Supplementary Online Content


**eMethods.** Resident Attrition Survey

This supplementary material has been provided by the authors to give readers additional information about their work.
eMethods. Resident Attrition Survey

For the purposes of this study, we are defining “resident attrition” as anyone who begins a categorical surgery position at your program and does not finish. This includes: residents who leave Graduate Medical Education (GME) entirely (career change); residents who leave Surgery for a different GME career path (switch to anesthesia, for example, or switch from general surgery to integrated plastic surgery residency); and, finally, residents who leave your program to finish their surgery training at a different institution, for whatever reason. We are interested in learning more about resident attrition and any program factors that are associated with attrition rates.

1. I would describe my program as:
   - University-Based
   - University-Affiliated
   - Independent
   - Military

2. My program is located in an area that I would describe as:
   - Urban
   - Suburban
   - Rural

3. My program is located in the following area of the United States:
   - New England (CT, MA, ME, NH, RI, VT)
   - Mid Atlantic (NJ, NY, PA)
   - South Atlantic (DC, DE, FL, GA, MD, NC, SC, VA, WV)
   - East South Central (AL, KY, MS, TN)
   - East North Central (IL, IN, MI, OH, WI)
   - West South Central (AR, LA, OK, TX)
   - Mountain (AZ, CO, ID, MT, NM, NV, UT, WY)
   - Pacific (AK, CA, HI, OR, WA)
   - Territory (PR)

4. At my program, most of my residents participate in some form of research time away from clinical residency training
   - Yes
   - No

4a. If yes, how many years of research/lab time are offered?
   - One Year
   - Two Years
   - Three years
   - Variable

4b. Residents begin this research time after which clinical year?
   - PGY-1
   - PGY-2
   - PGY-3
   - Variable/Resident Choice

5. In academic year 2014-2015, our PGY-1 categorical residents averaged this many operative cases (as surgeon junior):
   - Less than 25
   - 26-49
   - 50-74
   - Greater than 75

6. In academic year 2014-2015, our PGY-2 categorical residents averaged this many major cases (as surgeon junior) by the end of their second year:
   - Less than 75
   - 75-124
   - 125-174
   - 175-224
   - Greater than 225

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7. In academic year 2014-2015, the average number of cases logged by our graduating residents was:

- 750-849
- 850-949
- 950-1049
- 1050-1149
- Greater than 1150

8. We have an annual resident retreat (a day free of clinical responsibilities for the residents to discuss programmatic changes, participate in team building activities, or socialize with or without faculty)

- Yes
- No

9. At our institution, on the majority of the clinical services, our interns use a “night-float” system to provide intern-level coverage of inpatients at night

- Yes
- No

10. Our incoming intern class has assigned mentors (assigned either prior to beginning residency or assigned during the intern year)

- Yes
- No

11. My residency program assigns junior-level residents a senior-level resident mentor

- Yes
- No

12. The amount of required educational conference time for my resident per week is:

- Less than 2 hours
- 2-3 hours
- 3-4 hours
- 4-5 hours
- Greater than 5 hours

12a. This educational time is “protected time” (residents are 100% free from all clinical duties, including answering pages, covering OR cases, etc.)

- Yes
- No

13. Our program tends to recruit residents who are from our geographical region

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

14. Our program tends to recruit residents from across the country

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

15. Our residents have elective rotations during residency training

- Yes
- No

15a. How many weeks of elective time are offered?

We are interested in learning more about your attitudes about resident attrition in a surgical residency program:

16. Some degree of resident attrition is a necessary phenomenon

- Strongly Disagree
- Disagree
- Agree
- Strongly Agree

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17. My job as a program director is to help as many residents as possible to successfully graduate, even if that would require remediation  

[ ] Strongly Disagree  [ ] Disagree  [ ] Agree  [ ] Strongly Agree  

18. I feel that the vast majority of categorical residents are trainable to meet American Board of Surgery standards for certification  

[ ] Strongly Disagree  [ ] Disagree  [ ] Agree  [ ] Strongly Agree  

19. I feel that the vast majority of surgery residents should successfully complete residency  

[ ] Strongly Disagree  [ ] Disagree  [ ] Agree  [ ] Strongly Agree  

20. I feel that it is my responsibility as a program director to redirect residents who should not be surgeons.  

[ ] Strongly Disagree  [ ] Disagree  [ ] Agree  [ ] Strongly Agree  

21. The attrition rate for general surgery residents has variously been reported to be as high as 6% per year, or close to 20% over a 5 year period. Assuming that this number is correct, please complete the following statement: “I believe an annual attrition rate of 6% is __________”  

[ ] Much too low  [ ] Somewhat too low  [ ] Just about right  [ ] Somewhat too high  [ ] Much too high  

22. Please fill in the table below to represent the past 5 years of your surgical residency program.

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<tbody>
<tr>
<td>1. Total Categorical Residents in Your Program</td>
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<td>2. Number of Chief Residents who Graduated this Year</td>
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<td>3. Total number of female Categorical Residents</td>
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<td>4. How Many Categorical Residents Left Your Program?</td>
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<td>4a. Of those, how Many Categorical Residents Left GME Entirely?</td>
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<td>4b. How Many Categorical Residents Left Surgery for Another Discipline?</td>
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<td>4c. How Many Categorical Residents Left Your Program for Another General Surgery Program?</td>
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<td>4d. Please list the PGY year of any and all residents who left, separated by commas (e.g., PGY2, PGY2, PGY4)</td>
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<td>5. Annual Attrition Rate (Row #4 divided by Row #1)</td>
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<td>6. Total Number of Categorical Residents Undergoing Remediation (formal or informal)</td>
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<td>7. Total Number of Categorical Residents Who Repeated a Clinical Year as a Remediation Measure</td>
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<td>8. Number of Incoming Interns who Completed a Sub-Internship Prior to Matriculation</td>
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23. Finally, please answer one of the following (fill in the blank; you can use as few or as many words as you like):

   23a. My program’s attrition rate is below the average; I attribute this to:

   OR

   23b. My program’s attrition rate is above the average; I attribute this to: