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Ofer Malamud, Andreea Mitrut. Cristian Pop-Eleches, and Miguel Urquiola

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Ofer Malamud[*]
Andreea Mitrut[+]
Cristian Pop-Eleches[±]
Miguel Urquiola[±]

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Abstract

We examine student and teacher perceptions in Romania's highly tracked school system. Focusing on perceptions of academic effort, ability, performance, self-confidence, we find: (1) students just above a cutoff, who are tracked into a top class, have less favorable self-perceptions than those just below (i.e., "*big-fish-little-pond*" effects); (2) students more favorably perceive students in their own class (i.e., *in-group bias*); (3) this bias is stronger in lower-achieving classes; (4) students perceive themselves more positively than others perceive them (i.e., *illusory superiority*); (5) this bias is stronger among lower-achieving students (i.e., *Krueger-Dunning* effects). Thus, tracking may not negatively affect students' self-perceptions.

1. Introduction

School tracking, a policy that separates students by academic achievement, is widely debated. Economists have focused on estimating the causal effect of tracking on academic outcomes (e.g., Figlio and Page 2002; Hanushek and Woessmann 2006; Duflo, Dupas, and Kremer 2011). These studies highlight an important tradeoff: tracking may allow for more targeted teaching, but it may deny lower-achieving students the positive peer effects that originate from interactions with higher-achieving students (Betts 2011).[1]

Work outside of economics raises an additional concern: tracking may stigmatize the students in lower tracks, hurting their self-perceptions in ways that affect later outcomes (e.g., Oakes 1985, Gamoran 1992). This paper examines this issue within a causal framework—we ask whether the assignment to different tracks has a causal effect on how students perceive themselves relative to their peers, and how they are perceived by their peers and teachers.

We explore this in the context Romania's high school system, in which students apply to high schools and *specializations*. Specializations are self-contained programs within high schools, each with a specific curricular focus (e.g., humanities, mathematics, social science). Students are allocated to specializations solely based on a standardized admission score. This generates a clear hierarchy of specializations by selectivity.

Many high schools use the same admission score to track students within a specialization into classes of 28 students each. For example, a given school may have a mathematics specialization that is divided into two classes. The "top" class contains the students with the highest 28 admission scores; the "bottom" class those with the 28 lowest. Students remain in the same classes for all four years of high school. Moreover, classes always receive instruction separately in all subjects, although they cover the same curriculum that is often delivered by the same teachers.

We selected 87 schools that tracked students in this fashion. At these schools, we implemented an individualized survey asking students their perceived relative standing within their specialization across both top and bottom classes. In each class, we surveyed five students from the top, middle, and bottom of the class based on their admission score. We gave each of these students a list with ten of their peers' names: five from their own class (including the respondent) and five from the other class in their specialization.

We asked surveyed students to rank themselves relative to this group along several domains including academic self-confidence, ability, and effort. We administered an analogous survey to teachers who taught the same subject to the top and the bottom class. In short, for each student X, we observe how X ranks herself relative to her peers, how X is ranked by peers in her own and the other class, and how X is ranked by a teacher who teaches the same subject to both classes.

This unique setup enables us to implement two empirical approaches. First, we use a regression discontinuity (RD) design to compare students who just missed, or just got into, the top class within a specialization. Second, we implement fixed effects specifications that compare how perceptions differ according to who reports them (one's self, peer, or teacher) and how student perceptions differ across

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[1] The concern for inequality also arises in long-standing social science work (e.g., Slavin 1987, 1990; Hallinan 1994).

classes. This strategy also allows us to explore heterogeneity over the admission score distribution. These approaches yield five findings:

First, the RD design reveals that being allocated to the top vs. the bottom class lowers a student's perception of how she ranks relative to her peers in the same specialization. This holds along academic domains like self-confidence, effort, and predicted performance. Being allocated to the top class also lowers self-esteem as measured by the Rosenberg index, an absolute rather than relative measure. These negative impacts on self-perception are consistent with *big-fish-little-pond* effects (Marsh and Parker, 1984). Further, these negative impacts are in stark contrast to what emerges from teacher perceptions who have similar assessments of students on either side of the cutoff.

Second, along almost all dimensions, students rank their own classmates significantly higher than their peers from outside of their classes. This is in line with work on *in-group biases*. These biases emerge when individuals perceive members from their own group differently from others and tend to assume that in-group members share positive values and characteristics (Tajfel, 1974; Tajfel and Turner, 1979).

Third, the magnitude of the in-group bias is significantly stronger in the bottom than in the top classes. In other words, students in bottom classes believe that their classmates perform relatively better as compared to those in the top class, than vice versa. This is consistent with evidence that in-group favoritism can be larger among low status groups (Branthwaite, Doyle, and Lightbown; 1979), although other studies have found the opposite (Sachdev and Bourhis, 1987).

Fourth, students' rank themselves higher than the corresponding rankings coming from their peers and their teachers. This finding is in line with *illusory superiority*, a cognitive bias also known as the superiority bias, that arises when individuals overestimate their own abilities (Taylor and Brown, 1988).

Fifth, the gap between a student's self-assessment and that provided by her peers and teachers is larger among students with lower admissions scores. This finding is consistent with the *Krueger-Dunning bias*, which suggests that low performers are typically more overconfident, while high performers assess their skill more accurately (Krueger and Dunning, 1999).

To summarize, we observe five empirical patterns in the context of Romania's high school system, in which the allocation to tracked classrooms is extremely salient but other school inputs are similar. All these patterns serve to mitigate any negative effects that being assigned to a lower-achieving class might have on self-perceptions. A natural question is whether these empirical patterns have consequences for students' educational outcomes. In the final part of our analysis, we show that there are small but positive effects of attending a top class on a high-stakes exam taken at the end of high school.[2]

Overall, our results suggest that, while being tracked into a lower achieving class does not seem to lead to stigma and negative self-perceptions, there are clear academic benefits of being tracked into a higher achieving class. Whether self-perceived relative ranking under tracking have long-term consequences on later educational outcomes is an important topic for further study; we offer thoughts on that in the conclusion.

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[2] The finding for the benefits of attending a top class within a school-track complements the findings in Pop-Eleches and Urquiola (2013) that there are small positive benefits of attending a better school or track.

Our study contributes to several strands of the literature on tracking. Substantial research both inside and outside of economics examines the effect of tracking on academic outcomes. A number of studies also consider the role of school tracking on student self-perceptions and on academic self-concept—defined as students' perceptions of their academic abilities (e.g., Trautwein et al. 2009, Chmielewski et al. 2013, Belfi et al. 2012). However, many of these studies have small samples or lack a compelling research design for causal identification. In addition, many studies in psychology and sociology have explored the "big-fish-little-pond effect" in the context of school tracking (Liu 2005; Marsh and Scalas 2011). A related literature in economics examines whether a student's rank relative to other students can affect student perceptions as well as subsequent academic outcomes (Murphy and Weinhardt 2020).

Relative to the existing research on school tracking and student perceptions, our study has several distinct features. First, we consider impacts on a broad set of self-perceptions, including academic self-concept of ability, effort, and performance, as well as one's self-confidence and disruptiveness. Second, we compare self-perceptions with the corresponding perceptions from peers and teachers. Third, we focus on relative measures that explicitly compare students within and across classrooms, but we also consider and validate our results with absolute measures of self-esteem and performance. Finally, we adopt empirical strategies, such as regression discontinuity (RD) and teacher and student fixed effects (FE) models, designed to estimate causal impacts.

The paper is organized as follows. Section 2 provides additional background on the institutional features of Romanian high schools. Section 3 describes the data, and Section 4, the empirical methodology. Section 4 presents and discusses the results. Section 5 concludes.

2. Institutional Background

As they prepare to transition into high school (grades 9-12), Romanian students receive a transition grade, which is a weighted average of their middle school (grades 5-8) grade point average and their score on a national 8th grade exam. Students then submit a list of ranked schools and specializations they wish to attend. Specializations are self-contained units within high schools that vary in their curricular focus (e.g., Mathematics, Natural Sciences, Technical Studies, Social Studies, Literature). The students are allocated to specializations based on their transition score and a computerized serial dictatorship algorithm.

Before the allocation process begins, the Ministry of Education announces the number of slots available in each high school's specializations. This number is a multiple of 28, which is the maximum class size allowed. In other words, each school can offer multiple classes of 28 students in each specialization; most schools offer two.

All classes in a school/specialization follow the same curriculum and, for some subjects, share the same teachers. Despite this, the classes are self-contained. Although students in different classes may interact during breaks and share some extracurricular activities (e.g., academic competitions and educational clubs), they never receive instruction together. These classes remain unchanged during all four years of high school.

Moreover, within specializations, some schools track students into classes based on the ordinal ranking of their admission score: the students with the top 28 admission scores are allocated to a top class. Thus, in

a specialization with two classes, two students with very similar scores (e.g., those ranked 28 and 29) will end up in two different classes: the top and the bottom class.

This allocation mechanism is salient to students, parents, and teachers. For example, at the beginning of the academic year, the names of the students assigned to each class—along with the ordinal rank of their admission scores—is listed openly in schools and on each school website.

Upon completing high school, students take a high-stakes nationwide standardized *Baccalaureate* exam, which determines admission to university and influences labor market outcomes. This national exam is identical for all students within the same specialization, e.g., for all students in the top and bottom tracked classes.

3. Data

We use three sources of data. First, administrative data provided by the Ministry of Education on four cohorts of students. These include students' transition scores and the school-grade specializations to which they are allocated. We merge these data with school-level information on the allocation of students to classes. Thus, for each top and bottom class in each school grade and specialization, we observe the names and transition scores of each student. We also have the names of all teachers at these schools, along with a listing of the subjects they taught to each class. For three of the four cohorts, we can match these data to information on Baccalaureate exams taken at the end of high school.

The second source of data is a unique survey of students. We administered this survey in the spring of 2017 to students in grades 9-12 at 87 schools located in 74 towns. We selected these schools because they track students into at least two classes based on admission scores.[3] Due to time and budget constraints, we could not survey all the students in these schools (about 25,000 in total). Rather, we surveyed five students in each class according to their transition score—the strongest, the weakest, the middle student, and the two closest to the cutoff. To illustrate, consider a specialization with a top and a bottom class, each with 28 students. We interviewed students ranked in the following positions: 1, 14, 26, 27, 28, 29, 30, 31, 43, and 56 (where the first five belong to the bottom class and the last five belong to the top class).

The survey elicited students' perceptions of themselves and of their peers. Students were given a list with the 10 student names (ordered alphabetically): 5 from their own class (including the respondent) and 5 from the other class.[4] They were then asked to rank themselves and their peers along four *academic* domains:
- *Self-confidence* (e.g., more likely to express opinions in class, take risks, ask/answer questions),
- *Effort* (e.g., always does homework, pays attention in class),
- *Ability* (e.g., understands hard concepts easily, has high native/innate ability), and
- *Expected performance* (e.g., likely to score well on the Baccalaureate exam).

