

Assessing the Academic Productivity of Foundation for Anesthesia Education and Research (FAER) Resident Scholars

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Original Article

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Abstract

Background: The Foundation for Anesthesia Education and Research Resident Scholar Program (RSP) supports academically promising anesthesiology residents to attend mentoring seminars at the American Society of Anesthesiologists annual meeting. The objective of this study was to describe the career paths of RSP participants.

Methods: Prior RSP participants were surveyed regarding their academic productivity and their evaluation of the RSP experience. Univariate statistics were used to characterize the survey results.

Results: A total of 882 RSP participants were surveyed. The response rate was 26%. Seventy-two percent of respondents had worked in an academic institution, and 45% (95% CI: 38%-51%) were currently at an academic institution, which is higher than the national average of 18% ($P<0.001$).

Conclusions: This program may be a model for supporting the development of future academic anesthesiologists.

Key words: Foundation for Anesthesia Education and Research (FAER), Resident Scholar Program (RSP), American Society of Anesthesiologists (ASA), Academic anesthesiology, Education, Career choice.

Financial support: This study was completed with the support of a grant from the American Society of Anesthesiologists Professional Diversity Committee (PIs: Eleanor Vega, MD and Paloma Toledo, MD, MPH) and a Robert Wood Johnson Foundation Harold Amos Medical Faculty Development program (award 69779, PI: Paloma Toledo, MD, MPH).

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Introduction

The Foundation for Anesthesia Education and Research (FAER) Resident Scholar Program (RSP) was initiated in 1989 in order to expose academically promising anesthesiology residents to the educational, scientific, and political issues presented at the American Society of Anesthesiology (ASA) annual meeting.¹ Since 1989, more than one thousand residents have been selected by their program directors to participate in this program. To date, there has been no formal assessment of this program on the careers of the participants. The objectives of this project therefore were to: 1) describe the career paths and academic productivity of previous FAER RSP participants and 2) analyze whether differences exist by gender or race/ethnicity.

Methods

This study was approved by the Oregon Health and Science University Institutional Review Board. Written consent was waived by the IRB.

A survey was developed by the authors based on previously published surveys evaluating career paths of medical and scientific trainees and grant recipients.¹⁻⁷ It was reviewed by all of the authors for face validity and evaluated by members of the FAER Resident Scholar committee for comprehensibility and to establish content validity. Survey domains included demographic information, academic productivity (measured through career progress, publications, and research funding), and evaluation of the RSP experience. The full survey is available as a web supplement.

A list of previous resident scholars and their contact information were obtained from FAER. Missing contact information was obtained from the ASA membership directory, the American Board of Anesthesiology website, state medical boards, or obituary listings.

Scholars who completed the RSP program between 1989 and 2009 were eligible for study participation, as these scholars would have been in practice at time of survey administration in 2012. Surveys were emailed, or mailed if participants if they lacked a valid email address. Non-responders received three follow-up reminders in three-week intervals.

¹ Foundation for Anesthesia Education and Research Resident Scholar Program. Available at: <http://faer.org/programs/resident-scholar-program>. Accessed on June 19, 2014

Statistical Analysis

Univariate statistics were used to characterize the survey results. The proportion of participants in academic practice was compared by gender and race (white/non-white) using a chi-squared test. The mean percentage of respondents who were female and in academic practice were compared to national averages using a one-sample t-test.^b A $P < 0.05$ was considered significant.

^b The percentage of women members of the American Society of Anesthesiologists was provided by personal communication from the ASA Membership Department and the percentage in academic medicine was estimated using the percentage of academic anesthesiologists from the 2013 Society of Academic Anesthesiology Associations (SAAA) survey and the numbers of practicing anesthesiologists from the American Medical Association's Physician's Characteristics and Distribution in the U.S., 2014 Edition.

Results

Nine hundred and twelve scholars were eligible for study participation. Contact information could not be obtained for 30 participants. Two-hundred thirty-three surveys were returned (26% response rate).

Demographic information

Twenty-three percent of respondents were female (95% confidence interval [CI]: 18%-29%), which is similar to the percentage of women in anesthesiology (24%), $P=0.82$. Seventy-nine percent of respondents identified themselves as white, 11% as Asian, 5% as Hispanic, 3% as African-American, and 2% as Native American or other. No national data on the racial/ethnic composition of anesthesiologists was available for comparison.

Additional training

Fifty-two percent of respondents had completed a fellowship ($n=122$). Of those, 24% completed fellowships in adult cardiothoracic anesthesiology, 20% in critical care medicine, and 16% in pain medicine. Thirty-five percent of respondents had obtained an additional degree ($n=81$), the two most common being a PhD (32%) and a Master of Science (27%). In addition, 17% of respondents completed formal research training, such as a T32 training program, F32 fellowship, or postdoctoral research fellowship, following residency.

Professional Development

Seventy-two percent of respondents reported having worked in an academic institution, and 45% (95% CI: 38%-51%) were currently at an academic institution. In contrast, 14% were in private practice with university-affiliation and 38% were in private practice without university-affiliation. Female respondents were more likely to be working in academic practices than male respondents (57% vs. 41%, $P=0.03$), but there were no differences by race/ethnicity ($P=0.66$, data not shown). The percentage of respondents currently in academic practice was higher than the national average of 18%, $P<0.001$.

Of those working in an academic institution, 55% currently held the title of assistant professor, 21% of associate professor, and 12% of professor.

Academic Productivity

Almost half the respondents reported both completing a research project and presenting research at a national meeting during residency (49% and 47%, respectively). After residency, 29% reported having submitted a research grant, of which 73% were successfully funded. Thirty-six percent of respondents reported having mentored a trainee.

Professional Organizations

Eighty-nine percent of respondents were currently ASA members. Thirty-three percent were serving on local, state or national committees. Fifty-one percent reported serving in a leadership position in organized medicine.

Feedback on the FAER RSP

The majority of participants were satisfied (38%) or very satisfied (48%) with the FAER RSP. Seventy-eight percent reported they would have not been able to attend the ASA meeting if not for the FAER RSP. Fifty-four percent of respondents agreed that participating in the FAER RSP was helpful in shaping their careers but only 37% agreed or strongly agreed that the program impacted their decision to enter academic anesthesiology. Numerous factors contributed to respondents' decisions to choose private practice over a career in academic anesthesiology, including salary (61%), lack of mentorship to do research (17%), and lack of research support (15%). Participants felt the program was valuable for many reasons, the most common being encouragement to pursue a career in academic anesthesiology, networking with successful academic anesthesiologists and ASA leaders, and education on the importance of mentoring.

Discussion

The majority of FAER RSP participants practiced academic anesthesiology at one point in their career, and over 40% remained involved in academics. It is of interest that a greater percentage of females than males remained in academics. RSP participants were academically productive both in residency and following graduation, with many ultimately applying for and receiving grant funding. While most prior scholars felt the program was helpful in shaping their careers, it is possible that these residents would have been successful without the RSP program, given that they were selected for the program based on their academic promise. This study has several limitations, including the low response rate, the lack of a control group, the lack of a more robust sample of women and minorities, and the lack of a validated measure for academic productivity. Despite these limitations, our data suggest that this program may be a model for supporting the development of future academic anesthesiologists.

Sources of funding: This study was completed with the support of a grant from the American Society of Anesthesiologists Professional Diversity Committee (PIs: Eleanor Vega, MD and Paloma Toledo, MD, MPH) and a Robert Wood Johnson Foundation Harold Amos Medical Faculty Development program (award 69779, PI: Paloma Toledo, MD, MPH).

Financial disclosures and potential conflicts of interest: None.

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