

The Magazine of The Heinz Endowments

OPERATION HOMECOMING

How a coalition of philanthropies, nonprofits and government agencies joined forces to support veterans' transition from military to civilian life

inside

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The Heinz Endowments was formed from the Howard Heinz Endowment, established in 1941, and the Vira I. Heinz Endowment, established in 1986. It is the product of a deep family commitment to community and the common good that began with H.J. Heinz, and that continues to this day.

The Endowments is based in Pittsburgh, where we use our region as a laboratory for the development of solutions to challenges that are national in scope. Although the majority of our giving is concentrated within southwestern Pennsylvania, we work wherever necessary, including statewide and nationally, to fulfill our mission.

That mission is to help our region thrive as a whole community — economically, ecologically, educationally and culturally — while advancing the

state of knowledge and practice in the fields in which we work. Our fields of emphasis include philanthropy in general and the disciplines represented by our five grant-making programs:

Arts & Culture; Children, Youth & Families; Education; Environment; and Innovation Economy.

In life, Howard Heinz and Vira I.
Heinz set high expectations for their
philanthropy. Today, the Endowments
is committed to doing the same.
Our charge is to be diligent, thoughtful
and creative in continually working
to set new standards of philanthropic
excellence. Recognizing that none
of our work would be possible without
a sound financial base, we also are
committed to preserving and enhancing
the Endowments' assets through
prudent investment management.

h magazine is a publication of The Heinz Endowments. At the Endowments, we are committed to promoting learning in philanthropy and in the specific fields represented by our grant-making programs. As an expression of that commitment, this publication is intended to share information about significant lessons and insights we are deriving from our work.

Editorial Team Linda Braund, Donna Evans, Carmen Lee, Whitney Stack, Robert Vagt. Design: Landesberg Design

About the cover Photographer Jason Snyder's "tintype" portrait of Jason Lewis, a former Army Ranger and Green Beret, enhances the look of determination on Lewis' face. After serving in Afghanistan and Iraq, Lewis defied the growing stereotype of the down-on-his-luck vet, earning an MBA and eventually becoming a vice president in PNC Financial Services' Strategic Initiative Office. Snyder's 19th century photographic process, which does not actually involve the use of tin, gives 21st century gravitas to the veterans' portraits in this issue.



River Crews

In the five years since RiverQuest's Explorer docked in Pittsburgh, thousands of schoolchildren have boarded the "green" ship to learn lessons from the region's rivers while philanthropic and corporate support has helped keep the education nonprofit above water.



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Exit Plan

Readjusting to civilian life can be difficult for veterans, but many in the Pittsburgh region say they're up for the challenge — and some local philanthropies are working together to make the journey a little easier.

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Wet Weather

Environmentally friendly solutions to prevent stormwater from overwhelming Allegheny County's sewer system may offer ways to control costs and meet new federal clean water standards as well as create attractive public spaces.

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feedback

Our special issue devoted to urban public education examined the challenges facing city schools and the initiatives that The Heinz Endowments supports to help provide equitable and high-quality education in Pittsburgh.



Youth Voice

When I read Christine O'Toole's youth profiles, "From the Mouths of Teens," in the special issue of *h* on urban public education, I could not help but think of my favorite teachers and principals and how they talk to me seriously and listen to my opinion. I still remember the conversation I had with Dr. Wayne Walters, my current principal, at my fifth-grade graduation. I spoke to him about my fears of middle school. He answered my questions and told me, "You have somebody waiting for you there." It turned out that he was my principal at Frick middle school and now again at Obama Academy. That conversation and those that have taken place since then are constant reminders that he cares about me.

I also enjoyed the first-person story by Dynae Shaw, "Our Turn at the Table," about the Teen Bloc youth organizing group, and I applaud them for their work. We should all have teachers who care about our opinions, but we know that's not always the case. When educators ask a student's opinion, they do two things. They open their minds to other perspectives that they haven't thought of. They also make the student feel more comfortable, so when things get tough, it's easier to ask for help.

Now I am getting a chance to give back through my work as a Reading Warrior. I read with children in order to improve their test scores. It may not be overnight, but I will work hard at this until the job is done. It all starts by building a positive relationship with my students and listening honestly to their opinions. That is what we as Reading Warriors, teachers and mentors should do.

Jasmine Johnson Reading Warrior, Neighborhood Learning Alliance Senior, Barack Obama Academy of International Studies

Teacher Quality

It was uplifting to read about the array of education reforms taking root in Pittsburgh's schools and that teacher quality is at the forefront of those reforms. The challenges any district faces when addressing what matters most—its teaching force—can be daunting, and change must first be built on a level of trust and collaboration that many mistakenly overlook. Not only does Superintendent Linda Lane have her eyes wide open, she is proving what is possible.

As I run an organization that dedicates itself to ensuring that every child has an effective teacher, it is encouraging to observe such initiatives as the Pittsburgh Equity Plan, the recruitment of African American male teachers, individualized teacher professional development, and the revamping of the evaluation system. The hardest part about teacher quality work is that it does require a focus on many moving parts. Hats off to those willing to take on this tough but critical job.

Kate Walsh President, National Council on Teacher Quality Washington, D.C.

The Urban Challenge

As a researcher on race and education, I teach about both as part of my course "Race and Social Problems" at the University of Pittsburgh, and I work with many faculty experts on these topics. I found the June 2013 issue of *h* magazine on urban education revealing.

The magazine, for example, summarizes results from a survey on parent attitudes about Pittsburgh Public Schools. While the majority of parents are satisfied with their children's progress, the level of satisfaction could be much higher, and the majority of parents also appear to be concerned about the quality of teachers in the district.

Pedro Noguera, a nationally recognized expert on urban education, clearly explains how reduction in anti-poverty programs stopped the advancement of African American educational achievement that was occurring in the 1960s. He also provides some hope for change by describing a few district-level models for reducing racial achievement gaps.

Endowments Chairman Teresa Heinz's message is informative, especially her recounting of statements by Harlem Children's Zone Director Geoffrey Canada. These include his ominous assertion that children in America today "who don't get a decent education are more in peril than ever."

The article on City Charter High School in Downtown Pittsburgh is particularly good. This school has many proven strategies for helping disadvantaged children. The two teachers at the school who wrote the piece, Beth Baranowski and Cristine Smith, describe how special education and general education teachers partner to provide collaborative yet differentiated instruction that enables students who receive support services and those who don't to learn together in the same classroom. "Common planning and close relationships," they said, "create an environment essential to the success of all our students."

That type of commitment and cooperation is vital for students in every urban school.

Dr. Ralph L. Bangs Associate Director, Center on Race and Social Problems University of Pittsburgh

celebrate

Whatever anyone might have thought of bringing a 40-foot-tall replica of a bathtub toy to mark the beginning of a major cultural event, much of the possible skepticism melted with a collective "Aw" as its huge yellow head and large orange beak peeked around the Carnegie Science Center before floating to its temporary resting place at the edge of Point State Park. The Pittsburgh Cultural Trust brought Dutch artist Florentijn Hofman's "Rubber Duck Project" to Pittsburgh to mark the Trust's International Festival of Firsts.

The four weeks of arts programming featured acclaimed organizations and artists from around the world whose works had never before been seen in the United States. With crowds flocking to Downtown to visit the oversized bird, the giant duck proved to be just as much a hit in Pittsburgh as it had been in places such as Hong Kong and Sydney. News stories about the inflatable fowl also proliferated, including several poignant farewells as it prepared to leave the city. Bottom line: The giant rubber duck made Pittsburgh smile



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A HANDS-ON BIOLOGY LESSON ABOARD AN ENVIRONMENTALLY "GREEN" SHIP AS IT SAILS PITTSBURGH'S RIVERS ISN'T JUST A UNIQUE EDUCATIONAL FIELD TRIP. IT'S ALSO A TESTAMENT TO THE VALUE OF PHILANTHROPIC AND CORPORATE SUPPORT WHEN STATE FUNDING FOR SPECIAL PROGRAMMING STARTS DRYING UP. BY BRETT MURPHY | PHOTOGRAPHY BY JIM JUDKIS

Broughton, participants in this summer's Higher
Achievement academic program, are observing evidence
of birds as a component of the river food chain while

an occasional bald eagle.





