

# Survey of Emergency Physician Satisfaction Based on Residency Length

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## Introduction

Emergency medicine has a 3-year and 4-year program platform that are utilized during residency. With regard to comfort and satisfaction, is one platform superior to the other?

Considerations:

- Feelings of perceived preparedness during first year after graduation.
- Number of attempts to pass boards.
- “Educated” opinion of which training length is superior.

## Hypothesis

Graduates of 4-year residency programs provide better satisfaction and care to their patients than graduates of 3-year programs during their first position as an attending.

## Methods

- IRB approval was obtained September 10, 2020.
- The survey was distributed between September 28, 2020 and October 26, 2020.
- An 18-question survey was sent out to the EM docs Facebook page using REDCap® and was designed to measure physicians’ opinions of their preparedness (comfort and satisfaction) upon completion of their residency (Scan QR code for survey).
- Factors evaluated: MD vs DO, 3-year or 4-year training programs, participants age, hospital volume during and after residence, board exam attempts and anxiety levels.
- Respondent’s answers were separated by length of program to identify their opinion as to which platform was better in respect to comfort and satisfaction.
- Using descriptive statistics. Perceived preparedness and perceived care given was compared with Mann Whitney U t-Test. Other comparisons used during analysis were Student’s t-Test for the continuous data responses and Chi square analysis for the dichotomous data responses.
- A total of 200 surveys were needed to achieve 90% power to determine significant differences between groups at  $p < 0.05$ .

## Results

- N= 189, total site visits during study period = 19,744
  - Multiple visits by same individuals likely, total population unclear
- There were no differences between groups in several areas.
- 4-year graduates obtained their first attending position at larger, more frequented emergency departments ( $P=0.0098$ )
- Opinion on preferred length of program varied between the 3-year and 4-year graduates. (see figure 1.)

## Results

Table 1 - Demographics

Gender	
Male	77 (40.7%)
Female	112 (59.3%)
Age (years) mean (SD), (range)	39 (7.4), (29 - 73)
Length of residency	
3 years	107 (56.9%)
3 + fellowship	14 (7.4%)
4 Years	64 (34%)
4 + fellowship	3 (1.6%)
Degree	
MD	137 (72.5%)
DO	52 (27.5%)

Table 2- Survey results for emergency department volumes during residency based on program length both with and without fellowship training.

Volume/yr	3yr graduates surveyed	3yr + fellowship graduates surveyed	4yr graduates surveyed	4yr + fellowship graduates surveyed
30,000 - 50,000/yr visits	5 (4.7%)	0 (0)	8 (12.5%)	0 (0)
50,000 - 75,000/yr visits	33 (30.8%)	3 (21.4%)	23 (35.9%)	1 (33.3%)
75,000 - 100,000/yr visits	37 (34.6%)	6 (42.9%)	17 (26.6%)	0 (0)
100,000+/yr visits	32 (29.9%)	5 (35.7%)	16 (25%)	2 (66.7%)

Numeric values represent the number of surveyed graduates from each residency length as specified above.

Table 3 - Survey results for emergency department volumes during the first year as an attending based on program length both with and without fellowship training

