About

The National Working Group on Advanced Education’s mission is to promote research, policies, and practices that will develop the full capacities of students with high academic potential, especially Black and Hispanic students and those coming from economically disadvantaged backgrounds. It met four times from 2022–2023, with two goals in mind: developing a robust research agenda and developing a policy and practice agenda. This document is the product of that work.

Its twenty members comprise researchers, practitioners, and advocates and represent diversity in terms of ideology, race, gender, and geography. They include: Dina Brulles, Homero Chavez, Nicholas Colangelo, Jonathan Davis, Chester E. Finn, Jr., Laura Giuliano, Jennifer Glynn, Tarek C. Grantham, Jason A. Grissom, Hilde Kahn, Paula M Olszewski-Kubilius, Scott Peters, Michael J. Petrilli, Jonathan Plucker, Sneha Shah-Coltrane, Adam Tyner, Jonathan Wai, April Wells, Brandon L. Wright, and Josh Wyner (see the members’ full biographies in Appendix B).

Suggested Citation


Acknowledgments

This report was made possible through the support of the Thomas B. Fordham Foundation. We are grateful to all members of the National Working Group on Advanced Education for their expertise in authoring this report. We also extend our gratitude to Pamela Tatz for copyediting and Dave Williams for designing the figures and tables. At Fordham, we would like to thank Victoria McDougald for her role in dissemination and Stephanie Distler for developing the report’s cover art and coordinating report production.
Contents

Preamble .................................................................................................................................................. 3
  Summary of recommendations of the National Working Group on Advanced Education ............... 5
About the National Working Group on Advanced Education ............................................................... 7
  Members of the National Working Group on Advanced Education ............................................... 8
The case for advanced education ........................................................................................................ 9
  The equity and excellence question ................................................................................................. 11
  A note on terminology .................................................................................................................... 13
Recommended district and charter network policies and practices ......................................................... 14
  Accessible front-loading (grades pre-K–5) ....................................................................................... 14
  Identification (grades K–11) ............................................................................................................ 15
  Programs and practices for advanced students ............................................................................. 16
  Acceleration (grades K–12) ............................................................................................................ 18
  Equitable achievement grouping (grades K–5) ............................................................................ 20
  Selective enrollment schools (grades 6-12) ................................................................................. 21
  Social and emotional supports for advanced learners (grades K–12) ........................................... 22
  Key enabling factors ....................................................................................................................... 23
The essential state role ....................................................................................................................... 25
Conclusion ........................................................................................................................................... 26
Appendix A: Research gaps ............................................................................................................... 27
Appendix B: Biographies of Working Group members .................................................................... 28
Endnotes .............................................................................................................................................. 32
Preamble

The National Working Group on Advanced Education was formed in spring 2022, prompted in part by long-standing shortcomings in America’s handling of “gifted and talented” schooling and in part by a rash of high-profile controversies about how best to develop the potential of the nation’s most academically talented students while simultaneously furthering equity and increasing opportunities.

The horrific murder of George Floyd and its aftermath led school districts nationwide to strengthen their equity initiatives, which—in many places—included turning a skeptical eye on “gifted” education, honors courses, and selective high schools. Because those programs tend to serve a disproportionately low number of Black, Hispanic, and Native American students when compared with district-wide demographics, some advocates—and some elected officials—called for their elimination or complete overhaul.

That in turn led to a strong backlash in many quarters, including communities such as San Francisco, New York, and the Washington, D.C., metropolitan area. In the City by the Bay, controversy over a policy to remove Algebra I from the district’s middle schools recently escalated into a lawsuit.\footnote{In the Big Apple, Eric Adams won election as mayor on a plank that included a promise to rebuild the city’s advanced education programs. And just outside our nation’s capital, the decision to replace admissions tests with a merit lottery at the very selective Thomas Jefferson High School led a federal judge to rule that the new policies violated the Fourteenth Amendment to the U.S. Constitution’s guarantee of equal protection under the law.}%20\footnote{Meanwhile, at the national level, the Harvard and University of North Carolina affirmative action cases were winding their way to the Supreme Court, which held oral arguments in the fall of 2022. The legal question is whether universities’ use of race-conscious admissions policies to diversify their student bodies violates the Fourteenth Amendment, as well as Title VI of the Civil Rights Act of 1964. The substantive question is how our diverse nation can ensure that its most prestigious postsecondary institutions are also diverse.}

The Working Group, which is primarily focused on K–12 education, is itself purposely diverse—racially and ethnically, yes, but also ideologically. We’re not always of one mind on how best to further equity while sustaining and enhancing excellence.

But where we all agree, and where we suspect most Americans also agree, is that the United States would be in a much better place if it had a robust and diverse pipeline of students prepared to do high-level academic work in high school and college. In other words, we must make sure that every child with the potential for high academic achievement is able to fulfill that potential, regardless of race or socioeconomic status.

Alas, that is not what we have today. The U.S. has been wasting a huge amount of human capital and squandering enormous amounts of human potential at the very moment we need more of it—and much of that wastage is among groups that have for far too long seen their opportunities limited and their potential squandered. We’re talking about bright students, advanced learners, striving pupils, and those with high but untapped potential—especially those who are Black, Hispanic, Native American, low income, or from otherwise marginalized backgrounds—whose educational needs aren’t being satisfactorily met by our schools. The result is not just needless barriers to what racially
underrepresented students and underserved young people from low-income backgrounds can learn and become but also a pipeline of high-achieving students that is narrower and less diverse than we need it to be if America is to be competitive, prosperous, secure, equitable, and democratic in these challenging times.

The purpose of this Working Group was to identify a set of recommendations for school districts, charter networks, and state leaders to use in better developing the talents of these high-ability students, with special attention devoted to students from racially underrepresented groups and low-income backgrounds. In this final report, we offer our recommendations to education leaders and policy makers, at all levels.

We know full well that closing America’s excellence gaps—the gaps between various racial and socioeconomic groups at the highest level of achievement—will not be easy. Like the more-often-discussed achievement gaps, the excellence gap is apparent the minute students enter Kindergarten, arising from sharp disparities in children’s experiences from birth to age five. Yet it continues to widen as students progress through school. We also know from experience and from research that schools could do many things to narrow excellence gaps, things that they’re not doing or not doing nearly enough of. We are leaving many effective tools in the toolbox. Here’s the good news: The Working Group’s experts believe that if districts and charter networks embrace the recommendations in this report and then implement them intentionally, rigorously, and consistently, we can expect to see a noticeable increase in the size and diversity of the pipeline of students ready for and succeeding with advanced content. This in turn should lead to the kind of advanced learning that results in greater economic security and personal fulfillment for the student, as well as economic prosperity and growth for the nation.

The foremost audience for this report is education leaders at the district and charter network levels, though there’s much in it that is relevant to state policymakers, philanthropists, education thinkers, and more. We hope that they—meaning you—find our suggestions clear and compelling but also practical and implementable. We all stand ready to help as you put your shoulder to the wheel and work to make good on America’s promise that this be a land of opportunity where every child has a full chance to fulfill their potential.
Summary of recommendations of the National Working Group on Advanced Education

We believe that all children deserve an education that facilitates their growth toward their full potential and that fostering learning of students at advanced levels of achievement benefits both individual students and our society at large. We acknowledge that students’ likelihood of excelling academically is a function not only of their promise and ability but also of their background, past experiences, and opportunities and that, as a result, today we observe many excellence gaps and disparities in the proportions of students from various racial, ethnic, and socioeconomic backgrounds who participate and excel in advanced levels of academic learning.

Our schools have both an opportunity and a responsibility to create learning experiences that meet the needs of all students, part of which is creating and supporting advanced learning. Equity, done right, means opening up advanced education to all students who could benefit from it. And excellence, done right, means doing the hard work to help all students achieve at high levels—not just the students who come to school with great advantages.

To achieve these goals, we recommend that all school districts and charter networks build a continuum of advanced learning opportunities, customized to individual students’ needs and abilities, that spans the K–12 spectrum.

