

# PROSPECTIVE CAREER PATHS FOR DENTAL STUDENTS

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## **ABSTRACT**

*Dental school graduates have a choice of a variety of career paths after graduation. Besides private practice students can work in research, hospital care, and academia. The goal of dental students is not only to be competent clinicians, but also to be able to delineate the different career pathways beyond dental school. Our aim is to provide a framework for dental students to use so that they can explore various opportunities after dental school. We have formulated a template that consists of a series of questions that show different alternatives that in turn will help students decide their path beyond graduation. This framework will provide dental students with an organized tool to weigh the pros and cons of where to establish themselves and it will expose them to different career paths after graduation.*

## **KEYWORDS**

*Dental career paths, Clinical Dentistry, NonClinical Dentistry*

## **1. INTRODUCTION**

Many career prospects are available in the dental health care field. With the globalization of the economy dental professionals can practice within as well as outside the United States. Dentists can be involved in private practice, hospital care, research and academia. Multi location and multi doctor practices as in corporate dentistry have arisen in many areas. The dental profession has expanded to include participation in dental insurance panels and serving as specialists in dental legal matters. Some medical practices are now accommodating dental specialties as a part of routine care. Dentists can choose whether or not they want to work with patients as well as what kind of patients.

Recent dental graduates have minimal experience and until they feel proficient, exposure to possible career paths may be limited. In dental schools students may not have treated patients in a hospital setting as most of their clinical work is in the school clinics. In addition, students may not know if they want to be involved with research or academia right after graduation. Every new graduate must assess their strengths and their weaknesses. Dental students are clinicians when

they graduate. They must envision the future and decide what path they will follow. This framework provides a tool to help students explore different career tracks so they can decide their course beyond graduation.

## 2. MATERIALS AND METHODS

We have formulated a template that consists of a series of charts that show different alternatives that in turn will help students decide their path beyond graduation. The student must decide where they want to live and work. Location includes United States and Global regions. Students need to consider whether they will do Postgraduate training in General Dentistry or consider a Specialty. Other options include different types of Clinical Practice (Solo versus Group versus Public). There are also opportunities in Outpatient Clinics, Hospital Clinics and Academia. Students should also be aware of Nonclinical Dentistry positions such as dental consulting, dental insurance, the dental products industry and accreditation.

Publicly available information from the U S Dept. of Labor, Bureau of Labor Statistics and Occupational Employment Statistics were collected [1]. Data from the ADEA Snapshot of Dental Education 2016-2017 [2] and ADEA Dean's briefing book[3]were also used. In addition, information was collected from the American Dental Association on Career and Health Policy [4] and from the Academy of General Dentistry [5].

## 3. RESULTS

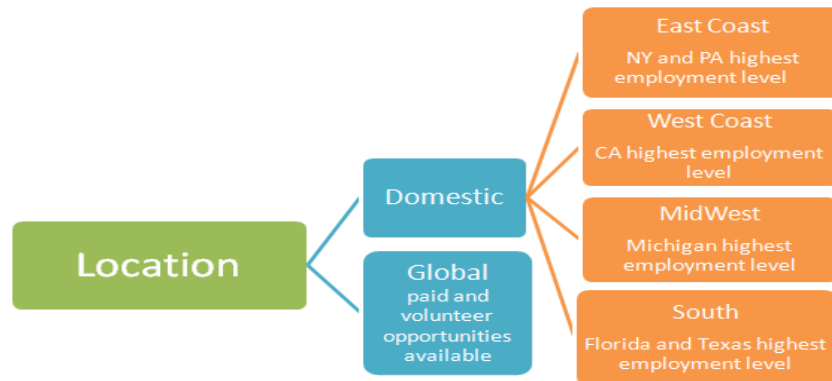


Figure 1: Work Location

The student first needs to decide if he or she wants to work domestically or globally as shown in Figure 1. If he or she decides to work domestically, then the next decision is to determine whether it will be in the East, West, MidWest or South part of the United States.

