FIT TO SERVE

The promise of PERSONALIZED LEARNING

FAST FOOD and social change

The JOHN LEWIS
Pardee RAND commencement address
1. Combating the Opioid Drug Epidemic

Pennsylvania is among the ten states with the highest opioid use and overdose rates. Last spring, a panel of experts convened in Pittsburgh to discuss prevention, treatment, and recovery options.

MORE AT www.rand.org/a160512

2. ENGAGED

This toolkit for public health planners and emergency managers is designed to facilitate more reliable and effective NGO involvement in disaster preparedness, response, and recovery.

MORE AT www.rand.org/t/TL202

3. China’s Yuan as a Reserve Currency?

Establishing a system in which two reserve currencies compete with each other to affect global decisions about reserve holdings may lead to greater financial stability than the present dollar-dominated system, according to world-renowned economist Charles Wolf, Jr.

MORE AT www.rand.org/b160603yuan

4. RAND Center for the Study of Aging

This three-minute video was shown at an annual awards event for WISE & Healthy Aging, a senior-services agency that recently recognized RAND’s research contributions and impact on the lives of aging populations.

MORE AT www.rand.org/aging

5. China’s Aerospace Industrial Policies

Earlier this year, Chad J. R. Ohlandt testified before the U.S.–China Economic and Security Review Commission.

MORE AT www.rand.org/t/CT456
Personalized Learning
A promising path to the future of education

Research Briefly

The Q&A & A
Gaming the future

POV
Yousef Al Otaiba on a new vision for the Middle East

Oratory
Congressman and civil rights leader John Lewis: “Get humankind to be a little more human.”

Giving
Thinking the unthinkable with John Seely Brown

Voices
A new restaurant is delivering more than just fast food to an underserved community in Los Angeles

at RANDom
The science of Star Trek

Fit to Serve
What RAND research says about opening the military to transgender troops

On the cover: Captain Jennifer Peace (Drew Perine/AP)
Immigration Reform

A growing number of states have taken immigration reform into their own hands, passing laws to make life harder or easier for their unauthorized residents, often without a full reckoning of costs and benefits.

A recent RAND analysis found that all but 11 states have adopted at least one policy aimed at unauthorized immigrants. They break down almost evenly between policies that tighten restrictions, such as mandated use of employment checks; and policies that loosen them, such as opening access to in-state tuition.

Those laws can have unintended consequences, the researchers found. Tougher employment rules, for example, can make it harder for anyone to get hired, costing immigrants and nonimmigrants alike. At the same time, they can also benefit the very unauthorized immigrants they’re meant to target, by constricting the labor force and driving up wages.

Yet states generally have not conducted the kind of formal cost-benefit analysis that might capture those direct and indirect impacts. The researchers developed a framework to help states better visualize the full consequences of immigration policies to immigrants, native-born residents, and the states themselves. It provides decisionmakers with a simple matrix to weigh the social and economic pros and cons.

Such careful analysis is needed now more than ever, they wrote, especially in the absence of any comprehensive immigration reform at the federal level.

MORE AT
www.rand.org/t/RR1397

Income Inequality

The growing gap between rich and poor in the United States could shape the future for generations to come, a recent RAND analysis found—skewing the distribution not just of wealth, but of opportunity as well.

Researchers focused on that intersection of income and opportunity as they sought ways to better understand and address the stark economic disparities that have emerged here and in other industrialized nations.

The researchers found that wealthier families can stack the deck for their children not just through gifts and inheritances, but also better education, a better environment, even better health care. Those parental investments set them up to compete for more-skilled and higher-paid jobs—and help explain why families at the top of the wealth pyramid tend to stay there.

But the opportunity gap in America has not grown quite as fast as the income gap itself, the researchers concluded. That suggests that public policies aimed at helping lower-income families have had some success—maybe not in leveling the playing field altogether, but at least in keeping those families from falling off of it.

There are trade-offs here. Policies that take direct aim at the opportunity gap, such as moving low-income students into high-income schools, can also narrow the income gap, but only over time. On the other hand, policies focused more on meeting the immediate needs of low-income families—through tax breaks or social welfare programs, for example—should improve their opportunities as well, but also over time.

The researchers are now fine-tuning an economic model that better captures the interplay of income, opportunity, and inequality. The model should help policymakers better anticipate, and address, the disparities of today and their impacts on tomorrow.

MORE AT
www.rand.org/t/RR1509

Funding for this study was provided by philanthropic contributions from RAND supporters and income from operations.
European Terrorism

Emerging technologies can make European cities safer as they confront the persistent threat of terrorism, RAND analysts say, but technology alone can also cause its own problems and mask dangerous vulnerabilities.

The study by RAND Europe was part of an effort to develop a counterterrorism framework for European cities in response to recent attacks. The effort, known as Tactical Approach to Counter Terrorists in Cities, or TACTICS, aims to help officials anticipate and respond to threats more quickly and effectively.

New technologies such as bomb-detection scanners and facial-recognition software will play an obvious role, the RAND analysts wrote. But they’re not enough, as deadly attacks across Europe this year have demonstrated.

The “first and most obvious challenge,” the researchers wrote, is the very low-tech matter of shoring up relationships between European countries, so that they can better share the information they already have.

Any surveillance technology is also going to raise serious privacy concerns, which must be addressed fully before it hits the street. As previous technology rollouts such as neighborhood surveillance cameras have shown, that kind of community engagement can make or break a security project.

Finally, even as they race to keep up with the ever-increasing sophistication of terrorists, security officials should guard against becoming overly reliant on technology, the researchers warned. “Unmitigated dependence,” they wrote, “is a good definition of vulnerability.”

MORE AT www.rand.org/t/RR1287
Games are about people—about how they engage problems, and about how their choices interact to create new problems or generate unexpected outcomes.

David Shlapak is a senior international research analyst at RAND whose interests include U.S. national security strategy, the evolving East Asian and European security environments, and the use of gaming and simulation in defense planning. He is codirector of the RAND Center for Gaming, which promotes the use of games in research to improve decisionmaking across a wide range of policy areas.

The Q & A

Q What do we mean by “gaming” in the world of public policy?

A Gaming for policy analysis is really just what it sounds like: applying the principles of competitive play to exploring real issues. You have two or more sides with goals that to some extent are in conflict. You have rules. And you have an invented environment that changes as the players interact. RAND has been involved in gaming pretty much since its founding. During the 1950s and 1960s, we designed pathbreaking games on nuclear deterrence and Cold War military operations. By the 1990s, we were also using games to look at problems like drug abuse and youth violence in inner cities. Today, we’re enjoying a renaissance in gaming, developing new methods, applying old ones to new problems, and growing a new generation of gaming professionals.

When and how did you get hooked on gaming?

A particular afternoon very early in my career at RAND stands out. I was working on a team led by Carl Builder, a literal and figurative giant in modern war-gaming, and we were discussing how to set the stage for players’ moves the following morning. I was young and brimming with both ideas and misplaced confidence in their value. Carl was sitting with his long legs propped up on a desk, smoking a cigar. He patiently let me yap until I ran out of steam, then pulled the stogie out, looked at me, and quietly said, “Very good, David, but what’s the problem?” I realized that I had just been handed the keys to the gaming kingdom—that whatever clever tricks you may think you have up your sleeve, it all comes down to the problems you present. If they’re engaging, if they’re relevant, if they make the players’ heads hurt and stomachs churn, you’re doing your job.

What’s the most challenging aspect of designing a game?

I find every aspect of it challenging, which is one reason why it’s so much fun. A RAND game demands the efforts of many colleagues, and you’re usually asking very busy people to come play it, so you have a big responsibility to respect the time everyone is giving you. So, my number one priority when I’m working on a game is making sure that it makes good use of that time. The experience should at least be interesting or informative. When things go well, it’s both.

Are there particular public policy concerns that could benefit from more gaming?

Absolutely. Climate change comes to mind, with its multiple stakeholders, deeply conflicting interests, and huge contrasts between short- and long-term perspectives. Gaming can be valuable in addressing issues where there are sharp divergences in points of view, because it creates a safe space to explore the ramifications of different approaches in a disciplined, objective, and unthreatening way. So, gun violence, drug use and abuse, economic inequality, other very polarizing issues . . . let’s play a game!
Rhodes Scholars, Not Radicals
A Conversation with Yousef Al Otaiba

His Excellency Yousef Al Otaiba, Ambassador of the United Arab Emirates to the United States, assumed his Washington-based post in 2008. As ambassador, he has worked to enhance UAE–U.S. relations and improve security and economic cooperation between the two countries. Last June, at RAND’s headquarters campus in Santa Monica, Al Otaiba discussed the UAE’s progress as both an emerging power in the Middle East and a reliable ally of the West, and fielded wide-ranging questions on relations with Israel, the nature of Islam, and his country’s role in expanding opportunity in a region of peril and promise.

On the UAE’s vision of Islam
We are on the front line of promoting a new vision for young Muslims and the region—an alternative ideology unafraid of modernity and looking to the future.... Respect, inclusion, peace: These are the true tenets of Islam. Ours is an Islam that empowers women, that embraces others, that encourages innovation and welcomes global engagement.

On countering extremist messaging
We have to out-communicate [the extremists]. Right now, they’re out-communicating us, they’re out-Tweeting us, they’re out-Facebooking us.... We have to use the same exact tools, but we have to be better, we have to be more effective.... Whether it’s on social media, whether it’s on educating people about our religion, whether it’s on how we raise our kids and showing them the right values. I think it’s very important to focus on how Islam is taught, explained, and perceived.... And it’s our problem to fix.

On Arab relations with Israel
The question I often get is, What about the UAE’s relationship with Israel? When are you going to normalize relations? And my answer is very simple: as soon as there is a Palestinian deal. That’s when the entire Arab League will be able to normalize their relationship with Israel.... It’s important for Israel to understand that the two-state solution and the Arab Peace Initiative, which will normalize their relationship with 22 Arab countries, is a benefit for them, not just for us. And we have to get into the mind-set that this is a win-win, not a zero-sum game.

On looking ahead
Our vision for tomorrow is about tolerance, it’s about openness. But it’s also about innovation and opportunity. In the UAE, we’re building an economic engine for the entire region—a place where the free flow of goods and services, people and investment, and ideas lifts the entire Middle East.... When I look ahead in the region, I see more Rhodes Scholars and fewer terrorist recruits. More Mars missions and fewer ballistic missiles. More women leaders and fewer Jihadi Janes. More online startups and fewer extremist websites.... In the UAE, this is our way forward.

What are we going to expect from U.S. policy in the future?... U.S. disengagement will only lead to more turbulence in the region. An ongoing U.S. commitment to the Middle East is necessary to secure the kind of future that will benefit us all.

Hear the full conversation at www.rand.org/a160601

“RAND has produced the largest body of published research on public policy problems and solutions, mainly—almost exclusively—in English. And what that means is, that body of research is not accessible to many, many policymakers in the Arab world and [is] off-limits to most of the general public in the Arabic-speaking world. The UAE has helped us take a huge stride toward changing that by underwriting the creation of an Arabic-language RAND website.... This has been a personal priority of mine, and my partner in that initiative is Ambassador Al Otaiba.”

MICHAEL D. RICH, PRESIDENT AND CEO, RAND CORPORATION
“Find a Way to Get in the Way”

By John Lewis

The Honorable John Lewis was the keynote speaker at the Pardee RAND Graduate School’s June 18 commencement. A leader in the civil rights movement, Lewis helped to form the Student Nonviolent Coordinating Committee; helped Dr. Martin Luther King, Jr., lead the March on Washington in 1963; and has represented the 5th district of Georgia in the U.S. House of Representatives since 1986. Here are excerpts from his address.

I am honored and delighted to be with you on this very important occasion. To each and every one of you who is receiving a diploma today, congratulations! This is your day! Enjoy it! Take a long, deep breath, and take it all in. For tomorrow you must be prepared to roll up your sleeves, because this world, this little piece of real estate, is waiting for talented men and women like you to lead it to a better place.

Now I didn’t grow up in a big city like this beautiful city. I didn’t grow up in a big city like Los Angeles or San Francisco. I didn’t grow up in a big city like Washington, D.C., or New York, or Atlanta. I grew up on a farm in rural Alabama.... On this farm we raised a lot of cotton and corn, peanuts, hogs, cows, and chickens. I know here at Pardee RAND you’re very smart, you’re gifted. But you don’t know anything about raising chickens. I know some of you probably like to eat chicken. But on that farm it was my responsibility to care for the chickens. And I fell in love with raising chickens like no one else could raise chickens....

When I was about 9 or 10 years old I wanted to be a minister. So with the help of my brothers and sisters and cousins we would gather all of our chickens together in the chicken yard. My brothers and sisters and cousins would line the outside of the chicken yard … and I would start speaking or preaching. And when I would look back at them, some of these chickens would bow their heads, some of the chickens would shake their heads. They never quite said amen, but I’m convinced that some of those chickens that I preached to in the ’40s and the ’50s tended to listen to me much better than some of my colleagues listen to me today in Congress. As a matter of fact, some of those chickens were just a little more productive—at least they produced eggs.

Well, that’s enough of that.

Growing up outside of Troy, Alabama, 50 miles from Montgomery, about 45 miles from Tuskegee … I saw those signs that said “White Men,” “Colored Men,” “White Women,” “Colored Women.” … I’d go downtown on a Saturday afternoon to the theater. All of us little black children had to go upstairs to the balcony. All of the little white children went downstairs to the first floor. I kept saying to my mother, my father, and my grandparents, and my great grandparents, “WHY? Why this, why that?” They would say, “That’s the way it is. Don’t get in the way. Don’t get in trouble.” But the actions of Rosa Parks, the words and leadership of Dr. King, inspired me to find a way to get in the way. I got in the way. I got in trouble—what I call good trouble.

As you leave this great institution, Pardee RAND, you must find a way to get in the way. You must find a way to get in trouble. Good trouble. Necessary trouble. To help redeem not just the soul of America, but the soul of our little planet. You have an obligation; you have a mission. A mandate.
Out of the 10 people who spoke at the March on Washington in 1963, I’m the only one who’s still around.

To save our little planet for generations yet unborn and leave it a little cleaner, a little greener, and a little more peaceful.

So, as the dean said, be bold. Be brave. Be courageous. Just go for it. And in doing so, be happy. Enjoy yourself. And never, ever give up. Never, ever give in. Be optimistic. Don’t get lost in a sea of despair. Keep the faith. And never, never, ever become bitter. Never, ever hate, for hate is too heavy a burden to bear.

When we were planning the March on Washington in 1963, when I was 23 years old, I was the sixth to speak. Dr. King spoke 10th—there were 10 speakers. Out of the 10 people that spoke that day, I’m the only one who’s still around. And after the march was all over, President Kennedy invited us down to the White House, to the Oval Office. He stood in the door and greeted each one of us. And he kept saying, “You did a good job. You have a dream.” When historians pick up their pens and write about this period, they should be able to say to each one of you that you did a good job, that you dreamed to make … our world and our planet a better place. So just get out there and push, and keep pushing, and you will have the victory. Not just for yourselves, but for humanity.

I want to tell you, if someone had told me when I was preaching to those chickens … that one day I would be standing here as a member of the House of Representatives, that I’d have had the opportunity to meet with every president since President Kennedy, to travel to South Africa and meet Nelson Mandela, to host him in Washington, to travel to Rome and meet the pope … When the pope came and spoke to a joint session of the Congress, he said to each and all of us that we all are immigrants, we all come from some other place. So as we live during this period in our history, in this country, and around the world, as the late A. Philip Randolph, the dean of black leadership during the ‘60s, said over and over again, maybe our foremothers and our forefathers all came to this great land in different ships, but we’re all in the same boat now. We must look out for each other and care for each other.

It doesn’t matter whether we are black or white, Latino, Asian American, or Native American. It doesn’t matter whether we are straight or gay. We are one people, we are one family, we are one house. We all live in the same house, the world house. And when we see people putting people down because of their race, their color, their faith, or because of who they love, you have a moral obligation to speak up, to speak out, and get in the way. When you see violence in our midst similar to the violence that happened a week ago in Orlando, you have to do something, you have to say something, you have to be prepared to condemn it. Maybe with your research, your studies, you can find a way to try to get human-kind to be a little more human. Never ever get so mighty, so powerful, so smart that you ever forget to love. Love your friends, your family. Love your associates, and help create what Dr. King called the “Beloved Community,” the beloved world. We can do it. We must do it. I wish you well.
A new RAND study sheds light on the implications of allowing transgender personnel to **serve openly in the U.S. military.**

By Doug Irving, Staff Writer

Army Capt. Jennifer Peace felt like she could finally exhale. On the television in Peace’s office, Defense Secretary Ashton Carter was announcing that she could serve openly as herself. It’s over, she realized. Finally over.

No more male uniforms or close-cropped male hair regulations; no more subordinates awkwardly saluting her as “Sir” instead of “Ma’am.” For Peace, an intelligence officer and veteran of two combat tours, Carter’s announcement opening the military to transgender people like her meant an official end to years of living in limbo.

“I really thought that I would just feel a sense of relief, that it wouldn’t be as emotional as it was,” said Peace, a career soldier with a dog tag tattooed onto her left shoulder, along with the blue, pink, and white stripes of the transgender pride flag.

“I’ve had to put being transgender at the top of my list of who I am,” she said. “Now I can be a soldier and an officer and a wife and everything else first, and let being transgender kind of fade into the background.”
Breaking down barriers

The Pentagon’s decision in late June to open the ranks to transgender service members was informed by months of RAND research into the costs and numbers involved.

Between 1,320 and 6,630 transgender men and women already serve in active duty, the researchers estimated—a fraction of one percent of the total force. The costs of letting them serve openly and access military health care would be “overwhelmingly small” as a percentage of military spending.

No more than 140 active-duty service members a year would likely seek gender-transition hormone treatments, for example; even fewer would seek transition-related surgeries. That would add between $2.4 million and $8.4 million to an annual military health care budget of more than $6 billion, the researchers estimated.

Those medical treatments would also limit when and where between 25 and 130 active-duty service members could deploy in any given year. For comparison, the Army alone has 50,000 active-duty soldiers who cannot deploy for other reasons.

“So we’re talking really small numbers—really small,” said Agnes Gereben Schaefer, the lead author of the study and a senior political scientist at RAND.

The study was the latest commissioned from RAND by the military as it seeks to break down long-standing barriers to service. RAND research on opening the ranks to gay and lesbian service members led to the repeal of the military’s “don’t ask, don’t tell” policy in 2011. More recently, a series of RAND reports have helped inform the Pentagon’s decision to integrate women into combat positions.

“All of our work across these areas has demonstrated that if an out group can do the job, that’s really what counts,” said Schaefer, who has been involved in all three lines of research. “If people think you can do the job, you earn their respect, and they feel like you have their back.”

Transgender service: By the numbers

RAND research provided the Pentagon the most rigorous and impartial estimates available of the costs and implications of allowing transgender men and women to serve openly.

The estimated
1,320–6,630 transgender men and women now serving in active duty = a fraction of one percent of the 1.3 million total force

Health care expenses will be relatively small
$2.4–$8.4 million for transition-related health care costs.
Total annual military health care budget = $6.28 billion.

Low numbers who couldn’t deploy
25–130 active component service members with deployment restrictions due to transition-related medical treatments

18 other countries already allow transgender people to serve in the military

Australia
Austria
Belgium
Bolivia
Canada
Czech Republic
Denmark
Estonia
Finland
France
Germany
Israel
Netherlands
New Zealand
Norway
Sweden
Spain
United Kingdom
Performance, not pronouns

That is what drove Shane Ortega.

He served two combat tours in Iraq, as a Marine, as a woman—and then one more in Afghanistan, as a soldier, as a man. His transition earned him a desk job; he believes his willingness to work harder and march farther kept him in the military as one of the first openly transgender people in active duty. Seventy pushups? He’d knock out 90, chest to the floor.

“It becomes exhausting to fight every single day to just be identified by the correct pronoun,” he said—and then pointed for an example to what happened when he was invited to speak at the Pentagon. His commanding officers at first ordered him to squeeze into a woman’s blouse, citing Army regulations and the gender still listed on his military ID. It was so tight he couldn’t lift his arm to salute.

“This is something they can’t mess up,” said Ortega, who ended up wearing a camouflage field uniform to his meetings at the Pentagon, and has since left the military. Lifting the ban, he added, “has to be fluid. This isn’t just, ‘You have to get a new uniform.’ This is people’s lives.”

Eighteen other countries already allow transgender people to serve in the military, including such close U.S. allies as Australia, Canada, Israel, and the United Kingdom. They have seen “no significant effect” on unit cohesion, operational effectiveness, or overall readiness since they opened their ranks, RAND researchers found.

But their experiences—and especially the challenges they faced—offer some hard-learned lessons for the American military leaders now charged with implementing transgender service rules.

Some of the foreign militaries RAND studied reported instances of bullying or harassment of transgender troops, for example, underscoring the need for zero-tolerance leadership and training. Researchers also found that it was easy to stumble on the details: Could medals and commendations earned pre-transition, for example, be reissued under a new name post-transition?
In 1970, she looked like the ideal Army officer: educated under an elite ROTC scholarship, trained as an engineer, committed to a military career—and male.

Focus on mission

The Pentagon released an 18-page policy memorandum as it lifted the transgender ban that started to answer some of those questions. It says, for example, that service members will use the uniforms, housing, and bathrooms that correspond with the gender on their military ID cards, which can be changed with a doctor’s order. Defense Secretary Carter also said the military will spend the next year refining its policies and training its troops.

“Our mission is to defend this country,” he said in announcing the end of the ban, “and we don’t want barriers unrelated to a person’s qualifications to serve preventing us from recruiting or retaining the soldier, sailor, airman, or Marine who can best accomplish the mission.”

Someone, in other words, like Phyllis Frye. In 1970, she looked like the ideal Army officer: educated under an elite ROTC scholarship, trained as an engineer, committed to a military career—and male.

When the military learned she was transgender, it sent her to a hypnotist who made her vomit when she wore women’s clothes. It tried drugs that were so powerful they blurred her vision. In the end, she negotiated an honorable discharge, went back to school, studied law, and is now widely recognized as the grandmother of the transgender rights movement.

“You’re going to get someone who loves the military, who wants to be a patriot, who wants to serve their country,” she says now. “What else do you want out of a person?”

“The military wasted me,” she adds. It paid for her education and training, gave her housing and health care—“and all you got out of it was about 19 months of active duty.” She figures she would have retired as a lieutenant colonel after 30-plus years of military service if she had been allowed to stay. Instead, her military career ended in 1972.

Forty-four years later, another Army officer, Capt. Peace, watched live on the television in her office as Secretary Carter lifted the ban that had threatened to bring her career, too, to a standstill. She and another transgender service member embraced when Carter spoke the words they had waited so long to hear: “Effective immediately....”

She talks about her commitment to the Army, about the relief of knowing she can make it a career now; she says she hopes to earn a promotion to major soon. And then she asks: Did you see the press conference after Carter’s announcement? One of the first questions he got was not about health care costs or bathroom use—not about transgender people at all—but about the civil war in Syria.

“That’s exactly how it should be,” she says. “The ban may be lifted, but we’ve got more important things to worry about.”
Voices

Good (Fast) Food
as a Vehicle for Social Change

By
Susan L. Marquis

On a once-desolate corner of Los Angeles, something big is happening. At first glance, the story might seem to be about celebrity chefs and a reinvention of fast food, but it’s so much more than that.
THERE’S NO REQUIREMENT FOR PRIOR EXPERIENCE IN A NEIGHBORHOOD WHERE UNEMPLOYMENT IS HIGH AND THE PERCENTAGE OF RESIDENTS 18 OR YOUNGER IS AMONG THE HIGHEST IN LOS ANGELES COUNTY.

Staff members ready for the grand opening of Locol Watts in January 2016.
With the opening of the first in a planned national chain of restaurants called Locol, two chefs are taking on persistent and major social issues—so-called “food deserts,” chronic unemployment, and the rebuilding of communities that have long been underserved and faced myriad challenges. Communities like Watts.

Chefs Roy Choi and Daniel Patterson opened Locol Watts this year—not incidentally—on Martin Luther King, Jr., Day. The restaurant may resemble a humble, neighborhood fast-food place but that’s just the physical manifestation of a much grander dream.

The chefs talk about their latest venture as the start of a “revolution,” and so it may be. Part of their mission is to bring affordable and healthful food to forgotten areas that need it most, to urban food deserts where modestly priced, quality fresh food can be hard to find. “We believe that chefs should feed America, and not suits,” the company says on its website.

A few blocks away from Jordan Downs, a housing project with a long history of violence and crime, the restaurant owners are bringing change to the neighborhood one “burg” (hamburger) and “foldie” (taco) at a time, along with many other delicious and affordable foods.

Because Locol seems to be about working with communities to build them up. What’s important here is that this is not a matter of charity or “helping the poor” (the median income in Watts is among Los Angeles County’s lowest). The owners say that it is instead about recognizing the promise and potential of communities and the people who live there. To blur the boundaries between community and restaurant, the Locol building was designed with ample screens on the windows and doors.

Between 80 to 90 percent of the staff at Locol are from the neighborhood. Choi points out that the job application asked simply for a name, contact information, and why the applicant wanted to work at Locol. There’s no requirement for prior experience in a neighborhood where unemployment is high and the percentage of residents 18 or younger is among the highest in Los Angeles County. Nearly all of the cooks, cashiers, and managers hail from the neighborhood. More than 40 people have been hired, most of them full time, and they are being paid well above minimum wage.

Two days before the restaurant opened, most of the cooks had only been cooking professionally for a week, and they were already displaying the talent to make it in the field, according to Patterson. As their skills
expand, so will the restaurant chain and its employees’ horizons—a second venue has opened in Oakland and a third is being planned for San Francisco. A member of the Locol Watts staff has been in Oakland training new employees, an example of the restaurant’s commitment to providing workers with the opportunity for a true career path. This approach overturns the common wisdom and reality of restaurant employment, where workers tend to hopscotch from restaurant to restaurant in search of better wages and opportunities but usually never make it to the best-paying jobs, according to the 2013 book *Behind the Kitchen Door*.

Neighborhood by neighborhood, a few dozen jobs at a time, Choi and Patterson are tackling complex and persistent public policy problems and could very well succeed in their own way in communities where generations of government programs and charitable endeavors have had limited impact. They’re doing it by recognizing the humanity of communities, the untapped talent within them, the promise of the market—and the not inconsequential power of really good food. If the restaurateurs can follow their plan for expansion, which targets underserved communities but is not limited to them, Locol could transform lives and communities even as it challenges our very notion of what fast food can be.

Susan L. Marquis is dean of the Pardee RAND Graduate School and vice president for Emerging Policy Research and Methods at RAND. She teaches about food and labor policy.

A version of this commentary originally appeared on *Shockingly Delicious* in May 2016.
These second-grade students in Baltimore County, Md., are part of a personalized learning initiative called STAT, for Students and Teachers Accessing Tomorrow.
Schoolchildren from small-town Georgia to suburban Baltimore will encounter a new approach to learning when they head back to class this fall—one that makes them partners in their own education, not just participants.

It’s called personalized learning, and it has become one of the buzziest of buzzwords in American education in recent years, even though there’s no single definition of what it is. A recent RAND study sought to clarify, following dozens of schools to see how educators personalized the learning in their classrooms, and what it meant for their students.

The study found that students in personalized learning classrooms made greater gains in math and reading than their peers in other schools. Yet it also found barriers to fully personalized learning, from rigid state standards to time demands on teachers.