Recommended district and charter network policies and practices

**Accessible front-loading (grades pre-K–5)**
1. Provide accessible front-loading programming—either to all students or to those from historically underrepresented groups—starting in pre-K or Kindergarten
2. Offer accessible after-school, weekend, and/or summer enrichment opportunities

**Identification (grades K–11)**
3. Adopt universal screening to identify students with potential for high achievement
4. Use data from universally available assessments
5. Use assessment data to identify additional students for advanced education services in every grade
6. Use local (i.e., school-based) norms

**Acceleration (grades K–12)**
7. Allow early entry to Kindergarten
8. Allow children who are ready for advanced material in all subjects to skip entire grade levels
9. Allow children to skip grade levels in particular subjects
10. Offer “grade-compressed” pathways for students
11. Embrace “concurrent enrollment”
12. Offer advanced courses in as many subjects as possible in grades 6–12
13. Automatically enroll students participating in elementary school advanced education programs in subsequent advanced learning opportunities in middle and/or high school
14. Intentionally recruit underrepresented and underserved students for external advanced learning opportunities, such as college for dual enrollment and/or online courses

**Equitable achievement grouping (grades K–5)**
15. Frequently and equitably evaluate all students
16. Ensure that teachers alter the complexity and pace of the curriculum
17. Err on the side of inclusion
Selective enrollment schools (grades 6–12)
18. Expand the supply of seats in such schools
19. Base admission on multiple indicators, including but not limited to exam score
20. Marry culturally responsive advanced instruction and prior preparation of students who are admitted

Social and emotional learning (SEL) and mental health supports for advanced learners (grades K–12)
21. Make programs culturally relevant to all students
22. Foster a positive school culture
23. Implement a plan for supporting advanced students’ mental health comprising triage, trauma-informed practices, targeted intervention, and faculty support

Well-prepared educators
24. Provide high-quality professional-learning opportunities about evidence-based advanced-learning strategies
25. Inform feeder teacher-preparation programs
26. Empower teachers with actionable data on students’ abilities

High-quality instructional materials
27. Supplement high-quality instructional materials

Recommended state policies and practices
28. In school and district accountability systems, place significant weight on student-level progress over time
29. Eliminate any policies that bar early entrance to Kindergarten, middle school, or high school
30. Mandate the identification of students with advanced-learning needs, providing services for said students, and the use of local, school-based norms for identifying students for advanced programs, particularly at the elementary level
31. Implement specific requirements about the services provided to advanced learners
32. Mandate that districts and charter networks allow for acceleration (including grade skipping) for students who could benefit from it
33. Publicly report on the students participating in advanced education, including their achievement and growth over time, as well as their demographic characteristics
34. Ensure that preparation and in-service professional-development programs offer evidence-based instruction in advanced education, both for district-level coordinators and for teachers
35. Enforce the federal requirement that states explain how teacher-preparation programs are addressing education of special populations, including advanced learners
36. Expand funding and other incentives to encourage schools to frequently and equitably evaluate all students and provide a continuum of services to every student who could benefit
About the National Working Group on Advanced Education

The Thomas B. Fordham Institute launched the National Working Group on Advanced Education in April 2022. The Working Group’s mission was to promote research, policies, and practices that will develop the full capacities of students with high academic potential, especially Black and Hispanic students and those coming from economically disadvantaged backgrounds.

Members of the twenty-person Working Group include researchers, practitioners, and advocates and represent diversity in terms of ideology, race, gender, and geography. They met four times with two goals in mind:

1. Develop a policy and practice agenda. This was the Working Group’s most important task: To come up with workable policies and practices to simultaneously advance the causes of equity and excellence, especially for students who are high achieving—or have the potential to be high achieving—and who come from low-income or underrepresented racial groups. This report offers such an agenda, one that addresses issues such as the expansion of advanced education programming, screening for participation in such programs, admission into advanced courses and selective high schools, proper support for teachers, and more.

2. Develop a robust research agenda. The Working Group studied the extant research on policies and practices that advance high-potential students, especially those from economically disadvantaged backgrounds and Black and Brown communities. It also identified gaps in our knowledge, especially when it comes to ways to promote an excellence agenda while also fostering equity. Recommendations for future research to close these gaps are set forth in this report’s Appendix A.
Members of the National Working Group on Advanced Education

The members of the Working Group are listed alphabetically below. Their full bios can be found in Appendix B.

1. Dina Brulles, gifted program coordinator at Arizona State University and former director of gifted education at Paradise Valley USD in Arizona
2. Homero Chavez, director of the Early College Program at the Gadsden Elementary School District 32 in the border city of San Luis, Arizona
3. Nicholas Colangelo, director emeritus of the Belin-Blank Center and dean emeritus of the College of Education at the University of Iowa
4. Jonathan Davis, director of research at The Equity Research Cooperative
5. Chester E. Finn, Jr., distinguished senior fellow and president emeritus of the Thomas B. Fordham Institute and a senior fellow at Stanford’s Hoover Institution
6. Laura Giuliano, professor of economics at the University of California–Santa Cruz and research associate at the National Bureau of Economic Research
7. Jennifer Glynn, independent consultant to educational leaders, practitioners, and researchers
8. Tarek C. Grantham, professor of educational psychology at the University of Georgia
9. Jason A. Grissom, Patricia and Rodes Hart professor of public policy and education and (by courtesy) of political science at Vanderbilt University’s Peabody College
10. Hilde Kahn, parent of three graduates of Thomas Jefferson High School for Science and Technology
11. Paula M Olszewski-Kubilius, director of the Center for Talent Development at Northwestern University and a professor in the School of Education and Social Policy
12. Scott Peters, senior research scientist at NWEA
13. Mike Petrilli, president of the Thomas B. Fordham Institute
14. Jonathan Plucker, the Julian C. Stanley endowed professor of talent development at Johns Hopkins University
15. Sneha Shah-Coltrane, director of advanced learning and gifted education at the North Carolina Department of Public Instruction
16. Adam Tyner, national research director at the Thomas B. Fordham Institute
17. Jonathan Wai, assistant professor and the endowed chair in education policy in the Department of Education Reform at the University of Arkansas
19. Brandon Wright, editorial director of the Thomas B. Fordham Institute
20. Josh Wyner, founder and executive director of the College Excellence Program at the Aspen Institute
The case for advanced education

Advanced education has three primary benefits for individuals as well as the broader society:

1. **Every child deserves to be challenged.** An enormous hurdle in American education is the wide range of academic achievement represented in any given classroom. Even before the pandemic, student achievement in the typical elementary classroom spanned at least five grade levels, and large percentages of students started the year already performing well above grade level.4

Yet the reform energy of the past several decades focused largely on boosting learning outcomes for our lowest-achieving students. Policymakers set goals to “leave no child behind” and ensure that all students reached basic levels of literacy and numeracy.5 Schools used data to identify those who were particularly low performing and understand their gaps in knowledge and skills. Educators worked to individualize instruction for these children by adopting instructional strategies and materials tailored to their needs and creating programs to offer them extra help. And, in important ways, this strategy worked: Our country made real progress, with the proportion of students reading and doing math at the “below-basic” level dropping dramatically in the 1990s and 2000s.6

But America’s equity challenges go beyond low-achieving students; we have long faced an “excellence gap” at the highest levels of achievement, a gap that widened further during the pandemic and related school closures. On the Nation’s Report Card, for example, the proportion of Black and Hispanic eighth graders scoring at the test’s highest level has for several decades been much lower than their White and Asian peers.

Moreover, the Great Recession and the Covid-19 pandemic meant that students didn’t make nearly as much progress over the course of the school year as their counterparts in the 1990s and 2000s. Between 2019 and 2022, for example, the percentage of Black and Hispanic students at the advanced level decreased by 50 percent, while White and Asian proportions fell by 31 and 15 percent, respectively.

Now, however, with the help of billions of dollars in federal funds, many schools are now rebooting their efforts to help our lowest-achieving students, who were the group most harmed by the pandemic, via tutoring, extended learning time, and myriad other strategies. We applaud such efforts. Renewed attention to equity and personalized learning may be silver linings to the Covid-19 pandemic, but low-achieving students are not the only ones in need of attention or assistance, nor are they the only ones that experienced learning loss during the pandemic. The 2022 National Assessment of Educational Progress (NAEP) reported that eighth-grade math scores at the ninetieth percentile, after seeing steady gains for almost two decades, plummeted to levels not seen since 2005, and the percentage of eighth graders at or above NAEP’s “Advanced” benchmark in math fell to its 2007 level (see Figure 1).
2. The country needs advanced learners, particularly students from racially underrepresented or low-income backgrounds, to be highly educated to ensure its own long-term competitiveness, security, and innovation. They’re the young people most apt to become tomorrow’s leaders, scientists, and inventors and to solve current and future critical challenges. The same point was framed in different words in the 1993 federal report titled National Excellence: A Case for Developing America’s Talent: “In order to make economic strides,” the authors wrote, “America must rely upon many of its top-performing students to provide leadership—in mathematics, science, writing, politics, dance, art, business, history, health, and other human pursuits.” Martin Luther King Jr. left high school early to attend college, for example. John Legend skipped two grades. Kyrsten Sinema graduated high school at sixteen and college at eighteen. How many students would achieve great things if they were all given the opportunity?

