 15%, graduations by 5%
- COVID-19 revealed the adverse impact of reductions in the pharmacist workforce
- Pandemic-induced rise in demand for pharmacists reversed hiring trends: from 2020 to 2021, pharmacist job postings rose 63% nationally for community positions and 15% for hospital positions
- Analyzing pharmacy employment trends can help guide prospective students and inform practice transformation efforts moving forward

Figure 1. American Association of Colleges of Pharmacies Pharmacist Demand Report 2022 (Positions in all practice settings)



Objective

Update Big Ten PharmD program graduate employment plans data since 2013-2017 (Kelley et al. *Am J Pharm Educ.* 2019; Article 6864) during which time the nationwide demand for pharmacists decreased, then increased again due to COVID-19

Methods

- Quantitative and qualitative first-position employment data from 2018-2022 tracked among Big Ten PharmD graduates (N=6,690)
- Outcomes: Job/residency/fellowship placement; satisfaction with placement; salary; time spent searching; and perceived difficulty finding placement
- Approved by each university's IRB

Results

- 5,276 usable surveys were received (return rate 79%)
- 64% of 2,699 respondents applying for employment received offer before graduation
- Annual salaries for pharmacy positions of at least 32 hours per week (excluding residencies or fellowships) trended downward from \$113,754 in 2018 to \$99,175 in 2021, rebounding to \$114,097 in 2022
- 20% of respondents reported difficulty finding jobs in 2022, down from 42% in 2018 and 2019
- Graduates reported spending nearly three months searching for a position
- 72% reported finding positions in their preferred job setting
- 73% of respondents were satisfied with the offers they received (85% in 2013-2017)
- Percentage of graduates seeking additional training, advanced credentials or both in 2018-2022 peaked at nearly 70% in 2022 (53% in 2013-2017)
- 57% of respondents applied for residencies 2018-2022 (47% in 2013-2017)
- 76% of residency applicants matched (65% nationally)
- 18% pursuing additional academic degrees or fellowship training (14% nationally)

Table 1. Summary of Postgraduation Placement Plans of Big Ten Pharmacy Graduates Overall and By Year

	2018	2019	2020	2021	2022	Total
Number of Respondents	1,061	999	1,036	1,065	1,115	5,276
Response Rate (percent)	79	72	78	80	86	79
Job Placement						Average
Percent applying for jobs	55	54	52	49	46	51
Percent accepting a job ^a	60	58	60	68	77	64
Average salary	\$113,754	\$107,178	\$100,729	\$99,175	\$114,097	\$106,987
Percent reporting difficulty finding a job ^a	42	42	39	36	20	36
Average time spent looking (months)	2.6	3.3	2.6	2.8	2.3	2.7
Residency Placement						
Percent applying for residencies	53	58	59	60	56	57
Percent accepting a residency ^b	77	74	74	72	84	76
Average number of applications submitted	10.1	11.0	10.8	11.6	10.9	10.9
Percent reporting difficulty finding a residency ^b	-- ^c	43	44	47	35	42
Plans Upon Graduation ^d						
Percent planning for fellowships	7	8	8	9	10	9
Percent planning additional education	9	9	10	8	9	9
Summary						
Percent with postgraduation placement	74	74	75	78	84	77
Percent satisfied with postgraduation placement	69	68	70	73	82	73
Percent obtained placement in preferred setting	68	69	70	72	80	72

^aDenominator=respondents applying for employment as postgraduation direction

^bDenominator=respondents applying for residencies as postgraduation direction

^cAll respondents pursuing a residency position from 2019-2022 were asked to rate their difficulty with placement. Respondents in 2018 were asked this question only if they secured a residency, so these data have been excluded.

^dPlans upon graduation reported in AACP Graduating Student Surveys, 2018-2022. Additional education includes Pharmacy Ph.D. programs, master's degrees, JD or other law programs, other health professions or non-pharmacy Ph.D. programs.

