

# Medical laboratory staffing: Where is everyone?

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# Webinar Summary

The medical (clinical) laboratory has long been dealing with employment staffing shortages due to a number of factors. With the ongoing COVID-19 pandemic, the laboratory staffing issue has been revealed to reaching a critical and dangerous breaking point due to several already known, but now amplified challenges. This webinar will explain several factors (retirements, burnout, free agency travelers, etc.) at the intersection of laboratory staffing and quality patient healthcare.

# Learning Objectives

1. Explain the challenges around recruitment and retention in the laboratory revealed in ASCP's Wage and Vacancy surveys.
2. Discuss the evolution of medical laboratory staffing over the past several decades.
3. Describe how factors such as retirement, burnout, traveling laboratory professionals (free agency) and visibility play a role in staffing shortages.
4. Discuss the challenges of education, visibility and salary on the future of our profession as it relates to staffing.

## Context:

According to the Bureau of Labor Statistics, approximately 4,900 students graduate from MLS and MLT programs in the U.S. every year. But there are 9,000+ job openings. So, what's behind the 46% vacancy rate? And what can we do as laboratory professionals to address these significant staffing shortages?

# Starting Background – ASCP Workforce Report, 2018

- Participation:
  - 1,195 respondents (individuals who have hiring responsibilities) representing 34,059 employees
- Conducted through collaboration between ASCP's Institute of Science, Technology, & Policy in Washington, DC, the Evaluation, Measurement, and Assessment division and Board of Certification in Chicago, IL.
- Vacancy Survey Working Group, whose members work in the field of laboratory medicine, reviewed the survey questions and critiqued the report.



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Garcia E, Kundu I, Kelly M, Soles R. The American Society for Clinical Pathology's 2018 Vacancy Survey of Medical Laboratories in the United States. *Am J Clin Pathol.* 2019 Jul 5;152(2):155-168. doi: 10.1093/ajcp/aqz046. PMID: 31135889.

# 2018 ASCP Vacancy Survey – Summary of Findings

- Across the nation, the overall vacancy rate was **highest** for phlebotomy department (13.20%) and **lowest** for point-of-care department (4.03%).
- Phlebotomy (13.59%) has the highest nonsupervisory vacancy rate in the nation while point-of-care (4.08%) has the lowest staff vacancy rate.
- The highest supervisor vacancy rate occurred in the phlebotomy department (7.57%) and the lowest supervisor vacancy rate occurred in the specimen processing department (2.29%).
- LIS/QA/PI department has the highest overall percentage (27.12%) of employees anticipated to retire in the next 5 years. Phlebotomy has the lowest rate of employees expected to retire in the next 5 years, at 9.63%.

