

Accredited Paramedic Program Graduates Have Higher Student Ability Estimates

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BACKGROUND

- Since 2013, paramedic candidates have been required to attend an accredited program for the National EMS Examination.
- It is unknown what impact attending an accredited program will have on student performance.
- Further, it is unclear what content areas will be affected by accreditation.

OBJECTIVE

To assess the relationship between program accreditation and student cognitive ability estimates measured through the National EMS Certification examination.

METHODS

- Study Population: Paramedics who graduated in 2012 and attempted the National EMS Certification cognitive examination.
- Independent Variable: For each graduate taking the certification examination, the independent variable was the program status as either accredited or non-accredited.
- Outcome: Overall and content area cognitive mean ability estimate (MAE). The Rasch logit measures were transformed to a scale of 0-1000.
- Data Analysis: Descriptive and comparative statistics

RESULTS

Population: 8,404 candidates who graduated in 2012 were administered the National Paramedic Certification examination.

- Accredited Programs: 7,317 graduates (87%)
- Non-Accredited Programs: 1,087 graduates (13%)

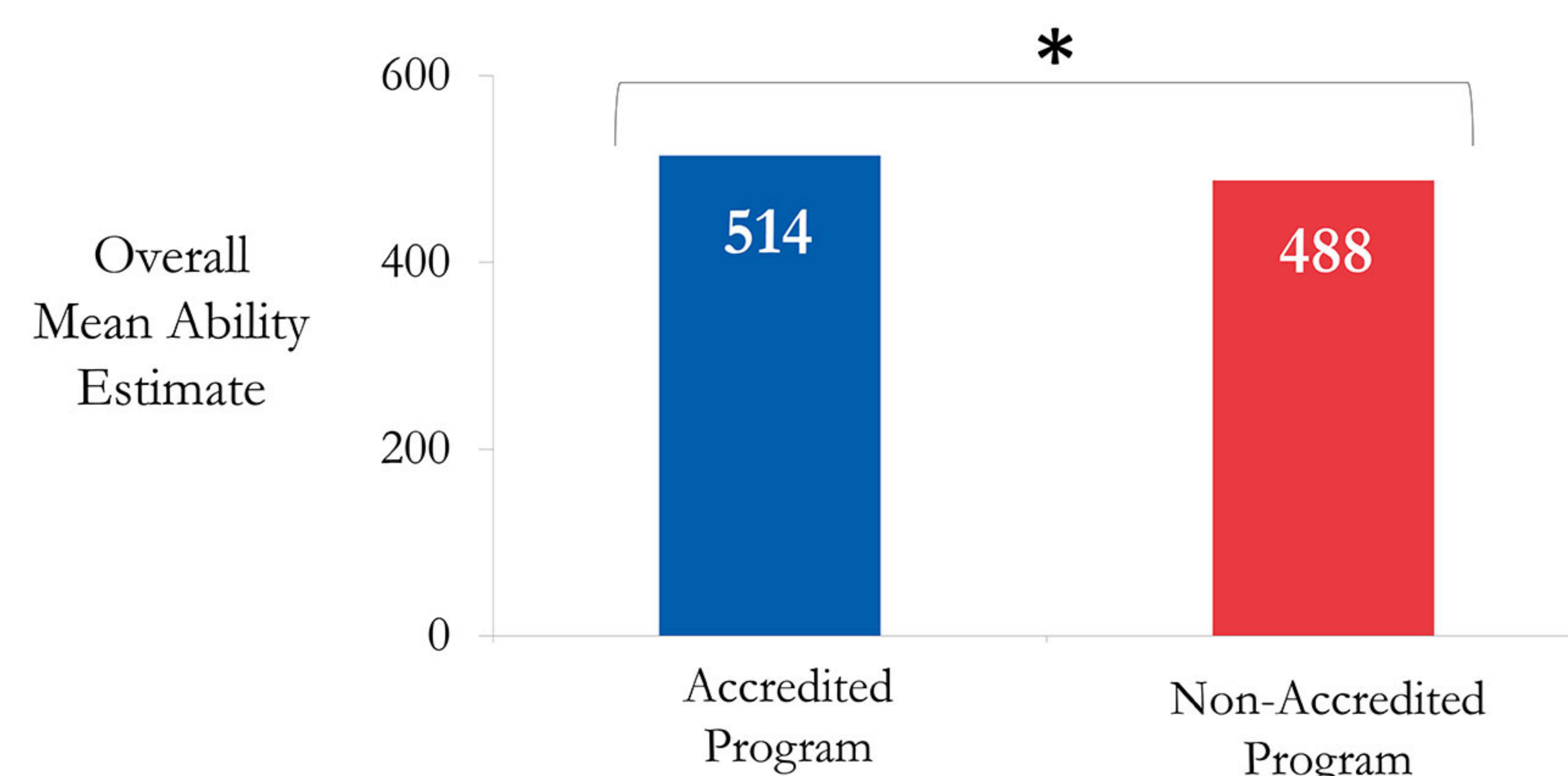


Figure 1: Paramedic graduate overall mean ability estimates on the national EMS certification cognitive examination was higher for accredited programs (*, $p < 0.01$)

