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| 1. **US Department of Labor. Bureau of Labor Statistics. Occupational Outlook Handbook. https://www.bls.gov/ooh/healthcare/clinical-laboratory-technologists-andtechnicians.htm** |
| 2021 Median Pay - $27.79 per hour / $57,800 per year Projected Growth Rate 7% in comparison to 5% for all occupations between 2021 - 2031 |
| 1. **American Society for Clinical Laboratory Sciences. What is a medical laboratory science professional? How do I become a laboratory professional? Published n.d.** |
| Specialized skill set - Requires additional training beyond a biological science degree. |
| 1. **Wu SY, Green A. Projection of Chronic Illness Prevalence and Cost Inflation. Santa Monica, CA: RAND Health; 2000.** |
| Another source showing not enough educational programs to meet the needs of the profession. |
| 1. **University of North Florida Office of Institutional Research. Common Data Set 2021-2022. Last Updated March 18, 2022.** |
| <https://www.unf.edu/ir/common-data-set/2021.html>  Number of biological science graduates from local universities to apply to program and become future laboratory professions. Data publicly available. |
| 1. **Garcia, Edna., et al. “The clinical laboratory workforce: Understanding the challenges to meeting current and future needs.” American Society for Clinical Pathology and Center for Health Workforce Studies, University of Washington.** |
| <https://ascpcdn.s3.amazonaws.com/static/ISTP/ASCP_UW_Clinical+Laboratory+Workforce_Report_2021.pdf>  Report thoroughly defines our workforce, educational paths, recruitment, and retention strategies. Describes the laboratory workforce shortage and number of national graduates.  Number of local university biological science graduates. Individuals unable to work in hospital laboratories without additional training - students to recruit. |
| 1. **Garcia E, Kundu I, Kelly M. et al. The American Society for Clinical Pathology’s Job Satisfaction, Well-Being, and Burnout Survey of Laboratory Professionals. Am J Clin Pathol. 2020;153(4):470-486.** |
| <https://academic.oup.com/ajcp/article/153/4/470/5741819>  Nationally, majority of burnout is occurring in medical laboratory between 35 - 44 years (x % of your lab staff). This group is being overworked during work force shortage as more seasoned professionals. These individuals are considering career changes, similar positions at a different hospital, and different employment in a related field. |
| 1. **College of American Pathologist (CAP) Accreditation Requirements. Laboratory General Checklist Requirements. Published checklist 10/24/2022** |
| **Regulatory requirement for training at all sites: More non-productive hour expenses due to borrowing staff from other Baptist Hospital sites**. GEN.55505  Competency Assessment Frequency - Nonwaived Testing Phase II The competency of personnel performing nonwaived testing is assessed at the required frequency at the laboratory (CAP/CLIA number) where testing is performed. NOTE: Competency assessment evaluates an individual's ongoing ability to apply knowledge and skills to achieve intended results. Competency must be assessed at the following frequency: ● At least semiannually (first assessment within seven months from initiation of testing and second assessment no later than 12 months from the start of testing during the first year an individual tests patient specimens (new employees) ● At least annually after an individual has performed assigned duties for one year\* ● When problems are identified with an individual's performance. \*The annual assessment of competency can be performed throughout the entire year to minimize impact on workload. 91 of 132 Laboratory General Checklist 10.24.2022 Records of competency  assessment may be retained centrally within a healthcare system but must be available upon request. Competency of nonwaived testing personnel must be assessed at the laboratory where testing is performed (CAP/CLIA number). If there are variations on how a test is performed at different test sites, those variations must be included in the competency assessment specific to the site or laboratory. |
| 1. **Conway JM. Return on Investment: The Positive Impact of Student Training in Your Laboratory. American Society for Clinical Laboratory Science (ASCLS) Annual Meeting 2016. Philadelphia, PA.** |
| National presentation discussing positive impact of student training in your laboratory. Presentation supports the cost to train, recruit, longer term interviews, cost to trainer (reimbursed by Medicare Pass Through Reimbursement) - Work with finance department to bring in Medicare Pass Through Reimburse for training programs – Add Lab Value! |
| 1. **Forsman, RW. Why is the laboratory an afterthought for managed care of organizations? Clinical Chemistry, Volume 42, Issue 5, 1 May 1996, Pages 813 -816, https://doi.org/10.1093/clinchem/42.5.813** |
| *"Laboratory services may make up 5% of a hospital's budget but leverage 60-70% of all critical decision-making such as admittance, discharge, and medication."* |
| 1. **Medical Laboratory Science Program Director Educational Grants - https://www.ascp.org/content/grants-scholarships#** |
| American Society for Clinical Pathology offers MLS program directors an educational grant for program enrichment, expenses, clinical site support with reference books, advertising, outreach efforts to promote the profession. Requirements - NAACLS serious applicant status/accredited. Recipients receive up to 10,000k (minimum of 5,000). Grant is annual. |
| 1. **Brady E. 2023 Lab of the Year Runner Up: North Kansas City Hospital Laboratory. Medical Laboratory Observer, March 27, 2023.** |
| [*https://www.mlo-online.com/management/article/53027826/2023-lab-of-the-year-runner-up-north-kansas-city-hospital-laboratory*](https://www.mlo-online.com/management/article/53027826/2023-lab-of-the-year-runner-up-north-kansas-city-hospital-laboratory)  *"Additionally, they have their own North Kansas City Hospital School of Medical Laboratory Science, one of six programs in the state. The lab’s day shift scientists teach the students and 70% of NKCH’s MLS staff are graduates of the program."* |
| 1. **National Accrediting Agency for Clinical Laboratory Sciences (NAACLS)** |
| <https://www.naacls.org/about.aspx>  Organization that accredits medical laboratory science training programs. Organization not only offers accreditation but also provide education, mentors, and support for institutions working to establish training programs. |
| 1. **Medical Laboratory Education Directory of Online MLT-to-MLS Programs** |
| [ASCLS-Online-Directory\_MLT-to-MLS\_May-2023.pdf](https://ascls.org/wp-content/uploads/2023/05/ASCLS-Online-Directory_MLT-to-MLS_May-2023.pdf)  Organization will need to encourage existing team members to continue their professional development. This encourages laboratory team member retention and provides even higher quality trainers for your medical laboratory student program. This site list current online available programs. Team members can make informed decisions. |