

# Addressing HLA Laboratory Vacancy Challenges: Insights from a Survey-Based Analysis

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## INTRODUCTION

Laboratory vacancies pose significant challenges to institutions across diverse sectors. Understanding the landscape of these vacancies is crucial for developing effective strategies on how best to address them. The American Society of Histocompatibility & Immunogenetics (ASHI) Laboratory Professionals Recruitment Initiative (LPRI) was created to help address these issues by promoting and raising awareness of Histocompatibility and Immunogenetics (HLA) labs. This poster presents findings from a comprehensive survey conducted among various types of institutions to explore the prevailing dynamics surrounding HLA laboratory job vacancies in the United States of America, and internationally.

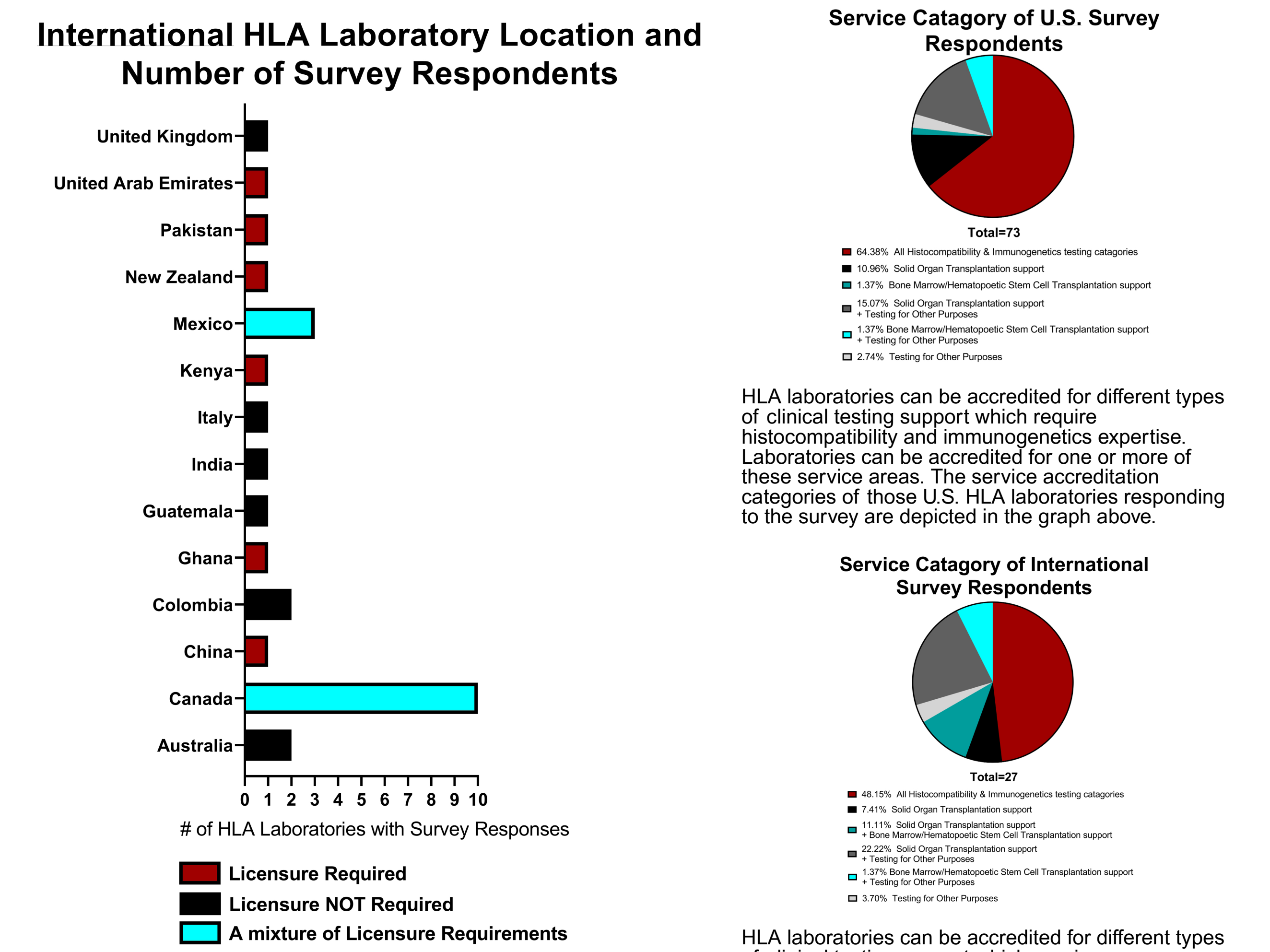
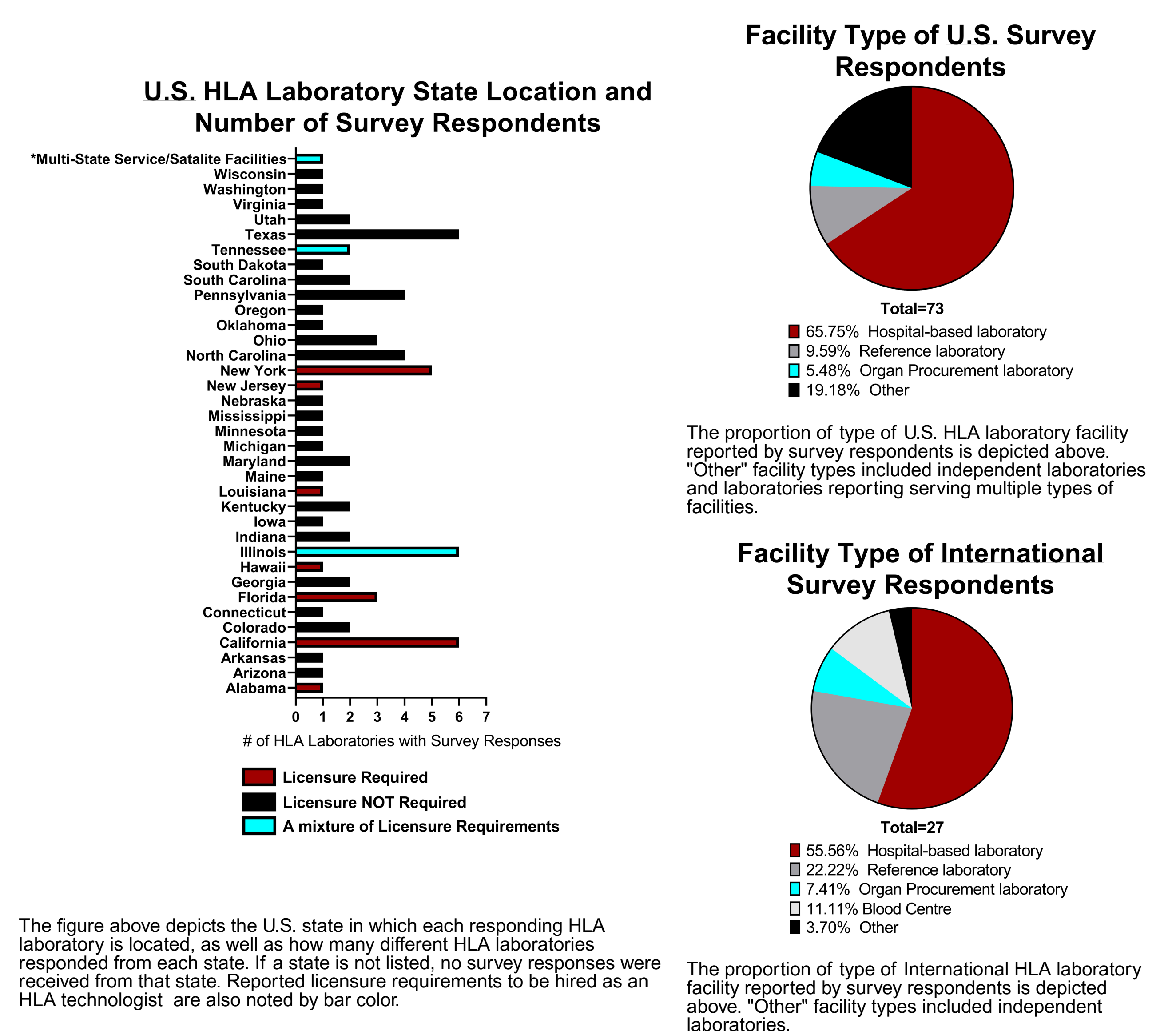
## PURPOSE

The primary purpose of this study is to provide a comprehensive overview of the HLA laboratory job vacancy landscape in U.S.A. and international laboratories, including current vacancy rates, time taken to fill vacancies, and the perceived underlying causes attributed to these vacancies.

