
Engaging English Learners with Rigorous Academic Content

Insights from Research on Tracking



**Engaging English Learners with Rigorous Academic
Content: Insights from Research on Tracking**

Adam Gamoran, December 2017
William T. Grant Foundation

Author’s Note

An earlier version of this essay was presented at the Jacobs Foundation conference on Education in Times of Increasing Cultural and Linguistic Heterogeneity at Schloß Marbach, Öhningen, Germany, May 2017. The author is grateful for helpful comments from conference participants as well as insightful feedback from Takako Nomi, Karen Thompson, and Ilana Umansky, and for expert editing from Billy Hunter.

Suggested Citation:

Gamoran, A. (2017). *Engaging English learners with rigorous academic content: Insights from research on tracking*. New York: William T. Grant Foundation.

Since 2014, the William T. Grant Foundation has called for new research to build, test, and understand ways to reduce inequality in young people’s academic, social, and economic outcomes, especially on the basis of race, economic standing, and immigrant origins.

Fostering achievement among English learners¹ through better education policies and programs is one avenue for addressing inequalities in the outcomes of these students and their peers—and for reducing inequality in society at large. Yet progress toward this end has been hampered by a lack of consensus on effective programs and confusion about policy goals. What’s more, the persistent question of how schools can best organize English learners for instruction has been put into stark relief as recent studies show that English learners often lack access to the academic content they must master to ensure their long-term success.

Improving educational policy and practice in ways that enhance the achievement of English learners would contribute meaningfully to reducing inequality in the academic and social outcomes of young people in the United States.

The existing body of evidence on academic tracking—the practice of organizing students according to prior performance levels—has much to offer researchers and policymakers concerned with addressing achievement gaps between English learners and their fellow students.

As in the case of English learners, the issue of tracking turns on the need to give all students the chance to engage with rigorous academic content. In this essay, I urge researchers and policymakers to consider this body of evidence as they form research questions and propose strategies aimed at reducing inequality in outcomes for this important population.

At the William T. Grant Foundation, we have supported a number of studies that examine programs, policies, and practices to improve outcomes for English learners.² We have called out the need for greater individual and organizational capacity, improved assessments, and more varied approaches to working with English learners and studying their experiences and successes (Suarez-Orozco & Louie, 2016). We have challenged researchers to examine contexts for alleviating intersecting sources of inequality for children of immigrants, including poverty, language barriers, newcomer status, and cultural differences (Suarez-Orozco, Yoshikawa, & Tseng, 2015). And we have called attention to the question of when and how students should be reclassified as English language proficient (Louie, 2016). Much additional work addresses appropriate classroom practices for meeting the needs of English learners (August & Shanahan, 2006; Calderón, Slavin, & Sánchez, 2011; Takanishi & LeMenestral, 2017). My argument in this essay is not intended to supplant any of these important developments, but rather to complement them by addressing the question about how best to organize students for instruction. While much has been learned about the barriers to English learner success, we need to know more about

¹By “English learners,” I mean students whose native language is not English and for whom language barriers may impede their success in school. Takanishi and LeMenestral (2017) provide more information on the complexities of defining who is an English learner.

²See, for example, <http://wtgrantfoundation.org/browse-grants#/grant/184762> and <http://wtgrantfoundation.org/browse-grants#/grant/184625>.

approaches to promote their advancement, and lessons about mitigating the effects of tracking on inequality may also point the way toward reducing inequality for English learners.

The past two decades have witnessed steady growth in the immigrant population of the United States. For many children in immigrant families, and for some whose parents were born in the U.S., English is not the first language spoken in the home. Growing up with more than one language can be a valuable asset, as it provides keys to a rich cultural heritage and offers exceptional cognitive stimulation (Murphey, 2014). Yet it can also pose challenges, especially when institutions such as schools are not well prepared to serve children who are still learning English, and when English learners lack access to rigorous academic content.