The Explorer educational experience provides students with opportunities to examine and identify organisms of all shapes and sizes that inhabit Pittsburgh's rivers. Above, RiverQuest Education Manager Suzi Bloom, center, helps Tiffany Hargrave, left, and Tyrelle Bowyer, right, search for macroinvertebrates in a river sample. Right, a petri dish contains material and organisms from the river bottom. Below left, Imari Lockhart-Colon and Tiffany Hargrave talk about what they can observe from a preserved paddlefish in a jar. Below right, Chasity Coleman and other students from the Higher Achievement academic program compare the plankton they see under the microscope with those identified on charts provided by RiverQuest staff.







he Allegheny and the Monongahela rivers

negotiate Pittsburgh's contours, slipping under a quilt of bridges, finally meeting Downtown at a confluence with the Ohio. A morning fog creeps its way under the Fort Duquesne Bridge, low enough to blur the skyscrapers, but high enough to leave the waves in sight. As RiverQuest's signature vessel, *Explorer*, pushes off the dock, the city all but disappears, leaving little to admire besides the water itself.

A group of sixth-grade girls whisper on the deck of the 90-foot vessel. Some enthusiastic boys bounce around the galleys. In the trip's only co-ed group, the boys and girls sit in awkward silence around a table of microscopes. One brave soul, sporting a Steelers jersey and lab goggles, dares to strike up conversation with the girl next to him.

It's a cool morning in June, and the next day will mark the end of classes for kids at Highlands Middle School—at least for a few months. But at this moment, they're caught in the pleasant limbo between square roots and summer. A field trip, then, seems to be the perfect opportunity to help ease the transition.

This is the second time this particular group of 60 students has come aboard *Explorer*. And the two trips were entirely free, free for the students and free for the school.

School districts throughout Pennsylvania have sacrificed special programs and activities because of budget cuts, but Pittsburgh-area foundations and corporations are providing support to help keep the offerings of education nonprofits available. To the gratitude of many teachers and students, RiverQuest is among the organizations that have managed to stay afloat. Funders are trying to preserve RiverQuest because of its long-term impact on science education and environmental responsibility—and because kids love it.

"It's like school, but just better," a young scientist notes while adjusting his microscope.

For 18 years, RiverQuest has provided a "floating laboratory," equipped to offer professional studies of the river ecosystems. Schools applaud the program because of its unique approach to education, encapsulated by its maxim: "Tell me, I'll forget. Show me, I might remember. Involve me, I'll understand."

"We try to redefine the phrase 'field trip' to one that fits our philosophy of involvement," RiverQuest Executive Director Gerry Balbier says. "We call it a 'voyage' because people are discovering this asset called 'the rivers.'"

Throughout the day, students analyze the water, as both chemists and biologists. They test for temperature, pH levels (acidity), oxygen content, turbidity (cloudiness) and—the kids' favorite—plankton life. There's even a session on the geology and ecology of the Marcellus Shale, a natural gas deposit that underlies much of Pennsylvania.

And RiverQuest's emphasis on science education provides a platform where The Heinz Endowments' educational and environmental initiatives intersect.

"Ultimately, we're not going to maintain the commitment of citizens to the importance of environmental protection if we don't engage them early on," says Caren Glotfelty, formerly the Endowments' senior Environment Program director.

"RiverQuest has the ability to place kids in a different learning setting," adds Education Program Director Stan Thompson. "Kids will leave with not only a greater knowledge of their environment, but also an understanding of how they can become stewards of their own community."

When Balbier was senior program officer for the Endowments' Education Program, his first grant was to Pittsburgh Voyager, later renamed RiverQuest. It was a small, education nonprofit that used retrofitted World War II naval ships to teach environmental science to students in the Pittsburgh region. However, the *Discovery* and *Voyager* boats were unsustainable, says Glotfelty. "They were a big drain on the organization's budget because it was so expensive to maintain the boats," she says of the program's early difficulties. And the problem was amplified because the ships couldn't hold enough students—43 people maximum—to generate revenue.

But in 2008, *Explorer* finally arrived in Pittsburgh. The first "green" education boat in the world, *Explorer* can hold 120 people and is powered by a hybrid-electric propulsion system and retrofitted with environmentally friendly technologies—from the low-flow toilets to the hull made entirely of recycled steel.

Explorer also brought with it a reaffirmed commitment to RiverQuest's mission. Glotfelty and Balbier agree that lessons in science education and environmental responsibility are more convincing when taught aboard a green vessel.

"We're walking the talk when it comes to environmental practice," Balbier notes. "We have a lot more credibility than we did before, and we can say that our operations are green as well as our curriculum."

And he thinks funders value RiverQuest for that. The Endowments' Environment Program has given more than \$3.8 million in grants since talk of the new boat began in 2004.

Funding, Balbier acknowledges, is a daunting priority of not only RiverQuest, but all nonprofits. Since the economic downturn started in 2008—incidentally, the same year *Explorer* reached Pittsburgh—education programs throughout Pennsylvania have been drastically cut back.

The budgets for state-funded schools continue to shrink, with districts still trying to recover from the \$860 million in state funding cut from K–12 education in the 2011–12 school year. Each district has been handling the pinch differently. Measures have included pay freezes and rollbacks, furloughs, early retirement incentives and major cuts to "non-essential" programs. The challenge for organizations like RiverQuest has been to remain essential in the eyes of local districts.

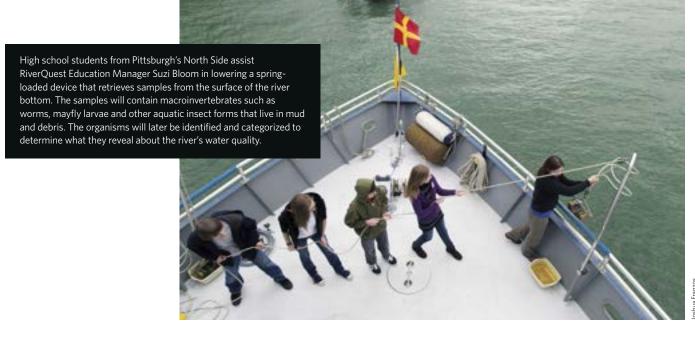
"School districts are being forced to cut into core educational programs, creating greater obstacles for success both now and long into the future for many of Pennsylvania's 1.7 million students," contends Pennsylvania Association of School Administrators Executive Director Jim Buckheit in a statement released last year. The organization has decried the impact of losses in state and local revenue on student learning.

Ron Baillie, co-director at the Carnegie Science Center, a longtime collaborator with RiverQuest, says school districts are being assessed on their ability to teach a specific curriculum, one focused very much on science, technology, engineering and mathematics (STEM) education. As money tightens, districts are being forced to come up with creative ways to effectively teach the same material that students see on the standardized tests. And the RiverQuest experience fits directly into the curriculum, adds Baillie.

According to the U.S. Bureau of Statistics, STEM jobs are projected to grow twice as quickly as jobs in other fields in the







next five years. And the United States will have more than 1 million job openings in STEM-related fields by 2018, yet only 16 percent of bachelor's degrees will specialize in them.

Since former President George W. Bush's "No Child Left Behind" and President Barack Obama's "Race to the Top" campaigns, STEM education has moved into the national spotlight, but schools still struggle to create enthusiasm at the K–12 levels. Early STEM education, taught in hands-on environments, is critical in nurturing the curiosity young people already have, says Baillie.

It's a curiosity that, he fears, is too often dampened in middle school classrooms. Although U.S. fourth-graders score well against international competition, they fall near the bottom or dead last by 12th grade in mathematics and science, according to the U.S. Department of Education. "It's much easier to keep young kids interested in science than it is to let them get away from it and [then] try to re-energize them when they're 13," Baillie says.

