

# Is There a Shortage of Dental Hygienists and Assistants in California?



UCLA CENTER FOR HEALTH POLICY RESEARCH



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In the mid-1990's, a growing concern emerged among dentists regarding a possible shortage of practicing dental hygienists and dental assistants in California. To investigate the question of shortage and to better-understand the dynamics of the allied dental health workforce, the CDA Foundation funded research from two academic centers of excellence in the University of California system: The Center for Health Policy Research at the University of California at Los Angeles (UCLA), and the Nicholas C. Petris Center on Health Care Markets and Consumer Welfare at the University of California at Berkeley (UCB).

The research and resulting reports provide two perspectives on the dental workforce in California. The UCLA report contains results from an extensive survey of dentists regarding their practice experiences and personal perceptions. This report provides a current perspective, from 2003 to 2005, of the status of allied personnel in dental offices throughout California. The UCB report examines a broader economic and labor market perspective for dental hygienists and assistants from 1997 to 2005. This report extends the workforce analysis by looking at trends in labor supply and demand. Combined, these reports provide a comprehensive analysis of the status of dental hygienists and assistants in the workplace.

This work marks the beginning of a series of inquiries by the California Dental Association (CDA) into the complex linkages between oral health demands in California and the workforce capacity to effectively deliver the provisions of care today, and in the future. In addition to this study, the CDA is working with the Center for the Health Professions at the University of California at San Francisco to investigate contributing factors in decisions of dental hygienists to enter, remain, and exit the workforce at various intervals in their career. The results from that work are expected in mid-2006. Additional projects through UCB are also being pursued, which will develop forecasting models for future workforce capacity and demands on the dental profession given the evolving demographic and socioeconomic changes in California's population. Once complete, this series of work is expected to provide a comprehensive, longitudinal perspective on the dental workforce in California.

Results from these works will be communicated to key stakeholders and used to foster dialogue among constituents on strategies that prepare for the future of the dental profession. The benefits to understanding these environments will frame decisions involving public policy, education, workforce models, and dental economics, all of which contribute to the profession's effective delivery of optimal oral health services to the public.

To effectively present this material in electronic format, you will find three Adobe® PDF files on the CD and website. We invite you to read the files in numerical order for greater understanding.

California Dental Association Foundation Board of Directors

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The CDA Foundation is the philanthropic affiliate of the California Dental Association. For more information about the CDA Foundation or to download the reports in their entirety, please go to [www.cdafoundation.org](http://www.cdafoundation.org)

# Is There a Shortage of Dental Hygienist and Dental Assistants in California?

## Executive Summary

Is there a shortage of allied dental health personnel (ADHP) in California? This is the question that the California Dental Association Foundation sought to answer in response to many dentists' concerns about a perceived workforce shortage. The following two reports address this question from two distinct, yet complementary perspectives: economic indicators of labor shortage, and experienced delays in hiring personnel by dental practitioners. The reports were commissioned from two centers of research excellence in the University of California system: the Center for Health Policy Research at the University of California at Los Angeles (UCLA) and the Nicholas C. Petris Center on Health Care Markets and Consumer Welfare at the University of California at Berkeley (UCB). The research contained in these reports provides an independent review of the shortage and is the most comprehensive information on the status of allied dental health personnel workforce in California.

The UCLA report uses data derived from a survey of 13,600 general dentists throughout California and constructs a picture of private dental practice in California; including staffing levels, wage and benefits, patient populations, and experiences in utilizing ADHP. As it relates specifically to the question of a workforce shortage of ADHP, dentists reported on the length of time to hire these personnel, their perceptions of shortage, and the impact of a shortage on their practice. In this report, a shortage is examined by identifying delays in hiring dental hygienists and dental assistants. A delay in hiring personnel is one indicator used to define a workforce shortage. The report also details various aspects of experienced shortages by examining geographic distributions where shortages may be more problematic and where efforts to alleviate shortage may be focused.

The UCLA report finds that, in 2003, only half of dentists in California employed hygienists, and of those who did, just 46% had openings for a hygienist position. Of those employing hygienists and having an opening, approximately half (53%) experienced delays in hiring these personnel. In some cases, shortages were experienced despite higher wages being offered to attract personnel to these practices. Overall, these statistics indicate that a realized shortage was limited to 11% of all California dentists. Despite this limited experience, the perception of shortage was widespread, even among dentists without openings and those with openings but no shortage experience.

Similarly, about one-in-four dentists with openings experienced delays in hiring dental assistants, which was more pronounced for specialist dentists who also reported practicing some general dentistry. Still, realized shortages of dental assistants were experienced by only 20% of all California dentists. As was the case for dental hygienists, but to a lesser degree, dentists perceived a shortage of dental assistants at a higher rate than those experiencing any realized shortage.