3. Accessible advanced education strengthens our society and democracy. Diversity among our leaders is necessary not just as a matter of doing right for individuals from marginalized groups but also for keeping America’s promise to be a land of opportunity with liberty and justice for all. Narrowing excellence gaps is an essential part of a larger strategy to reboot upward mobility in America.

Yet America’s high-achieving low-income students may be the group most overlooked by policymakers and practitioners. Many such students attend schools awash in low achievement, places where the incentives and pressures on teachers and administrators focus on equipping struggling students with basic skills in reading, writing, and arithmetic. These schools understandably invest resources in boosting lower achievers. They’re also most likely to judge teachers by their success in doing that and least likely to have many resources to spare—energy, time, incentive, or money—for students already above the proficiency bar. They too often buy into the myth that high achievers and students with high potential or high ability will be fine regardless of the attention their teachers and schools give them. This, of course, is not true.
The equity and excellence question

It’s self-evident that all students should be challenged. What should be equally obvious is that the United States needs more students from a wider-range of backgrounds performing at advanced levels and that schools should take proactive steps to make that happen. Yet our society and our K–12 education system are currently failing on all these fronts.7

Today, one-third of U.S. schools don’t dedicate any time or effort—during school, after school, on the weekend or during summer—to their advanced students. Among those that do, the “programs” and “services” offered to those students may be nothing more than meager supplements, like once-a-week pull-out programs, that are unlikely to make much of a difference to achievement. And even when schools avoid all those pitfalls, many fail to identify, and therefore under-serve, the low-income, Black, Hispanic, and Native American children who would benefit from the opportunities. That’s true in advanced education programs in elementary schools, and it continues through advanced courses and selective enrollment programs at the middle and high school levels.

K–12 gifted programs and exam-based high schools were already struggling with equity prior to the pandemic. A 2019 study found that students in the top quintile of socioeconomic status were identified as gifted at a rate of about 12 percent, compared to just over 2 percent for their peers in the lowest quintile.8 And recent research suggests that when schools identify students for these opportunities post-Covid, disproportional representation is likely to worsen due to the massive and unprecedented interruption in learning that was also experienced unequally by students from traditionally marginalized groups. Combined with the common practice of reliance on fixed and often inflexible cut scores for program admission, schools arrive at a perfect storm of inequity.9

According to a 2023 study, for example, English learners or students with special needs have been and continue to be disproportionately underrepresented in identified gifted populations.10 And a 2019 study found the same to be true for African American, Hispanic, and Native American students (see Figure 2).11

The authors constructed a “representation index” that shows how well a certain population of students is represented in the population of those identified for advanced education in a district compared to the district’s overall demographics. For example, if the population of those participating in a district’s advanced education programs is 14 percent Black students but the district is made up of 28 percent Black students, then the index would be 0.50, meaning that Black students are represented at about half the rate in the identified population as they are in the general population.
Figure 2. “Representation index” for Black, Hispanic, and Native American students by state, 2012, 2014, and 2016

Year of data collection: 2012 2014 2016
No matter the state, the year or the racial or ethnic group, the index almost never goes above 1.0. Rarely, in other words, are the students in these subgroups fully (or over-) represented in their district’s advanced education programs. Moreover, these differences in representation do not merely reflect differences in readiness for advanced work across subpopulations. Multiple studies have shown, for example, income and racial gaps in gifted identification remain even when comparing students with similar math and reading scores.12

Narrowing these opportunity and excellence gaps—and raising the participation of more marginalized students who would benefit from these programs—is now a major focus of the advanced learning field and a top priority for this Working Group. Many of the recommendations that follow focus on making access to advanced learning opportunities significantly more equitable.

We strongly believe that when it comes to advanced education, we need to mend it, not end it. Better yet, we need to expand it so that it becomes an essential element of every school in the nation.

A note on terminology

Terminology matters because it defines objectives and reflects assumptions. The Working Group believes strongly that America should replace “gifted education” with “advanced education” or “advanced learning opportunities.” Likewise, substitute terms should be found for “tracking” and “ability grouping” because of their relationship with the sordid history of tracking programs and because they imply differences in innate ability that suggest that a student who isn’t in advanced education programs at a given time will never and should never be in them. This is deeply flawed thinking that leads to bad policy. The field should shift to alternatives such as “equitable achievement grouping” or “equitable performance grouping.” Also, because it’s important to include students with high academic potential but not yet high achievement, we should describe advanced learning opportunities as being for students with “advanced potential,” too.
Recommended district and charter network policies and practices

Addressing these challenges is going to take work at every level, but most of the action is local. Below, we list actions that school districts and charter school networks should take to effectively serve all their students who have the potential for advanced learning. We urge readers to keep three overriding principles in mind:

- **Build a continuum of culturally responsive advanced learning services, customized to individual students, rather than a binary “you’re in or you’re out” mindset.** Just as students with disabilities need customized plans that are reevaluated periodically, so do students who can benefit from advanced learning opportunities. Skipping two grade levels might be right for one student; achievement grouping might be a better choice for another. As a student’s talents are developed, their need for more advanced programming may grow. The goal is to find the right fit for the needs of each child, continually evaluate what’s working and what’s not, and modify services according to students’ demonstrated need on an ongoing basis.

- **Embrace inclusion, remove barriers, and reject the scarcity mindset.** If our goal is to build a wider, more diverse pipeline of high achievers, we need to be more welcoming to students on the bubble. While advanced learning opportunities imply some level of selectivity, look for reasons to include students in such learning opportunities, rather than excuses to keep them out. And do so at every grade level; never stop looking for students who could benefit from advanced learning. That, in turn, will require creating more seats—in “gifted and talented” programs, honors and advanced courses, selective high schools, and beyond. Instead of arguing over how to ration a scarce resource among the many who seek and could benefit from it, our goal is to make it more widely and equitably available.

- **Cultivate school-wide support for advanced learning opportunities for all students.** Advanced education should not be thought of as a siloed, one-off activity administered to a select few; it should be woven throughout a school’s culture, professional development, curricular choices, and data analysis.

Let’s dig in.

**Accessible front-loading (grades pre-K–5)**

It’s hard to reliably identify students who could benefit from advanced learning opportunities in the earliest grades. Yet these years are crucial for students’ academic, social, and cognitive development. Moreover, Black, Hispanic, Native American, and economically vulnerable students often struggle initially to achieve at advanced levels because they lack access to high-quality, rigorous learning experiences at the outset of their education. This lack of access is compounded by the fact that from the moment they enter Kindergarten, they tend to be substantially behind their more advantaged peers, especially in language development, connected as it is to students’ background knowledge.¹³

One promising strategy to address these challenges is to “front-load” rigorous learning, providing enriched academic experiences to a broad swath of students, especially in the early grades. The purpose
of this is to lift up students at the outset so that more of them have an opportunity to be identified for advanced programs later. It’s especially important to focus these efforts on underrepresented students. This can raise their achievement significantly, enabling many more to be ready for more advanced offerings in the years ahead.

We are starting to see examples of front-loading efforts that are working, such as two school districts in Illinois—U-426 in Elgin, about an hour outside of Chicago, and West Chicago D33—that have provided enrichment experiences in the early grades with demonstrated results, especially for children from underresourced communities.¹⁴ Such programs are provided to entire classes, not selected individuals. During weekly “push-in” lessons, using multicultural literature and materials, specialists provide enriched instruction in the grade-level classrooms, supporting vocabulary, questioning, and critical-thinking strategies. The idea is that by front-loading these experiences early on in school, come identification time for advanced learning opportunities, most of these students will be ready.