Monitoring achievement trends for English learners is challenging, in part because the composition of this population changes over time. In addition, policies that determine which students are classified as English learners and which students are deemed proficient in English vary from state to state and even within states, and they change over time (Linguanti, Cook, Bailey, & MacDonald, 2016). Consequently, it is difficult to know whether observed trends reflect changes in the population, changes in policies, or changes in school practices. Nonetheless it is clear that the achievement of English learners falls significantly below that of other students, in both fourth and eighth grades, as revealed in the National Assessment of Educational Progress.³ It follows, then, that improving educational policy and practice in ways that enhance the achievement of English learners would contribute meaningfully to reducing inequality in the academic and social outcomes of young people in the United States.

³ See: https://www.nationsreportcard.gov/reading_math_2015/.

Learning from Research on Tracking

Classic studies recognize that teaching presents many challenges: the art of weaving a narrative that captivates and motivates students, the endeavor to connect with students as individuals, and the difficulty of responding to the classroom needs of students who are beset by life challenges outside school (Jackson, 1968; Dreeben, 1968; Lortie, 1975). Most of all, however, teaching presents the *technical* challenge of conveying a formal curriculum to students who need to master it to secure their futures (Barr & Dreeben, 1983). Responding to heterogeneity among students is essential for meeting the technical challenge of teaching. Students enter the classroom at a wide range of performance levels, and because effective instruction meets students where they are and carries them forward (Brophy & Good, 1986), different starting points demand different instructional responses, complicating the technical challenge at hand.

Age-grading is the first and most obvious response to heterogeneity in the classroom, a practice implemented as soon as schools became large and well-resourced enough to divide students into separate classrooms. For more than a century, however, educators have also sorted students by performance levels into tracks or ability groups.⁴

Problems of Tracking

The stated purpose of tracking is to match instruction to student needs. Although this may seem logical and efficient, it is problematic for a variety of reasons. Due to circumstances outside of school, separating students

by academic performance also tends to divide them by race, ethnicity, and social class (Gamoran, 2010). Thus, achieving the goal of narrowing the range of performance in a classroom may conflict with other important aims, such as educating students from diverse backgrounds together. Moreover, homogeneous classes often lack the diversity that fosters rich classroom discussions (Oakes, 2005). Perhaps most important, although tracking is intended to provide equally effective instruction to all students, that rarely occurs. Instead, students in low tracks routinely encounter instruction that is less interesting, less demanding (even relative to their starting points), and ultimately less productive of learning compared to those in higher tracks (Gamoran, 2010). Instead of helping low achievers catch up, the slow-paced, fragmented instruction typically found in low tracks typically leaves low achievers to fall further and further behind (Applebee, Langer, Nystrand, & Gamoran, 2003).

Instead of helping low achievers catch up, the slow-paced, fragmented instruction typically found in low tracks typically leaves low achievers to fall further and further behind.

The failure of tracking has many sources. When students are tracked, teachers are often tracked as well, as those with the best reputations are assigned to teach higher-achieving students (Kelly, 2004). Tracking also promotes a cycle of low expectations, in which teachers anticipate

⁴ Writers commonly use the terms “tracking” and “ability grouping” interchangeably to refer to dividing students into separate instructional groups according to prior academic performance. For brevity I use the term “tracking” in this essay.

poor performance from low achievers, and students respond accordingly, verifying the low expectations (Oakes, Gamoran, & Page, 1992). Studies of instruction in tracked classrooms have observed a greater emphasis on procedures in low-level classes and more discussion and oral interaction in high tracks (Gamoran, Nystrand, Berends, & LePore, 1995; Applebee et al., 2003; Oakes, 2005).

Findings about the effects of tracking have been replicated many times. For example, in a recent study at the high school level, Long, Conger, and Iatarola (2012) found that net of prior conditions, students enrolled in high versus low level courses differed in their test scores, graduation rates, post-secondary enrollment, and even college completion rates. Moreover, these effects were largest for disadvantaged students and for those in schools with high proportions of low-income students. In recent years, international studies have emerged to reveal a similar pattern of findings, showing that achievement inequality increases more over time in countries that use ability grouping between classes (Hanushek & Woessman, 2011), and in countries that commence tracking earlier rather than later (Huang, 2010). In short, the evidence suggests that tracking does not improve achievement overall, but it does increase inequality, as gains made by students in high tracks are offset by losses among students in low tracks (Gamoran, 2010).