Students also ranked their peers in terms of *disruptiveness* (e.g., likely to harass or disparage peers). Appendix Table A1 shows the correlation between the different student perceptions.

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[3] We initially targeted 95 schools for the survey but received positive responses from only 87 of them. After obtaining parental and teacher consent, enumerators from Gallup Romania conducted the surveys during meetings held in school. Approximately 80% of the school-grade specialization in our sample have two (top and bottom) classes, while the rest have three or more.

[4] Students are likely to learn about students in other classes through channels including social interactions, educational clubs, the public awards of prizes to top students and public sanctions (e.g., having to retake exams).

Finally, students completed questionnaires covering family background information (e.g., gender, number of siblings, ethnicity, parental education), a peer victimization index (e.g., peers hit you, take your belongings, exclude you), and the Rosenberg self-esteem index. Appendix Table A2 describes these variables as well as the student self-perceptions.

The third source of data is a survey of teachers. We surveyed all teachers that taught the *same* subject to both top and bottom classes, and asked them to respond to rank the same 10 students over the same domains.[5] These subjects include some that are tested on the Baccalaureate exam (e.g. math, biology, physics, Romanian) and some that are not (e.g. music and religion). Teachers also completed a questionnaire about their family background and career (e.g. years of experience, academic certification, tenured position). Appendix Table A3 describes these variables.

Our final sample comprises 2,865 students across 435 discontinuities and 1,843 teachers.

4. Empirical Strategy

We use two main strategies to explore how student, peer, and teacher perceptions vary under school tracking. First, we use a regression discontinuity design to estimate the effect of being assigned to the top relative to the bottom class on student, peer, and teacher perceptions. Second, we use student fixed effects when directly comparing student perceptions to teacher perceptions, and when directly comparing peer perceptions of one's own classmates to those of students in other classes.

To elaborate, the regression discontinuity (RD) analysis is based on the following regression:

$$Y_{id} = \beta_0 + \alpha Above_{id} + f(score_{id}) + \gamma_d + \varepsilon_{id} \qquad (1)$$

where Y_{id} is the outcome of interest for individual i in discontinuity d, $Above_{id}$ is an indicator for students whose transition score is above the cutoff used to assign students to the top class, $f(score_{id})$ is a flexible function of the admission score which serves as our running variable, and γ_d are discontinuity fixed-effects. For simplicity, our preferred specifications control for linear splines of the admission score and do not include any covariates except for a constant, β_0, although our results are robust to alternative specifications (as discussed below).

The coefficient α represents the "reduced-form" or "intent-to-treat" effect of being assigned to the top class within a given school's specialization. Since children just above and below the transition score cutoff have very similar background characteristics, we expect our regression discontinuity design (if correctly specified) to yield causal estimates of how being assigned to a top class affects perceptions.

We test this assumption in Appendix Table A4 where we show estimates from a regression discontinuity of demographic characteristics on the cutoff for being assigned to a top class. The absence of any significant coefficients confirms that these demographic characteristics are smooth around the cutoff and suggests that comparisons of perceptions just above and below the cutoff are unlikely to be confounded

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[5] In school-grade specializations with three classes, we asked teachers to rank students in top vs. middle classes, and middle vs. bottom classes (and for higher-middle vs. lower-middle classes in cases where there were more than three classes). Our results are also robust to keeping school-grade specializations with only two classes.

with other factors. Another common specification check for the RD design is to verify that the density of observations is continuous around the cutoff (McCrary, 2008). Appendix Figure A1 shows the density of student observations stacked around the cutoff for being assigned to a top class. There is a higher density near either side of the cutoff because we sampled more students close to the cutoff, but no visible discontinuity around the cutoff. This suggests no manipulation of the admission score by students or schools. In addition, our estimates are based on rectangular kernel and conditional on linear splines of the transition scores. The standard errors are clustered at the level of the student being reported-on.[6]

For regression models that directly compare self-reports to teacher reports, we include student fixed effects as follows:

$$Y_{it} = \beta_0 + \mu SelfReports_{it} + \sigma_i + \epsilon_{it} \tag{2}$$

where Y_{it} is our outcome of interest for student i who is taught by teacher t, $SelfReports_{it}$ is an indicator for student perceptions of their academic attributes relative to teacher perceptions of these same attributes, and σ_i are student fixed effects for the student who is reported on.

Similarly, for regressions that directly compare reports by different peers, we include student fixed effects:

$$Y_{ij} = \beta_0 + \omega OwnClass_{ij} + \eta OtherClass_{ij} + \sigma_i + \epsilon_{ij} \tag{3}$$

where Y_{ij} (with $i{\neq}j$) is our outcome of interest for student i as report by peer j, $OwnClass_{ij}$ is an indicator for peer perceptions by students who are in the same class, $OtherClass_{ij}$ is an indicator for peer perceptions by students in different classes, (both showing effects relative to teacher perceptions), and σ_i are fixed effects for the student being reported on.

4. Results

We first check if the students comply with their assignments to top vs. bottom classrooms. Figure 1, Panel A, displays the likelihood of being enrolled in a top class as a function of the transition score. Figure 1 has a structure similar to that of all our subsequent figures:

- The red vertical line indicates the admission cutoff that determines whether a student is assigned to a top or a bottom class,
- The transition scores are normalized such that 0 represents the cutoff; and
- The open circles summarize an attribute of students in bins of 0.25 standard deviation units from the cutoff—in this case the attribute is presence in the top class.

Figure 1 (Panel A) illustrates strong, albeit imperfect, compliance. A small fraction of students below the cutoff nevertheless end up in the top class, and an even smaller fraction of students above the cutoff end up in the bottom class. However, a large majority of students comply with their assignment.

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[6] In school-grade specializations with more than two classes, we have multiple discontinuities such that some students appear more than once in the analysis. We stack these discontinuities and cluster by student to account for multiple observations.
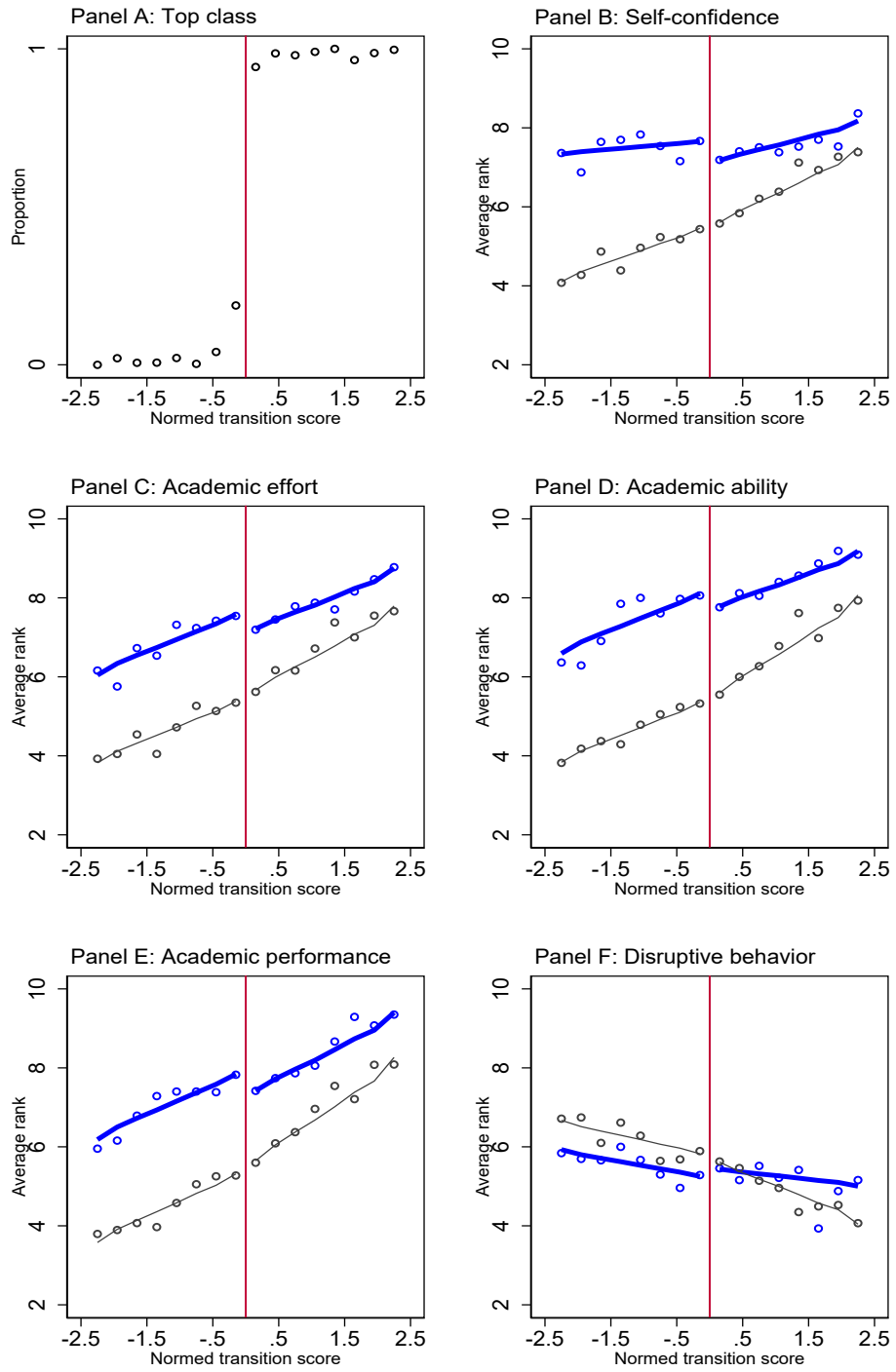
Figure 1: Self-perceptions and teacher perceptions

Notes: Self-reports are in blue and teacher reports in black.

Table 1 quantifies this pattern: the coefficient "Above" in column 1 estimates equation (1) where the outcome is being assigned to the top class.[7] The probability of being so assigned jumps by 77 percentage points at the discontinuity—a highly statistically significant effect. For simplicity, we will focus on the intent-to-treat effect of being assigned to a top class, ignoring the deviations from perfect compliance around the cutoff.