Emerging research on front-loading is encouraging, with evidence that such programs can narrow excellence gaps and prepare more students for advanced learning. Consider, for example, Project Excite, which was designed to provide intensive supplemental enrichment and accelerated programming for high-potential, underrepresented Black, Hispanic, and low-income students from third through eighth grades to better prepare them for advanced math and science courses in high school. A 2017 study looking at its effects over a fourteen-year period found that participants consistently outperformed their Black, Hispanic, and low-income peers on standardized tests and came closer to the performance levels of White, Asian, and non-low-income students.¹⁵ They were also more likely to be placed in above-grade-level math courses than similar peers in ninth grade.

Specifically, districts and charter networks should do the following:

1. **Provide accessible front-loading programming—either to all students or to those from historically underrepresented groups—starting in pre-K or Kindergarten.** This should continue at least until students are first identified for advanced learning opportunities, though there are likely benefits to making accessible front-loading opportunities for all students through the end of elementary school or even middle school.

2. **Offer accessible after-school, weekend, and/or summer enrichment opportunities** as part of the front-loading strategy. Consider basing these on students’ interests to connect in meaningful and relevant ways.

**Identification (grades K–11)**

We shouldn’t think of identifying advanced learners as a “yes or no,” one-time event. The goal is to keep seeking—and finding—all students who could benefit from advanced learning, whatever the subject and whatever their grade level, all the way up to dual-enrollment in a university. Schools should therefore adopt a bias toward inclusion, especially for younger children. Too often, advanced programs are driven by a sense of scarcity, serving only a tiny percentage of students. Sometimes this is because state policies specify the (very high) percentile that students must perform at to qualify for gifted services, excluding everyone else. Sometimes it’s an indirect consequence of identification policies that *de facto* favor high-income students who are often White and Asian. Instead, we should open the gates wider.
Specifically, districts and charter networks should do the following:

3. **Adopt universal screening to identify students with potential for high achievement.** Such screening involves reviewing assessment data and/or grades for all students to identify those who might benefit from advanced learning opportunities. This has strong empirical support and leads to positive results in districts that have used it. It helps identify more students overall, and it’s especially beneficial for the students most often overlooked for advanced learning opportunities.

4. **Use data from universally available assessments.** Multiple tests or data points are better than one, because some students will shine on one assessment and not another. For example, tests that measure general ability and do not require academic knowledge will help identify students who have the potential to perform at advanced levels of achievement but don’t yet have strong content knowledge. Nonverbal assessments can help identify students whose learning has not caught up with their high potential due to language or cultural barriers.

If diagnostic or interim assessments are used universally in the early grades (K–2), districts and networks should use them as initial screeners, but at the latest they should start with third-grade statewide reading and math assessments (officials should be sure to age adjust the results so as not to miss students with late birthdays).

5. **Use assessment data to identify additional students for advanced education services in every grade,** instead of relying on a single age-based screening point that would overlook late bloomers and/or exacerbate racial or socioeconomic disparities.

6. **Use local (i.e., school-based) norms,** especially when students are young. This means identifying and serving high-potential students in every school (for example, students whose achievement levels are in the top 10 percent in each school). As students move into high school, it may be appropriate to reference state or national norms when admitting students to advanced programs so that students are better prepared to compete in higher education and beyond. Thankfully, research shows that providing access to advanced education in elementary school can help to close equity gaps and broaden participation in advanced coursework in later grades.

**Programs and practices for advanced students**

Districts should move toward a “continuum of advanced education services” that replaces binary “gifted-or-not” thinking (see Figure 3). Note that this is not meant to suggest abandoning stand-alone programs for advanced students. But such a continuum strives to give individual students from culturally different backgrounds or at different ability/achievement levels what they need in each academic subject. Some students will realize their potential best by skipping entire grades, for example, while others will benefit from particular advanced courses. Still others will get enough from within-class enrichment. In a perfect world, every student would benefit from such individualization, but here we focus on the portions that pertain specifically to advanced learners.
Figure 3. An example of providing a continuum of services for advanced learners: Fairfax County, Virginia

**Elementary School**

**Level 1 Access to Rigor**
GRADES K–6
All students receive talent development lessons with critical and creative thinking strategies and Advanced Academic Programs (AAP) curriculum lessons.

**Level 2 Subject Specific Advanced Differentiation**
GRADES K–6
Identified students receive Advanced Academic Programs (AAP) curriculum lessons in the general education setting in areas of academic strength.

**Level 3 Part-Time Services**
GRADES 3–6
Identified students receive Advanced Academic Programs (AAP) curriculum lessons in more than one academic content area led by the Advanced Academic Resource Teacher. Programming has increased depth and complexity.

**Level 4 Full-Time Services**
GRADES 3–8
Identified students receive Advanced Academic Programs (AAP) curriculum lessons full-time. Programming has increased depth, complexity, and pace in all academic content areas.

**Middle School**

**Honors Classes**
GRADES 7–8
Any student who seeks academic rigor may enroll in honors classes. Students should consider taking honors classes in areas of strengths or interest.

**Full-Time Level 4**
GRADES 7–8
Eligible students may either attend their assigned Advanced Academic Programs (AAP) center school or enroll in Honors classes at their base school.

**High School**
Any student may enroll in advanced courses in high school as long as they have met the course pre-requisites.

**Honors Classes**
GRADES 9–12
Any student who seeks academic rigor may enroll in honors classes. Students should consider taking honors classes in areas of strengths or interest.

**Advanced Placement (AP)**
GRADES 9–12
AP coursework is similar to first-year college courses. They help prepare students for college level coursework.

**International Baccalaureate (IB)**
GRADES 9–12
The IB programs provide rigorous coursework. Students engage in deep thinking, reading, and writing with an international perspective.

**Dual Enrollment**
GRADES 9–12
FCPS teachers teach Dual Enrollment courses. Students may earn college credit through agreements with a college or university.

Note: One of the largest school divisions in the United States, Fairfax County Public Schools (FCPS) in Virginia serves over 180,000 students in almost 200 schools. FCPS offers a continuum of services to meet advanced learning needs of its students in grades K–12. Some services are available to all students, and other services are available to those who are identified through screening as needing them.
“Educational dosage”—meaning the density of advanced and enriching learning opportunities beyond the norm that typical students participate in—can serve as an organizing principle here. A “continuum” of services helps to ensure that needs are met with the appropriate amount and the right mix of support. Some students differ in their preferences, and some school districts will offer certain opportunities but not others to keep students appropriately challenged and motivated. Research has shown, for example, that for mathematically talented and academically motivated young adolescents, STEM accomplishments are facilitated by a “high” educational dose, meaning a rich mix of precollegiate STEM educational opportunities that are designed to be intellectually challenging even for students at precocious developmental levels.

It’s helpful for districts to distinguish between different groups of students when developing services—for example, between those who are already achieving at advanced levels and who need support to stay on that track, and in what areas and to what degrees, and those with the potential for higher achievement who need to be identified, encouraged, and assisted so that they come to participate and prosper in advanced programs. Across different subjects, a single student may fit into different groups.

Districts should approach the development, design, and implementation of advanced education programs and services in culturally responsive ways—which means working to better recognize and allow for the upholding of students’ cultural identities and offering culturally relevant content when possible.

Similarly, we should be careful not to focus exclusively on the technical aspects of building effective programs for advanced learners; rather, we must also pay attention to school culture writ large. We need leaders with high expectations and schools that foster a growth mindset in their educators and students.

Districts need to set clear goals, among which should be expanding the pipeline of students prepared for advanced courses in middle school and high school—including Algebra by eighth grade (or even earlier), as well as Advanced Placement (AP), International Baccalaureate (IB), and dual-enrollment courses. It’s also important to embed other subjects that can be taken at the middle school level while yielding high school credit. Math is the most obvious subject, but budding social scientists and policy leaders can take psychology or sociology in middle school, for example, or advanced language arts courses. All of this is going to mean different programming in elementary school, leading in turn to the need for K–12 coordinators of advanced learning opportunities to manage articulation between levels of schooling.