Tracking and English Learners

Sparked by Callahan's (2005) landmark study, researchers have increasingly focused on the role that tracking plays in affecting the achievement trajectory of English learners. Using data from one high school, Callahan reported that track location was a stronger

predictor of achievement than English language proficiency, and English learners' over-representation in low tracks impeded their academic advancement. Subsequent research with nationally representative data showed that placement in a bilingual or English as a second language program was linked to lower enrollment rates in college preparatory science and social studies courses and lower high school grades (Callahan, Wilkinson, & Muller, 2010).

Not all schools sort English learners in the same ways. Kanno (in press) studied a school in which it was standard policy to place English learners, as soon as they were identified as proficient in English, in the lowest track levels of regular academic courses. Four schools examined by Estrada (2014) differed in when they provided English learners with access to mainstream academic courses, varying in their flexibility in course assignments and the extent of additional academic support they provided. Despite the different approaches to placement, English learners invariably ended up in lower track levels, on average, compared to their peers who were not English learners.

Findings suggest that tracking diverts English learners away from the academic content they need to succeed in school and prepare for post-secondary opportunities. Yet additional studies show that the response cannot be as simple as, "place English learners in high tracks."

Umansky (2016) identified several reasons why English learners are over-represented in low tracks. First, prior achievement relative to their peers, a key determinant of

track placement, is often low, a result of early language barriers, low socioeconomic status, and other challenges outside school. Second, lack of English language proficiency may be mistaken for low academic ability, resulting in low track assignment. Third, English learners are over-represented at schools with fewer resources than other schools in the same district and state, which may have fewer opportunities for high-level academic courses. Fourth, as prior writers have observed, earlier course sequences may divert English learners away from high-level courses (Kanno, in press; Estrada, 2014). Umansky distinguished between “leveled” tracking, in which students are sorted into classes at different levels for the same subject, and “exclusionary tracking,” in which some students enroll in key academic subject areas while others do not. Using data from a large urban district in California, Umansky showed that English learners are disadvantaged by both forms of tracking. However, whereas placement in lower level classes is attributable to lower prior achievement (as is the case for students who were never English learners), their exclusion from valued academic subject areas occurred over and above prior test score differences.

These findings suggest that tracking diverts English learners away from the academic content they need to succeed in school and prepare for post-secondary opportunities. Yet additional studies show that the response cannot be as simple as, “place English learners in high tracks.” Thompson (2017), for example, studied math coursetaking trajectories for students in six California school districts. She found that when students who had ever been designated as English learners were placed into high-track courses (for example, eighth-grade algebra), they did not always succeed, and nearly half had to repeat a math course between eighth and tenth grade. The quantitative patterns along with in-

depth interviews revealed that schools often fell short in providing high-quality instruction and additional support to students with language difficulties. Thompson concluded that course access is insufficient: in addition to learning opportunities, students need instruction that is sufficiently personalized as to meet their language-related and other needs. Likewise, Calderón, Slavin, and Sánchez (2011) argued that the quality of instruction is more important for English learner success than the way students are organized for instruction.

What Does Research on Tracking Have to Offer Studies of English Learners?

Recent research on tracking offers new directions that may also be relevant for studies of English learners. As with research on English learners, studies of tracking recognize that heterogeneity in the classroom presents a real dilemma for teachers: instructing all students together makes it difficult to meet the needs of every student, but dividing students often leaves low achievers—or those *perceived* to be low achievers—to fall further and further behind. How can this dilemma be resolved? Two main approaches have been considered: one calling for eliminating tracking, often called “detracking,” and another calling for improving the quality of instruction for low achievers while maintaining tracking in some form. The literature is littered with unsuccessful examples of both (Gamoran, 2010). The rare cases of success show two common ingredients regardless of which approach is followed. First, successful responses to the tracking dilemma bring rigorous academic content to students at all achievement levels. Second, successful responses bring extra instructional time to low achievers to help them grapple with challenging material.

