

Society of Obstetricians and Gynaecologists of Canada Junior Member Committee Survey: Future Career Plans of Canadian Obstetrics and Gynaecology Residents

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Abstract

Objective: Although the *SOGC Strategic Directions 2006–2011* includes a commitment to the development of a human resource strategy for obstetrical and gynaecological care, little is known about the career plans of Canadian obstetrics and gynaecology residents. If we are to determine the needs of our profession, we must be aware of the expected practice patterns of future women's health care providers. The primary objective of this study was to evaluate the future career plans of Canadian obstetrics and gynaecology residents.

Methods: The SOGC Junior Member Committee administered two career surveys to Canadian obstetrics and gynaecology residents. The first was directly distributed to all Canadian residents and collected by local representatives of the SOGC Junior Member Committee in November 2002. The second was electronically administered from November 2005 to January 2006. The data collected from the surveys were collated and analyzed using statistical analysis software.

Results: The first survey, in 2002, was completed by 236 obstetrics and gynaecology residents (68% response rate) and the second, in 2006, by 246 (65% response rate). In both surveys, respondents were evenly distributed over all five years of residency training and all residency training programs. In 2002, 63 residents (30%) were considering additional postgraduate fellowship training following completion of residency compared with 130 residents (53%) in 2006 ($P < 0.001$). In both surveys, senior residents (postgraduate years IV and V) were significantly less likely to consider further postgraduate training than residents in their first three years (2002: 17% vs. 38%; 2006: 42% vs. 58%). Of total respondents to the 2002 and 2006 surveys, 87% planned to practice obstetrics upon graduation. The 2006 survey also found that the majority of residents desired to work in call groups of 6 to 10 physicians, work three to five on-call shifts per month,

and work a 40- to 60-hour week; 44% of residents planned work as locums after graduation.

Conclusion: Recognition of the planned practice patterns of our current residents may assist in the development of an appropriate human resource strategy for future obstetrical and gynaecological care in Canada.

Résumé

Objectif : Bien que les « Orientations stratégiques de la SOGC 2006–2011 » comprennent un engagement envers l'élaboration d'une stratégie visant les ressources humaines dans le domaine des soins obstétricaux et gynécologiques, nous en savons très peu sur les plans de carrière des résidents canadiens en obstétrique-gynécologie. Si nous voulons déterminer les besoins de notre profession, nous devons chercher à connaître les modèles de pratique que prévoient adopter les futurs fournisseurs de soins de santé des femmes. Cette étude avait pour principal objectif d'évaluer les futurs plans de carrière des résidents canadiens en obstétrique-gynécologie.

Méthodes : Le comité des membres débutants de la SOGC a administré deux sondages sur la carrière aux résidents canadiens en obstétrique-gynécologie. Le premier de ceux-ci a été distribué directement à tous les résidents canadiens et recueilli par des représentants locaux du comité des membres débutants de la SOGC en novembre 2002. Le deuxième sondage a été administré de façon électronique entre novembre 2005 et janvier 2006. Les données issues de ces sondages ont été rassemblées et analysées au moyen d'un logiciel d'analyse statistique.

Résultats : Le premier sondage, mené en 2002, a été rempli par 236 résidents en obstétrique-gynécologie (taux de réponse de 68 %) et le deuxième, mené en 2006, par 246 (taux de réponse de 65 %). Dans les deux sondages, les répondants ont été distribués de façon uniforme afin de représenter les cinq années de résidence et tous les programmes de résidence. En 2002, 63 résidents (30 %) songeaient à poursuivre une formation de cycle supérieur (*fellowship*) à la fin de leur résidence, par comparaison avec 130 résidents (53 %) en 2006 ($P < 0,001$). Dans les deux sondages, les résidents expérimentés (années de résidence IV et V) étaient considérablement moins susceptibles d'envisager la poursuite d'une formation de cycle supérieur que les résidents en étant à leurs trois premières

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années (2002 : 17 %, par comp. avec 38 %; 2006 : 42 %, par comp. avec 58 %). Parmi l'ensemble des répondants aux sondages de 2002 et de 2006, 87 % prévoyaient pratiquer l'obstétrique à la fin de leurs études. Le sondage de 2006 nous a également révélé que la plupart des résidents souhaitaient œuvrer au sein de groupes d'appel de 6 à 10 médecins, assumer de trois à cinq quarts « en disponibilité » par mois et travailler de 40 à 60 heures par semaine; 44 % des résidents planifiaient de travailler en « périodes de remplacement » à la fin de leurs études.