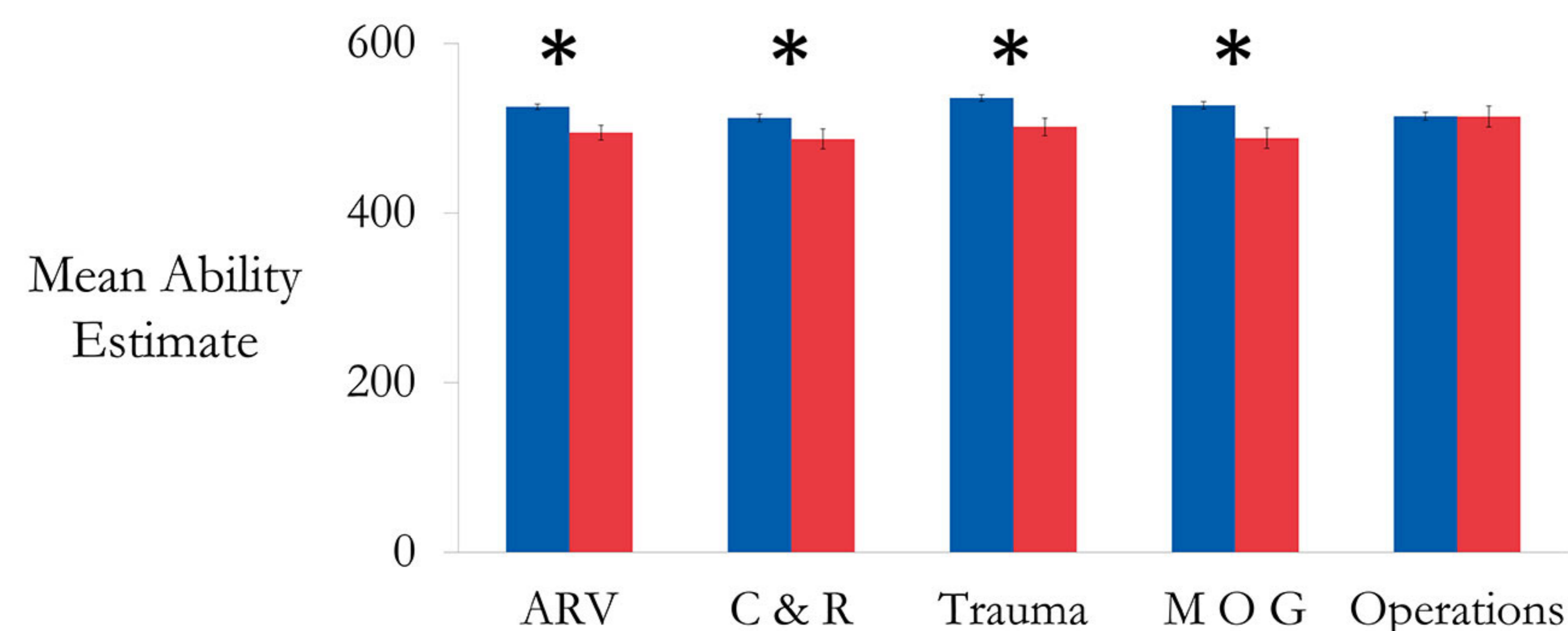


Figure 2: Paramedic graduate content area mean ability estimates on the national EMS certification cognitive examination were higher in all areas except Operations. Abbreviations: Airway, Respiration & Ventilation (ARV); Cardiology & Resuscitation (C & R); Medical/Obstetrics/Gynecology (M O G). *, $p < 0.01$.

RESULTS

- Overall mean ability estimate was higher for accredited programs (514 vs 488, $p < 0.01$).
- Graduates from accredited programs outperformed counterparts from non-accredited programs overall in 5/6 content areas.
- No differences observed by program accreditation for EMS Operations ($p = 0.94$)

LIMITATIONS

- This evaluation used data from graduates of one year (2012) so it provides a spotlight on one time period which may not be representative.
- During this time, many programs were preparing for accreditation possibility underestimating the effect noted.
- Smaller total number of non-accredited graduates compared to accredited graduates.

CONCLUSIONS

Accredited program graduates performed better in all content areas, except EMS Operations where no difference was found. Future research is needed to identify underlying factors related to success of accredited programs.