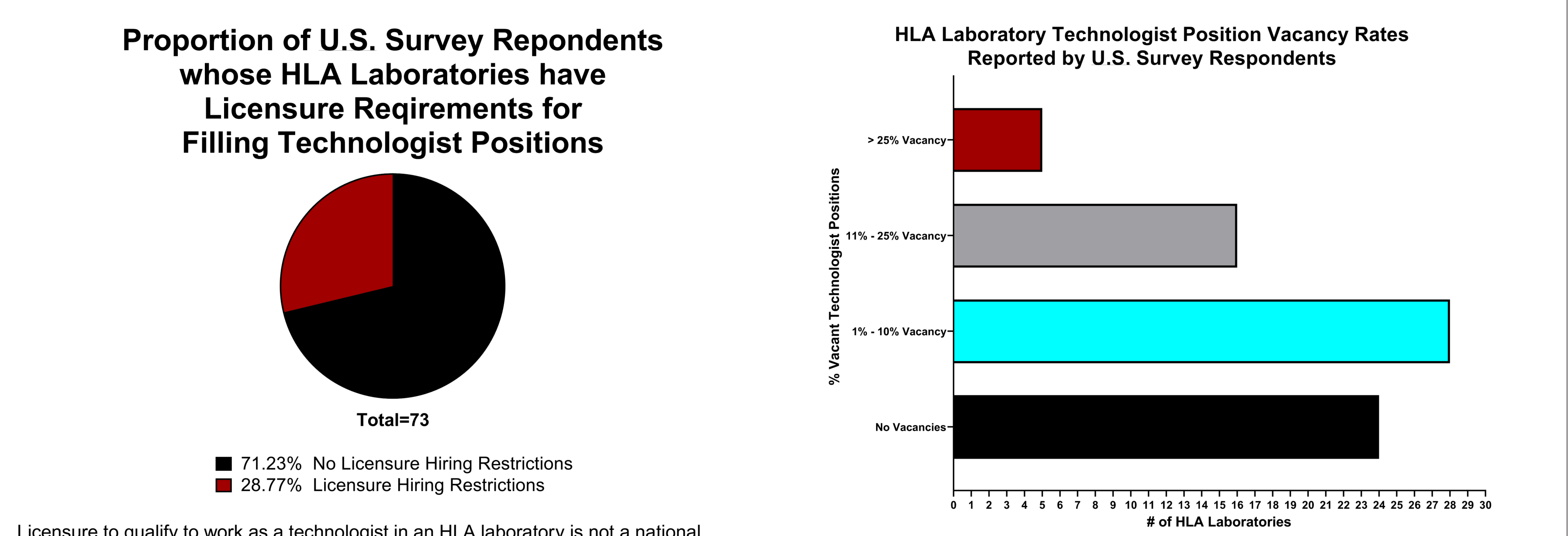
## METHODS

The ASHI LPRI developed survey was administered to HLA laboratories around the world and represented different service sectors, including hospital based, reference, organ procurement and independent laboratories. The survey collected data on the type of institution, current laboratory job vacancy rates, average time taken to fill vacancies, and perceived primary causes for vacancies. Data analysis was conducted to identify patterns and insights into the HLA laboratory vacancy challenges.

