WOMEN AND WARGAMES

How CITIZEN SCIENTISTS are protecting their communities

An ETHICAL FOUNDATION for emerging technologies
**Contemporary Asian Drug Policy**

Changing patterns in illicit drug use and supply can affect the well-being and development of Asian countries in many ways. In this report, RAND researchers explore the shifting drug policy landscape in Asia, with a special focus on the Philippines, Thailand, and China.

MORE AT [www.rand.org/t/RR2733](http://www.rand.org/t/RR2733)

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**Tools for Improving Corequisite Models: A Guide for College Practitioners**

In education, practitioners are increasingly looking for strategies to bring data and evidence into decisionmaking and to roll out programs in intentional ways that allow for ongoing improvement. This toolkit acts as a guide to improvement strategies for teams of practitioners at colleges, providing them with the knowledge and tools they need to carry out rapid cycles of data-driven improvement.

MORE AT [www.rand.org/t/TL319](http://www.rand.org/t/TL319)

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**The North Korea Problem Is Bigger Than Nukes**

More than a year after the U.S.–North Korea summit in Singapore, disarming North Korea’s nuclear arsenal remains a top priority. But U.S. efforts to address the threat from Pyongyang may need to go further, according to policy analyst Soo Kim. The United States and its allies could also take steps to address the regime’s illicit revenue-generating schemes, sanctions-skirting tactics, and poor human rights record.

MORE AT [www.rand.org/t/CT511](http://www.rand.org/t/CT511)

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**Reducing Suicide Among U.S. Veterans**

The rate at which veterans and service members die by suicide is a national security problem that requires a comprehensive approach. In this video, senior behavioral scientist Terri Tanielian discusses how improved leadership and investments in access to high-quality care, identifying at-risk individuals, and reducing access to lethal means can make a difference.

MORE AT [www.rand.org/v190508tt](http://www.rand.org/v190508tt)

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**Russia and China in the Middle East**

In May 2019, Christine Wormuth, director of the RAND International Security and Defense Policy Center, presented testimony before the House Foreign Affairs Subcommittee on Middle East, North Africa, and International Terrorism. Wormuth discussed implications for the U.S. and its allies and partners of Russian and Chinese activity throughout the Middle East.

MORE AT [www.rand.org/t/CT511](http://www.rand.org/t/CT511)

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**Plan, Do, Study, Act**

People carry Russian and Syrian national flags, after rebel fighters and their families evacuated the besieged Waer district in the central Syrian city of Homs, after an agreement was reached between rebels and Syria’s army, in 2017.

MORE AT [www.rand.org/t/CT511](http://www.rand.org/t/CT511)
Games People Play
A wargame at RAND puts young women in command

Citizen Scientists
Researchers and residents work to protect a Brooklyn neighborhood

Building Partnerships
A strategic vision for industry and community colleges

Research Briefly
Army amputation care, and more

The Q&A
Cortney Weinbaum on ethics and intelligence

Giving
A gift from Soledad O’Brien to support scholarships for under-represented students

RAND in the News
RAND experts on Iran, China, and the U.S. power grid

Stacie Pettyjohn, codirector of the RAND Center for Gaming, provides an update on the state of play during a recent wargame set on the Korean peninsula. Pettyjohn and other RAND analysts, all women, developed and hosted the game to provide young women an opportunity to learn firsthand about national security.
Liking the Army

The U.S. Army is no digital newbie. Its recruiting website racks up page views by the millions; its average Facebook post gets nearly 1,500 likes.

Yet a recent RAND study found it could improve its social media standing if it focused more on Army values, family, history, and sports.

The Army’s Twitter account, for example, tends to focus on careers and recruiting, the study found. But the posts that get shared the most are those that pay tribute to veterans or historic events. And other users are more likely to mention the Army in posts about major Army-themed sporting events like the All-American Bowl or the Tough Mudder race.

The most active users on the Army’s Facebook page, meanwhile, are family members of current soldiers. Its main recruiting website, GoArmy.com, gets heavy use from new recruits as well as those just thinking of signing up, if frequent searches for pay scales and reservist policies are a guide.

The researchers looked especially at how social media posts featuring women performed. They helped the Army create experimental Facebook posts showing women working or training as soldiers. The posts received more attention than similar posts featuring men but were somewhat less likely to be shared; the differences were not statistically significant.

The study suggests the Army could engage more users by tailoring its content to the very different audiences on its online platforms. That could get it more page views and Twitter mentions, a bigger voice in the online conversation. But while social media plays an important role in outreach, posts alone are not likely to get more recruits into uniform. The study found only a faint association between the number of online visits the Army gets and the number of enlistments.