Table 1: RD estimates of self-perceptions and teacher perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.7651***	-0.4725***	-0.4390***	-0.4749***	-0.5597***	0.1860	-0.0830*	-0.0340
	[0.0152]	[0.1290]	[0.1075]	[0.0982]	[0.0959]	[0.1400]	[0.0487]	[0.0490]
Observations	2,865	2,513	2,494	2,472	2,501	2,440	2,865	2,865
Mean of dependent variable	0.549	7.503	7.444	7.979	7.722	5.356	0.000	0.000
R-squared	0.779	0.203	0.264	0.254	0.296	0.254	0.187	0.151
Panel B: Teachers								
Above	0.7705***	-0.0046	0.1137	0.0513	0.1388*	-0.1130		
	[0.0137]	[0.0731]	[0.0820]	[0.0784]	[0.0801]	[0.0908]		
Observations	18,390	14,485	14,437	14,137	14,137	12,184		
Mean of dependent variable	0.541	5.631	5.631	5.626	5.631	5.614		
R-squared	0.763	0.066	0.089	0.103	0.125	0.047		

Notes: Each column presents results from regression (1). Estimates are based on a rectangular kernel and all observations. All regressions feature linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported-on student level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

"Big-fish-little-pond" effects

The remaining panels (B-F) of Figure 1 describe how being assigned to a top vs. a bottom class affects students' relative self-perceptions, as well as teachers' perceptions, along a series of dimensions. In each case, student self-reports are in blue and teacher reports in black. The attributes we consider are academic self-confidence (Panel B), academic effort (Panel C), academic ability (Panel D), academic performance (Panel E), and disruptiveness (Panel F).

Two main findings emerge. First, there are clear discontinuities in student self-perceptions (blue lines) around the cutoff. Students who just barely got into a top class view themselves as having lower self-confidence, academic effort, academic ability, and academic performance compared to those who just barely missed the cutoff and were assigned to the bottom class. Second and in stark contrast, teachers' perceptions display no clear discontinuities around the cutoff. This is consistent with the fact that teachers may more correctly perceive that—at least based on their admissions scores—these students are quite

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[7] Our results are robust to keeping the same number of observations across the columns and panels.

similar. One exception to this pattern is the disruptive behavior pattern, which shows no discontinuity for students or teachers.[8]

Table 1 confirms these graphical patterns using model (1). Columns 2-6 display the RD estimates corresponding to the effects for panels B-F in Figure 1. Panel A covers self-reports, where the coefficients on "Above" in columns (2) to (5) are highly significant and range from -0.44 for academic effort to –0.56 for academic performance. Thus, students just above the cutoff rate themselves (among all their school/specialization peers) approximately one half-rank lower than their counterparts who are just assigned to the bottom class. As in the figure, the discontinuity for disruptiveness is not significant.

The estimates based on teacher perceptions in Panel B are either insignificant or substantially smaller in magnitude, and generally of the opposite sign. As in Figure 1, teachers do not appear to rate students on either side of the cutoff very differently; if anything, those who are assigned to top classes are ranked as having slightly more favorable academic traits.

While teacher perceptions may also be subject to various biases, it appears that they are more accurate than student perceptions. We validate this using data on actual performance on the Baccalaureate exam in subsequent years (for three out of the four cohorts in our sample). Appendix Figure A2 (left panel) replicates Panel F of Figure 1 and adds a plot of academic performance ranks based on actual performance on the Baccalaureate exam (dotted line). Teachers display a high level of accuracy in predicting actual performance across the transition score distribution, and particularly around the discontinuity.

In addition to the relative measures of student perceptions, we present results for two absolute measures: the Rosenberg self-esteem index and a "peer victimization" index. Column (7) (Table 1) shows that students who just got into top class report having lower self-esteem in general (i.e., not only in academic dimensions) than those who just barely ended up in bottom classes—although the difference is marginally significant. Column (8) shows no significant effect on the likelihood that students feel victimized by their peers. Though we cannot directly compare these magnitudes, it is reassuring to observe similar qualitative effects using both relative and absolute measures of student self-perception (column 2 vs. column 7, and column 6 vs. column 8, respectively)

To summarize, being allocated to a top class lowers students' self-perceived rankings along the academic domains of effort, ability, self-confidence, and predicted performance. It also negatively affects an absolute measure self-esteem as measured by the Rosenberg index. These negative effects are in stark contrast to teacher perceptions of these same academic characteristics, where the results are, if anything, positive. Thus, for students on the margin, being assigned to a lower class has a positive effect on how they perceive themselves—consistent with a *big-fish-little-pond effect*.

In-group bias

Figure 2 presents a series of graphs comparing perceptions by students' peers in top classes (in green) and peers in bottom classes (in red) across the transition score distribution. We continue to show teacher perceptions (in black) and, as before, vertical lines indicate admission score cutoffs. As before, Panel A of Figure 2 presents the first stage (the probability of being enrolled in a top class), and the remaining

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[8] One possible explanation is that the perceived relative ratings on negative traits such as disruptiveness are less affected than those for more positive traits such as self-confidence, academic effort, or academic ability (Suls et al. 2002).

panels show the effect of being assigned to a top class on academic self-confidence, academic effort, academic ability, academic performance, and disruptiveness. The patterns are striking, with clear discontinuities in the peer ratings provided by students in top and bottom classes, and substantial level differences between the ratings of students in one's own class as compared to students in the other class.[9]
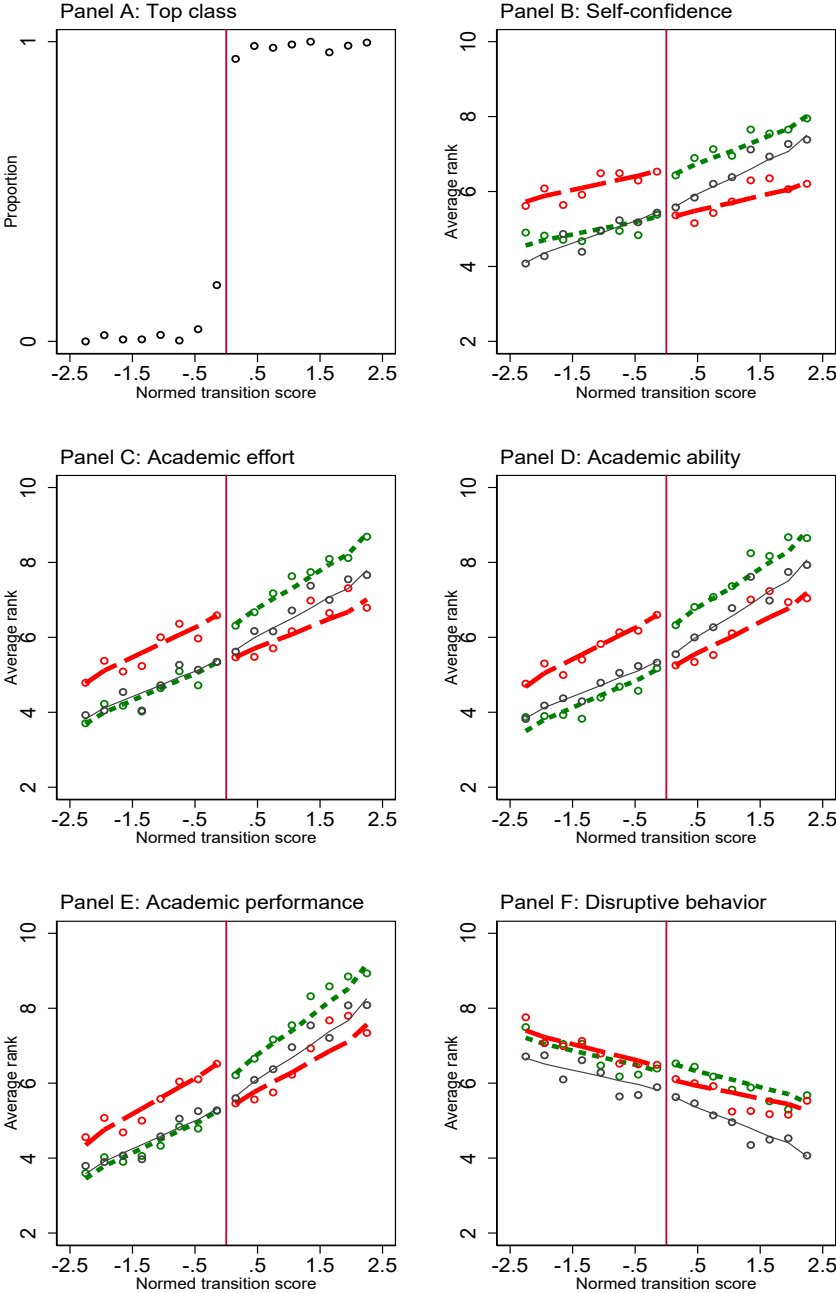

Figure 2: Peer perceptions and teacher perceptions

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[9] Students are more likely to report on their fellow classmates than on their peers in other classes. We also generated results for a "balanced" sample of students who report on peers in both their own and the other class; the results are largely unchanged.

Notes: Top class reporters are in green (short dashed lines). Bottom class reporters are in red (long dashed lines). Teacher reports are in black (continuous lines).

Table 2 displays the corresponding regression discontinuity estimates for the effect of being assigned to a top class vs. a bottom class on peer perceptions based on reports by students in the top class (Panel A) and bottom class (Panel B).

Table 2: RD estimates depending on the students reporting (top vs. bottom class students)

	Top class	Self-confidence	Academic Effort	Academic Ability	Predicted Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Reported by students in top classrooms						
Above	0.7666***	0.8754***	0.6941***	0.9110***	0.6692***	-0.0589
	[0.0132]	[0.0823]	[0.0864]	[0.0822]	[0.0851]	[0.0932]
Observations	13,185	9,182	9,108	9,039	9,167	8,994
Mean of dependent variable	0.490	6.096	6.069	5.997	6.030	6.366
R-squared	0.755	0.166	0.232	0.266	0.276	0.095
Panel B: Reported by students in bottom classrooms						
Above	0.7680***	-1.0590***	-1.0225***	-1.2820***	-0.9907***	-0.0882
	[0.0134]	[0.0859]	[0.0916]	[0.0900]	[0.0926]	[0.0929]
Observations	12,600	8,718	8,635	8,535	8,602	8,480
Mean of dependent variable	0.584	5.987	6.033	5.965	6.010	6.278
R-squared	0.768	0.094	0.108	0.124	0.132	0.086

Notes: Each column represents an independent regression. Observations include student's selfreports and teacher reports. All regressions include reported on student fixed effects. Robust standard errors in brackets are clustered at the reported-on student level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

For reports by students in *top* classes, we observe positive and highly significant effects on self-confidence, academic effort, ability, and performance. Thus, students in top classes rate their fellow classmates (who are just above the cutoff) approximately 0.7 to 0.9 ranks higher in terms these academic characteristics than peers from other classes (who are just below the cutoff). For reports by students in *bottom* classes, we observe negative and significant effects on self-confidence, academic effort, ability, and performance. Thus, students in bottom classes rate their peers who are assigned to the top class lower in terms of these academic characteristics, with even larger magnitudes of 1 to 1.3 ranks.

In short, students rank their fellow classmates significantly higher than their peers in other classes. This is in line with the literature on *in-group bias*, in which individuals perceive people who are in their own group differently from those who are outside. We observe this bias for students in both top and bottom classes, with larger magnitudes for those in the bottom class. Appendix Table A5 presents an interacted specification to test for the significance in the magnitude of the in-group bias between students in the top and bottom classes. The difference between the coefficients "Above*Top" and "Above*Bottom" are highly significant for academic effort, ability, and performance, and marginally significant for self-confidence. This implies that the in-group bias is more pronounced for students in the low achieving class.

