

# Gender differences in student withdrawals from postdoctoral programs of pediatric dentistry: 1986–1990

Michael W. Roberts, DDS, MSCD William F. Vann, Jr., DMD, MS, PhD

## THEME ARTICLES

### Introduction

Most postdoctoral programs in dentistry accept only a limited number of new students yearly, so student withdrawals before completion often cause major disruptions. Recently, Waldman<sup>1</sup> raised the issue of student attrition in pediatric dentistry postdoctoral programs and he discussed briefly the reasons cited for withdrawal. In this study, we examined the extent, gender differences, and reported causes of early departures from postdoctoral pediatric dentistry programs.

### Methods

A questionnaire was mailed to the program directors of all 55 United States graduate programs in pediatric dentistry. For the five years 1986–90, we requested anonymous demographic specifics about student withdrawal, along with program information. The gender of the respondent was not requested and since the questionnaires were returned anonymously, no follow-up of the nine nonresponding programs was possible.

### Results

Forty-six (84%) completed questionnaires were returned. Twenty-two programs offered certificates only, three offered degrees only, and 21 offered both. Eight programs offered a part-time curriculum option, but none reported a student having exercised the option during the reported years.

Table 1 illustrates student withdrawal rates prior to completing postgraduate training for males and females in first-year enrollments. Although there was no statistical difference between male and female in the years reviewed, the withdrawal rate of female students is higher than that of males each year except for 1988–89, with a five year withdrawal rate of 8.0% (25/312) versus 5.0% (17/415) for men. However, except for 1989–90, the withdrawal rate for women seems to be decreasing generally over time, while the rate for men has remained relatively constant.

The principal reasons cited for withdrawal by postgraduate students in pediatric dentistry are shown in Table 2 (next page). A change in career objectives, family/domestic concerns, and academic demands were cited most often.

### Discussion

This survey is the first indication of the dropout prevalence from postdoctoral programs in pediatric

dentistry. Data on the timing of withdrawals from postdoctoral programs were not requested specifically; however, many programs volunteered the information. Most dropouts seem to occur during the first year. Changes in career objectives were cited equally for both males and females, but family/domestic concerns for withdrawing were attributed to females much more often than to males. Interestingly, financial concerns/debts were cited for only one withdrawing student.

Studies point to gender differences in career patterns among professionals, including dentists.<sup>2–4</sup> Professional women, including dentists and physicians, tend to work part-time more often than men. Most women have shorter professional careers.<sup>5,6</sup> Marriage, children, domestic, spousal, and personal career conflicts can create difficult situations.<sup>7</sup> Stresses imposed as a result of cultural mores and professional education apparently can affect a woman's career path, including the time required to complete residency training.<sup>6</sup> Yet, in our study, we noted no statistically significant difference between genders with respect to dropping out. In fact, as the proportion of women increased over the five-year period, the number dropping out remained fairly constant.

It is relevant to note that since 1986, the specialty of pediatric dentistry has experienced a rapid change in the gender of students entering postdoctoral studies

**Table 1. Withdrawals from pediatric dentistry programs prior to completion**

Class of	Females	Males	Total
1986–87	14.6% (6/41)	4.3% (4/92)	7.5% (10/133)
1987–88	12.8 (6/47)	3.2 (3/95)	6.3 (9/142)
1988–89	1.4 (1/73)	6.3 (5/79)	3.9 (6/152)
1989–90	9.9 (7/71)	2.6 (2/78)	6.0 (9/149)
1990–91*	6.3 (5/80)	4.2 (3/71)	5.3 (8/151)
Total	8.0%† (25/312)	5.0%† (17/415)	5.8% (42/727)

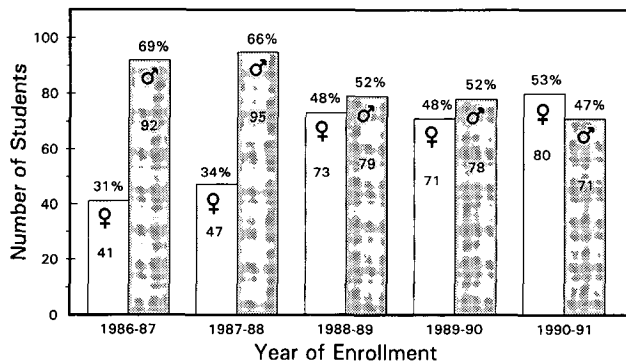
\*Data for only first six months available.

†There is no statistically significant difference in the withdrawal rates for males and females,  $P > 0.05$  (test of proportions for two independent samples).

**Table 2. Summary of reasons cited for withdrawals from pediatric dentistry programs: 1986–1990**

Reasons Cited	Number of Times Cited
Change in career objectives	13 (7m/6f)
Family/domestic concerns	13 (4m/9f)
Academic	9 (6m/3f)
Other (health, financial concerns/debt, licensure, etc.)	7 (4m/3f)

(Figure). In 1986–87, 69% of the first-year students were males. The percentage of male students has declined steadily over the past five years. In 1990–91, females for the first time surpassed 50% of first-year students. It appears the trend will continue because women represent 59% of the pediatric dentistry students enrolled through the Postdoctoral Dental Matching Program for the academic year beginning in July 1991.<sup>8</sup> This dramatic shift may explain the “levelling” of female dropouts. The increased presence of women in pediatric



**Figure.** Pediatric dentistry postdoctoral first-year enrollment.

dentistry programs may be creating a more supportive environment, either directly or indirectly. There was a consensus among respondents that dropouts cause serious program disruption, primarily because of the need to spread clinical responsibilities among remaining residents. We collected no information on the race of the students, whether withdrawing students were United States- or foreign-trained dentists, or whether the reporting institutions were privately or publicly funded.

Further research is needed to determine methods to prevent loss of potential pediatric dentists during training.

Dr. Roberts is associate professor and Dr. Vann is professor, Department of Pediatric Dentistry, School of Dentistry, University of North Carolina, Chapel Hill, NC. Reprint requests should be sent to Dr. William F. Vann, Jr., Department of Pediatric Dentistry, University of North Carolina, 205 Brauer Hall, CB# 7450, Chapel Hill, NC 27599–7450.

1. Waldman HB: Do students in pediatric dentistry programs complete the course of training? *ASDC J Dent Child* 58:140–43, 1991.
2. Bielby DD, Bielby WT: Work commitment, sex-role attitudes, and women's employment. *Am Sociol Rev* 49:234–47, 1984.
3. Dolan TA, Lewis CE: Gender trends in the career patterns of recent dental graduates. *J Dent Ed* 51:639–45, 1987.
4. Wilson AA, Branch LG, Niessen LC: Practice patterns of male and female dentists. *J Am Dent Assoc* 116:173–77, 1988.
5. Mitchell JB: Why do women physicians work fewer hours than men physicians? *Inquiry* 21:361–68, 1984.
6. LeBailly SA, Brotherton SE: Career paths of men and women in pediatrics. Descriptive findings from the survey on pediatric careers. Working paper #15. Department of Research, American Academy of Pediatrics, Elk Grove, IL, 1988.
7. Barry HB: Life styles now and then. *Dentistry* 7:7–10, 1987.
8. Personal communication: American Academy of Pediatric Dentistry, Chicago, IL, 1991.