Kristen Burns, associate director of The Grable Foundation, says that, in getting children out of their typical classroom environment, RiverQuest has the rare opportunity to physically engage students in the natural world, cultivating passion at early ages. "At its best, [RiverQuest] can inspire a lifelong interest, which is especially important now because of the demand for STEM-related skills."

Still, some schools can't afford to allocate any funds to field trips, even those as enriching as RiverQuest. If they qualify, as Highlands Middle does, these schools can receive a full subsidy.

"If the RiverQuest trips weren't entirely subsidized—from the buses to the substitute teachers—we'd have to either charge the students a fee, try fundraising or cancel the trips altogether," Highlands Middle School teacher Karen Davidek says as her class reins in water samples from the boat's stern.

Many of her students come from lower-income families and wouldn't be able to afford a fee. The program is indispensable, especially for these students, because careers in science often seem so intangible, so unrealistic. In that respect, RiverQuest aligns with the goals of the Endowments' Education Program,

which has granted more than \$2 million to RiverQuest since 1993. Those goals include supporting educational efforts that help build a more equitable and inclusive society as well as meet high-quality learning standards.

"This is the way to show [students] a practical pathway to future majors and future careers," says the Endowments' Thompson. "There's also a cultural sensitivity that the program can provide."

As they cruise down the Ohio, the Highlands Middle School students are joined by swarms of mayflies. Under other circumstances, the insects could be viewed as a nuisance, but for the students, they're evidence of life. Mayflies live for only one day as adults—a fleeting but certainly not boring life dedicated to reproduction—and they wouldn't be able to survive for three years underwater as larvae if the rivers were polluted.

"Even though we can't talk to the mayflies and they can't talk to us, they can still tell us a message about the health of our rivers," RiverQuest educator Linda Willhide says. "When we find those mayflies, it's as good as them being able to whisper in our ear, 'These rivers are clean.'"

The backbone of RiverQuest is the scientific process in which students are challenged to confirm or deny a hypothesis, says Balbier. They gather their own evidence, make their own observations, and come up with their own conclusions. The question every field trip tries to answer: Are the rivers healthy?

Since the 1972 Water Pollution Control Act Amendments ushered in stringent controls on industrial policy and increased public awareness, Pittsburgh's rivers have been on the mend. But even though stretches of greenery and trail ways have graced much of the riverfront, erasing the entrenched stigma is still no easy task.

Sporadic reminders of the region's post-industrial legacy linger along the riverfront: a few docked barges, trains hauling what appears to be manufacturing cargo and small pockets of vacant lots. Balbier says it's not until the city is put under a microscope that the rivers can be truly understood.

Connection—to the rivers and to the region—is a lesson he hopes each student learns from RiverQuest. More important for the organization, though, Balbier strives to impress upon funding communities the merit of teaching these connections.

Having worked from the funders' side of the table, Balbier understands what nonprofits need to do to survive. His experiences at the Endowments helped him "develop approaches to raise money and give boards reasons to want to fund us." For example, he's found that enlisting schools to go and make arguments on RiverQuest's behalf gives funders a concrete feel for the program's success. "It makes us a program of value, something to be prioritized."

Still, as school districts struggle to pay for the trip, RiverQuest needs other support more than ever. Balbier tries to tap into the for-profit sector's common goals of community betterment and image—and corporations are stepping up.

"Without the foundation community, we wouldn't be around. But more and more we're looking at corporations that have access to tax programs that enable them to support places like us," Balbier says. Corporations are using the Pennsylvania Educational Improvement Tax Credit program funds to meet the community goal of increasing the quality of life in the region. Under the program, RiverQuest is eligible to receive contributions from businesses, which, in turn, can receive a tax credit of up to 90 percent of their donation. "They want to balance their image, and I think they're doing that quite successfully," Balbier says.

Wendy Lomicka, sustainability and community engagement leader for plastics producer NOVA Chemicals, explains that RiverQuest's work reflects her firm's commitment to environmental stewardship.

"We at NOVA Chemicals are pleased to be able to support RiverQuest in carrying out its mission to engage students and people of all ages in learning experiences and other efforts that raise awareness about the importance of our rivers," she says. "The rivers literally define the geography of this region and are essential to its ongoing health and prosperity. By supporting STEM education through organizations like RiverQuest, NOVA Chemicals hopes to join others in making a positive and lasting difference to the region's future workforce, its health and its environment."

Even with all this support, public visibility remains the major steppingstone toward permanence, says Balbier. He is working on different, low-cost marketing strategies—from

social media to public fundraising campaigns—to put RiverQuest in "every riverfront development conversation."

"The Allegheny, the Monongahela and the Ohio are our stages for presence, and it's up to us to make ourselves known all over the Pittsburgh region," Balbier says.

Back on the *Explorer*, there's a silence below the main deck. The Highlands Middle School students have just affixed their microscopes with slides of water samples, and, not unlike a team of scientists on the brink of discovery, they peer into the eyepieces, adjusting the focus to make sense of the budding ecosystem under their lenses.

"Daphnia puli-caria."

"Steph-a-no-discus."

The young oceanographers sound out different types of phytoplankton listed on the chart they use to compare to what they see swimming on the slides. In the days leading up to the trip, they were taught about river ecosystems and water life using the "Captain's Chest" materials that RiverQuest provides to schools; but, standing hunched over their microscopes, they light up as if they've never before heard of "nephrocytium" or "crucigenia."

They react this way because they're actually seeing the squiggly, shrimp-looking organisms maneuvering around the slide instead of looking at pictures in a textbook. Or as one young scientist, wearing glasses under lab goggles, shouts from an isolated corner of the lab, "Dude, I have a fat, circley thing eating a whole bunch of twitchy molecules!"

"When you talk about learning with any age group, it's the doing, the experiential dynamic, that's always going to reinforce what you hear from a teacher or read in a book," says the Endowments' Thompson. "You can touch, see, feel, smell these things, and there's just so much more that it evokes in terms of your ability to connect and learn."

On the way back toward the dock, the early afternoon seems to have lifted the fog, and clear skies give way to a crisp view of the skyline. The sixth-graders lean over the rails, trying to take in as much as they can before the long walk back to the buses. One student pretzels himself around a chair and tries to barter with Davidek, his teacher, for another hour on the boat. No such luck.

"Kids—separate from the science of [the voyage]—start valuing Pittsburgh differently," Balbier says. "And they always want to come back." *h*

exit plan

RETURNING VETERANS FACE A CONFUSING MAZE OF SERVICES INTENDED TO ASSIST THEM IN READJUSTING TO CIVILIAN LIFE. WORKING TO PROVIDE A LOCAL COMPASS IS A COALITION OF PHILANTHROPIES, NONPROFITS AND GOVERNMENT AGENCIES COMMITTED TO HELPING VETERANS NAVIGATE PATHS TO SUCCESS.

BY JEFFERY FRASER | PHOTOGRAPHY BY JASON SNYDER

en Keen arrives at a Panera Bread café in Pittsburgh's East Liberty neighborhood and politely, but deliberately, takes the seat facing the door. He's risen early this spring morning for a wide-ranging conversation on the issues confronting many military veterans like him who return from deployments in Iraq and Afghanistan. His seat selection is not unrelated to the issues that will be discussed.

"It's part of my thing. It's hard for me to have my back to the door," he explains. "I need to see an exit plan." This byproduct of three combat deployments during his more than eight years in the Army is a subtle symptom of the post-traumatic stress he's dealt with since his diagnosis in 2004.

"You can't let it beat you down," says Keen, a 33-year-old who traded on his military communications training to work his way to a job as a network administrator for the AAA motor club, managing a membership server covering five states. "For me, it was: Learn to work with it, or it's going to make you a hermit. We didn't go through what we went through to come back and be hermits."



BEN KEEN, 33, WAS AN ARMY SERGEANT WITH THE 101ST AIRBORNE DIVISION AND SERVED EIGHT-AND-A-HALF YEARS IN THE MILITARY, INCLUDING DEPLOYMENTS IN BOTH IRAQ AND AFGHANISTAN. TODAY HE IS A NETWORK ADMINISTRATOR FOR AAA MOTOR CLUB: "IT'S ONE THING TO BELONG TO A NATIONAL [VETERANS] ORGANIZATION AND HAVE THAT BACKING IT'S ANOTHER TO BE ABLE TO CALL SOMEONE IN THE AREA AND GET A BEER OR A CUP OF COFFEE. IF I'M HAVING A BAD DAY, I CAN TURN TO ONE OF MY FRIENDS I MET THROUGH [STEEL CITY VETS] AND SAY, 'THIS IS WHERE I'M AT TODAY.' "



KRISTAL ROBINSON, 27, WAS AN ARMY RESERVE SPECIALIST WITH THE 316TH EXPEDITIONARY SUSTAINMENT COMMAND AND SERVED EIGHT YEARS IN THE MILITARY, INCLUDING 12 MONTHS IN IRAQ. SHE CURRENTLY WORKS AS A SITE MONITOR IN THE SECURITY DEPARTMENT OF A COMMUNITY CORRECTIONS FACILITY AND AS A RESIDENTIAL COUNSELOR FOR A BOYS GROUP HOME: "THE TRANSITION WAS HARD. IT STILL IS. BUT I'VE ALWAYS KEPT A JOB AND DONE SOMETHING POSITIVE: GOING TO SCHOOL, DOING THINGS WITH MY FAMILY, TRYING TO FOCUS ON BEING A GOOD PERSON, WHICH I AM."

18,000

His experience is not uncommon. Post-traumatic stress has emerged as one of the signature wounds of veterans who served in the conflicts in Iraq and Afghanistan that followed the Sept. 11, 2001, terrorist attacks on U.S. soil. The unsettling nature of serving multiple combat deployments is another experience shared by many veterans of those protracted conflicts, which when viewed together at 12 years are the longest in the nation's history.

It's such characteristics that make the already challenging transition to civilian life more difficult for many returning Iraq and Afghanistan veterans, and complicate efforts to help them through that transition. Moreover, their numbers are significant: Nearly 2.5 million American men and women have been deployed since 2001, and some 1 million of them have served multiple deployments. The magnitude of this population of returning veterans has shown signs of over-taxing the capabilities and resources of the Department of Veterans Affairs and other traditional means of stateside support. And their growing numbers expose the lack of a comprehensive, coordinated support system they understand, are aware of and can easily access.

"Right now, it's hit or miss, and often it's miss," says Robert Vagt, president of The Heinz Endowments. "We have what in our lifetime is a record number of people who are being discharged—people who've served in ways unheard of since World War II. Some have been deployed three, four and five times. That they can't count on a system that is ready to go and that's proactive and reaches out to them, I think, is nothing short of a national shame."

Returning veterans and their transition to civilian life are not small matters in western Pennsylvania, which is home to one of the largest veteran populations in the country, including those who have served after 2001. Yet, the region is without a major military base that would provide returning soldiers a central source of information, guidance and other services to support their transition.

Attempting to help fill the void is a growing coalition of public, private and philanthropic organizations that have long-standing reputations for being able to successfully collaborate to improve the quality of life of residents in western Pennsylvania. Several local foundations have for years lent their support to veterans' issues ranging from health to job and career development. But as the conflicts in Iraq and Afghanistan wound down, it was recognized that something more was needed to address the human toll of being a nation at war for longer than a decade. The foundations have begun to

NUMBER OF IRAQ AND AFGHANISTAN WAR VETERANS REGISTERED WITH THE VAIN THE PITTSBURGH REGION. ACTUAL NUMBER OF VETS MIGHT BE DOUBLE THAT FIGURE.

re-examine the role of philanthropy in meeting the needs of the growing number of soldiers returning to the region. For some foundations, the rising tide of post-9/11 veterans has signaled an opportunity to collaborate with one another, the VA and other agencies, and to knit together a comprehensive, easy-to-navigate network of services that would give returning veterans a wide safety net, the likes of which has never been seen in the region.

"There's been a core group of funders that supported various individual programs serving veterans, but the degree to which they are attempting to coordinate and align what they are doing has definitely increased," says Barbara Taylor, executive director of Grantmakers of Western Pennsylvania, which last year began hosting a roundtable on the issues of returning veterans.

This year, the Endowments funded the development of a new website to provide an online hub where veterans and their families can easily find a variety of resources as they transition from the military to civilian life. The site, TheCheckpoint.org, was launched on Veterans Day, and allows veterans to comment on and rate the services they receive from providers, with the goal of encouraging the agencies and organizations to improve their services. The website also accompanied the creation of Checkpoint the organization, which offers veterans guidance in their readjustment to civilian life by improving connections between them and the resources in their local communities.

"Our level of understanding on the issues is getting better, to the point where we know it's going to take a concerted effort— a convening of multiple stakeholders and the establishment of strategies that will have a systemic impact—not just the case management of a few returning soldiers," says Rob Stephany, director of the Endowments' Community & Economic Development Program.

Problems with the numbers

urrently, information on recent returning veterans in western Pennsylvania is thin. Even population counts are imprecise. The VA reports that 18,000 veterans of recent conflicts in Iraq and Afghanistan are registered with the Pittsburgh regional office, whose jurisdiction includes four West Virginia panhandle counties. The U.S. Census Bureau's American Community Survey estimates there are 13,670 veterans ages 18 to 50 in the Pittsburgh Metropolitan Statistical Area.

Both likely undercount the population. A recent online survey of post-9/11 veterans in the Pittsburgh area, for example, suggests that one-third of them are not registered with the VA. (Nationally, about one-half of veterans do not register.) And members of the National Guard, a sizable group in western Pennsylvania, do not always identify themselves as veterans. In addition, hundreds of additional service men and women return to the region every month.

For this reason, the Pittsburgh survey, which was completed earlier this year, and national findings have been used to generate an estimate of nearly 36,000 Iraq and Afghanistan war veterans in southwestern Pennsylvania. The survey also is one of the few sources that offer insight into the men and women who've returned to the region after serving in military operations staged following the 2001 terrorist attacks. It was conducted by Megan Andros, a West Point graduate and veteran of the post-9/11 conflict in Iraq who was based at the Endowments as a fellow with the Coro Center for Civic Leadership. She currently is a program officer with the foundation's Community & Economic Development Program, with a focus on veterans.

Nearly 70 percent of the 204 veterans who took the survey served in the recent conflicts in Iraq and Afghanistan. The survey underscores one of the key experiences separating that population from veterans of other wars in the past 60 years: On average, they were deployed 17 months. That means they served at least two deployments, increasing their exposure to harm and the stress inherent in serving in armed conflict, and prolonging by years the period during which their lives and those of their families remained unsettled, and their careers, education and aspirations on hold.

Andros, who rose to the rank of captain, was assigned to the 1st Cavalry Division, which has been deployed nearly every other year since 2004. "My soldiers were never really able to enjoy themselves at home with their families between deployments. During our 12-month breaks at Ft. Hood, we were always in the field, training to go back overseas. Each time my soldiers stepped on a C17 or C130 plane in the combat zone to head home—in 2005 after 12 months, in 2008 after 15 months, or in 2010 after 12 months—they were already aware of the deployment date for their next tour to Iraq. These back-and-forth trips put an incredible amount of stress on their spouses and children."

Facing homefront challenges

gt. A.J. Gales hopes to graduate from the University of Pittsburgh next year with degrees in political science and public policy—11 years after he started college. The 28-year-old Marine reservist from Youngwood, Westmoreland County, has had combat deployments in Iraq and Afghanistan and was deployed in Uganda on a mission to train security forces from five African nations during his more than eight years in the corps.

"It's tough to think about starting a semester or a job knowing you may head back out again," he says.

He's taken a variety of short-term jobs over the years, largely to pay for college. Even after three deployments, he's still about a month of active duty time short of qualifying for full tuition under the GI Bill. At the moment, he spends his days in class and working as a warehouse supervisor. Last year, he split time between his job and campaigning for the 57th District state general assembly seat, running as a Democrat against the GOP incumbent in the heavily Republican district. He lost, but gained enough experience and name recognition to consider another run.

For Gales, who has spent most of his adult life as a reservist, one of the most difficult aspects of returning from deployment has been adjusting to the pace and nature of life back home.

"You miss the guys. You miss the fact that life is simple over there, that you kind of control things. We talk all the time about how life is so much easier over there. You are with your guys. If you need anything, it's there. You just have to worry about your guys and your mission," Gales explains. "Back here, there are so many moving parts. It seems like nobody is on the same page. Part of the thing I have had [to deal with] since I came back is that if I don't write stuff down, I forget it. That's probably just from being mentally burned out or exhausted."



A.J. GALES, 28, WAS A MARINE RESERVE PLATOON SERGEANT WITH MILITARY POLICE COMPANY B, 4TH LAW ENFORCEMENT BATTALION. HE SERVED IN THE MILITARY FOR MORE THAN EIGHT YEARS, INCLUDING DEPLOYMENTS IN IRAO AND AFGHANISTAN. HE IS CURRENTLY A FULL-TIME STUDENT AT THE UNIVERSITY OF PITTSBURGH AND A WAREHOUSE SUPERVISOR: "WITH MY DAD, HE WOULD SHARE STORIES [FROM KOREA AND VIETNAM] HE PROBABLY WOULD NEVER HAVE TOLD ME HAD I NOT BEEN TO IRAO AND AFGHANISTAN. IT'S GOOD TO HAVE SOMEONE SAYING IT'S NOT GOING TO BE EASY, IT'S GOING TO BE A LOT OF WORK, BUT IT'S GOING TO BE OK. IT'S GOOD TO HAVE SOMEONE WHO UNDERSTANDS BECAUSE YOU KNOW THAT YOU ARE NOT ALONE."

ESTIMATED NUMBER OF IRAQ AND AFGHANISTAN WAR VETERAN WHO HAVE POST-TRAUMATIC STRESS INJURY (AND POSSIBLY ANOTHER 320,000 HAVE TRAUMATIC BRAIN INJURIES)

For returning veterans, the bond with others who have had similar experiences is often strong, even after they settle into civilian life. In the Pittsburgh survey, some 92 percent of those no longer in the military said they continue to stay in touch with at least one person from their unit.

Gales has relied on friends in his unit as well as his father, a Korea and Vietnam Marine veteran, for support when times were the toughest for him. "When you lose one of your own Marines, it impacts you. With my dad, he would share stories he probably would never have told me had I not been to Iraq and Afghanistan. It's good to have someone saying it's not going to be easy, it's going to be a lot of work, but it's going to be OK. It's good to have someone who understands because you know that you are not alone."

No matter how well returning soldiers adjust to coming home, the loss of a friend in combat is a painful experience that often stays with them.

"August is a hard month for me," says Kelly Barcic, 29, a Mt. Lebanon High School graduate who served 12 years in the Army National Guard, including a deployment in Iraq. While

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there, she was stationed in 2004 at Forward Operating Base Summerall near Bayji, overseeing maintenance of tanks and other vehicles. It was in August that she witnessed the deaths of two fellow soldiers in a roadside explosion and learned of the deaths of two friends whose Humvee struck a tank mine. "I always think about them," she says, adding: "I don't have any issues other than that."

Still, providing forums to talk about such experiences could offer needed outlets for veterans, which is why the Endowments is supporting the Journal to Normal project, which was created to help female combat veterans in their transition from military to civilian life. The initiative allows them to tell their own stories as part of a feature-length documentary, an online video archive and a web portal. The project also includes assisting female veterans in connecting with various resources in the community.

Journal to Normal is an example of one way to address an issue raised by veterans of both genders: a sense that the civilian population doesn't understand returning veterans or what they went through during their deployments. That perception was captured in some of the comments in the survey conducted by Andros.

"Proud to have troops from this area, but no idea what the toll is on the troops between deployments, moving, stress and adjusting," one veteran wrote in response to a question that asked veterans to assess how they are perceived in western Pennsylvania. "Patriotic city, but limited understanding of veterans' capabilities and challenges," wrote another. "They don't understand," another veteran simply replied.

Treating unseen wounds

hat feeling of isolation is among the challenges
Keen has faced during his transition to civilian life
and one of the reasons he started Steel City Vets,
a network of veterans offering peer support and
information to soldiers returning from post-9/11 deployments
in Iraq and Afghanistan. "It's one thing to belong to a national
[veterans] organization and have that backing. It's another to
be able to call someone in the area and get a beer or a cup of
coffee. If I'm having a bad day, I can turn to one of the friends
I met through the organization and say, 'This is where I'm
at today.'"

Keen enlisted in the Army in 1999, while he was still in high school in his hometown of Lancaster, where his father was a

300,000

Methodist minister. He was diagnosed with post-traumatic stress injury following the third of his four deployments. He received therapy while in the Army and was able to talk openly during sessions to therapists he felt were nonjudgmental. "But it took me awhile to get to the point of being about to talk about it with others. There is a stigma around it."

The condition is less of an obstacle today than it was following his discharge. He's held several jobs since then, advancing his career in information technology from help desk staff to network administrator. He still, however, prefers to sit facing the door and is uneasy crossing bridges, which he notes is not an insignificant issue in western Pennsylvania, where he relocated in 2008 to be near his wife's family. The couple, who have two young children, is now divorced.

"I don't have a 'disorder,'" Keen says. "My post-traumatic stress is my mind's normal reaction to a hyper-abnormal situation. It's no different from other veterans' situations."

Studies suggest that the most common wounds among veterans of the recent conflicts in Iraq and Afghanistan are post-traumatic stress—an anxiety condition triggered by exposure to traumatic events—and traumatic brain injury, which is damage to the brain caused by an external force, such as an explosion. A recent RAND study estimates that some 300,000 veterans of those conflicts have post-traumatic stress injury and another 320,000 have traumatic brain injuries. A high rate of major depression is also reported. Researchers, in fact, estimate that about one-third of veterans who've served in post-9/11 conflicts have at least one of those three conditions.

"It is a staggering number. The cost of sustained warfare is high in human terms," says retired Lt. Col. Bill Lockwood, director of the National Organization on Disability's Wounded Warrior Career Program, which helps seriously injured veterans build sustainable careers as civilians. Moderate to severe post-traumatic stress or traumatic brain injury was the primary disability of the majority of the 275 soldiers the program served over its first four years.

RAND researchers also report that, although the Department of Defense and the VA have greatly expanded their capacity to provide treatment in recent years, serious gaps in access and quality remain. One reason for the large gap found between the need for mental health services and the use of those services is the availability of providers and other structural factors. Other reasons include personal and cultural issues, such as the

reluctance of some veterans to seek mental health care out of concern that others will find out.

"There is still some stigma involved with having a mental health or substance use problem and going to the VA," says Joni Schwager, executive director of the Staunton Farm Foundation, which focuses its support on addressing behavioral health issues. "For people who have any kind of a mental illness, one of the biggest barriers is seeking help because they are ashamed."

The RAND study concluded that such access gaps result in "a substantial unmet need for care." More specifically, researchers found that only 53 percent of returning troops who met criteria for post-traumatic stress disorder or major depression had sought help from a provider during the previous year. And only 53 percent of soldiers with a traumatic brain injury had a doctor evaluate their condition.

"This is going to be around for a while," says Nancy Zionts, chief operating and program officer of the Jewish Healthcare Foundation. "People who are returning don't necessarily exhibit the symptoms immediately. We think they're back and back to work, so that's behind them. But it might not be as easy for some as it is for others."

Certain groups of soldiers are more likely than others to get treatment for deployment-related conditions such as post-traumatic stress and traumatic brain injuries. There are, for example, comprehensive programs for those severely wounded in combat. But many soldiers whose injuries aren't recognized while they are deployed or in the service, Lockwood says, "kind of have to tough it out."

"A lot of them are Guard and Reserve," he adds. "They are called to active duty, trained, are deployed and come back. If they are Guard or Reserve, when they demobilize they're on active duty for 45 days and released to their civilian employment, school or whatever they were doing before. For many of them, if their injuries aren't recognized inside that 45-day period, they're on their own to go to the VA and get treatment. In many cases, they may have to self-diagnose."

One proposal for steering veterans to appropriate support and treatment, particularly those who don't seek out the VA, is to help non-VA health care providers identify warning signs among vets and understand how to direct their patients to programs and services. Dr. James Christopher Post is a pediatric otolaryngologist and former Green Beret whose two tours in Afghanistan included commanding the first military hospital



KELLY BARCIC, 29, WAS ARMY NATIONAL GUARD SERGEANT WITH THE ARMAMENT SECTION AND MAINTENANCE
CONTROL AND SERVED 12 YEARS IN THE MILITARY, INCLUDING DEPLOYMENT IN IRAQ. TODAY, SHE IS EXECUTIVE
DIRECTOR OF THE PITTSBURGH REGIONAL BUSINESS COALITION FOR HOMELAND SECURITY: "[MY JOB] HAS
BEEN A NICE FIT BECAUSE OF WHAT I KNOW ABOUT EMERGENCY RESPONSE."

there in 2002 and working in Special Ops in 2004. He has been developing an informational symposium for health care providers in the Pittsburgh region.

The seminar, which is planned for the beginning of next year with Endowments support, is designed to prepare providers to better respond to their veteran patients' needs. It is expected to cover issues such as how to ask sensitive, nonjudgmental questions that would help health care professionals identify post-traumatic stress disorder; what other medical conditions to be alert for such as heart disease, which is the top killer of women veterans; where to direct patients to receive assistance, including the new veterans website; and when to suggest alternative or complementary medicine that might be helpful in reducing PTSD symptoms.

Connecting experience to employment

till, the National Organization on Disability found that among the veterans it served who had moderate to severe post-traumatic stress or traumatic brain injury, nearly 70 percent of those men and women found jobs or were enrolled in education or training programs as a result of the guidance they received. The nonprofit opened a Wounded Warrior Careers program in Pittsburgh last year with financial support from several local foundations, including the Endowments and the Richard King Mellon, Hillman, Pittsburgh, David Scaife and Jewish Healthcare foundations.

The program's career specialists guide soldiers with injuries through the process of setting career goals, identifying obstacles, finding resources to overcome them and putting their plans into action. Specialists also intervene with employers to address any issues that might arise in the workplace.

"Post-traumatic stress may cause someone to become anxious and nervous at work and not go back," Lockwood says. "We find that when we intervene and find them the proper support, they may not stay at their first job, but their tenure in jobs increases as they go."

Andros adds that, while "everybody is changed by going to war," not every veteran develops post-traumatic stress, and for those who do, the effects can differ, ranging from periods of social awkwardness to occasional flashbacks and nightmares to various debilitating conditions that can take over an individual's life if not treated. The most severe conditions represent the

smallest percentage, however, even though they often get the most attention, she says. Too often, less focus is placed on the vast majority of veterans who are ready and able to contribute to their communities.

Veterans typically return to civilian life with a unique set of skills, experiences and leadership abilities developed and tested during their years of service—often under trying conditions—that would be valuable resources for businesses, organizations and other employers. Yet, finding a job is an issue of concern in western Pennsylvania and across the nation. In the survey of local veterans done by Andros, the region's efforts to address their need for "employment and jobs" were among the areas given the poorest grades. Nationally, high rates of unemployment are seen among young veterans. In 2012, for example, the jobless rate for male post-9/11 veterans ages 18 to 24 was 20 percent compared to 16.4 percent for nonveterans of the same age, according to the U.S. Department of Labor Bureau of Labor Statistics.

Kristal Robinson, 27, of North Braddock, returned in 2006 from a 12-month deployment in Iraq. She joined the Army Reserves while she was still a student at Woodland Hills High School and celebrated her 18th birthday while she was in basic training. A few months later, she found herself in Iraq as a transportation coordinator at a base that experienced frequent, if not daily, mortar attacks. "With that constant threat, it was real. You know something can go down at any time, any place, [it] doesn't matter who's there, and there is nothing you can do about it. But, you go outside anyway. You live your life anyway. You just roll with it and do the best that you can."

Although she believes her transition home was not as difficult for her as for other soldiers, particularly those who've suffered serious injuries, it has not been problem-free. She's been diagnosed with severe depression and an adjustment disorder. She misses her fellow soldiers. And she struggled to deal with the fact that friends and family continued to see her as she was before she experienced war in a foreign land.

"I wasn't diagnosed with PTSD, but I know I have issues," says Robinson. "My family or my friends would notice when I would be doing something that is out of character. I'm in a whole different mind frame, and they notice it. So, for a long time, I would put on a front that everything was all good, but it really wasn't. I needed to figure out what was going on with me."

Robinson has periodically sought and received treatment from the VA for depression and other issues, but she managed to earn a criminal justice degree from Allegheny County Community College. She also found steady employment, including her current jobs, working in one program with children in the child welfare system and in another position with incarcerated adults trying to re-establish their lives on the outside. "The transition was hard. It still is. But I've always kept a job and done something positive: going to school, doing things with my family, trying to focus on being a good person, which I am."

Health issues and the trials of adjusting to civilian life are among the challenges veterans face in finding work and building careers. Another is transferring their military experiences, skills and training to the job market. A recent survey of veterans on employment issues done by Prudential Financial found that 60 percent report one of their biggest challenges is explaining how their military experience translates to skills employers are interested in.

Gales discovered that his extensive military police training and experience in the Marines wasn't enough to qualify him for a job as a municipal police officer without additional training and certification, despite having served three deployments during which he trained national security forces in Iraq, Afghanistan and Uganda. After Keen was discharged, he started his civilian IT career working lower-level computer help desk jobs, despite his Army training and the experience he gained during his four deployments, which included setting up and maintaining vital combat-zone voice and data communications between the front lines and headquarters.

The same skills and experience overlooked by others make some returning veterans good candidates to start a business, a difficult, often perilous venture, but one that opens them to opportunities such as set-asides in government contracts for veteran-owned companies.

"They make the best entrepreneurs, in my mind. Here's why: They're used to working as a team. They're used to discipline. They have the ability to improvise, adapt and overcome—all elements of what makes a good entrepreneur," says Donn Nemchick, veterans program coordinator at the Riverside Center for Innovation on the North Shore, whose Veterans Entrepreneurial Boot Camp has received financial support from the Endowments.

Just as returning veterans have to adapt to American workplace culture, employers need to understand issues that may affect the veterans they hire and work to accommodate them, particularly those with injuries such as post-traumatic stress, says Nemchick, a Vietnam-era Navy veteran and former veteran's business development officer for the Small Business Administration.

"Imagine there's a veteran who has deployed multiple times, been in a leadership position, gone through things most people don't understand. He's working in a store and the 19-year-old night manager, who's been there just a year longer than him, is telling him, 'We need a cleanup on aisle three. Get your butt over there and do it.' I can see that as being a trigger point."

Promoting success

ast year, Pittsburgh-based PNC Financial Services, the nation's sixth largest bank as measured by deposits, launched a comprehensive strategy to attract, hire and retain veterans. It includes a Military Employee Business Research Group made up of military veterans at the bank who, among other things, serve as mentors to help returning veterans new to the bank with their transitions.

Jason Lewis, a vice president in PNC's Strategic Initiative Office, is one of them. The 36-year-old West Point graduate spent nine years in the Army as a Ranger and a Green Beret. His first combat deployment was to Afghanistan as a Ranger in 2002 shortly after the 9/11 terrorist attacks. Later, as a Special Forces officer, his jobs included training a brigade of Iraqis and accompanying them as combat advisor on special operations missions. After leaving the Army, he took an internship with a portfolio manager in Colorado, earned an MBA from Carnegie Mellon University's Tepper School of Business, and worked for a Wall Street investment bank before joining PNC.

As successful as his transition was, he struggled at times to adjust. "What was hard was that I came from an environment in which I had an awesome amount of responsibility in my late 20s, early 30s. Few things translate to that level of responsibility here. Dealing with that was hard. And I decided to go into finance, which is technical and a lot is learned through experience. So you have to start at the bottom, and it seemed that all of those things I did before were discounted somewhat, and I was back at square one."

"WHEN YOU SEE VETERANS WHO ARE CEOS OF A COMPANY OR ARE RUNNING THEIR OWN BUSINESS OR HAVE A NICE HOUSE AND ARE RAISING A FAMILY, IT LETS YOU KNOW THAT, AT THE END OF THE DAY, IT'S POSSIBLE FOR YOU TO GET THERE."

A.J. Gales, Marine reservist, Youngwood, Westmoreland County

It was the willingness of professors and staff at Carlow College to accommodate her National Guard obligations that enabled Kelly Barcic to earn a master's degree in professional leadership after she returned from Iraq. In addition to her typical Guard duty, she was deployed to the 2009 presidential inauguration, the G-20 summit in Pittsburgh the same year, and the "snowmageddon" blizzard of 2010—all of which required missing classes. "My classes were only eight weeks long, and you could only miss so much or you fail," she says. "I completed all of the work, but I had to do it from cellphone and email. They worked so well with me."

After more than a decade in the National Guard, she's trading on that experience as executive director of the Pittsburgh Regional Business Coalition for Homeland Security, a nonprofit public–private partnership to help businesses prepare for and respond to natural disasters and other emergencies. "It's been a nice fit because of what I know about emergency response."

There is evidence to suggest that western Pennsylvania veterans are returning to a region they perceive to be devoid of such post-military success stories. In her survey, Andros asked where they find positive stories about veterans. The most common answer: Nowhere.

While that doesn't mean such cases don't exist, it is an indication that more needs to be done to show how many there are.

"When you see veterans who are CEOs of a company or are running their own business or have a nice house and are raising a family, it lets you know that, at the end of the day, it's possible for you to get there," says Gales.

Foundations working to make sure veterans returning to western Pennsylvania have seamless access to the support they may need to successfully navigate that journey likely have a long, complicated task ahead of them.

Several of the concerns identified by western Pennsylvania veterans in Andros' survey as being among the most in need of shoring up involve areas that local foundations have experience in addressing, such as child care and employment. But the

breadth of issues that require attention is still not fully defined. And the existing support network is both broad and fragmented and includes federal and local government agencies, nonprofits, corporations and philanthropic organizations.

Coordinating that network, identifying and addressing service gaps, and avoiding duplication also requires working with the Department of Veterans Affairs, the major provider of veteran-related services. The talks that are underway with the VA come at a time when it is besieged by high caseloads and public criticism for mounting backlogs in veterans' claims. Only seven of the 58 VA regional offices have a higher rate of delayed claims than the one in Pittsburgh, where 79 percent of cases have been delayed more than 125 days, and 3,800 veterans have been waiting more than a year.

"It's a fairly cautious, step-by-step process of creating trust and credibility with the VA, so they know we are not out to take their job and we are not in a position to criticize them," Vagt says. "What we want to do is join them in doing the best we can for these men and women who served our country."

Nobody is more aware of the need to simplify the confusing maze of support than veterans themselves. "One of the greatest challenges is communication," says Lewis. "On the public side, you have the VA trying to do a better job with outreach and communication. You also have countless charities out there trying to do good for veterans, but people don't know who they are. How do you give veterans a place to go where they can say, 'I have this need, I'm struggling with this, I'd like to learn more'? How can we tie everything together?"

Until this year, no model, national or otherwise, had been identified that offers guidance in how to improve support for returning veterans by better aligning the resources of disparate public and private stakeholders. Checkpoint and its website, TheCheckpoint.org, are expected to be an important piece of that puzzle for veterans in western Pennsylvania, but they are not the end of the process.

"In this community, what we do collaboratively we do better," says the Jewish Healthcare Foundation's Zionts.
"We have a number of our strong, long-standing philanthropic organizations sitting around the table who will stick with this until it gets fixed. They're not saying this is the issue of the day. They are saying this is the issue of our time." h

IN ETNA,

when it rains, it pours. And therein
lies a \$2 billion problem. • The tattered
square-mile borough sits at the foot of Pine
Creek, which courses through affluent hilltop
suburbs before reaching the northern shore of the
Allegheny River at the town's floodplain. • Rainfall that
drops gently into golf courses and manicured lawns at
higher elevations sloshes when it arrives in Etna. Gathering
velocity as it pours off highways, parking lots and mall
roofs, it dumps a dirty, turbulent vortex into sewers that
pour into the river when it rains even a tenth of an inch.

When Hurricane Ivan dumped eight inches of rain in 24 hours on September 17, 2004, sewers burst. Etna was inundated—another disaster for an aging town whose population had plummeted in the post-the steel era.

| Cheer to be a cheer to

But nine years later, the town of 3,900 has undertaken a crash course on how to control its destiny, working with upstream neighbors and rebuilding its streets and parks to soak up rainfall with plants, trees and ingenuity. Instead of being a gray filter, Etna aspires to become a green sponge.

Borough Manager Mary Ellen Ramage has seen Etna residents slowly rebuild homes and businesses that were decimated by the storm. The tax increases that Etna had to impose after Ivan wiped out its savings were another blow. Now the municipality is struggling to raise its share of funds for improvements to the Pine Creek interceptor system, which collects flow from multiple trunk sewers in six municipalities. The \$11 million price tag is more than triple Etna's annual budget.

Still, Ramage is optimistic. She believes that green infrastructure, a combination of natural and passive systems to control stormwater before it hits the sewer system, offers

a facelift for the old river town, as well as protection from future floods.

to see people believing that there is a way we can control some of this—that's the good part of this," she says cheerfully.

Ramage's enthusiasm has been slow to spread. But 83 local municipalities

and ALCOSAN, the Allegheny County Sanitary Authority, are running ahead of some big regulatory sticks. Federal and state consent orders signed in the past decade require them to meet tough new clean water standards for local rivers. That means controlling stormwater surging out of municipal and ALCOSAN systems.

The overall cost: a staggering \$2 billion.

That amount includes \$1.5 billion from ALCOSAN and \$530 million from participating municipalities. As Allegheny County embarks on the biggest public works project in its history, residents are realizing that they have a say in how it's designed. Green infrastructure projects like those planned for



Etna may offer a carrot: a way to control costs while upgrading public space and conserving energy and water. And local philanthropies are supporting efforts to nudge government officials in this direction.

Etna may be the poster child for stormwater challenges unique to the region: steep hills, too much concrete and aging pipes. The combination of befouled overflow and malfunctioning septic systems has resulted in Pittsburgh's sewage overflow problem being among the worst in the country. Pennsylvania is the worst offender for combined sewage overflows in the United States.

Most of ALCOSAN's 320,000 customers would agree that this has to change. They'd probably say they're all for clean water, in both local rivers and their own homes. They might also agree that federal clean water rules have made the region healthier and more livable. But when they open their sewage treatment bill for the proposed upgrade, which includes 10 miles of new underground concrete tunnels, there will be some predictable howls.

"When people understand how much it's going to cost, there will be questions," predicts Jennifer Rafanan Kennedy, campaign director for Clean Water Action, an advocacy group. "They'll look for a choice: burying money in tunnels under a river, or building green facilities in their neighborhoods."

But no green solutions were included in the draft compliance plan submitted for federal approval last July—only "gray" ones prescribing more concrete. Now, with a deadline extension, advocates are scrambling to shoehorn green infrastructure solutions into the plan. They argue that catching rainfall before it hits the system can lower sewer costs while providing other advantages.

"There are two issues," says Caren Glotfelty, former senior director of The Heinz Endowments' Environment Program. "One is, it's quite likely that at least in some subwatersheds, it will be substantially cheaper to use green infrastructure to solve the problem. The other issue is really important and hasn't been understood. We know there are multiple benefits that accrue—whether it's actual green, like trees and rain gardens, or artful curb designs. Those are amenities that enhance neighborhoods—they beautify and even reduce energy costs. You get those free when you pay for the stormwater [improvements]."

when People understand How Much It's Going To COST, THERE WILL BE QUESTIONS. THEY'LL LOOK FOR A CHOICE: BURYING MONEY IN TUNNELS UNDER A RIVER, OR BUILDING GREEN FACILITIES IN THEIR NEIGHBORHOODS."

