COMPARISON OF CHANGES IN DENTAL JOB MARKET FROM 2007-2012 AND 2013-2018 USING A CLASSIFIED ADVERTISING INDEX

Ellen Lee, D.D.S.¹, Brian Chin, MBA², WonSun Choi³, Jun Suk Lee³, Tae Joon Lee³

¹Clinical Assistant Professor in the Dept. of Cariology and Comprehensive Care New York
University College of Dentistry, New York, USA

²Manager, Data Strategy &Insights in New York, USA

³Dental Student at New York University College of Dentistry, New York, USA

ABSTRACT

Changes in the dental job market were evaluated using a classified advertising index. Opportunities available from 2007-2012 were previously reported and compared to current ones from 2013-2018. Each advertisement was tracked according to private practice or corporate dentistry and region. Data from 2007-2012 showed a decrease in private practice and an increase in corporate dentistry advertisement. From 2013-2018 there was an overall decrease in the number of classified ads in both private and corporate dentistry. The Southern area has the most growth while there is less opportunity in the West.

KEYWORDS

Dental Career Paths, Dental Job Market

1. Introduction

The use of a classified advertising index to assess the dental job market from 2007-2012 was previously explored. In this study the dental job market from 2013-2018 was compared to the findings from 2007-2012.

2. MATERIALS AND METHODS

Classified advertisements in the Opportunities Available section of the Journal of the American Dental Association were reviewed from January 2013 through December 2018. Each advertisement was tracked according to state and whether it was Private Practice or Corporate Dentistry. Specialty and academic opportunities were not included. Advertisements from 2007-2012 were previously tracked as per Lee et al 2014 [1].

States within each region were determined based on US Government census. The Northeast has nine states, Midwest twelve states, South seventeen states and West thirteen states. Alaska and Hawaii were included with the western states.

3. RESULTS

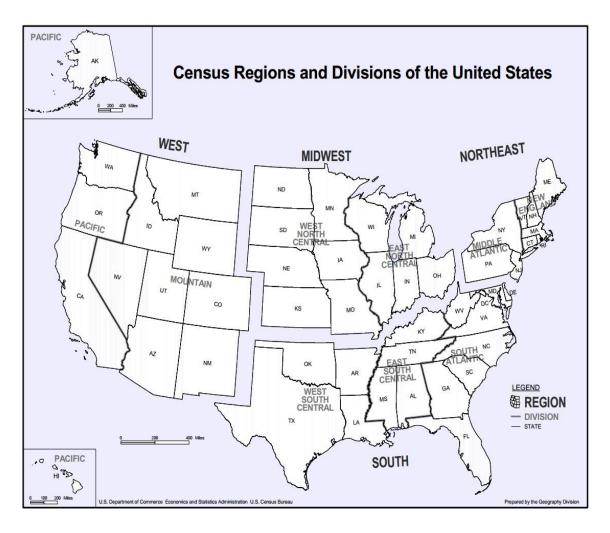


Fig 1: Census Regions and Divisions of the United States

 $https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf \ accessed \ on \ 6/22/2019$

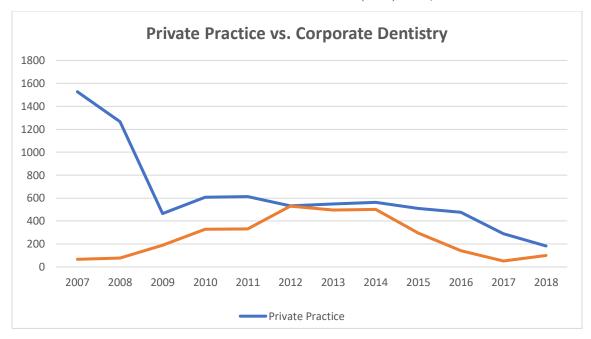
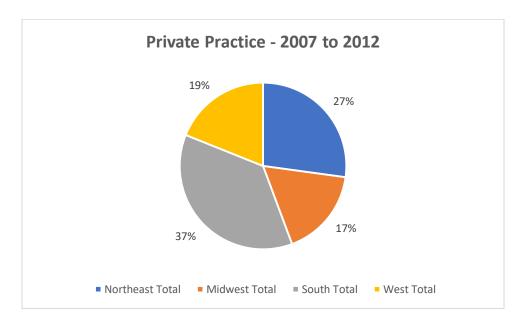


Fig 2: Total Number of Classified Ads for private practice and corporate dentistry over time

There was an overall decrease in the number of classified ads in both private practice and corporate dentistry from 2013-2018.



