

2024 Laboratory Workforce Profile

Survey Summary Report



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About the 2024 Laboratory Workforce Profile Survey

The Association of Public Health Laboratories (APHL) regularly surveys individuals from state, territorial and local public health laboratories to gain insight into the public health laboratory workforce in the United States.

Data collected include job satisfaction and factors influencing decisions to stay or leave their current position, which may be used to inform recruitment and retention efforts by laboratory leadership.

This is the third iteration of this survey, with previous. Visit aphl.org/workforce-profiles to see data from all three surveys.

A circular icon with the year '2022' inside, next to a left-pointing arrow.

Look for notes throughout this report comparing the 2024 data to 2022!



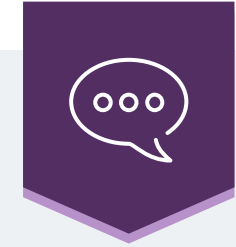
When?

- **Spring 2024**
- Previous editions fielded:
 - 2022
 - 2016



Who?

- **1,928** laboratory staff responded to survey.
- Respondents from **49 states, DC and two territories.**



How?

- This electronic survey was anonymous.
- All questions were optional.
- Data collected with convenience sampling.

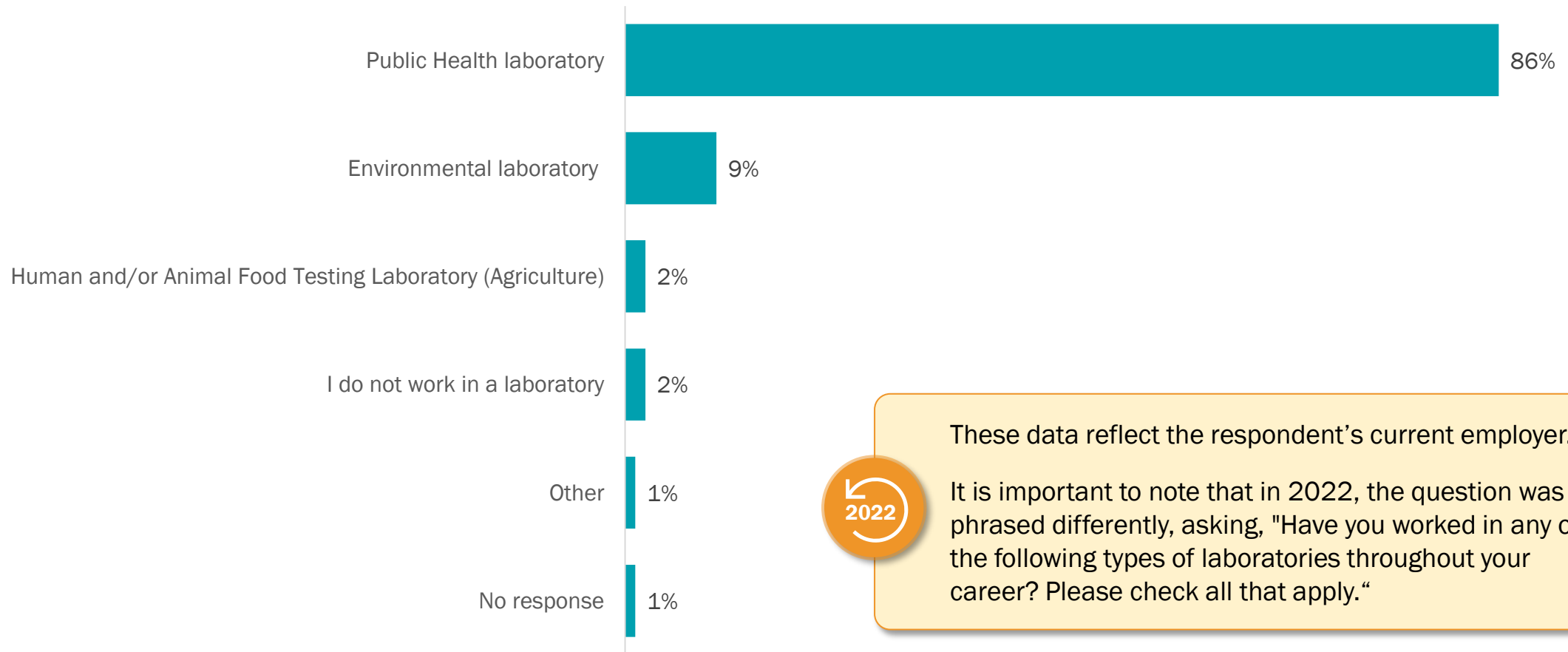


Work Environment

Type and Size of Laboratory, and Overtime Requirements

Laboratory Type

Respondents Currently Employed in ____ Type of Laboratory

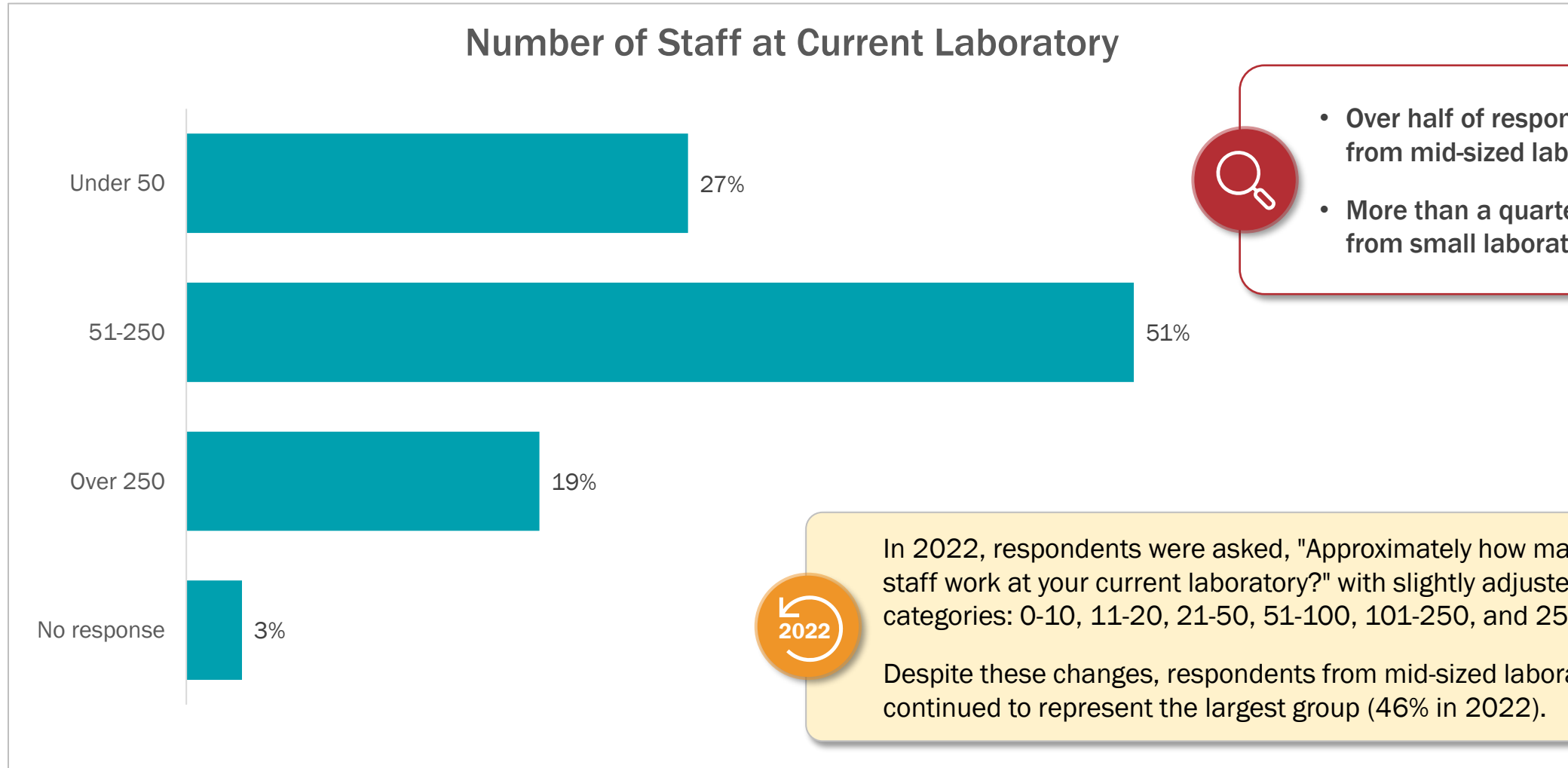


These data reflect the respondent's current employer.