Conclusion : Le fait de prendre connaissance des modèles de pratique prévus de nos résidents actuels peut contribuer à l'élaboration d'une stratégie appropriée en matière de ressources humaines pour assurer l'avenir des soins obstétricaux et gynécologiques au Canada.

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INTRODUCTION

A crisis in the provision of intrapartum care in Canada has been predicted.¹ The number of family physicians, especially new graduates, practising intrapartum obstetrics in Canada is declining.² The *SOGC Strategic Directions 2006–2011* addresses the reduction of access to health services by Canadian women as a result of decreasing availability of obstetrician-gynaecologists.³ It includes a commitment to the development of a human resource strategy for obstetrical and gynaecological care through support of collaborative health care delivery informed by changes in obstetrician-gynaecologist demographics and the current human resource shortages.

Information about the career plans of Canadian obstetrics and gynaecology residents has been sparse. To determine the needs of our specialty, we must be aware of the expected practice patterns of future women's health care providers. Our objective was to evaluate the future career plans of Canadian obstetrics and gynaecology residents to determine (1) the proportion of residents planning to pursue fellowship training, (2) their expected patterns of practice, and (3) which factors may influence their job selection.

METHODS

The SOGC Junior Member Committee administered two career surveys to Canadian obstetrics and gynaecology residents. The first was directly distributed to all obstetrics and gynaecology residents in residency training programs and collected by local representatives of the SOGC Junior Member Committee in November 2002.

The second survey was electronically administered to all obstetrics and gynaecology residents in Canadian residency training programs by the SOGC Junior Member Committee from November 2005 through January 2006. The link to the online survey was delivered electronically to email addresses which had been collected by each program's SOGC Junior Member Committee representative. Reminder emails were sent to non-respondents four and

eight weeks after the initial mailing. The specialized online survey instrument collected responses in a database for extraction.

Completion of the surveys was voluntary and anonymous; therefore, health research ethics board approval was not sought. In the 2002 survey, no identifying data were collected. In the 2006 electronic survey, a separate database tracked the email addresses of the survey respondents independent of the survey results. Questions asked in the 2002 survey included demographics (age, gender, marital status, number of dependents), level and province of training, plans to pursue fellowship training, and desired practice patterns. The 2006 survey consisted of the same set of questions as the 2002 survey with the addition of several questions about factors influencing future career plans, such as size of centre, practice size, call group size, access to other medical specialists and technology, city amenities, proximity to friends and family, partner preferences, operating room time, and clinic facilities.

Response rates, overall and for each year of training, were calculated. The data collected from the surveys were collated and analyzed using SPSS statistical analysis software (SAS Version 9.1, SAS Institute Inc., Cary, NC). Logistic regression was used to control for potential confounding and correlation among variables. The Fisher exact test was used to detect associations with a significance of $P < 0.05$.

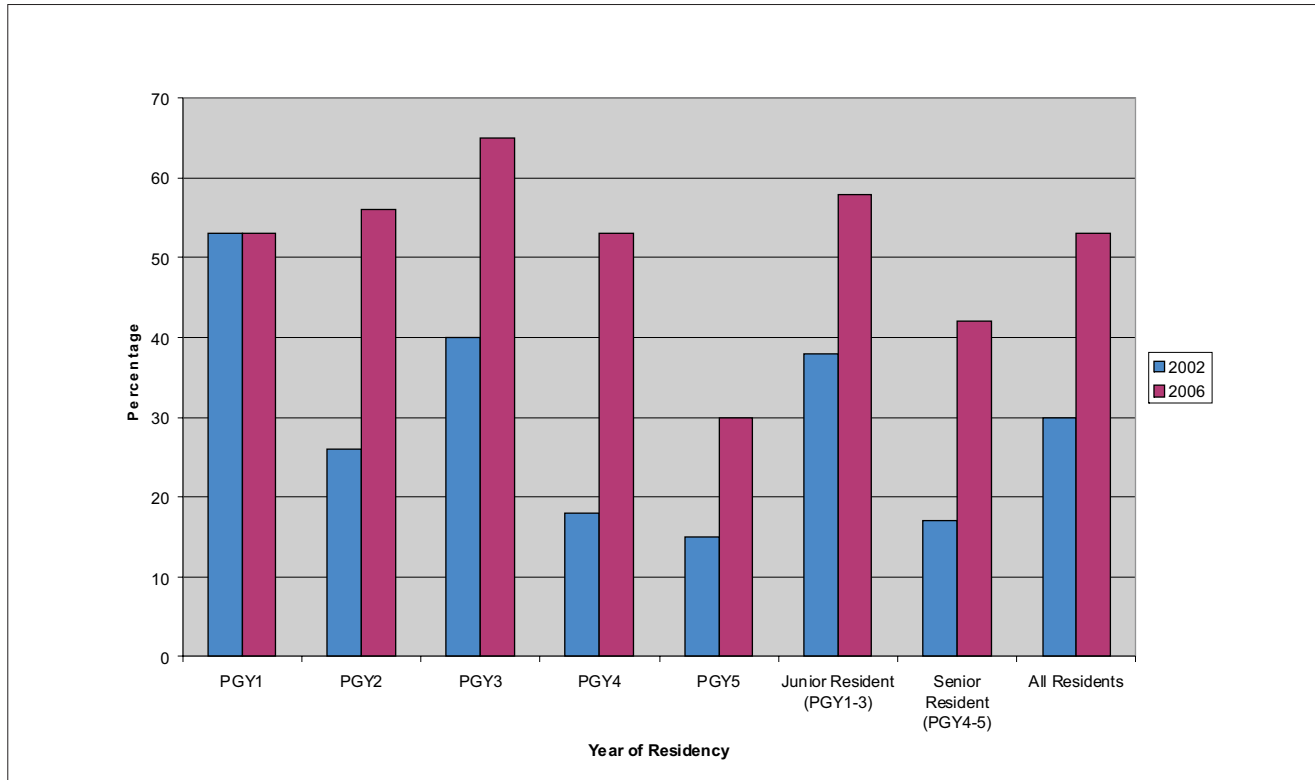
RESULTS

Of the 345 residents in Canadian obstetrics and gynaecology residency training programs in November 2002, 236 completed the survey, for a 68% response rate. Of these respondents, 27 (11%) were externally funded; their results were not included in the remainder of the analysis because only one planned to practice in Canada upon completion of residency. The ratio of female to male respondents was three to one.

In 2006, 246 of 378 residents in Canadian obstetrics and gynaecology residency training programs completed the survey, for a 65% response rate. Of these, 18 respondents (7%) were externally funded and planned to return to their home countries following residency training; again these respondents were excluded from further analysis. The ratio of female to male respondents had increased to five to one, and 58% of respondents were aged 25 to 29. In both surveys, the respondents were evenly distributed over all five years of residency training and all programs. Demographic characteristics of respondents are shown in the Table.

Almost one third (30%) of residents in the 2002 survey and more than one half (53%) in 2006 were considering additional postgraduate education following completion of residency, including Royal-College-accredited fellowships,