Figure 2. ASHP PGY1 Residency Match Rate by Class Size per School

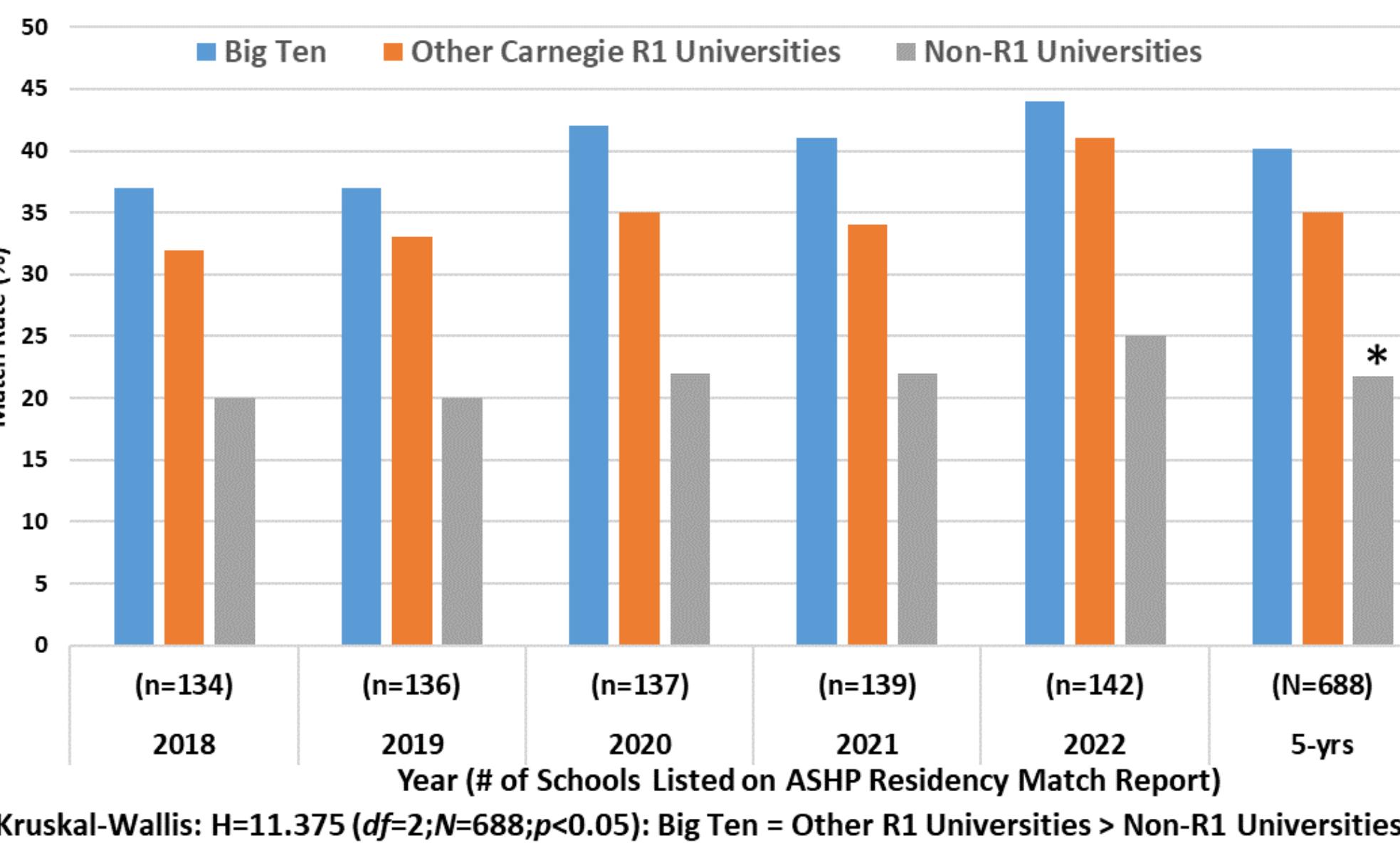
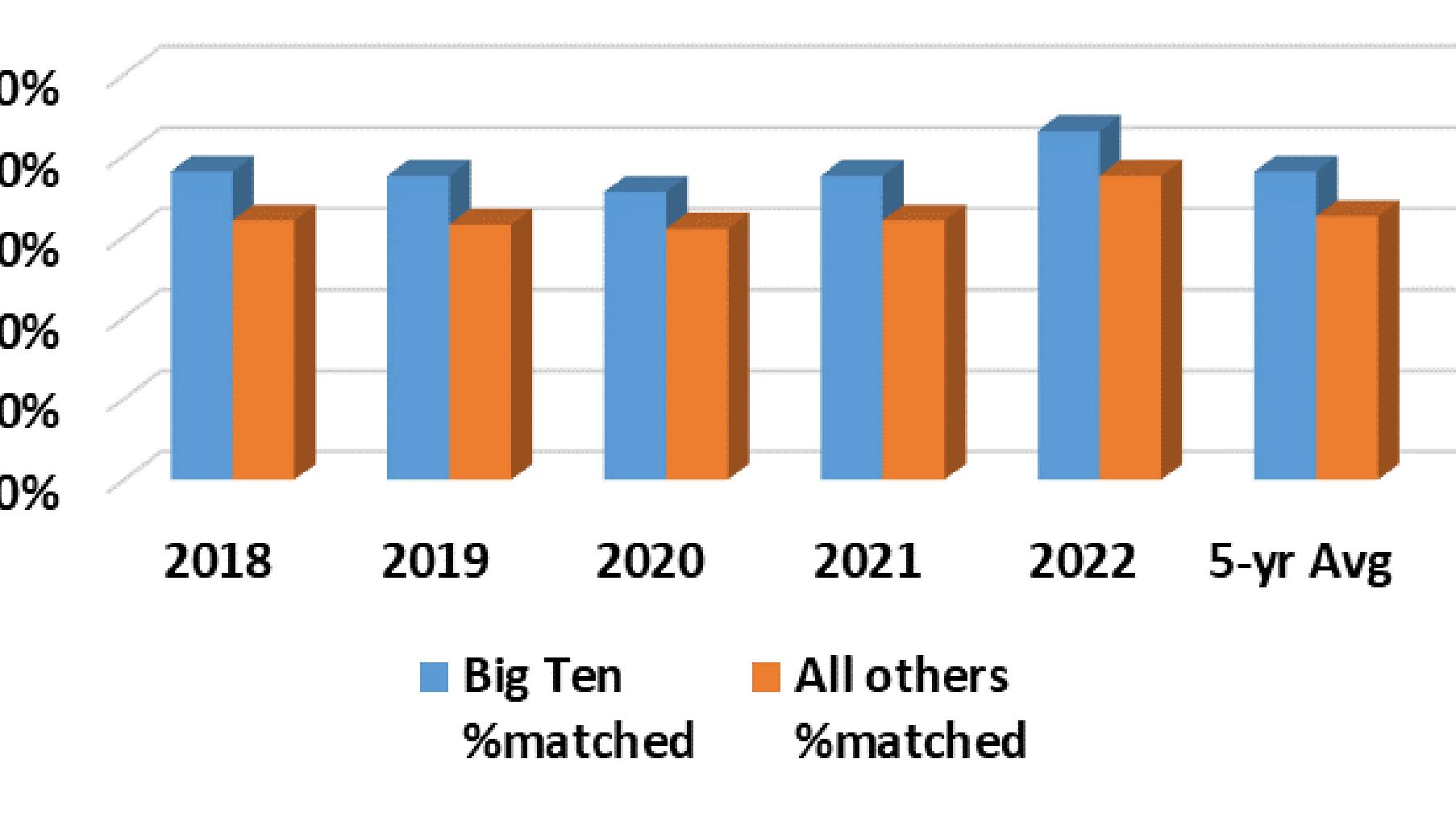