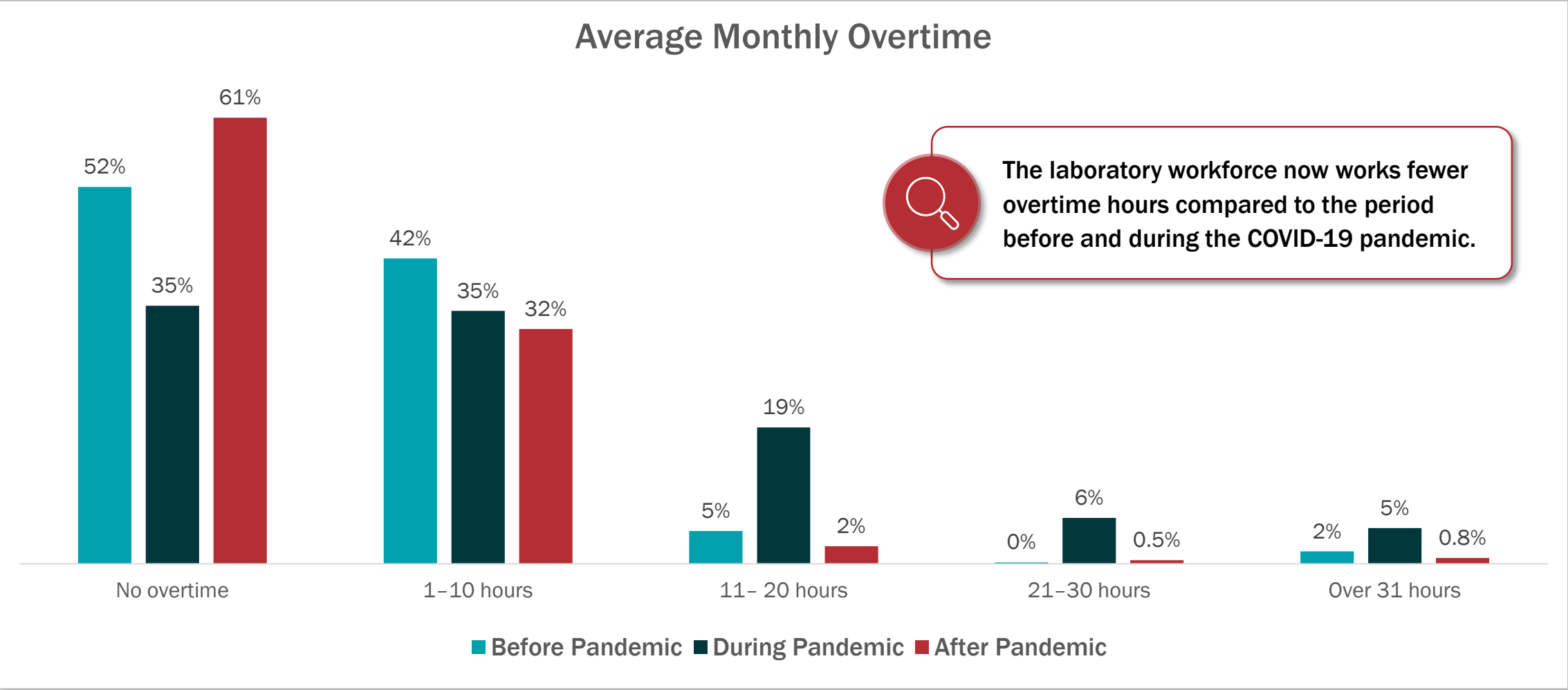


It is important to note that in 2022, the question was phrased differently, asking, "Have you worked in any of the following types of laboratories throughout your career? Please check all that apply."

Laboratory Size



Overtime Trends: Before, During and After COVID-19



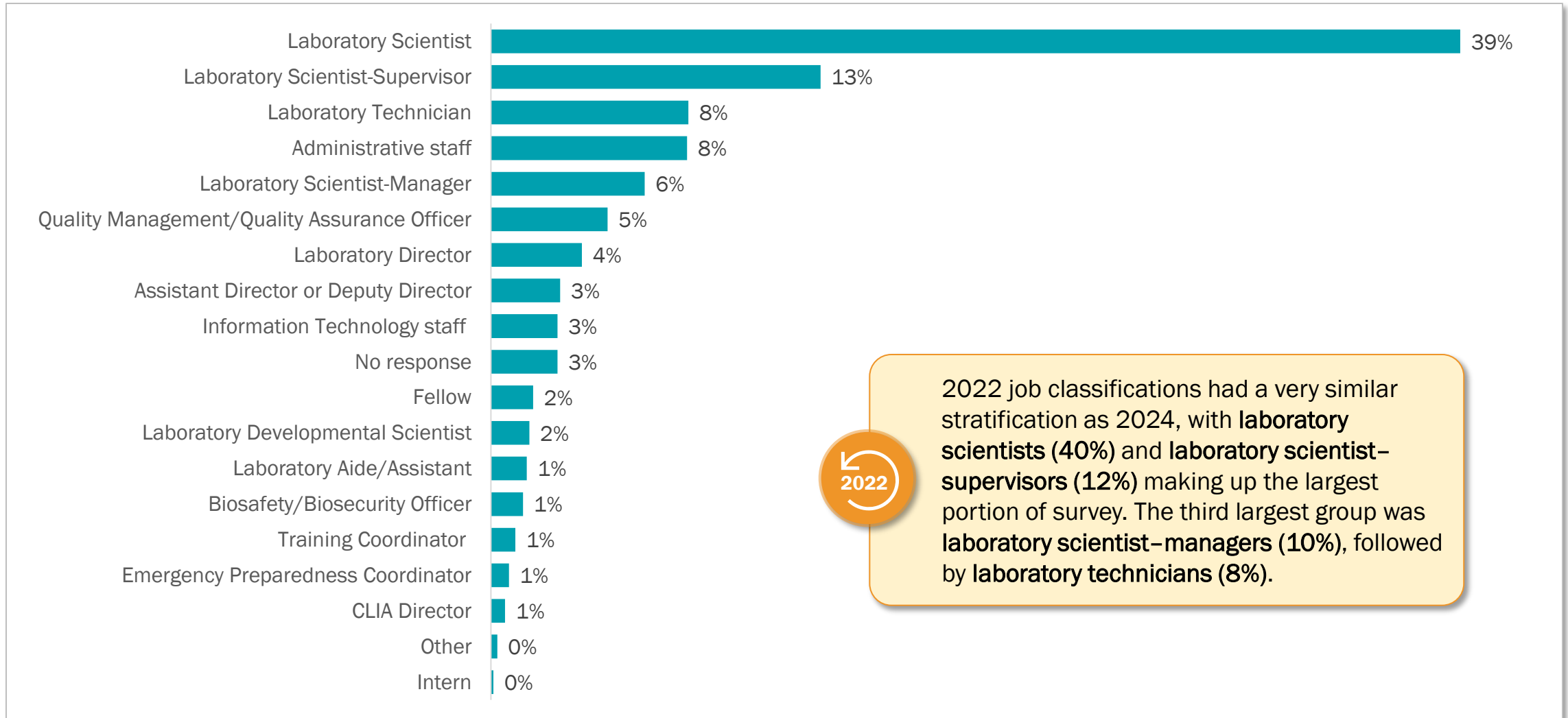
This is a new question added to the 2024 survey.



