

# Attrition in Academia: Why does interest in craniofacial surgery, microsurgery, and academic practice decrease during plastic surgery residency training?

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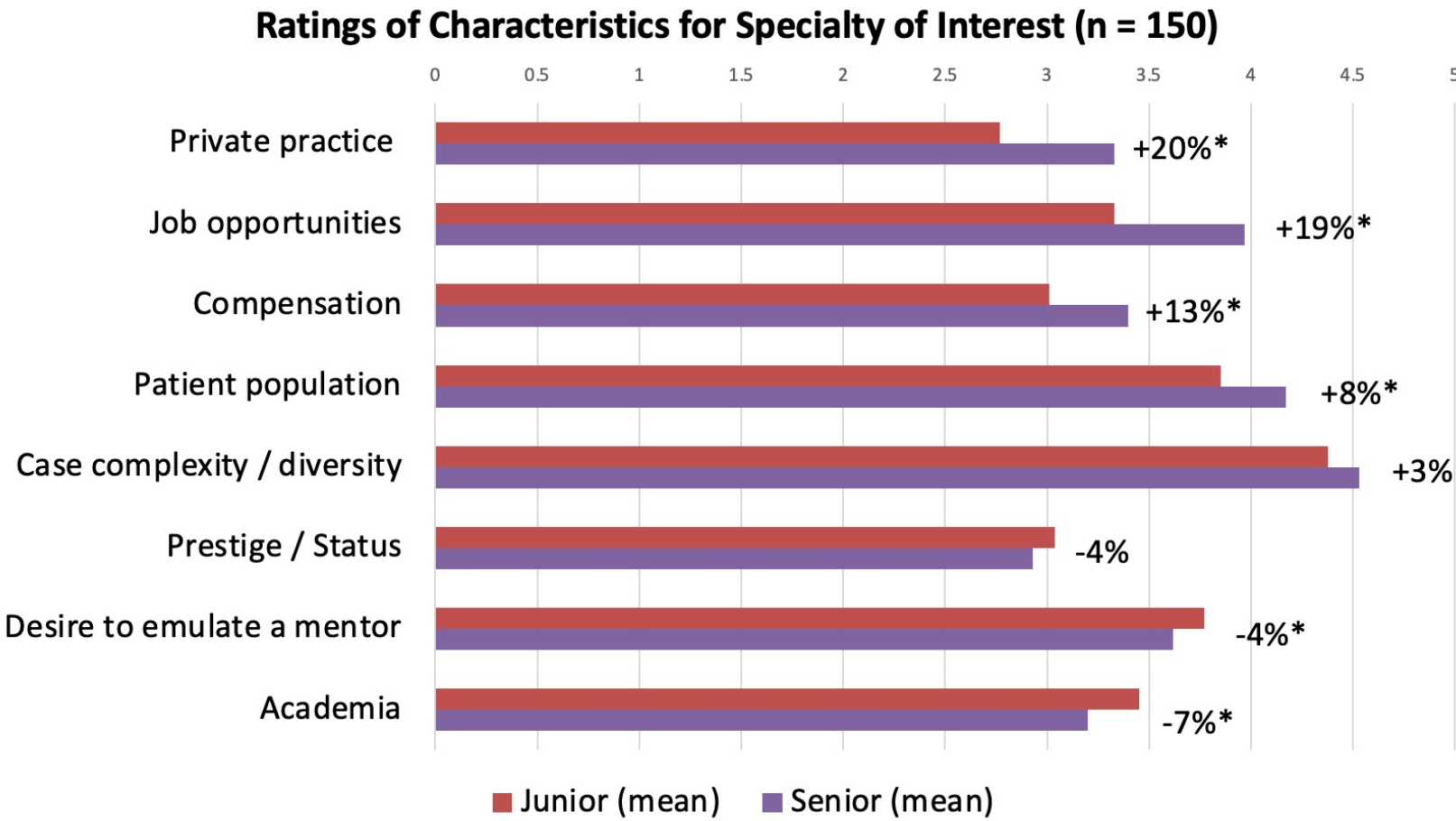