Dental students need to decide if they want to pursue postgraduate training. Figure 2 shows Postgraduate Training can be divided into two areas, General Dentistry and Specialty Residency. General Dentistry can be sub divided into a General Practice Residency or an Advanced Education in General Dentistry (AEGD) Residency. AEGD Residencies are university based programs. Students can choose to pursue a specialty program. These include Pedodontics, Endodontics, Periodontics, Oral and Maxillofacial Pathology, Anesthesia, Prosthodontics, Orthodontics, Oral Maxillofacial Surgery, Oral and Maxillofacial Radiology, and Dental Public Health. Some specialties are more competitive than others.

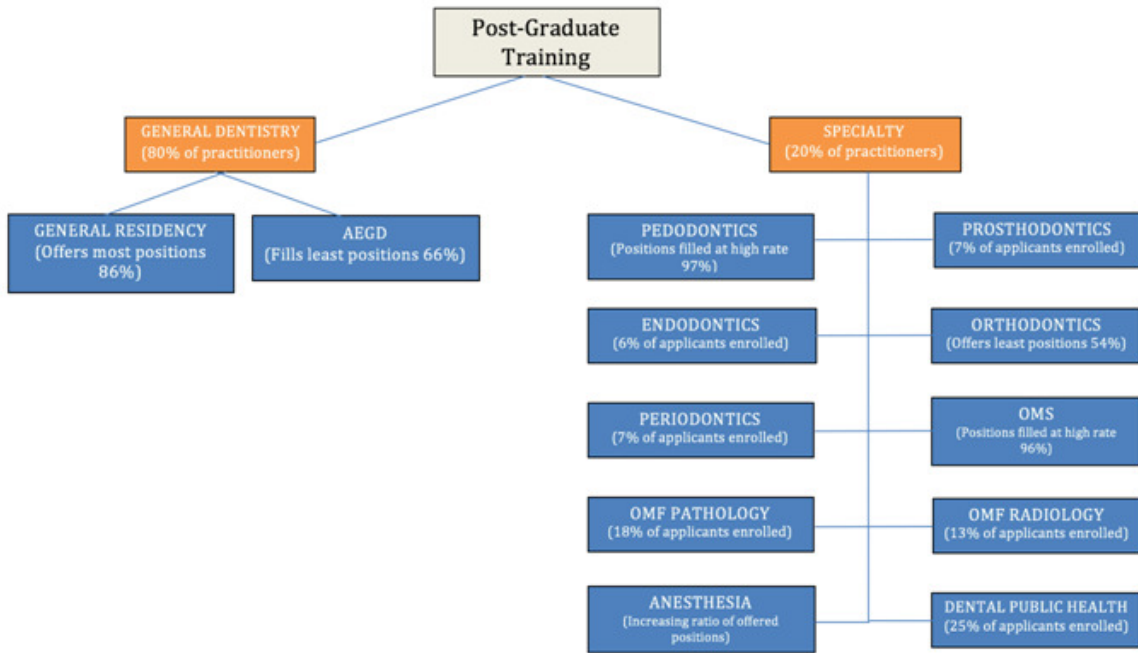


Figure 2: Options for post-graduate training following dental school

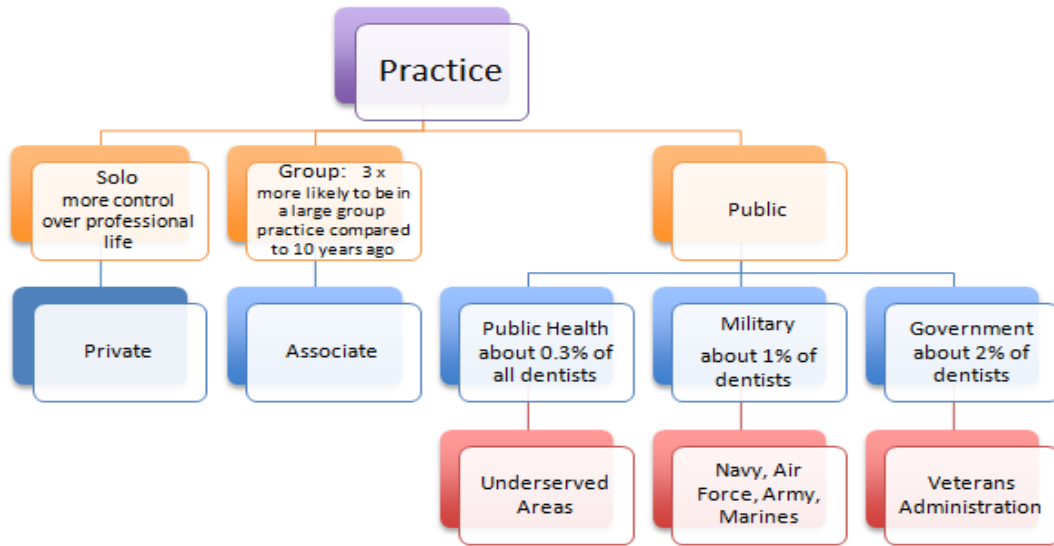


Figure 3: Types of dental practices that dental graduates can pursue