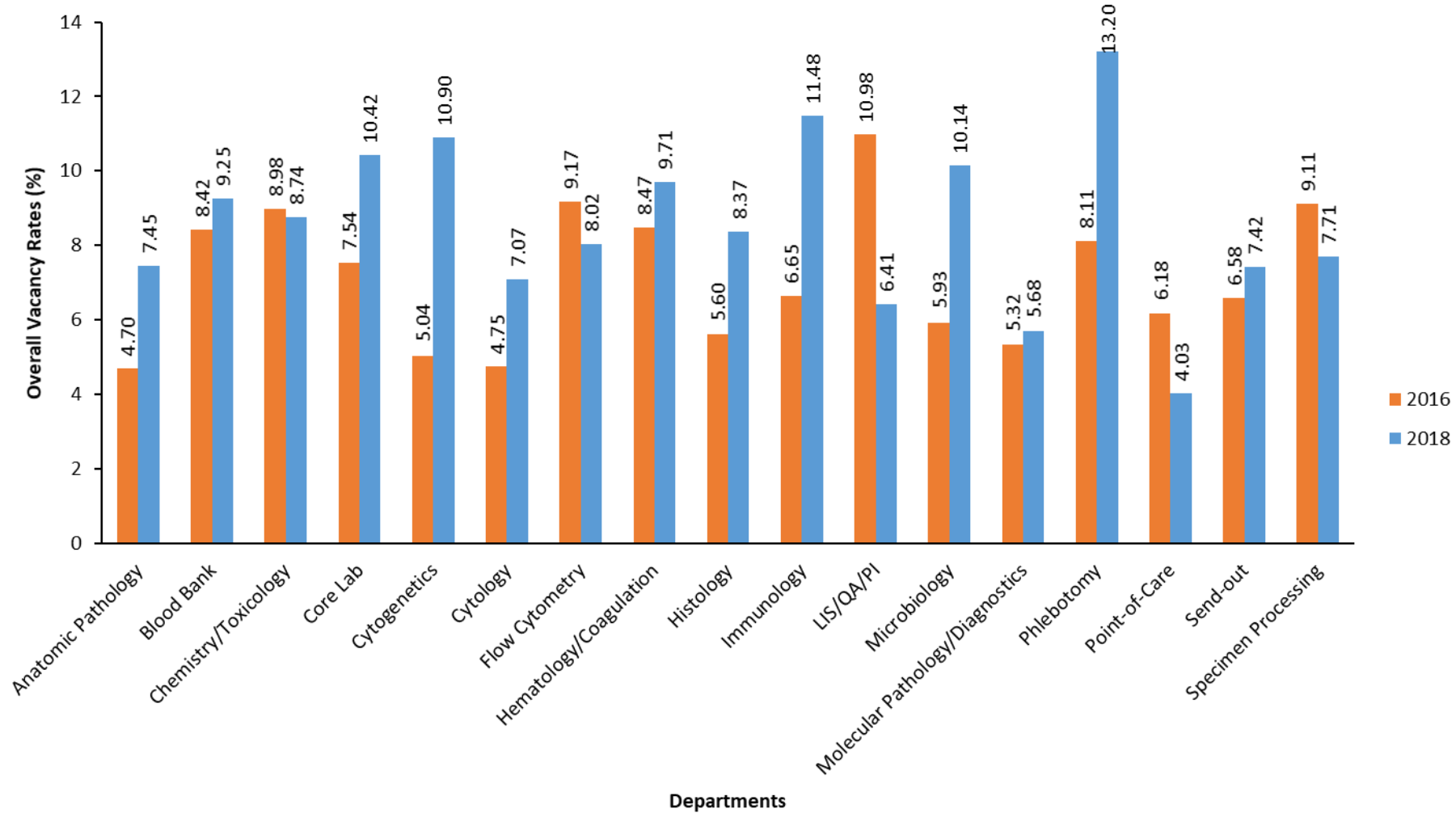


"GCC Center for Workforce phlebotomy lab" by Germanna CC is licensed under CC BY 2.0

# 2018 ASCP Vacancy Survey - Summary of Findings

- Overall, survey results show that it takes between 0 to 6 months to fill positions in the departments surveyed.
- On average, hiring staff for most departments takes 3 to 6 months, while hiring supervisors take 3 months to 1 year.
- The Central Northeast region reported the highest overall vacancy rate compared to other regions (11.10%); the Central Northwest had the lowest vacancy rate (5.62%).

# 2018 vs 2016 ASCP Overall Vacancy Rates





# 2018 vs 2016 ASCP Overall Vacancy Rates

- Results of the 2018 vacancy survey shows **increased vacancy rates** for laboratory positions (except for chemistry/toxicology, flow cytometry, LIS/QA/PI, point of care and specimen processing) **across all departments surveyed compared to 2016.**
- **#1 laboratory workforce concern this year** = 21.10% of respondents reported the need for **better salaries** for laboratory personnel and increased effort in heightening the profile of the laboratory profession in the medical field.
- **#2 top concern** = **qualified laboratory professionals** (18.35%). Respondents indicate that there is a great need for more graduates from accredited laboratory training programs to fill the vacancies created by retirement.
- **#3 concern** = **education and training programs** (9.17%). There is a crucial need to **promote** the field in high schools and colleges. They also mentioned the need for **increased internship offerings** for laboratory training programs and training in molecular biology.

