

Employment Status and Career Pathways of Doctor of Dental Medicine Graduates: A Tracer Study

Miquelle Issabel Ambata¹, Crystal Faith Bollong², Jazper Ann Dery³, Belladonna Fernandez⁴, Michaela Angelica Navarro⁵, Amiel Jozcef Subido^{6*}, Luke Ivan Concel⁷, Geovani Mercado⁸, Herminiano Subido Jr.⁹

^{1,2,3,4,5,6,7,8,9} Adventist University of the Philippines, College of Dentistry

ajasubido@aup.edu.ph

Abstract - This study investigates the employment status and career pathways of Doctor of Dental Medicine (DMD) graduates from the Adventist University of the Philippines (AUP). Using a retrospective tracer study design, the research aims to describe the employment outcomes of graduates from 2007 to 2023 and identify key factors influencing their professional choices. Data were collected through an online survey distributed via social media and email, modeled after the CHED Graduate Tracer Study. The survey covered areas such as current employment status, time to employment, type and location of work, income levels, and career motivations. Among the 254 total graduates, 127 responded (45.4% response rate). Results showed that 92.9% of respondents were employed, with the majority engaged in private clinical practice or self-employment. The main methods of securing employment included referrals and direct applications. Income levels varied widely, with some respondents earning above national dental income averages. A small percentage reported unemployment due to health, family obligations, or further study. Findings highlight the importance of personal networks, geographic mobility, and early clinical exposure in shaping career outcomes. The study provides valuable insights for curriculum planners, guidance counselors, and policy developers aiming to support dental graduates in their transition to the workforce.

Keywords: Employment status, dental graduates, career pathways, tracer study, private practice

I. INTRODUCTION

Over the past decade, the dental education landscape in the Philippines has continued to evolve in response to increased interest in healthcare professions. The number of Doctor of Dental Medicine (DMD) graduates has steadily grown, with licensed dentists numbering over 30,000 as of recent estimates (Statista Research Department, 2023). However, despite licensure, transitioning from education to employment remains complex. Graduates face varied employment outcomes influenced by factors such as geographic location, access to capital, educational debt, and individual career preferences (Borbon & Amatus, 2021; De Castro et al., 2021; Rehal, 2013). Notably, some graduates pursue careers outside of dentistry

or delay entry into the profession due to financial, personal, or contextual barriers (Infante et al., 2014; Samman & Alsharif, 2025).

To better understand these post-graduation realities, tracer studies have been widely used by higher education institutions to assess alumni employment status and educational relevance. According to Abogadil et al. (2022), tracer studies serve as retrospective tools that provide insights into graduate employability, job relevance, and the effectiveness of training programs. CHED (2012) emphasizes that such studies identify personal, academic, and social factors that influence employment and can guide curriculum improvements. In dental education, tracer studies are particularly useful for evaluating how well institutions prepare graduates to meet the demands of the profession (Maderazo, 2016). At the Adventist University of the Philippines (AUP), this research seeks to provide an evidence-based understanding of where DMD graduates are now—geographically, professionally, and personally—across a 16-year span.

This study aims to examine the employment status and career trajectories of AUP's DMD graduates from 2007 to 2023. Specifically, it seeks to determine their current employment status, describe the nature and sectors of their work, and identify personal and systemic factors influencing their professional decisions. By focusing on tangible employment outcomes rather than abstract notions of employability, this research offers practical insights to guide improvements in dental education, career support services, and workforce policy planning.

II. LITERATURE REVIEW

Understanding the employment outcomes of dental graduates requires a multidimensional examination of the educational, personal, and systemic factors that shape their career decisions. Tracer studies have emerged as valuable tools in this regard, offering evidence-based assessments of how academic preparation aligns with real-world employment. As defined by Abogadil et al. (2022), a tracer study is a retrospective survey that tracks graduates' professional status after completing their academic programs. These studies are instrumental in determining whether graduates have secured employment in their field, the nature of their work, and the challenges they face in the labor market.