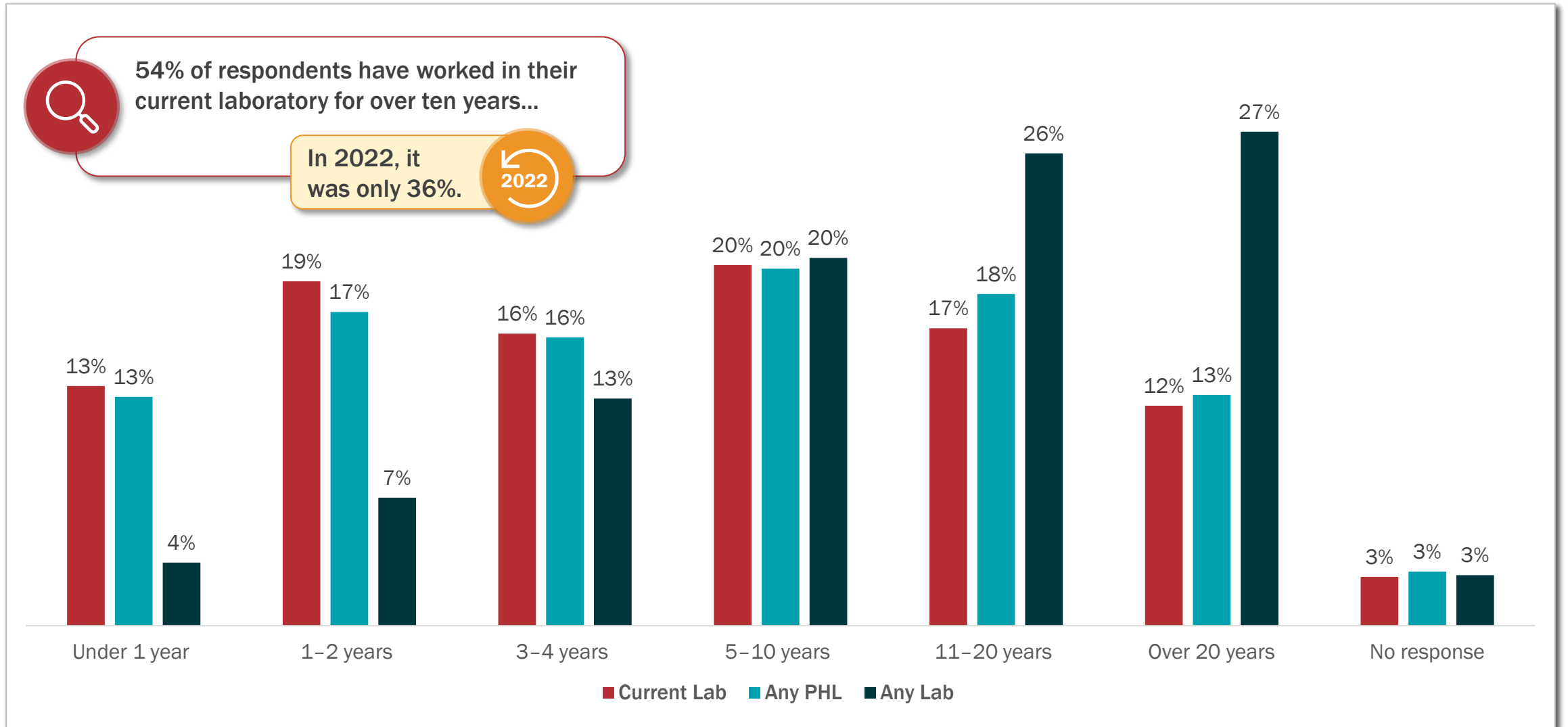
About the Public Health Laboratory Workforce