This pattern of in-group bias not only appears at the discontinuity, but also when we compare classes on average. In Figure 2, we observe that students in the top class rank their fellow classmates as substantially higher in self-confidence, academic effort, academic ability, and academic performance than students in the other class—i.e., the green lines are above the red ones *above* the cutoff. However, students in the bottom class also rank their classmates as substantially higher in self-confidence, academic effort, academic ability, and academic performance than students in the other class—i.e., the red lines are above the green ones *below* the cutoff. This is not consistent with teacher reports which correspond much more closely to the perceptions of the reports by students in the top class, and especially for reports on students in the bottom class (i.e., the green and black lines practically overlap below the cutoff).

An analogous pattern emerges when we compare predictions of performance on the Baccalaureate schooling-leaving exam with the actual performance in Appendix Figure A2, right panel, (which adds actual performance to Panel E of Figure 2). The peer ratings of predicted academic performance provided by students in the top class appear closer to the actual performance; in this case, the reports by students in the top class about their own classmates appear to be more accurate (i.e., the green line is very close to the dotted line above the cutoff). The only apparent exception to this pattern is, again, for perceptions of disruptive behavior, where the rankings of fellow classmates are very similar to those in the other class.[10]

We also provide estimates for the overall graphical patterns in Figure 2, while including student fixed effects to isolate the variation within reporting students as in model (3). Appendix Table A6 estimates the difference between how students in the top (Panel A) and bottom (Panel B) classes rate themselves vs. how they rate their counterparts in the other class, controlling for transition scores.[11] In both the top and bottom classes, students rate their own classmates significantly higher than those in the other class, with somewhat larger magnitudes for students in the bottom class (except for disruptive behavior). Appendix Table A7 estimates the difference between how students in the top (Panel A) and bottom (Panel B) classes are rated by their own classmates vs. their counterparts in the other classes. In this case, students in the top class (green) rate themselves higher than they are rated by students in the bottom class (red), while students in the bottom class (red) rate themselves higher than they are rates by those in the top class (green).

Illusory superiority and Krueger-Dunning effects

Returning to Figure 1 and setting aside the differences at the discontinuity, there is a striking level difference between student self-perceptions and teacher perceptions (i.e., the distance between the blue and black lines). Students rank their own self-confidence, academic effort, academic ability, and academic performance more highly than their corresponding rankings by teachers. Table 3 elaborates on this by estimating student self-reports relative to teachers using model (2).

The coefficients on the indicator for "self-reports" in columns (1) to (4) are highly significant and range from 1.7 for self-confidence to 2.2 for academic ability. Thus, students rate themselves approximately two (out of 10) ranks more highly than do their teachers. The coefficient on "self-reports" in column (5) is

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[10] One explanation is that disruptive behavior is easier to observe and less ambiguous to report. Further, there is evidence that relative ratings are higher on positive than on negative traits (Suls et al. 2002; Dunning et al. 1989).

[11] Note that, for most outcomes in Figure 2, students in the bottom class (red) rank themselves similarly to students in the top class. But we would expect them to rank themselves lower than the top class given the positive slopes between transition scores and these rankings. Conditioning on transition scores accounts for this relationship.

negative and significant, even though the magnitude is substantially smaller than in the other columns. This indicates that students rate themselves as less disruptive by approximately one-quarter (out of 10) ranks lower than teachers.

Table 3: Self-perceptions relative to teachers

	Differences relative to teachers				
	Self-confidence (1)	Academic Effort (2)	Academic Ability (3)	Predicted Performance (4)	Disruptive behavior (5)
Panel A: Average differences					
Self reports	1.7765***	1.6999***	2.2328***	1.9503***	-0.2504***
	[0.0679]	[0.0581]	[0.0573]	[0.0564]	[0.0759]
Panel B: Average differences by transition score					
Self reports	1.8339***	1.7348***	2.2786***	1.9931***	-0.2910***
	[0.0672]	[0.0583]	[0.0575]	[0.0568]	[0.0759]
Self reports x Transition score	-0.5881***	-0.3450***	-0.4403***	-0.4060***	0.4157***
	[0.0672]	[0.0629]	[0.0584]	[0.0565]	[0.0757]
Obs	16,998	16,931	16,609	16,638	14,624
Mean of dependent variable	5.908	5.898	5.976	5.945	5.571
R-squared	0.372	0.447	0.455	0.474	0.419

Notes: Each column represents an independent regression. Observations include student's self reports and teacher reports. All regressions include reported-on student fixed effects. Robust standard errors in brackets are clustered at the reported-on student level. *** $p<0.01$, ** $p<0.05$, * $p<0.1$.

This finding is in line with the notion of *illusory superiority*, a cognitive bias that arises when individuals overestimate their own abilities relative to others (Taylor and Brown 1988). Illusory superiority is also apparent when focusing on self-perception of academic performance which we validate using academic performance on the Baccalaureate schooling leaving exam (Appendix Figure A2, left panel). Except at the very top of the transition score distribution, there is a clear gap between self-perceptions of predicted performance and actual performance.

Additionally, the interaction of self-reports with the transition score in Panel B (Table 3) is negative and significant for all the outcomes that have a positive illusory superiority, and positive for disruptiveness which has a negative illusory superiority. This confirms that the absolute level of illusory superiority is declining with transition scores. This finding is consistent with the Krueger-Dunning effect, which suggests that low performers are typically more overconfident, while high performers assess their skill more accurately (Krueger and Dunning 1999).

Educational effects

We also examine the educational impacts of being assigned to a top class by linking students to administrative data on their Baccalaureate end-of-high school exams. Appendix Table A8 presents the results. There does not appear to be a large or significant effect of being assigned to a top class on whether students took this exam; the estimates in column (1) are approximately 1 or 2 percentage points in

magnitude on a base of 94 percent, and marginally significant only with the inclusion of additional controls. However, column (2) reveals a more significant effect of being assigned to a top class on Baccalaureate grades. The effect is still relatively small, corresponding to 0.10-0.16 standard deviations (the standard deviation of the raw score is approximately 1). The effects appear somewhat larger when they are used to rank the students across classrooms, as in column (3), similarly to the way we framed the questions about academic characteristics to student, peer, and teachers. Indeed, we can compare them directly to the teacher predictions of student success in the Baccalaureate exam in column (4). These results suggest that there are certain benefits to being tracked into a higher achieving class.

Robustness

Appendix B presents tables showing robustness checks for the results in the main RD tables. These include (i) the inclusion of control variables (Tables B1 and B2), (ii) quadratic trends in the running variables (Tables B3 and B4), (iii) cubic trends in the running variable (B5 and B6), (iv) local linear specifications using alternative bandwidths (B7 and B8), (v) discrete RD estimates focusing only on the 3 students immediately above and below the cutoff (B9 and B10), and (vi) using class position as an alternative assignment variable (B11 and B12). In each case, the main results remain qualitatively unchanged.

Heterogeneity

Appendix C presents tables showing heterogeneous impacts by gender, SES, and grade level of the students being rated for the outcomes in Tables 1 to 3. For example, Tables C1 to C3 include interactions with an indicator for female students; Tables C4 to C6 include interactions with an indicator for low SES based on whether mothers have not completed high school, and Tables C7 to C9 include interactions with an indicator for being in the grades 11 and 12 (vs. grades 9 and 10). While relatively few of the interactions are significant, it does appear that that both illusory superiority and in-group bias may be somewhat weaker among girls than boys. Furthermore, in-group bias among students in the bottom class is weaker in later grades than in earlier grades, and more in line with the in-group bias among students in the top class. We do not find much evidence of heterogenous effects by SES.

5. Conclusion

School tracking has long been controversial. A standard concern is that it could hurt lower-achieving children by denying them the chance to interact with higher-achieving peers. Economists have concluded that, at least in some settings, this concern is unwarranted. In fact, tracking can causally raise overall learning even as it improves that of lower-achieving children (e.g., Duflo, Dupas, Kremer 2011, Riel 2022).

This paper considers another concern: because tracking renders some children's low achievement salient, it may stigmatize them, hurting their self-perceptions. We have analyzed this in the context of Romania's high school system, one of the most explicitly tracked in the world. Using unique data on student and teacher perceptions, we find surprisingly little evidence that tracking adversely affects the self-perceptions of low-achieving students. In particular, students in lower achieving (bottom) classes display patterns of perception consistent with "big-fish-little-pond" effects, "illusory superiority" and in-group bias. Furthermore, the effects of illusory superiority and in-group bias appear to be larger relative to their peers

in higher achieving classes. One possibility is these perceptions act as a defensive adaptation and mitigate a perception of inferiority.

While these effects mitigate concerns regarding adverse effects on self-perceptions in the short-term, whether they have positive or negative long-term consequences is an empirical question. On the one hand, psychologists suggest that "self-enhancement" biases may promote psychological health, resilience, and subjective well-being (Taylor and Brown 1988, Taylor et al. 2003, Sedikides et al. 2007). On the other hand, they could cause anti-social behavior, impact mental health or reduce engagement with academic studies (Colvin et al. 1995, Robins and Beer 2001, Sedikides et al. 2007).

Finally, our findings reveal that students in bottom classes can perceive themselves to be just as strong as their peers in top classes. At some point, this perception is likely to be contradicted by long-term outcomes, such as placements into college or jobs. Whether students maintain these perceptions into the future, or whether these perceptions engender feelings of unfairness, are open questions.

