

What's the Job Market in Surgery like in Canada?

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Introduction

There is increasing concern amongst medical students interested in surgery that they will have difficulty finding a job in the future. This article highlights the most recent data on employment challenges for newly graduated surgeons in Canada.

In 2011, the *Globe and Mail* published an article titled *Canadian surgeons face flat-lining job market*,¹ recounting anecdotes of how newly graduated orthopedic surgeons are unable to find jobs. Similarly, the *National Post* published an article in 2015 called *Untrained and unemployed: Medical schools churning out doctors who can't find residencies and full-time positions*,² describing head and neck surgeons who struggle to find work and citing 178 orthopedic surgeons in Canada who are unemployed. These articles are based on several studies looking at employment statistics of newly graduated Canadian surgeons.

A survey of 176 orthopedic surgeons in Canada who graduated between 2006 and 2011 showed that only 56% had secured employment, 35% were completing a fellowship or graduate degree, and 9% had not found a job.³ Of those who were unable to secure a job, 69% were taking on-call shifts and 31% had no work at all.³ Less than half of the graduates had full time work.³

A study of 50 cardiac surgeons in Canada who graduated between 2002 and 2008 found that 98% of graduates stated that finding employment was difficult or extremely difficult.⁴ Sixty-four percent believed that there is an excess of cardiac surgeons in Canada.⁴

These news articles and statistics suggest that there are significant employment challenges for surgeons. Given that there are real difficulties amongst new graduates, it is important to understand the perception of the job market for those still in surgical residency.

2013 Resident Doctors of Canada national survey of Canadian residents

In 2013, Resident Doctors of Canada, a national representative body of over 8,000 residents in Canada, conducted a national survey of 1,975 residents to understand the perception of employment opportunities amongst medical trainees.

Table 1, Table 2 and Table 3 compare the results of residents in family medicine, medicine, and surgery.

Table 1. Confidence of residents in finding employment in Canada after completing residency. Adapted from Resident Doctors of Canada: 2013 National Resident Survey.⁵

Specialty	Confident in finding employment	Not confident in finding employment	Unsure
Family Medicine	85%	1%	14%
Medical specialty	37%	10%	53%
Surgical specialty	16%	25%	59%

Table 2. Proportion of residents planning on undertaking a fellowship after completing residency. Adapted from Resident Doctors of Canada: 2013 National Resident Survey.⁵

Specialty	Planning to undertake a fellowship	Planning not to undertake a fellowship	Unsure
Family Medicine	4%	14%	82%
Medical specialty	46%	21%	33%
Surgical specialty	61%	15%	24%

When asked what prompted their decision to undertake a fellowship, residents responded with the following factors (able to select more than one factor):

- Future employment/career goals (84%)
- Personal interests (67%)
- More training/skills/specialization (63%)
- To help find a staff position (55%)

Table 3. If residents knew at the start of residency there were limited jobs available within their chosen specialty, would they still have chosen it? Adapted from Resident Doctors of Canada: 2013 National Resident Survey.⁵

Specialty	Would still have chosen my current specialty	Would have chosen a different specialty	Unsure
Family Medicine	29.1%	43.4%	27.5%
Medical specialty	46.3%	25.3%	28.3%
Surgical specialty	59.2%	17.4%	23.5%

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These data suggest that surgical residents are less confident in finding employment after graduating and are more likely to pursue a fellowship to become more employable than residents in family medicine or medical specialties. Interestingly, surgical residents are more likely to have chosen their specialty again even if they knew that they would face challenges in finding a job in the future. Though it is unclear why this is the case, it may suggest that surgical residents are less likely to be influenced by employment challenges in their decision to pursue their specialties than residents in family medicine or medical specialties.

Next, it is important to understand the factors contributing to employment challenges amongst surgeons.

2013 Royal College of Physicians and Surgeons of Canada study on unemployed specialists

In 2013, the Royal College of Physicians and Surgeons of Canada published an article titled *What's really behind Canada's unemployed specialists?*⁶ The study aimed to understand the employment challenges of specialists and the factors contributing to these challenges. The authors interviewed 50 leaders in medicine, including program directors and senior hospital administrators, and surveyed over 1,371 newly graduated specialists.

Their research revealed that 16% of new specialist physicians cannot find work and 31% pursue further training to become more employable.⁶ Employment challenges are increasing, with those reporting employment issues increasing from 13% to 17% between 2011 and 2012.⁶ These issues are most pronounced in resource-intensive disciplines such as surgery. Table 4 illustrates the proportion of newly graduated surgeons who are unable to find employment.

