

# Factors that affect career choices of pediatric dentistry advanced education students

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## Abstract

*A questionnaire addressing factors that affect career choices by pediatric dentistry advanced education students was mailed to 52 training programs. Two hundred and thirty-two completed surveys from 45 responding programs were returned. The responses were analyzed for women and men and citizens and noncitizens. Concern for spouse career opportunities affected women's personal career decisions significantly more ( $P < 0.05$ ) than it did for men. Women rated previous federal/military experience significantly less ( $P < 0.05$ ) influential on their career choice than did men. Geographic preference when making career decisions was significantly more ( $P < 0.001$ ) important to citizens than it was for noncitizens. Noncitizens assigned significantly higher ( $P < 0.001$ ) ratings to an interest in teaching and research than did citizens. A preference for practicing with a parent or relative and previous federal/military experience affected career choices by noncitizens significantly more ( $P < 0.05$ ) than they did citizens. This study suggests that numerous career-influencing factors in pediatric dentistry are perceived differently by women and men, and citizens and noncitizens. (Pediatr Dent 19:317-20, 1997)*

Women comprised 36.5% of dental school<sup>1</sup> and 55.1% of pediatric dentistry advanced education (PDAE) enrollment in 1994-95.<sup>2</sup> It is anticipated that women will account for at least 30% of all active dentists by the year 2020.<sup>3-5</sup> The recent shift in gender composition of both dental school and PDAE programs has the potential to affect the complexion of professional oral health-care delivery for children. Waldman<sup>6</sup> recognized the differences in interest and desires between male and female dentists and the way they practiced their profession.

In a U.S. study, 50% of women physicians were married to other physicians.<sup>7</sup> Whether this is true of women pediatric dentists is unknown, as is the impact this could have on professional services distribution. Pediatric dentistry will be the dental specialty most affected by female practice preferences and influences.<sup>8,9</sup>

Differences between the genders have the potential to be significant. Between 30 and 60% of female physicians felt that family-career conflicts were important

influences on their lives.<sup>10</sup> In another study, none of the male physicians reported a change in career plans because of family responsibilities, whereas 44% of female physicians said they had done so.<sup>11</sup>

Women in PDAE programs have identified full-time associate in private practice as their choice of practice setting, followed by part-time academic and part-time associate in private practice. This preference for non-owner positions is consistent with women physicians who are also less likely to be self-employed than men.<sup>12</sup> Women have been more likely than men to enter academic medicine since the 1960s.<sup>13,14</sup> An additional factor to be considered is that approximately 30% of PDAE students are not U.S. citizens.<sup>15</sup>

Western society defines different roles and expectations for women and men. The difference in factors that affect career choices of citizen and noncitizen dentists has not been previously reported. This study sought to identify the issues that had the greatest influence on choice of practice and professional career of women and men and of citizens and non-citizens.

## Methods and materials

The program directors of 52 ADA-accredited PDAE programs were asked to distribute a questionnaire to all enrolled students between December 1993 and May 1994. A second request was made to the directors who did not respond to the initial mailing. Each student was given an envelope addressed to the principal investigator for return of the completed questionnaire. The survey instrument was designed to measure the relative influence of selected factors on career choices using a five-point Likert-type scale.

Nonparametric methods were used to test whether the distributions of the response variable were similar between men and women and by citizenship status. An alpha level of .05 was used to determine statistical significance. Ranking of the most influencing factors was determined by combining the number of 4 and 5 responses on the Likert scale. Ranking of the least influencing factors was determined by combining the number of 1 and 2 responses on the same scale. Combining the two highest and the two lowest responses provides a more accurate indication of ranking strength.

## Results

Completed questionnaires were received from 232 of the 302 students enrolled in the responding 45 programs—a response of 77%. The extent to which responding individuals differed from those who did not participate was not assessed.

## Demographics

Demographic data of the respondents by gender are illustrated in Table 1. Seventy percent of the responding students were younger than 30 years of age, a mean age of 28.7 years. Respondents were equally divided between being married and single with 2% being divorced. Eighteen percent had children. Similar demographic data by citizenship are presented in Table 2.

TABLE 1. DEMOGRAPHICS BY GENDER

	Women (N = 137) <i>x</i> ± <i>SD</i>	Men (N = 95) <i>x</i> ± <i>SD</i>
Age in years	28 ± 3.2	29 ± 3.5
% US citizens	74	72
% single	53	43
% with children	15	22

TABLE 2. DEMOGRAPHICS BY CITIZENSHIP

	Citizens (N = 169) <i>x</i> ± <i>SD</i>	Noncitizens (N = 63) <i>x</i> ± <i>SD</i>
Age in years	29 ± 3.6	28 ± 2.4*
% female	60	57
% single	46	57
% with children	18	18

\* $P < 0.05$  *t*-test

## Influences by gender

Table 3 presents the factors influencing career choices ranked from highest to lowest according to gender. Women and men rated financial opportunity as the most important element in choosing a career. Previous experience/personal preferences and preferred geographic location were also cited often as strong considerations.