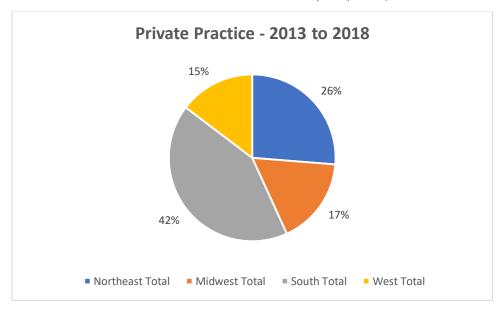
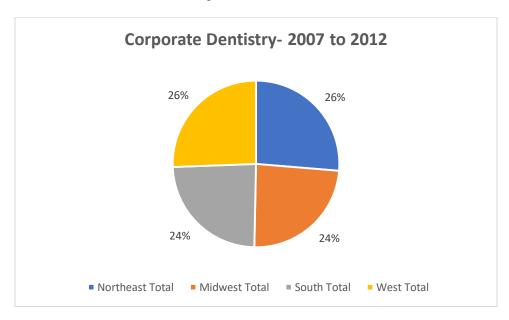


Fig 3: Regional % of classified ads for private practice from 2007-2012 and 2013-2018

There was increase in the private practice ads in the South and decrease in the West from 2013 to 2018 compared to 2007 to 2012.



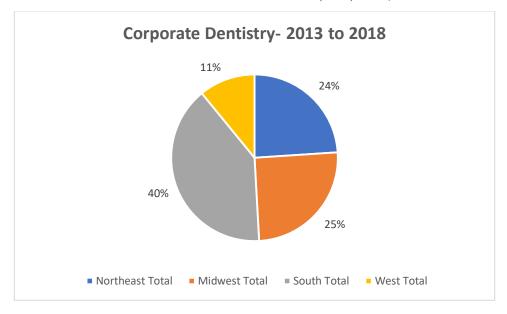
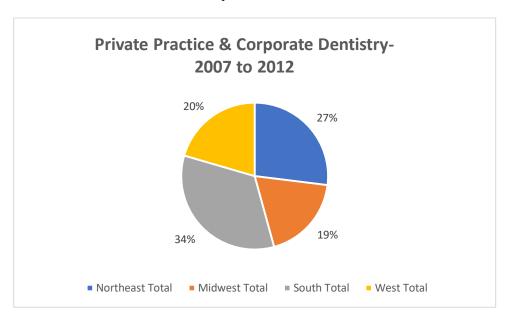


Fig 4: Regional % of classified ads for corporate dentistry from 2007-2012 and 2013-2018 There was increase in the corporate ads in the South and decrease especially noted in the West from 2013 to 2018 compared to 2007 to 2012.



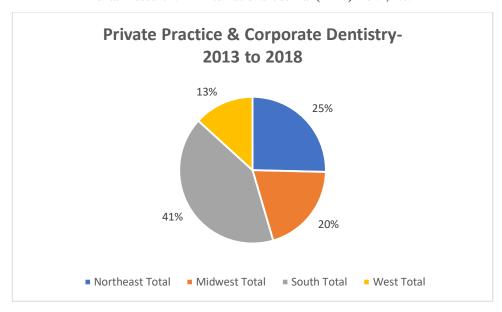


Fig 5: Regional % of total classified ads from 2007-2012 and 2013-2018

There was increase in total private practice and corporate ads in the South and decrease especially noted in the West from 2013 to 2018 compared to 2007 to 2012.