**Acceleration (grades K–12)**

Acceleration is “an academic intervention that moves students through an education program at a rate faster or at an age that is younger than typical,” reports the respected Belin-Blank Center at the University of Iowa. It comes in at least twenty forms, including grade skipping, single-subject acceleration, AP courses, and dual enrollment. It is “one of the most-studied intervention strategies in all of education, with overwhelming evidence of positive effects on student achievement,” writes group member Jonathan Plucker. One paper that looked at approximately a hundred years of research on this intervention’s impact on K–12 academic achievement found three meta-analyses showing that “accelerated students significantly outperformed their nonaccelerated same-age peers,” and three others showing that “acceleration appeared to have a positive, moderate, and statistically significant impact on students’ academic achievement.” The Belin-Blank Center also offers an excellent and
thorough summary of the evidence related to acceleration—showing, for example, that accelerated students significantly outperformed their nonaccelerated same-age peers by 0.7 standard deviations.\textsuperscript{23} Compare this to the impact of class-size reductions (0.21 standard deviations) and initial teacher-training programs (0.12 standard deviations).\textsuperscript{24}

Yet many educators and some parents resist accelerating students because they fear students’ social and emotional development will be impaired. These concerns are understandable, but decades of research have demonstrated acceleration’s positive effects in these areas, especially when educators and parents sufficiently plan and prepare for the type of acceleration to be used.\textsuperscript{25}

When students are accelerated into a higher grade-level school—i.e., an elementary-aged student into middle school or a middle-school-aged student into high school—districts and the destination schools too often put up barriers, particularly with students from racially underrepresented or low-income backgrounds. This may be due, in part, to their having no control over curriculum and instruction at the schools that feed them the advanced students, as well as student-transportation difficulties. And high schools especially tend to put up barriers that keep middle schoolers from receiving credit for high school coursework completed during middle school.

These concerns can be addressed by districts implementing high-quality curricula in grades K–12, high standards for teachers and instruction, clear guidelines for when students qualify for acceleration and what version of it, multiple review periods when students are evaluated, tips for explaining to parents why it’s OK if their child wants it and is ready, and automatic enrollment policies (more on this below). Ohio and Illinois, for example, are leaders in this area.\textsuperscript{26} Ohio requires districts to have a process for screening students for acceleration and a written plan for how each transition will take place and how the student will be supported. Illinois mandates that districts, at minimum, develop policies and provide opportunities that enable students to start Kindergarten and first grade early, be accelerated in a single subject area, and move up whole grades.

Specifically, districts and charter networks should do the following:

7. **Allow early entry to Kindergarten** for children who are ready, both cognitively and in the social-emotional realm. Educators will embrace cultural differences and the variety of ways that students demonstrate advanced potential versus looking at cultural differences as deficits.

8. **Allow children who are ready for advanced material in all subjects to skip entire grade levels**, sometimes even two or more grades. In these instances, schools should pay special attention to the social-emotional needs of these children, such as feelings of isolation, feelings of not belonging, bullying from other students, and lack of support from their peers and communities.

9. **Allow children to skip grade levels in particular subjects** (such as math) if they are ready for it. Also known as content- or subject-based acceleration, this practice allows students to be placed in classes with older peers for part of the day (or with materials from higher grades) in one or more content areas. Subject-matter acceleration may be accomplished by the student either physically moving to a higher-level class for instruction (e.g., a second-grade student going to a fifth-grade reading group) or using more advanced curricular materials while remaining in the original classroom. Subject-matter acceleration may also be accomplished outside of the general instructional schedule (e.g., summer school, after school, or online) or by using higher-level...
instructional activities on a continuous progress basis without actually moving into different classrooms. Honors classes in middle and early high school are an obvious example.

10. **Offer “grade-compressed” pathways for students** who are ready for acceleration. In this model, students are provided culturally responsive instruction that entails less time than normal (e.g., completing a one-year course in one semester or three years of middle school in two years).

11. **Embrace “concurrent enrollment,”** wherein the student takes a course at one level and receives concurrent credit for a parallel course at a higher level. This can take the form of an elementary student taking a middle school course or a middle school student taking a high school course.

12. **Offer advanced courses in as many subjects as possible in grades 6–12.** Honors, advanced, AP, IB, and dual-enrollment courses, most often found in high schools but sometimes in middle schools, are all versions of both acceleration and “achievement grouping” that are generally done with separate classrooms rather than within heterogeneous classrooms. Schools should err on the side of inclusion, should use objective data to identify students who could benefit, and make sure the courses are truly different, not just relabeled.

13. **Automatically enroll students participating in elementary school advanced education programs** into advanced courses in middle and high school when the courses align with their strengths and interests, as long as students are demonstrating sufficient levels of performance.

14. **Intentionally recruit underrepresented and underserved students for external advanced learning opportunities, such as college for dual enrollment and/or online courses.** Such arrangements can present logistical or policy challenges for individual schools, especially in the absence of state dual-enrollment policies. But it can and does work in places, and can be a good option for some districts. Dual enrollment should be free for students and should include help, where needed, with transportation. Dual enrollment also expands the ability of high schools to offer more and better career-technical education, which can be suitable and attractive options for talented students who aren’t interested in the traditional college route. In addition, schools should develop clear policies on credit and placement when students complete coursework outside of school, such as through an online provider or university-based summer program.

**Equitable achievement grouping (grades K–5)**

Equitably grouping students by achievement either within the same age-based, mixed-ability classroom, as with reading groups, or within separate ability-grouped classrooms or schools is a popular and effective way to challenge talented children.

Indeed, numerous studies have found that flexible grouping—arranging students by academic achievement in the same or separate classrooms—is a net positive for advanced students and not detrimental to their peers. One study that looked at a century of evidence, spanning thirteen meta-analyses of achievement grouping, found that three versions of it boosted outcomes: within-class grouping, cross-grade subject grouping, and special grouping for the gifted.27 Moreover, there seemed to be little downside—and often upside—for average- and low-achieving students.
When done poorly, such grouping is ineffective and can even be a new source of segregation. An example is when schools identify students using a single measure and place them into inflexible tracks; this is not what we are recommending.

Moreover, achievement grouping is only appropriate when the curricula or programmatic experiences are in fact different. When students are regrouped into classes where the curricula or experiences are the same as in “general education” classrooms, little or nothing is gained.

Specifically, districts and charter networks should do the following:

15. **Frequently and equitably evaluate all students** with the purpose of moving them into appropriate achievement groups. This is not “one-and-done” tracking. Putting students in buckets that never change is ineffective, inequitable, and counter to what we know about development. Rather, schools should use data from multiple measures—such as test scores and class performance—to continually assess and move students, regularly regrouping them with multiple entry points (“on-ramps”). District and school leaders should be prepared to provide teachers with support where necessary to achieve this.

16. **Ensure that teachers alter the complexity and pace of the curriculum**, as well as methods of teaching, when using achievement groups. Grouping is only as equitable and effective as the differentiated and culturally responsive instruction that is aligned to the needs of a given group.

17. **Err on the side of inclusion**, so that as many students can benefit as possible. The question should be whether a student has a need or would benefit from a particular service. When this isn’t clear, schools should err on the side of giving students access to a more advanced group with intentional support. All of this avoids the problem of artificial and arbitrary scarcity.

**Selective enrollment schools (grades 6-12)**

Specialized or selective enrollment high schools and programs can act as one option among many in a system of programming and services for advanced students and can be viewed as capstones of a continuum of services in grades K–12. These can come in many forms, such as general high schools designed to serve high-achieving students, like Lowell High School in San Francisco and the Julia R. Masterman School in Philadelphia, as well as schools that specialize in specific subject areas, like the Illinois Mathematics and Science Academy, the Indiana Academy of Science, the Thomas Jefferson High School for Science and Technology in Fairfax County, Virginia, and The Bronx High School of Science in New York City.

These institutions have long provided unique benefits to the students who attend them. When done right, they drive excellence and upward mobility. This is due, in important part, to superior educational elements such as course offerings, peer influence, exceptional instructors, and strong alumni networks. They can be especially powerful for students from low-income and marginalized families who don’t have other options.

Where they exist, however, there’s often a lack of transparency in admissions procedures, as well as issues with rationing, due to there not being enough spots. Too many students who are eligible or could
benefit don’t get into them. But evidence shows that opportunities can be expanded. Despite enrolling fewer students, New South Wales, Australia, has more selective high schools than New York City. Plus, they have an entire slate of “partially” selective high schools. How much talent is being underdeveloped simply because American districts do not provide enough spaces?