Some students may choose to go into practice right after dental school. Figure 3 depicts the type of practice that they can pursue. These include going into a solo, group or public practice. Solo practices are individually owned and private. Group practices involve working as an associate for a large group practice or dental chain. Public practices such as working for public health in underserved areas, working for the military in the Navy, Air Force, Army, or Marines or working as a government dentist in the Veterans Administration are also available.

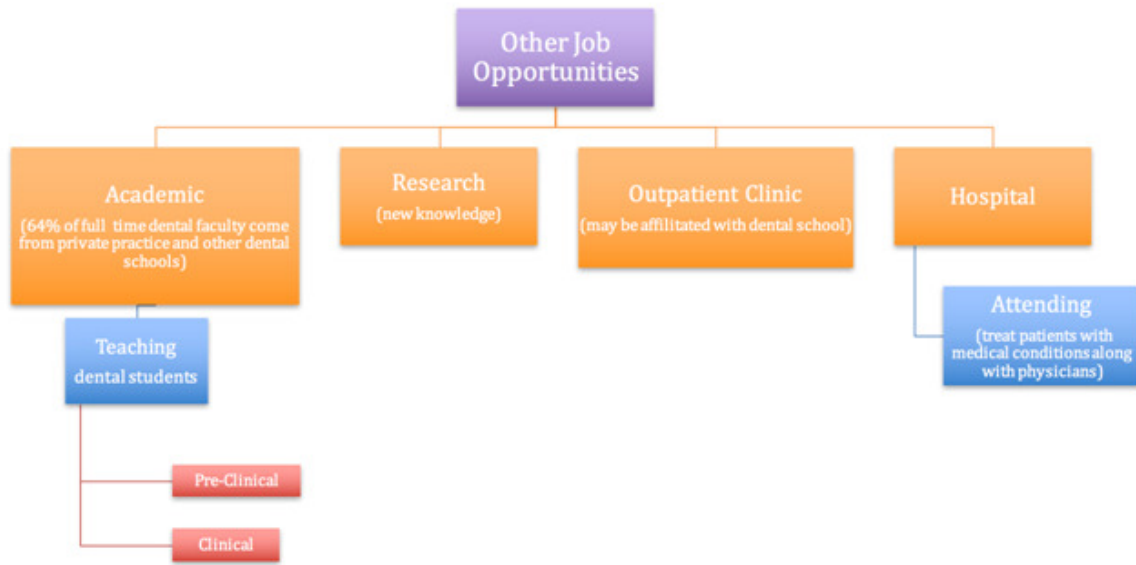


Figure 4: Other job opportunities for dental graduates

There are many other job opportunities for dentists. Figure 4 shows other job opportunities such as working in academics, research, outpatient clinics and hospital. Academics include teaching dental students both clinical and pre-clinical dentistry. Research allows new ideas to be taught and new inventions in dentistry. Outpatient clinic may be affiliated with dental schools. There are also job opportunities of being an attending in a hospital.