In the Philippine context, the Commission on Higher Education (CHED, 2012) underscores the importance of tracer studies in shaping national educational policy. Such studies gather data on graduates' academic backgrounds, employment trajectories, and advanced training to identify both enabling and hindering factors in their career progression. CHED's use of tracer studies is rooted in the goal of aligning higher education with labor market demands, ensuring that institutions produce competent professionals capable of contributing to national development. Within dental education, tracer studies have been used to evaluate not only employment rates but also the extent to which graduates remain in their chosen profession. Maderazo (2016), in a tracer study of dental graduates from a Philippine higher education institution, found that while most graduates pursued dental practice, others entered alternative career paths due to factors such as limited local job opportunities, financial

strain, and personal motivations. These findings mirror concerns raised in the current study, particularly regarding how economic and contextual realities can lead to employment outside of dentistry or delayed professional entry.

Employment outcomes among dental graduates are also influenced by broader socio-economic variables. According to Borbon and Amatus (2021), financial pressures such as the high cost of setting up a private practice and the burden of educational debt often compel graduates to seek alternative forms of employment. Similarly, De Castro et al. (2021) noted that gender roles and familial responsibilities, especially among female dentists, contribute to career interruptions or underemployment in the Philippine dental workforce.

The mismatch between educational preparation and job availability is further complicated by regional disparities. Infante et al. (2014) observed that graduates from state colleges in geographically isolated areas often struggled with unemployment due to limited local opportunities and inadequate career support. Rehal (2013) adds that international students who study dentistry in the Philippines may face additional barriers upon returning to their home countries, including licensure requirements and professional integration challenges. In addition, changing career expectations among dental professionals reflect broader shifts in job satisfaction and personal goals. Samman and Alsharif (2025) reported that nearly half of surveyed dentists considered leaving clinical practice in favor of careers offering better work-life balance and financial security. This trend highlights the importance of career guidance and curricular responsiveness to evolving professional aspirations.

Together, these studies provide a foundational understanding of the complexities surrounding dental graduate employability. They reinforce the need for academic institutions, such as the Adventist University of the Philippines, to assess how well their programs prepare students not just for licensure, but for sustained, meaningful engagement in the profession. By drawing from existing tracer literature and focusing on the lived experiences of graduates, this study contributes to shaping more responsive, equitable, and effective pathways from education to employment in dentistry.

III. MATERIALS AND METHODS

Research Design

This study employed a retrospective, cross-sectional survey design to assess the employment status and career trajectories of Doctor of Dental Medicine (DMD) graduates from the Adventist University of the Philippines (AUP). As a non-experimental and descriptive approach, this design enabled the researchers to collect real-world data on alumni employment outcomes without manipulating any variables. The use of tracer studies for evaluating graduate outcomes is supported by Abogadil et al. (2022) and CHED (2012), who emphasized their utility in determining graduate employability, alignment of academic training with career outcomes, and identifying systemic or personal barriers to employment.

Population and Sampling

The target population consisted of all DMD graduates from AUP who successfully passed the Philippine Dental Licensure Examination between 2007 and 2023. The initial plan involved total population sampling to ensure representation across all batches. However, due to incomplete responses and non-participation, the final dataset included responses from 127 graduates out of 254 identified alumni, yielding a 45.4% response rate. Despite this limitation, the sample covered a wide age range, gender distribution, and graduation years, allowing for valid cross-sectional insights into employment trends.

Instrumentation

The primary data collection tool was a self-constructed online survey adapted from the Commission on Higher Education (CHED) Graduate Tracer Study questionnaire. This instrument was tailored to the context of dental education and included items related to employment status, job nature (e.g., self-employed, employed, or managerial roles), sector (e.g., public, private, mission-based), geographic distribution, income levels, motivations for career decisions, and timeframes for job acquisition. The questionnaire also asked about professional development activities and competencies acquired post-graduation. This adaptation is consistent with recommendations from CHED (2012) and the tracer study model used in Maderazo (2016) to evaluate professional readiness and job relevance.