Job Types, Experience and Other Demographics

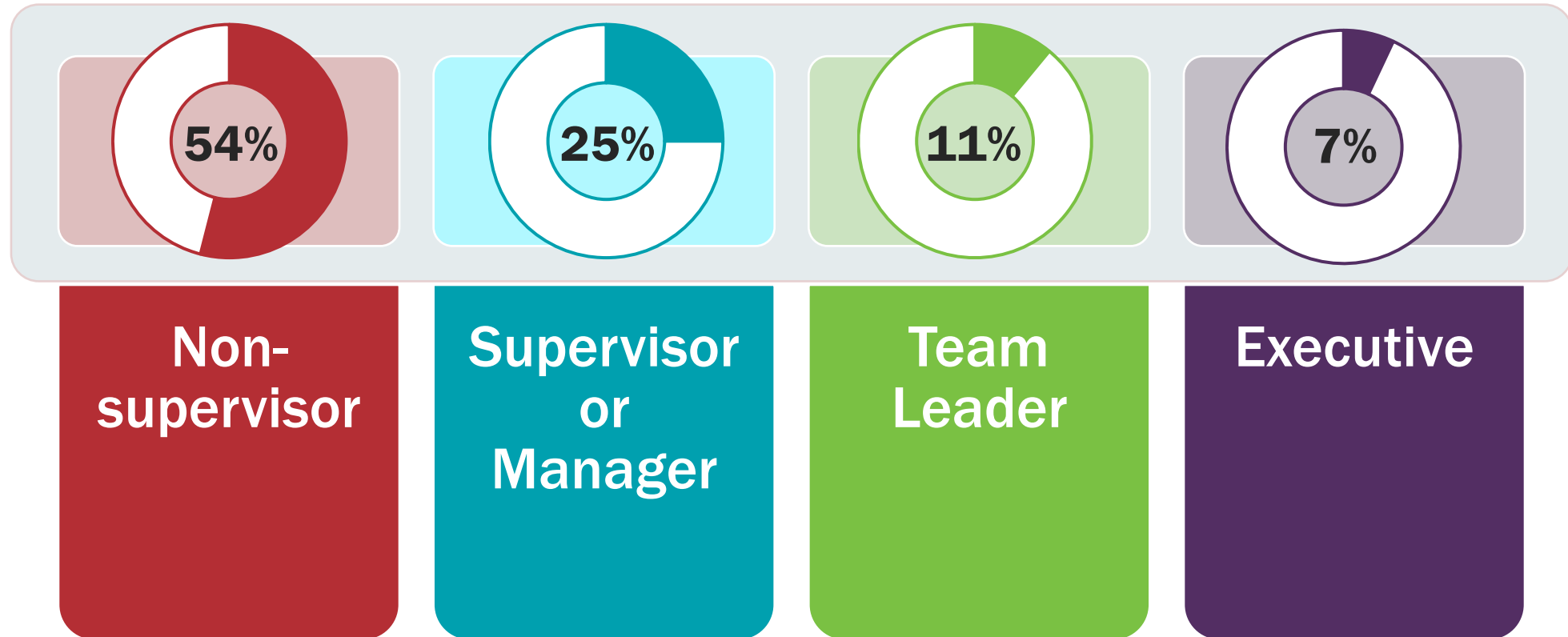
Job Classification




Years of Experience

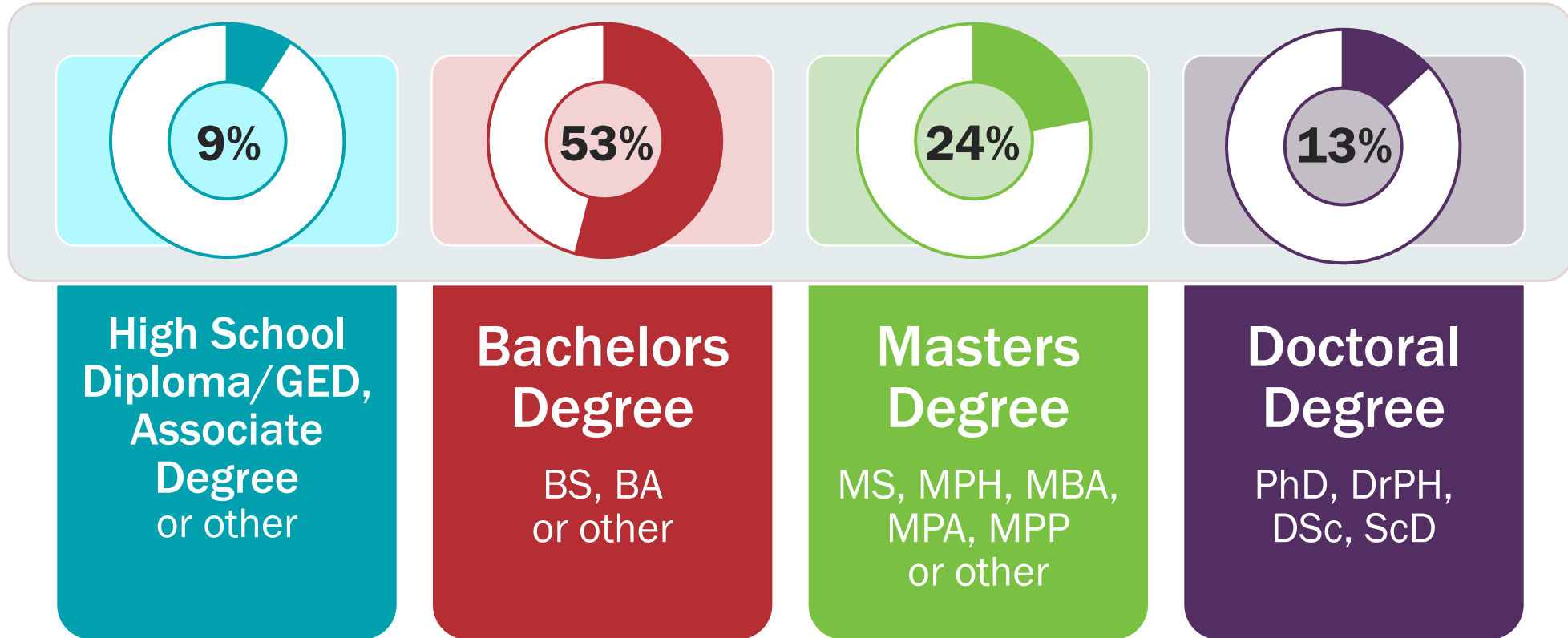


Supervisory Roles



 The distribution of managerial roles among survey respondents was similar between 2024 and 2022, with 53% in non-supervisory roles, 28% in supervisory or managerial positions, 13% as team leaders and 4% as executives in 2022.

