

Discussion of “Goals and Gaps: Educational Careers of Immigrant Children”

Laura Giuliano

University of California, Santa Cruz

As immigration to OECD countries has risen, the question of how to ensure the success of immigrant students has grown more critical. In Europe, the question is complicated by the common practice of tracking students at an early age into different types of schools. One concern is that immigrants may enroll in college preparatory tracks at lower rates than natives with similar achievement. The present study documents gaps in track choice among high-achieving immigrant students in Italy, and evaluates an intervention aimed at aligning the choices of these students with their academic potential. It thereby provides important evidence both on the education of immigrants and on educational tracking.

In the U.S., there are related debates about programs in which Black and Hispanic students are under-represented: e.g., gifted education, advanced tracks within schools, and college prep coursework. These debates pit advocates of tracking and other policies, who extol the benefits of matching curriculum and instruction to levels of student ability, against critics who argue that tracking reinforces segregation and inequality. But the goals of the two sides are not always at odds. Segregation in tracking is often driven by factors unrelated to student ability – such as information barriers, implicit biases, or gaps in parental support and advocacy. Policies that remove these barriers and push capable students from disadvantaged groups to complete higher levels of education can improve match quality, while also promoting social integration and economic opportunity. Further, such policies may have important spillover effects by helping to change perceptions and raise expectations among parents, teachers, and future generations of students.

There is mounting evidence that socio-economic gaps in choice and representation can be reduced through policies that automate or simplify steps in the decision process. Among high-ability elementary school students, gaps in gifted program participation can be reduced by replacing a system of parent and teacher nominations with test-based, universal screening (Card and Giuliano 2016a). Among high school students, decisions about whether and where to attend college can be influenced by policies that expand college admissions testing (Bulman 2015, Goodman 2016); facilitate applications for financial aid (Bettinger et al. 2012); or provide information through targeted mailings (Hoxby and Turner 2013).

One concern about such procedural and informational interventions is that they are temporary fixes and may not address underlying sources of under-representation such as gaps in information gathering skills, parental support, and expectations. These gaps could make under-represented groups more likely to fail in challenging programs. For example, evidence on college mentoring suggests that light-touch “nudges” may be insufficient for producing lasting effects among disadvantaged students, especially when students lack parental support (Carrell and Sacerdote 2017; Cunha et al. 2018). But there is also evidence that discounts such “mismatch” concerns. In a study of fourth-grade gifted classrooms, Card and Giuliano (2016b) find that if tracking is based on achievement test scores, students from the disadvantaged groups most likely to be under-represented (Blacks, Hispanics, and other immigrants) are those who gain the most from being tracked into these classrooms. In this context, the obstacles faced by disadvantaged, high-achieving students (e.g., low expectations) may be mitigated when they are pushed into the higher track.

The present study examines an intervention that (rather than simplifying the decision process) aims to improve the decision-making skills of students. It provides strong causal evidence that the intervention closes gaps in track choice between immigrants and natives of similar achievement; and, crucially, that the students pushed into the higher tracks appear to be well matched for those tracks. Further, it investigates why the program

worked and which subgroups benefitted from it. These are key questions for scalability and targeting, but they are harder to answer.

Why did the program work? The treatment package consisted of career counseling, academic tutoring, and information for parents. While the treatment itself was randomly assigned to schools, the individual components of the package were not - limiting what can be said about their independent contributions. The researchers therefore take a multi-pronged approach. The RD analysis of tutoring intensity is especially compelling and has a clear policy implication: for students with test scores near the discontinuity, the program benefits could be delivered with fewer hours of tutoring and thus at lower cost. Valuable information is also provided on potential mediators – including student aspirations, perceptions of barriers, and teacher recommendations. The finding that these variables respond to treatment is noteworthy in its own right. However, strong assumptions are required to decompose the treatment effect on track choice into changes in the mediating factors.

Since the mechanisms behind the treatment effect cannot be evaluated directly, the analysis of treatment effect heterogeneity is crucial for assessing not only who benefitted, but also why the program worked. Two features of this analysis are especially useful and might be extended in future research: (1) the causal forest approach to identifying subgroups with large treatment effects (Athey and Imbens 2016, Wagner and Athey 2018), and (2) the analysis of spillover effects for non-treated classmates.

A key insight from the causal forest analysis is that an exclusive focus on gender (as in the baseline models for track choice) misses important heterogeneity by both family background and baseline test scores. One striking finding is that track choice effects are driven mainly by students with less educated parents; this suggests a parallel between native/immigrant educational gaps in Italy and the socioeconomic gaps studied in other settings. Additional insights might have been gained from similar analyses for the mediating factors: Do students with less educated parents also drive the impacts on aspirations and perceptions of barriers? Do teacher recommendations change more for these students?

With respect to heterogeneity in test scores, it's not surprising that treatment effects on track choice are largest for students in the middle of the distribution; these students should be closest to the margin of choosing between the higher and lower tracks. But again, other implications are worth considering. For one, since the program targeted the ten highest-scoring immigrants in each school, the finding of small effects at the top suggests that program effects might also be evaluated using outcomes that better differentiate among the highest achievers. A follow-up study might examine long-run outcomes with greater variation at the top (e.g., college plans and field of study). Such an analysis could be especially informative for girls – who, even without treatment, choose the top track at very high rates.

The analysis of treatment spillovers also reveals intriguing patterns that could be explored further. First, since non-treated students did not receive the program's intensive counseling and tutoring services, the finding that their track choices were nevertheless affected might suggest these mechanisms were not crucial to the program's impact on track choice. However, these high-cost treatments could still be a factor in the ultimate success of students in the higher tracks. An analysis of spillover effects on longer-run outcomes could address this question and help to weigh the benefits of more costly, high intensity interventions vs. lower cost, lighter touch strategies.

Another useful extension would be to explore the spillover channels. The spillovers are identified as effects of being in the same class as a treated immigrant student, and the authors interpret them as peer effects. An alternate interpretation is that the spillover was channeled through teachers, whose interactions with treated students may have led them to revise their beliefs about immigrants in general. Such a teacher-based explanation would be consistent with recent evidence that high-school teacher expectations can affect a

student's likelihood of completing college (Papageorge, Gershenson and Kang 2020) and that teachers with implicit biases, once informed of their stereotypes, assign higher grades to immigrants (Alesina et al. 2018).

While the paper includes an analysis of spillover effects on teacher recommendations, the findings are inconclusive: the estimate is positive for girls, whose track choice is also affected, but the standard errors are large. If spillover effects were allowed to differ by test scores and parent education (in addition to gender), this might help clarify whether teacher effects are larger for subgroups whose track choice is most affected. Finally, one might try to disentangle the roles of teachers and peers by exploring peer networks other than classmates. Immigrants themselves are a heterogeneous group. A finding of stronger spillovers between students who share the same gender, origin country, or native language would make the peer effect channel more compelling.

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