Research on efforts to reduce or eliminate tracking shows that simple solutions are scarce (Gamoran, 2010). Such efforts often encounter resistance from teachers, who feel unprepared to teach students at widely different academic levels at the same time (Loveless, 1999; Rosenbaum, 1999). Studies of detracking in urban schools have indicated that teachers may respond by diluting the curriculum for mixed-ability classes to make it easier for weaker students to keep up (Gamoran & Weinstein, 1998; Rosenbaum, 1999; Rubin, 2003, 2008). In an earlier review of these studies, I suggested that high-achieving ethnic minority students may have the most to lose when detracking is unsuccessful (Gamoran, 2010), a conclusion buttressed by recent work showing that such students have the most to gain when separate classes are introduced for high achievers (Card & Giuliano, 2015).

Recent research on tracking offers new directions that may also be relevant for studies of English learners.

By contrast, Burris and her colleagues (2006, 2008) examined a New York school district that elevated the performance of low achievers without diminishing the performance of high achievers while moving from tracked to mixed-ability mathematics classes. Teachers introduced an accelerated curriculum in middle school, and enrolled all high school students in Regents (college preparatory) mathematics. In both cases, low-achieving students were directed to supplemental classes that reinforced the rigorous curriculum, amounting to about 50 percent more instructional time than received by those who did not participate in supplementary instruction. These findings complement earlier work

by Gamoran and Weinstein (1998) who uncovered a school in which small classes and supplemental tutoring enabled all students to achieve at high levels in a mixed-ability context. Such examples appear to be rare and to rely on additional resources for effective implementation.

In other instances, schools have used extra instructional time to mitigate the effects of tracking on low achievers. Gamoran, Porter, Smithson, and White (1997) examined efforts in New York and California high schools in the 1990s to bring college-preparatory mathematics to low-achieving students with “bridge” courses that spanned the gap between elementary and advanced mathematics. The bridge courses allowed students more time to cover the same curriculum as appeared in the regular academic course sequence. The investigation revealed greater achievement growth for students enrolled in bridge courses than for similar students assigned to conventional low tracks. However, achievement was even greater for students assigned to college-preparatory classes in the first place.

Even greater success is evident in more recent high school math reforms in Chicago. At first, when the Chicago Public Schools mandated in the 1990s that all students must enroll in algebra in ninth grade, course failure rates shot up among low achieving students (Allensworth, Nomi, Montgomery, & Lee, 2009). In 2003, however, the district enacted a “double dose” policy, in which students who entered grade nine below the median on a standardized test received twice the regular amount of instruction to help them succeed in the mainstream curriculum (Nomi & Allensworth, 2009). Ultimately, the extra instructional time allowed “algebra for all” to succeed (Cortes, Goodman, & Nomi, 2015). Subsequent research showed that for students close to the median in prior achievement, being assigned to class

with low achievers undermined the benefits of extra instructional time (Nomi & Raudenbush, 2016). Hence this approach appears to work best when: 1) classes are not sorted by prior skills, 2) academic content is not diluted, and 3) extra instructional time is available to help all students keep up.

Implications for Research on English Learners

Recent studies of English learners make clear that breaking the link between English language proficiency and exposure to academic content is an essential step towards reducing inequality in outcomes for English learners. What implications does research on tracking have for how to accomplish this goal?

First, research on tracking helps us conceptualize in a new way the challenge of bringing rigorous academic content to English learning. Research on English learners is largely dominated by two prevailing concerns: what language of instruction should be primary when teaching English learners (Umansky & Reardon, 2014), and when and how students should be reclassified from English learners to English proficient (Louie, 2016). While important, the juxtaposition of research on tracking with research on English learners throws an overriding issue into sharper relief: the extent to which English learners have access to academic content that prepares them to advance towards college and careers. According to this logic, questions about reclassification and language of instruction follow rather than precede the larger issue of academic content. This conception provides a criterion on which to judge subsequent policy decisions—i.e., which approach provides best access to academic content?—and motivates research directed to address this criterion.

Second, research on tracking points to specific instructional approaches that may help schools organize instruction effectively for English learners. Where tracking has been reduced or eliminated, working to obtain buy-in from teachers and providing professional development on differentiating instruction within the classroom appear to have been essential ingredients of success. Likewise, the success of efforts to bring academic content to English learners by teaching them in the same classrooms as those proficient in English likely depends on whether teachers are prepared for the differentiated demands of linguistically diverse classes. Such preparation is not typically provided, and may require new standards and approaches for teacher preparation. This conclusion responds to Thompson's (2017) finding that simply placing English learners in regular academic courses was no guarantee of success.