To strengthen these schools, districts should seek to mitigate these problems. Specialized schools should offer more than just a chance to join a select group of peers; they must offer culturally responsive advanced programming that is not available at students’ home high schools. And districts should build a large, diverse pipeline into these schools, via robust programming in grades K–8 that balances both equity and excellence in the many ways this document explains.

Specifically, districts with selective enrollment schools should do the following:

18. **Expand the supply of seats in such schools**, by growing the enrollment of existing schools, creating new ones, or creating “schools within schools” and honors-level alternatives, until demand can be met and schools and programs collectively reflect the diversity within the school district. Many of the problems and political challenges with selective schools could be mitigated if the seats in them were not so limited and the criteria to be admitted were more culturally fair to underrepresented minoritized groups and students from low-income backgrounds.

19. **Base admission on multiple indicators, including but not limited to exam scores**. Just as selective colleges look at much more than the SAT or ACT, so should selective high schools or programs examine students’ academic track records more holistically.

20. **Marry culturally responsive advanced instruction and prior preparation of students who are admitted**. In other words, be ready to scaffold academic support for students who might be relatively underprepared and to respond to the needs of culturally diverse students.

**Social and emotional supports for advanced learners (grades K–12)**

School is, of course, about more than just maximizing academic achievement. It’s also about facilitating and nurturing the personal development of every student. This means, among other things, that just because advanced learners may thrive academically doesn’t mean they necessarily can handle the emotional and psychological demands of these opportunities without support.

Advanced education programs already have some inherent social-emotional benefits. Equitably grouping students with peers who share a similar academic mindset, for example, can be positive. And there’s evidence that simply being challenged can be a form of social and emotional support.

But even in the best-designed advanced learning programs, social, emotional, and mental-health challenges will arise, and leaders should be prepared for this. Specifically, districts and charter networks should do the following:

21. **Make programs culturally relevant to all students**, train staff to counter personal and systemic biases, work to better retain students from underserved backgrounds, increase inclusivity, and help foster the development of students’ agency and self-efficacy.
22. **Foster a positive school culture** with leaders and teachers who understand the importance of advanced education and are ready to grow and adapt their programs. Include a focus on fostering noncognitive skills that support high achievement such as openness to challenge, critique, and feedback; intellectual risk-taking; growth mindset; and hope and optimism.

23. **Implement a plan for supporting advanced students’ mental health** that comprises four major types of actions:

- **Triage**: Perform formal or informal triage to identify what students need to support their learning and establish an equitable referral system to connect students with school- and community-based mental-health resources that are culturally responsive.
- **Trauma-informed practices**: Establish supports that can benefit all students, specifically trauma-informed relational practices and a robust framework for social and emotional learning that promotes emotional well-being and social connectedness.
- **Targeted intervention**: Monitor for behaviors that indicate a need for targeted intervention for students who have experienced significant trauma or who have been diagnosed with serious mood, anxiety, or other behavioral disorders.
- **Faculty support**: Attend to the mental-health needs of faculty and staff by providing appropriate resources, developing a culture of emotional openness and vulnerability, building structures to support social engagement, and helping individuals develop their self-care practice.

**Key enabling factors**

1. **Well-prepared educators**

Being an effective teacher of advanced students calls for a different skill set than being an effective teacher in general (in the same way that being an effective teacher of students with learning differences calls for specific skills). Even the most highly qualified teachers may not initially understand how best to educate these students, much less those from underrepresented racial or ethnic groups and low-income backgrounds. Districts must therefore ensure that the educators they select to instruct advanced classes have adequate knowledge and support to be successful.

Districts should also move teachers away from the idea that all students are successful if they reach grade-level proficiency. Educators should look at each student’s achievement in light of their starting knowledge and potential and work to maximize student growth throughout the year.

Specifically, districts and charter networks should do the following:

24. **Provide high-quality professional-learning opportunities about evidence-based advanced learning strategies** that teach educators how to make their instruction culturally responsive when working with advanced students. Leaders should also consider nontraditional forms of professional development, such as teachers observing more experienced teachers and peer-to-peer planning sessions.
25. Inform feeder teacher-preparation programs about the skills and experiences that need to be provided to aspiring teachers and administrators to promote advanced learning.

26. Empower teachers with actionable data on students’ abilities. Make it easy for teachers to assess, group, and support advanced learners.

2. High-quality instructional materials

Increasingly, districts and charter networks are adopting and implementing high-quality instructional materials—those aligned to state standards and evidence-based practices. These materials might work fine for advanced learners so long as schools embrace acceleration, as discussed above—for example, by allowing advanced fourth graders to cover fourth- and fifth-grade math in a single year. But supplemental material could also be helpful.

Teachers are also unlikely to adapt, create, or use materials specifically for their advanced learners without motivation, resources, and accountability, so there must be a specific focus on teacher support and implementation.

Specifically, districts and charter networks should do the following:

27. Supplement high-quality instructional materials—those selected for all students—with specialized curriculum created specifically for advanced learners. Known as predifferentiated, prescriptive curricula, they’re characterized by clearly stated learning outcomes, lesson plans, and strategies for formative assessment accompanied by direction on how to use data effectively in modifying curricular and instructional decisions. Examples include the William & Mary Integrated Curriculum Model program, the CLEAR Curriculum Model, and the Mentoring Mathematical Minds (M3) Curriculum.
The essential state role

The *Excellence Gap* work of group members Jonathan Plucker and Scott Peters does a great job covering the state role in improving advanced education, so the Working Group focused mostly on what local officials need to do. Yet states also have key roles to play, in part because state policies are often used as an excuse to limit options for advanced students and states sometimes fail to provide the requisite resources. Local leaders sometimes cite state policies as a reason they can't take certain actions that would benefit advanced students, such as giving “graduation credit” for high school level courses taken before entering high school. Students may get “placement credit” but not “Carnegie unit” credit, nor the ability to count coursework towards satisfying state requirements for four years of high school math.

State mandates should create floors on who can be served and what programs can be offered, not ceilings. Specifically, states should do the following:

28. In their school and district accountability systems, place significant weight on student-level progress over time, rather than grade-level proficiency, so as to encourage all schools to help all students achieve their full potential, including high achievers. To work best, state assessments should accurately measure achievement far above (as well as below) grade level by, for example, moving away from fixed-form “grade-level” state accountability tests in favor of computer adaptive tests or enabling schools to assess students with above-grade-level tests. States should also require that schools report how, and how often, they identify students for advanced education, who they identify, who participates, and what services are offered.

29. Eliminate any policies that bar early entrance to Kindergarten, middle school, or high school.

30. Mandate the use of local, school-based norms for identifying students for advanced programs, in particular at the elementary level.

31. Implement specific requirements about the services provided to advanced learners. Too many states require identification and nothing more.

32. Mandate that districts and charter networks allow for acceleration (including grade skipping) for students who could benefit from it—like, e.g., Ohio, Illinois, and North Carolina. Clarify that middle school students who complete high school courses can earn high school credit.

33. Publicly report on the students participating in advanced education, including their achievement and growth over time, as well as their demographic characteristics.

34. Ensure that preparation and in-service professional-development programs offer evidence-based instruction in advanced education, both for district-level coordinators and for teachers.

35. Enforce the federal requirement that states explain how teacher-preparation programs are addressing education of special populations, including advanced learners (this is a requirement for Title II reports, but there’s currently no monitoring or enforcement).

36. Expand funding and other incentives to encourage schools to frequently and equitably evaluate all students and provide a continuum of services to every student who could benefit.
Conclusion

We understand that our recommendations are voluminous—twenty-seven for local officials and another nine for states! Those are long to-do lists. So let us finish with a few bits of overall advice.

First, try not to lose the forest for the trees. When in doubt, go back to the core principles we identified earlier:

- Build a continuum of culturally responsive advanced learning services, customized to individual students, rather than a binary “you’re in or you’re out” mindset.
- Embrace inclusion, remove barriers, and reject the scarcity mindset.
- Cultivate school-wide support for advanced learning opportunities for all students.

Second, become a champion for excellence and equity. Ignoring the excellence gaps in our schools is not a path to activating all the talent our nation needs, but neither is eliminating advanced learning opportunities on grounds of equity. We must support students whose talents are easily recognizable and create environments where we can seek out those students whose talents are not yet tapped. Equity, done right, means opening up advanced education to all students who could benefit from it. And excellence, done right, means doing the hard work to help all students achieve at high levels—not just the students who come to school with great advantages.