Data Gathering Procedure

Contact information for DMD alumni was obtained from the College of Dentistry's administrative records. The online survey was distributed using Google Forms and disseminated via Facebook Messenger and email to ensure wide coverage across cohorts. A consent section was embedded at the beginning of the form, detailing the study's purpose, data protection measures, and voluntary nature of participation. Respondents had to acknowledge this section to proceed. Multiple reminders and follow-ups were sent to increase response rates and address any technical difficulties in accessing or submitting the form.

Ethical Considerations

The research protocol received ethical clearance from the AUP Research Ethics Review Board. Participation was voluntary and implied consent was obtained through survey submission. No personally identifiable information was collected. All responses were anonymized, and data were securely stored in password-protected digital folders accessible only to the research team. These measures ensured compliance with ethical research practices regarding human participants, as emphasized in related tracer studies (Abogadil et al., 2022; De Castro et al., 2021).

Data Analysis

Quantitative data were analyzed using descriptive statistics. Frequencies, percentages, and cross-tabulations were used to examine variables such as employment status, time to employment, income brackets, geographical location, and nature of employment (e.g., self-employed vs. salaried). The data were visually presented using tables and figures to enhance interpretation. Where applicable, cross-tabulations explored associations between demographic variables (e.g., gender, region) and employment outcomes. This analytic strategy supported the study's objectives of identifying both personal and systemic factors influencing the career decisions of DMD graduates, in line with findings from Borbon and Amatus (2021) and Samman and Alsharif (2025).

IV. RESULTS AND DISCUSSION

Employment Status and Classification

Out of 254 recorded Doctor of Dental Medicine graduates from the Adventist University of the Philippines (2007–2023), 127 responded to the tracer survey, yielding a 45.4% response rate. Among these, 92.9% (n = 118) were currently employed in various professional capacities, while 7.1% (n = 9) were unemployed or on temporary leave due to health issues, postgraduate studies, or personal obligations.

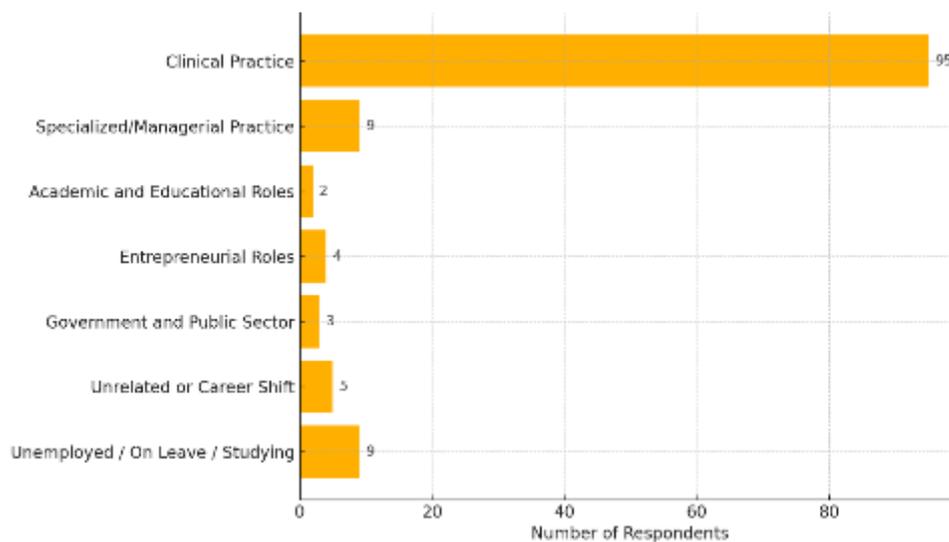


Figure 1. Distribution of Employment Categories

Figure 1 shows that the majority of respondents (74.8%) were engaged in Clinical Practice, typically as self-employed dentists or associate practitioners. Another 7.1% were classified under Specialized or Managerial Practice, which includes those in specialty fields such as orthodontics and periodontics, or those managing their own dental clinics. Academic and educational roles were less common, accounting for only 1.6% of respondents. Additionally, 3.1% reported entrepreneurial roles outside of dentistry, while 2.4% served in government or public sector positions such as military or public health dentistry. A small

portion (3.9%) indicated career shifts to unrelated professions, suggesting the need for follow-up on factors contributing to professional attrition.