# Vacancy Survey Overall Retirement Rates

Department	Overall Retirement Rate %			
	2018	2016	2014	2012
LIS/QA/PI	27.12%	28.30%	-	-
Flow cytometry	20.50%	17.39%	18.00%	
Hematology/Coagulation	19.21%	23.78%	19.51%	7.00%
Chemistry/Toxicology	18.35%	22.89%	23.60%	10.00%
Microbiology	17.38%	20.14%	19.48%	9.00%
Blood Bank	17.25%	20.97%	19.19%	7.00%
Core Lab	17.13%	20.72%	16.90%	9.00%
Cytology	16.28%	17.65%	14.49%	8.00%
Immunology	16.20%	22.13%	21.05%	10.00%
Cytogenetics	15.68%	19.86%	6.06%	4.00%
Send-outs	13.57%	18.23%	15.56%	-
Point-of Care	13.49%	24.72%	17.50%	-
Anatomic Pathology	12.99%	15.83%	13.76%	8.00%
Histology	11.83%	17.02%	18.84%	6.00%
Specimen Processing	11.56%	14.69%	11.29%	5.00%
Molecular Pathology/Diagnostics	11.25%	14.68%	17.65%	5.00%
Phlebotomy	9.63%	10.76%	11.54%	4.00%

Overall retirement rates by department since 2012. Data from 2012-2016 gathered from past ASCP vacancy surveys.



# ASCP Vacancy 2018 Report Summary

- Data from this survey show that vacancy rates are considerably higher in most of the departments compared to that in the 2016 report.
- For the first time since 2012, the retirement rates for most of the departments surveyed were at their lowest.
- Certification requirements continue to increase for most departments, suggesting the hiring manager's need for more qualified and certified laboratory personnel.

# ASCP Vacancy 2018 Report Summary

- Results from the qualitative analyses suggest:
  - The need for more graduates from accredited laboratory training programs to fill the vacancies left by retirement.
  - A vigorous recruitment campaign should be put in place now to address future shortages.
  - The critical need to focus on retention of lab professionals currently working in the field.
  - Strategies on advocating for better salaries for laboratory personnel both in the local and national level should be discussed.
  - The field should also concentrate on the multi-generational differences between laboratory personnel as it relates to retention.

***“In the past 3 years, we have lost 34% of our staff and only regained about 10%. It is mainly due to retirement for older techs and dissatisfaction with current practice for new techs. Sign on bonuses and better wages are drawing new techs away.”***



***“We are in a disparate place with pending retirements and difficulty recruiting. We need a concerted national effort to heighten the profile of the laboratory profession, or we will not have anyone in the lab to do the necessary work to support our patients and providers. We read about the nursing shortage, and the physician shortage in the news, but the lab profession shortage does not get the attention it deserves.”***

# 2018 vs 2016 ASCP Overall Vacancy Rates

- For the first time since 2012, retirement rates (for those who anticipate retiring in the next five years) for laboratory professionals are at its lowest across the majority of departments.
  - [**\*\*My personal interaction** in the current pandemic indicates that **this may not be “holding,”** as we are witnessing a significant number of retirements – 2020 ASCP Report is not currently published.]
- Retirement rates for both staff and supervisor have also declined, except for the anatomic pathology, cytogenetics, flow cytometry, and phlebotomy departments for staff, and cytology, flow cytometry, molecular pathology/diagnostics, and point-of-care departments for supervisors.
- Previous ASCP vacancy reports have suggested that the field will experience a loss of laboratory personnel who have been in the field for a long period of time and have a vast amount of experience. Current data suggests that this loss of personnel has already occurred.

# The American Society for Clinical Pathology's Job Satisfaction, Well-Being, and Burnout Survey of Laboratory Professionals

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Affiliations + expand

PMID: 32080719 DOI: [10.1093/ajcp/aqaa008](https://doi.org/10.1093/ajcp/aqaa008)

## Abstract

**Objectives:** To examine job satisfaction, well-being, job stress, and burnout among laboratory professionals.

**Methods:** The study utilized a cross-sectional survey design. The survey was administered online via the American Society for Clinical Pathology's survey tool, to elicit information about job satisfaction, well-being, job stress, and burnout among medical laboratory professionals.