Dentists per 10,000 Population by U.S. State



Five free health related map layers are now available that enable Maptitude users to better map and understand the U.S. health care network. This month's featured map uses the locations of dentists (found in the new Caliper Healthcare Provider layer) to show the concentration of dentists per 10,000 population in the United States. The District of Columbia has the greatest concentration with one dentist per 855 population, followed by Massachusetts (1:1057) and Alaska (1:1077). Arkansas has the lowest concentration, with one dentist per 2281 population, followed closely by Mississippi (1:2274). Also shown are pie charts indicating the distribution of dentists in each state by their specialty.

Fig 6: Dentists per 10,000 population per state

The states with the lowest number of dentists per 10,000 population are generally in the South. https://www.caliper.com/featured-maps/maptitude-dentists-map.html accessed on 7/5/2019

4. DISCUSSION

Data from 2007-2012 showed a decrease in private practice and an increase in corporate dentistry opportunities. From 2013-2018 there was an overall decrease in the number of classified ads in both private and corporate dentistry. These showed a flattening of the number of ads and both generally paralleled each other from 2013-2018. This is seen in Fig 2. Regionally there was an increase in the ads in the South for both private practice and corporate dentistry.

Private practice is built and crafted solely by the dentists themselves. They are able to choose the types of practices, techniques to be used, patient groups and many other things. The income is largely based on the potential and leadership of the dentist, making the practice much more flexible. However, the hardest part of running private practice is linked to large responsibilities that follow when having to handle issues that are outside the normal scope of clinical dentistry [2]. Private dental practice is completely owned by single or multiple dentists and operated solely by dentists. The size can vary as several dentists can work together at a single or multiple office locations. Its legal structure includes a proprietorship partnership [3].

According to the Academy of General Dentistry, corporate dentistry is defined as "any of a variety of practice modalities in which management services, at a minimum, are provided in a manner that is organizationally distinct from the scope of activities performed by a dentist within only his or her practice" [4]. Corporate dentistry is usually affiliated with dental management organizations, which operates business aspects of the practice, such as ownership of assets of dental offices or advertisements that "do not involve statutory practice of dentistry" [3]. In other words, corporate has full ownership and provides management, while the dentist provides clinical care for the patient.

Corporate dentistry is merger of small practices within a larger entity [5]. One big type of corporate dentistry includes DSO (Dental Support Organization) or DSMO (Dental Service Management Organization). These Dental Service Organizationsare owned and run by a main investigator or a 'third-party' rather than by dentists [5]. An advantage of corporate dentistry is that all business and management, marketing, employment and staff training can be run more professionally by a third party, which relieves this burden from the dentists. Furthermore, the dentists are able to work parttime and still maintain a high income [5]. However, the corporate dentistry is a large-scale business and can hinder the development of close patient-dentist relationships, which can have a negative impact on the overall quality of the work [5].

Corporate dental offices usually have fixed costs on rent, labor, equipment, marketing as most corporations have made a contract with suppliers, landlords, and media. They can offer more affordable price than private practice, which gives them more bargaining power. Furthermore, they have more efficient marketing strategies and more access to data collection that enables them to appear more on the media and acquire more patients. Likewise, business management aspects are usually run by corporates' other departments that are not within the scope of clinical dentistry.

From 2007-2012 there was a decrease in private practice opportunities and an increase in corporate opportunities for dental graduates. This may be partially related to the high educational debt of some students[6]. They may not be able to take on more debt to build a private office and may prefer compensation with salary offered by corporate dentistry. In addition newly graduated students may not have enough practice management skills to efficiently run a solo office.

The decline in solo practitioners has been well-recognized as ADA Health Institute reports that the percentage of solo practitioner has decreased to 50.6% in 2017 from 65% in 1999 [7]. Only 1 in 5 dentists under 35 was in solo practice in 2017 [7].

Increasing cost of opening a new dental office can contribute to this trend as the recent estimates are expected to be \$750,000-\$1,000,000, higher than ever before [8]. Moreover, dentists in the baby boom era are retiring and selling dental office to current dentists or corporates [8]. Having more capital resources than recent graduates who struggle from high educational debt as well as limited practice experience, corporates are more likely to purchase existing practices [9]. The combination of increased cost of opening up new practices, increased number of new dentists joining the field, and decreased market supply is equal to the value of maximum dental practice [8]. Consequently, potential individual owners and corporate dentistry prefer not to start a completely new practice, which would entail the expense of construction of dental office and marketing to advertise a new practice. Such reasons can contribute to recent trends of leveling or slight decrease in opening up completely new practice.