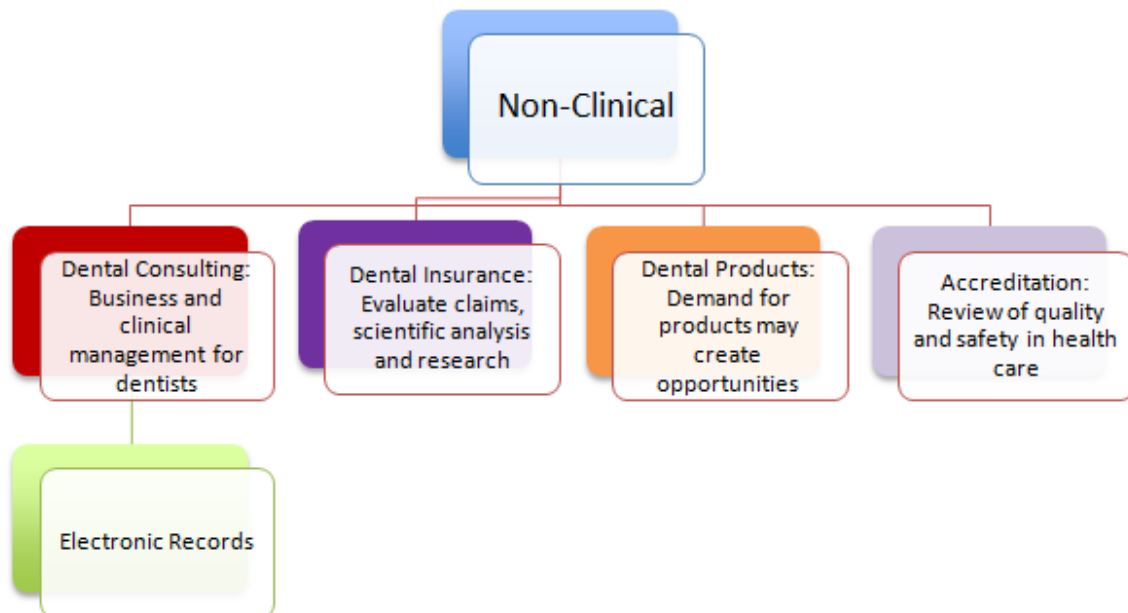


Figure 5: Job opportunities for Nonclinical Dentistry

Students who do not want to go into the clinical aspect of dentistry, can pursue nonclinical dentistry. Figure 5 shows the job opportunities for non-clinical dentistry. They include working as

a dental consultant which provides business and clinical management for dentists or assistance in electronic records; working for dental insurance companies to evaluate claims; working to create new dental products and opportunities; working as an accreditation specialist to review the safety in health care.

#### **4. DISCUSSION**

Dental professionals have a variety of career paths. Recent research conducted by the American Dental Association (ADA) suggests that the total inflow to the dentist workforce are expected to exceed the total outflow where the net gain of dentists is expected to exceed the growth in the U.S. population [6] As a result, it is becoming increasingly difficult for dental graduates to find a job especially in larger cities. It is important that dental graduates can explore possibilities in dentistry after graduation well before their graduation in order to make informed decisions regarding the options that they can pursue. The goal of dental students is not only to be competent clinicians, but also to be able to delineate the different pathways beyond dental school.

One of the most crucial factors that dental graduates must decide when they begin their dental career is location. Research has shown that family obligation plays an important role when choosing the location where graduates frequently establish their practice in their home area or in an area that shares similar socioeconomic characteristics [7]. This is not surprising as the graduates are more familiar with their hometown with family ties where it may be easier and more comfortable to start their own career. This might also hold true for international students where they choose to begin their dental career in their home country due to the barriers of working in America such as obtaining a working visa, which is sometimes challenging [8].

Lifestyle factors must also be considered[9]. If the student is single, they may not have a problem relocating nationally or internationally. Students that have their own families and strong societal ties to the area may want to settle locally. Other studies have suggested that the shortage of dentists in rural and low-income areas is due to family ties whereby graduates choose to start their career in their home city [7, 10]. However, some graduates might simply choose to work in rural areas due to remuneration [11]. Graduates who choose to work in rural areas experience less competition and are able to enjoy a lower overhead cost where they are able to earn more when compared to their colleagues who work in an urban area [6]. Thus, working in a rural area might appear as an attractive option for graduates who have no family obligation and are looking to have a successful business. Facing the difficulty to find patients, new graduates are becoming more inclined to relocate away from urban areas to find better jobs. Joining rural practices has several advantages: less competition (more patients), less rent and office expenses, less expensive cost of living while fees are usually similar to urban fees [12]. Although young new dentists may not prefer rural locations, financial burdens and competition in metropolitan areas can be incentives for them to pursue rural practices.