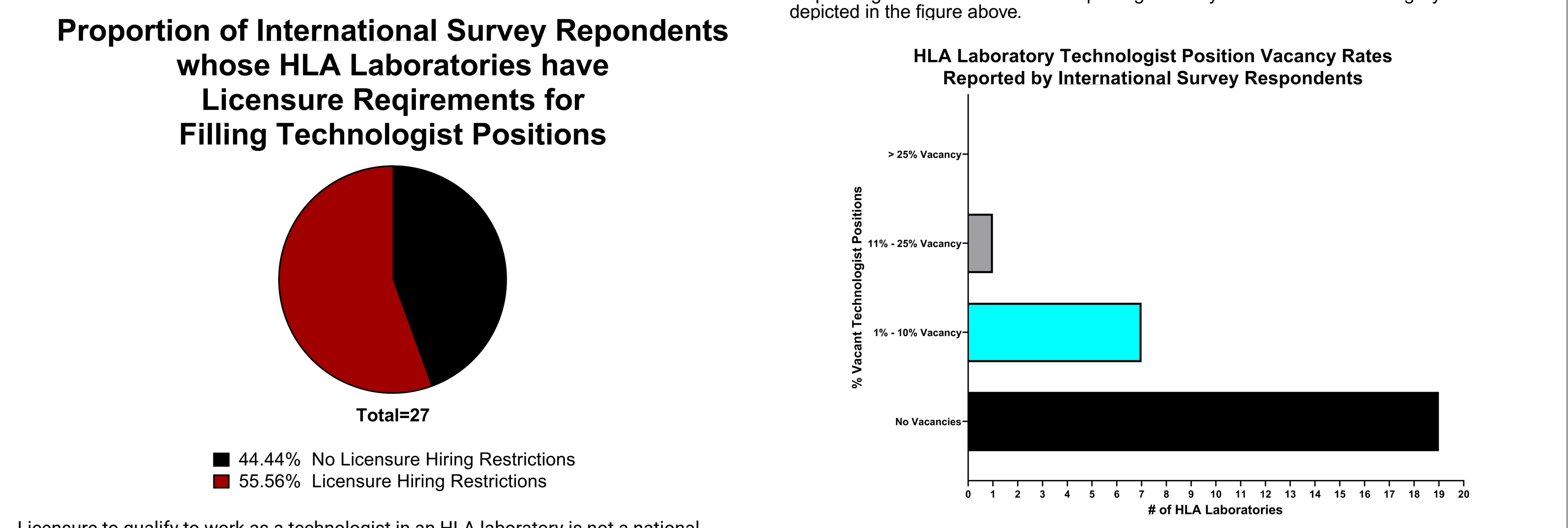
## SURVEY RESPONDENT DEMOGRAPHICS



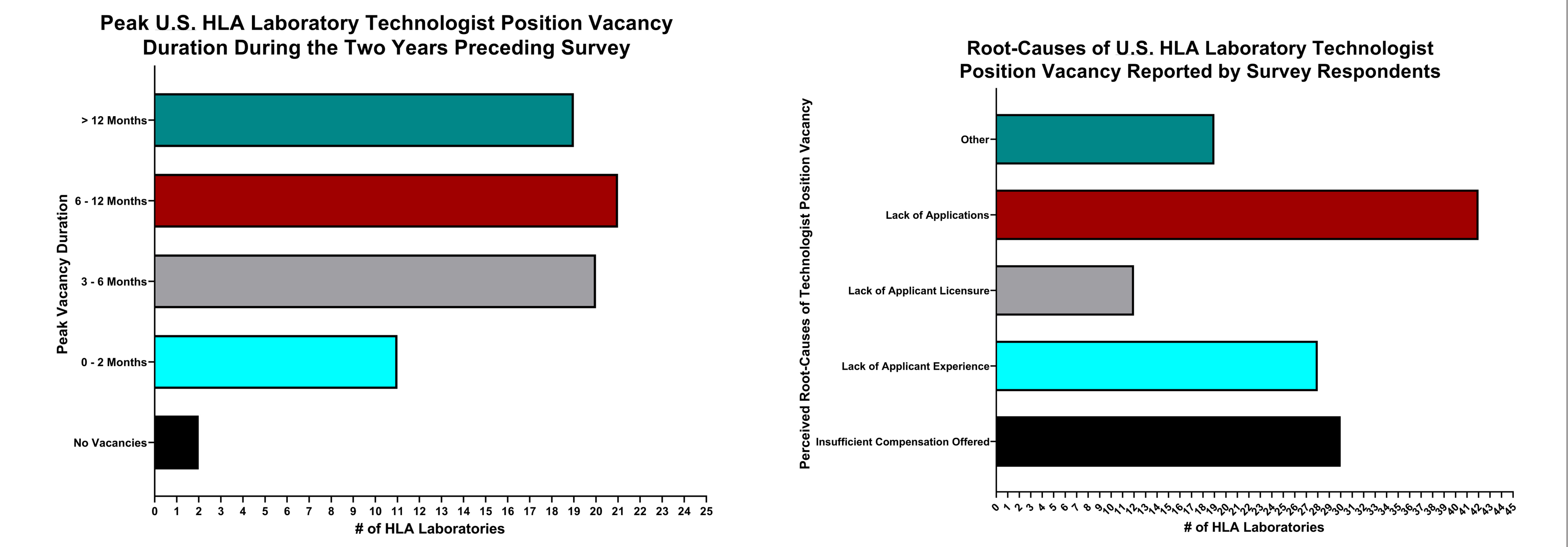
## RESULTS



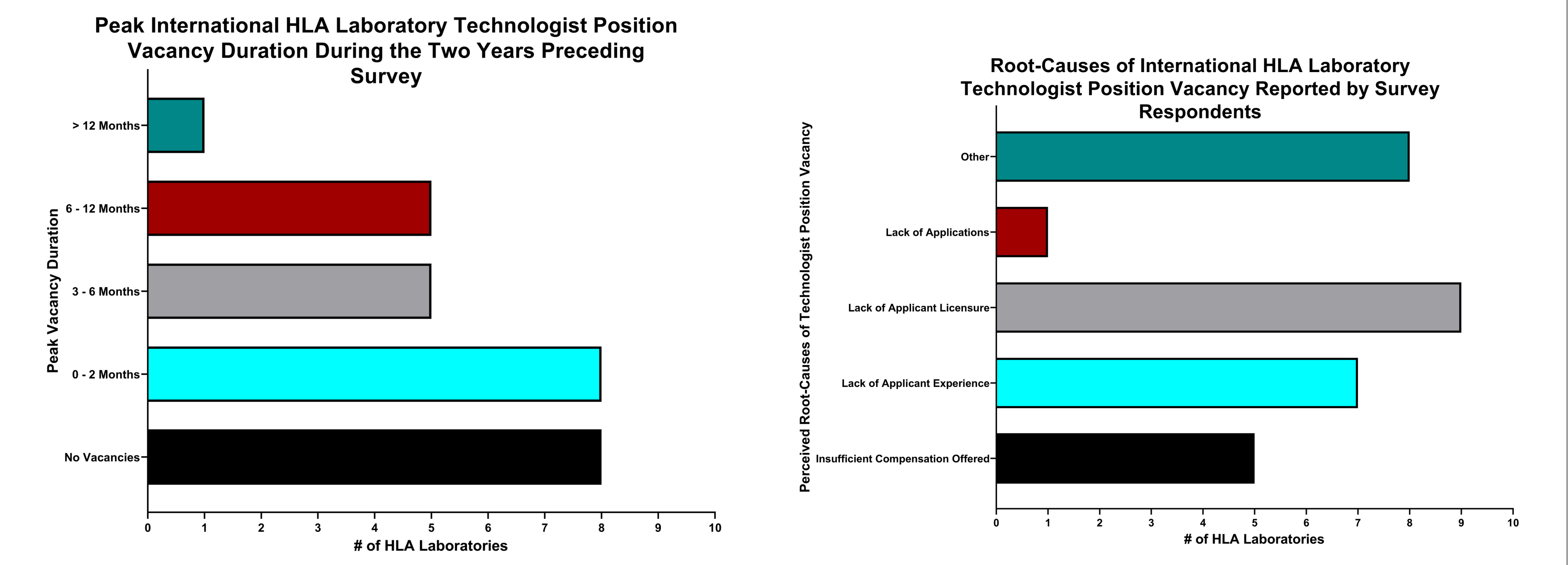
Licensure to qualify to work as a technologist in an HLA laboratory is not a national requirement in the U.S. Some states require licensure to work as a technologist in any clinical laboratory, including HLA laboratories, while most do not. Even in states that do not require laboratory technologist licensure, individual laboratories and institutions have the discretion to require licensure for hire as an HLA laboratory technologist. The proportion of responding U.S. HLA laboratories which do, or do not, require HLA technologists to be licensed for hire is depicted in the figure above.



Licensure to qualify to work as a technologist in an HLA laboratory is not a national requirement in all countries, but is a national requirement in some countries. Some regions, states or provinces within countries require licensure to work as a technologist in any clinical laboratory, including HLA laboratories. Even in countries or regions that do not require laboratory technologist licensure, individual laboratories and institutions have the discretion to require licensure for hire as an HLA laboratory technologist. The proportion of responding international HLA laboratories which do, or do not, require HLA technologists to be licensed for hire is depicted in the figure above.



Niche specialty clinical laboratory positions, such as vacant HLA laboratory technologist positions, can be challenging to fill. Survey participants from the were asked to aid in determination of the difficulty associated with filling vacant HLA technologist positions in U.S. laboratories by reporting the longest duration of months they had not been able to fill a vacant HLA technologist position in the 2 years leading up to the survey. The responses generally fell into one of four categories (no vacancies, 0-2 months, 3-6 months, 6-12 months or >12 months). The number of responding U.S. HLA laboratories reporting peak HLA technologist position vacancy duration within each category are depicted in the figure above.



