

first time she had ever won anything. It wasn't a cheerleading trophy, but still. She looked down at the scores again. Then she turned to look out the window so her mom wouldn't see her smile.

Later that spring, Kim and her parents drove to Tulsa for a recognition dinner for the top-scoring SAT takers. Kim wore the yellow flowered sundress she'd gotten for the band recital. The *Sequoyah County Times* ran a short article, along with a picture of Kim and her silver medal. Usually, the newspaper ran stories about Sallisaw basketball and football players, the local celebrities; it felt strange to see her name in the same font.

Back at home, Kim put the medal in her desk drawer. It made her nervous to have it out in the open. What if it was the last thing she won? Better to forget about the whole episode until she took the SAT for real in high school.

But a few weeks later, a brochure arrived from Duke's summer camp for the gifted and talented. Her SAT scores had gotten their attention; the story was not over after all. She was invited to learn Shakespeare and study psychology in Durham, North Carolina.

Reading the pamphlet, Kim felt disoriented, as if she'd stumbled upon a new planet. The program was billed as "intense and demanding," equivalent to one year of high school in just three weeks. How was that possible? The camp looked like an unusual place: the kind of place where it was acceptable to care about things like Shakespeare and psychology.

She ran to tell her mom; her mind buzzed with the idea of meeting people her own age who wanted to have serious conversations. "This is my chance to be normal. We can discuss things—real things!"

Kim had never been good at small talk; it felt awkward and fake. Maybe this camp was a place where she could be herself, where she could go left or right at will, and let her questions come tumbling out into the open.

But the program cost money and, besides, Charlotte was in no hurry to let her youngest child leave home for the summer. She said no.

"at least they are trying."

Oklahoma, like the rest of America, had been trying to fix its schools for a long time. Between 1969 and 2007, the state had more than doubled the amount of money it spent per student in constant dollars. Over the years, Oklahoma had hired thousands of new teachers' aides, granted badly needed raises to teachers, and lowered the student-to-teacher ratio. By 2011, over half the state budget went to education, but most of Oklahoma's kids still could not demonstrate competency in math.

To motivate kids and schools to do better, state lawmakers decided to create an incentive. In the late 1980s, they passed a law requiring students to take a test to graduate from high school. This kind of end-of-school test was standard in the countries that performed at the top of the world on the PISA test. It gave kids and teachers a clear mission, and it made a diploma mean something.

A few years later, however, Oklahoma's lawmakers delayed the test. It was a matter of compassion, or so they said. The lawmakers were worried too many students would fail. How would that look? Those kids would have attended four years of high school without getting a diploma. That didn't feel right. The parents wouldn't like it, either. So, the test was set aside, and the kids were left to fail a little later, in the real world, if they didn't know enough math to take college classes for credit, or couldn't get a job that paid above minimum wage.

After that, the governor of Oklahoma tried a kinder, gentler strategy. He signed an executive order requiring kids to pass a series of literacy tests, starting in eighth grade. That meant they had four years to retake the tests if they failed. However, just before the new mandate could take effect, Oklahoma's legislature scrapped this requirement, too. Lawmakers said they were worried about lawsuits from angry parents.

The state's history read like a slow-motion tug of war between hopes and fears, as if no one could agree what Oklahoma's children

were capable of doing—a lack of faith that surely trickled down to the students. “Kids have a really good detector about what adults take seriously and what counts,” as a 1997 teachers’ union report noted, “If they see that it doesn’t count, then they’re not going to do the hard work.”

In 2005, Oklahoma tried yet again, passing a law to require students to show a mastery of English, algebra, geometry, biology, and U.S. history in order to receive a diploma. The state had seven years to phase in the requirement, gently and humanely. Kids who failed could retake the test up to three times in one year, or they could take alternate tests, like the SAT. They could even opt to do special projects demonstrating their competence in any subject that they’d failed.

In 2011, as the graduation test was finally about to take effect, local newspapers warned that thousands of kids might not graduate. An Oklahoma School Boards Association official predicted that the results would be “devastating.” One superintendent told the *Tulsa World* that the graduating class of seniors might be known as the “lost generation.” A Republican legislator introduced a bill to delay the test for two more years.

When I first visited Kim’s hometown, the young new superintendent of Sallisaw gave me a tour of the brick, one-story high school, past the orange and yellow lockers lining the cinderblock hallways. The last high school had been built by WPA workers during the Depression. This one, opened in 1987, looked like many American high schools: institutional but tidy, with blocks of color and light. The basketball court was the school’s jewel. The school’s black-diamond mascot, gleaming on the hardwood floor, dated back to the 1920s, when coal mining was a major local industry.

Scott Farmer had just been appointed the town’s first new superintendent in twenty years. He had short brown hair and a boyish face. The state of Oklahoma had 530 superintendents like him, each with their own fiefdom. There were about as many superintendents in

Oklahoma as there were members of Congress for the entire country. This tradition of hyperlocal control, hard-wired for inefficiency, hinted at one reason that the United States spent so much more than other countries on education.

Farmer made about \$100,000 per year, which made him one of the top earners in Sallisaw. He had an assistant superintendent, too, along with eight director-level managers and a school board. It was quite an operation for a district that included just four schools. But it was hardly unusual. Compared to the rest of the state, in fact, Sallisaw was one of the more efficient school districts in Oklahoma.

When I asked Farmer to describe Sallisaw High School’s biggest challenge, he talked mostly about parental involvement, lamenting the low turnout for parent-teacher conferences. “I’m just not convinced that parents quit caring,” Farmer said, shaking his head, “but that’s something we need to work on—reminding them of the importance of lifelong learning.”

I’d heard this argument often in U.S. schools, not just in Oklahoma. It seemed to be common knowledge that parents were AWOL in our schools. Even other parents thought so. In a survey about the best ways to improve education, most American adults cited more involved parents.

Reality was more complicated, however. Whatever U.S. parents were doing wrong, they were in fact showing up at their children’s schools more often than they had in twenty years. In 2007, nine out of ten parents said they’d attended at least one parent-teacher conference or school meeting that school year. Some were coming to school for disciplinary meetings—uncomfortable encounters with assistant principals and stone-faced kids. But whether they came for positive reasons or negative, American parents were not as hands-off as most of us seemed to think.

So, what explained the disconnect? It might have depended on how you defined *involved*. When I talked to Ernie Martens, Sallisaw High School’s principal for the past decade, he had no complaints

about parental involvement. Sure, parent-teacher conferences weren't as well attended as they were in the younger grades, but that was okay, he said. High-school students didn't need that kind of handholding. Instead, about three-quarters of the Sallisaw parents got involved in some other way, usually with the football booster club, the basketball booster club, or the Future Farmers of America chapter. Only about one in four of his parents were what he would consider uninformed.

In fact, Principal Martens said his biggest problem was not parental involvement at all. His biggest problem was expectations; they were, he said, too high.

Politicians and so-called reformers expected too much from his students. "We have a lot of our kids who come from dysfunctional homes," he said. "We're the only normal thing they have in their life." It was all well and good to talk about high expectations in political speeches, but he lived in the real world, in a part of the country where some parents read to their children, and some never did. In his world, some mothers thought breakfast was a bag of potato chips, and some fathers hid methamphetamine in the backyard barbecue.

In Sallisaw, nearly one in four students failed to graduate high school within four years. Martens and Farmer had different narratives about why that was, but they were both looking in the same direction. Neither saw education itself as the primary problem or the main solution. Both pointed to external forces: negligent parents, social ills, or out-of-touch government expectations. That, too, was a common refrain among educators all over the United States. Whatever the problem, it was, it seemed, largely outside their control.

And they were right, of course. A long list of grim factors lay beyond their reach, from how much kids slept to how much television they watched. The stress that kids endured in many families taxed their bodies and minds, doing damage that no school could undo.

The only problem with this narrative was that it was habit forming. Once you start locating the source of your problems outside your own jurisdiction, it is hard to stop, even when the narrative is wrong.

For example: Sallisaw had plenty of good students, too. Other than the destitute and the dropouts, Sallisaw High School had its success stories, like every town. About half the kids who graduated from Sallisaw enrolled in public colleges and universities in Oklahoma. Others went to out-of-state colleges or looked for jobs.

What happened to these success stories after they left? Their colleges tested their basic skills and found them wanting. More than half these students were promptly placed into remedial classes at Oklahoma public colleges. That meant that some of Sallisaw's best students were paying good money for college, often in the form of student loans, but they weren't getting college credit.

These young men and women had been told their whole lives to get a high-school diploma and go to college; that was the dream. But when they got there, they were stalled in limbo, redoing algebra or English as if they'd never left high school. It wasn't hard to understand why, as their debt mounted, many quit college altogether. One out of two Oklahoma university students failed to graduate within six years.

I asked Principal Martens about all the Sallisaw alumni who were retaking math or English. "That really doesn't bother me," he said, "because at least they are trying." The main goal was to go to college. Whether his graduates succeeded there was out of his control, or so it seemed.

The fact that those kids had spent four years in his school preparing to get to college—and that he'd given them a diploma that was supposed to mean they were ready—did not seem relevant.

**"rich people do that. we don't do that."**

It was July Fourth weekend, the year after she took the SATs, and Kim and her mom were visiting Kim's older half-sisters in Texas. It was too hot to do anything ambitious, so they stayed close to the air conditioning, playing Scrabble and petting the dogs. When her

dollars, and teachers had wireless clickers to hand out to students for instant polling. However, Korea's cultural obsession with digital toys did not seem to extend to this classroom, which was utilitarian and spare.

As the other students filed into the classroom, they crowded around Eric's desk. The class was large by Eric's standards, bursting with over thirty students, but typical for Korean classes.

"Have you ever ridden a horse?"

"Have you met Brad Pitt?"

"Do you own a farm?"

"Have you ever shot anyone?"

Eric remembered hearing that the Koreans were known as the Italians of Asia, more emotive and chatty than the Japanese or Chinese. Now that the shrieking had diminished, he found the kids' curiosity charming. And he had always liked to talk.

"Yes, I have ridden a horse," he said. "I have not met many celebrities. I don't own a farm, and I have never shot anyone."

The teacher walked into the room and stood at the front of the class. She was tall compared to most Korean women, and wore glasses. She carried a delicate microphone in one hand and a stick with a stuffed frog on the end of it in the other hand. It looked like a backscratcher, something you might find in a gift shop at the mall. Eric stopped talking and sat up straight at his desk, wondering what to make of the frog.

Strangely, no one else seemed to react. The kids kept chatting with one another while the teacher stood there, waiting. It was painful to watch. Finally, the teacher tapped her frog stick on a desk to get everyone's attention, and the students slowly took their seats. As she lectured, a few of the kids talked over her in the back. Eric was surprised. He had seen worse behavior back in the States, but for some reason, he had expected Korean kids to be more deferential.

A few minutes later, he glanced backwards at the rows of students behind him. Then he looked again, eyes wide. A third of the class was asleep. Not nodding off, but flat-out, no-apology sleeping, with their

heads down on the desks. One girl actually had her head on a special pillow that slipped over her forearm. This was pre-meditated napping.

*How could this be?* Eric had read all about the hard-working Koreans who trounced the Americans in math, reading, and science. He hadn't read anything about shamelessly sleeping through class. As if to compensate for his classmates, he sat up even straighter and waited to see what happened next.

The teacher lectured on, unfazed.

At the end of class, the kids woke up. They had a ten-minute break and made every second count. Girls sat on top of their desks or on overturned trash cans, chatting with each other and texting on their phones. A few of the boys started drumming on their desks with their pencils. They were strangely comfortable in the classroom, as if they were in their own living rooms at home.

Next was science class. Once again, at least a third of the class went to sleep. It was almost farcical. How did Korean kids get those record-setting test scores if they spent so much of their time asleep in class?

Soon he discovered the purpose of the teacher's backscratcher. It was the Korean version of wake-up call. Certain teachers would lightly tap kids on the head when they fell asleep or talked in class. The kids called it a "love stick."

At lunch, Eric followed the other students to the cafeteria and copied everything they did, filling up his tray with *kimchi*, a kind of spicy, fermented cabbage that appeared at every meal in Korea, along with transparent noodles and what looked like vegetable and beef stew. He was relieved to see the Canadian and sat down with her to eat. It was a treat to have a real, freshly cooked meal, not the warmed-up, pre-fab entrees he got at Minnetonka.

For a moment, sitting there in the warm cafeteria twirling noodles with chop sticks, Eric felt as though he'd made the right decision in coming to Korea. The kids he'd graduated with were all starting college now. They'd bought their extralong twin sheets at Bed Bath

& Beyond and met their roommates; they were going to freshman writing seminars and fraternity parties. Eric had deliberately chosen to step off the treadmill. He'd spent thirteen years in school and been politely bored much of the time. Like a lot of kids all over the world, he'd spent a lot of time staring at clocks, doodling in margins, and wondering whether this was all there was.

For the last two years of high school, the International Baccalaureate program had challenged him in a way nothing else had. And it had reminded him how it felt to really learn—to think and discover things for the sake of discovery, not because it was what he was supposed to do.

So, after he'd gotten accepted into DePaul University in Chicago, he'd checked the box to defer. He'd wanted to live in Asia—to discover a totally different world in which he understood nothing at all whatsoever—and marinate in the strangeness for a while. Then, he could come back and decorate a dorm room and let his life after high school begin.

The Korean kids bolted down their food and then raced outside to claim the small amount of free time they had left. Some of the boys played soccer in the dirt, and a few of the girls sat on the steps and, hunched over their smart phones, logged on to CyWorld, which was like Facebook with more privacy controls. Eric was one of the last students to finish his food and leave the cafeteria.

Between classes, Eric asked one of the other students about this test he kept hearing about—the one Korean high school seniors took before they graduated. "It's like your SAT in America," the boy told Eric. Except that your score determined the rest of your life.

"In Korea, your education can be reduced to a number," the boy explained. "If your number is good, you have a good future."

The highest score guaranteed acceptance into one of Korea's three most prestigious universities and, with that, you were destined for a good job, a nice house, and a lifetime of ease. Everyone would respect you. You were chosen by God, as another student put it, only half-joking.

But there was a problem: only 2 percent of seniors got into these top three schools. So, the exam was a chokepoint for the ambitions of millions of kids and their parents. Eric's classmates talked about this test with dread. They would spend the next two years of their lives studying, planning, and praying to do well on this test. Not one of them looked forward to it.

Minnesota had a graduation test of its own. Eric had taken the math portion his junior year, but it was so easy that he couldn't imagine failing it. Kids who scored below the cutoff were automatically enrolled in a special class and allowed to retake the test again and again until they passed. The Korean test, by contrast, was offered one day each year, and it was designed to be very difficult. Students who did poorly could take it again, but they had to wait a year.

In Eric's next class, the teacher wrote each student's test score on the chalkboard, using ID numbers, not names. But all the kids knew each other's numbers. It was the first of many times that Eric would see his classmates publicly ranked. One girl put her head in her hands, and another just shook her head.

Most of the tests at the school were graded on a curve, so only 4 percent of kids could get the top score, regardless of how hard they worked. On and on went the hierarchy, all the way to the ninth and worst possible score, which the bottom 4 percent of the class earned, every time.

Everyone in Eric's class knew everyone else's ranking, not just on this test but on everything. The top twenty-eight kids in the grade were the class heroes, and also the martyrs. Because they had the most to lose, they worked hardest of all.

At ten past two, Eric left school early. Since he was an exchange student, he was exempt from having to experience the full force of the Korean school day. He asked one of his classmates what would happen after he left.

"We keep going to school."

Eric looked at him blankly.

"Until when?"

"Classes end at ten after four," he said.

Then he went on: After classes, the kids cleaned the school, mopping the floors, wiping the chalkboards, and emptying the garbage. The kids who had received demerits—for misbehaving or letting their hair grow too long—had to wear red pinnies and clean the bathrooms. Work, including the unpleasant kind, was at the center of Korean school culture, and no one was exempt.

At four thirty, everyone settled back in their seats for test-prep classes, in anticipation of the college entrance exam. Then they ate dinner in the school cafeteria.

After dinner came *yaja*, a two hour period of study loosely supervised by teachers. Most kids reviewed their notes from the day or watched online test-prep lectures, as the teachers roamed the hallways and confiscated the occasional illicit iPod.

Around nine in the evening, Eric's classmates finally left Namsan.

But the school day still wasn't over. At that point, most kids went to private tutoring academies known as *hagwons*. That's where they did most of their real learning, the boy said. They took more classes there until eleven, the city's hagwon curfew. Then—finally—they went home to sleep for a few hours before reporting back to school at eight the next morning.

Eric listened to this epic regimen with a mounting feeling of dread. How could teenagers do nothing—literally nothing—but study? Suddenly, he understood what he had seen in class that day: The kids had acted like they lived in the classroom because they essentially *did*. They spent more than twelve hours there every week-day—and they already went to school almost two months longer than kids back in Minnesota. His classmates slept in their classes for one primal reason: because they were exhausted.

Suddenly, Eric wanted very badly to leave early.

By quarter past two, he and the Canadian girl were walking across the dirt field, headed away from Namsan—seven hours before

their classmates could leave. While the Korean kids worked, the exchange students went into a convenience store. Eric noticed an ice cream bar made with red-bean paste, molded into the shape of a fish. He bought it, hoping it wouldn't taste like fish. It didn't! It tasted like vanilla. Around two-thirty, he caught the bus back home. The Korean kids kept working.

Lying on his bed back at his host family's apartment, Eric thought more about what the boy had told him. Korean kids essentially went to school *twice*—every weekday. He had found one possible explanation for Korea's PISA scores, and it was depressing. Kids learned a lot, but they spent a ridiculous amount of time doing so. They had math classes at school—and math classes in hagwons. He was astounded by the inefficiency of it all. In Korea, *school never stopped*.

Staring out the window at the city, he recalibrated. Before he'd left the United States, he had thought that American schools did too much standardized testing and put too much pressure on kids and teachers. Everyone always seemed to be complaining about tests and over-programmed kids. Now, thinking back on the rhetoric about high-stakes testing and stressed-out kids, Eric almost laughed.

American tests were not high stakes for students. In fact, the stakes couldn't have been much lower, especially for standardized tests. The consequences, if there were any, extended mostly to the adults who worked at the school; their school might, for example, be labeled in need of improvement by the federal government and, in a few places, a small fraction of teachers with extremely low scores might eventually lose their jobs. But for most kids, standardized tests were frequent, unsophisticated, and utterly irrelevant to their lives.

Even regular classroom tests did not mean as much in the United States as they did in Korea. If kids did poorly in the United States, there was always a caveat: *The test was unfair. Or, That's okay! Not everyone can be good at math.* In Korea, the lesson was cleaner: *You didn't work hard enough, and you had to work harder next time.*

He started to realize that pressure was a relative term, and so was

testing. From what Eric had seen so far, Namsan seemed designed to convey, through austere classrooms and brutal hierarchies, one message: that kids' futures depended not on their batting averages, their self-esteem, or their Facebook status, but on how hard they worked to master rigorous academic material.

Was this what it took, he wondered, to score at the top of the world on international tests? If so, Eric wasn't sure he'd want to be number one.

### iron child competition

I met Korea's education minister, Lee Ju-Ho, at his office in Seoul. He had a boyish cowl and a default expression of mild amusement, both of which artfully masked the ambition that had powered his career up to this point.

Lee was a product of the Korean pressure cooker. He had attended an elite high school and Seoul National University, one of the country's top three universities. Then he'd earned his PhD in economics at Cornell. He'd risen swiftly up the Korean hierarchy, becoming a professor, then a politician. But when he became the Minister of Education, he did so with the goal of dismantling the pressure cooker, piece by piece.

We drank tea around a large table with his entourage of advisers, none of whom spoke. When I asked if he agreed with President Obama's glowing rhetoric about the Korean education system, he smiled a tired smile. It's a question he got asked often, usually by Korean reporters who could not understand what the U.S. president—or anyone—would find to like about Korea's system.

"You Americans see a bright side of the Korean education system," he said. "But Koreans are not happy with it."

In some ways, Korea was an extreme manifestation of a very old Asian tradition. Chinese families had been hiring test-prep tutors since the seventh century. Civil-service exams dated back before the

printing press. In tenth-century Korea, ambitious young men had to pass an exam to get a government job. The high-stakes test was, in practice, accessible only to the sons of the elite, who could afford the ancient version of test prep.

Despite the American stereotype that Asians excelled in math and science, regular Koreans were not historically so smart. Confucius may have instilled Koreans with an appreciation for the value of long, careful study, but the country had no history of excelling in math. In fact, the vast majority of its citizens were illiterate as recently as the 1950s. When the country began rebuilding its schools after the Korean War, the Korean language did not even have words for modern concepts in math and science. New words had to be coined before textbooks could be published. In 1960, Korea had a student-teacher ratio of fifty-nine to one. Only a third of Korean kids even went to middle school. Poverty predicted academic failure. If PISA had existed back then, the United States would have trounced Korea in every subject.

Over the next fifty years, Korea became what Lee called a "talent power." The country had no natural resources, so it cultivated its people instead, turning education into currency. This period of frenetic economic growth created a kind of lottery for Korean parents: If their children got into the best middle schools, which put them on track for the best high schools, which gave them a chance at getting into the top universities, then they would get prestigious, well-paying jobs, which would elevate the entire family.

This competition followed very explicit rules: Score above a certain number on the college exam, and you were automatically admitted to a top university. Forever after, you would be paid more than others, even for doing the same work. The system was as predictable as it was brutal. It sent a very clear message to children about what mattered: University admissions were based on students' skills as measured by the test. Full stop. Nobody got accepted because he was

good at sports or because his parents had gone there. It was, in a way, more meritocratic than many U.S. colleges had ever been.

Without this education obsession, South Korea could not have become the economic powerhouse that it was in 2011. (Since 1962, the nation's GDP had risen about 40,000 percent, making it the world's thirteenth largest economy.) Education acted like an anti-poverty vaccine in Korea, rendering family background less and less relevant to kids' life chances over time.

But there weren't enough of those university slots or coveted jobs, so the lottery morphed into a kind of Iron Child competition that parents and kids resented, even as they perpetuated it. It was an extreme meritocracy for children that hardened into a caste system for adults. Even when more universities opened, the public continued to fixate on the top three. There was a warning for the rest of the world. Competition had become an end unto itself, not the learning it was supposed to motivate.

The country had created a monster, Lee told me. The system had become overly competitive, leading to an unhealthy preoccupation with test scores and a dependence on private tutoring academies. Even over summer break, libraries got so crowded that kids had to get tickets to get a space. Many paid \$4 to rent a small air-conditioned carrel in the city's plentiful supply of for-profit self-study libraries.

Korea's sky-high PISA scores were mostly a function of students' tireless efforts, Lee believed, not the country's schools. Kids and their families drove the results. Motivation explained Korea's PISA scores more than curriculum, in other words.

Per student, Korean taxpayers spent half as much money as American taxpayers on schools, but Korean families made up much of the difference out of their own pockets. In addition to hagwon fees, they had to pay for public school, since the government subsidy didn't cover all the expenses. Eric's school was not the most elite public school in Busan, but it still cost about fifteen hundred dollars per year.

On paper, Eric's high schools in Minnesota and Korea had some

things in common. Both Minnetonka and Namsan boasted dropout rates of less than 1 percent, and both schools paid their teachers similarly high salaries. However, while Minnetonka kids performed in musicals, Namsan kids studied and studied some more. The problem was not that Korean kids weren't learning enough or working hard enough; it was that they weren't working smart.

The Iron Child culture was contagious; it was hard for kids and parents to resist the pressure to study more and more. But all the while, they complained that the fixation on rankings and test scores was crushing their spirit, depriving them not just of sleep but of sanity.

### collateral damage

One Sunday morning during that school year, a teenager named Ji stabbed his mother in the neck in their home in Seoul. He did it to stop her from going to a parent-teacher conference. He was terrified that she'd find out that he'd lied about his latest test scores.

Afterwards, Ji kept his secret for eight months. Each day, he came and went to school and back again as if nothing had changed. He told neighbors his mother had left town. To contain the odor of her decomposing body, he sealed the door to her room with glue and tape. He invited friends over for ramen. Finally, his estranged father discovered the corpse, and Ji was arrested for murder.

This ghastly story captivated the country, as might be expected, but for specific and revealing reasons. Ji's crime was not, in the minds of many Koreans, an isolated tragedy; it was a reflection of a crazed culture that was driving children mad.

According to his test scores, Ji ranked in the top 1 percent of all high school students in the country, but, in absolute terms, he still placed four thousandth nationwide. His mother had insisted he must be number one at all costs, Ji said. When his scores had disappointed her in the past, he said, she'd beaten him and withheld food.

In response to the story, many Koreans sympathized more with



them seemed to have bought into the idea of education on some level. Sometimes Kim found herself staring at this kid and his friends. They didn't fit into any of the boxes she had used to organize the world. It was hard to explain, but there just seemed to be something in the air here. Whatever it was, it made everyone more serious about learning, even the kids who had not bought into other adult dictates.

Kim noticed that some of the teachers seemed more bought-in to school, too. Stara, the Finnish teacher, realized it was probably ridiculous for Kim to even be in a Finnish class for Finnish high-school students, given Kim's primitive grasp of the language. And she had plenty of other students to worry about, students at a range of skill levels themselves. Still, she'd taken the time to come up with an alternative for Kim—a way to include her, despite everything. The children's book was a creative solution. Kim opened it up and began to read about the seven dog brothers.

### a tale of two teachers

Like Kim's math teacher back in Oklahoma, Stara was a veteran teacher, approaching two decades in the profession. Both teachers had jobs that were protected by powerful unions, and neither could easily be dismissed. This pattern held true in most developed countries around the world: Teachers' unions held a lot of power, and teachers rarely got fired anywhere.

The similarities ended there. From the moment she had decided to study education in college, Stara had entered a profession completely different from that of Kim's Oklahoma teacher. To become a teacher in Finland, Stara had had to first get accepted into one of only eight prestigious teacher-training universities. She had high test scores and good grades, but she knew the odds were still against her.

She'd wanted to teach Finnish, so she'd applied to the Finnish department at the University of Jyväskylä. In addition to sending them her graduation-exam scores, she'd had to read four books selected

by the university, then sit for a special Finnish literature exam. Then she'd waited: Only 20 percent of applicants were accepted.

At that time, all of Finland's teacher-training colleges had similarly high standards, making them about as selective as Georgetown or the University of California, Berkeley in the United States. Today, Finland's education programs are even more selective, on the order of MIT. It was hard to overstate the implications that cascaded from this one fact. Just one out of every twenty education schools was located at a highly selective institution in the United States. Far more than that had no admission standards at all. In other words, to educate our children, we invited anyone—no matter how poorly educated they were—to give it a try. The irony was revealing, a bit like recruiting flight instructors who had never successfully landed a plane, then wondering why so many planes were crashing.

After spending years racking up college loans, teachers-to-be in the United States generally had to pass standardized tests in order to get a teaching position. But the tests were not challenging or particularly relevant to effective teaching. By then, the damage was done: Everyone assumed that the education majors were not the smartest kids in college, generally speaking, and their profession got little respect as a result.

In Finland, *all* education schools were selective. Getting into a teacher-training program there was as prestigious as getting into medical school in the United States. The rigor started in the beginning, where it belonged, not years into a teacher's career with complex evaluation schemes designed to weed out the worst performers, and destined to demoralize everyone else.

A teacher union advertisement from the late 1980s began with this breathtaking boast: "A Finnish teacher has received the highest level of education in the world." Such a claim could never have been made in the United States, or in most countries in the world.

Norway, for example, shares a border with Finland and spends more on education. But Norway is not choosy about who gets to

become a teacher, and the quality of preparation varies wildly, just as it does in the United States. Norwegians have fretted about the quality of their teacher-training colleges for decades, and the government routinely interferes in the training to try to make it better. As in many countries, teachers are made to attain ever more amounts of training and education, without much regard for quality. Partly as a result, Norwegian fifteen-year-olds perform at about the same middling levels as teenagers in the United States on PISA, and even the most privileged among them perform poorly in math, compared to advantaged teenagers worldwide.

Back in Finland, Stara still remembers the day she got the letter of acceptance—her mother's excitement, the rush of relief. She didn't celebrate; Finns were much too modest to brag about such things in those days. But she felt very, very lucky.

When she arrived at the University of Jyväskylä, Stara spent the first three years studying Finnish literature. She read intensely and wrote multiple twenty-page papers. She analyzed novels, poems, and short stories—something English trainee teachers do not generally do in the United States. At the same time, she took other required courses, including statistics. In her fourth year (out of six years of study), she began the teacher-training program. All Finnish teachers were required to get a master's degree, which meant something very different than it did in the United States.

For one full year of her master's program, Stara got to train in one of the best public schools in the country. She had three teacher mentors there, and she watched their classes closely. When she taught her own classes, her mentors and fellow student teachers took notes. Afterward, she got feedback, some of it harsh, in much the way medical residents are critiqued in teaching hospitals.

It was hard but exhilarating. She learned she needed to get better at motivating her students at the start of each lesson, before she did anything else. In time, she improved. When Stara wasn't teaching or observing other teachers, she collaborated with her fellow student

teachers to design lessons that integrated material from all their subjects, including history and art. Then they practiced teaching those lessons, pretending they were students. Like all Finnish teachers, Stara also had to do original research to get her degree, so she wrote a two-hundred-page thesis on the ways that teenagers' spoken Finnish shaped their written Finnish.

Now, consider Kim's math teacher back home, Scott Bethel. He'd decided to become a teacher mostly so that he could become a football coach. In America, this made sense. As a student at Sallisaw High School, he was an all-state quarterback in 1989. "My dad taught at a school about ten miles from here," Bethel told me. "He was also a football coach, and I was always good at sports, and I thought, 'You know what, I'd like to become a coach.'"

Although Bethel hadn't taken calculus in high school, he'd always been pretty good at math. So, he figured the best way to become a coach was to become a math teacher. Bethel was one of several coaches that Kim had as teachers over the years, a hybrid job that would be considered bizarre in Finland and many countries, where sports lay beyond the central mission of schools.

In Oklahoma alone, Bethel could choose from nearly two dozen teacher-training programs—almost three times as many as in all of Finland, a much bigger place. Oklahoma, like most states, educated far more teachers than it needed. At most U.S. colleges, education was known as one of the easiest majors. Education departments usually welcomed almost anyone who claimed to like children. Once students got there, they were rewarded with high grades and relatively easy work. Instead of taking the more rigorous mathematics classes offered to other students, for example, education majors tended to take special math classes designed for students who did not like math.

Bethel did his training at Northeastern State University, like the Sallisaw superintendent and many Oklahoma teachers, including Kim's mom. The university prepares more teachers than any other institution in the state and has a good reputation. However, it also

has a 75 percent acceptance rate, which means that it admits, on average, students with much weaker math, reading, and science skills than Finnish education schools. The university's typical ACT score is lower than the national average for ACT-takers—a pattern that holds true for many teacher-training programs all over America.

To teach in Oklahoma, Bethel did not need a master's degree. He could receive a raise if he got one, and many U.S. teachers did. But, since the typical education college had low standards and little rigor, an advanced degree did not mean much. In many states, teachers were not required to get degrees in their subject area, so they got a master's in teaching instead. A master's degree did not make American teachers better at their jobs, generally speaking, and some research suggested it made them worse.

Nationwide, the United States produced nearly two and a half times the numbers of teachers it needed each year. The surplus was particularly extreme for elementary school teachers. The United States was not exceptional in this regard: The combination of low standards and high supply plagued education systems around the world, dumbing down the entire teaching profession. Oklahomans praised their teachers for doing a hard job, and rightfully so, but they didn't brag about how well educated they were.

Interestingly, Finland's landscape used to be littered with small teaching colleges of varying quality, just like in the United States. That helped explain why the first phase of reforms in Finland were painful, top-down, accountability-based measures. Finland, it turns out, had its own No Child Left Behind moment, one that today will sound familiar to teachers in the United States and many other countries. In the 1970s, Finnish teachers had to keep diaries recording what they taught each hour. National school inspectors made regular visits to make sure teachers were following an exhaustive, seven-hundred-page centralized curriculum. Central authorities approved textbooks. Teachers could not be trusted to make their own decisions.

During the same time period, the Finnish government did some-

thing else, too—something that has never happened in the United States or most other countries. The Finns rebooted their teacher-training colleges, forcing them to become much more selective and rigorous. As part of a broader reform of higher education, the government shuttered the smaller schools and moved teacher preparation into the more respected universities. It was a bold reform, and not without controversy. Opponents argued that the new system was elitist and would, as one editorial warned, “block the road to our rural youth when their inner calling beckons them to a [teaching] career.” Some university leaders objected, too, fearing that the inclusion of such preprofessional, practical training might dilute academic standards for the rest of the departments and lower their institutions' prestige. Interestingly, these same arguments were also made in the United States whenever anyone tried to make teacher training more selective.

Still, Finland was desperate to modernize, and the country's leaders agreed that education was the only thing that could save their country from being left behind. The more I read the history and talked to Finns who understood it, the more I admired the common sense running through the story. The Finns decided that the only way to get serious about education was to select highly educated teachers, the best and brightest of each generation, and train them rigorously. So, that's what they did. It was a radically obvious strategy that few countries have attempted.

Then, in the 1980s and 1990s, something magnificent happened. Finland evolved to an entirely new state, unrealized in almost any country in the world. It happened slowly, and partly by accident, but it explained more about Finland's success than almost anything else.

With the new, higher standards and more rigorous teacher training in place, Finland's top-down, No-Child-Left-Behind-style mandates became unnecessary. More than that, they were a burden, preventing teachers and schools from reaching a higher level of excellence. So Finland began dismantling its most oppressive regulations, piece by piece, as if removing the scaffolding from a fine sculpture.

The government abolished school inspections. It didn't need them anymore. Now that teachers had been carefully chosen and trained, they were trusted to help develop a national core curriculum, to run their own classrooms, and to choose their own textbooks. They were trained the way teachers should be trained and treated the way teachers should be treated.

In the early 1990s, an economic crisis accelerated this evolution, ironically enough. Because of a deep recession, Finland's local authorities needed to slash spending. Education budgets had to be cut 15 to 20 percent. The only way local officials would agree to deep cuts was if they got something in return. So, national leaders agreed to grant even more autonomy to the locals, more than most other countries had ever dared to do. This liberation worked only because of all the changes that had come before. By then, the Finns had engineered a robust system with highly educated, well-trained teachers and relatively coherent (and high) standards. Once that system was in place, the accountability checks and balances were superfluous. School leaders and teachers were free to write their own lesson plans, engineer experiments within their schools to find out what worked, and generally design a more creative system than any centralized authority ever could.

By the time Kim got to Finland, teachers, principals, union leaders, and politicians routinely worked together to continually improve the education system. They sometimes disagreed, but collaboration was normal, and trust was high. The government conducted standardized testing of targeted samples of students—to make sure schools were performing. But there was no need to test all students, year after year.

Why hadn't that evolution ever happened in the United States—or in most other countries? Had anyone even tried?

The examples were few but revealing. As the new education commissioner in Rhode Island, one of Deborah Gist's first acts was to raise the minimum test scores for teachers-to-be in 2009. At the time, Rhode Island allowed lower scores than almost any state in the nation. She had the power to change this unilaterally, and she did, taking one

step in the direction of Finland by requiring new teachers to score significantly higher on the SAT, ACT, and the Praxis, a teacher certification test.

Immediately, critics called her elitist, lobbing the same accusations critics had used against reformers in Finland in the 1970s. Some argued that a teacher who struggled in school was actually a better teacher, because that teacher could relate to students who were failing. It was a perverse logic. Would a doctor who had botched several surgeries be an ideal medical-school professor?

Others worried that higher standards would lead to a teacher shortage. Yet Rhode Island's teacher colleges already churned out 1,000 teachers a year, about 800 more than the school system needed to hire. Supply, particularly of elementary school teachers, was not a problem. Moreover, the laws of human nature applied: Once it became harder to be a teacher, it could also become more attractive. More people might want to do it, and fewer established teachers might leave the profession.

Because this was America, a diverse country with a long history of racism in colleges, public schools, and every other institution, Gist's efforts were also attacked as discriminatory. Higher education leaders warned that the new standards would prevent minority students, who tended to score lower on tests, from becoming teachers.

In reality, the Rhode Island teaching force was already far too white and far too female; to become more diverse and attract more men, in particular, it could be argued, the profession needed to be more prestigious, not less. More to the point, minority students needed highly educated *and* diverse teachers. It was interesting to note that higher standards were seen not as an investment in students; they were seen, first and foremost, as a threat to teachers.

Rhode Island's teacher-preparation programs produced, *free times* more teachers than Rhode Island's public schools actually hired each year. The only institution benefiting from this system seemed to be the colleges themselves, but college leaders still complained that they

would lose too many students if the standards were higher. They voiced this concern to newspaper reporters, and reporters quoted them without irony.

"It will disenfranchise too many students," Roger G. Eldridge Jr., interim dean of the School of Education at Rhode Island College told the *Providence Journal*. It was a revealing word choice: Disenfranchise usually means to deprive someone of a sacred legal right, such as the right to vote. And that is in fact how many people viewed the job; most Americans said teaching was a hard and important job, but many of them, including teachers and teaching professors, didn't seem to believe it required serious intellectual heft.

Under the new, higher standards, about 85 percent of Rhode Island College's education students would not make the cut, the dean threatened. Coming from the college that produced more Rhode Island teachers than any other, this was an astounding statistic, one that should have been a source of deep shame, but was not.

Gist did not back down, however. "I have the utmost confidence that Rhode Island's future teachers are capable of this kind of performance," she said. She did agree to phase in the higher cut score gradually over two years and to allow colleges to ask for waivers for highly promising candidates who did not make the cut score. Three years later, she had not received any waiver requests. At Rhode Island College, the percentage of minority students studying to be teachers went from 8.8 percent to 9.24 percent, remaining essentially unchanged despite all predictions to the contrary.

For some American teachers, the lack of serious training didn't matter; they made up for what they didn't know by learning on the job. Some got lucky and had a strong principal or mentor. For other teachers, though, this education gap did matter. As more of their students aspired to attend college, and the economy increasingly rewarded higher-level thinking, more teachers were being asked to teach material they'd never really learned themselves.

Beyond the practical effects, the lower standards sent a demor-

ating message: In America and Norway and many other countries, we did not expect our teachers to be the best and brightest of their generation. We told them so in a thousand different ways, and the messaging started the day they went to college.

When Kim was starting kindergarten in 2000, ten out of ten new Finnish teachers had graduated in the top third of their high school classes; only two out of ten American teachers had done so. Incredibly, at some U.S. colleges, students had to meet higher academic standards to play football than to become teachers.

In Finland, the government paid tuition for Stara and all university students. In Oklahoma, Bethel's tuition was paid, too, but his free ride came from a carefully cobbled together safety net of Pell grants, a partial athletic scholarship, and Indian grants. Most students could not manage this feat.

During his sophomore year at Northeastern State University, Bethel had applied to the university's education college. Here was another chance for the university to select its best and brightest to become teachers. But to be admitted, Bethel had to have a grade-point average of just 2.5 or higher (out of 4). He would have needed a higher GPA to become an optometrist at the same university today. To be a teacher, he also had to have at least a C grade in freshman English and a C in speech or a class called the fundamentals of oral communication.

He also needed a score of 19 or higher on the ACT, a standardized test like the SAT. The national average for the ACT back then was 20.6. Let's consider what this meant: It was acceptable to perform *below average* for the country on a test of what you had learned throughout your educational career if you aspired to dedicate your career to education.

At the education college, Bethel discovered that he didn't have to major in math to become a high-school math teacher. So he didn't. Nationwide, less than half of American high-school math teachers majored in math. Almost a third did not even minor in math.

The problem was even worse among students training to be younger children. "A large majority of elementary education teachers are afraid of math," one Oklahoma math department chair said in response to a 2005 survey. "This fear will be passed on to their students." Another estimated that about a quarter of teachers graduating from her college actively hated math and showed no interest in improving. Bethel liked math, but his primary goal was to become a teacher, so he majored in physical education and minored in math. What he took the required test for high school math teachers in Oklahoma passed easily. Most of the material was at a tenth or eleventh grade level, and he didn't find it difficult. However, if he had, he would have been allowed to retake the test until he passed.

Nationwide, people studying to become math teachers in the United States did not have to actually know that much math compared to teachers in the education superpowers. The deficit was particularly alarming among middle-school math teachers. When researchers tested thousands of aspiring teachers in sixteen countries, they discovered that future middle-school math teachers in the United States knew about as much math as their peers in Thailand and Oman. They knew nowhere near the math competence of teachers-in-training in Taiwan, Singapore, or Poland. So it was not surprising that those who teachers' students would perform just as unimpressively later in life could not teach what you didn't know.

Still, the most valuable part of any teacher preparation program may be the hands-on practice that student teachers get in a real classroom. There is no better way to prepare for teaching than to actually teach—and get meaningful feedback on how to improve.

In Oklahoma, Bethel's student teaching experience helped him learn to plan lessons and manage a classroom. But it lasted just twelve weeks, compared to the year-long residency typical in Finland. Nationwide, U.S. teacher-training colleges only require an average of twelve to fifteen weeks of student teaching, and the quality varies wildly depending on the place.

When Bethel got his first teaching job, he quickly realized that he would have been helpful to major in math. But what was done was done. By the time he taught Kim, he was earning about \$49,000 per year, which was more than the typical salary in Sallisaw but still not a lot. Across the Atlantic Ocean, Stara was earning about \$67,000. The amount of money he was making was higher in Finland, but Stara's salary was still higher. And her salary was closer to what other college graduates earned in Finland than Bethel's salary was in the United States.

Interestingly, large salaries did not necessarily coincide with higher test scores worldwide. The world's highest paid teachers lived in Spain, where teachers performed worse in math, reading, and science than elsewhere in the United States. But in higher-functioning education systems, larger salaries could help schools attract better-educated teachers and retain them over time, establishing a baseline of professional standards and prestige. In all the education superpowers, teachers' salaries were closer to the salaries of other college-educated professionals than they were in the United States. In most cases, classes were also larger than they were in the United States, making the cost of the salaries more manageable.

As I listened to teachers like Stara and Bethel, I started to suspect that all these differences interacted, in chronological order. Because teacher colleges selected only the top applicants in Finland and other education superpowers, those schools could spend less time doing hands-on instruction and more time on rigorous, hands-on training; because teachers entered the classroom with rigorous training and a high level of education, they were less likely than American teachers to quit or be laid off. This model of preparation and stability made it possible to give teachers larger class sizes and pay them decently, since the turnover costs were much lower than in other countries. And, since they had all this training and support, they had the tools to help kids learn year after year, and to finally pass a truly demanding graduation exam at the end of high school.

The subconscious effects were just as powerful. As one U.S. ex-

change student to Finland explained in the survey conducted for the book:

"My Finnish school fostered a great deal of respect for the institution and faculty in the students. This can be partly explained by the academic rigors that teachers had to endure in their journeys to becoming educators. The students were well aware of how accomplished their teachers were."

One thing led to another. Otherwise, one thing led to much less. If the rigor didn't start at the beginning, then the most challenging high-school graduation test in the world would not succeed. Federal mandates could only go so far. Without highly educated and well-trained teachers and principals, kids could make only limited progress each year. Realizing that they could never pass the graduation test, many would tune out and give up.

The more time I spent in Finland, the more I started to worry that the reforms sweeping across the United States had the equation backwards. We were trying to reverse engineer a high-performance teaching culture through dazzlingly complex performance evaluations and value-added data analysis. It made sense to reward, train, and dismiss more teachers based on their performance, but that approach assumed that the worst teachers would be replaced with much better ones, and that the mediocre teachers would improve enough to give students the kind of education they deserved. However, there was not much evidence that either scenario was happening in reality.

What if the main problem was not motivation? Was it possible to hammer 3.6 million American teachers into becoming master educators if their SAT scores were below average?

The lesson from Finland had a linear elegance: If we wanted to get serious about education, at long last, we needed to start at the beginning. Following Finland's example, education colleges should only be allowed to admit students with SAT scores in the top third of the

national distribution or lose government funding and accreditation. About 1.6 million U.S. teachers were due to retire between 2011 and 2021, a revolution in recruitment and training could change the entire profession in a short period of time.

Why hadn't this been done in any state in America? Given that colleges already prepared far more teachers than schools needed, this change would not necessarily have led to a teacher shortage. Over time, it might have actually increased the popularity of the profession by making it more prestigious.

It was a bizarre oversight. For all the time and energy that American educators had spent praising Finland, it was remarkable that they did not insist upon this most obvious first step. It was almost as if we wanted the prestige of Finland's teachers—but didn't really believe that our teachers needed to be highly educated and unusually accomplished in order to merit that prestige. But why, then, did Finland?

"why do you guys care so much?"

After class, Kim had a free period—a full seventy minutes with nothing scheduled. This was the other big difference she'd noticed about Finland: the inexplicable stretches of luxurious freedom. She kept finding herself released into the ether, trusted to find her way through long stretches of time. She could even walk out of the school in the middle of the day and go to a coffee shop in the village until her next class began. It was hard to get used to.

Even outside school she felt this freedom. She had learned her way to the Halpa-Halli supermarket by bike and, although it took her an embarrassingly long time to find the simplest ingredients, her host mother didn't seem to worry if she wasn't home on time.

Parents in general seemed to trust their kids more. Kim routinely saw eight-year-olds walking to school alone, wearing reflective vests to keep them visible in the dark. At the high school, she rarely saw parents for any reason. Teenagers were treated more like adults. There

were no regularly scheduled parent-teacher conferences. None. If teachers had a problem with the student, they usually just met with the student.

Kim wandered into the central lobby of the school and sat on one of the gray couches. Back home, she'd had five minutes free between classes, and anyone caught hanging out was in trouble. Part of her was still in Oklahoma, waiting for someone to come bust her.

Two girls from her class sat down next to her. They said hello to Kim and started talking about how hard they'd studied for midterm exams last year, lamenting all the work they had ahead of them.

Most of the time, the Finnish students were just as aloof as her guide books had told her they would be. But Kim was still new enough that she could ask them about Finland to make conversation. So, she collected her courage and blurted out the question that had been on her mind.

"Why do you guys care so much?"

The girls looked at her, confused. Kim felt her cheeks flush, but she barreled ahead.

"I mean, what makes you work hard in school?"

It was a hard question to answer, she realized, but she had to ask. These girls went to parties; they texted in class and doodled in their notebooks. They were normal, in other words. Yet they seemed to respect the basic premise of school, and Kim wanted to know why.

Now, both girls looked baffled, as if Kim had just asked them why they insisted on breathing so much.

"It's school," one of them said finally. "How else will I graduate and go to university and get a good job?"

Kim nodded. It was a fair question. Maybe the real mystery was not why Finnish kids cared so much, but why so many of her Oklahoma classmates did not. After all, for them, too, getting a good education was the only way to go to college and get a good job. Somewhere along the way, however, many of them had stopped believing in this equation. They didn't take education very seriously. Maybe be-

cause they were lazy, spoiled, or dysfunctional in some other way, or maybe because, in their experience, education wasn't all that serious.

"How is it possible you don't know this?"

Listening to Kim's impressions of Finland, I wondered if she were unique. Kim came from a relatively low-performing state, and no one would say she had an overly generous attitude toward her hometown. Would other exchange students notice the same differences? What about a teenager traveling in the opposite direction? Would a Finnish girl who'd chosen to come to the United States see a mirror image of what Kim had noticed in Finland?

Every year, about four hundred Finnish kids travel to the United States to live and study. Most of them ended up in the Midwest in public high schools. To find out what they thought of their borrowed land, I started tracking them down. It didn't take long to notice a pattern.

Elina came to America from Helsinki when she was sixteen, the same age as Kim. She came because she'd spent much of her life dreaming about the American high schools she saw on television and in movies: the prom, the pep rallies, and all the twinkling rituals of the American teenager.

In America, Elina lived with a host family in Colon, Michigan, a small town named after the punctuation mark, just outside Kalamazoo. At first, Elina's new world looked a lot like home. Colon was surrounded by lakes and trees. The population was 95 percent white and native born. On weekends, men zipped themselves into down jackets and played ice hockey on frozen lakes. The winter lasted most of the year, just like back home.

Early on, however, Elina discovered one important difference about America. Back home, she'd been a good student. In Colon, she was exceptional. She took Algebra II, the most advanced math class offered at Colon High. On her first test, she got 105 percent. Until



then, Elina had thought it was mathematically impossible to get 105 percent on anything.

She thought she might have more trouble in U.S. history class, since she was not, after all, American. Luckily, her teacher gave the class a study guide that contained all the questions—and answers—to the exam. On test day, Elina coasted through the questions because, well, she'd seen them in advance.

When the teacher handed the tests back, Elina was unsurprised to see she'd gotten an A. She was amazed, however, to see that some of the other students had gotten Cs. One of them looked at her and laughed at the absurdity.

"How is it possible you know this stuff?"

"How is it possible you *don't* know this stuff?" Elina answered.

I talked to Elina after she had left the United States and gone to college in Finland. She was planning to work in foreign affairs one day. Now that some time had gone by, I wondered if she had a theory about what she'd seen in her American school. Were the students too coddled? Or the opposite—too troubled? Too diverse? Maybe they were demoralized by all the standardized testing?

Elina didn't think so. In her experience, American kids didn't study much because, well, they didn't have to. "Not much is demanded of U.S. students," she said. In Finland, her exams were usually essay tests, requiring her to write three or four pages in response. "You really have to study. You have to prove that you know it," Elina told me about Finnish high school. In the United States, her tests were typically multiple choice.

"It was like elementary school in Finland," she said. In that history class, she remembers, the class spent an inordinate amount of time making posters. "We did so many posters. I remember telling my friends, 'Are you kidding me? Another poster?'" It was like arts and crafts, only more boring. The teacher gave all the students the information for the poster, and the kids just had to cut and glue their way to a finished product. Everybody's poster featured the same subject.

The expectations were lower in America, Elina concluded, and the consequences were, too. She took a journalism class in Colon that was taught by an outstanding teacher. Everyone loved this teacher, including Elina. More important, perhaps, they respected her, and knew they were learning in her class. However, when the teacher told everyone they had to write ten articles by the end of the semester, only Elina actually did all ten stories. The teacher was irritated, but the other students still passed the class.

Elina and Kim's observations were anecdotal to the extreme. How much could we make of a few kids' memories? But it was remarkable how many kids from all different lands agreed on this point. In a large, national survey, over half of American high schoolers echoed Elina's impression, reporting that their history work was often or always too easy. Less than half said they felt like they were always or almost always learning in math class.

In my own survey of 202 foreign-exchange students, an overwhelming majority said their U.S. classes were easier than their classes abroad. (Of the international students who came to America, nine out of ten said classes were easier in the United States; of the American teenagers who went abroad, seven out of ten agreed.) School in America was many things, but it was not, generally speaking, hard.

During her year in America, Elina saw a Broadway show and visited the Washington Monument. She ran track and worked on the yearbook. She was surprised by how involved parents were in the school, much more so than parents back home. However, in the classrooms at Colon High—a school *not* overwhelmed by poverty, immigration, gangs, or any of the blights so often blamed for our educational mediocrity—she did not learn much in the traditional sense.

### life after school

When Kim's school day in Finland ended at three forty-five, it was already dark. Her classmates all headed off in different directions. A

few boys in a garage band went off to practice; some of the girls went shopping. No one Kim knew went to afterschool tutoring academies. Finnish kids had more free time than American kids, and not just because they did less homework. They were also less likely to get sports or hold down jobs.

As Kim walked through town on the way to the library, she was hopeful. She spent a lot of time alone with her thoughts. But she had discovered, to her relief, that life in Finland was different. The distinctions were subtle: the freedom, the freshly cooked food in the cafeterias, the civility. It was hard to describe the cumulative effect of these differences, but it felt, on days like today, as if she'd been paid for good behavior.

*The town felt cleaner and nicer than Sallisaw, like it was built for people instead of cars. As she walked along the brick pedestrian walk she passed boys with Justin Bieber hair, girls with tattoos, and billboards covered with H&M bikini ads. People dressed slightly better than they did back home, but not radically different. There were not nearly as many tall, blonde women as she had expected.*

The neighborhood surrounding her school was filled with eighteenth and nineteenth-century wooden houses, built after Russians sacked the village and drove out most of the townspeople in the 1700s. Kim had been keeping a mental list of the ordeals Pietarsaari had endured, from famine to communism; it had been fired on by the British Navy and bombed by the allies during World War II. The mystical land of smart children and Nokia, the one she had read about in America, was a relatively recent development.

After the library, she walked to Café Nemo, one of her favorite coffee shops. She'd come so often that the British owner had nicknamed her *Oklahoma*. She ordered in Finnish, proud to have built up a tolerance to the strong Finnish coffee.

Finally, it was time to go back to the apartment. She was out of excuses. Although she adored Susanne, her vivacious host mother, going home was one of the more stressful parts of Kim's day. De-

For her best efforts, her five-year-old host sisters had not warmed to her. They resented the attention their busy single mother gave to this stranger intruder. It made no sense to them (and indeed sometimes to her) that their mom had taken in yet another daughter.

When Susanne was not in the room, the girls called Kim *tyhmä* and laughed. Kim looked it up; it meant "stupid." When she tried to talk, they came in and banged on her laptop keyboard. The number she had recently stopped working. Yet her bedroom doubled as their *partoom*, so Kim didn't feel she had the right to make them leave.

The girls were teasing her, as small children will. Kim had never had a younger sibling, and she had no idea how—or whether—to discipline the twins. They were not her children, and she was not really their sister. She blamed herself. Each day, she vowed anew that she would find a way to make them like her.

In many ways, Finland had been the adventure she'd hoped it would be. She'd jumped into a hole in the ice in a frozen lake, an insane tradition in line with the Finns' proud history of endurance. She'd grown to look forward to the warmth of the host family's tiny home sauna after the cold walk home. She'd even made a couple of friends, and not all of them were exchange students.

Her biggest problem was that she herself had not changed very much—not yet, anyway. Most of the time, she felt unsure of herself. At school, she rarely spoke. At home, eager to please her host family, she stifled her frustration. Then she went quiet and sullen when the frustration built up inside her. Kim told herself it was the language barrier; it was hard to find her voice when she literally did not know the words. But this sensation felt unpleasantly familiar, like a bad habit she'd brought with her across the ocean. In her darkest hours, lying awake in her bunk bed in Pietarsaari, she wondered if the feeling would shadow her everywhere.

"of the ability to keep fighting after most people would have quit, to fight with the will to win."

It may have been the one word that encapsulated the Finnish more than any other. *Sisu* was what it took to coax potatoes out of the soil of the Arctic Circle; *sisu* had helped Finland pull itself back to the brink of irrelevance to become an education superpower; *sisu* helped explain how a country smaller than Montana had invented Nokia, Marimekko, and the Linux operating system, not to mention the video game *Angry Birds*. *Sisu* was Finland's version of *grit*, the quiet force that never quit. English has no word for *sisu*, though the closest synonym might be *grit*.

That day, arriving at the station near Pietarsaari, Kim felt as if she understood what *sisu* was. She didn't know how long the feeling would last, but she hoped she would remember it. As she heaved her suitcase off the train and made her way outside with the rest of the passengers, she felt almost as if she belonged.

### virtual reality

I met Kim and both of her host families for dinner in Pietarsaari one night that spring. By then, the snow had finally melted. We gathered at a big, white clapboard restaurant on the sea. Kim had stayed in close touch with Susanne despite having moved out. She wrote a regular column for Susanne's newspaper, and Susanne was working on a Finnish magazine story about Kim.

We ate cod and cloudberrries, and Kim sat in the middle, wearing a red jacket and telling stories about her first days in Finland. She seemed more sure of herself than she had just a few months before. That's when she told me she was working on a plan for her return to America.

"I'm applying to virtual high school," she said.

Kim had decided she couldn't go back to Sallisaw High School. She didn't want to be the person she was before, and she was afraid she couldn't change if everything else stayed the same.

I worry that the indifference will start to affect me again. That I'll slip back into the views of all my peers."

"What view is that?"

That it just doesn't matter; that school sucks, so why should we care? I feel like removing myself from that situation."

She'd researched boarding schools on the Internet, just like she'd researched Finland. That was the fantasy. Then she'd come across a link for something called Oklahoma Virtual High School. She'd discovered it was a real high school, albeit one that existed online. And it was free, unlike boarding school. She and her mother were going to talk about it some more, but Kim seemed confident she'd found a way to get through her last years of American high school.

Afterward, we emerged into the blue twilight. It was ten o'clock and still light out, the time of year when the Nordic countries paid their debts from the winter. Kim let me take a few pictures of her in front of the sea, then she got on her bike and rode home, like a real Finn.

### stress test

Two days later, I accompanied Kim to school. I went to classes with her, and she introduced me to her principal and her teachers. It happened to be the week that the seniors got the results of the big matriculation exam they'd taken earlier that year—the one that determined where they would likely go to college. Kim's Finnish teacher, Tiina Stara, was worried about her students. "They are feeling a lot of pressure. It's not like in Japan or Korea, but still."

The test had been around for more than 160 years and was deeply embedded in the system. The countries with the best education outcomes all had these tests at the end of high school. It was one of the most obvious differences between them and the United States—which had a surplus of tests, few of which had meaningful effects on kids' lives.

Matriculation exams like Finland's helped inject drive into education systems—creating a bright finish line for kids and schools to

work toward. Teenagers from countries with these kinds of test performed over sixteen points higher on PISA than those in countries without them.

Still, Stara worried that this test stressed out her students and drove too much of her lesson planning. "I sometimes want so badly to do something fun with them," she said, clenching her fist in her lap. "I think it's very important that they enjoy studying." In addition to the matriculation exam, Finnish kids still took regular classroom tests and final exams every six weeks at the end of each mini-semester. In surveys, Finnish kids cited the high number of tests as one reason why they didn't like school. Tests were controversial all over the world, but another universal truth.

Stara hastened to add that she would not do away with the matriculation test if she could. "It's a very good exam," she said, nodding at her head.

Then she described what rigor looked like: Finland's curriculum stretched out over three grueling weeks and lasted about *five* hours. Teachers followed students to the bathroom to make sure they didn't cheat. The Finnish section took two days. On the first day, students read several texts and wrote short essays analyzing each one, over the course of six hours. On the second day, students chose one topic out of fourteen options and wrote a single, very long essay, over the course of another six hours. One recent topic was, "Why is it difficult to achieve peace in the Middle East?" Another was, "I blog, therefore I am."

To do well, students had to be able to structure a long-form essay, communicate complex ideas, and, of course, use proper spelling and grammar. Stara felt a heavy responsibility to help her students do well on this test.

It was hard to think of a test like this in the United States. The SAT and ACT served a similar purpose, but neither was as comprehensive or as embedded in schools themselves. Many states had some kind of graduation test, but kids didn't need much *sisu* to pass them. The New York State Regents exam was considered one of the most

demanding. Yet the English portion lasted only a quarter as long as the Finnish portion of Finland's test. It included just one essay and a stack of responses, each of which only had to be one paragraph long. The English test used to be six hours, but the New York Board of Regents voted to cut it in half in 2009, citing the logistical challenges of administering a long test, particularly with other distractions, like cell phones, a rationale that would have amused the Finns. Altogether, the Regents exam required one-third the time of Finland's test.

In Finland, school was hard, and tests affected students' lives. There was not a good excuse. That might explain why only 20 percent of Finnish teenagers said they looked forward to math lessons, compared to 40 percent of Americans. They had to work hard, and expectations were high. About half of Finnish kids said they got good grades in math, compared to almost three-quarters of Americans. In fact, American fifteen-year-olds were more likely than kids in any other countries to say they got good math grades.) The problem with rigorous education was that it was *hard*. Ideally, it was fun, too, but it couldn't always be, not even in Finland.

There was much to be said for American teachers, who, in many schools, worked hard to entertain and engage their students with interactive classrooms. In my survey of 202 exchange students, I was struck by how many of them brought up their affection for their U.S. teachers. One German exchange student surveyed described the difference this way:

"The teachers in the U.S. are way more friendly. They are like your friends. . . . In Germany, we know nothing about our teachers. They are just teachers. We would never talk to them about personal problems."

This bond between teachers and students mattered, and U.S. teachers deserved credit for connecting with their students. But learning to do higher-order thinking, reading, and math mattered, too. Finland seemed to have found a way to create manageable pressure, something compas-

sionate teachers worried about, but not something that forced millions of kids to study for fifteen to eighteen hours per day. The Finns had long on teaching quality, autonomy, and equity, which meant they could ease up a bit on drive. In Finland, kids could have a life *and* an education, too.

### black people in finland

The more time I spent in Finland, the more I appreciated the run that it had struck. Finland had achieved rigor without ruin. It was important not to notice something else, too: During my time in Pietari, I saw exactly one black person. In Kim's classes, everyone looked basically the same. Nationwide, only 3 percent of Finland's students had immigrant parents (compared to 20 percent of teenagers in the United States).

In fact, Finland, Korea and Poland were *all* homogeneous places with few immigrants or racial minorities. Japan and Shanghai China, two other education superpowers, were similarly bland. Maybe the homogeneity was a prerequisite for rigor at scale. Did sameness help harmony, which somehow boosted learning? If so, was Finland the equivalent to a big, jangling place like the United States?

*Diversity* was one of those words that got hijacked so often it had lost most of its meaning. Part of the problem was that there were thousands of ways to be diverse. In the United States, conversations about diversity were usually about race. The United States had tracked the race of students because of its history of institutionalized racism; other countries did not, which made comparisons difficult.

But within the United States, African-American students did poorly on PISA, heartbreakingly so. On average, they scored eight to four points below white students in reading in 2009. It was as if the white kids had been going to school two extra years, even though they were the same age. The gap between white and African-American students showed itself in dozens of other ways, too, from graduation rates to SAT scores. Generally speaking, up to half the gap could

be explained by economics; black students were more likely to come from lower-income families with less-educated parents.

The other half was more complicated: Black parents tended to have fewer books and read less to their children, partly because they tended to be less educated. Then, when black children walked out of their homes and went to school each day, the disparities compounded. African-American kids were more likely to encounter inferior teaching and lower expectations in school, and they were disproportionately

pushed into the lowest groups for reading and math lessons. At each school day, African-American kids got the message in many schools around the country. It was subtle, but it was consistent: Your time is not precious, and your odds are not good. Those kinds of schools took up residence in kids' brains, echoing in the background whenever they contemplated what was possible. In one long-term study of Australian teenagers, researchers found that teenagers' aspirations at age fifteen could predict their futures. Kids who had high expectations for themselves, who planned to finish school and go to college, were significantly more likely to graduate high school. In fact, their parents' socioeconomic status didn't seem to affect their graduation odds, statistically speaking, as long as they held these aspirations. Still, despite all the insidious disadvantages they faced, African-American kids were not responsible for the lackluster U.S. performance overall. For one thing, five of every six American kids were not black. For another, white kids didn't do so great in math, either. On average, white American teens performed worse than *all* students in a dozen other countries, including *all* kids in Canada, New Zealand, and Australia, which had higher ratios of immigrant kids. On a percentage basis, New York State had fewer *white* kids performing at high levels in math than Poland and Estonia had among kids overall.

Nothing was simple. Diversity could raise or lower test scores, and it did. One in five U.S. students came from an immigrant background, the sixth highest ratio in the developed world. But U.S. immigrants were, well, diverse: Hispanic students scored higher than blacks on

PISA, for example, and lower than whites, but Asian-Americans did better than everyone.

Overall, the gap between PISA reading scores for native and immigrant students in the United States was 22 points—better than Germany or France, where the gap was 60 points, but not as impressive as Canada, where the gap was zero. Much depended on the education and income of the immigrant parents, which had a lot to do with the history and immigration policies of a given country.

The rest depended on what countries *did* with the children they had. In the United States, the practice of funding schools based on local property taxes motivated families to move into the most affluent neighborhoods they could afford, in effect buying their way into good schools. The system encouraged segregation.

Since black, Hispanic, and immigrant kids tended to come from less affluent families, they usually ended up in underresourced schools with more kids like them. Between 1998 and 2010, poor American students had become more concentrated in schools with other poor students.

The biggest problem with this kind of diversity is that it wasn't actually *diverse*. Most white kids had majority white classmates. Black and Hispanic students, meanwhile, were more likely to attend majority black or Hispanic schools in 2005 than they were in 1980.

Populating schools with mostly low-income, Hispanic, or African-American students usually meant compounding low scores, unstable home lives, and low expectations. Kids fed off each other, a dynamic that could work for good and for ill. In Poland, kids lost their edge as soon as they were tracked into vocational schools; likewise, there seemed to be a tipping point for expectations in the United States. On average, schools with mostly low-income kids systematically lacked the symptoms of rigor. They had inconsistent teaching quality, little autonomy for teachers or teenagers, low levels of academic drive, and less equity. By warehousing disadvantaged kids in the same schools, the United States took hard problems and made them harder.

In Singapore, the opposite happened. There, the population was

also diverse, about 77 percent Chinese, 14 percent Malay, 8 percent Indian, and 1.5 percent other. People spoke Chinese, English, Malay, and Tamil and followed five different faiths (Buddhism, Christianity, Islam, Taoism, and Hinduism). Yet Singaporeans scored at the top of the world on PISA, right beside Finland and Korea. There was virtually no gap in scores between immigrant and native-born students.

Of course, Singapore was essentially another planet compared to most countries. It was ruled by an authoritarian regime with an unusually high-performing bureaucracy. The government controlled most of the rigor variables, from the caliber of teacher recruits to the mix of ethnicities in housing developments. Singapore did not have the kind of extreme segregation that existed in the United States, because policy makers had forbidden it.

In most freewheeling democracies, governments did not have that kind of power. Left to their own devices, parents tended to self-segregate. If the class distinctions were less obvious, and the quality of the schools more consistent, this tendency was manageable.

Watching the kids sitting in Kim's classes, some animated, some aloof, but all of them white, I wondered what would happen if Finland's population suddenly changed. Would the Finns still have a shared belief in rigor if students came in all different colors? Or would everything come undone?

“I want to think about them as all the same.”

Finland was a homogeneous place, but getting less so. The number of foreigners had increased over 600 percent since 1990, and most of the newcomers had ended up in Helsinki.

To find out how diversity changed the culture of rigor, I went to the Tuusula school, just outside Helsinki, where a third of the kids were immigrants, many of them refugees. The school enrolled children aged six to thirteen. It was surrounded by concrete block apartment buildings that looked more communist than Nordic.

In a second-floor classroom, Heikki Vuorinen stood before his sixth graders. Four were African; two wore headscarves. An Albanian boy from Kosovo sat near a Chinese boy. There was a smattering of white kids born in Finland. Vuorinen gave the class an assignment and stepped out to talk to me.

Wearing a purple T-shirt, jeans, and small, rectangular glasses, Vuorinen proudly reported that he had kids from nine different countries that year, including China, Somalia, Russia, and Kosovo. Most had single parents. Beyond that, he was reluctant to speculate.

"I don't want to think about their backgrounds too much," he said, running his hand through his thinning blonde hair. Then he smiled. "There are twenty-three pearls in my classroom. I don't want to scratch them."

When pressed, he told me about one of his students in particular. She had six brothers and sisters; her father was a janitor and her mother took care of other people's children. Money was very tight. But she was, he said, the top student in his class.

Vuorinen was visibly uncomfortable labeling his students. "I don't want to have too much empathy for them," he explained, "because I have to teach. If I thought about all of this too much, I would give better marks to them for worse work. I'd think, 'Oh, you poor kid. Oh, well, what can I do?' That would make my job too easy."

He seemed acutely aware of the effect that expectations could have on his teaching. Empathy for kids' home lives could strip the rigor from his classroom. "I want to think about them as all the same."

I'd never heard a U.S. teacher talk that way. To the contrary, state and federal laws *required* that teachers and principals think about their kids as different; they had to monitor their students' race and income and report that data to the government. Schools were judged by the test scores of kids in each category. Most principals knew their ratios of low-income and minority kids by heart, like baseball players knew batting averages. There were important reasons for all this labeling; the U.S. government was trying to highlight injustice in order

to fix it. Still, I wondered how much that raised consciousness had suppressed expectations along the way.

Diane Ravitch, one of the most popular education commentators in the United States, had insisted for years that Americans should think about our students' backgrounds *more*, not less. "Our problem is poverty, not schools," she told a roaring crowd of thousands of teachers at a D.C. rally in 2011. Kids were *not* all the same, in other words, and their differences preceded them.

In Finland, Vuorinen said the opposite of what Ravitch was saying in America.

"Wealth doesn't mean a thing," he said. "It's your brain that counts. These kids know that from very young. We are all the same."

The more time I spent in Finland, the more I started to think that the diversity narrative in the United States—the one that blamed our mediocrity on kids' backgrounds and neighborhoods—was as toxic as funding inequities. There was a fatalism to the story line, which didn't mean it was wrong. The United States *did* have too much poverty; minority students were *not* learning enough. Parents *did* matter, and so did health care and nutrition. Obviously.

But the narrative also underwrote low aspirations, shaping the way teachers looked at their students, just as Vuorinen feared. Since the 1960s, studies have shown that if researchers tested a class and told teachers that certain students would thrive academically in the coming months, teachers behaved differently toward the chosen kids. They nodded more, smiled more, and gave those kids more time to answer questions and more specific feedback.

In fact, the kids had been chosen at random. The label was fictional, but it stuck. At the end of the school year, teachers still described those students as more interesting, better adjusted, and more likely to be successful in life. As for other kids who had done well in the classroom, but were not chosen? The same teachers described them as less likely to succeed and less likable. The human brain depends on labels and patterns; if a researcher (or cultural

narrative) offers teachers a compelling pattern, they will tend to defer to it.

What did it mean, then, that respected U.S. education leaders and professors in teacher colleges were indoctrinating young teachers with the mindset that poverty trumped everything else? What did it mean if teachers were led to believe that they could only be expected to do so much, and that poverty was usually destiny?

It may be human nature to stereotype, but some countries systematically reinforced the instinct, and some countries inhibited it. It was becoming obvious to me that rigor couldn't exist without equity. Equity was not just a matter of tracking and budgets; it was a *mindset*.

Interestingly, this mindset extended to special education in Finland, too. Teachers considered most special ed students to have temporary learning difficulties, rather than permanent disabilities. That mindset helped explain why Finland had one of the highest proportions of special education kids in the world; the label was temporary and not pejorative. The Finns assumed that all kids could improve. In fact, by their seventeenth birthday, about half of Finnish kids had received some kind of special education services at some point, usually in elementary school, so that they did not fall farther behind.

During the 2009 to 2010 school year, about one in four Finnish kids received some kind of special education services—almost always in a normal school, for only part of the day. (By comparison, about one in eight American students received special education services that year.)

As I watched Vuorinen talk with his students, I thought back to a Washington, D.C., public school at which I'd spent time a few years before. The school was in a poor part of the city, and many of the families were struggling. One veteran teacher I met had a warm manner and a bright, tidy classroom. She'd paid for classroom supplies with her own money.

However, when she'd talked about her fourth grade students' backgrounds, she'd stressed their disadvantages above all else. She'd talked about her kids' families as if they were a lost cause: "Our par-

ents on this side don't have the know-how to raise their children," she'd said. "They're not sure what it takes for their child to make it."

She'd felt genuinely sorry for her students, but what good had come from her sympathy? After a year in her class, her students were farther below grade level in reading than they'd been when they'd first met her. They'd performed worse than other low-income kids who'd started the year at the same level in the very same city. Yet she'd seemed oddly sanguine about those results. The diversity narrative explained everything, even when it didn't.

### fear and the marketplace

At Vuorinen's school, all fifth graders had been tested in math two years earlier. It was one way that the Finnish government made sure that schools were working. Unlike in the United States, the accountability tests were precision targeted; the government tested only a sample of students. It usually took just one hour.

Compared to the rest of Finland, the Tiistilä kids performed above average. That was impressive: Better than average in Finland meant better than average just about anywhere.

Tiistilä students were diverse *and* good at math. The school was inspiring. It was also different from most U.S. schools in almost every way. First, it was *truly* economically and ethnically diverse. The school's three hundred children came from poor families, who lived in tiny, crowded apartments, and from rich families, who lived by the sea. Second, the Finnish government gave the school extra money for its immigrant students, to help pay for intensive language instruction.

The other difference was that Tiistilä had highly educated teachers. Vuorinen did not get into education college on his first try. Or his second. His test scores weren't high enough.

Finally, after spending years gaining experience as a substitute teacher, Vuorinen was accepted on his third try. He didn't find his university experience nearly as helpful as substitute teaching, but he



## results and discussion

For clarity, we inverted the questions and answers for the different populations. For example, international students were asked: "Compared to school in your home country, how much technology (computers, laptops, digital white boards, etc.) did you see in use in your U.S. school?" U.S. students were asked the same question, phrased in the opposite way: "Compared to school in the United States, how much technology (computers, laptops, digital white boards, etc.) did you see in use in your school abroad?" In order to easily compare the results, however, we have expressed all responses in terms of students' opinions of the U.S. education system vis-à-vis their experience abroad.

### Technology

International and U.S. students agreed there was more technology in U.S. schools. In all, 70 percent of international students and 73 percent of U.S. students said so; though compared to international students, U.S. students were more likely to say there was a little more rather than much more technology (see Chart 1). Not one U.S. student said there was much less technology in U.S. schools.

To date, there is remarkably scant research comparing the relative investments in technology in schools around the world. We know precious little about how much money countries spend on technology,

let alone whether those expenditures actually lead to student learning.

Our results suggest that the United States invests more heavily in technology in classrooms than even high-performing countries. (In our survey, 61 percent of students from HACs said the United States had more technology in its classrooms.) That does not necessarily mean that technology is negatively correlated with education performance, of course; many things interact to lead to education outcomes, and our results suggest that lower-performing countries use even less technology than high-achieving countries. (Almost three-quarters of students from LACs said the United States had "much more" technology compared to a third of students from HACs.)

Still, this difference might help explain (in part) why the United States spends more money per student than almost any country in the world. Our romance with educational technology has been expensive, distracting, and one-sided for a very long time.

### Difficulty

International and U.S. students agreed that school in the United States was easier than school abroad. In all, 92 percent of international students and 70 percent of U.S. students said school in the United States was easier than school abroad. U.S. students were more likely to say school in the United States was a "little easier" rather than "much easier" (see Chart 2).

Chart 1. U.S. and international students saw more technology in use in U.S. schools.