Figure 3. ASHP PGY1 Residency Match Data by Number of Residency Applicants per School



Discussion

- Postgraduate placement rates did not change from 2018 through 2021, but increased by nearly 6% from 2021 to 2022
- Not all respondents reported salaries; resulting average may under (or over) estimate overall average salary
- Pharmacist Demand Report suggests that pharmacy graduates seeking positions in other regions of U.S. may experience more or less difficulty finding a job than reported by Big Ten respondents

Limitations

- Results not generalizable to all pharmacy graduates
- Big Ten schools are public, research-intensive pharmacy programs in operation for 108-182 years (median 138 years)
- Most participating schools located in Midwestern U.S.; majority of respondents likely to seek jobs in that region
- Outcomes dependent on respondent self-report; job placements, salaries not independently verified by researchers
- Respondents categorized their post-graduation positions
- Respondents voluntarily chose whether to answer individual items; some results based upon fluctuating year-to-year response rates to specific survey items (eg, salary)
- 2018 revisions to survey may impact comparability of 2018-2022 trends to 2013-2017 though tracking of overall changes in employment choices is still possible
- Neither Pharmacy Demand Report nor BLS data distinguish between demand for pharmacists in rural vs. urban locations

Conclusions

- Pharmacy remains a profession filled with opportunity
- The diversification in health care practice by pharmacists continues to accelerate
- Pharmacy employment data needs to be monitored continuously to identify trends and opportunities