

ESSAYS ON GIFTED AND ELITE EDUCATION AND ACADEMIC PERFORMANCE IN  
VIETNAM

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While student performance-based tracking is one of the most controversial issues in education, it has been a widespread practice in many countries for about a century. For instance, tracking students into different classes within schools is a common practice in the United States and Canada, and tracking students into different secondary schools is a common practice in many European countries (Betts, 2011). Students can benefit from tracking, according to proponents of tracking, as tracking students create more homogeneous classrooms, which helps teachers match their instruction to the students' academic levels, resulting in higher academic achievement. Opponents of tracking argue that tracking can have a negative impact on the educational achievement of students on the lower track who study alongside peers with low academic achievement. This may result in the students earnings less after they graduate, which exacerbates the economic disparity between students on the higher track and those on the lower track (Gamoran and Mare, 1989). Despite the prevalence of tracking, however, there is no consensus as to its effects on student academic achievement (Betts, 2011).

This dissertation employs a rigorous research design to assess the effects of performance-based tracking on marginal students. Chapter 2 of this dissertation analyzes the impact of cross school tracking, specifically by examining the effects on students who attend high school for gifted students. Chapter 3 of this dissertation, on the other hand, explores the impact of tracking within schools by examining the academic performance of marginal students enrolled in elite classes in Vietnamese high schools.

Chapter 2 evaluates the effects of tracking across schools: attendance at a high school for gifted students on academic achievement. I use a regression discontinuity design to compare the academic performance of students barely admitted and barely rejected from a high school for the gifted. I discover that gifted high school students in social classes are less likely to choose the science track on the university entrance exam. I then find that attending a high school for gifted students negatively affects marginal students' average scores for science subjects. These negative effects are especially prevalent among female students. A survey conducted as part of this study revealed that, despite being taught by high-quality teachers, students in science classes in schools for gifted students receive limited individual attention from these teachers, leading to a negative impact of attending a high school for gifted students on student academic performance.

Chapter 3 uses admission data from 85 public high schools in Vietnam to analyze the effects of tracking within a high school, that is, attending elite class in public high school on student academic achievement. I use regression discontinuity design to determine the effects on the academic performance of marginal students. I find that elite science and social science students benefit significantly from attending elite classes. While students in elite science classes improve their average scores on science subjects significantly, students in elite social science classes improve their average scores on compulsory subjects significantly. Despite the possibility of unobservable factors differentiating elite from regular classes, the study finds that a significant benefit of attending elite classes is the students' superior academic abilities.

Since the effect can only be assessed for marginal students, despite the careful design of this dissertation, I am unable to determine the total impact of high school for the gifted and elite classes and validate their existence. However, the results of this dissertation have several significant implications for various stakeholders in the education sector, including policy makers, teachers, and parents, who seek to enhance the quality of education for marginal students.

This dissertation reveals that marginal science students who attend the high school for the gifted experience a negative impact on their academic performance. This could be due to a lack of attention from science teachers, leading to inadequate student-teacher interaction and lower achievement. To mitigate this effect, science teachers should prioritize attention to these students and foster positive learning experiences. Additionally, schools can offer supplementary classes and resources to help these marginal students succeed. Parents can also play a role by actively participating in their child's education and seeking out additional support, such as tutoring programs. On the other hand, marginal students in social science classes in the high school for the gifted are more likely to pursue social science careers at the collegiate level, but may face disadvantage in the job market in the future. To address this, policy makers and teachers could consider implementing a complementary skills program to better equip these students for future success in their chosen field.

This dissertation also highlights the importance of peer quality when improving the academic achievement of marginal students in regular public high schools. By enhancing positive peer interactions, marginal students in regular public high schools may achieve even greater academic success. To promote this positive peer interactions, policy makers, teachers, and parents can take several steps to improve the quality of education in public high schools. First, they can encourage teamwork and collaboration among students by assigning group projects and activities. This will help foster positive relationships and support learning. Second, teachers can create a positive classroom culture by reinforcing positive behavior and relationships, thereby improving the quality of peer interactions. Overall, the findings of this study underscore the significance of peer quality in enhancing the academic performance of marginal students in elite classes within regular public high schools. By promoting positive interactions among students, this study suggests that greater academic success can be achieved.

This dissertation has a limitation in that it focuses on the impact of performance-based tracking on only marginal students, not students in the middle or at the top of the ability distribution. To gain a comprehensive understanding of the effectiveness of the performance-based tracking, future studies can employ the value-added model to analyze its average impact on the entire student body. This will help determine whether investments in gifted high schools and elite classes in regular high schools are worthwhile for all students. Furthermore, students in gifted high schools or elite classes may acquire valuable skills that are not captured by standardized exams, such as networking and communication skills, which could be beneficial in the job market. To fully assess the effectiveness of tracking, future research should also evaluate its impact over the long term, including its effects on students' health and income.

## Reference

Gamoran, Adam, and Robert D. Mare. "Secondary school tracking and educational inequality: Compensation, reinforcement, or neutrality?." *American journal of Sociology* 94, no. 5 (1989): 1146-1183.

Betts, J. R. (2011). The Economics of Tracking in Education. In *Handbook of the Economics of Education* (Vol. 3, pp. 341–381). Elsevier. <https://doi.org/10.1016/B978-0-444-53429-3.00007-7>