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Appendix A
Figure A1

Appendix Figure A1: Density checks
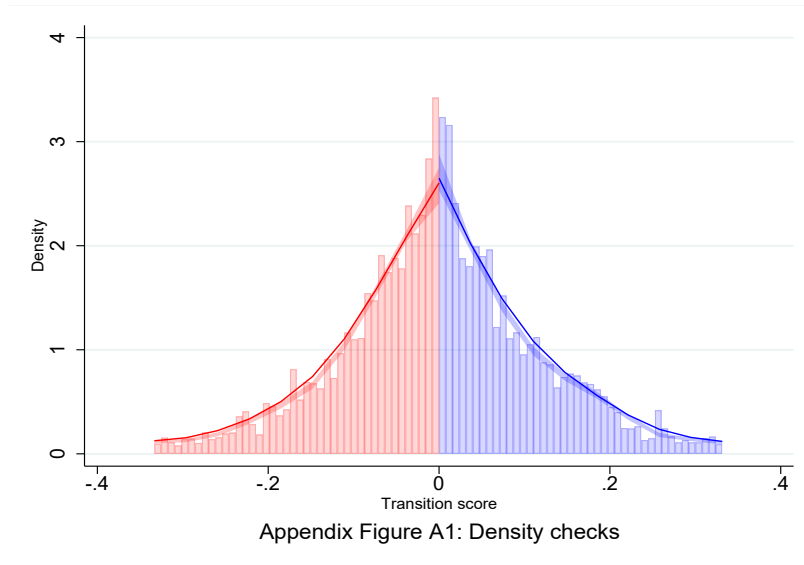
Notes: Test of differences in discontinuity, p-value equal to 0.327

Figure A2

Appendix Figure A2: RD estimates of baccalaureate performance and results
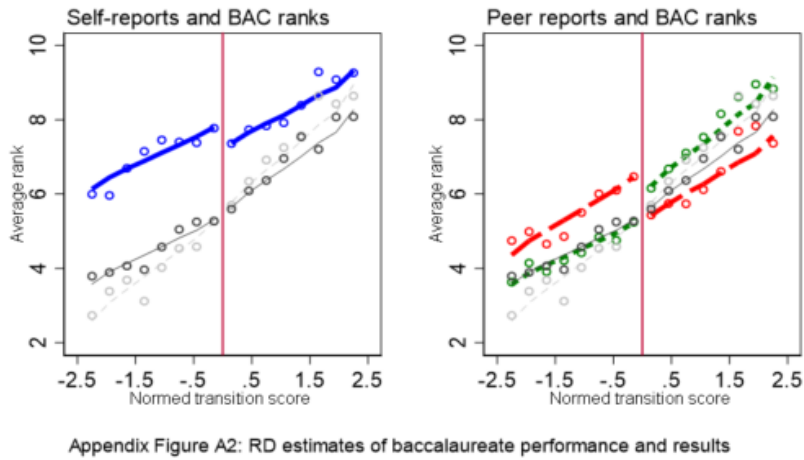
Notes: Blue—Self reports; green—top class reporters; red—bottom class reporters; black—teacher reports; gray—baccalaureate ranks.

Appendix Table A1: Correlations between student perceptions

Correlations

	Variable				
	1	2	3	4	5
Panel A: All students					
1. Self-confidence	1.000				
2. Academic effort	0.420	1.000			
3. Academic ability	0.496	0.614	1.000		
4. Academic performance	0.451	0.646	0.705	1.000	
5. Disruptive behavior	0.067	-0.141	-0.098	-0.120	1.000
Panel B: Reported by students in top classrooms					
1. Self-confidence	1.000				
2. Academic effort	0.417	1.000			
3. Academic ability	0.495	0.618	1.000		
4. Academic performance	0.441	0.641	0.699	1.000	
5. Disruptive behavior	0.062	-0.138	-0.091	-0.105	1.000
Panel C: Bottom class					
1. Self-confidence	1.000				
2. Academic effort	0.415	1.000			
3. Academic ability	0.490	0.595	1.000		
4. Academic performance	0.452	0.636	0.697	1.000	
5. Disruptive behavior	0.084	-0.126	-0.084	-0.111	1.000

Appendix Table A2: Students summary statistics

	Classrooms			Difference Top - Bottom
	All	Top	Bottom	
	(1)	(2)	(3)	(4)
Panel A: Demographics				
Girl	0.583	0.631	0.533	0.098***
Age	16.645	16.633	16.657	-0.023
Romanian	0.975	0.973	0.978	-0.004
Siblings	1.130	1.097	1.165	-0.068
Older siblings	0.786	0.793	0.778	0.015
Mother's age	42.556	42.734	42.360	0.375*
Mother's education				
Did not finish high school	0.253	0.233	0.276	-0.043**
Finished high school	0.486	0.484	0.488	-0.005
Attended college	0.261	0.284	0.236	0.048***
Father's age	45.796	45.885	45.699	0.186
Father's education				
Did not finish high school	0.268	0.257	0.281	-0.023
Finished high school	0.501	0.495	0.508	-0.014
Attended college	0.230	0.248	0.211	0.037**
Panel B: Rankings				
Self-confidence	7.444	7.587	7.290	0.297***
Academic effort	7.979	8.120	7.826	0.294***
Academic ability	7.722	7.900	7.528	0.372***
Academic performance	5.356	5.333	5.382	-0.049
Disruptive behavior	7.503	7.415	7.598	-0.183*
Panel C: Other outcomes				
Rosenberg index	0.000	0.010	-0.010	0.020
Peer victimization	0.000	-0.031	0.033	-0.064*
Took BAC	0.935	0.953	0.916	0.037**
BAC raw score	7.747	8.062	7.401	0.661***
BAC ranks	5.651	6.526	4.728	1.798***

Notes: Column (4) shows the average difference between students assigned to top and bottom classrooms and its statistical significant according to t-tests and proportion tests for differences for continuous and dichotomous variables, respectively.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix Table A3: Teachers summary statistics

	All teachers		
	N	Mean	SD
	(1)	(2)	(3)
Female	1,843	0.659	0.474
Age	1,742	45.635	10.030
Children	1,830	1.062	0.897
Marriage status			
Married	1,806	0.712	0.453
Divorced	1,806	0.068	0.252
Never	1,806	0.185	0.388
Other	1,806	0.035	0.185
Ethnicity			
Romanian	1,827	0.966	0.181
Hungarian	1,827	0.028	0.166
Other	1,827	0.005	0.074
Education level			
Bachelor	1,820	0.584	0.493
Masters	1,820	0.347	0.476
PhD	1,820	0.048	0.213
No bachelor	1,820	0.021	0.145
Teacher experience	1,820	19.609	10.427
Subject			
Biology	1,821	0.063	0.242
Chemistry	1,821	0.070	0.255
English	1,821	0.051	0.220
Physics	1,821	0.047	0.211
Philosophy	1,821	0.069	0.253
Geography	1,821	0.082	0.274
German	1,821	0.016	0.127
Info	1,821	0.053	0.225
History	1,821	0.071	0.257
Math	1,821	0.032	0.177
Music	1,821	0.052	0.222
Religion	1,821	0.085	0.279
Romanian	1,821	0.029	0.167
Pe	1,821	0.080	0.272
Other	1,821	0.200	0.400

Appendix Table A4: RD continuity checks

	Student's age	Student is a girl	Student is Romanian	Number of Siblings	Mother's education	Father's education	Alphabet
Above	-0.0086	0.0355	-0.0064	0.0611	-0.0045	-0.0197	-0.1374
	[0.0322]	[0.0232]	[0.0044]	[0.0567]	[0.0336]	[0.0337]	[0.1484]
Transition score	0.0138	0.0511**	0.0095**	-0.0721	0.0796***	0.0579*	-0.1220
	[0.0254]	[0.0207]	[0.0046]	[0.0439]	[0.0304]	[0.0302]	[0.1258]
Above x Score	-0.0224	0.0108	-0.0099*	-0.0206	0.0287	0.0293	0.2388
	[0.0300]	[0.0251]	[0.0055]	[0.0573]	[0.0380]	[0.0378]	[0.1571]
Obs	2,717	2,865	2,852	2,851	2,577	2,526	2,865
R-squared	0.791	0.217	0.626	0.230	0.311	0.294	0.041

Notes: Each column represents an independent regression. Observations include only student as reporters. Robust standard errors in brackets are clustered at the reported on student level.

Appendix Table A5: Linear combination of top-bottom differences at the threshold

	Self-confidence (1)	Academic Effort (2)	Academic Ability (3)	Academic Performance (4)	Disruptive behavior (5)
Transition score	0.3444***	0.7746***	0.7940***	0.8861***	-0.4503***
	[0.0509]	[0.0585]	[0.0554]	[0.0572]	[0.0673]
Top class reporters	5.2104***	5.3459***	4.9719***	5.1209***	6.2113***
	[0.3648]	[0.4450]	[0.3952]	[0.3958]	[0.6206]
Bottom class reporters	6.2849***	6.4389***	6.2523***	6.1814***	6.1276***
	[0.3654]	[0.4447]	[0.3954]	[0.3959]	[0.6198]
Above x Top	0.9072***	0.7038***	0.9003***	0.6492***	0.0385
	[0.0774]	[0.0816]	[0.0775]	[0.0807]	[0.0888]
Above x Bottom	-1.1137***	-1.0771***	-1.3174***	-1.0280***	-0.1411
	[0.0807]	[0.0868]	[0.0849]	[0.0871]	[0.0890]
Above x Top x Score	0.2966***	0.2352***	0.2483***	0.3368***	0.0121
	[0.0710]	[0.0774]	[0.0746]	[0.0756]	[0.0889]
Above x Bottom x Score	0.0519	-0.1000	0.0490	0.0324	0.1234
	[0.0809]	[0.0894]	[0.0870]	[0.0891]	[0.0892]
Lincom: Above Top + Above Bottom = 0					
Coefficient	-0.207*	-0.373***	-0.417***	-0.379***	-0.103
Standard error	0.124	0.139	0.131	0.139	0.148
Observations	17,900	17,743	17,574	17,769	17,474
R-squared	0.858	0.861	0.865	0.866	0.862

Notes: Each column represents an independent regression. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported-on students.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table A6: Differences in reporting on top and bottom class students

	Top classroom	Self-confidence	Effort	Ability	Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Top class reporters						
Reports of own classroom (vs. other class)	0.7674***	0.6473***	0.4840***	0.7106***	0.4484***	-0.3351***
	[0.0138]	[0.0866]	[0.0921]	[0.0868]	[0.0904]	[0.0977]
Observations	13,185	9,182	9,108	9,039	9,167	8,994
Mean of dependent variable	0.490	6.096	6.069	5.997	6.030	6.366
R-squared	0.751	0.208	0.265	0.296	0.304	0.168
Panel B: Bottom class reporters						
Reports of own classroom (vs. other class)	-0.7823***	0.8922***	0.8219***	1.1096***	0.7863***	-0.0818
	[0.0133]	[0.0909]	[0.0977]	[0.0965]	[0.0987]	[0.0997]
Observations	12,600	8,718	8,635	8,535	8,602	8,480
Mean of dependent variable	0.584	5.987	6.033	5.965	6.010	6.278
R-squared	0.767	0.152	0.165	0.178	0.191	0.136

Notes: Each column represents an independent regression. All regressions control the transition score and include student reporter fixed effects. Robust standard errors in brackets are clustered at the reported-on students.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table A7: Differences in reporting by top and bottom class students

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Students reported on in top class						
Reported by top class student (vs. bottom students)	-	1.2032***	0.9828***	1.1331***	0.9029***	0.2875***
	-	[0.0679]	[0.0678]	[0.0681]	[0.0663]	[0.0677]
Observations (top vs bottom students)	12,860	9,281	9,189	9,107	9,207	9,033
Mean of dependent variable (top vs bottom students)	0.961	6.257	6.426	6.382	6.489	6.089
R-squared (top vs bottom students)	1.000	0.388	0.457	0.459	0.497	0.409
Panel B: Students reported on in bottom class						
Reported by top class student (vs. bottom students)	-	-1.1155***	-1.1084***	-1.3277***	-1.0848***	-0.0698
	-	[0.0757]	[0.0700]	[0.0716]	[0.0711]	[0.0715]
Observations (top vs bottom students)	12,925	8,619	8,554	8,467	8,562	8,441
Mean of dependent variable (top vs bottom students)	0.112	5.813	5.649	5.551	5.516	6.574
R-squared (top vs bottom students)	1.000	0.370	0.451	0.448	0.475	0.416