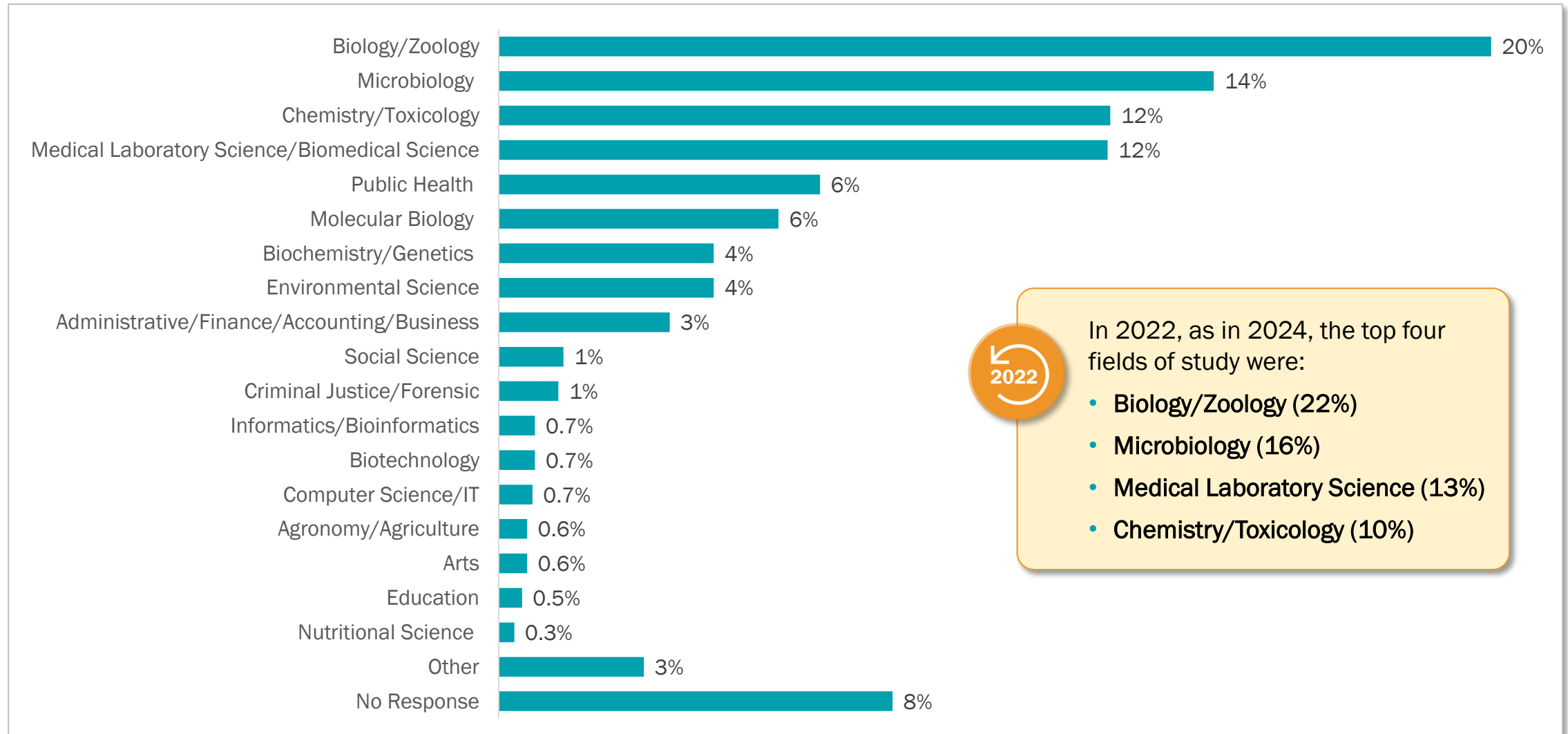
Highest Education Level Achieved



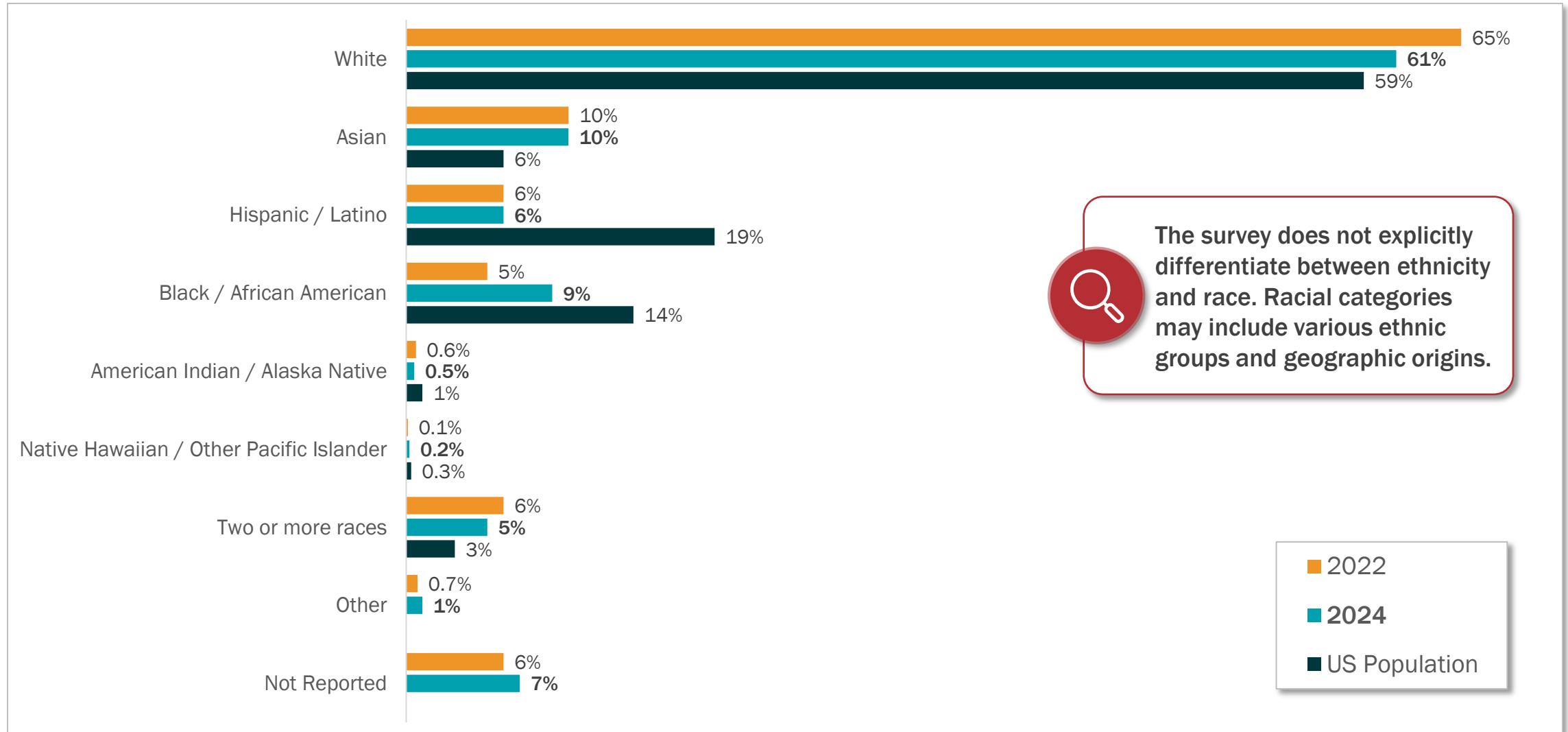
Compared to 2022, respondents in 2024 with the highest level of education of a:

- Bachelor's degree decreased by 5 points (58% in 2022).
- Master's degree increased by 3 points (21% in 2022).
- Doctoral degrees stayed similar.
- GEDs and associate degrees declined.

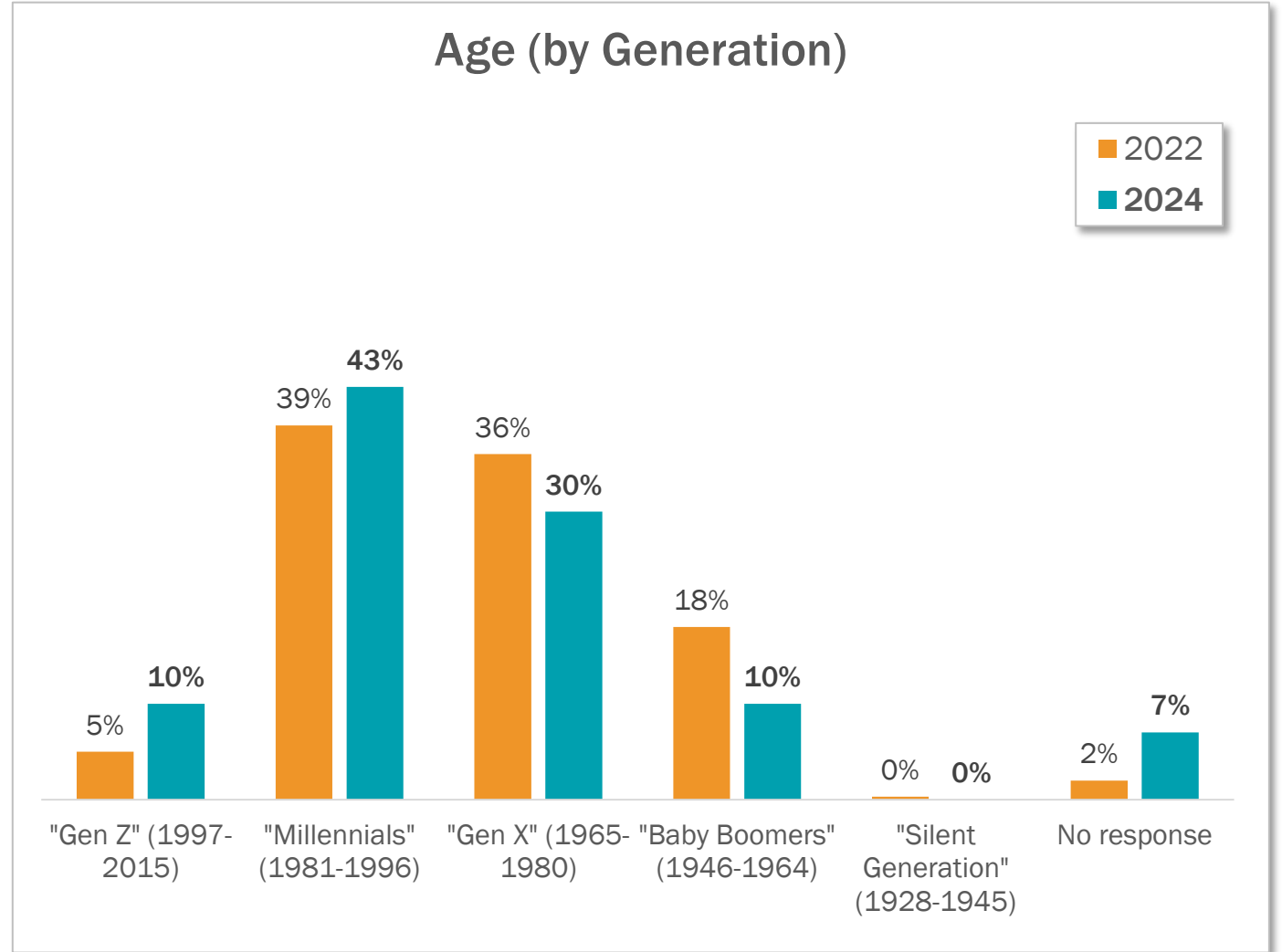
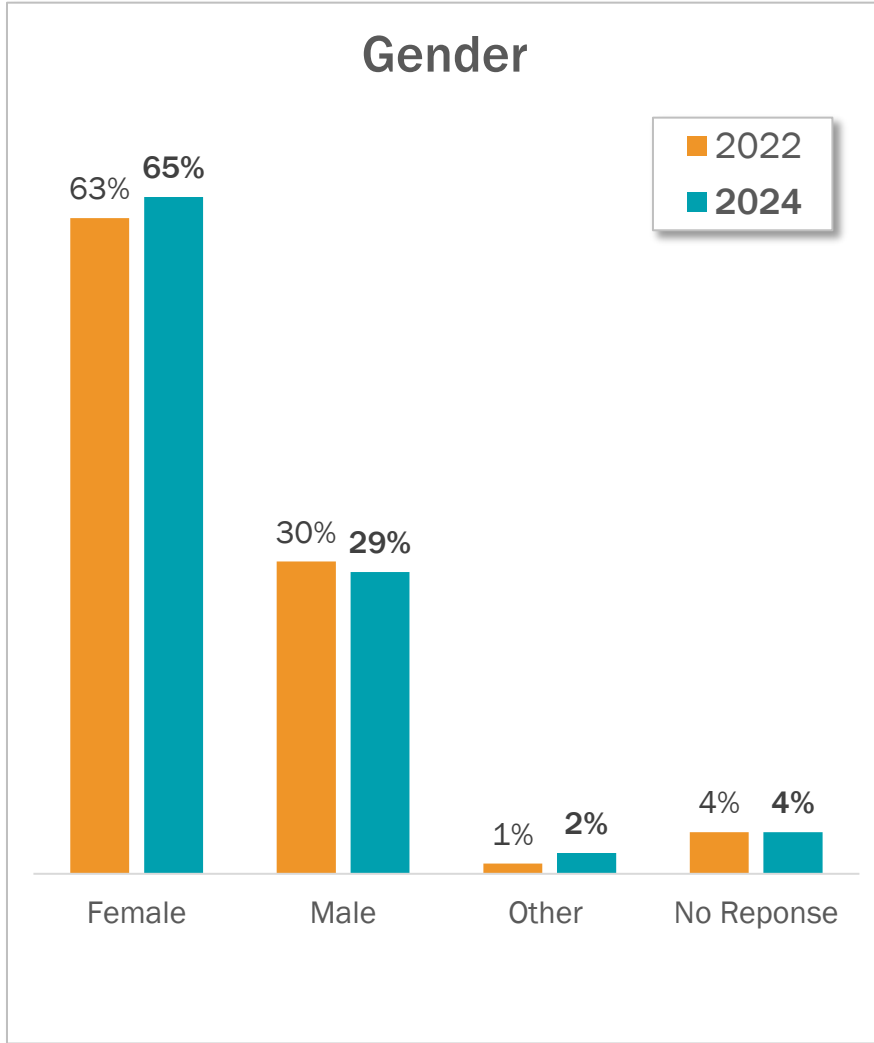
Field of Study for Respondents' Highest Degree