These findings highlight that clinical roles remain the dominant career pathway, while the presence of specialists and educators remains limited, possibly due to financial, institutional, or training barriers to specialization.

Sector and Nature of Employment

Of the employed respondents, 64.1% were self-employed, mostly operating or working in private clinics. 34.2% reported being employees in various institutions, such as hospitals, corporate clinics, or dental groups. A small fraction (1.7%) held specialized roles within organizational structures, such as clinical consultants or managers within dental establishments.

This pattern mirrors national data indicating a continuing preference among dental graduates for private practice, attributed to higher income potential and professional autonomy. However, the growing presence of organizational employment reflects a global trend toward structured work environments that offer administrative support and work-life balance (Nasseh & Vujicic, 2018).

Geographic Distribution

A majority of the respondents reported residing in CALABARZON (35.5%) and Central Luzon (11.3%), regions closest to Metro Manila. Additionally, 12.9% of graduates were working abroad, notably in Indonesia, Canada, and various African countries. This supports previous literature suggesting that international students from developing nations often pursue practice outside the Philippines due to licensure challenges or better opportunities (Rehal, 2013). Lower representation in other Philippine regions may reflect limited professional infrastructure or saturation in urban markets that influence migration patterns.

Income and Workload Trends

A particularly compelling aspect of this study is the wide range of daily gross income reported by dental graduates. As seen in Figure 2, nearly 30% of respondents earned ₱5,001 to ₱10,000 per day, which translates to roughly ₱100,000 to ₱200,000 per month, assuming 20 workdays. A smaller but significant group—8.7%—reported earning over ₱50,000 in a single day, highlighting the high income potential of specialized or entrepreneurial practice models. For comparison, the average monthly salary in the Philippines across all occupations in 2024 is ₱44,810, while the average base salary for a dentist is ₱30,999 per month, or ₱371,988 annually. Senior-level dentists may earn as much as ₱1.38 million per year, or over ₱115,000 monthly (GrabJobs, 2024; JobStreet, 2024).