Notes: Each cell represents an independent regression. All regressions include ranked student fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table A8: RD estimates of Baccalaureate outcomes

	Took BAC	BAC raw scores	BAC ranks	Teacher performance rank
	(1)	(2)	(3)	(4)
Panel A: No student characteristics as control variables				
Above	0.0099	0.1096*	0.2820*	0.1388*
	[0.0125]	[0.0604]	[0.1569]	[0.0801]
Observations	2,101	1,964	2,062	14,137
Mean of dependent variable	7.747	7.747	7.747	5.631
R-squared	0.273	0.650	0.242	0.125
Panel B: Including student characteristics as control variables				
Above	0.0205	0.1559**	0.4604***	0.1337*
	[0.0134]	[0.0661]	[0.1703]	[0.0798]
Observations	1,793	1,684	1,757	14,137
Mean of dependent variable	0.939	7.842	5.707	5.631
R-squared	0.338	0.656	0.289	0.126

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. In addition, Panel B regressions reported in columns 1 to 3, control for reporting student's age, nationality, gender, number of siblings and mother's education level. Panel B regression in column 4 controls only for ranked student's first letter of last name and discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix B

Appendix Table B1: Conditional RD estimates of self-perceptions and teacher perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.7564***	-0.5083***	-0.4763***	-0.4413***	-0.6147***	0.2038	-0.0916*	-0.0123
	[0.0170]	[0.1378]	[0.1151]	[0.1032]	[0.1015]	[0.1489]	[0.0536]	[0.0526]
Observations	2,457	2,177	2,165	2,146	2,174	2,115	2,457	2,457
Mean of dependent variable	0.558	7.511	7.462	8.013	7.759	5.372	0.0257	-0.0206
R-squared	0.782	0.240	0.320	0.284	0.315	0.330	0.218	0.199
Panel B: Teachers								
Above	0.7703***	-0.0205	0.1050	0.0360	0.1337*	-0.1244		
	[0.0137]	[0.0728]	[0.0816]	[0.0781]	[0.0798]	[0.0905]		
Observations	18,390	14,485	14,437	14,137	14,137	12,184		
Mean of dependent variable	0.541	5.631	5.631	5.626	5.631	5.614		
R-squared	0.764	0.068	0.092	0.105	0.126	0.049		

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel, all available observations. Panel A regressions are conditional on linear splines of the transition score and include as control variables: reporting student's age, nationality, gender, number of siblings and mother's education level, ranked student's first letter of last name, and discontinuity fixed effects. Panel B regressions are conditional on linear splines of the transition score and control for ranked student's first letter of last name and discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level for regressions in both Panel A and B.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B2: Conditional RD estimates of peer perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Reported by students in top classrooms						
Above	0.7567***	0.8472***	0.6346***	0.8415***	0.6773***	-0.1485
	[0.0141]	[0.0879]	[0.0910]	[0.0870]	[0.0894]	[0.0984]
Observations	11,439	8,025	7,990	7,934	8,033	7,826
Mean of dependent variable	0.492	6.100	6.066	5.992	6.028	6.373
R-squared	0.744	0.172	0.239	0.266	0.282	0.100
Panel B: Reported by students in bottom classrooms						
Above	0.7623***	-1.0092***	-1.0373***	-1.2732***	-0.9772***	0.0144
	[0.0143]	[0.0912]	[0.0963]	[0.0954]	[0.0987]	[0.1001]
Observations	10,674	7,403	7,340	7,251	7,348	7,239
Mean of dependent variable	0.587	6.009	6.056	5.984	6.022	6.297
R-squared	0.766	0.101	0.131	0.136	0.145	0.092

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions are conditional on linear splines of the transition score and include as control variables: reporting student's age, nationality, gender, number of siblings and mother's education level, ranked student's first letter of last name, and discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B3: Quadratic RD estimates of self-perceptions and teacher perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.7274***	-0.4263***	-0.4855***	-0.4370***	-0.5712***	0.1483	-0.0521	-0.0668
	[0.0177]	[0.1461]	[0.1223]	[0.1113]	[0.1082]	[0.1569]	[0.0554]	[0.0543]
Observations	2,865	2,513	2,494	2,472	2,501	2,440	2,865	2,865
Mean of dependent variable	0.549	7.503	7.444	7.979	7.722	5.356	1.45e-07	2.80e-09
R-squared	0.784	0.203	0.265	0.256	0.296	0.254	0.187	0.153
Panel B: Teachers								
Above	0.7357***	-0.0273	0.0647	0.0034	0.0700	-0.1271		
	[0.0159]	[0.0831]	[0.0934]	[0.0896]	[0.0909]	[0.1039]		
Observations	18,390	14,485	14,437	14,137	14,137	12,184		
Mean of dependent variable	0.541	5.631	5.631	5.626	5.631	5.614		
R-squared	0.767	0.066	0.090	0.104	0.125	0.047		

conditional on quadratic splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B4: Quadratic RD estimates of peer perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Top classrooms						
Above	0.7313***	0.7502***	0.6041***	0.7515***	0.5349***	-0.0435
	[0.0153]	[0.0939]	[0.0977]	[0.0934]	[0.0966]	[0.1059]
Observations	13,185	9,182	9,108	9,039	9,167	8,994
Mean of dependent variable	0.490	6.096	6.069	5.997	6.030	6.366
R-squared	0.759	0.167	0.233	0.268	0.278	0.096
Panel B: Bottom classrooms						
Above	0.7304***	-1.0061***	-1.0639***	-1.2987***	-1.0374***	0.0054
	[0.0157]	[0.0981]	[0.1046]	[0.1027]	[0.1062]	[0.1055]
Observations	12,600	8,718	8,635	8,535	8,602	8,480
Mean of dependent variable	0.584	5.987	6.033	5.965	6.010	6.278
R-squared	0.772	0.095	0.109	0.124	0.132	0.088

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions are conditional on quadratic splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B5: Cubic RD estimates of self-perceptions and teacher perceptions

	Top classroom	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.7038***	-0.5256***	-0.4311***	-0.3661***	-0.4997***	0.0358	-0.0953	-0.0616
	[0.0206]	[0.1604]	[0.1342]	[0.1224]	[0.1190]	[0.1693]	[0.0587]	[0.0576]
Observations	2,865	2,513	2,494	2,472	2,501	2,440	2,865	2,865
Mean of dependent variable	0.549	7.503	7.444	7.979	7.722	5.356	1.45e-07	2.80e-09
R-squared	0.786	0.204	0.265	0.257	0.297	0.255	0.191	0.154
Panel B: Teachers								
Above	0.7039***	-0.0400	0.0753	-0.0247	0.0850	-0.1926*		
	[0.0180]	[0.0936]	[0.1043]	[0.1002]	[0.1018]	[0.1154]		
Observations	18,390	14,485	14,437	14,137	14,137	12,184		
Mean of dependent variable	0.541	5.631	5.631	5.626	5.631	5.614		
R-squared	0.770	0.067	0.090	0.104	0.125	0.047		

conditional on cubic splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B6: Cubic RD estimates of peer perceptions

	Top classroom	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Top classrooms						
Above	0.7032***	0.7040***	0.6133***	0.7905***	0.5562***	-0.1867
	[0.0178]	[0.1026]	[0.1068]	[0.1023]	[0.1056]	[0.1150]
Observations	13,185	9,182	9,108	9,039	9,167	8,994
Mean of dependent variable	0.490	6.096	6.069	5.997	6.030	6.366
R-squared	0.763	0.167	0.233	0.269	0.278	0.098
Panel B: Bottom classrooms						
Above	0.6979***	-0.9215***	-0.9530***	-1.1922***	-0.8495***	-0.0731
	[0.0179]	[0.1083]	[0.1163]	[0.1132]	[0.1171]	[0.1156]
Observations	12,600	8,718	8,635	8,535	8,602	8,480
Mean of dependent variable	0.584	5.987	6.033	5.965	6.010	6.278
R-squared	0.775	0.095	0.110	0.126	0.135	0.089

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions are conditional on cubic splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B7: RD estimates of self-perceptions and teacher perceptions, different bandwidths

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above, bw=[-1.5, 1.5]	0.7401***	-0.4170***	-0.4518***	-0.4109***	-0.5286***	0.1543	-0.0674	-0.0488
	[0.0169]	[0.1397]	[0.1182]	[0.1055]	[0.1036]	[0.1530]	[0.0532]	[0.0530]
Above, bw=[-1.0, 1.0]	0.7253***	-0.4785***	-0.4634***	-0.4526***	-0.5437***	0.1425	-0.0782	-0.0631
	[0.0179]	[0.1466]	[0.1238]	[0.1119]	[0.1091]	[0.1588]	[0.0555]	[0.0561]
Above, bw=[-0.5, 0.5]	0.6789***	-0.5216***	-0.4016***	-0.4054***	-0.5305***	-0.0301	-0.0790	-0.0672
	[0.0226]	[0.1794]	[0.1524]	[0.1388]	[0.1353]	[0.1895]	[0.0671]	[0.0666]
Above, CCT optimal bw	0.5644***	-0.4319**	-0.3988**	-0.3433**	-0.5181***	-0.1793	-0.1039	-0.0696
	[0.0298]	[0.1692]	[0.1485]	[0.1462]	[0.1369]	[0.2028]	[0.0625]	[0.0655]
Robust p-value	0.0000	0.0220	0.0194	0.0460	0.0007	0.2988	0.1088	0.3593
Optimal bandwidth	0.1888	0.4380	0.3923	0.3377	0.3771	0.2846	0.5344	0.3602
Observations left of threshold	747	766	752	728	748	701	903	855
Observations right of threshold	752	775	762	739	759	709	905	856
Mean of dep var left of threshold	0.1983	5.8526	5.8164	5.8116	5.7793	6.1487	0.0274	0.0197
Panel B: Teachers								
Above, bw=[-1.5, 1.5]	0.7486***	-0.0473	0.0527	-0.0066	0.0700	-0.0830		
	[0.0150]	[0.0791]	[0.0886]	[0.0850]	[0.0865]	[0.0987]		
Above, bw=[-1.0, 1.0]	0.7311***	0.0112	0.1297	0.0621	0.1399	-0.1759*		
	[0.0158]	[0.0825]	[0.0922]	[0.0884]	[0.0900]	[0.1030]		
Above, bw=[-0.5, 0.5]	0.6892***	-0.0984	-0.0292	-0.1285	0.0348	-0.2324*		
	[0.0196]	[0.1014]	[0.1131]	[0.1105]	[0.1136]	[0.1245]		
Above, CCT optimal bw	0.6222***	-0.219*	-0.1416	-0.2854**	-0.1636	-0.1202		
	[0.0284]	[0.1296]	[0.1459]	[0.1433]	[0.1462]	[0.1505]		
Robust p-value	0.0000	0.0711	0.2735	0.0392	0.1812	0.5681		
Optimal bandwidth	0.1799	0.2397	0.2315	0.2187	0.2096	0.2848		
Observations left of threshold	4,879	4,107	4,063	3,914	3,903	3,554		
Observations right of threshold	4,740	4,123	4,090	3,958	3,946	3,582		
Mean of dep var left of threshold	0.1989	5.8698	5.8270	5.8295	5.7915	6.1487		