Figure 1. Pursuance of further training by year of residency



Demographic characteristics of survey respondents

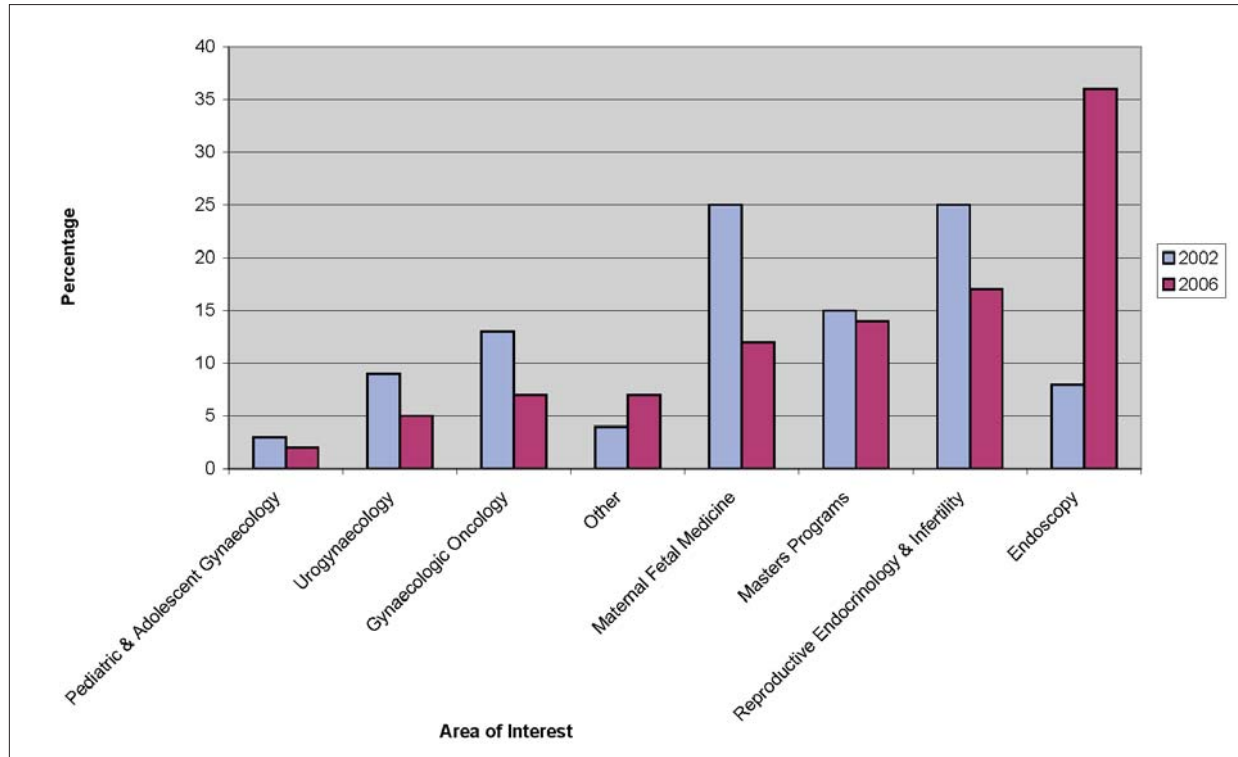
	2002	2006
Year of Training		
PGY1	40	59
PGY2	51	45
PGY3	40	63
PGY4	39	39
PGY5	39	40
Gender		
Male	66	39
Female	143	207
Province of Training		
British Columbia	19	27
Alberta	24	35
Saskatchewan	14	15
Manitoba	12	19
Ontario	61	60
Quebec	50	58
Nova Scotia	20	25
Newfoundland	9	7

non-accredited fellowships, and master’s and doctoral programs. In both surveys, senior residents (postgraduate years IV and V) were significantly less likely to consider further postgraduate training than residents in their first three years (2002: 17% vs. 38%; $P = 0.001$; 2006: 58% vs. 42%; $P = 0.02$) (Figure 1).

The surveys further explored plans for additional postgraduate education. For those residents who expressed an interest in further training, the specific area of interest for further training is depicted in Figure 2. Of those senior residents planning to pursue further training in 2006, advanced endoscopy was the most popular area of interest with 36%, compared with the traditional fellowships of gynaecologic oncology (4%), maternal-fetal medicine (6%), and reproductive endocrinology and infertility (9%). In 2006, desire to pursue further training was significantly associated with an interest in medical education ($P < 0.001$) or research ($P < 0.001$), desire to work in an academic centre ($P < 0.001$) or community with a population greater than 500 000 ($P < 0.001$), and plans to perform fewer than five on-call shifts per month ($P < 0.001$).

In both surveys, 87% of respondents planned to practice obstetrics upon graduation as part of their general or

Figure 2. Area of interest for pursuance of further training



subspecialty practice. The majority of residents in the 2006 survey desired to work in community practices with a call group of 6 to 10 physicians, perform three to five on-call shifts per month, and work a 40- to 60-hour week. One half (50%) have an interest in research and 71% in medical education. Almost one half (44%) of residents planned to work as locums after graduation. Plans to take locum work were significantly associated with no dependents and no plans to pursue further training. The top influencing factors in future location of practice were call-group size, partner preference, proximity to family and friends, operating room time, and access to technology and specialists (Figure 3).