MORE AT www.rand.org/t/RR2686

Amputation Care and Rehab

Years of war have given military health providers all too much practice in caring for amputees. As the tempo of combat slows, the U.S. Army Medical Command asked RAND to document the lessons learned before that institutional knowledge fades.

More than 1,600 service members experienced a major limb amputation between 2001 and 2014. For many, the goal became a full return to the same level of activity as they had before—what the Army called “tactical athleticism.” Nearly one in five who lost a single limb returned to active duty.

But what did that look like on the ground, in post-op rehab centers? To find out, researchers interviewed more than 100 patients, family members, experts, and health care providers. They developed a list of six core competencies that define successful care.

Providers need to work in teams, across specialties. They need to educate the patients and their families, respond to their concerns, and provide care and treatment backed by evidence. They need to be aware of military and other cultural norms. And they need to be professional and ethical at all times.

The list was deliberately big-picture and focused on what happens after an amputation. Its purpose was to provide a foundation for the Army to use as it hires, trains, and assesses the next generation of care providers. It will also help the Army identify any skill gaps as more and more of those providers lack experience treating combat amputees.

MORE AT www.rand.org/t/RR2898
Help for the Homeless

Hundreds of people make their homes on the streets of Santa Monica, Calif. The city has taken a unique approach to helping its most chronically, and costly, homeless residents—one that RAND found has paid off, even if it hasn’t broken even.

The city created a street team to find the highest-cost homeless people, gain their trust, and work with them to get housing and other services. The team includes full-time specialists in housing, wellness, and substance abuse, as well as part-time support from a doctor and psychiatrist.

Some larger cities have established similar teams, but Santa Monica’s effort stands out among smaller cities. City leaders asked RAND to assess the team’s progress and challenges in its first few years.

Researchers found that most of the team’s 26 clients had found housing within 18 months of their first contact with the street team. They also had significantly fewer run-ins with police and fewer visits to an emergency room. That helped reduce costs to the city by nearly $10,000 per person, on average, by the 18th month.

That helped offset some, but not all, of the city’s costs, which averaged around $500,000 per year.

RAND’s study concluded that the street team has the potential to improve outcomes for chronically homeless people and for the city. Community stakeholders consider it a valuable asset. But the study also showed that getting the most chronically homeless people the help they need is a long-term project. Only one of the street team’s clients had graduated from the program and no longer needed such intensive services.

MORE AT
www.rand.org/RR2848

Risky Business

Sleep-deprived teenagers in a recent RAND study were more likely to engage in risky sex, a finding that underscores the importance of a good night’s rest.

Researchers surveyed more than 1,800 teenagers about their sleep habits. They also asked whether the teens had sex without a condom or mixed sex with drugs or alcohol.

Teens who got less than 8 hours of sleep on an average Friday or Saturday night were twice as likely as their better-rested peers to take those kinds of sexual risks. Teens who got consistently shorter sleep throughout the week, with no catch-up on the weekend, were also more likely to have unsafe sex.

It’s possible that the teens who were having unsafe sex were also the ones most likely to stay out late on the weekends. But a growing body of evidence suggests it could be the opposite: Teens who skip sleep make worse decisions. Past studies have linked poor sleep to lower impulse control, a heightened need for reward, and a greater appetite for risk.

Only about a quarter of the teens got the 8 to 10 hours of sleep on weeknights that the American Academy of Sleep Medicine says they need. Most got around 7.5 hours of sleep on school nights and a little more than 9 hours a night on the weekends.

The lessons for parents: Pay attention to how much sleep your teen is getting. Set bedtime rules, including limiting technology use. And allow a little catch-up sleep on the weekend. School districts could also help, the researchers wrote, by pushing back school start times to let teens catch the z’s they need to be their best.

MORE AT
www.rand.org/EP67904
If we don’t understand how our algorithms are making their decisions, then we can’t judge whether we agree with them.

**Q** What got you interested in intelligence and national security?

**A** I was studying physics in college, with absolutely no idea what I wanted to do for a living. And then, in the beginning of my junior year, 9/11 happened. I reached out to my university’s alumni network in Washington and asked, ‘What can I do?’ My mentors said, ‘You have a physics degree? Send in a resume.’ I ended up taking a summer internship with the Defense Intelligence Agency that led to a job after college.

Your research has examined challenges facing the intelligence community. What worries you about the future of intelligence?

You can be successful at collecting all of the data in the world, but then be unsuccessful at making sense of it fast enough to be able to respond. We used to be so limited in what we could collect. The first satellites in the Sputnik era were able to see such a small part of Earth at any given time because we really only had to look at the places where we knew the Soviets had their nuclear weapons. Well, now we have commercial imagery that takes images of the entire world every day. We’ve been so successful at collecting so much more data that now we need to figure out how to make sense of it all.

You’ve looked at artificial intelligence as one solution. What are some of the risks?

I wrote an article in 2016 where I started to question what some of those risks could be. One example I gave was in indications and warning—the field of intelligence that is going to give you an early warning that a country is going to attack. This is the area of intelligence that is ripe for AI and machine learning because time really matters. Sometimes you only get seconds or minutes of warning. You can’t wait for an analyst to wake up in the morning, show up at work, get a cup of coffee, and read the latest reporting. The algorithms never sleep.

But if we don’t really understand what’s going on inside that black box, you might end up with a situation where your algorithm tells you that a country is about to attack, but a human analyst looks at the same data and says, ‘I don’t see it.’ Next thing, there’ll be a U.S. president at 2 a.m. having to decide, ‘Do I respond or not?’ If we don’t understand how our algorithms are making their decisions, then we can’t judge whether we agree with them.

**Your most recent study looked at ethics in scientific research. What made you want to look at that question?**

That 2016 article led to a really interesting conversation with the director of the Intelligence Advanced Research Projects Activity. IARPA is responsible for research and development for the intelligence community. They were concerned about the lack of clear and well-defined ethics in emerging disciplines. We talked about AI, synthetic biology, and neurotechnology. They asked us if we could study how research ethics are created across scientific disciplines.
We ended up finding that there are ten ethical principles that are common across all scientific disciplines. If you don’t know where to begin, here’s a starting point: ten ethical principles that every scientific discipline agrees on.

**Ethical Principles for Scientific Research**

Weinbaum co-led a team that identified ten core ethical principles that are common across scientific disciplines:

- **Duty to society**
- **Beneficence**
- **Conflict of interest**
- **Informed consent**
- **Integrity**
- **Nondiscrimination**
- **Nonexploitation**
- **Privacy and confidentiality**
- **Professional competence**
- **Professional discipline**

**What’s next in your research?**

AI will continue to be a hot topic. There’s been a lot of discussion about how to create ethics in AI. I would argue we don’t need to create them; we actually need to figure out how to apply existing ethics to AI. I’m also working with different agencies to help figure out what the future of their technologies will look like.

**Anything else?**

As a woman with a physics degree, I feel like I have an obligation to tell women or minorities that this is just an amazing discipline. And there are role models out there. You might not know any in your community, but there are people like you—whatever ‘like you’ means—who are doing really interesting science, and you should pursue it if you love it. I went to a university with more than 30,000 people, and I was one of three women graduating with a physics degree in my year. If you’re trying to find someone you can reach out to, find a professional society, find someone on Twitter. I think people are really welcoming of that engagement and taking on the role of mentor these days, because we feel such a personal obligation to help the next generation.
A concern went through the community: What, exactly, was in that debris and floodwater?
Elizabeth Yeampierre watched tree branches whip past her windows on the evening of October 29, 2012, as Superstorm Sandy slammed into New York City. She had spent years warning of the dangers one big storm could unleash in her community. Now, here it was.

Yeampierre is an icon in the working-class neighborhood of Sunset Park, Brooklyn, a champion of the people and the place. She knew as well as anyone that hundreds of industrial sites operated in the community, some just feet from homes. She didn’t think they were ready for a storm like this.

Some 200 miles away, Ramya Chari watched the storm unfold on television from her home in Washington, D.C. As a policy researcher at RAND, she specializes in environmental risk and community health. She typed out a quick email to community groups in the storm’s wake: “If there’s anything we can do to help …”
Into action

As the skies cleared and the floodwaters receded, Sunset Park got to work. Small business owners and local volunteers scraped up debris and pumped out basements, often working with no more protection than some old shoes and grubby clothes. A concern went through the community: What, exactly, was in that debris and floodwater?

Sunset Park is the largest waterfront industrial area in New York City, a place where heavy industry coexists with apartment blocks and old brownstones. Even before the storm, community activists had organized “toxicity tours” to show outsiders what it was like to live near a waste-transfer station or a power plant. All it would take, they warned, was one big storm to flood those facilities and wash their pollutants into the community.

By the time Chari sent her email, community volunteers had already started going block by block through Sunset Park, mapping every industrial and chemical site. In time, they identified more than 2,200 locations storing more than 800 different chemicals. They were not at all convinced when limited testing after Sandy appeared to show no reason for concern. They wanted to better understand and model the risks themselves, to help the community protect itself. That was where Chari came in.

She joined what had become a broad coalition of local community groups and nonprofits investigating the environmental risk to Sunset Park. Together, they identified suspected carcinogens used in plastic and petroleum production as particular concerns to watch, along with lead and a key ingredient in antifreeze. But they also found that simple precautions—boots, gloves, and face masks—could cut the risk to cleanup workers by up to half the next time a major storm blows through.

It was research for the community, in the community, and with the community. It brought together longtime activists and college students, neighbors who knew the neighborhood and researchers who knew the data. They called themselves GRASP, for Grassroots Research to Action in Sunset Park.

The power of partnerships

“These are the kinds of partnerships that we need to invest in,” said Yeampierre, a self-described climate justice activist who leads an organization called UPROSE that has been fighting for Sunset Park since 1966. The group is one of the key members of GRASP, along with the New York City Environmental Justice Alliance, RAND, and an environmental risk-assessment nonprofit called The LifeLine Group.

“This is the way it has to be done—grassroots, from the ground up,” she said. “That’s going to work better than institutions coming into communities with their own solutions. With climate change, the crisis is so big, our communities need the best thinking.”

Yeampierre had once seen children playing barefoot in antifreeze leaking from one of Sunset Park’s dozens of auto-body repair shops. More than the power plant or the waterfront warehouses, those body shops are the real face of industry in Sunset Park. They’re on almost every corner in some places, next to homes and daycares, sharing walls with restaurants. It was easy to see them as part of the problem; Yeampierre saw them as part of the solution. When she confronted the owner of that leaking antifreeze, he didn’t turn his back or make excuses. He broke down. He just didn’t know the danger, or what to do about it.

The community members of GRASP started going out month after month, catching shop owners in their front offices or repair bays, asking for just a few minutes of time. They started building trust, and getting in the door. Researchers taught them to conduct scientific surveys and interviews, to gather data on the chemicals they found on site.

The information they brought back allowed researchers to begin modeling how chemicals might move through the community if they escaped in a storm. It also revealed a widespread need for basic safety education. The GRASP team started putting together safety protocols to help the body shops protect their chemicals and prevent them from escaping in the first place.
In Flint, Mich., a worried mother starts sending samples of her tap water to a lab for testing—and helps expose a public-health crisis that may have poisoned thousands. On the gulf coast of Louisiana, boaters start tracking fish die-offs and oil sheens, and help document the environmental catastrophe that was the Deepwater Horizon oil spill.

They’re part of what RAND researchers recently described as a growing movement shaping the future of science and public policy. More and more “citizen scientists” are collecting their own data, doing their own environmental monitoring—applying the tools of science to problems in their own neighborhoods.

The scientific community hasn’t fully embraced the idea yet, the researchers found, which means citizen-led science hasn’t reached its full potential. Citizen-science projects still face questions about the quality of their data, and a perception that some walk a fine line between research and advocacy.

Around a dozen have signed on to implement the protocols. The community members are still working on the rest.

“This is really about helping communities be more proactive and more prepared,” said Jaime Madrigano, a policy researcher at RAND who helped lead some of the work in Sunset Park. “It’s frustrating when a big disaster happens and you see communities struggling to get back from them.

“We know storms are becoming more frequent and more severe. We need to help individuals and communities mitigate the effects.”

By some estimates, nearly 23 million Americans live within one mile of a major chemical facility. Millions more live near small businesses that work with chemicals every day. They often lack the resources, or the political weight, to make their voices heard.

Sunset Park gives them a model. In a recent journal article, the team members of GRASP provided a step-by-step guide to help other communities evaluate and monitor the chemicals in their own backyards. Work with outside researchers, they advised; bring in experts and volunteers. But don’t lose sight of the fact that it’s the community at the center of the work, and it’s the community that should set the agenda.

The need for such partnerships is urgent in this era of climate change, they wrote. It’s only a matter of time before the next superstorm makes the question of what’s stored in a warehouse, a nail salon, a dry cleaners, or a body shop a matter of public health and safety.

“It can sometimes seem like there’s not much that people on the ground can do, that the problems are just too big,” Chari said. “But then you see a community like Sunset Park, working so hard to change its environmental exposure and risk, not accepting that the world has to be a certain way. The question isn’t whether they’re having an impact; it’s what we can do to support them.”

Researchers taught them to conduct scientific surveys and interviews, to gather data on the chemicals they found on site.
The infantry is taking heavy losses. Whole artillery battalions have been wiped out. Fighting to stay in the game, the young women huddled around a table strewn with maps and planning papers are running out of options.

“So do we have any intention of sending a nuke, a chemical weapon?” one asks.

“If they break through, I guess we could use one,” answers another.

“If they break through, I think we have to.”

This is much more than just a typical tabletop wargame. The players trading moves and countermoves in a RAND conference room are all young women, in their teens or early 20s. They’re part of a nationwide movement to bring some diversity to the male-dominated field of national security.

They’re new to gaming, learning strategy on the fly. But when it comes to finding their way through difficult situations, they have something most generals lack: the experience of being a teenage girl.
When it comes to finding their way through difficult situations, they have something most generals lack: the experience of being a teenage girl.

Young women affiliated with a group called Girl Security plan their next moves during a unique wargame hosted by RAND.
A dearth of women

An interviewer once asked then-Secretary of State Condoleezza Rice about her dress size. It was another example of what one writer has described as a tax on women in national security: the overlooked credentials, the seats at the back of the room, the double standards.

Women hold barely one-third of the senior executive positions at the State Department, and represent fewer than one-fifth of the senior officials listed at the Department of Defense (DoD). They are much less likely than men to reach the highest pay grades in government, to serve in the senior ranks of the intelligence services, or to appear on the Sunday morning talk shows. Of the ten congressional committees that oversee foreign policy and national security, only one is chaired by a woman.

In recent years, as women across America marched for social justice and shared their stories of harassment and abuse on social media, those in national security organized for change as well. One group, the Leadership Council for Women in National Security, has challenged all presidential hopefuls to pledge to seek gender equity in their top national security hires. The group—which counts RAND’s Christine Wormuth, a former under secretary of defense, as an adviser—has signatures from 15 candidates so far.

That was the backdrop as 14 young women, from as far away as Texas and Montana, filed into a RAND conference room overlooking the Pentagon on a recent summer afternoon.

Enter Girl Security

The scenario: North Korea has developed a long-range missile that can hit the West Coast of the United States. In response, the U.S. has resumed large-scale military exercises with South Korea, despite threats from the north of “grave consequences.”

When American forces start arriving for the exercises, North Korea fires a volley of shells into greater Seoul. South Korea retaliates with a missile strike. Both sides mobilize for war.

Lauren Buitta spent more than a decade paying the tax as a national security specialist and editor. “I almost feel like I’m the lesson learned,” she said. “I had female mentors, but I didn’t really have the compass that I needed.” In 2016, she founded an organization called Girl Security to engage and empower the next generation of women in national security. She approached RAND analysts about introducing some of her young students to the often-closed world of wargaming.

RAND has been associated with wargames since the earliest days of the Cold War. It has used games to study everything from nuclear security to health insurance. But there was one other reason RAND was a good fit for Girl Security: Both directors of its Center for Gaming are women, as are many of the center’s top analysts. They call themselves the Dames of Wargames.

They didn’t need much convincing.

“There are times when I’m running a wargame, and I’m the only woman in the room,” said Becca Wasser, a senior policy analyst at RAND. “That’s what we are trying to address here, to build a pipeline for young women to join us so that a woman analyst leading a wargame is no longer a novelty.”

High stakes and new traditions

“What do you guys think about bringing them up, the infantry?” Alexis Visser asks as she studies the game map. She’s 19, a student majoring in international relations and an Army reservist. She’s on the blue team, playing the American and South Korean forces attacking straight up the Korean peninsula.
**Top:** With the Pentagon as a backdrop, Samina Mondal, right, listens as Stacie Pettyjohn reviews the blue team’s tactics. Mondal, 18, established Virginia’s first chapter of Girls Who Code at her high school and is a student leader in the National Center for Women and Information Technology.

**Left:** Alexis Visser discusses options with her team. Visser, 19, is majoring in international studies with a focus on security and intelligence, and is training as a psychological operations specialist in the Army Reserves.

**Bottom:** Charlotte Gorman, a master’s student at the University of Texas, talks strategy with members of the blue team. Gorman plans to go into foreign policy and is interning this summer at the Africa Center for Strategic Studies at National Defense University.

**RAND’s Long History of Gaming**

The RAND Corporation has been at the forefront of gaming for seven decades. In the 1950s it pioneered the use of political-military crisis games to study nuclear deterrence. Throughout the Cold War, RAND used games to inform DoD understanding of military operations from the actual war in Vietnam to potential wars in Central Europe. These teams did pioneering work to link new understandings on the limits of human decisionmaking to new analytic tools provided by computers. During the 1990s RAND developed the innovative “Day After” approach to explore the consequences of nuclear proliferation, and the platform has subsequently been used for such topics as climate change and cybercrime. Among other topics, RAND is currently using gaming to examine impending changes in high school budget priorities, key issues in U.S. national security strategy around the world, and political transformation in volatile regions.
“Toward Inchon?” asks Charlotte Gorman, a master’s student at the University of Texas at Austin with an interest in diplomacy and an internship at the Africa Center for Strategic Studies. “Or would that be overkill? I’m just asking,” Visser says. “How do we avoid provoking them into another attack?”

“The question is, ‘Can you break through fast enough that they just stop?’” says Stacie Pettyjohn, a senior political scientist at RAND and codirector of the Center for Gaming. “If you go like this”—she sweeps a hand across the map, up through the center and then over toward the coast—“you’re putting them in a vice.”

RAND analysts—Elizabeth Bartels and Jenny Oberholtzer, in addition to Wasser and Pettyjohn—designed the game on their nights and weekends. It plays out on a huge map of the Korean peninsula, overlaid with hexagonal spaces, with little plastic tanks, boats, and soldiers as game pieces. Its purpose is to show just how difficult national security problems can be—how every move requires sorting through bad options and trying to find the least worst.

It’s a lesson in strategy, in the hard realities behind the daily news headlines, but also in agility and resilience. In that, it’s not so far removed from the daily life of a teenage girl, Buitta said. “These are life skills,” she said. “I want these girls to feel empowered. When they confront issues where they’re feeling marginalized, they will have had this experience.”

The name of the game is “Tangling with Tigers.” It’s not the kind of game anyone wins.

“So the situation is … not good,” Pettyjohn says as time runs out. The red team of North Korean forces, its infantry in tatters, has fired chemical weapons as it pulls back from part of the front lines. A tank battalion for the blue team, rushing forward, has hit a nuclear land mine the red team left behind. On the game board, a red mushroom cloud marks the place. Both sides seem stunned at how quickly the conflict escalated.

“There were no good solutions,” says Meaghan Burnes, 19, a history major inspired by her grandfather’s service in World War II, said the game helped her see herself doing military analysis or strategy as a career.
to outweigh the pros. It was just, what situation can you figure out that would have the most pros?"

“A lot of the decisions, strategies, and conversations were very reminiscent of what we see with military officers and DoD actors,” Wasser assures the players. Asked how professionals would have played the game, she tells them: “Not much different than you.”

A few days later, Rose Kelly is still thinking through the moves of the game. She’s 18, with an interest in nuclear security. The experience, she says, was “super transformative . . . it was such a pleasure to receive guidance from female experts and veterans, while working with so many other young women.”

She blames tradition and ignorance for keeping people like her out of national security for far too long. “Tradition can afford to be shaken up,” she says. “Ignorance must be shaken off.”

She has a small plastic tank, painted with glitter, on her trophy shelf, next to speech awards and gavels from the Model United Nations. Game organizers gave one to every participant with a request: That she keep it as a memento, wherever her career might lead.

Center for Gaming

The RAND Center for Gaming promotes the use of games in research to improve decisionmaking across a wide range of policy areas. The center supports the innovative application of gaming, the development of new gaming tools and techniques, and the evolution of existing forms and methods.

A “game” can be thought of as any interactive process with five basic characteristics: (1) there are multiple independent decisionmakers, or players; (2) they compete to achieve goals; (3) contexts evolve according to players’ interactions; (4) players are governed by a set of rules; and (5) the results of the interactions do not have a direct impact on the state of the world.

Games have been used—at RAND and elsewhere—to explore issues ranging from urban planning, climate change, drug policy, and disaster response to nuclear proliferation and, of course, military operations and warfare.

Nobel Prize–winning economist and RAND alum Thomas Schelling put the value of gaming quite succinctly when he wrote that alternative approaches to strategic analysis can fall short because no one can “make a list of things you never thought of.” Games create opportunities to think of things you wouldn’t otherwise.

The Center for Gaming is one of six analytic methods centers housed within the Pardee RAND Graduate School.
Commentary

How Community Colleges Can Establish Better Partnerships with Employers

By Rita Karam

Welding, nursing, informatics, project engineering: entry into these and other critical careers requires that students gain technical as well as academic knowledge. Because the demand for skilled workers is almost always high, it is not surprising that career and technical education programs—also known as CTE programs—have grown in community colleges across the United States in the last ten years. CTE programs give students a chance to engage in learning relevant to their chosen fields and apply immediately for a broad choice of jobs—some of them very well paid.

Key to the success of both CTE programs and their students are the partnerships that community colleges build with local and regional employers. These relationships can help the colleges create programs that respond directly to high-tech labor needs in the community. Involved employers can inform course offerings and curricula with industry and career information and examples of real-world problems. They can also donate and provide technical equipment and supplement instruction by providing internships and apprenticeships to students.

However, despite several federal- and state-funded programs that promote these relationships, employers still largely play a limited role in informing community college CTE programs. Community colleges often struggle to develop formal partnerships with employers and industry representatives. As a result, improvements to CTE programs are only piecemeal.

For example, community colleges tend to engage only in informal conversations with employers regarding employer needs, or have representatives serve on advisory boards that meet a few times a year to inform future needs of industry. Others connect with employers for the purpose of engaging them in student-related activities such as career fairs or CTE-related speakers series. It is little wonder that CTE–employer partnerships become burdensome to both parties. Maintaining a relationship becomes
How Community Colleges Can Establish Better Partnerships with Employers

By Rita Karam

States could consider requiring evidence of such partnerships when providing grants to community colleges. Federal and state policymakers could incentivize businesses to partner with colleges. State governments can provide a valuable role in providing necessary information to help strengthen partnerships between community colleges and industry. For example, states could purchase analytic tools for analyzing labor market needs without burdening employers for such data. Colleges would then be able to redirect their interaction with employers to more meaningful engagement than just a source of forecasting of labor market information.

Community colleges could hire staff who understand the structure and missions of both community colleges and industry to serve as liaisons to industry partners. A strategic vision of collaboration between industry and community colleges can be of great benefit to all parties involved, and policymakers at the federal, state, and institution levels all have an opportunity to help to optimize these partnerships.

Community colleges face several challenges in forming richer partnerships with employers. These include insufficient time to cultivate meaningful relationships and inadequate or ineffective allocation of resources for establishing formal partnership-building mechanisms. There is also a general lack of understanding of each other’s organizational structures and missions that could be a barrier for developing productive relationships.

There are several options that policymakers could consider to help community colleges establish stronger and more sustainable partnerships with employers and industry experts, with the aim of ensuring that students are getting the skills and credentials they need to transition into the labor market.

- Policymakers could consider facilitating the dissemination of best practices for community colleges in developing strong and sustainable partnerships with employers. Meaningfully involved employers are more motivated to continue and sustain the partnership and engage in central activities, such as providing apprenticeships and internships. States could consider requiring evidence of such partnerships when providing grants to community colleges.
- Federal and state policymakers could consider incentivizing businesses to partner with colleges.
- State governments can provide a valuable role in providing necessary information to help strengthen partnerships between community colleges and industry. For example, states could purchase analytic tools for analyzing labor market needs without burdening employers for such data. Colleges would then be able to redirect their interaction with employers to more meaningful engagement than just a source of forecasting of labor market information.
- Community colleges could hire staff who understand the structure and missions of both community colleges and industry to serve as liaisons to industry partners.

A version of this commentary appeared on The RAND Blog in June 2019. It is part of a series on issues relevant to congressional efforts to reauthorize the Higher Education Act. Commentary gives RAND researchers a platform to convey insights based on their professional expertise and often on their peer-reviewed research and analysis.
Award-winning journalist Soledad O’Brien makes a generous gift in support of diversity at Pardee RAND.

Soledad O’Brien was a little kid struggling to learn how to ride a bike when her father told her something that has guided her ever since. “You’re the kind of person who doesn’t give up.”

She’s an accomplished journalist now, the owner of her own media company, the host of her own syndicated talk show. She has more than 1 million followers on Twitter, where she calls out dishonesty and doublespeak from government officials and fellow journalists alike. And she still thinks about those words from her father whenever she hits a rough patch in life.

It’s what inspired her to give more than $500,000 to the Pardee RAND Graduate School. The gift will support scholarships for underrepresented minority students or first-generation college graduates.

“I can’t overstate just how important it is to have people around you who believe in you and value you and push you to do things and cheer you on,” she said. “I gave this gift to support young people who want to come to RAND and make a difference.”