As in research on tracking, studies of English learners need to move from identifying conditions that prevent English learners from exposure to academic content to conditions that support English learner success.

At the same time, instructional approaches that rely on teaching English learners in separate classes will also require preparing teachers to ensure that the curriculum to which students are exposed incorporates the same content as that provided to students who are proficient in English. This insight responds to Umansky's (2016) finding that English learners are typically excluded from advanced academic courses, regardless of their track levels. In addition, research on tracking demonstrates the importance of supplemental instruction for struggling

students, regardless of how students are arranged for instruction. In some cases, supplemental instruction may take the place of electives that are not essential for student progress. In other cases, however, extra instruction in one subject (e.g., math) may lead students to miss instruction in other core subjects, resulting in the sort of exclusionary tracking identified by Umansky (2016). By contrast, cases of supplemental instruction to allow low achievers to keep up in mixed-ability classes often involves additional instruction outside the regular school day, which requires extra resources devoted to instruction (Gamoran & Weinstein, 1998; Burris, Heubert, & Levin, 2006). Additional resources may likewise be required if we are to ensure access to rigorous academic content for English learners. In addition, for supplemental instruction to succeed, teachers of English learners must collaborate with other teachers—a practice that contrasts with the professional isolation of teachers of English learners, which some have reported (Quiroz & Secada, 2003).

Third, as in research on tracking, studies of English learners need to move from identifying conditions that *prevent* English learners from exposure to academic content to conditions that *support* English learner success. For decades, research on tracking largely centered on two questions: Did students learn more in homogeneous or heterogeneous classes? And what were the mechanisms through which tracking exacerbated inequality? Only in recent years, as researchers and educators have grappled with the failures of simplistic responses to the tracking dilemma, examined new supports for tracking reforms, and identified conditions that boosted the success of new efforts, has the research literature pointed to new

directions that help students at all achievement levels reach their potential. Similar work is needed in studies of English learners. Questions about the advantages and disadvantages of different ways to arrange English learners for instruction, and about different approaches to classifying students as English learners or English proficient, continue to be important. But framing both in terms of their gains and losses for exposure to academic content will result in more affirmative guidance about how to help English learners to achieve the success of which they are capable.

Conclusions

At the William T. Grant Foundation, we launched an effort in 2014 to support research on programs, policies, and practices that reduce inequality for young people ages 5-25 in the United States.⁵ We are pursuing this priority for four reasons (Gamoran, 2014). First, inequality in the United States is excessive, whether in comparison to other nations at present, or to our own historical past. Second, excessive inequality is harmful: it drags down our economic productivity, and it is socially divisive. Third, inequality is not inevitable, but rather it responds to specific programs and policies, as past research has demonstrated. Fourth, if excessive inequality is harmful but can be mitigated by effective programs, then we need research to identify which programs should be prioritized for implementation.

We are aware that not all aspects of inequality are well enough understood that appropriate responses can yet be devised. In many domains, however, enough is known about the extent, sources, and mechanisms of inequality that the next steps can be to build, test, and improve efforts to reduce inequality. Research on organizing schools for English learners is one of these domains, as recent scholarship provides a foundation of knowledge upon which effective responses can be built. Juxtaposing research on English learners with research on tracking offers further insight on directions for new efforts, and for the accompanying research that will point in productive directions for the future.

⁴ See: <http://wtgrantfoundation.org/focus-areas/reducing-inequality>.

