

Decoding Asian Stereotypes: Why are Asian-Americans Good at Math?

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Abstract

This essay investigates the stereotype that Asians are good at math and the different factors potentially contributing to this prevalent stereotype. The essay explores the standardized test score data to evaluate the validity of the stereotype and dives into contributing factors including work ethics, the influence of family, the desire of immigrant families to succeed, and different educational systems. While this piece doesn't contain an absolute conclusion, it calls for increased awareness of the pressure and impact on the mental health of Asian-American students due to this stereotype.

When I imagine a math genius, admittedly, I see a nerdy Asian boy with thick glasses sitting in the classroom corner, absorbed in a brick of a textbook. However, this connection between math and Asian people raises the question of whether Asians are naturally gifted at math or if there are other factors at play. This stereotype, although seemingly harmless, can actually exacerbate the already mounting pressure on Asian-American students. They are under constant pressure to fulfill a label that society has thoughtlessly assigned to them. Failure to fit into this stereotype can be uncomfortable, and bias can negatively affect college admissions or job applications because of the unconscious assumption of math aptitude. Therefore, it's important to consider whether Asians are truly innately skilled at math or if other factors contribute to this perception.

Assessing math aptitude at a population level is challenging, but standardized tests like the SAT offer a reasonable gauge. The National Center for Education Statistics reports that Asian students score an average of 637 on math

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SAT and 586 on reading, while White students average 553 on math and 562 on reading, Hispanic students average 483 on math and 495 on reading, and Black students average 457 on math and 476 on reading. In the SAT, the highest math and reading score is 800, making a perfect score 1600. The results indicate that Asians outperform other ethnic groups in math, by a significant margin, and are the only group whose math score exceeds their reading score. While these findings support the stereotype, the underlying reasons remain unclear. Is the perception that Asian-Americans excel in math due to their stronger work ethic? The National Center for Education Statistics reports that Asian-American students spend an average of 10.3 hours a week on homework compared to the 6.4 hours spent by both Black and White students. Work ethic is very important in the success of any student, so perhaps higher scores are a reflection of more effort Asian students devote to their work on average. While a plausible reason for Asian students' overall test success, it does not explain why Asian students score higher on math than reading. Other factors, such as differences in educational systems between Asian countries and the United States, may also play a role. For example, in China, the largest Asian country, all students must take a test at the end of middle school to determine what highschool they enter. The Gaokao, taken at the end of high school, determines their future and is the culmination of 12 years of schooling. The Asia Society³ states that "those who don't perform well on this high-stakes exam end up with few options." This pressure results in significantly more studying by Chinese students, who, according to Washington Post⁴, on average, spend 55 hours per week studying, while American students on average study "somewhere around 10-20 hours" per week (High School of America⁵). In the Gaokao, students choose between taking the humanities track or the science track, but all students must take "the three mandatory subjects of Chinese, math, and foreign language." meaning that students are required to excel in math regardless of their chosen track. As a result, when Chinese immigrants come to the United States, they bring their strong math skills and work ethic with them.

Is the reason for Asian-American students' success in math due to their financial resources? Studies show that students from higher-income families tend to perform better on standardized tests due to access to educational resources such as private tutoring and test preparation courses. The average annual income of Asian-American families is 98,174 US Dollars, according to the Economic Policy Institute, which is higher than the next highest income group of White families at 76,057 US Dollars. This could contribute to Asian students' overall academic

success, but it does not explain their exceptional performance specifically in math.

Immigration is a significant factor in the stereotype that "Asians are better at math." Although most first-generation Asian-Americans may not receive the same level of education as their parents, they are still heavily influenced by their immigrant parents' skill sets and work ethic. Many start their children's math education in early ages, teach them more advanced concepts, and pass down traditional teaching methods. Additionally, most Asian immigrants come to America seeking opportunities and success, and financial security is a common concern. Pursuing a stable and well-paying career, such as in STEM, is often seen as the best solution to financial insecurity and often doesn't leave room for these immigrants to pursue a wide range of passion projects. STEM jobs have an average annual mean wage of 100,900 US Dollars compared to 55,260 US Dollars for other careers(CBNC7) This may explain why first-generation Asian parents place a strong emphasis on math and science education for their children over reading and language, as they worry about their children's future well-being.

The immigration effect may have been amplified by government policies. Despite having many resources and smart students, the United States needs more workers in the STEM workforce. According to the 2012 PISA (Programme for International Student Assessment),⁸ the United States ranked 38th in math and 28th in science out of 65 countries, while Asian countries claimed six spots in the top ten with China and Singapore taking first and second. This does not imply that America lacks talent in the STEM industry, but rather there is simply not enough supply to fill the demand in America alone. Consequently, America turned to importing STEM talents from around the world and prioritized US visas to foreign workers highly-skilled in STEM fields. As a result, many ambitious Asian people with strong math aptitude were let into America. Another contributing factor is career selection. This is not to be confused as Asians going into STEM careers because they are better at math, but rather spending more time on math to accomplish a STEM career. Why STEM careers? The reason for this lies in a few factors, including the lack of non-STEM Asian role models in America. There aren't many well known Asian authors, politicians, or performers in the United States to showcase alternative career paths for the Asian population. While there is no proven reason for this imbalance, it may be the result of Asians being considered 'permanent immigrants'. There is still Asian hate towards Asian families who have lived in America for generations,

which makes it difficult to succeed in certain careers. Asians who work STEM careers also tend to have more stable careers that earn more money. Moreover, STEM careers require more skillsets in math and science, areas more likely to have a correct answer, whereas careers such as being an author can fluctuate in terms of success and income. Given that most Asian Americans are immigrants or children of immigrants, these reasons make STEM careers more attractive to Asian-Americans, leading them to focus more on math and science compared to other subjects. Are Asian-Americans better at math in general? Based on data on test scores in both the SAT and PISA, it would seem that way. However, it is not because of their genetics, but rather their work ethic, their resources and dedication to education, their cultural emphasis on math and science, and their way of dealing with discrimination in their pursuit of the American dream.

I wrote this article about the Asian Stereotype “All Asians are good at math” because I want people to know that Asian students are good at math not because they are Asian, but because of their hard work, their dedication to education, cultural emphasis on math, and their way of surviving in America. This stereotype pressures Asian students to do better than others and gives them a disadvantage in professional, college, and even school applications. I would like people to see that Asians work as hard, or even harder as other students, and don’t have a racial privilege. This issue is important to me because I am an Asian-American, and believe that all students should be able to stand on equal ground in the eyes of other people. Personally, I am not naturally good at math and have experienced moments where the expectation bar seems too high to reach. Growing up, I had to study harder than others to fit in with the stereotype, and it was stressful. Now, I am pretty good at math, but I want other Asian-Americans to be free of that pressure and live more carefree without certain unreasonable expectations weighing upon them.

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