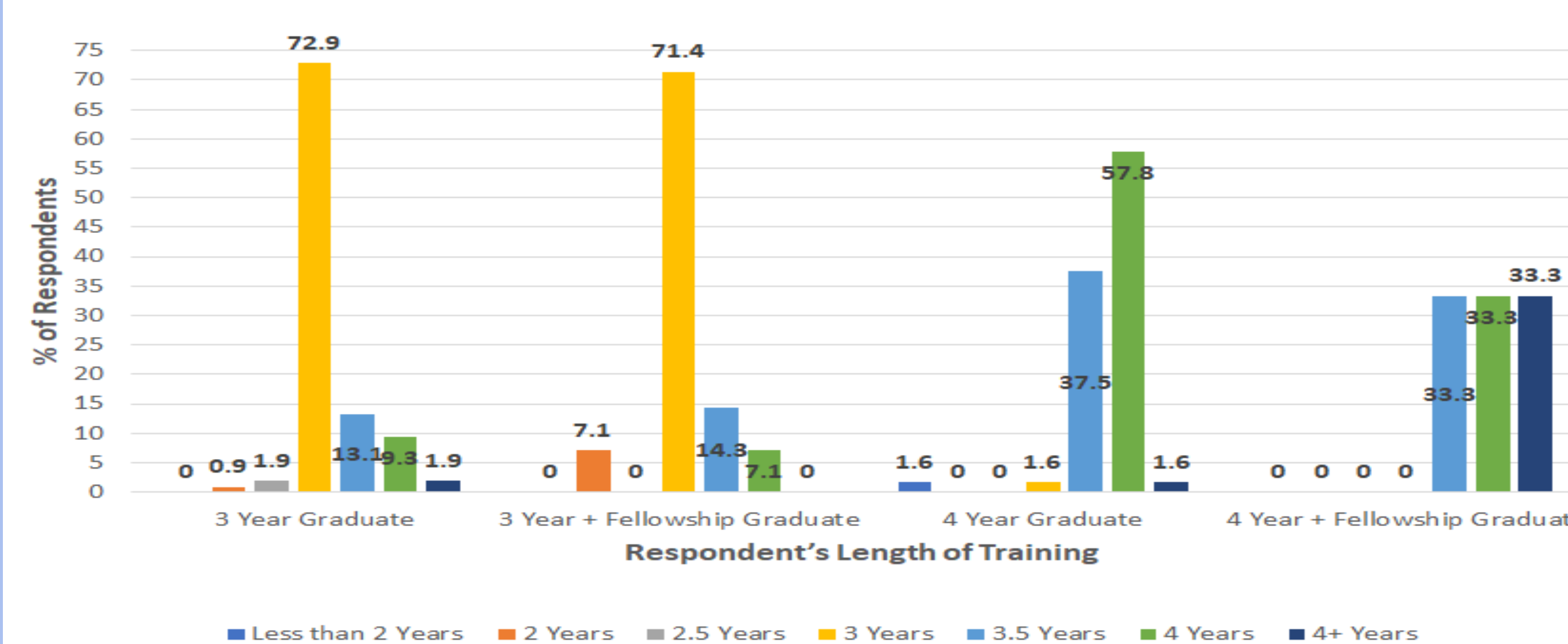
Volume/yr	3yr graduate*	3yr + fellowship graduate	4yr graduate*	4yr + fellowship graduate
<10,000/yr visits	1 (0.9%)	0	0	0
10,000 - 30,000/yr visits	14 (13.1%)	2 (14.3%)	3 (4.7%)	0
30,000 - 50,000/yr visits	30 (28%)	4 (28.6%)	9 (14.1%)	1 (33.3%)
50,000 - 75,000/yr visits	38 (35.5%)	4 (28.6%)	23 (35.9%)	0
75,000 - 100,000/yr visits	15 (14%)	1 (7.1%)	19 (29.7%)	2 (66.7%)
100,000+/yr visits	9 (8.4%)	3 (21.4%)	10 (15.6%)	0

- \*81.2% of 4/yr graduates first jobs were with departments of 50,000/yr volumes or greater with 45.3% of 4/yr graduates first jobs having greater than 75,000/yr volumes
- \*57.4% of 3/yr graduates first jobs were with departments of 50,000/yr volumes or greater with 22.4% of 3/yr graduates first jobs having greater than 75,000/yr volumes

Table 4 - Level of Confidence and Preparedness for Survey Respondents by training program length

	length of program	Agree/Strongly Agree	p value
Provide care equal to others in 1st post grad year	3 year 4 year	79.4% 81.3%	0.998
Felt confident or highly confident starting 1st post grad year	3 year 4 year	50.9% 59.4%	0.788
Took weeks to months to prepare for first board exam	3 year 4 year	75.1% 73%	0.748
Passed board exam on first attempt	3 year 4 year	86% 84.4%	0.348

Preferred Length of Training Based on Respondent’s Training by Program Length



## Discussion

- Graduates of 4-year programs tended to work in higher volume emergency rooms ( $p= 0.0098$ ).
  - Intentional?
  - More confident?
  - Chance occurrence?

- No difference in the anxiety levels, perceived level of care provided, preparedness or the number of attempts to pass their board exam.
  - Similar foundation?
  - Bias?

### Limitations:

- Retrospective
  - Memory

- Self Reported Opinion
  - Choice-supportive bias
  - Confirmation bias

- n=167 with 19,774 visits = 0.8% response rate
  - multiple site visits from same individuals
  - multiple purposes for access to page
  - unable to determine true population

- Future Considerations:
  - Financial: 1 additional year of education, 1 year of wages
  - Quality of life, burnout
  - What benefits does an extra year provide?

- Further studies will result in the evolution of a superior platform, perhaps standardized, in the future of Emergency Medicine training.

## Conclusion

- Although there was a relatively small sample, EM physicians trained in 3 and 4 year residencies had similar levels of satisfaction regarding their level of preparedness and confidence given their chosen program.

- Additional research is required to verify these findings and explore other issues (financial, wellness) related to length of EM training.

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Survey Questions