"Failure to help the gifted child reach his [or her] fullest potential is a societal tragedy, the extent [of which] is difficult to measure but is surely great."

Dr. James Gallagher

What's on the Horizon?

What will the next ten years mean for gifted education and acceleration?

It's possible to do some informed speculation, based on what's happened in the past ten years since the publication of *A Nation Deceived*.

Whatever may be in the offing, Dr. Susan Assouline thinks advocates of gifted education "need to be more nimble in considering educational trends. Some are paradigm shifts. We've seen advances in gifted education in the first few decades of this new century, which informed *A Nation Empowered*."

The emerging trends and challenges that Dr. Assouline see include:

- Common Core State Standards
- Twice-exceptionality
- Accessibility to accelerated learning
- Diversity
- Professional development
- STEM education
- International growth in acceleration

Common Core Standards

The national push for a common core curriculum began in 2009 with the premise that math classes in Massachusetts should be on the same level as the ones in any other state. At the time of the publication of *A Nation Empowered*, forty-five states and the District of Columbia had adopted common core standards—basically an outline of the knowledge all students should be learning in each grade.

While some worried the standards were too challenging, advocates for gifted education worried the standards were not rigorous enough, that the standards in high-achieving schools could be brought down to a standardized, "common denominator" model.

Dr. Assouline suggests another approach: Embrace common core standards but allow gifted students to move through the requirements quickly and go on to advanced work.

Such a strategy starts, as many good things do, with classroom teachers and their ability to "differentiate" a gifted learner—to realize what the bright student already knows and then provide additional challenges for that student, either individually or in a small group. The research proves what we all know: Bright kids like challenges.

Dr. Joyce VanTassel-Baska and Dr. Susan K. Johnsen outline in Volume 2 the steps schools can take

to accelerate learning while adhering to common core standards. The steps require schools to recognize when gifted students understand core concepts and are ready to move on. Testing can affirm that judgment and also reveal what the student is ready to learn. And then in high school, districts need to find ways to offer advanced, college-level courses to high-ability students.

Twice-Exceptionality

A growing field of research and interest concerns twice-exceptional students—those who have the potential for high achievement but who have one or more learning disabilities.

"Too often people think a student with a disability cannot be gifted, or that a student with a disability cannot benefit from acceleration in his or her area of strength," notes Dr. Megan Foley-Nicpon, an associate professor of counseling psychology and specialist in twice-exceptionality.

Much of the research on twice-exceptionality, particularly of students diagnosed on the autism spectrum, has been done at the Belin-Blank Center at the University of Iowa. The center found that more than 50 percent of the twice-exceptional students in one study would benefit from acceleration.

"It requires a comprehensive evaluation of the student," Dr. Foley-Nicpon notes.

The thought that a child with learning disabilities or a severe social impairment can benefit from acceleration in some areas is a relatively new concept and a reversal of the common practice of holding back such students or placing them in special education.

But researchers, for example, are finding high creativity among students diagnosed with attention deficit hyperactivity disorder, though the same students struggle with recalling lists of facts. They find that gifted twice-exceptional learners benefit when given more choice in selecting the topics and the pace of learning. That said, the twice-exceptional student needs structure, support, and understanding. Interestingly, researchers also found that smaller schools are more likely to enroll twice-exceptional students in Advanced Placement classes than are larger schools.

EMPOWERED

Karen and Mike Hartman have four children, all of them bright and two with exceptional ability. The two highly gifted girls have entirely different stories, but they also have one thing in common: Their parents advocated for them to be accelerated and challenged in school.

Allison Hartman was reading before age 3 and was "extremely intense," her mother says. The Hartmans figured she'd do well in school, but behavior issues derailed her. Given medicine for attention deficit hyperactivity disorder, her behavior improved.

School was still hard—she already knew most of what was being taught. What she liked least, she once told her mother, was "knowing all the answers and having to keep them all inside and not say anything."

Allison "toughed it out" through the elementary grades. By the time she was in fifth grade, tests showed Allison was in the top 1 percent of students her age. Her parents began advocating that she skip sixth grade in their Eastern Iowa school district.

Karen Hartman says acceleration "was kind of unheard of, plus this was a kid with some red flags." Of the half-dozen educators on the team deciding Allison's future, the gifted and talented teacher was the only one who "got" Allison and advocated for her acceleration, believing behavioral issues could increase if Allison was not challenged academically.

The Hartmans persevered. They read *A Nation Deceived*. They visited the Belin-Blank Center at the University of Iowa. They used the *Iowa Acceleration Scale* to show Allison was a good candidate for acceleration. They scheduled a psychoeducational evaluation for Allison at the center, halfway through the school year, thereby addressing the school district's main concern.

The Hartmans: Two routes to the same end

Taken together, it was enough. Allison skipped sixth grade and entered seventh. After that, she further accelerated in science and language arts. She took classes online and at the community college. She picked up two associate degrees with her high school diploma and entered a four-year college with enough credits to be a junior.

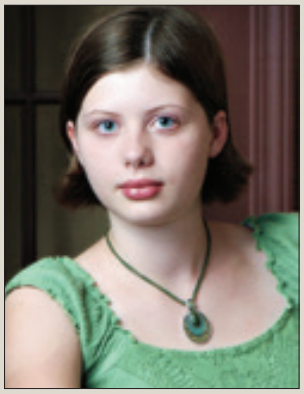
"The things we pushed for, we were kind of blazing the trail in allowing for these things to be opened up to other students," Karen Hartman says. "We opened teacher minds to what could be done, especially after it was a positive experience."

Then came Gabrielle, or "Gabby" as she's called, the third oldest of the Hartmans' children. She was bright but not "over the top," at least at first. By the end of fifth grade, though, she'd soared through sixth-grade math and was working on pre-algebra, all while helping her fifth-grade classmates with their assignments.

Testing showed Gabby was ready to be accelerated. This time, it was "super easy," her mother says. "Gabby didn't have social issues. She was the picture-perfect package for acceleration."

Gabby skipped sixth grade and went to seventh. And then, after continued achievement, the talented and gifted teaching team recommended Gabby skip eighth grade. That gave her parents pause, so they asked Gabby what she wanted to do. She chose acceleration, even though it meant she was starting ninth grade when most of her friends were entering seventh.

In high school, she's continued to excel—taking Advanced Placement science and English classes and online college classes. She'd worried about taking band with older students, but she's excelling there, too—showing promise as a top-flight bassoonist. She's made friends in high school; she has people to sit with at lunch.



Left: Karen Hartman

Below left: Allison Hartman (Photo: Bill Highland)

Below: Gabby Hartman (Photo: Ryno Olson)

Karen Hartman says she and her husband have worked well together in advocating for their two gifted children. "Our team approach allowed us to work off each other's strengths to get our message across," she says.

Her advice to other parents: Do your homework. "Have a lot of data up front, read the books, get the results, do the testing. Research shows acceleration works. Know it and share it. It's hard to argue with."

Another point: Monitor how your child is doing. "My kids continue to take above-level tests. The tests continue to show acceleration was the right thing to do."

And her advice to fellow teachers: "Pretest your students. Let them test out of areas they know, and let them go ahead of the rest of the group, work at their own pace. It's a lot of work, but it's worth it."

Ample evidence supports addressing the needs of twice-exceptional students and creating an academic environment that discourages "shaming" and "exclusion." Teachers are important in helping such bright students grow and develop the skills they need to succeed.

Accessibility to Accelerated Learning

Online courses are opening doors to accelerated learning for bright students, particularly those in rural areas where accelerative options are limited.

"It offers gifted students another way to learn that is not unnecessarily tough for schools to implement," Dr. Assouline says. "The courses also allow gifted learners to progress quickly through coursework and, if they choose, to pursue their interests outside of school."

An estimated 2.5 million K-12 students were taking online courses in 2011-12, and one-third of all college students were taking at least one online course in 2013.

"While the explosion in online learning holds great promise for the gifted student, we must be mindful that it can't happen in a vacuum," Dr. Assouline says. "Even extremely bright students need the support and encouragement of adults as well as time to share ideas and reflect on new knowledge with student peers. Technology, such as Skype and other programs, provide that human touch and ensure students have a place for questions and discussion."

The other concern in online learning is the technology gap resulting from differences in income.

In 2013, around 83 percent of Americans had computers in their homes, with 74 percent of them having Internet access. But in households with incomes under $25,000, the percentage with computers drops to 62 percent and the percentage with Internet access drops to 48 percent. That compares to 93 percent with Internet access in homes with incomes of more than $100,000, according to the latest U.S. Census estimates.

"Our schools and libraries help equalize opportunity for gifted learners from low-income families," Dr. Assouline says. "The non-profits and businesses that put computers in the hands of gifted learners—all learners—also help close that technology gap. But the divide still exists and is a contributing factor to the achievement gap."

Thoughts About Research and Awar

Though we know far more than we ever have about gifted education, questions remain.

Many believe the primary challenge for acceleration research and practice is more public awareness. The facts are there to support accelerating bright students. What's needed is for more parents, educators, and policymakers to read and understand the research.

That said, opportunities for further research abound.

Dr. Assouline, for example, notes a vast pool of information is being gathered on gifted students who take part in above-grade-level testing—that is, talent searches. The tests reveal what the student is ready to learn. But the diagnostic information that comes with the tests is wasted. The majority of schools don't use it. "It's a huge disconnect," she says.

Dr. Karen Rogers, from the University of St. Thomas, would like a researcher to determine exactly what states have done in terms of acceleration in the past ten years. "How many kids have actually benefited directly? We need a 'state of the states' report for gifted education and acceleration,' she says.

Dr. Rogers also would like to see success stories collected and shared with the general public and with educators, "more publications like *A Nation Deceived*." She'd also like to see more research on the forms of acceleration and new research on old, but still viable, ideas, such as grade telescoping. "If you have a lot of these bright kids in a school, why not put them together in a group and move them more rapidly through the grade-levels?"

Dr. Françoys Gagné, of Montreal, would like to see researchers continue to show, as he has done, the financial advantages of acceleration—how it can save

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taxpayers money. And then, of course, that research needs to get to policymakers who can "wave a magic wand" and make it happen.

Dr. Nancy Hertzog of the University of Washington wants research into the impact of acceleration on families of the gifted and the pressures that some accelerated students may be feeling at age 17 to decide their future. More than 40 percent of the gifted students in the UW's Robinson Center are either immigrants or the children of immigrants, leading to questions about the cultural context of acceleration. She also is interested in helping teachers differentiate gifted learners and also in how the opportunities provided gifted learners can benefit all students.

Dr. Lianne Hoogeveen, from The Netherlands, says her dream is that one day we can simply talk about a "good education" for each child, which leads inevitably to accelerated learning for gifted children. She also encourages researchers to write for the magazines and journals that teachers read and not just for research journals, to tell stories and start discussions with teachers who perhaps have never thought of acceleration as an option.

Dr. Plucker echoes that thought.

"I'm not sure we need a lot more research, though I would like to see some comparative research showing that many of our economic competitors are not shy about using anything that helps maximize their kids' talents," he says. "Mainly I think we need to set the historical context—that acceleration has been something we've used for generations in this country, and that it served us exceptionally well. When you were ready, you moved on."

Dr. Jonathan Wai of Duke University concurs: "What really needs to happen is experimenting with ways to persuade the public how to take advantage of the research that already exists on acceleration of the gifted."

The Evidence

- "Acceleration and STEM," Volume 2, page 123
- "Acceleration: Common Core," Volume 2, page 99
- "Acceleration and Twice-Exceptional Students," Volume 2, page 189
- "Acceleration and Economically Vulnerable Children," Volume 2, page 181
- "A European Perspective," Volume 2, page 209
- "An Australian Perspective," Volume 2, page 225

Diversity

Educators and researchers are committed to closing achievement gaps—especially the "excellence gap." And while most of us think of race and gender when we hear the word diversity, more attention is being paid to income-diversity and the particular challenges facing bright, low-income students.

About 14 million children are living in poverty in the United States. About 50 percent of public school students qualify for free or reduced-priced lunches, the traditional measure for determining low-income households.

And while U.S. students are showing achievement gains, the gains are markedly higher among students who are not low-income, Dr. Jonathan Plucker and Dr. Bryn Harris report in Volume 2. "Available data suggest that poor American students are not performing at advanced levels and have not done so for generations," they note.

Identifying and accelerating bright, low-income students, they suggest, can help close that "excellence gap."

As it now stands, "non-poor" students are three times more likely to take Advanced Placement or International Baccalaureate classes as poor students. Students from higher-income homes are significantly more likely to grade-skip or enter school early.

More research is needed into what works best in identifying and supporting high-ability students from economically vulnerable backgrounds. Dual enrollment—taking a college class while still in high school—may be of particular help to low-income students, especially those with little exposure to higher education. Mentorships are valuable, too, as is an awareness of barriers—a low-income student needs help paying for an AP test; that student may need transportation to an after-school or summer enrichment activity; and that student needs a computer and Internet access that many students take for granted.

Professional Development

In short, the way our Colleges of Education prepare future teachers is in flux, though many new teachers still graduate knowing little about acceleration as an option for bright students.

Dr. Assouline thinks the awareness of acceleration has increased in the past ten years since publication of *A Nation Deceived*. She notes that most of the requests for using the *Iowa Acceleration Scale*—the protocol that determines a student's readiness for acceleration—now come from teachers. Formerly, most of the requests came from parents.

STEM Acceleration

Talent development, Dr. Assouline says, is inextricably linked to STEM—the acronym for science, technology, engineering, and mathematics—education.

Schools specializing in those areas and the proponents of gifted education and acceleration "need to bring our ideas together," Dr. Assouline says. "Specialized schools can have an important impact on what happens in non-specialized schools. The programs can be generalized for gifted students anywhere, including those in rural areas and poorer communities. So even if you're not in those specialized high schools, you're still exposed to that teaching, which puts you on a level playing field. You don't have to go to a specialized school to get specialized training."

One perplexing trend is that many of the students interested in majoring in STEM subjects end up switching to non-STEM fields while they're in college. That fact collides with another fact: Jobs for STEM graduates will grow by 17 percent in the next ten years.

What to do?

Accelerated learning in the K-12 years is one way to develop high-level STEM talent and keep bright students interested in STEM subjects. Acceleration challenges students early, teaches them to think deeply and broadly, and prepares them for the rigors of college. The students learn to welcome challenging work. Ideally, along the way, they find their passion, or passions—ones that will carry them past the distractions of young adulthood and lead them into rewarding careers.

As always, there are excuses for not accelerating students gifted in STEM subjects. None of them withstand examination.

International Growth in Acceleration

The approaches to educational acceleration in other countries are as varied as they are in the United States.

The increase in gifted learning has been most rapid in Germany, though acceleration, as in the United States, can depend on where a student lives. Early entry to universities is permitted. Switzerland embraces enrichment and acceleration for bright students.

In France, students seldom skip a grade—though efforts are underway to make accelerative options easier for students. But 44 percent of French students enter school when they are 5 years old, a year earlier than required, which accelerates their learning from the start.

Italy eschews acceleration or special classes at all levels, apparently out of fear of elitism, though Italian schools occasionally allow bright students to skip one grade in the first eight years and then skip the last year of high school.

There is little academic acceleration in England and Wales, though some students take their final exams at age 16, a year early. The Nordic countries allow acceleration but, as a general policy, look to develop the potential of all learners.

Russia has had special schools for gifted children since the 1960s. Gifted children are identified in fifth grade and enrolled in the schools, where every graduate is expected to go to college.

Schools in The Netherlands practice acceleration, usually through grade skipping, though Dr. Lianne Hoogeveen reports that many teachers and parents were, at one time, uncomfortable with the option, fearing social and emotional impacts. The publication of *A Nation Deceived* ten years ago helped convince teachers and parents those fears were groundless, she says.

"I won't say all teachers are in favor of acceleration now, but they're not all against," she says. "A lot more children are accelerated."

In Australia, research into accelerative options mostly conforms to findings in the United States. In Volume 2, you can read twelve compelling case studies of gifted Australian students who entered university early. The students were generally pleased with their experience and welcomed the less formal structure of university classes.