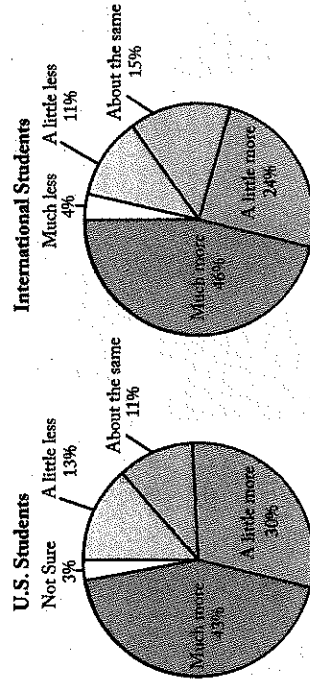
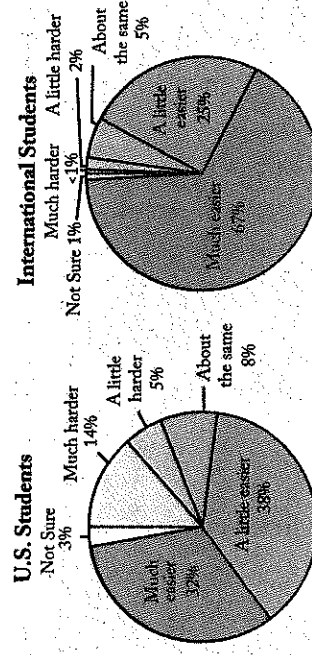


Chart 2. U.S. and international students said that U.S. classes were easier.



These results corroborate the findings from the 2001 and 2002 Brookings Institute surveys of international and U.S. exchange students. In those surveys, 85 percent of international students and 56 percent of U.S. students found U.S. classes easier.

The similarity in the findings suggest that the intervening ten years of education reforms under the federal No Child Left Behind Act did not, in the estimation of our sample, render U.S. schools any harder compared to schools abroad.

Another interesting finding points to a lack of rigor in U.S. coursework. International students from both high- and lower-achieving countries agreed that U.S. school was easier. However, international students from high-achieving schools were more likely to say that U.S. school was "much easier" than school at home. Specifically, 73 percent of students from high-achieving countries said U.S. school was "much easier," compared to just 53 percent of students from lower-achieving countries. This finding is consistent with the hypothesis of this book: In countries with strong education systems, school is actually harder. Rigor runs through those countries' approaches to learning and parenting, shaping everything from teacher training to the make-up of standardized tests.

It is interesting to note, however, that even students from lower-achieving countries overwhelmingly reported that U.S. school was easier. There may have been a bias toward defending the rigor of one's home education, but that wouldn't explain why U.S. students also said that their home classes were easier.

This difference may have to do with how students perceive difficulty in school. In many countries around the world, high-achieving and lower-achieving, school is a more formal and structured environment than school in the United States. The codes of conduct are more rigid, and the consequences for academic failure are more serious, particularly in high school. In some cases, students might have been reacting to those differences of school culture as opposed to the actual level of challenge in the material. Regardless, given other research showing a

lack of rigor in U.S. textbooks, curricula, and teacher training, this difference in perceived rigor is important and worthy of further research.

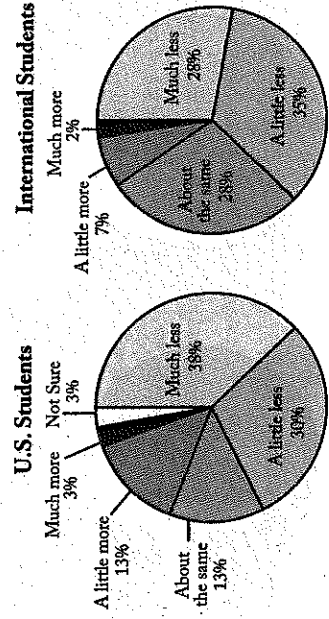
### Parental Freedom

International and U.S. students also agreed that U.S. parents gave their children less freedom than parents abroad. Of all respondents, 63 percent of international students and 68 percent of U.S. students agreed with this assertion (see Chart 3).

Interestingly, international students from high-performing countries were much more likely than students from lower-performing countries to report that the U.S. parents gave their children much less freedom. Specifically, 70 percent of international students from high-performing countries said U.S. parents gave their children less freedom compared to 45 percent of students from lower-performing countries.

These findings support existing literature suggesting that United States children lead highly structured lives. The reasons for this difference are complex and hard to disentangle. American parents might be more protective of their children due to pervasive concerns about crime and violence, for example. In some areas of the United States, particularly low-income neighborhoods, these concerns could be based in hard facts; in other, higher-income areas, crime may be low but parental anxiety about crime may still be high.

Chart 3. U.S. and international students said that U.S. parents gave their children less freedom.



Regardless of the reasons, what does it mean for education outcomes if U.S. parents really *do* grant their children less autonomy? It is, again, difficult to speculate, but the existing literature on raising resilient children suggests there is great value in allowing them to be free to make decisions and mistakes (within limits) while they are still children. Otherwise, teenagers raised in highly controlled high schools and homes only discover the perils and thrills of independence when they are grown, and largely on their own.

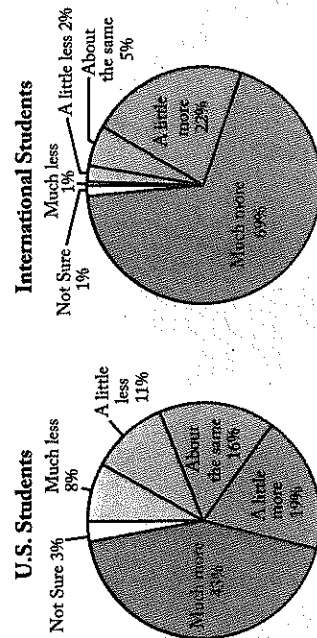
### Importance of Sports

International and U.S. students agreed on the importance of sports in the lives of U.S. teenagers. Of all students, 91 percent of international students and 62 percent of U.S. students said U.S. students placed more importance on doing well in sports than did students abroad (see Chart 4). International students were more likely to say U.S. students cared "much more" about athletic achievement.

These findings corroborate results from the Brookings Institute surveys. In those surveys, 85 percent of international students and 82 percent of U.S. students said that U.S. students placed higher importance on doing well in sports than did students abroad.

It is not at all clear that placing a high importance on athletic achievement is negatively associated with academic performance. Of interna-

Chart 4. U.S. and international students said U.S. students placed more importance on doing well in sports.



tional students, 88 percent of those from high-achieving countries said U.S. students place more importance on doing well in sports than students abroad; whereas nearly all students (96 percent) from lower-achieving countries said U.S. students placed more importance on success in sports. This suggests that students from high-achieving countries cared more about sports than students in lower-achieving countries—although none of them cared as much as American students, it seems.

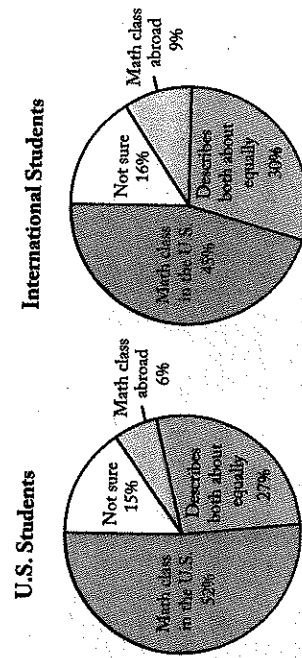
In any case, the unparalleled importance of athletic achievement at U.S. high schools should be the subject of serious debate. Sports, for all the value they offer, also siphon money and attention from classroom learning. It is their relative importance—not their absolute existence—that is worrisome.

### Praise

International and U.S. students agreed that U.S. math teachers were more likely to praise student work than math teachers abroad. Roughly half of international and U.S. students said their U.S. math teachers were more likely to praise student work; about a third thought that their math teachers did about the same amount of praising in both countries; and less than 10 percent of both groups thought their math teachers abroad were more likely to praise student work (see Chart 5).

Note that this question was asked of a slightly smaller sample. We

Chart 5. U.S. and international students said U.S. math teachers gave their students more praise than did teachers abroad.



asked students specifically to compare their experiences in their math class at home and abroad. Of the international students who filled out the survey, 82 percent took a math class in the United States, allowing them to answer this question. Of the U.S. respondents, 89 percent took math and completed this question.

The results beg the question: Are U.S. teachers warranted in praising their students to the extent reported in this survey? The United States is solidly among the lower-achieving countries in math, and yet U.S. kids are much more likely to report getting high grades in math, as discussed elsewhere in this book.

What are the effects of praising students for work that does not reach the average performance of students in other developed nations? How does pervasive praise impact the learning environment and students' expectations for themselves? Is praise related to the tendency (also suggested by this survey) of U.S. parents to grant their children less freedom? Do U.S. teachers and parents treat their children as if they are more fragile than they are? Or do other countries handle their children with too *little* care?

Praise is not all bad, to state the obvious. Indeed, the results show a complex relationship between praise and results: Students from lower-achieving countries were much more likely than students from high-achieving countries to say that U.S. teachers gave more praise. Of international students, 38 percent of those from high-achieving countries said their U.S. teachers praised students more often; by comparison, 62 percent of students from lower-achieving countries said so. Praise might not lead to learning, but the absence of praise does not necessarily do much good either.

In fact, some of the students in this survey explicitly celebrated the positive classroom culture of their American classrooms in their responses to the open-ended questions. As one Italian exchange student to the U.S. put it: "[U.S.] teachers believe in you, in your potential, and never put you down."

One French student contrasted the two experiences this way:

"In France, the teachers put way more pressure on the students—for homework, grades. In the United States, the teachers usually congratulate students [on] their work."

That said, praise is a risky currency. To work, praise must be specific, sincere, accurate—and used in moderation. These results suggest that the praise commonly deployed in U.S. classrooms may not meet those requirements. Excessive, vague, or empty praise has corrosive effects, as multiple studies have shown, incentivizing kids to take fewer risks and give up more easily. Self-esteem is important, but it comes from hard work and authentic accomplishment, not flattery.

#### *Mixed or Inconclusive Results*

The results of U.S. and international student responses to four questions were mixed or inconclusive. These focused on:

**Importance of doing well in school.** Most international students said that students in the United States and abroad placed a similar importance on doing well in school, while most U.S. students said their peers placed *less* importance on doing well in school. The only point of clear agreement was that U.S. students did *not* care "much more" about doing well in school. Just 4 percent of international students and 3 percent of U.S. students chose this response. It is not immediately clear why U.S. and international students did not agree on this question, though it is possible that students had difficulty assessing how much other students cared about school in a cross-cultural context.

**Challenge of classwork in math class.** U.S. student responses were mixed on this question, but international students showed a clearer preference for one answer over the others. Specifically, 58 percent of international students said that their math classes abroad were more challenging than in the United States.

**Tendency of math class to "stay busy and not waste time."** Both U.S. and international students were mixed on this question. For