DISCUSSION

To avert the looming crisis in the provision of intrapartum care in Canada, we must better understand the current human resource situation and develop strategies to improve Canadian women's access to health services. This includes evaluating and understanding the future career plans of Canadian obstetrics and gynaecology residents.

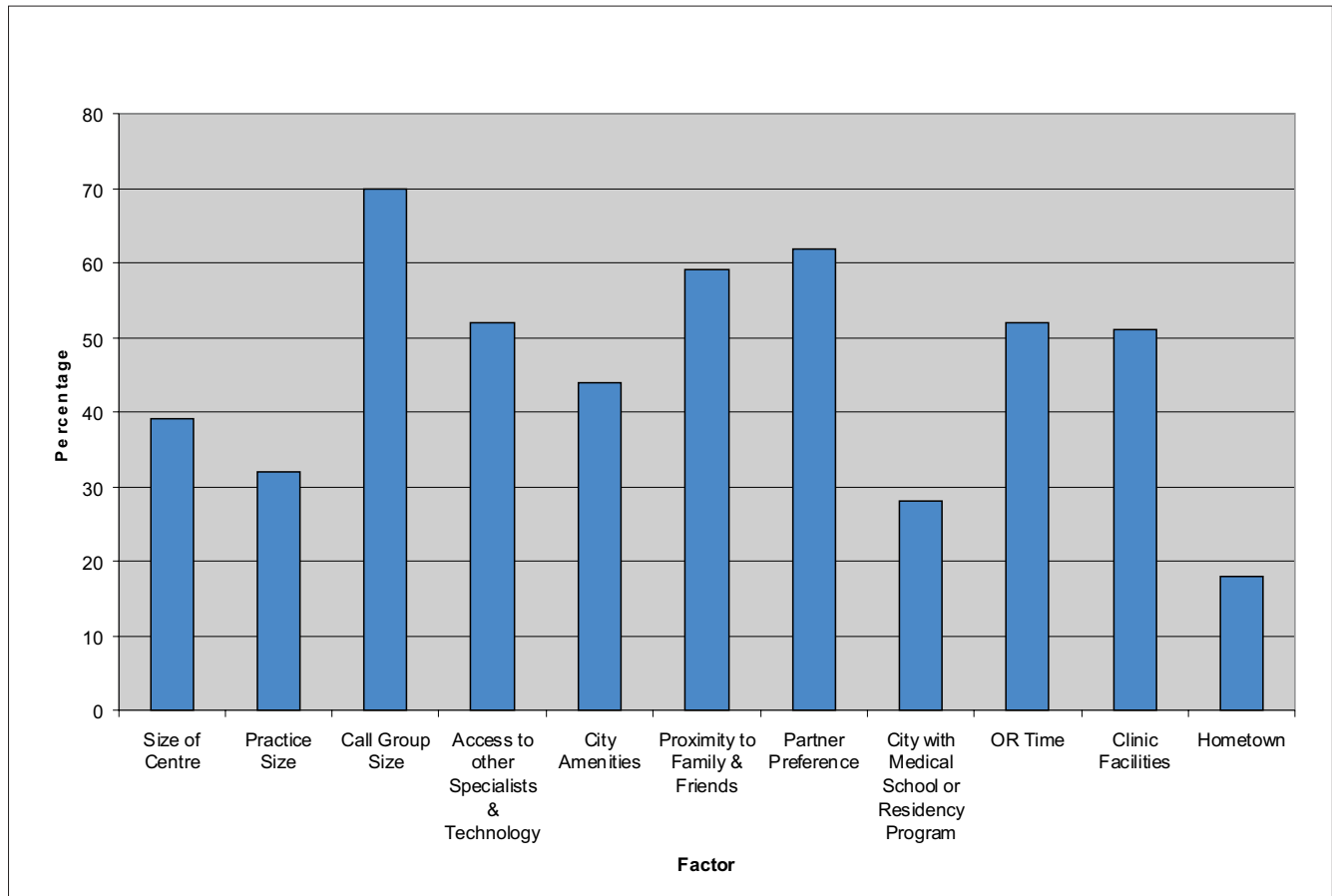
This study describes the intentions of Canadian obstetrics and gynaecology residents regarding further training. In 2006, 42% of senior residents planned to pursue further training following completion of their residency program; however, their interest was in the newer areas of the specialty, such as advanced endoscopy, rather than the

traditional fellowships. Therefore, there may be a shortage of subspecialists in maternal-fetal medicine, reproductive endocrinology and infertility, and gynaecologic oncology. A 2000 study by Pearse et al. projected decreases in maternal-fetal medicine and reproductive endocrinology and infertility subspecialists in the United States.⁴