Instead, small and big practices are consolidating to create larger dental firms or larger dental firms with their existing large assets purchase small practices [10]. According to the literature review by the Oral Health Workforce Research Center, the driving forces of practice consolidation and corporate dentistry include proliferation of interoperative electronic health records, rising competition for new patients, decrease in dental service demand, aging of population, uneven distribution of dentists throughout the country, and increased assets required to open up new practice [11]. The 2014 report from ADA Health Policy Institute noted that "dental firms with more than ten offices and the number of offices they controlled increased from 157 in 1992 to 3,009 in 2007. Growth is continuing" [3].

According to the ADA's survey on private dental practice in U.S, the average number of patient visits per dentists per week from 2000 to 2017 demonstrates negative correlation, meaning that dentists treat less patients every year. This statistic can imply multiple assumptions: less patients are seeing dentists, more dentists and practices are emerging on a faster rate than population demand, or combination of all. According ADA Health Policy Institute in 2017, 8.8% of current dentists are affiliated with dental service organization (DSO) while the stats soar up to 17.9% on dentists between age 21-34 are affiliated with DSO [12].

In 2013, there were approximately 195,202 clinically active licensed dentists in the U.S. The annual number of dental school graduates increased from 4,300 in 2002 to 6,000 in 2016, which was a 1.9% increase per year [13]. The rapid increase in number of dentists and decrease in demand for dental care led to overall decrease in dentists' incomes. It suggests that the supply of dental services nationwide, may start to exceed the demand[14]. This may be one of the biggest reasons why there was a decrease in both corporate and private dentistry opportunities from 2013-2018.

Caries severity has declined in children to significantly low levels, after the beginning of utilization of fluoride. Thus, prevalence of periodontal disease has also decreased, and tooth loss has declined dramatically (or are not seen), especially in higher income groups [15]. These oral diseases are mostly seen only in the lower end of the social spectrum. Such overall decline in the demand for dental care may have decreased both private and corporate dental offices.

There was an increase in the South part of US in both private practice and corporate and decrease in the West part of US as shown in Figs 3, 4 and 5. Population increases in the U.S have been happening steadily; there has been increase in population size by 51.3 percent, reaching 310 million people from 1970 to 2010[16]. Among these population, Western and Southern states continue to grow faster than states in the Northeast or Midwest. Between 2000 and 2010, states such as Arizona, Florida, Georgia, North Carolina and Texas grew by more than 1,000,000 each[16]. Thus, the major reason for the increase in the southern part of US in both private and corporate opportunities may be due to population shifts.

Less job opportunities in the Western part of US may be due to saturation of both private and corporate practices, and increasing costs of housing and living in California metropolitan areas may have caused people to relocate. Furthermore, higher salaries and less tax requirements in the Southern part of the US may have attracted many newly graduated dentists, as the debt load of new dental graduates has grown to an average of approximately \$200,000 [17].

Fig 6 which has Dentists per 10,000 population per state shows that Washington D.C has highest number of dentists with one dentist per 855 population, followed by Massachusetts (1:1057), and then Alaska (1:1077). The lowest concentrated states are Arkansas (1:2281) and Mississippi (1:2274). The west region, including California and Washington, are some of the leading states in terms of number of dentists per 10,000 population and therefore it can be assumed that dentistsaturated areas are more competitive in earnings. On the other hand, southern regions show a smaller number of dentists per state, and therefore may have more opportunities to start a new practice and increase growth in corporate dentistry.

According to ADA data for state breakdown, Arizona has 18.4% of all practicing dentists affiliated with Dental Service Organization, followed by Nevada with 17.8% and Texas at 15.8% [12].

There are some limitations in this study. Only the opportunities available positions in JADA from January 2007 to December 2012 and January 2013 to December 2018 were collected for analysis. This study did not include the dental job advertisements from other sources such as internet sites, other journals' classified advertisement sections, newspaper and local paper dental society advertisements. Some jobs may be filled internally, or through personal recommendations, and are never advertised. In addition, it is noted that during parts of 2016 and 2017 there were no state specific corporate opportunities advertised in JADA.