Race and Ethnicity Trends



Gender and Age Trends



Additional Characteristics

Employee Characteristics	2022	2024
Speak, read or write a language besides English.	21%	26%
Is a veteran.	3%	3%
Has a disability.	6%	8%



The number of unique languages spoken by the workforce increased from **42** in 2022 to **71** in 2024. See the next page for more information.



Language Trends

2022: 42 Unique Languages Reported

American Sign Language (ASL), Arabic, Bengali, Cantonese, Chinese, Farsi/Persian, Filipino, Fookien, French, German, Gujarati, Hawaiian, Hebrew, Hindi, Hmong, Ilocano, Italian, Japanese, Katchi, Korean, Latin, Malayalam, Mandarin, Mandingo, Navajo, Nepali, New Testament Greek, Polish, Portuguese, Punjabi, Romanian, Russian, Sourashtra, Spanish, Swahili, Swedish, Tagalog, Tamil, Telugu, Ukrainian, Urdu, Vietnamese and Wolof.

2024: 71 Unique Languages Reported

Albanian, Amharic, ASL, Arabic, Akan (Twi), Basque, Bengali, Burmese, Cantonese, Catalan, Cebuano, Chinese, Chinese (Mandarin), Creole, Danish, Dutch, English, Esperanto, Filipino, Farsi/Persian, French, Galician, German, Greek, Gujarati, Haka Chin, Hawaiian, Hebrew, Hindi, Hmong, Icelandic, Igbo, Irish, Italian, Japanese, Kannada, Khmer, Korean, Krio, Latin, Lithuanian, Malay, Malayalam, Marathi, Nepali, Navajo, Norwegian, Polish, Portuguese, Punjabi, Russian, Sanskrit, Serbian, Serbian-Croatian, Sign Language (other), Somali, Spanish, Swahili, Swedish, Tagalog, Tamil, Telugu, Thai, Ukrainian, Urdu, Vietnamese, Welsh, West African Pidgin English, Xhosa, Yoruba and Zulu.