The UCB report analyzes the question of shortage from the perspective of labor economics, using longitudinal data from 1997-2005. In this report, a workforce shortage is defined as the situation where the demand for workers for a particular occupation is greater than the supply of workers who are qualified, available, and willing to do the specific job, at a given market wage. Therefore, rising average inflation-adjusted wages is one measure of a workforce shortage.

The UCB study finds there was a clear increase in the demand for dental care services, which in turn resulted in an increase in the demand for the services of dental hygienists and dental assistants. This increase in consumer demand resulted in increases in the average wage for both categories of personnel, particularly in the labor market for hygienists, where the average wage rose 48% from 1999-2002, indicating a significant workforce shortage. There was no significant supply response in

the labor market for dental hygienists in this time frame. However, after 2002, the average wage for hygienists stabilized, indicating that the initial workforce shortage was alleviated. On the other hand, there was such a large supply response in the labor market for dental assistants, that the upward trend in the average wage for dental assistants actually reversed direction after 2001, indicating the end of the initial workforce shortage. The average wage for dental assistants continued to fall and as of the first quarter of 2005 had returned to its 1997 level.

It is important to note that economists define *rising* wages as a key indicator of workforce shortage. A stable or decreasing trend in average wages, along with a stable or decreasing trend in average vacancy rates and average length of time to hire, demonstrate that no workforce shortage exists.

Taking the findings of both reports together, a clear answer to the question “Is there a shortage of ADHP in California?” emerges. There was a shortage of dental hygienists starting in 1999 triggered by an increase in consumer demand for dental care services and a lack of increase in workforce supply. This experience likely triggered the widespread perceptions of shortage among dentists in California. The actual experience of shortage within private practices of general dentists has largely dissipated. Beginning in 2003, the realized shortages experienced by dentists were reduced to some geographic areas, since demand and supply distribution for hygienist services were uneven statewide. The uneven distribution of supply of hygienists may still prove problematic for some dentists.

A shortage of dental assistants also existed, but appears to have dissipated at a statewide level with wages returning to their 1997 levels. The shortage of dental assistants was partially rooted in the skill sets sought by dentists in such personnel. In particular, more dentists hired and had openings for registered than non-registered dental assistants and more specialists who used dental assistants reported delays. Dentists’ practice needs, therefore, was not likely to be concordant with the supply of dental assistants with specific required skills, and these practice requirements seem to vary by region. As is the case with dental hygienists, the uneven distribution of supply of dental assistants may still prove problematic for some dentists.

The following are some additional selected highlights from the UCLA and UCB reports.

### **UCLA Selected Findings**

- Among general dentists in private practice, only half (51%) employed dental hygienists.
  - More than two-thirds of dentists who did hire hygienists only employed part-time hygienists.
- Dentists who practiced in the Greater San Francisco Bay Area, Sacramento region, and Southern California counties (other than Los Angeles), more often experienced a realized shortage of hygienists.
- Dentists with a shortage of hygienists more often reported negative impacts hygienists on their personal and practice situation compared to those not experiencing a shortage.
  - Longer waiting times for patients to schedule dental care services.
  - Increased job stress for the dentist.
- General dentists in private practice more often employed registered dental assistants than non-registered assistants.
- Nearly all general dentists in private practice in California (96%) employed dental assistants, and more than one-half had more than two full-time equivalent dental assistants.
  - Dentists who experienced recent delays in hiring dental assistants were least often in the San Joaquin Valley region.

## UCB Selected Findings

- Among California adults, there was a clear increase in the demand for dental care services in the targeted time frame:
  - The proportion of adult Californians who visited the dentist increased 11.2%. (1997-2004)
  - Statewide health expenditures for dental services rose 18.6% (1995 to 2000)<sup>1</sup>
  - The proportion of adult Californians covered by dental insurance increased 18.1% (1995-2003)<sup>2</sup>
- Wages of dental hygienists and dental assistants clearly increased, with the average inflation-adjusted wages of dental hygienists rising 48% between 1999 and 2002, and the average inflation-adjusted wage of dental assistants increasing by 13.9% between 1997 and 2001.
- There was a differential supply response from each labor market as a result of increased demand.
  - There was no significant change in the population-adjusted number of dental hygienists.
  - The number of population-adjusted dental assistants rose by 28% from 1997 until their peak in 2003.
- The wage effects of the supply response in each labor market indicate the average inflation-adjusted wage for dental hygienists has stabilized since 2002 and the average inflation-adjusted wages for dental assistants returned to their 1997 levels by 2005.

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<sup>1,2</sup> The latest year for which figures are available.