5. CONCLUSION

This study shows that there has been a shift in the dental job availability in the US. The Southern area has the most growth while there is less opportunity in the West. Dental students should use this information when they are planning their future career paths after graduation.

6. REFERENCES

- [1] Lee E, Chin B, Xia KY, et al. Changes in the job market for dentists evaluated through a classified advertising index. J Investigative Dent Sci, 2014; 1(1): 0000001
- [2] CoughlinK. (2017, Oct 03). Corporate Dentistry vs. Private Practice: Pros and Cons. Retrieved from https://www.ascent-dental-solutions.com
- [3] Guay A, WarrenM, Starkel R. (2014). A Proposed Classification of Dental Group Practices. ADA.org. Retrieved from: http://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief 0214 2.pdf
- [4] Brown W, ArmstrongC, Bromberg M. (2013). Investigative Report OnTheCorporate Practice Of Dentistry. AGD.org. Retrieved from: https://www.agd.org/docs/default-source/advocacy-papers/agd-white-paper-investigate-report-on-corporate-dentistry.pdf?sfvrsn=c0d75b1_2.
- [5] VerobaL. (2017, Nov 10). Corporate Dentistry What is it and how can you compete? Retrieved from https://maxidentsoftware.com/corporate-dentistry-what-is-it-and-how-can-you-compete/
- [6] Nicholson S, Vujivic M, Wanchek T, et al. The effect of education debt on dentists' career decisions. J Am Dent Assoc. 2015; 146(11): 800-7
- [7] ADA.org. (2018). How many dentists are in Solo Practice? Retrieved from: https://www.ada.org/~/med ia/ADA/Science%20and%20Research/HPI/Files/HPIgraphic_1018_1.pdf?la=en
- [8] Benevis.com. (2018). It's a Great Time to Sell a Dental Practice to a DSO Benevis.com. Retrieved from: https://benevis.com/articles/great-time-sell-dental-practice-dso/ [Accessed 23 Jul. 2019].
- [9] SolomonE. (2015). The future of dental practice: Demographics. Dental Economics. Retrieved from: https://www.dentaleconomics.com/practice/article/16391631/the-future-of-dental-practice-demographics.
- [10] Cooper M. Future Strategies: The Future for Small Practice. AADGP.org.Retrieved from: https://www.aadgp.org/wp-content/uploads/Marc-Cooper-Presentation.pdf.
- [11] LangelierM, WangS, Surdu S, et al (2017). Trends in the Development of the Dental Service Organization (DSO) Model: Implications for the Oral Health Workforce and Access to Services. Chwsny.org. Retrieved from: http://www.chwsny.org/wp-content/uploads/2017/09/OHWRC_Trends_in_Dental_Service_Organization_Model_2017.pdf
- [12] ADA.org. (2019). How Big are Dental Service Organizations? Retrieved from: https://www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIgraphic_0419_1.pdf?laen.
- [13] Munson B, Vujicic M. (2014, June 04). Supply of dentists in the United States is likely to grow. Research Brief, American Dental Association. Retrieved from: www.ada.org/~/media/ADA/Science%20and%20Research/HPI/Files/HPIBrief 1014 1. ashx.
- [14] BailitHL. How many dentists are needed in 2040; executive summary. Journal of Dental Education, 2017; 81(8): 1015-1023.
- [15] Rozier RG, White BA, Slade GD. Trends in oral diseases in the U.S. population. Journal of Dental Education, 2017; 81(8):97-109.
- [16] Alex BW. Factors influencing demand for dental services: population, demographics, disease, insurance. Journal of Dental Education, 2012;76(8): 996-1007.
- [17] DiringerJ, Phipps K, CarselB. (2013). Critical trends affecting the future of dentistry: assessing the shifting landscape. American Dental Association. Retrieved from: http://www.ada.org/~/media/ADA/Member%20Center/FIles/Escan2013_Diringer_Full.ashx