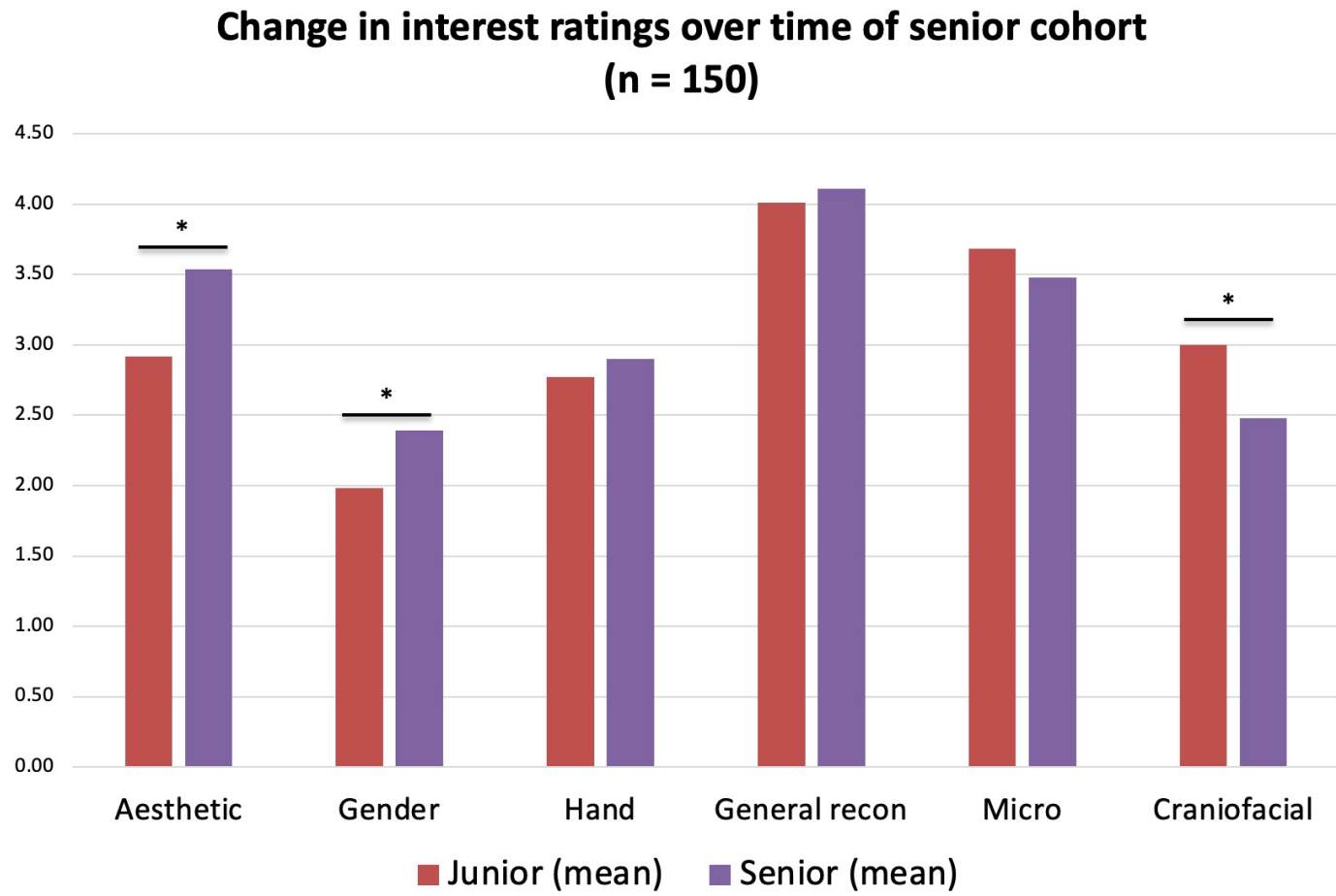
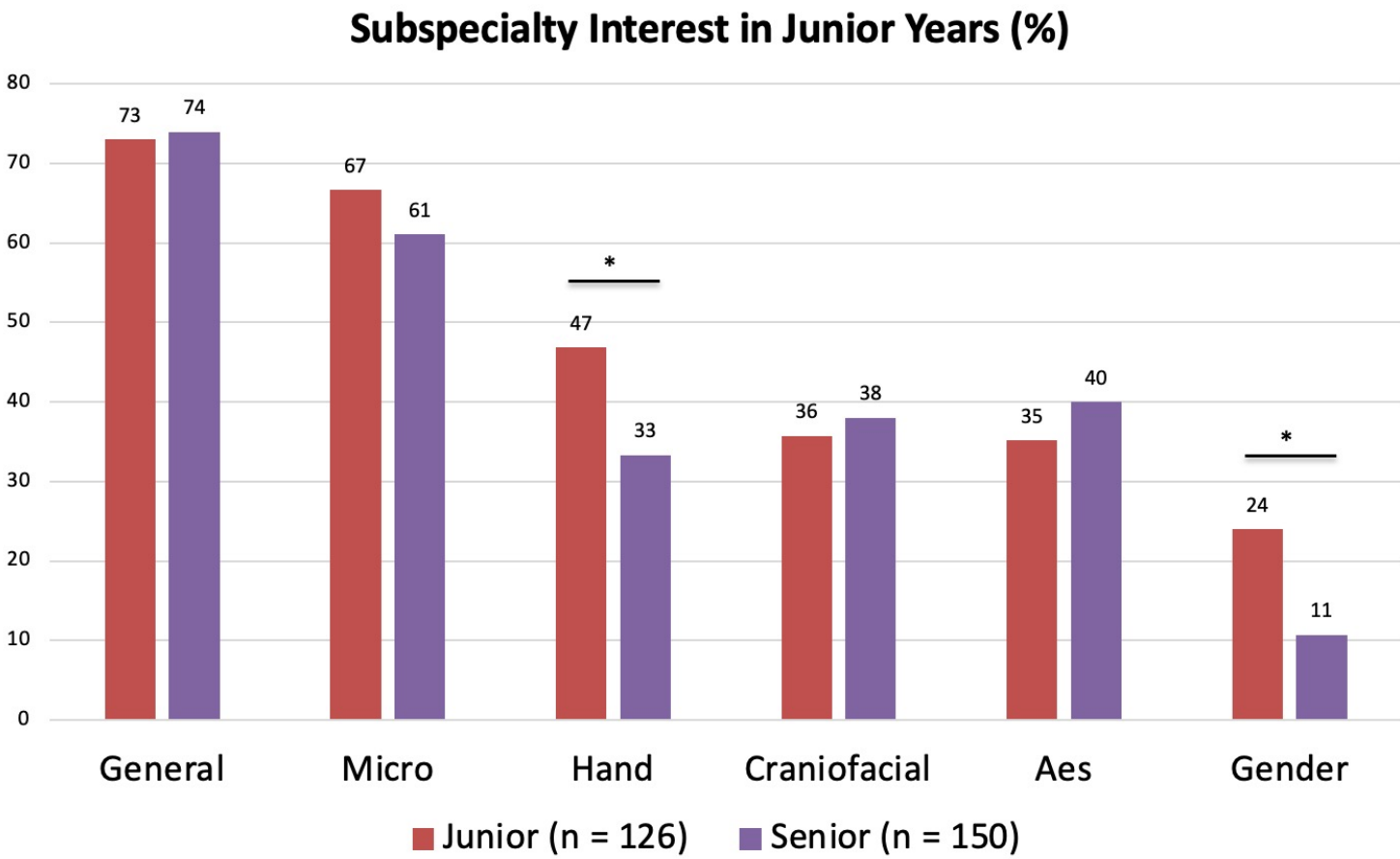
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## Background