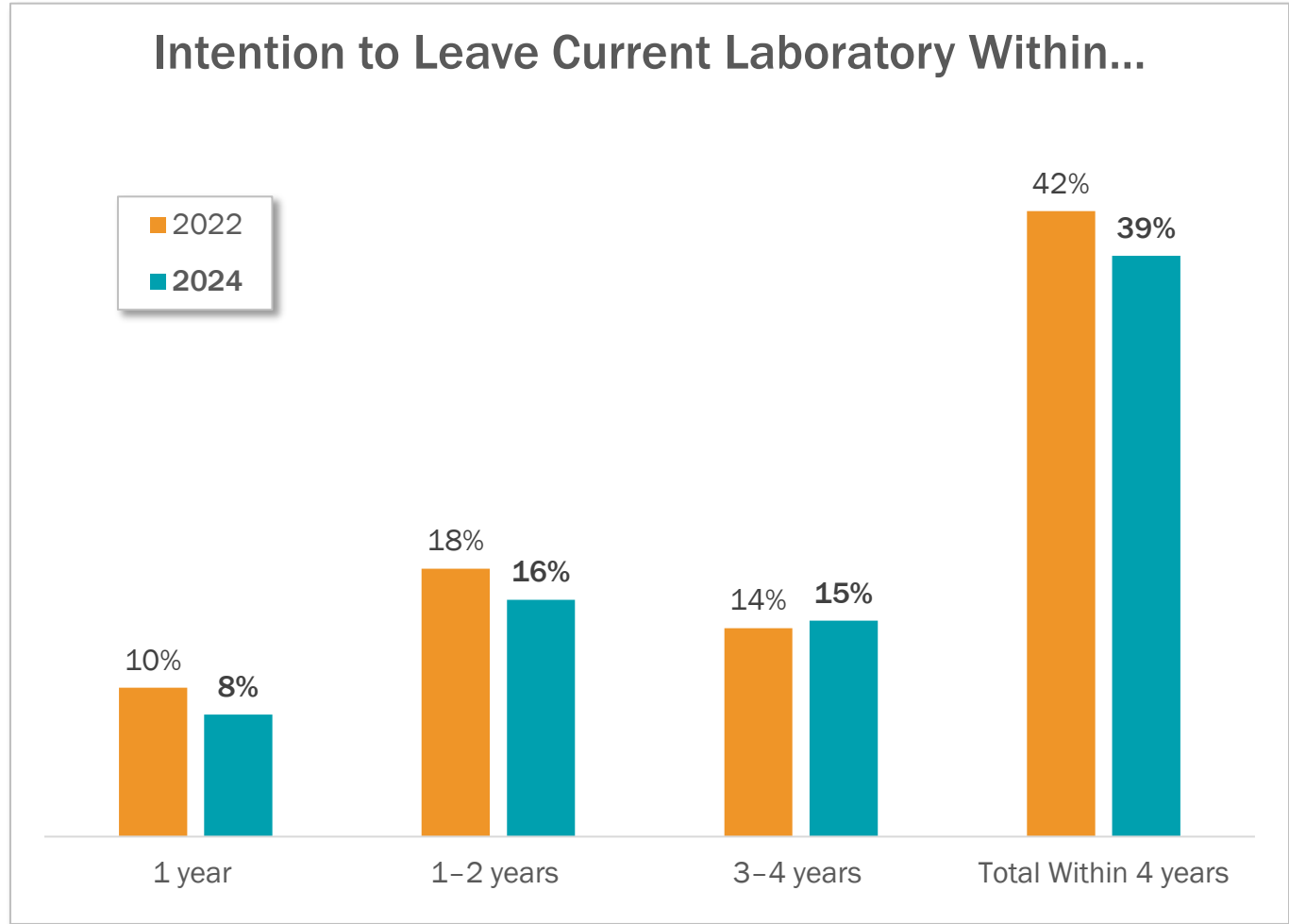


Turnover and Intention to Leave

Respondents are asked how long they planned to work in their laboratory. Those with the intention to leave within two years provided reasons for leaving, while those planning to stay longer shared reasons for staying. This informs our analysis of retention and early departures.

Intention to Leave: Trends Over Time

Intention to Leave Current Laboratory	2022	2024
Within 4 years	42%	39%
Within 1 year	10%	8%
Within 1-2 years	18%	16%
Within 3-4 years	14%	15%

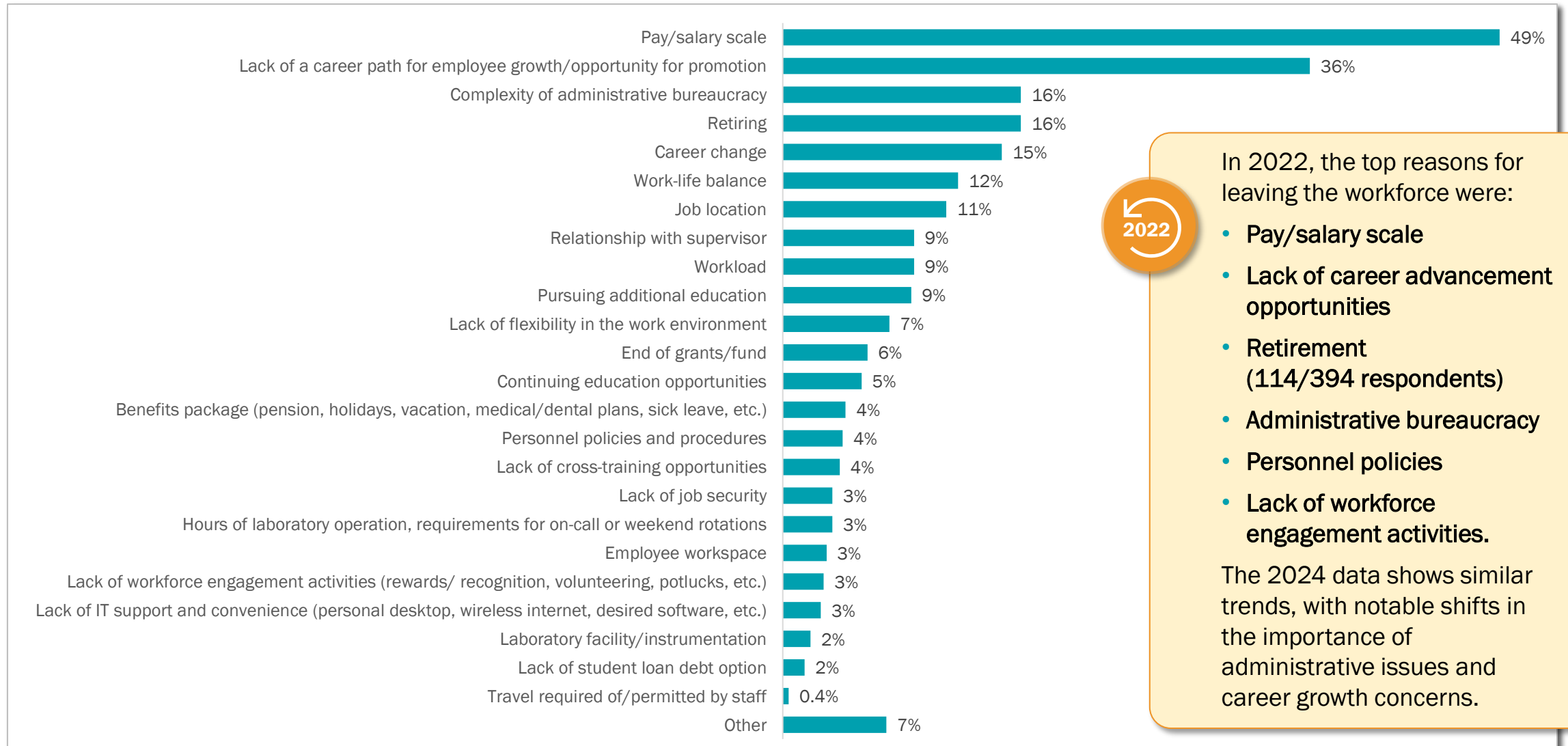


The data shows a slight drop in those intending to leave within four years, from 42% in 2022 to 38.6% in 2024.



Short-term retention has improved, with fewer respondents planning to leave the laboratory within one year, but the three-to four-year range remains steady.

Reasons for Leaving the Laboratory



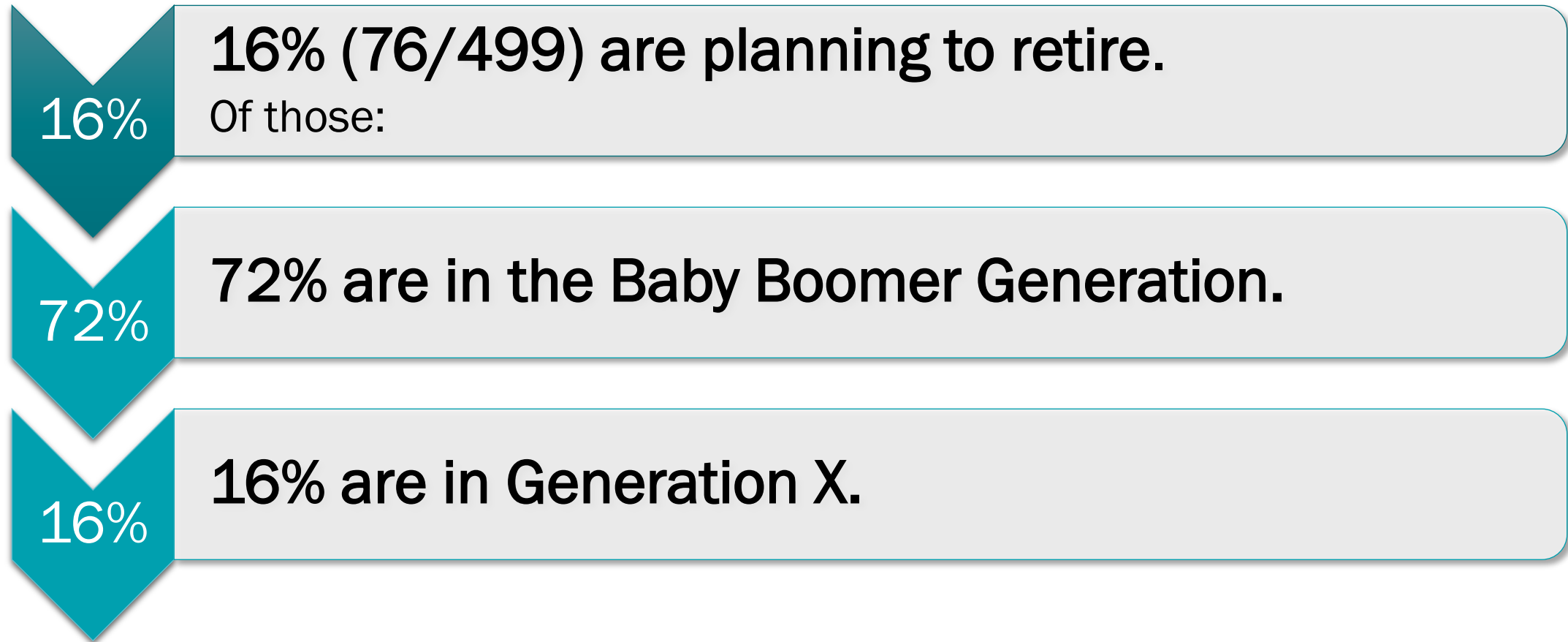
In 2022, the top reasons for leaving the workforce were:

- **Pay/salary scale**
- **Lack of career advancement opportunities**
- **Retirement (114/394 respondents)**
- **Administrative bureaucracy**
- **Personnel policies**
- **Lack of workforce engagement activities.**

The 2024 data shows similar trends, with notable shifts in the importance of administrative issues and career growth concerns.

Retirement: A Reason for Leaving the Workforce

Of those planning to leave their laboratory within the next two years:



Reasons for Staying at the Laboratory



In 2022, the top reasons for continuing employment were:

- **Benefits package (70%)**
- **Job security (62%)**
- **Convenient location (43%)**
- **Reaching full retirement eligibility (40%)**
- **Positive relationships with peers (38%) and supervisors (29%).**

In 2024, benefits, work-life balance and job security remained key factors, with the mission of the PHL and flexibility in the work environment also gaining importance.

Key Factors Influencing PHL Career Decisions



For individuals being recruited to join a laboratory, the top three most important factors they consider are **job security, work/life balance and benefits**. For those deciding whether to **remain at their laboratory**, the top three factors are **work/life balance, job security and a safe/secure work environment**. While balance and security are important in both stages, benefits play a bigger role in recruitment.

The **least important factors** for both recruitment and retention include **student loan forgiveness, opportunities for applied research or teaching, joint academic appointments and onsite childcare**. These trends are consistent with 2022 data.

Recruitment Factors

Reasons to Join a Laboratory	% Agreed
Job security	93%
Appropriate life/work balance	92%
Benefits package	92%
Safe/secure work environment	92%
Pay/salary scale	90%
Providing public service	81%
Flexible workdays/work times	78%

Retention Factors

Reason to Stay at Laboratory	% Agreed
Appropriate life/work balance	98%
Job security	98%
Safe/secure work environment	97%
Competitive salary	97%
Benefits package	97%
Flexible workdays/work times	92%
Providing public service	88%



Workforce Satisfaction Trends

Workplace, Engagement and Development

Please note that the language for some of the satisfaction questions was slightly revised compared to prior surveys to clarify their meaning.

Laboratory Workplace Satisfaction

Laboratory Workplace Factors	2022	2024
My co-workers and I have a good working relationship.	96%	95%
I know how my work relates to my laboratory's goals and priorities.	95%	93%
My supervisor and I have a good working relationship.	91%	90%
I have sufficient training to fully utilize technology needed for my work.	80%	82%
My workload is reasonable.	73%	78%
Communication between senior leadership and employees is good in my laboratory.	50%	59%
Creativity and innovation are rewarded at my laboratory.	53%	53%
My laboratory's set of job classifications provide career advancement options, including supervisory and career development paths.	31%	47%
My laboratory's current technical and professional job classifications support employee retention and succession planning.	36%	40%
My laboratory provides enough pay-grade levels within the job classifications.	29%	41%



Satisfaction Improvements

The most significant gains in workplace satisfaction were seen in the areas with overall lower satisfaction, most notably:

- “Job classifications providing career advancement options” rose by 16 points (31 to 47%).
- “Having enough pay-grade levels” rose 12 points (29 to 41%).

Satisfaction Declines

While most are still generally satisfied with them, small declines (1-3 points) in satisfaction were seen for many of higher-rated features.

Laboratory Engagement Satisfaction

Laboratory Engagement Factors	2022	2024
The work I do is important.	98%	97%
I am determined to give my best effort at work every day.	93%	95%
Providing public service is an important reason why I continue to work in this career.	93%	90%
My work is compatible with my goals.	83%	88%
My work is compatible with the level of knowledge and experience I have.	81%	87%
I am inspired to meet my goals at work.	78%	86%
I recommend my laboratory as a good place to work.	78%	79%



Engagement Improvements
 The most significant gains in workplace satisfaction were seen in the areas with previously lower levels of agreement, most notably:

- “Inspired to meet my goals” rose by 8 points (78 to 86%).
- “Job is compatible with knowledge and experience” rose by 6 points (81 to 87%).
- “Work is compatible with my goals” rose by 5 points (83 to 88%).

Engagement Declines
 Slight declines were seen around recognizing the impact of work:

- “Providing public service is important to why I continue to work in this career” dropped by 3 points (93 to 90%).
- “The work I do is important” dropped 1 point (98 to 97%).



Laboratory Development Satisfaction

Laboratory Development Factors	2022	2024
I am provided with opportunities to apply my talents and expertise.	78%	75%
I feel supported in my work development.	81%	71%
I am provided with opportunities to demonstrate my leadership skills.	76%	70%
My training needs are assessed.	68%	68%
I would pursue additional education with tuition support.	70%	66%
I have a desire to either be promoted to a management position or to continue to work in a management position.	78%	63%
I am provided with opportunities to participate in leadership and management training.	59%	55%



Overall, the satisfaction in laboratory development has gone down since 2022. The only category that remained constant was that training needs are assessed; the rest declined by at least 3 points (“Opportunities to apply talents”).

Development Declines

The three largest declines were:

- “I desire to be promoted to or continue to work in a management position,” which dropped by 15 points (78 to 63%)
- “I feel supported in my work development,” which dropped 10 points (81 to 71%).
- “I am provided with opportunities to demonstrate my leadership skills,” which dropped 6 points (76 to 70%).



Learn More & Acknowledgments

Learn More

Data Analysis

For more information about the survey or the data analysis, please email Sudaba Parnian, manager, Monitoring & Evaluation at sudaba.parnian@aphl.org, or Lorelei Kurimski, Director, Quality Systems and Analytics at lorelei.kurimski@aphl.org.

Related Resources

- [Public Health Laboratory Salary Dashboard](#)

Compare salary data from 2022 and 2024 across several categories with interactive tables and maps. The dashboard provides essential benchmarking data for leaders and policymakers to advocate for equitable and competitive salaries, directly impacting laboratories' ability to recruit and retain staff.

- [Public Health Workforce Profiles Webpage](#)

Find reports from the 2022 and 2016 editions of this survey, as well as an interactive dashboard with state-by-state participation in 2024 survey.

Acknowledgments

Thank You!

Thank you to all survey respondents for their valuable contributions to the Workforce Profiles Survey. Your input plays a crucial role in helping us understand and shape the future of the public health workforce.

Contributors

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The Association of Public Health Laboratories (APHL) works to strengthen laboratory systems serving the public's health in the US and globally. APHL's member laboratories protect the public's health by monitoring and detecting infectious and foodborne diseases, environmental contaminants, terrorist agents, genetic disorders in newborns and other diverse health threats.

7700 Wisconsin Avenue, Suite 1000 Bethesda, MD 20814 | 240.485.2745 | www.aphl.org