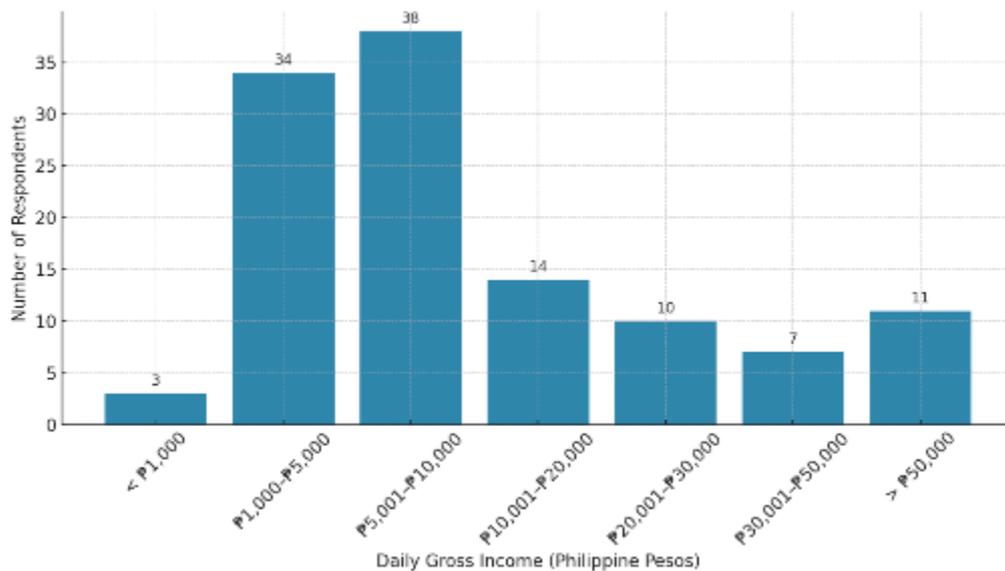


Figure 2. Daily Income Distribution

These findings suggest that even mid-career general practitioners can potentially exceed both the national and professional income averages, especially those who engage in high-demand services such as orthodontics or implantology, operate in urban centers, or manage multi-chair clinics. The data emphasize the entrepreneurial scalability of dentistry—positioning it as not just a healthcare profession but a viable financial venture for motivated practitioners.

Unemployment and Career Transitions

Among the nine respondents who reported being currently unemployed, several underlying reasons were identified. Health-related concerns accounted for 22.2% of the cases, indicating temporary withdrawal from clinical work due to physical or psychological well-being. Another 11.1% cited family responsibilities as the primary reason, suggesting that caregiving or household obligations may temporarily take precedence over professional practice. Similarly, 11.1% of respondents were not engaged in employment because they were pursuing postgraduate studies or undergoing licensure preparations abroad—particularly in countries requiring additional credentialing. The remaining 55.6% reported other personal or professional transitions, including plans to enter medical school or participation in foreign clinical programs such as dental attachments. These findings echo the observations of De Castro et al. (2021), who noted that recent dental graduates often face market saturation, geographic and licensure limitations, or competing life demands that delay immediate entry into the workforce.

Alumni Insights on Curriculum Improvements

Alumni were also asked to recommend improvements to the DMD curriculum that could better prepare graduates for professional success. The most common suggestion was

enhanced clinical and practical training, including more surgical exposure, hospital dentistry, and equipment handling, consistent with Maderazo's (2016) emphasis on confidence-building through hands-on learning. Upgrades in facilities and digital dentistry were also noted, reflecting the need for exposure to current technologies and aligning with ADEA's (2023) findings on the growing demand for continued and tech-enabled learning. Improved board exam preparation was frequently mentioned, with calls for stronger revalida simulations and in-house reviews. A significant number of respondents recommended business and financial management training for private practice readiness—echoing Moodley et al.'s (2018) view that early-career dentists often lack entrepreneurial preparation. Other suggestions included interpersonal skills, stress management, and the integration of faith-based values, in line with Borbon and Amatus (2021), who stress the role of ethics and character in career success. Finally, a few alumni advocated for public health and preventive care topics to support mission-driven and underserved-area practice, aligning with Lasker et al. (2012). These insights underscore how curriculum content and delivery shape career choices and readiness, emphasizing the value of holistic, relevant, and forward-thinking dental education.

V. CONCLUSION

This study provided a comprehensive overview of the employment status and career pathways of Doctor of Dental Medicine graduates from the Adventist University of the Philippines between 2007 and 2023. The findings indicate a strong overall employment rate, with most respondents working in clinical private practice and a smaller number engaged in managerial, academic, or government roles. These outcomes reflect the alignment of the DMD program with immediate practice demands, particularly in self-employment and private sector settings.

The study also revealed considerable income variability, with some graduates reporting earnings significantly above national and professional salary averages. These data highlight dentistry's potential as both a clinical profession and an entrepreneurial endeavor. The broad income range, combined with the career motivations and transitions identified, provides insight into how individual decisions and systemic factors shape long-term professional development. Additionally, alumni feedback underscored the value of enhancing the curriculum through greater clinical exposure, business training, and support for specialization and international practice. These insights affirm the importance of using graduate data not only to understand current workforce trends but also to inform collaborative improvements across educational and health systems.

Limitations of the Study

While the study offers meaningful insights, it is limited by its response rate (45.4%), which may affect the generalizability of the results to the entire graduate population. Some survey questions were constrained by single-answer formats, potentially limiting the expression of complex career experiences. Additionally, since data were self-reported, there may be recall or response biases, particularly concerning income or motivations. These limitations should be considered when interpreting the results.

