

# BROOKINGS

Brown Center Chalkboard

## Do teacher expectations matter?

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**R**esearchers, policymakers, and education professionals alike tend to agree that it is important for teachers to believe in their students and to maintain high expectations about their students' educational attainment. This is a key motivation underlying arguments to diversify the teaching workforce. However, little research has been able to show whether or not teacher expectations actually matter for student outcomes outside of specific experimental settings.

In a new IZA Discussion Paper, my co-authors and I demonstrate that teacher expectations do matter in that they have a causal impact on students' educational attainment. We also show evidence that teacher expectations differ by racial groups in ways that put black students at a disadvantage.

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To understand our research, it is helpful to start with a simple observation: teacher expectations tend to line up with student outcomes. In other words, teachers tend to report high educational expectations for students who end up attaining college degrees.

This correlation could arise for two reasons. One possibility is that teachers accurately predict which students will be successful in school and which students won't. If so, teacher expectations don't necessarily matter for student outcomes, but are simply accurate forecasts.

Another possibility is that teacher expectations have a causal impact on student outcomes, functioning like self-fulfilling prophecies. In this case, high expectations about a student could translate into more school and teacher resources being devoted to the student or more effort on the part of the student. As a result, the student might achieve more, and in turn, the original expectations align with the student's ultimate educational attainment. A bleak picture forms if we consider the opposite case: teachers could have negatively biased expectations about a given student, which could lead to fewer resources being devoted to the student and/or the student internalizing these low expectations and exerting less effort, with the ultimate outcome of lower educational attainment.

Negative teacher biases functioning as self-fulfilling prophecies are particularly concerning if beliefs are negatively biased for certain groups of students, e.g., racial minorities. In fact, in earlier research, my co-author and I discovered a striking pattern regarding teacher expectations. If a black and a white teacher are asked to report their expectations regarding the ultimate educational attainment of a white student, they tend to agree. However, if a black and a white teacher both form expectations about a particular black student, their answers diverge quite a bit. The black teacher tends to have far higher expectations than the white teacher.

This pattern raises two important questions, which our current research addresses:

- First, if black and white teachers disagree about the same black student's educational potential, which teacher is more accurate? Perhaps black teachers are too optimistic in their expectations. Alternatively, white teachers may be too pessimistic. It is worth mentioning, moreover, that pessimism would not necessarily mean that white teachers are racist. It may be that white teachers, when viewing the challenges that some black students face, simply over-estimate how these challenges will undermine

students' chances of finishing college, for example. In other words, students may be hurt because teachers with good intentions form low expectations.

- The second question is whether these differences in expectations matter for student outcomes. In other words, it may be the case that some teachers have unduly high or low expectations regarding some students, but that these biases in expectations do not really affect student outcomes.

Our current research addresses these two questions. In particular, we examine the causal impact of teacher expectations on student outcomes. We examine nationally representative data of about 6,000 tenth grade students in 2002. For each student, teachers are asked how far they expect the child to go in school. Responses include less than high school, high school degree, some college, college completion, and masters or PhD. We focus on whether teachers expect college or more. Moreover, these students are followed into early adulthood, which means we know whether teacher expectations align with students' educational attainment as of 2012.

We show that teacher expectations largely do align with student outcomes. To disentangle whether this reflects accurate forecasts versus self-fulfilling prophecies, our study relies on a unique feature of these data: two teachers evaluate each student. This allows us to harness teacher disagreements: when two teachers disagree about how far a student will go in school, at least one of them is objectively wrong. We then see if this “wrong-ness” affects student outcomes. [1]

We find that teacher expectations matter. To put this into perspective, if a student is randomly assigned to a teacher whose expectations are 40 percent higher, which is the average difference in expectations faced by black and white students in the sample, the student becomes 7 percent more likely to complete a four-year college degree. This is a nontrivial effect size for a secondary-school intervention. To put this effect in perspective, it is similar in magnitude to the impact of fairly large class-size reductions in early elementary grades and improved teacher quality in late elementary grades on college completion. We also show that teacher disagreements tend to occur on the some-college

versus college-degree dimension. This appears to be a large—and largely overlooked—source of educational disparities between blacks and whites, as recent research shows that the socio-economic trajectories of college dropouts more closely resemble the trajectories of high-school graduates than those of college graduates.

Next, we dig deeper into the basic finding that black teachers have higher expectations for black students than do white teachers. We find that most teachers, across the board, are optimistic. They tend to expect college degrees for far more students than ultimately obtain them. However, teachers are less optimistic about black students. An interesting nuance, therefore, is that white teachers are more accurate when forming expectations about black students because they tend to be less optimistic about them. However, since higher expectations lead to better outcomes, “accuracy” in this case amounts to a selective lack of optimism that puts black students at a disadvantage.

In conclusion, our study offers causal evidence that teacher expectations matter. Negative teacher biases can function like self-fulfilling prophecies that affect college-going. Moreover, we find that teacher expectations differ by racial groups in a way that puts black students at a disadvantage, exacerbating racial achievement gaps. Our results also identify differences in how black and white teachers form expectations as one possible mechanism underlying the well-known finding that black students seem to perform better when they have black teachers. Together, our findings suggest that efforts to combat biases (e.g., hiring more black teacher or “de-biasing” white teachers) could prove helpful in reducing racial educational attainment gaps.

[1] Much of the paper is concerned with developing an empirical approach to disentangle accurate forecasts from self-fulfilling prophecies. The aim is to isolate changes in teachers’ expectations for reasons that should not matter for college-going on their own, for example, chance positive or negative encounters. We exploit teacher disagreements to accomplish this. Intuitively, our empirical approach consists of three steps. First, we use one teacher’s expectations to “control for” all the important factors about a student that

would influence college going. Second, we assess whether the second teacher's expectations, which are higher or lower when the two teachers disagree, have any effect on the educational outcome via "self-fulfilling prophecies". A third and crucial step is to assess whether such disagreements are random, e.g., due to chance positive or negative encounters with the student. Such encounters could change a teacher's expectations for reasons that arguably are not important for college-going only affect students through the mechanism of self-fulfilling prophecies.

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