References

- Allensworth, E., Nomi, T., Montgomery, N., & Lee, V.E. (2009). College preparatory curriculum for all: Academic consequences of requiring algebra and English I for ninth graders in Chicago. *Educational Evaluation and Policy Analysis*, 31, 367-391.
- Applebee, A. N., Langer, J., Nystrand, M., & Gamoran, A. (2003). Discussion-based approaches to developing understanding: Classroom instruction and student performance in middle and high school English. *American Educational Research Journal*, 40, 685-730.
- August, D., & Shanahan, T. (2006). Developing literacy in second-language learners: Report of the national literacy panel on language minority children and youth. Mahwah, NJ: Lawrence Erlbaum Associates.
- Barr, R., & Dreeben, R. (1983). *How schools work*. Chicago: University of Chicago Press.
- Brophy, J., & Good, T. (1986). Teacher behavior and student achievement. In M. Wittrock (Ed.), *Third handbook of research on teaching* (328-375). New York: Macmillan.
- Burris, C. C., Heubert, J. P., & Levin, H. M. (2006). Accelerating mathematics achievement using heterogeneous grouping. *American Educational Research Journal*, 43, 105-136.
- Burris, C. C., Wiley, E., Welner, K., & Murphy, J. (2008). Accountability, rigor, and detracking: Achievement effects of embracing a challenging curriculum as a universal good for all students. *Teachers College Record*, 110, 571-607.
- Calderón, M., Slavin, R., & Sánchez, M. (2011). Effective instruction for English learners. *The Future of Children*, 21, 103-127.
- Callahan, R. (2005). Tracking and high school English learners: Limiting opportunity to learn. *American Educational Research Journal*, 42, 305-328.
- Callahan, R., Wilkinson, L., & Muller, C. (2010). Academic achievement and course taking among language minority youth in U. S. schools: Effects of ESL placement. *Educational Evaluation and Policy Analysis*, 32, 84-117.
- Card, D., & Giuliano, L. (2016). Can tracking raise the test scores of high-ability minority students? *American Economic Review*, 106, 2783-2816.
- Cortes, K., Goodman, G., & Nomi, T. (2015). Intensive math instruction and educational attainment: Long-run impacts of double-dose algebra. *Journal of Human Resources*, 50, 108-158.
- Dreeben, R. (1968). *On what is learned in school*. Reading, MA: Addison-Wesley.
- Estrada, P. (2014). English learner curricular streams in four middle schools: Triage in the trenches. *Urban Review*, 46, 535-573.
- Gamoran, A. (2010). Tracking and inequality: New directions for research and practice. In M. Apple, S. J. Ball, and L. A. Gandin (Eds.), *The Routledge international handbook of the sociology of education* (213-228). London: Routledge.
- Gamoran, A. (2014). Inequality is the problem: Prioritizing research on reducing inequality. [Blog post] Retrieved from: <http://wtgrantfoundation.org/library/uploads/2015/09/Inequality-is-the-Problem-Prioritizing-Research-on-Inequality.pdf>
- Gamoran, A., Nystrand, M., Berends, M., & LePore, P. C. (1995). An organizational analysis of the effects of ability grouping. *American Educational Research Journal*, 32, 687-715.
- Gamoran, A., Porter, A. C., Smithson, J., & White, P. A. (1997). Upgrading high school mathematics instruction: Improving learning opportunities for low-income, low-achieving youth. *Educational Evaluation and Policy Analysis*, 19, 325-338.
- Gamoran, A., & Weinstein, M. (1998). Differentiation and opportunity in restructured schools. *American Journal of Education*, 106, 385-415.
- Hanushek, E. A., & Woessmann, L. (2006). Does educational tracking affect performance and inequality? Differences-in-differences evidence across countries. *The Economic Journal*, 116, C63-C76.

Huang, M-H. (2009). Classroom homogeneity and the distribution of student math performance: A country-level fixed-effects analysis. *Social Science Research*, 38, 781-791.

Jackson, P. W. (1968). *Life in classrooms*. New York: Holt, Rinehart, and Winston.

Kanno, Y. (in press). High-performing English learners' limited access to four-year college. *Teachers College Record*.

Linguanti, R., Cook, G., Bailey, A., & MacDonald, R. (2016). *Moving toward a more common definition of English learner*. Washington, DC: Council of Chief State School Officers. Retrieved from Chief State School Officers website: [http://www.ccsso.org/Documents/Moving%20Toward%20a%20More%20Common%20Definition%20of%20English%20Learner-Final\(0\).pdf](http://www.ccsso.org/Documents/Moving%20Toward%20a%20More%20Common%20Definition%20of%20English%20Learner-Final(0).pdf)

Long, M. C., Conger, D., & Iatarola, P. (2012). Effects of high school course-taking on secondary and postsecondary success. *American Educational Research Journal*, 49, 285-322.