You, dear reader, are part of an important movement, perhaps one of the greatest efforts in America today: the work to make sure we have as large and diverse a group of academic high achievers as possible in order to meet tomorrow’s challenges. Let’s not stop until it’s done.
Appendix A: Research gaps

As we worked together, our group identified several topics where we wished we had more data and evidence. We call on the research field to fill these gaps, particularly regarding outcomes associated with advanced students from racially underrepresented groups and from low-income backgrounds, the sooner the better. Especially important topics include the following:

- **Assessments used for identification.** There continues to be uncertainty in the field about whether different types of assessments would identify different types of students who might benefit from advanced education. For example, might nonverbal tests help to identify a greater number of Black, Hispanic, or economically disadvantaged students? Might tests of spatial reasoning be particularly effective for this purpose?

- **The persistence of high achievers—or the lack thereof.** Why do some early high flyers “lose altitude” as they move through school, while others remain high achieving all the way through graduation? Are there interventions that might keep more students on the path to high achievement, especially those from underrepresented groups?

- **Out-of-school activities, parent-pay tutoring, and their impacts on achievement.** Many high-achieving students, especially from affluent families, are likely benefiting from after-school, weekend, and summertime opportunities. Yet we know almost nothing about this world, the effects of such experiences, and how we might make such opportunities more widely available.

- **The effectiveness of Tier 1 curriculum for advanced learners.** Popular materials developed to align to the Common Core standards or their state-specific equivalents, such as Eureka Math and EL Education, likely have some benefits, as do technology-based supplemental/enrichment services such as Khan Academy. But there is a lack of research or evidence that they truly make a difference—especially for advanced students, much less those from underrepresented racial groups or low-income backgrounds—and a lack of evidence that they are differentiated appropriately for students who need greater challenge.

- **Mental-health supports.** Are there strategies, programs, or approaches that are particularly effective for advanced students?

- **Teacher effectiveness, particularly with advanced students from racially underrepresented groups and from low-income backgrounds.** Do the attributes of effective teachers for these students differ from those of effective teachers *writ large*? For example, are teachers who themselves were academically high achieving in high school or college more effective with advanced students? Are there markers of effective teachers for advanced students, particularly those from underrepresented and low-income groups, that districts might use during the recruitment and selection process or in staff-placement decisions?

- **The role of parent and teacher nominations.** We know that parent and teacher nominations can be biased. What are the best ways to incorporate teacher and parent feedback into identification processes so as to expand opportunities without adding to inequity?

- **Advanced course success in high school.** Access is expanding, but performance does not always follow (fewer students are passing the AP exam as we broaden access to include students with more diverse demographics and levels of prior preparation). How can we maximize the success of efforts to recruit students into advanced high school courses (increased enrollment in AP courses) and grow those recruited into achieving high levels of excellence (increased numbers of students taking and passing the AP exam with fours and fives)?

- **Selective high school admissions processes.** Schools are changing their admissions procedures. What are the effects of those changes on student experiences and outcomes?
Appendix B: Biographies of Working Group members

Dina Brulles. Dina Brulles, PhD, is the gifted program coordinator at Arizona State University and the former director of gifted education at Paradise Valley Unified School District in Arizona. She recently served as NAGC’s Governance Secretary and as the board’s school district representative. Dina received the prestigious 2022 NAGC Anne Isaacs Award for Distinguished Service. She was also the recipient of the 2019 and the 2020 NAGC Book of the Year Award (for practitioners), NAGC’s inaugural 2014 Gifted Coordinator Award, and the Professional Development Network Award in 2013. Dina has actively supported and served as a mentor for the Javits Frasier Scholarship Program since 2010. Dina’s books include A Teacher’s Guide to Flexible Grouping and Collaborative Learning; Designing Gifted Education Programs; Differentiated Lessons for All Learners; The Cluster Grouping Handbook; Teaching Gifted Kids in Today’s Classrooms; Helping All Gifted Children Learn; Understanding and Using the Naglieri General Ability Tests: A Call for Equity in Gifted Education; and the Naglieri Ability Test – Verbal.

Homero Chavez. Homero Chavez is director of the Early College Program at the Gadsden Elementary School District 32 in the border city of San Luis, Arizona. The program offers advanced academic opportunities and educational experiences for high-performing students from fifth through eighth grades. Since 2007, the Early College Program has helped more than 2,000 students take college-level algebra up to precalculus for college credit and has sent over 1,500 students to the Center for Talented Youth’s three-week Summer Residential Program at Johns Hopkins. Students take the ACT as early as fifth grade. The Early College Program has received many recognitions, including the 2022 Magna Award for equity work by the National School Boards Association (NSBA).

Nicholas Colangelo. Nicholas Colangelo is author of numerous articles on counseling gifted students and the affective development of the gifted and accelerated. He edited three editions of the Handbook of Gifted Education (with Gary Davis). He coauthored A Nation Deceived: How Schools Hold Back America’s Brightest Students (with Susan Assouline and Miraca Gross). He served on the editorial boards of major journals, including Counseling and Development, Gifted Child Quarterly, Journal of Creative Behavior, Journal for the Education of the Gifted, and Roeper Review. He has presented a number of research papers at national and international conferences and has been a keynote speaker on numerous occasions.

Jonathan Davis. Dr. Jonathan Davis is a researcher and advocate who employs robust mixed-methodological designs to investigate, interrogate, and disrupt inequitable K–12 schooling conditions that delimit postsecondary choices and opportunities for students of color and students from low-income backgrounds. Dr. Davis is the director of research at The Equity Research Cooperative and most recently served as a senior P–12 research associate at The Education Trust.

Chester E. Finn, Jr. Chester E. Finn, Jr., scholar and public servant, has devoted his career to improving American education. A former assistant U.S. secretary of education and Vanderbilt professor, he’s now Distinguished Senior Fellow and president emeritus at Fordham and Volker Senior Fellow at Stanford’s Hoover Institution. Author or co-author of more than twenty books (including Failing Our Brightest Kids: The Global Challenge of Educating High-Ability Students), Finn previously chaired the National Assessment Governing Board and was vice-chair of the Maryland State Board of Education.

Laura Giuliano. Laura Giuliano is a professor of economics at the University of California–Santa Cruz and a research associate at the National Bureau of Economic Research. She has also held positions at UC
Jennifer Glynn. Dr. Jennifer Glynn is an independent consultant to educational leaders, practitioners, and researchers working to increase college completion for historically underserved groups, including students from minoritized groups and economically disadvantaged backgrounds. She has previously held positions as director of research and evaluation at the Jack Kent Cooke Foundation and senior associate at Abt Associates. Her publications include Small Town, Big Talent, which highlights promising practices in rural communities to serve advanced students, and True Merit, which analyzes how the admissions process at selective colleges and universities impacts high-achieving students from economically disadvantaged backgrounds. Her research has been published in the New York Times, Diverse Issues in Higher Education, Inside Higher Education, The Atlantic, and the Chronicle of Higher Education.

Tarek C. Grantham. Tarek C. Grantham, PhD, is professor of educational psychology at the University of Georgia (UGA). Dr. Grantham has served as coordinator for the Gifted and Creative Education Graduate Program, and he currently codirects Project U-SPARC: University-School Partnership for Achievement, Rigor, and Creativity. Dr. Grantham’s research addresses equity for underrepresented groups in advanced programs. He has published numerous articles and three coedited books, including Recruiting, Retaining, and Engaging African-American Males at Select Public Research Universities: Challenges and Opportunities in Academics and Sports (2018), Young, Triumphant, and Black: Overcoming the Tyranny of Segregated Minds in Desegregated Schools (2013), and Gifted and Advanced Black Students in School: An Anthology of Critical Works (2011). He is an advisory board member for the University System of Georgia’s African American Male Initiative at UGA, and he is a member of the board of directors for the National Association for Gifted Children.