- Plastic surgery subspecialties that are most strongly associated with a career in academia are craniofacial, microsurgery, and hand.<sup>1</sup>
- Early academic interest is not reflected in graduates’ career choices:
  - 92.8% interested in an academic career at the start of residency.<sup>2</sup>
  - 66-90% enter private practice.<sup>3</sup>

## Methods

- A survey was distributed through the American Society of Plastic Surgeons Resident Council (ASPSRC) in May 2020.
- Survey content:
  - Interest in subspecialties as a junior resident (PGY1-3, or pre-independent) and senior resident (PGY4-6, or independent years 1-3).
    - Subspecialties: Craniofacial (CF), Hand, General reconstruction, Microsurgery (Micro), Gender affirmation, Aesthetic (Aes).
  - Perceived characteristics of specialty of interest.
  - Reasons for change in interest.
- Statistics:
  - Junior interest ratings were analyzed with the chi square test.
  - Ratings of specialty characteristics were analyzed with paired t-tests.
  - Ratings of reasons for change in interest were compared with a two-sample t-test between residents that joined / left a specific specialty and the rest of the residents who indicated a change in interest.



Change	Representative Quote
Joining Aesthetics	“Aesthetic surgeons are happy, don’t take lots of call, make good money, have happy patients, and generally perform interesting procedures in an environment they have control over. Why would you go into anything else?”
Joining Hand	“I became interested in hand surgery only after in-depth experiences, with concomitant learning and understanding, that were not available in medical school and early years of training.”
Leaving CF	“Limited job opportunities in craniofacial surgery / likelihood of geographical restrictions given limited opportunities.”
Leaving Micro	“I became disenchanted with microsurgery after witnessing heavy burnout in the field due to unfavorable work hours and relatively poor compensation.”
Leaving Academia	“Lack of flexibility (entrenched faculty/staff, poor coordination, trying to move a glacier changes, inflexible environment, office politics, lack of true control from admin burden). One fear is being stuck or choosing the wrong academic practice with no academic support/mentoring/ or mobility.”

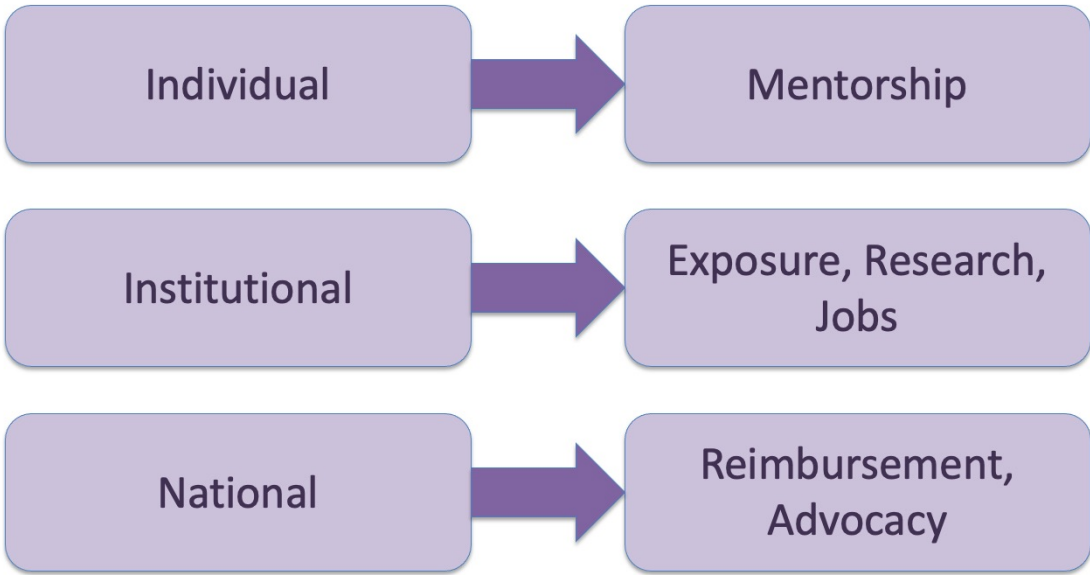
## Results

- 276 residents (126 juniors, 150 seniors), 39 programs.
- Significant factors for leaving CF and Micro:
  - Desire to work in private practice (**CF**: +66%, **Micro**: +87%)
  - Perceived job opportunities (**CF**: +52%, **Micro**: +25%)
  - Compensation (**CF**: +44%, **Micro**: +66%)
- Least significant factors:
  - Desire to work in academia (**CF**: -21%, -42%)
  - Desire to emulate a mentor (**CF**: -10%, -28%)
- Highest rated reasons for change
  - CF: Found passion in new specialty choice (4.45 / 5)
  - Micro: Work/life balance (4.53 / 5)

## Conclusions

- Subspecialty interests shift among plastic surgery trainees from their junior to senior years.
- Subspecialties associated with academia – craniofacial and microsurgery – suffer from the highest incidence of resident attrition, reportedly due to the desire for improved work/life balance and a greater sense of control, compensation, and perceived lack of job opportunities.

## Future Directions



## References

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