Employment level in a specific location is also an important factor for graduates to consider when starting their career. Data have shown that California, New York and Texas have the highest employment rate for dentists [13]. At first glance, this is welcoming news for graduates as the cities in these states such as New York City are some of the best in the US in terms of lifestyle and recreational value. However, further analysis also reveals that these states are the most populated in the US where there is a larger demand for dental care [13]. As a result, it is much more informative for graduates to look at the number of dentists that serve a 100,000 people to gauge the level of employment in the area

Data compiled by the ADA have shown that the lowest number of dentist that serves a hundred thousand people are Arkansas and Mississippi at 41.16 and 42.19 respectively [13]. On the other hand, California and New York have a rate of 76.79 and 73.48 respectively, which is among the highest out of all fifty states [13]. This data suggests that the employment rate for these “attractive” states is not as bright as those of other states. However, Texas has a rate of 52.32 suggesting that the level of saturation is not as high as California or New York, which might be an attractive place for dental graduates to begin their dental career. The average in the US is 60.79 dentists per 100,000 population [13].

There are other factors for students to consider in deciding which path to follow after graduation. To work in a specialty practice a dental graduate needs two to six years of additional training. In addition the competition for these additional residency training spots has increased over the years [14].

Furthermore, there is a direct correlation between the amount of debts and the decision to specialize [15]. Dentists with higher student loans are more financially driven to accept high-paying jobs in general dentistry upon graduation over pursuing specialty; they are also more willing to work longer hours in order to pay off their debts more quickly [16]. For high demand specialties such as orthodontics, “dental schools will continue to raise the cost of orthodontic specialty training...it is not uncommon for the same school to pay pediatric and oral-surgery residents a livable stipend while charging the orthodontic students unreasonably high tuition [17]”.

Finance remains one of the important considerations for graduating dentists when it comes to choosing a career path. Dental schools put significant financial stress on students because of the increasing tuition. For each \$10,000 increase in student debt, dentists are 0.9% more inclined to join a dental management support organization over private practice [15]. Joining corporate dental practices offers certain benefits that are especially attractive to new dentists.

Some students might choose to begin their dental career by joining a dental management company where they can gain experience without having to manage the dental practice. Large dental groups are also able to offer benefits such as “continuing education and training opportunities, leadership development programs, 401k and profit sharing plans, vacation and holiday pay, health insurance and professional liability insurance. International graduates may be offered sponsorship for their work visa [18]”. This is an attractive option for new graduates as they are guaranteed a salary with a steady patient flow. Career options in these large practices are appealing to new graduates who have high debt and are concerned about their ability to repay the loans.

Future potential income is also considered as well as the general economic outlook.

Enjoyment of work may also be an important factor [19]. Another option that many dental students pursue is the Health Professions Scholarship Program (HPSP) in order to avoid the burden of student loans. HPSP is a program available in the United States Army, the United States Navy and the United States Air Force, providing prospective military dentists a paid dental education in exchange for services as an active officer for a number of years [20, 21, 22]. The Navy and Air Force offer similar benefits for students in the HPSP program. While the offer is attractive, graduating dentists must commit years of service on active duty after graduation. The service obligation is generally one year for every one year of paid schooling [20].

Graduates who choose not to practice clinical dentistry have other options available which includes academic dentistry where students are involved with teaching as well as conducting

research. A study by the ADA revealed that students are more likely to be involved with academic dentistry if their dental school provided knowledge regarding dental education careers as well as teaching opportunities during their training [23]. Graduates can also consider joining professional agencies such as the ADA which are involved in overseeing many aspects of the dental profession including the development and implementation of accreditation standards of dental education programs. Other non-clinical options that graduates can consider includes working in dental companies such as dental consulting firms, insurance as well as dental products. However, graduates must realize that any nonclinical activities can be performed by anyone where the financial gain might not be as rewarding as those that engage in clinical activities.

## 5. CONCLUSION

This framework will provide dental students with an organized tool to weigh the pros and cons of different alternative career paths beyond graduation. The goal of the framework is to use the template as a tool for future career path. The template helps to clarify and identify options available. Data is available as to where students can relocate. In addition data is also available regarding competitiveness of postgraduate training. Financial gains, student loan obligations, and family ties may play a major part in their decision.

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