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported-on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B8: RD estimates of peer perceptions, different bandwidths

	Top class	Self-confidence	Academic Effort	Academic Ability	Predicted Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Reported by students in top classrooms						
Above, bw=[-1.5, 1.5]	0.7430***	0.7738***	0.6040***	0.7899***	0.5555***	-0.0534
	[0.0145]	[0.0900]	[0.0936]	[0.0896]	[0.0931]	[0.1006]
Above, bw=[-1.0, 1.0]	0.7272***	0.7764***	0.6401***	0.8382***	0.5824***	-0.1111
	[0.0153]	[0.0936]	[0.0978]	[0.0931]	[0.0966]	[0.1055]
Above, bw=[-0.5, 0.5]	0.6846***	0.6371***	0.5255***	0.6834***	0.4670***	-0.1505
	[0.0190]	[0.1156]	[0.1212]	[0.1171]	[0.1196]	[0.1258]
Above, CCT optimal bw	0.6033***	0.672***	0.488***	0.5512***	0.373**	-0.0392
	[0.0273]	[0.128]	[0.1311]	[0.1385]	[0.1345]	[0.1376]
Robust p-value	0.0000	0.0000	0.0009	0.0007	0.0166	0.7921
Optimal bandwidth	0.1664	0.3704	0.3571	0.2627	0.3333	0.3974
Observations left of threshold	3,738	2,596	2,569	2,441	2,549	2,571
Observations right of threshold	2,904	3,044	3,002	2,861	2,996	2,982
Mean of dep var left of threshold	0.2049	5.8560	5.8200	5.8171	5.7768	6.1357
Panel B: Reported by students in bottom classrooms						
Above, bw=[-1.5, 1.5]	0.7437***	-1.0283***	-1.0585***	-1.2956***	-0.9946***	-0.0079
	[0.0148]	[0.0933]	[0.0993]	[0.0980]	[0.1009]	[0.1004]
Above, bw=[-1.0, 1.0]	0.7272***	-0.9454***	-0.9841***	-1.2187***	-0.9076***	-0.0503
	[0.0156]	[0.0967]	[0.1038]	[0.1017]	[0.1051]	[0.1055]
Above, bw=[-0.5, 0.5]	0.6834***	-0.9098***	-1.0501***	-1.1624***	-0.9274***	0.1049
	[0.0194]	[0.1189]	[0.1251]	[0.1235]	[0.1267]	[0.1284]
Above, CCT optimal bw	0.5902***	-0.8479***	-1.0499***	-1.1022***	-0.9273***	0.202
	[0.029]	[0.1365]	[0.1394]	[0.1372]	[0.1448]	[0.1522]
Robust p-value	0.0000	0.0000	0.0000	0.0000	0.0000	0.1260
Optimal bandwidth	0.1690	0.3222	0.3868	0.3720	0.3358	0.2519
Observations left of threshold	2,828	2,652	2,707	2,660	2,638	2,471
Observations right of threshold	3,465	2,465	2,484	2,457	2,432	2,304
Mean of dep var left of threshold	0.2032	5.8664	5.8226	5.8097	5.7768	6.1492

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported-on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B9: Discrete RD estimates of self-perceptions and teacher perceptions

	Top classroom	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.8384***	-0.1693	0.3030***	0.2833***	0.3857***	-0.1103	0.0254	-0.0643*
	[0.0108]	[0.1032]	[0.0882]	[0.0820]	[0.0824]	[0.1118]	[0.0383]	[0.0382]
Observations	2,865	2,513	2,494	2,472	2,501	2,440	2,865	2,865
Mean of dependent variable	0.549	7.503	7.444	7.979	7.722	5.356	1.45e-07	2.80e-09
R-squared	0.768	0.194	0.220	0.198	0.205	0.249	0.182	0.151
Panel B: Teachers								
Above	0.8487***	0.8402***	1.0693***	1.0928***	1.2664***	-0.7448***		
	[0.0095]	[0.0626]	[0.0693]	[0.0684]	[0.0701]	[0.0747]		
Observations	18,390	14,485	14,437	14,137	14,137	12,184		
Mean of dependent variable	0.541	5.631	5.631	5.626	5.631	5.614		
R-squared	0.750	0.028	0.042	0.043	0.056	0.024		

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations. All regressions include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B10: Discrete RD estimates of peer perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Top classrooms						
Above	0.8487***	1.4423***	1.6939***	1.9275***	1.8385***	-0.5665***
	[0.0090]	[0.0684]	[0.0753]	[0.0723]	[0.0764]	[0.0766]
Observations	13,185	9,182	9,108	9,039	9,167	8,994
Mean of dependent variable	0.490	6.096	6.069	5.997	6.030	6.366
R-squared	0.740	0.141	0.165	0.194	0.180	0.079
Panel B: Bottom classrooms						
Above	0.8490***	-0.6038***	-0.1367*	-0.2626***	0.1378*	-0.5471***
	[0.0091]	[0.0698]	[0.0775]	[0.0775]	[0.0801]	[0.0743]
Observations	12,600	8,718	8,635	8,535	8,602	8,480
Mean of dependent variable	0.584	5.987	6.033	5.965	6.010	6.278
R-squared	0.756	0.083	0.068	0.069	0.066	0.074

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table B11: Class position RD estimates of self-perceptions and teacher perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.7451***	-0.5214***	-0.5581***	-0.5484***	-0.6860***	0.2469*	-0.0873*	-0.0420
	[0.0164]	[0.1382]	[0.1149]	[0.1052]	[0.1022]	[0.1491]	[0.0521]	[0.0520]
Observations	2,865	2,513	2,494	2,472	2,501	2,440	2,865	2,865
Mean of dependent variable	0.549	7.503	7.444	7.979	7.722	5.356	1.45e-07	2.80e-09
R-squared	0.781	0.202	0.264	0.248	0.291	0.254	0.186	0.151
Panel B: Teachers								
Above	0.7512***	-0.1540**	-0.0423	-0.1078	-0.0265	-0.0309		
	[0.0149]	[0.0783]	[0.0885]	[0.0844]	[0.0865]	[0.0982]		
Observations	18,390	14,485	14,437	14,137	14,137	12,184		
Mean of dependent variable	0.541	5.631	5.631	5.626	5.631	5.614		
R-squared	0.765	0.066	0.089	0.101	0.122	0.045		

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations. All regressions include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix Table B12: Class position RD estimates of peer perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Top classrooms						
Above	0.7476***	0.7528***	0.5268***	0.7069***	0.4680***	-0.0139
	[0.0143]	[0.0887]	[0.0926]	[0.0885]	[0.0917]	[0.1002]
Observations	13,185	9,182	9,108	9,039	9,167	8,994
Mean of dependent variable	0.490	6.096	6.069	5.997	6.030	6.366
R-squared	0.756	0.167	0.231	0.269	0.276	0.094
Panel B: Bottom classrooms						
Above	0.7489***	-1.1308***	-1.1494***	-1.4183***	-1.1213***	-0.0465
	[0.0146]	[0.0918]	[0.0978]	[0.0967]	[0.0989]	[0.0995]
Observations	12,600	8,718	8,635	8,535	8,602	8,480
Mean of dependent variable	0.584	5.987	6.033	5.965	6.010	6.278
R-squared	0.770	0.094	0.107	0.122	0.128	0.084

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix C

Appendix Table C1: Gender differences in self-perceptions relative to teacher perceptions

	Differences relative to teachers				
	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)
Self reports	2.2551***	1.9628***	2.6494***	2.3421***	-0.6985***
	[0.0881]	[0.0828]	[0.0770]	[0.0782]	[0.0971]
Transition score	0.7129***	0.8054***	0.8451***	0.9415***	-0.5995***
	[0.0564]	[0.0583]	[0.0608]	[0.0624]	[0.0645]
Self reports x Score	-0.6078***	-0.3378***	-0.4209***	-0.3864***	0.3268***
	[0.0932]	[0.0870]	[0.0852]	[0.0789]	[0.0973]
Girl	0.3888***	1.2980***	0.5556***	0.9617***	-1.8786***
	[0.0732]	[0.0762]	[0.0754]	[0.0769]	[0.0795]
Self reports x Girl	-0.7825***	-0.4338***	-0.6794***	-0.6180***	0.7375***
	[0.1167]	[0.1043]	[0.1004]	[0.0996]	[0.1271]
Transition score x Girl	-0.0120	-0.1025	0.0491	0.0024	0.1962**
	[0.0751]	[0.0771]	[0.0778]	[0.0796]	[0.0853]
Self reports x Score x Girl	0.1343	0.0691	0.0721	0.0711	0.1028
	[0.1204]	[0.1110]	[0.1060]	[0.1005]	[0.1289]
Obs	14,194	14,129	13,896	13,932	12,277
Mean	6.036	6.026	6.117	6.083	5.524
R-squared	0.125	0.177	0.194	0.210	0.137