Table 4. Proportion of graduating surgeons unable to find a job placement. Adapted from Royal College Employment Survey, 2011 and 2012.⁶

Discipline	Unable to find a job placement
General Surgery	13/46 (28.3%)
Neurosurgery	8/21 (38.1%)
Ophthalmology	13/30 (43.3%)
Orthopedic Surgery	15/60 (25%)
Otolaryngology	5/17 (29.4%)
Urology	6/15 (40%)
Cardiac Surgery	5/5 (100%)

The study identified three factors contributing to employment issues amongst newly graduated specialists:

- 1) More physicians are competing for fewer resources. The health care needs of patients are increasing and the number of newly trained specialists continues to grow, but hospital funding growth cannot keep up. As such, expensive resources such as operating room time are cut.

- 2) Interprofessional care models reduce reliance on physicians. Other health care professionals, such as nurse practitioners and physician assistants, can fulfill the roles physicians used to fulfill. There is also an increasing reliance on residents to meet the immediate needs of patient care, but there is an insufficient number of staff positions available for these residents over the long term.
- 3) Residents report a lack of adequate career counselling and information about jobs. More than 50% of new specialists did not receive any career counselling and more than 33% of unemployed specialists reported that poor access to job postings hampered their ability to find a job.

2016 Ontario Medical Students Association report on physician workforce trends in Ontario

More recently, the Ontario Medical Students Association Education Committee published a 2016 report titled "Insights into physician workforce trends in Ontario,"⁷ which describes employment trends for each specialty in Ontario. The report synthesized information from national physician surveys, key reports from the Canadian Medical Association and the Royal College of Physicians and Surgeons of Canada, and data from the Canadian Resident Matching Service (CaRMS), as well as surveyed Program Directors and residents. Based on this information, a prediction of the job market was made for each specialty ranging from difficult/very difficult to very good/excellent. A summary of the results for surgical specialties, as well as family medicine and internal medicine for comparison, is presented in Table 5.

Table 5. Job prospects in Ontario for surgical specialties, family medicine, and internal medicine. Adapted from the Ontario Medical Students Association Education Committee 2016 report "Insights into physician workforce trends in Ontario."⁷

Specialty	Job prospects
Cardiac surgery	Difficult/very difficult
General surgery	Potentially difficult
Neurosurgery	Difficult/very difficult
Ophthalmology	Good
Orthopedic surgery	Difficult/very difficult
Otolaryngology	Difficult/very difficult
Plastic and reconstructive surgery	Good
Urology	Good
Vascular surgery	Indeterminable
Family medicine	Very good/excellent
Internal medicine	Good

Out of the 9 surgical specialties studied, the report identifies 4 that have difficult/very difficult job prospects. In comparison, family medicine and internal medicine have very good/excellent and good job prospects respectively. Given the recency of the publication of this report, these data reinforce the fact that the job market in surgery continues to be poor.

Discussion

Overall, these data suggest that there is a significant gap in medical workforce planning in Canada. The significant proportion of newly graduated surgeons who are unable to find employment (Table 4) and the low confidence of surgical residents in finding a job after completing their training (Table 1) suggests that there is a systemic problem in the Canadian surgical job market. Since the publication of the 2013 Royal College report⁶ and the results of the 2013 National Resident Survey,⁵ the job market in surgery has not noticeably improved, as demonstrated by the lackluster job prospects in surgery illustrated by the 2016 Ontario Medical Students Association report.⁷ According to the 2013 Royal College report, about 20% of specialists who do not find employment in Canada will look for work outside of the country, particularly in the United States.⁶ There is significant potential for brain drain to the United States given that the Association of American Medical College (AAMC) predicted that the United States would have a shortage of between 61,700 and 94,700 non-primary care specialists by 2025.⁸

Not only does the underemployment of qualified surgeons lead to wastage of the many hours and dollars put into training surgical residents and the potential migration of highly skilled Canadian surgeons to other countries, it reduces patients' access to timely and quality care. Wait times for medical procedures is at a 20-year high according to a study by the Fraser Institute, at 20 weeks, and ranging up to 47 weeks for neurosurgery and 38 weeks for orthopedic surgery.⁹ There are many newly trained surgeons who want to operate but cannot find a job. The current limiting factor is the lack of access to resources such as operating room time and hospital beds.⁶

To address Canada's surgery unemployment problems, medical workforce planning must reconsider how it allocates resources and trains new surgeons. There are complex factors influencing employment for surgeons in Canada, and we have only recently begun to understand the problem. Improving the job market for surgeons will require comprehensive reform to postgraduate medical education, resource allocation,

and career support. Potential solutions include reducing the number of surgical residency spots, increasing the capacity for hiring staff surgeons by reforming remuneration models, improving hospital funding planning so that operating room time is sufficient for the volume of procedures required, and increasing accessibility to career counselling services for medical students and residents.

With the recent increase in the number of reports published on employment challenges for newly graduated surgeons, we can hope that specific problems will be pinpointed and targeted solutions will be implemented to improve the job market in surgery for the next generation of medical students.

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