Women rated career opportunities for their spouses significantly higher ( $P < 0.05$ ) than did men. Both women and men rated prior federal/military experience as relatively unimportant in their career decision. However, women were significantly less affected than men ( $P < 0.05$ ).

## Influences by citizenship

Table 4 presents the factors influencing career choice ranked from highest to lowest by citizenship status. Geographic location was more important ( $P < 0.001$ ) in career decisions for citizens than noncitizens. Noncitizens rated interests in research and teaching significantly more important than did citizens ( $P < 0.001$ ).

Citizens and noncitizens both rated prior federal/military experience and the desire to establish a practice with a parent or relative very low. But citizens rated these two influencing factors significantly lower ( $P < 0.05$ ) than did noncitizens.

## Discussion

The similarities of factor ranking affecting career choices by women and men are striking. The concern that changing gender demographics in pediatric dentistry would have a profound effect on professional human power distribution appears to be largely unfounded.

Women and men both rated financial opportunities, previous experience/personal preference, and geographic location as the three most influential considerations affecting their professional career choice, although not in precisely the same order.

The perception that the man will be the principal breadwinner in a family is evident in the relative influence of spouse employment opportunity. Women rated this factor significantly higher than did men, suggesting that among female pediatric dentists, employment opportunities for their spouses will remain an important consideration when selecting a career.

Spouse opportunity for employment was rated either as a 4 or 5 by 61% of the women in the study even though 53% of the responding women were single. Although the data in our study were not analyzed by marital status, this suggests spouse employment opportunities may be the most important factor affecting a career choice among women who are married or living with a partner.

Noncitizens ranked an interest in teaching and research careers much higher than did citizens. Noncitizens were also less concerned about geographic location than were citizens. This suggests that noncitizens are more willing to be mobile than are citizens. Noncitizens may occupy a greater number of positions in academia and research in the future than they have in the past.

## Conclusions

1. Women rated career opportunities for their spouse as significantly more important in personal career decisions than did men.
2. Women rated previous federal/military experience as less influential on their career choice than did men.
3. Geographic preference was significantly more

important to citizens than noncitizens in career decisions.

4. Noncitizens assigned significantly higher importance to an interest in teaching and research than did citizens.
5. Practicing with a parent or relative and previous federal/military experience were significantly more important to noncitizens than they were to citizens.

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2. 1994/95 Survey of Advanced Dental Education, Survey Center, American Dental Association.
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5. Distribution of dentists in the United States by region and

**TABLE 3. INFLUENCING FACTORS ON CAREER CHOICES OF WOMEN (N = 137)**

Influencing Factors	Low 1		2		3		4		High 5	
	%	N	%	N	%	N	%	N	%	N
Financial opportunities	6	(8)	2	(3)	16	(22)	38	(52)	38	(52)
Prev exper/pers pref	4	(6)	4	(6)	20	(28)	31	(42)	41	(55)
Geographic area	5	(7)	8	(11)	16	(22)	35	(48)	36	(49)
Close to extend family	7	(10)	11	(15)	20	(28)	27	(37)	35	(47)
Spouse opportunities*	23	(32)	5	(7)	11	(15)	23	(31)	38	(52)
Community needs	7	(10)	8	(11)	27	(37)	39	(53)	19	(26)
Financial indebtedness	24	(33)	10	(14)	19	(26)	22	(30)	25	(34)
Interest in special pop	16	(22)	10	(14)	28	(38)	30	(41)	16	(22)
Child care availability	36	(50)	9	(12)	13	(17)	22	(30)	20	(28)
Role models/mentors	15	(21)	19	(26)	25	(34)	25	(34)	16	(22)
Interest in teaching	16	(32)	10	(18)	28	(33)	30	(32)	16	(22)
Interest in research	59	(81)	11	(15)	17	(23)	9	(12)	4	(6)
Near grad training	48	(66)	20	(27)	20	(27)	8	(11)	4	(6)
Practice with parent/rel	77	(105)	5	(7)	9	(12)	2	(3)	7	(10)
Prior fed/milit exper*	89	(122)	7	(10)	3	(4)	1	(1)	0	(0)