Jason Grissom. Jason A. Grissom is Patricia and Rodes Hart professor of public policy and education and (by courtesy) of political science at Vanderbilt University’s Peabody College. He also serves as faculty director of the Tennessee Education Research Alliance, a research-policy-practice partnership that produces research to inform Tennessee’s school-improvement efforts. His research on gifted identification and gifted students’ outcomes has appeared in such outlets as Educational Evaluation and Policy Analysis, AERA Open, and Harvard Educational Review. An AERA Fellow and past editor of Educational Researcher, he is the immediate past president of the Association for Education Finance and Policy (AEFP).

Hilde Kahn. Hilde Kahn is the parent of three Thomas Jefferson High School for Science and Technology graduates and served for nine years on the board of the school’s private foundation. Her novel Head of School goes behind the scenes as a school for the gifted grapples with issues of equity, race, culture, and privilege.

Paula M. Olszewski-Kubitsch. Dr. Paula Olszewski-Kubitsch is the director of the Center for Talent Development at Northwestern University and a professor in the School of Education and Social Policy. Her most recent works include two coedited books with Rena Subotnik and Frank Worrell: The Psychology of High Performance: Developing Human Potential into Domain-Specific Performance, published by the American Psychological Association, and Talent Development as a Framework for Gifted Education, published by Prufrock Press. She has served as editor of Gifted Child Quarterly,
Building a Wider, More Diverse Pipeline of Advanced Learners

coeeditor of the *Journal of Secondary Gifted Education*, and editorial review board member for *Gifted and Talented International, The Roeper Review*, and *Gifted Child Today*. She is currently on of the board of trustees of the Illinois Mathematics and Science Academy and is a past president of the Illinois Association for the Gifted and the National Association for the Gifted.

**Scott Peters.** Scott J. Peters, PhD, is a senior research scientist with the Center for School and Student Progress at NWEA. Prior to joining NWEA, he served as a professor of assessment and research methodology at the University of Wisconsin–Whitewater. His research work focuses on educational assessment and data use, gifted and talented student identification, equity within advanced educational opportunities, and educational policy. His scholarly work has appeared in the *Australian Educational Researcher, AERA Open, Teaching for High Potential, British Journal of Educational Psychology, Exceptional Children, Gifted Child Quarterly, Journal of Advanced Academics, Gifted and Talented International, the Journal of Career and Technical Education Research, Ed Leadership, Phi Delta Kappan, Gifted Child Today, and Pedagogies*. He is the first author of *Beyond Gifted Education: Designing and Implementing Advanced Academic Programs and Designing Gifted Education Programs and Services: From Purpose to Implementation*, both from Prufrock Press, and the coauthor (along with Jonathan Plucker) of *Excellence Gaps in Education: Expanding Opportunities for Talented Students*, published by Harvard Education Press.

**Mike Petrilli.** Michael J. Petrilli is president of the Thomas B. Fordham Institute, research fellow at Stanford University’s Hoover Institution, executive editor of *Education Next*, and a distinguished senior fellow for the Education Commission of the States. An award-winning writer, he is the author of *The Diverse Schools Dilemma*, editor of *Education for Upward Mobility*, and coeditor of *How to Educate an American*. Petrilli helped to create the U.S. Department of Education’s Office of Innovation and Improvement and the Policy Innovators in Education Network.

**Jonathan Plucker.** Jonathan Plucker is a professor of education and associate dean for faculty affairs at the Johns Hopkins University School of Education. He is immediate past-president of the National Association for Gifted Children. His research examines education policy and talent development, with over 300 publications to his credit and over $40 million in external funding to support his work. His recent books include the third edition of *Critical Issues and Practices in Gifted Education*, with Carolyn Callahan; *From Giftedness to Gifted Education*, with Anne Rinn and Matt Makel; and *Excellence Gaps in Education*, with Scott Peters. He is an APA, APS, AERA, and AAAS Fellow and a recipient of the 2012 Arnheim Award for Outstanding Achievement from APA and of the 2013 Distinguished Scholar Award from NAGC.

**Sneha Shah-Coltrane.** Sneha Shah-Coltrane is currently the director of the Office of Advanced Learning and Gifted Education at the North Carolina Department of Public Instruction (NCDPI). She works with public school district and charter school leaders and teachers, policy makers, families, colleges/universities, and other advocates of advanced learning opportunities and gifted education to ensure that the advanced learning needs of students are effectively met in the state of North Carolina. Mrs. Shah-Coltrane leads all the agency’s program areas related to advanced learning and has led the synergy of these areas into one agency area. She and her team have direct responsibility for overseeing the state’s implementation of academically and/or intellectually gifted programs; Career and College Promise; NC’s dual-enrollment program, including Cooperative Innovative High Schools/Early Colleges; and NC Governor’s School. She also leads NCDPI’s efforts for AP/IB/Honors programming, Credit by Demonstrated Mastery, and other advanced learning programs. As an additional role, Mrs. Shah-Coltrane oversees and directs agency-wide academic policies, such as NC Graduation Requirements and
the high school transcript. Mrs. Shah-Coltrane has served the public education community for over twenty-seven years in various roles. Her path has included serving as a classroom teacher, AIG/gifted education lead specialist, district leader, associate director of Project U-STARS~PLUS, a Javits grant with UNC–Chapel Hill, and various positions in several professional organizations, including NAGC and CEC-TAG. Most recently, she has served as past-president of the Council of State Directors of Programs for Gifted. Throughout her career, Sneha has worked toward ensuring that schools and teachers are cultivating, recognizing, and responding to outstanding potential, especially untapped potential, and advocating for the needs of all advanced learners through mindsets, policies, and practices.

**Adam Tyner.** Adam Tyner is national research director at the Thomas B. Fordham Institute, where he spearheads new research projects, writes commentary, and collaborates with external scholars. Prior to joining Fordham, Dr. Tyner served as senior quantitative analyst at Hanover Research, and he has also spent several years leading classrooms, teaching English as a second language in China and California and teaching courses at the University of California–San Diego. His work has appeared and been cited in the *Economist*, the *New York Times*, the BBC, *Education Week*, *Economics of Education Review*, the *Journal of Advanced Academics*, and many other outlets.

**Jonathan Wai.** Jonathan Wai is assistant professor and the endowed chair in education policy in the Department of Education Reform at the University of Arkansas and holds a joint (courtesy) appointment in the Department of Psychology. His research examines how individual and contextual factors collectively impact the development of educational and occupational expertise across a variety of domains. Broadly, he studies education policy through the lens of psychology.

**April Wells.** April Wells is an educational consultant, conference presenter, and author. She is the gifted coordinator in Illinois School District U-46, where she facilitated the redesign of the district’s gifted program. April serves on the board of directors for the National Association for Gifted Children (NAGC). Her work has served as inspiration for other organizations highlighting universal screening, talent development, and the use of local norms for gifted programming. She has presented extensively at conferences. She is a national consultant and professional-development trainer whose message centers around the equity imperative. She received one of the 2018 Gifted Coordinator Awards from the National Association for Gifted Children. Her first book, *Achieving Equity in Gifted Programming: Dismantling Barriers and Tapping Potential*, was published in January 2020.

**Brandon Wright.** Brandon Wright is the editorial director of the Thomas B. Fordham Institute. He is the coauthor or coeditor of three books: *Failing Our Brightest Kids: The Global Challenge of Educating High-Ability Students* (with Chester E. Finn, Jr.), *Charter Schools at the Crossroads: Predicaments, Paradoxes, Possibilities* (with Chester E. Finn, Jr. and Bruno V. Manno), and *Getting the Most Bang for the Education Buck* (edited with Frederick M. Hess). His writing has appeared in places such as the *Wall Street Journal*, the *Washington Post*, *U.S. News*, *The New York Daily News*, the *New York Post*, *National Review*, *Newsweek*, and *Education Next*, *Phi Delta Kappan*, and dozens of state newspapers.

**Joshua Wyner.** Joshua Wyner is founder and executive director of the College Excellence Program at the Aspen Institute, where he also serves as a vice president. The program aims to advance higher-education practices, policies, and leadership that significantly improve student outcomes. Josh has spent the past two decades initiating organizations aimed at improving and equalizing educational outcomes. He has authored numerous publications about education, including a book: *What Excellent Community Colleges Do: Preparing All Students for Success* (Harvard Education Press, 2014). He has a BA from Vassar College, an MPA from Syracuse University, and a JD from New York University School of Law.
Endnotes


17 Ibid.


23 Ibid.


27 Steenbergen-Hu et al., “What One Hundred Years of Research Says.”