“There’s a lot of challenge here, a lot of things to work out,” said John Pane, the study’s lead author, a senior scientist at RAND who holds the distinguished chair in education innovation. “But it looks promising.”
Teachers + technology

To understand what personalized learning is, start with what it is not: one teacher standing at the front of a classroom, delivering the same lesson to 30 kids at a time. In a personalized classroom, those 30 kids would follow their own pathways through the material, at their own pace, guided by their own goals and learning plans.

Good teachers have always tried to meet students where they are and engage their strengths and interests. What’s different now is the degree to which technology allows teachers to tailor lessons for every student—and make sure those students stay on task.

At Redwood Heights Elementary School in Oakland, Calif., for example, teachers use a reading program that presents the same lessons in different genres and at different difficulty levels, according to student interests and needs. The software can then update them on each student’s progress, allowing them to spend more time with those who need it most—a break from the old teach-to-the-middle model.

“When you can teach to students where they’re really at, you’re challenging them but not frustrating them,” said Bruce Stoffmacher, a policy analyst and former teacher whose two sons now attend Redwood Heights. “That’s where learning can really occur.”

What’s different now is the degree to which technology allows teachers to tailor lessons for every student—and make sure those students stay on task.

What RAND found

RAND’s study was the largest and most rigorous attempt yet to test such a personalized approach to education. It followed 62 schools—most of them urban charter schools serving low-income students—as they implemented personalized learning programs between 2013 and 2015.

All of the schools had received funding from the Bill & Melinda Gates Foundation, which has invested tens of millions of dollars in personalized programs, and brought in RAND to measure their impact.

The results provide an unprecedented look at how personalized programs can work—and how well.

Students in most of the schools made significant gains in both math and reading, compared with students in similar schools who were not part of the personalized programs. Those gains were especially apparent in the earliest grades: Elementary school students moved up 13 percentile points on standardized tests in math, on average, and 8 points in reading.

The schools were generally testing below national averages in math and reading at the start of the study. Two years later, they had caught up—and even moved ahead.

Those findings “would be remarkable, and very exciting” if they continue to hold up in future research, Pane said—especially more rigorous, randomized experiments. “At this point, we’re saying there’s promise here,” he added. “We still need to do more to understand the true effect.”

Steps, not leaps

Ryan Imbriale, the executive director of innovative learning in Baltimore County, Md., recently sat in on a second-grade classroom to see personalized learning in action. The district is implementing a personalized approach in all of its schools that it calls STAT, for Students and Teachers Accessing Tomorrow.

Students in one area were reading out loud into a microphone, he said, while others listened to the same story on headphones, and still others hunched over pencils and paper, practicing their writing. The teacher sat in a small circle of maybe half a dozen desks, working one on one with students who needed a little more help with their reading.

“There’s better purposeful conversation that’s happening now,” Imbriale said. “It felt very personal for the kids.
in the room. They were doing activities as second-graders that allowed them to demonstrate mastery.”

The most successful schools in RAND’s study shared some of those characteristics. They were flexible in how they used classroom space and time, allowing students more freedom to work in groups or on individual projects. They made better use of data to group students according to their individual needs and progress, and they worked with students to map out their goals.

Most of the schools were moving toward greater personalization by steps, not leaps. Teachers continued to align their overall lesson plans with state and district curriculum standards, for example. Few had implemented more radical visions of personalized learning, such as competency-based progression, in which students earn credit whenever they can demonstrate mastery of a subject, not just at the end of the year.

Teachers and school administrators cited the demands of standardized testing and state seat-time requirements as barriers to further personalization. More than half of the teachers RAND surveyed also cited the time it took to prepare individualized lesson plans.

Rethinking “achievement”

Researchers have been taking a closer look at a subset of mostly newer schools in the study. Those schools have run into more constraints, Pane said; their results were still positive, but the effects were not as large as in the bigger sample that included older schools.

That study has led RAND to a better understanding of the school features that seem to help make learning personalized: a clear understanding of the needs and goals of each student; instruction tailored to meet those needs and goals; and frequent and constructive dialogue between teachers, parents, and the students themselves. Technology can enable that kind of learning, and help teachers manage the complexities of it—but it cannot substitute for a good teacher.

It’s the difference, Tony Townsend likes to say, between a lesson and a learning experience. He’s the principal at Locust Grove Middle School in Henry County, Ga., in the outer orbit of Atlanta—a public school that has made personalized learning a part of every class.

Its students spend much of their time not in lectures, but in labs—applying knowledge, district officials say, not just acquiring it. Each has a learner profile that says where they are and where they need to go—and some flexibility to choose how they get there. One student last year earned credit for a music class by following his interest in composing and writing several pieces of music, including a national anthem for an imaginary country.