**Results:** Although this survey shows high job satisfaction among respondents, overall job-related stress is high and burnout is prevalent. The majority of the respondents rated their work-life balance as "fair." The main contributing factors to job stress, burnout, and work-life balance are quantity of workload and understaffing.

**Conclusions:** Based on the results of this survey, creating targeted interventions may help improve the quality of well-being programs for laboratory professionals. A comprehensive wellness program developed at the institutional, local, and national levels may improve morale and alleviate the recruitment and retention challenges faced by medical laboratory professionals.

# History of staffing – looking over 30 years

- Hospital-based programs versus academic programs
- Numbers of programs in different regions / states of the United States
- Licensed versus non-licensed states
- Certification



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# History of staffing – looking over 30 years

- Revenue / reimbursement in healthcare
- Automation / technology
  - Still need “the brain / troubleshooter”
  - Informatics / computer science upgrades in our education
- Cost of programs / academic misunderstanding



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# History of staffing factors – looking over 30 years

- Awareness / Recognition
  - Upstream and downstream issues
  - What is in a name?
- Clinical placements / rotations
  - Consolidation of microbiology / blood bank is a national problem
- Salary – “Show me the money!”
  - Visibility is key – DCLS / Diagnostic Management Teams / highly educated in general
  - More public-facing attention for the laboratory / “public pressure”



Texas State University – CLS Program

# ASCP's 2019 Wage Survey of Medical Laboratories

Staff	2015*	2017*	2019	% Change 2017 to 2019
PA	\$45.95	\$43.37	\$45.19	4.20%
HT	\$25.90	\$26.95	\$27.60	2.41%
MLT/CLT	\$22.16	\$22.72	\$23.19	2.08%
MB	\$29.13	\$28.74	\$29.25	1.78%
PBT	\$15.89	\$16.39	\$16.64	1.54%
HTL	\$28.46	\$28.01	\$28.17	0.56%
CT	\$34.37	\$35.97	\$35.84	-0.36%
CLA/MLA	\$17.46	\$18.77	\$18.66	-0.62%
MT/MLS/CLS	\$29.61	\$30.24	\$30.02	-0.72%
CG	\$33.00	\$34.27	\$32.40	-5.44%

Table 3. Percent change in overall annual hourly wage for staff between 2015, 2017 and 2019.

Sample size constraints prevented further analysis of percent change in overall annual hourly wage for some occupational titles.

\*2015 and 2017 wages adjusted for inflation as of 2019



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# ASCP's 2019 Wage Survey of Medical Laboratories

Lead	2015*	2017*	2019	% Change 2017 to 2019
POCT	-	\$33.63	\$35.76	6.36%
HT	\$29.72	\$29.73	\$31.59	6.28%
MLT/CLT	\$24.98	\$24.98	\$26.39	5.63%
PA	\$50.73	\$49.87	\$52.20	4.69%
CG	\$37.68	\$38.50	\$40.10	4.16%
PBT	\$18.00	\$18.03	\$18.68	3.58%
HTL	\$32.38	\$30.62	\$31.61	3.25%
CT	\$36.86	\$39.36	\$40.23	2.20%
MT/MLS/CLS	\$33.46	\$34.06	\$34.65	1.71%

Table 4. Percent change in overall annual hourly wage for leads between 2015, 2017 and 2019.  
 Sample size constraints prevented further analysis of percent change in overall annual hourly wage for some occupational titles.  
 \*2015 and 2017 wages adjusted for inflation as of 2019



# ASCP's 2019 Wage Survey of Medical Laboratories

Supervisor	2015*	2017*	2019	% Change 2017 to 2019
HT	\$32.60	\$32.51	\$33.78	3.91%
CT	\$39.21	\$42.63	\$44.11	3.48%
MT/MLS/CLS	\$35.47	\$35.81	\$36.13	0.88%
MLT/CLT	\$26.88	\$27.41	\$27.23	-0.63%
HTL	\$33.85	\$35.19	\$33.39	-5.12%

Table 5. Percent change in overall annual hourly wage for leads between 2015, 2017 and 2019.  
 Sample size constraints prevented further analysis of percent change in overall annual hourly wage for some occupational titles.  
 \*2015 and 2017 wages adjusted for inflation as of 2019