Recommendations for Future Research

Future studies should consider expanding the sample across multiple institutions for broader national comparisons and employ longitudinal designs to track changes over time. Including employer perspectives and using mixed methods could enrich understanding of workplace performance and satisfaction. Improved survey instruments allowing multiple responses and open-ended feedback may also help capture the nuances of graduate trajectories and better inform education and policy strategies.

AUTHORS' CONTRIBUTIONS

All authors contributed collaboratively throughout the entire research process, from conceptualization to final revisions. Crystal Faith Bollong led the organization and editing of the Results and Discussion section, ensuring clarity, logical flow, and consistency. Jazper Ann Dery was primarily responsible for the final editing of the Review of Related Literature, aligning it with the study's aims and references. Belladonna Fernandez finalized Chapter 5, ensuring that the summary, conclusions, and recommendations accurately reflected the study's findings. Michaela Angelica Navarro was in charge of compiling the survey responses and creating all visual aids, including graphs and illustrations, for effective data presentation. Miquelle Issabel Ambata served as the group leader, overseeing the development of Chapters 1 and 3, conducting the final proofreading, and coordinating the submission process. Their research adviser and co-author, Dr. Amiel Jozcef Subido, guided the study's overall direction, monitored alignment with panel feedback, and ensured the quality of the final manuscript. While key responsibilities were assigned to individual members, all authors actively participated in each stage of the research and manuscript preparation.

REFERENCES

- Abogadil, W., Lenciano, H., & Losanes, J. (2022). Tracer study in senior high school graduates. Retrieved from <https://www.scribd.com/document/625322380/Tracer-Study-in-Senior-High-School-Graduates>
- Borbon, N. F., & Amatus, M. E. (2021). Employability of dentistry graduates. *Asia Pacific Journal of Allied Health Sciences*, 4(1), 78.
- CHED. (2012). Higher Education Development Program Manual. Commission on Higher Education. (You may specify more details if available, such as memorandum number or URL if cited)
- De Castro, R., Sevilla, M., & Ignacio, R. (2021). Employment status and employability of dental graduates: A study on challenges and opportunities. ResearchGate. <https://www.researchgate.net/publication/361123456>
- GrabJobs. (2024). Dentist salary guide in the Philippines. Retrieved December 8, 2024, from <https://grabjobs.co/philippines/salary-guide/dentist>

- Infante, J., Marquez, M., & Alvaro, P. (2014). Tracer study of graduates in Region IV-A: Employment and educational transitions. Commission on Higher Education.
- JobStreet Philippines. (2024). Dentist salary guide. Retrieved December 8, 2024, from <https://ph.jobstreet.com/career-advice/role/dentist/salary>
- Leland, S. (2024). Public sector retention of dental graduates in the Philippines. *Journal of Dental Education and Practice*, 8(2), 115–126.
- Maderazo, J. (2016). Tracer study of dentistry graduates of one higher education in the Philippines from 2008 to 2012. *Asia Pacific Journal of Multidisciplinary Research*, 4(3). Retrieved from <https://www.academia.edu/29223265/>
- Nasseh, K., & Vujicic, M. (2018). Earnings of employed and self-employed U.S. health care professionals, 2001 to 2015. *JAMA Network Open*, 1(2), e180431. <https://doi.org/10.1001/jamanetworkopen.2018.0431>
- Rehal, S. (2013). African student mobility in the Philippines: Trends in opportunities towards global excellence in higher education. International Research Conference in Higher Education, Philippine Women's University.
- Samman, M., & Alsharif, S. B. (2025). Assessing career satisfaction and trajectory among dental professionals: Ten-year repeated cross-sectional analysis. *International Dental Journal*, 75(3), 2262–2271. <https://doi.org/10.1016/j.identj.2024.11.021>
- Statista Research Department. (2023). Number of licensed dentists in the Philippines from 2019 to 2022. <https://www.statista.com/statistics/1325980/philippines-number-of-licensed-dentists/>