“We’re used to school looking a certain way,” Townsend said. “This has been a huge paradigm shift. The students are not just sitting back and waiting for the teacher to direct their education. They can take control of their own learning.”

That’s the purpose and the promise of personalized learning: “You’re never going to have two kids at the same place at the same time,” Townsend says, “ever.”

The author would like to thank Bruce Stoffmacher, Ryan Imbriale, and Tony Townsend for sharing their insights and experiences. Their schools were not among those who participated in the research study.
Giving

John Seely Brown wants the students at Pardee RAND Graduate School to shake the world, to reimagine the very meaning of public policy in the 21st century—to become “productive thorns in the sides of the sage.”

Brown calls himself the Chief of Confusion. He spent his career seeking answers as the chief scientist of Xerox Corporation and the director of its vaunted Palo Alto Research Center. Now he makes his name with questions, probing for hidden patterns and weak signals, welcoming the confusion that comes with never knowing where they might lead.

He got his start in the early days of California’s tech industry. “RAND was Mecca to a lot of us,” he said. “It was famous for radically reframing the solutions to pressing problems that no one could make much progress on. It was truly cutting edge—thinking the unthinkable.”

That kind of research—of asking the right questions—has become more important than ever in this era of dizzying technological change, Brown said. It’s what brought him to Pardee RAND, the graduate school founded at RAND more than forty-five years ago to train the next generation of cutting-edge thinkers and policy analysts. RAND’s president and CEO Michael D. Rich has called it the organization’s “engine of innovation.”

Brown has been steadfast in his philanthropic support of Pardee RAND, and has served on its Board of Governors since 2013. The school, with no traditionally tenured professors tying it to old ways of thinking, is almost uniquely positioned “to craft an honest-to-God 21st-century approach to the kinds of policy questions we’re walking into,” he said.

“It’s a new game,” he added, “and we need a new public-policy tool set.”

He points for an example to home-share apps like Airbnb, which have transformed neighborhoods before local planning boards could even schedule a hearing. Or to ride-hailing apps like Uber, which have muscled out taxis in some cities before local regulators even had time to set the ground rules.

The public policies of tomorrow will have to account for machines that can learn, for banking transactions and currencies that exist only online, for autonomous cars navigating the split-second hazards of a drive through town.

“They are going to encounter problems that the designer never thought about,” Brown said. “It’s a state of confusion. We’re changing stuff every six months. We may need to completely rethink what is public policy.”

Brown has a metaphor for this new reality that he attributes to his colleague Ann Pendleton-Jullian: It’s like a white-water river, fast and ever changing, requiring a careful reading of the currents and some hard paddling to stay off the rocks. Or to the evolutionary surge that transformed a barren Earth into a world of life, the so-called Cambrian Explosion.

“This is a Cambrian moment,” he says. “This is a time when Pardee RAND has the chance to completely revise how students get trained to think about public policies—thinking these things through for the 21st century. In a world of radical change, I think that’s a damn good question.”

“Tell me any place better than RAND,” he adds, “to think the unthinkable.”
Leave it to RAND researchers to boldly go where no man has gone before. The final frontier? A little sci-fi TV show called *Star Trek*, which first aired 50 years ago, in September 1966.

At the request of *Star Trek* creator Gene Roddenberry, researcher Harvey P. Lynn Jr. reviewed the script for the first pilot episode, “The Cage.” (A second pilot was filmed after NBC decided the first episode was too cerebral.) The goal was to make the show scientifically accurate while still telling an entertaining story.

In a 1964 letter to Roddenberry, Lynn made a number of scientific observations and detailed suggestions. He objected to calling the weapons that crew members carried “lasers” because the term already existed. As you may recall, “Set phasers to stun” became part of the show’s lexicon. He suggested a method for docking the shuttles that would bring visitors to the *Enterprise*. He advised changing the constellations used in the script to ones that aren’t so far-flung and are potentially more habitable. And he pointed out that one species couldn’t have the small physiques and elongated heads envisioned on a planet with gravity greater than Earth’s. (“Dammit, Lynn, I’m a writer, not a physicist!”)

One *Star Trek* fan site exchanged emails in 2002 with Lynn’s son, Harvey P. Lynn III, about his father’s involvement. While his dad was “never really a big fan,” the son said, he did use his $50-per-show earnings to buy the family’s first color TV.
Enjoy the latest edition of RAND REVIEW on your iPhone or iPad.

The free RAND REVIEW app includes all the content of the print edition—and more.

The RAND Corporation is a research organization that develops solutions to public policy challenges to help make communities throughout the world safer and more secure, healthier and more prosperous. RAND is nonprofit, nonpartisan, and committed to the public interest.