



Anesthesiology Case Volumes Through the COVID-19 Pandemic: National Trends in Training Experience and Gender Equity (2018-2023)

Authors: P Tanaka, T Sun, F Chen, N Wilkinson, YS Park (Stanford)

PMCID: 42852392
DOI: 10.46374/VolXXVIII_Issue3_Tanaka

Beyond the Numbers

Measuring case numbers has long served as a foundational surrogate for clinical experience and surgical proficiency

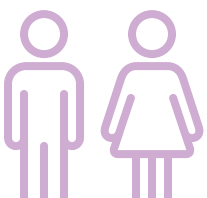
ACGME case logs however are plagued by inter-resident variability and inaccuracies inherent to self-reporting

Tracking the Training Experience

This retrospective cohort study aimed to provide a comprehensive national analysis of ACGME procedural case volumes across five consecutive graduating cohorts between 2018-2023



Characterize National Trends and Case Volume



Evaluate Gender-Based Differences



Evaluate Rates of Minimum Case Attainment

Data Analysis

The significantly higher mean overall number of cases logged by male trainees may be explained by differences in operative autonomy, mentorship access, or structural biases

The lack of gender differences in certain cases suggests that disparities are not universal across all clinical domains

Case Inequity: Mind the Gap?



Underreporting once minimum thresholds are reached



Female residents logging significantly fewer cases



Structural bias in clinical training environments

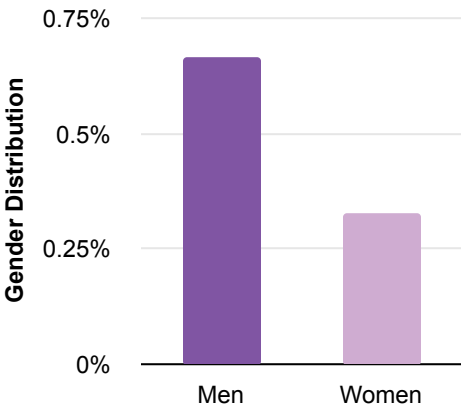


Geographic variation affecting case distribution

Resilience Through Disruption

8879

Residents, with stable gender distribution, across five graduation years were included for analysis



Gender

Male trainees consistently recorded higher mean overall case volumes

Significant differences in nerve blocks, epidurals, cardiac cases, and life-threatening pathology

No difference in total spinals, total thoracic cases, and pediatrics (<3 and <12 years)

Case Volume

Cases declined among 2019-2020 graduates, followed by a gradual recovery

Only 0.22% of trainees failed to meet minimum graduation requirements

Gender differences in noncompliance were modest and statistically insignificant

Narrowing the Divide

Programs should audit case distribution by rotation and site to verify equitable access

Where gaps are identified, target scheduling, structured mentorship, and simulation can buffer variability

An automated electronic health-record integrated logging system can address issues associated with manual reporting

It's important to emphasize, however, that procedural volume alone is insufficient to determine graduation readiness or clinical competence