# ASCP's 2019 Wage Survey of Medical Laboratories

Time in current title, years	CLA/MLA	CG	CT	HT	HTL	LIS	MLT/CLT	MT/MLS/CLS	MB	PA	PI/QA	PBT	POCT	SBB
0-5	\$17.39	\$32.72	\$34.40	\$27.86	\$28.02	\$38.85	\$22.34	\$29.50	\$29.13	\$47.95	\$44.66	\$16.03	\$29.94	\$33.77
6-10	\$19.83	\$35.26	\$35.75	\$29.20	\$30.55	\$41.13	\$24.49	\$32.14	\$33.30	\$51.22	NA	\$17.07	\$33.06	\$37.73
11-15	\$20.81	\$33.07	\$37.53	\$31.32	\$32.27	NA	\$25.44	\$34.01	NA	\$55.90	NA	\$20.31	NA	\$37.22
16-20	NA	\$37.68	\$38.53	\$30.01	\$33.88	NA	\$27.55	\$34.97	NA	\$51.94	NA	\$18.96	NA	NA
21-25	NA	\$37.71	\$40.81	\$30.76	\$34.82	NA	\$26.81	\$34.88	NA	\$51.31	NA	\$21.01	NA	NA
26-30	NA	NA	\$42.73	\$32.01	NA	NA	\$28.41	\$37.14	NA	NA	NA	\$20.89	NA	NA
31-35	NA	NA	NA	NA	NA	NA	\$29.38	\$37.20	NA	NA	NA	NA	NA	NA
36-40	NA	NA	NA	NA	NA	NA	\$31.35	\$37.65	NA	NA	NA	NA	NA	NA
41+	NA	NA	NA	NA	NA	NA	NA	\$36.22	NA	NA	NA	NA	NA	NA



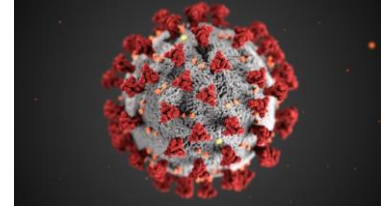
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Table 7. Average hourly wage by time in current occupational title.

# Comments from ASCP's 2019 Wage Survey of Medical Laboratories Participants

- Total comments received: 3,891
- Addressed being underpaid/underappreciated especially compared to nursing and other allied health professions
- Indicated that there are shortages due to hiring, retention, and staffing challenges
- Commented on feeling lack of appreciation from their peers and lack of recognition in the health care field in general, despite being highly qualified and being an important part of patient care
- Commented on low wages and lack of staff leading to early burnout in rural areas; those belonging to urban areas noted that their wages are not enough to meet the high cost of living

# History of staffing factors – SARS-CoV-2 / COVID-19



CDC - PHIL ID #23311

- The “COVID-19 Pandemic effect”
  - The National Testing strategy
  - Too MUCH work versus NO work due to cancellation of non-critical surgery, procedures, etc.
  - Free agency MLS
  - High burnout due to massive COVID testing demands on top of regular workload
    - “some fear of infection” / “caregiver issues”
  - Younger / newer professionals may be leaving field
- ASCP Survey / personal information shows that staffing appears to be coming back



# History of staffing factors – SARS-CoV-2 / COVID-19

- The Pandemic Spotlight can help:
  - International, national, state coverage by news, articles, and other media outlets
  - Increasing visibility of our college MLT / MLS / Specialists / DCLS programs leading to more majors in programs
- Education / Academic impact
  - Faculty lines / tenure impact [travel, research, etc.]
  - Budgets
  - Prerequisite courses / major course loss of “class / lab time”

# The Future – What are some of the biggest challenges

- Staffing!
  - Retirement of seasoned veterans / experts
  - Recruitment / retention
  - Mentoring towards administration / leadership
- **Pipeline** of future laboratory professionals
  - Generational differences / health disparities / urban versus rural / diversity
- Education of future laboratory professionals
  - Lack of clinical placements / rotations
  - We are at crisis mode now in the United States



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QUESTIONS?

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