\* $P < 0.05$  Wilcoxon rank-sum test, N = number of responses

**INFLUENCING FACTORS ON CAREER CHOICES OF MEN (N = 95)**

Influencing Factors	Low 1		2		3		4		High 5	
	%	N	%	N	%	N	%	N	%	N
Financial opportunities	0	(0)	4	(4)	16	(15)	38	(36)	42	(40)
Geographic area	7	(7)	8	(8)	17	(16)	33	(31)	35	(33)
Prev exper/pers pref	8	(8)	5	(5)	19	(18)	38	(36)	30	(28)
Community needs	8	(8)	7	(7)	31	(29)	39	(37)	15	(14)
Close to extend family	10	(10)	8	(8)	31	(28)	23	(22)	28	(27)
Spouse opportunities	23	(22)	7	(6)	25	(24)	28	(27)	17	(16)
Role models/mentors	12	(11)	17	(16)	26	(25)	29	(28)	16	(15)
Interest in teaching	19	(18)	18	(17)	20	(19)	27	(26)	16	(15)
Interest in special pop	17	(16)	14	(13)	26	(25)	29	(28)	14	(13)
Child care availability	32	(31)	14	(13)	18	(17)	24	(23)	12	(11)
Financial indebtedness	22	(21)	12	(11)	32	(31)	11	(10)	23	(22)
Interest in research	45	(42)	22	(21)	17	(16)	10	(10)	6	(6)
Practice with parent/rel	78	(73)	6	(6)	3	(3)	4	(4)	9	(9)
Prior fed/milit exper	80	(75)	10	(10)	2	(2)	3	(3)	5	(5)
Near grad training	55	(52)	18	(17)	19	(18)	7	(7)	1	(1)

N = number of responses

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**TABLE 4. INFLUENCING FACTORS ON CAREER CHOICES OF CITIZENS (N = 169)**

Influencing Factors	Low 1		2		3		4		High 5	
	%	N	%	N	%	N	%	N	%	N
Geographic area*	5	(8)	5	(8)	14	(25)	36	(61)	40	(67)
Prev exper/pers pref	7	(11)	5	(8)	20	(34)	30	(51)	38	(65)
Financial opportunities	7	(11)	10	(17)	17	(29)	27	(45)	40	(67)
Close to extend family	7	(11)	12	(21)	25	(42)	25	(42)	31	(53)
Community needs	8	(14)	8	(14)	31	(52)	38	(64)	15	(25)
Spouse opportunities	25	(42)	6	(10)	17	(29)	24	(41)	28	(47)
Financial indebtedness	23	(39)	9	(15)	22	(37)	18	(31)	28	(47)
Role models/mentors	14	(25)	18	(31)	25	(41)	25	(43)	17	(29)
Interest in special pop	18	(30)	14	(24)	28	(47)	27	(46)	13	(22)
Child care availability	38	(64)	9	(15)	15	(26)	23	(39)	14	(25)
Interest in teaching	26	(44)	18	(31)	23	(39)	21	(36)	11	(19)
Near grad training	53	(90)	17	(29)	18	(31)	8	(14)	3	(5)
Practice with parent/rel†	82	(139)	2	(3)	6	(10)	3	(5)	7	(12)
Interest in research	65	(110)	14	(24)	15	(25)	5	(8)	1	(2)
Prior fed/milit exper	89	(151)	4	(7)	3	(5)	2	(3)	2	(3)

\* $P < 0.001$  Wilcoxon rank-sum test, † $P < 0.05$  Wilcoxon rank-sum test, N = number of responses

**INFLUENCING FACTORS ON CAREER CHOICES OF NON-CITIZENS (N = 63)**

Influencing Factors	Low 1		2		3		4		High 5	
	%	N	%	N	%	N	%	N	%	N
Financial opportunities	5	(3)	2	(1)	15	(9)	41	(26)	38	(24)
Prev exper/pers pref	3	(2)	5	(3)	18	(11)	45	(28)	30	(19)
Community needs	3	(2)	8	(5)	24	(15)	41	(26)	24	(15)
Interest in teaching*	10	(6)	3	(2)	24	(15)	34	(21)	30	(19)
Close to extend family	11	(7)	7	(4)	20	(13)	28	(18)	34	(21)
Spouse opportunities	18	(11)	5	(3)	16	(10)	30	(19)	31	(20)
Geographic area	10	(6)	14	(9)	24	(15)	30	(19)	22	(14)
Child care availability	22	(14)	19	(12)	12	(8)	22	(14)	24	(15)
Role models/mentors	11	(7)	18	(11)	28	(18)	28	(18)	15	(9)
Interest in research*	18	(11)	20	(13)	24	(15)	20	(13)	18	(11)
Interest in special pop	40	(25)	7	(4)	27	(17)	7	(4)	20	(13)
Financial indebtedness	24	(15)	16	(10)	28	(18)	18	(11)	15	(9)
Practice with parent/rel	64	(40)	18	(11)	10	(6)	3	(2)	7	(4)
Near grad training	45	(28)	24	(15)	24	(15)	7	(4)	2	(1)
Prior fed/milit exper†	74	(47)	19	(12)	2	(1)	2	(1)	3	(2)

\* $P < 0.001$  Wilcoxon rank-sum test, † $P < 0.05$  Wilcoxon rank-sum test, N = number of responses