In both surveys, senior residents were significantly less likely to consider further postgraduate training than residents in their first three years. Possible explanations for this include the desire to complete training and begin working to pay off the financial debt incurred during medical school and residency, and the development of an appreciation and enjoyment of the broad nature of general obstetrics and gynaecology.

Despite the high interest in further training, the majority of respondents (87%) are planning to provide intrapartum care. This is reassuring given concerns over the future provision of intrapartum care.

This study also highlights the evolving gender gap in obstetrics and gynaecology. In the 2002 survey, the ratio of female to male respondents was three to one. By 2006, this ratio had increased to five to one. The productivity of female obstetrician-gynaecologists was evaluated by the American Medical Association in 1998 and found to be 85% of that of male obstetrician-gynaecologists.⁵ This is an important

Figure 3. Factors strongly influencing location of future practice for residents in 2006

consideration as we work to develop human resource strategies in our specialty.

The limitations of this study are inherent to its survey-based design. Although the response rates were 68% in 2002 and 65% in 2006, we believe that our sample should reflect a fairly accurate picture of the total cohort of Canadian obstetrics and gynaecology residents because there was equal representation from residents in all postgraduate years, as well as from all residency programs.

Another limitation is the possible confounding of our results by the resurveying in 2006 of residents then in postgraduate years IV and V who had been surveyed in 2002 when they were in postgraduate years I and II. Because of the anonymity of respondents in both surveys, we were unable to track those residents who were resurveyed to determine if their career plans changed throughout their residency and why. A possible solution would be a follow-up survey three years hence of obstetrician-gynaecologists in Canada who completed their residency training in Canada between 2002 and 2010. This would provide an opportunity to determine their areas of practice and their

practice patterns and compare them with their plans while still in residency.

Since the completion of our study, the SOGC has initiated a nationwide census of obstetrician-gynaecologists and obstetrics and gynaecology residents practising in Canada to understand the factors influencing the provision of intrapartum care and to develop human resource strategies to ensure the sustainability of Canada's maternity care system. The residents in our most recent survey stated their desire to work in call groups with 6 to 10 physicians, have three to four on-call shifts per month, and work 40- to 60-hour weeks. These desired working conditions may draw residents to urban practice and away from smaller communities. Because these are the future Canadian obstetrician-gynaecologists, their intentions and desires must be considered in any calculation of the scope of the human resource issue in maternity care. Strategies to promote and encourage residents and current obstetricians to continue to provide intrapartum care must acknowledge and work to promote the fulfillment of their expectations. We hope the results of our surveys will contribute to the

development of strategies relevant to future obstetrician-gynaecologists in Canada.

CONCLUSION

Recognition of the planned practice patterns of Canadian obstetrics and gynaecology residents may assist in the development of an appropriate human resource strategy for women's health care in Canada.

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REFERENCES

1. MacDonald S. Duty to deliver: producing more family medicine graduates who practise obstetrics. *Can Fam Physician* 2007;53:13–5.
2. Godwin M, Hodgetts G, Seguin R, MacDonald S. The Ontario family medicine residents cohort study: factors affecting residents' decisions to practise obstetrics. *CMAJ* 2002;166(2):179–84.
3. The Society of Obstetricians and Gynaecologists of Canada. SOGC Strategic Directions 2006–2011. Available at: http://www.sogc.org/about/publications_e.asp. Accessed October 6, 2008.
4. Pearse WH, Gant NF, Hagner AP. Workforce projections for subspecialists in obstetrics and gynecology. *Obstet Gynecol* 2000;95:312–4.
5. Pearse WH, Haffner WHJ, Primack A. Effect of gender on the obstetric-gynecologic work force. *Obstet Gynecol* 2001;97:794–7.