O’Brien won her first major journalism award, a Peabody, for her coverage of Hurricane Katrina for CNN in 2005. She has since won Emmy awards for her reporting on race, the earthquake in Haiti, and the 2012 presidential election, as well as another Peabody for her coverage of the BP oil spill. The National Association of Black Journalists named her the journalist of the year in 2010.

She’s the author of two books, the founder and owner of Starfish Media Group, and the host of the weekly public-affairs show Matter of Fact. She serves on the Pardee RAND Board of Governors and has also been a RAND trustee since 2015—drawn in part by a RAND study on racial profiling in Oakland, Calif. The study looked at traffic stops during daylight saving time, when officers could see the people they were pulling over, and after, when it was too dark. It found some mixed evidence of bias.

“A good story in journalism is always about taking a data set and then figuring out: How do you bring that data to life by telling stories,” she said. “What are the facts? What are the good studies you’re using to illuminate an issue, a problem, a solution, a challenge? That’s an important part of what RAND does, and it’s what we do in journalism.”

Her father, Edward, an Australian who came to America on a Fulbright scholarship, died in February. Her mother, Estela, died 40 days later. She was Cuban by birth, and used to...
tell her children that education is one of the only things that nobody can take from you. They were a mixed-race couple before the Supreme Court even recognized mixed-race marriages. They would appreciate the opportunity to help students from diverse backgrounds, O’Brien said.

She made her gift to Pardee RAND in their name.

“When you invest in education, you change people’s lives,” she said. “You change their lives, certainly, but you also have the opportunity to change lives in every community that they touch. My parents really embodied that. You just can really move the needle on things in a big way.”

You can, she said, start to build a pipeline—to bring people from diverse backgrounds into positions where they can apply their life experiences to some of the toughest issues we face. That’s as true in research as it is in journalism, she said: Getting more voices into the conversation starts with education.

She’s seen that firsthand. Since 2011, she and her husband, Brad Raymond, have helped young women go to college through their PowHERful Foundation. Failure, she said, is a young person with goals and dreams who can’t get there just because of money. She donated scholarships to Pardee RAND because of what success looks like: a young person who didn’t have to give up.

“My parents were really good about investing in people with their time and their cheerleading, and I hope that this gift does that,” she said. “I still hear my dad’s voice whenever something’s just not working out: ‘You’re the kind of person who doesn’t give up.’ He’s right.”
Military Struggles to Recruit Best, Brightest in Booming Economy
WASHINGTON TIMES, JULY 7, 2019

“Consistently, the research finds that recruiting is more difficult, the supply of high-quality recruits is more difficult when the economy is booming. There’s another factor here, which adds the cherry on top. The Army is growing, as are the other services. So you have a bit of a perfect storm of a really strong economy and having a larger force.”

BETH ASCH | SENIOR ECONOMIST

U.S., China Defense Chiefs to Lay Out Rival Visions for Asia
BLOOMBERG, MAY 30, 2019

“The U.S. and China will be wooing countries in the region, the U.S. likely with the message that Chinese offers of loans and infrastructure represent a debt trap and a sacrificing of information to an untrustworthy digital infrastructure provider who will then have your data. China’s will be that the U.S. is an outside actor looking to stir up trouble and prevent the region from developing out of a misplaced concern about China’s rise.”

SCOTT HAROLD | ASSOCIATE DIRECTOR, RAND CENTER FOR ASIA PACIFIC POLICY

Democrats Want to Rejoin the Iran Nuclear Deal. It’s Not That Simple
POLITICO, JULY 20, 2019

“The assumption in Washington is we have gained leverage by stepping away from the [Iran nuclear] deal—that we might get concessions from Iran. Iranians think the same thing—that they have leverage now and will be able to get concessions from us.”

ARIANE TABATABAI | ASSOCIATE POLITICAL SCIENTIST

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INSIDE SOURCES, APRIL 10, 2019

“I’m all for increasing [electric] grid resilience, but here’s a threat priority list: 1. Squirrels 2. Tree branches 3. Heat waves/hurricanes/other climate-amplified threats.”

COSTA SAMARAS | ADJUNCT SENIOR RESEARCHER

Does 3D Printing Pose a Threat to Security?
SOFTONIC, APRIL 15, 2019

“With digital becoming physical, you could implant weaknesses into airplanes, into military tanks, into buildings. You could target people by implanting some kind of flaw that causes their personal devices to critically malfunction.”

TROY SMITH | ASSOCIATE ECONOMIST

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