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The number and duration of vacant technologist positions across clinical laboratory specialties are differentially impacted by several root-causes. To determine the root-causes of sustained HLA laboratory technologist position vacancies internationally, and the perception of hiring road-blocks in international HLA laboratories, survey respondents were asked to define barriers that primarily prevented filling of HLA technologist positions in their laboratories. "Other" factors reported, outside of the most common responses, included slow applicant processing through institutions, parental leave rules, pulling staff from other laboratories and creating secondary deficits, as well as national registration issues.

## RESULTS

Most global respondents were from hospital-based HLA laboratories, with fewer identifying as independent, reference, or organ procurement laboratories. Licensure or required certification is more of a restricting factor in filling vacancies in international laboratories. Vacancy rates in U.S. HLA Laboratories, for the varying institutions, range between 10%- 25%, with few reporting greater than 25% vacancy rate. Vacancy rates in international laboratories were much lesser, and not reported to occur at above 25%. A majority in the U.S. (54%) report their vacancies remain open for > 6 months, while internationally, the majority reported no vacancies in the last few years (38%) and more diverse vacancy durations in the minority. Predominant vacancy perpetuation was most attributed to overall lack of applicants in the U.S. (58%) and insufficient pay offered in the U.S. (41%), while lack of experience was the most commonly reported cause of position vacancy in international HLA laboratories.

## DISCUSSION

The ASHI LPRI survey data reveals variations in vacancy rates across different types of institutions' HLA laboratories and provides insights into the distribution of HLA laboratory job vacancies among the surveyed institutions. Several differences were also noted between U.S. HLA Laboratories' staffing needs and those of international HLA Laboratories. While a majority of U.S. HLA laboratories report a consistent vacancy of 10%, there is greater concern focused on institutions that report > 25% vacancy. Vacancy was more rare in international HLA Laboratories. Equally concerning in U.S. HLA Laboratories was the finding that a significant portion of vacancies take > 6 months to fill, with some vacancies remaining unfilled for 12 months or longer. Vacancy durations were lesser in most international HLA laboratories, with 1/3 respondents reporting no vacancies for several years. Uniquely, the ASHI LPRI survey pinpoints several key challenges faced by laboratory leadership in filling HLA laboratory vacancies. Lack of applicants was the most commonly reported hiring road-block in U.S. HLA Laboratories. This implicates broader issues in the U.S., which could include a small applicant pool, low interest in the positions being offered or general lack of awareness of the profession of HLA laboratory clinical practice. Inadequate compensation, also identified as a barrier to staffing, suggests that salary levels may not be competitive enough to attract qualified candidates. This is especially problematic in specialized, high complexity laboratories such as HLA laboratories. Lack of applicant experience or licensure, the most frequently reported barriers to hiring HLA Laboratory talent in international HLA Laboratories, also reported in the U.S., suggests lack of subject matter exposure during education or specific skill and qualification requirements not being met by applicants. As reported by more U.S. HLA Laboratories, delays in the hiring process attributed to HR administrative procedures also pose a significant challenge and underscore bureaucratic hurdles that prolong recruitment. Challenges related to the demands of high complexity work, on-call requirements and institutional budget constraints are also cited as factors prolonging vacancies in the U.S.. U.S. survey respondents also noted HR position generalizations, constraints in hiring per diem candidates, team compatibility, and schedule needs as barriers. Interestingly, one international survey respondent highlighted the challenges in training burden, needing to simultaneously train multiple new hires, as a significant barrier to hiring needed staff. The clearly multifaceted nature of the challenges will require adaptations in compensation packages, recruitment strategies, administrative processes, and even broader institutional issues for effective solutions.

## CONCLUSIONS

The findings of this study offer valuable insights into the complexities surrounding laboratory job vacancies in the clinical HLA space, both in the U.S. and internationally. While vacancy abundance and challenges to filling open HLA Laboratory positions are reported to be somewhat different in U.S. vs. international laboratories, understanding the underlying causes and dynamics of these vacancies is essential for developing targeted strategies to mitigate the problems. By addressing these challenges, institutions can enhance workforce stability and ensure optimal laboratory operations. This poster serves as a foundation for further research and policy interventions aimed at addressing HLA laboratory vacancy challenges around the globe.

## ACKNOWLEDGEMENTS AND DISCLOSURES

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