Notes: Each column represents an independent regression. Observations include student's self reports and teacher reports. All regressions include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix Table C2: Gender differences in RD estimates of self-perceptions and teacher perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports (shows all variables in the specification)								
Above	0.7476***	-0.5516***	-0.6348***	-0.4280***	-0.7040***	0.4272**	-0.0064	-0.0268
	[0.0228]	[0.1875]	[0.1644]	[0.1530]	[0.1469]	[0.2066]	[0.0770]	[0.0819]
Above x Girl	0.0316	0.2084	0.2698	-0.0665	0.2337	-0.3747	-0.1192	0.0033
	[0.0307]	[0.2631]	[0.2179]	[0.2054]	[0.1963]	[0.2771]	[0.1032]	[0.1025]
Observations	2,865	2,513	2,494	2,472	2,501	2,440	2,865	2,865
R-squared	0.780	0.212	0.288	0.257	0.300	0.286	0.197	0.165
Panel B: Teacher reports (only shows above and above x girls)								
Above	0.7568***	0.1445	0.2141	0.1693	0.2941**	-0.1438		
	[0.0237]	[0.1334]	[0.1420]	[0.1405]	[0.1435]	[0.1512]		
Above x Girl	0.0176	-0.1525	-0.1686	-0.1082	-0.2066	0.2002		
	[0.0331]	[0.1733]	[0.1851]	[0.1871]	[0.1862]	[0.1921]		
Observations	14,527	11,681	11,635	11,424	11,431	9,837		
R-squared	0.773	0.081	0.135	0.117	0.152	0.147		

conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.
*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Appendix Table C3: Gender differences in RD estimates of peer perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Reported by students in top classrooms (shows all variables in the specification)						
Above	0.7473***	1.0437***	0.5098***	0.9439***	0.5797***	0.2036
	[0.0227]	[0.1405]	[0.1461]	[0.1438]	[0.1460]	[0.1471]
Above x Girl	0.0355	-0.1641	0.2800	-0.1084	0.1477	-0.4168**
	[0.0308]	[0.1862]	[0.1929]	[0.1866]	[0.1926]	[0.1919]
Observations	10,851	7,778	7,731	7,681	7,778	7,632
Mean of dependent variable	0.515	6.162	6.173	6.097	6.139	6.307
R-squared	0.766	0.178	0.255	0.276	0.293	0.173
Panel B: Reported by students in bottom classrooms (only shows above and above x girls)						
Above	0.7617***	-1.0577***	-0.9634***	-1.4479***	-0.9683***	0.1408
	[0.0223]	[0.1524]	[0.1506]	[0.1545]	[0.1548]	[0.1556]
Above x Girl	0.0238	0.0479	-0.1954	0.2581	-0.0810	-0.2515
	[0.0306]	[0.1997]	[0.2020]	[0.2041]	[0.2044]	[0.1976]
Observations	10,479	7,352	7,297	7,220	7,251	7,161
Mean of dependent variable	0.580	6.078	6.124	6.063	6.122	6.231
R-squared	0.781	0.105	0.139	0.135	0.154	0.140

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table C4: SES differences in self-perceptions relative to teacher perceptions

	Differences relative to teachers				
	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)
Self reports	-0.2274***	1.8491***	1.6293***	2.2975***	2.0110***
	[0.0802]	[0.0719]	[0.0634]	[0.0617]	[0.0608]
Transition score	-0.6558***	0.7614***	0.8566***	0.9190***	1.0422***
	[0.0546]	[0.0450]	[0.0478]	[0.0473]	[0.0484]
Self reports x Score	0.4513***	-0.6785***	-0.3715***	-0.4606***	-0.4495***
	[0.0811]	[0.0703]	[0.0659]	[0.0620]	[0.0601]
Low SES	-0.1350	-0.0296	0.1806*	0.0585	0.0972
	[0.1080]	[0.0831]	[0.0952]	[0.0898]	[0.0932]
Self reports x Low SES	-0.0698	-0.2056	0.1276	-0.1804	-0.1168
	[0.1514]	[0.1415]	[0.1198]	[0.1166]	[0.1169]
Transition score x Low SES	0.1785	-0.1141	-0.0270	0.0283	-0.0779
	[0.1136]	[0.0911]	[0.0938]	[0.0830]	[0.0861]
Self reports x Score x Low SES	-0.1774	0.2599*	0.1439	0.0470	0.1479
	[0.1610]	[0.1523]	[0.1259]	[0.1172]	[0.1149]
Obs	11,180	12,874	12,809	12,630	12,647
Mean	5.504	6.065	6.068	6.159	6.120
R-squared	0.068	0.123	0.145	0.191	0.196

regressions include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table C5: SES differences in RD estimates of self-perceptions and teacher perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.7443***	0.1870	-0.3052*	-0.4386***	-0.5055***	-0.4466***	-0.1033*	-0.0601
	[0.0195]	[0.1714]	[0.1567]	[0.1354]	[0.1179]	[0.1154]	[0.0604]	[0.0595]
Above x Low SES	0.0891***	-0.0311	-0.6707**	0.1304	0.1861	-0.4606*	0.0092	0.0988
	[0.0341]	[0.3412]	[0.3173]	[0.2607]	[0.2442]	[0.2361]	[0.1219]	[0.1168]
Observations	2,577	2,224	2,284	2,269	2,252	2,282	2,577	2,577
R-squared	0.787	0.276	0.220	0.281	0.269	0.306	0.204	0.184
Panel B: Teacher reports								
Above	0.7466***	-0.0311	0.1256	0.2068*	0.1301	0.2423**		
	[0.0209]	[0.1363]	[0.1046]	[0.1211]	[0.1127]	[0.1160]		
Above x Low SES	0.0739*	-0.3550	-0.0773	0.0846	0.1491	0.0862		
	[0.0382]	[0.2456]	[0.1971]	[0.2250]	[0.2172]	[0.2174]		
Observations	13,113	8,956	10,590	10,540	10,378	10,365		
R-squared	0.779	0.068	0.082	0.103	0.117	0.139		

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table C6: SES differences in RD estimates of peer perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Reported by students in top classrooms						
Above	0.7384***	-0.1362	0.9548***	0.6860***	0.8873***	0.6318***
	[0.0195]	[0.1250]	[0.1141]	[0.1196]	[0.1119]	[0.1141]
Above x Low SES	0.1106***	0.1172	-0.1444	0.0920	0.0416	0.1955
	[0.0335]	[0.2411]	[0.2194]	[0.2349]	[0.2344]	[0.2422]
Observations	9,836	6,964	7,060	7,020	6,975	7,057
Mean of dependent variable	0.525	6.272	6.198	6.233	6.141	6.191
R-squared	0.773	0.128	0.181	0.236	0.282	0.291
Panel B: Reported by students in bottom classrooms						
Above	0.7571***	0.0086	-0.8522***	-0.9513***	-1.2174***	-0.9186***
	[0.0190]	[0.1228]	[0.1126]	[0.1241]	[0.1173]	[0.1217]
Above x Low SES	0.0776**	-0.3128	-0.4311*	-0.0990	-0.2194	-0.2037
	[0.0331]	[0.2443]	[0.2223]	[0.2437]	[0.2380]	[0.2421]
Observations	9,491	6,545	6,679	6,636	6,570	6,606
Mean of dependent variable	0.591	6.206	6.075	6.138	6.082	6.145
R-squared	0.790	0.104	0.111	0.122	0.141	0.153

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1

Appendix Table C7: Grade differences in RD estimates of self-perceptions and teacher perceptions

	Differences relative to teachers				
	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)
Self reports	-0.1820**	1.9399***	1.8498***	2.3586***	2.1795***
	[0.0818]	[0.0749]	[0.0649]	[0.0652]	[0.0635]
Transition score	-0.5067***	0.6727***	0.7849***	0.8659***	0.9493***
	[0.0531]	[0.0419]	[0.0457]	[0.0441]	[0.0445]
Self reports x Score	0.3233***	-0.4923***	-0.3570***	-0.4087***	-0.4091***
	[0.0855]	[0.0737]	[0.0708]	[0.0631]	[0.0617]
Self reports x Grades11-12	-0.2825**	-0.1135	-0.1368	-0.0615	-0.2693***
	[0.1292]	[0.1170]	[0.1012]	[0.0988]	[0.0974]
Transition score x Grades11-12	-0.2152***	0.1402**	0.1923***	0.1504**	0.1938***
	[0.0811]	[0.0660]	[0.0684]	[0.0685]	[0.0695]
Self reports x Score x Grades11-12	0.2369*	-0.2012*	-0.0023	-0.0622	0.0040
	[0.1267]	[0.1147]	[0.1047]	[0.1001]	[0.0936]
Obs	14,624	16,998	16,931	16,609	16,638
Mean	5.571	5.908	5.898	5.976	5.945
R-squared	0.050	0.112	0.136	0.177	0.185

Notes: Each column represents an independent regression. Observations include student's self reports and teacher reports. All regressions include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table C8: Grade differences in RD estimates of self-perceptions and teacher perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior	Rosenberg index	Peer victimization index
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Panel A: Self reports								
Above	0.7938***	0.1438	-0.4712***	-0.6006***	-0.5543***	-0.5340***	-0.0607	-0.0784
	[0.0189]	[0.1837]	[0.1651]	[0.1381]	[0.1295]	[0.1240]	[0.0659]	[0.0655]
Above x Grades11-12	-0.0649**	0.0921	-0.0061	0.3603*	0.1787	-0.0556	-0.0493	0.1005
	[0.0310]	[0.2828]	[0.2625]	[0.2184]	[0.1983]	[0.1947]	[0.0979]	[0.0988]
Observations	2,865	2,440	2,513	2,494	2,472	2,501	2,865	2,865
R-squared	0.780	0.254	0.204	0.266	0.256	0.297	0.187	0.152
Panel B: Teacher reports								
Above	0.7909***	-0.1234	-0.0773	0.0168	-0.0989	0.0631		
	[0.0176]	[0.1158]	[0.0965]	[0.1066]	[0.1022]	[0.1048]		
Above x Grades11-12	-0.0531*	0.0334	0.1842	0.2470	0.3912**	0.1915		
	[0.0281]	[0.1864]	[0.1467]	[0.1655]	[0.1580]	[0.1616]		
Observations	18,390	12,184	14,485	14,437	14,137	14,137		
R-squared	0.764	0.048	0.067	0.091	0.104	0.126		

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.
*** p<0.01, ** p<0.05, * p<0.1

Appendix Table C9: Grade differences in RD estimates of peer perceptions

	Top class	Self-confidence	Academic Effort	Academic Ability	Academic Performance	Disruptive behavior
	(1)	(2)	(3)	(4)	(5)	(6)
Panel A: Reported by students in top classrooms						
Above	0.7923***	-0.0896	0.8461***	0.6512***	0.9311***	0.7341***
	[0.0166]	[0.1281]	[0.1119]	[0.1152]	[0.1101]	[0.1118]
Above x Grades11-12	-0.0583**	0.0760	0.0668	0.0837	-0.0452	-0.1477
	[0.0270]	[0.1869]	[0.1657]	[0.1742]	[0.1658]	[0.1722]
Observations	13,185	8,994	9,182	9,108	9,039	9,167
Mean of dependent variable	0.490	6.366	6.096	6.069	5.997	6.030
R-squared	0.755	0.097	0.166	0.232	0.266	0.276
Panel B: Reported by students in bottom classrooms						
Above	0.8019***	0.0137	-1.2487***	-1.4015***	-1.4624***	-1.2200***
	[0.0165]	[0.1323]	[0.1217]	[0.1250]	[0.1255]	[0.1286]
Above x Grades11-12	-0.0759***	-0.2061	0.3862**	0.7776***	0.3739**	0.4722**
	[0.0275]	[0.1860]	[0.1714]	[0.1828]	[0.1799]	[0.1850]
Observations	12,600	8,480	8,718	8,635	8,535	8,602
Mean of dependent variable	0.584	6.278	5.987	6.033	5.965	6.010
R-squared	0.769	0.086	0.095	0.111	0.125	0.134

Notes: Each column represents an independent regression. Estimates are based on rectangular kernel and all available observations including self-reports and peers further away from the threshold. All regressions are conditional on linear splines of the transition score and include discontinuity fixed effects. Robust standard errors in brackets are clustered at the reported on student level.

*** p<0.01, ** p<0.05, * p<0.1