

# TOWARDS PRODUCING FUTURE FEMALE PHYSICIANS, HARD SCIENTISTS, & ENGINEERS: A SEARCH FOR MATH-SMART GIRLS IN NEW YORK

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## Abstract

This is a hybrid—exploratory-monograph study—study. The recent Coronavirus outbreak revealed inordinate numbers of Black and Latinx patients, casualties, and doctors/scientists, confirming the inequity of available healthcare and an absence of interest, access, and acquisition of the advanced education required to attain those vocations. Assuming a general population majority within the next 25 years, Black and Latinx citizens are rapidly approaching the distinction of becoming the largest available demographic “brain trust” from which future medical doctors, scientists, and researchers will be identified, cultivated, and implemented, not just within an established healthcare system, but to protect and combat any future pandemics. Addressing this issue should begin much earlier within the current education system than currently prevails. Using mathematics as a defining metric, this study examines the barriers to a lack of proficiency and mentoring due to the sparsity of female mentors in specific medical disciplines. The distribution scores of the highest performing third-grade females’ math scores in New York State is compared to the highest performing third-grade males’ and is descriptively analyzed. Additionally, because language is necessary for learning, ELA scores of the same “smart students” is also examined. Distribution of scores among public and charter schools are also presented. Finally, research questions and data on the questions of girls’ minimized participation in math are furnished. The absence of their involvement with this STEM discipline could be impeding their access to the hard science professions. An enigmatic approach to science and an increased exposure to the opportunities within the STEM fields is paramount if younger students are to supply the ranks of future hard-science professionals

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