Lortie, D. C. (1975). *Schoolteacher: A sociological study*. Chicago: University of Chicago Press.

Louie, V. (2016). Reducing inequality for English learners: Research questions for the field. [Blog post] Retrieved from: <http://wtgrantfoundation.org/reducing-inequality-english-learners-research-questions-field>

Loveless, T. (1999). *The tracking wars: State reform meets school policy*. Washington, DC: Brookings Institution Press.

Murphey, D. (2014). *The academic achievement of English language learners: Data for the U.S. and each of the states*. Child Trends Research Brief, Publication #2014-62. Washington, DC: Child Trends. Retrieved from Child Trends website: <https://www.childtrends.org/wp-content/uploads/2015/07/2014-62AcademicAchievementEnglish.pdf>

Nomi, T., & Allensworth, E. (2009). "Double-dose" algebra as an alternative strategy to remediation: Effects on students' academic outcomes. *Journal of Research on Educational Effectiveness*, 2, 111-148.

Nomi, T., & Raudenbush, S. (2016). Making a success of "algebra for all": The impact of extended instructional time and classroom peer skill in Chicago. *Educational Evaluation and Policy Analysis*, 38, 431-451.

Oakes, J. (2005). *Keeping track: How schools structure inequality*. Second edition. New Haven: Yale University Press.

Oakes, J., Gamoran, A., & Page, R. N. (1992). Curriculum differentiation: Opportunities, outcomes, and meanings. In P. W. Jackson (Ed.), *Handbook of research on curriculum* (570-608). New York: Macmillan.

Quiroz, P. A., & Secada, W. G. (2003). Responding to diversity. In A. Gamoran, C. W. Anderson, P. A. Quiroz, W. G. Secada, T. Williams, & S. Ashmann (Eds.), *Transforming teaching in math and science: How schools and districts can support change* (87-104). New York: Teachers College Press.

Rosenbaum, J. E. (1999). If tracking is bad, is detracking better? *American Educator*, 47, 24-29.

Rubin, B. C. (2003). Unpacking detracking: When progressive pedagogy meets students' social worlds. *American Educational Research Journal*, 40, 539-573.

Rubin, B. C. (2008). Detracking in context: How local constructions of ability complicate equity-gearred reform. *Teachers College Record*, 110, 646-699.

Suarez-Orozco, C., Yoshikawa, H., & Tseng, V. (2015). *Intersecting inequalities: Research to reduce inequality for immigrant-origin children and youth*. New York: William T. Grant Foundation. Retrieved from: <http://wtgrantfoundation.org/library/uploads/2015/09/Intersecting-Inequalities-Research-to-Reduce-Inequality-for-Immigrant-Origin-Children-and-Youth.pdf>

Suarez-Orozco, C., & Louie, V. (2016). Toward a new research agenda to improve outcomes for adolescent English learners. [Blog post] Retrieved from: <http://wtgrantfoundation.org/toward-new-research-agenda-improve-outcomes-adolescent-english-learners>

Takanishi, R., & Le Menestrel, S. (Eds.) (2017). *Promoting the educational success of children and youth learning English: Promising futures*. Washington, DC: The National Academies Press.

Thompson, K. D. (2017). What blocks the gate? Exploring current and former English learners' math course-taking in secondary school. *American Educational Research Journal*, 54, 757-798.

Umansky, I. M. (2016). Leveled and exclusionary tracking: English learners' access to core content in middle school. *American Educational Research Journal*, 53, 1792-1833.

Umansky, I., & Reardon, S. (2014). Reclassification patterns among Latino English learner students in bilingual, dual immersion, and English immersion classrooms. *American Educational Research Journal*, 51, 879-912.



Supporting research to improve the lives of young people

570 Lexington Avenue, 18th Floor
New York, NY 10022-6837
212-752-0071

wtgrantfoundation.org
info@wtgrantfdn.org