Jennifer Rafanan Kennedy, campaign director, Clean Water Action

Without a stack of data on proven local results, however, municipalities have been slow to adopt the new solutions. Accustomed to calculating pipe diameters and rate-per-second flow, their engineers dismiss plants, porous parking lots, green roofs and backyard rain barrels as the impractical dream of the hemp-and-granola crowd.

"My biggest frustration has been the inability to get people to the table," says ALCOSAN Executive Director Arletta Scott Williams. Between now and June 2014, when a revised plan is submitted, the "Greens" and the "Grays" are racing to find common ground.

For too long, however, southwestern Pennsylvania relied on rivers as a dumping ground for sewage. "Rivers are the natural and logical drains and are formed for the purpose of carrying the wastes to the seas," declaimed N.S. Sprague, superintendent of the Pittsburgh Bureau of Construction in 1912. Open sewage drains ran down the center of many neighborhood streets. In 1907, the city opened its first water filtration plant and began a sewer building binge. Like most other large American cities, it chose a combined system to carry sanitary waste and stormwater—the cheapest and easiest solution, used by nearly 95 percent of cities with populations of more than 300,000. Systems overflowed to the rivers.

Today, those old Midwestern and Northeastern cities face similar consequences: an overloaded hodgepodge of systems patched together, poorly maintained, and prone to dumping sewage into streams when overwhelmed by storms. Most are scrambling to comply with the Environmental Protection





WATER, WATER EVERYWHERE

Many people don't think about the Pittsburgh region's aging infrastructure until stormwater overwhelms sewer systems, leading to flooding that damages property and roads, and can be life-threatening. In the top photo, stormwater runoff and overflowing water from a nearby creek inundate a Pittsburgh street during a July 11 storm. On the same day, water pours off a parking lot at a greenhouse, above, in the suburb of Baldwin Borough. Below, water gushes out of a storm drain.



Agency's demands to limit combined sewer overflow (CSO) as well as sanitary sewer overflow (SSO). In 2008, ALCOSAN agreed to find a way to eliminate all SSOs and greatly reduce CSOs into the three rivers.

From tiny Etna to the city of Pittsburgh, no government wants to increase taxes. But the failures of the current system can no longer be ignored. "We've had 149 years of deferred maintenance," says John Schombert, executive director of 3 Rivers Wet Weather, a nonprofit addressing the problem. "I use an automotive analogy: If you don't change the oil, it's cheap—until you get a \$3,000 bill. We're beyond oil changes now."

ALCOSAN has grappled with how to comply with EPA regulations since at least 2008, when it signed a consent order to develop a plan to keep sewage out of the rivers. The \$2 billion version announced in July 2012 would capture not all, but 79 percent of combined sewer overflows, with special attention to recreation areas. It would build vast underground tunnels for storing and conveying sewage, and expand ALCOSAN's wastewater treatment plant on the Ohio River to 480 million gallons a day for primary treatment, which allows solid material to settle from the liquid, and 295 million for secondary treatment, the biological process to remove organic material.

Fulfilling all aspects of the EPA mandate would have cost the region \$3.6 billion. Deeming that unaffordable, ALCOSAN made a series of careful compromises to reduce costs—but ignored green infrastructure solutions to capture water before it enters the system.

"In our planning process, our individual basin planners were tasked with looking at potential green applications," explains ALCOSAN's Williams. The process identified seven regional watersheds, asking municipalities to coordinate across their boundaries. "We didn't have a high response. Municipalities weren't interested. Now, we're going to go back. There is more regional interest in looking at green. The county executive [Rich Fitzgerald] is leading the effort. [Mayor Luke Ravenstahl] redirected the Pittsburgh Water and Sewer Authority to incorporate green approaches to the extent feasible. The municipalities will come to the table with different energy."

A different energy pervaded the David L. Lawrence Convention Center on Feb. 15, when shirt-sleeved engineers and backpacking green geeks came together at the first of three community meetings on "greening" the wet weather scheme.

Rainwater gardens are

landscaping features, usually placed within parking lot islands or pockets of residential land, that are designed to capture and treat stormwater. Roof or surface runoff is directed into the gardens, increasing stormwater storage, filtration and pollutant reduction.

GREEN INFRASTRUCTURE

ith quality-of-life issues as a priority, The Heinz Endowments has promoted sustainable design as an essential strategy. A decade ago, it began a partnership with 3 Rivers Wet Weather to create public understanding and policymaking on the connected issues of water quality and stormwater reduction. The Endowments has provided \$3 million in support through next year, and 3 Rivers Wet Weather has become an influential player in the regional wet weather plan. The organization supports stormwater demonstration projects and has created online mapping and engineering tools that quantify green infrastructure approaches.

The Endowments also was a major funder of the decade-long rehabilitation of Nine Mile Run, a polluted city creek. The \$7.7 million effort, including \$1.6 million from the Endowments, is the largest stream restoration project ever undertaken by the U. S. Army Corps of Engineers. The project to restore more natural stream flows and improve water quality included stormwater management. Today, many homes near the newly inviting stream sport rain barrels, the result of a public education program on green solutions to keep sewage out of streams.

Rain barrels are "a great way to get people thinking and involved and willing to support other public policy initiatives," says Brenda Smith, executive director of the Nine Mile Run Watershed Association. "But if you really want to have an impact, one green roof on a commercial building equals [the source water reduction] of dozens of rain barrels. One permeable parking lot is dozens of barrels."

Green roofs, like the one installed at the Allegheny County Office Building in 2011, have been monitored for performance. Pittsburgh's new zoning code requires that new developments capture at least one inch of rainfall, making green roofs a viable solution. The county project captures 60 to 100 percent of rainfall, has helped reduce electricity and steam usage for the building, and mitigates

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Sixteen times more stormwater runoff is produced by a one-acre parking lot compared to a one-acre meadow.

Permeable parking lots,

made of permeable paving stones, concrete or asphalt, allow water to drain through and be absorbed into the ground. As an alternative to conventional concrete or asphalt, permeable pavement reduces stormwater runoff volume, rate and pollutants.

Bioswales are shallow, open channels of vegetation and soil that reduce runoff by collecting, absorbing and filtering rainwater from streets and houses before it goes into storm drains.

They also trap trash and remove pollutants, such as some chemicals.

Photo: David G. Himes of The Penn State Center

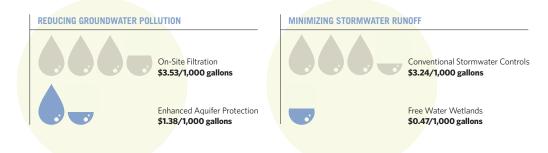


Conventional Infrastructure

Green Infrastructure

\$5.8 billion

\$5.3 billion



GREEN

ost analyses that compare green infrastructure to gray are convincing international cities to change their plans, according to a 2013 study by the World Resources Institute.

New York City evaluated two schemes to manage its stormwater flows. One was a green infrastructure plan that emphasized stream buffer restoration; green roofs; and bioswales, which are landscape elements designed to remove silt and pollution from surface runoff water. The other was a gray infrastructure plan involving tunnels and storm drains. The green infrastructure option, illustrated in the graphic above, presents an overall cost savings of more than \$1.5 billion. Decision-makers in Idaho and North Carolina found similar cost savings through green infrastructure.

In particular, green infrastructure methods were better and more cost-effective solutions for reducing groundwater pollution and minimizing stormwater runoff.

Foundations that had been supporters of previous wet weather pilots—including the Endowments and the Richard King Mellon, Pittsburgh and Colcom foundations—funded the series organized by the Pittsburgh Water and Sewer Authority, which serves many communities outside city limits. The groups sat down at tables draped in data: large paper maps detailing regional sewer lines, city-owned land and sewer outfalls along the rivers. Pittsburgh Mayor Luke Ravenstahl picked up the meeting's theme in a welcoming speech.

"This isn't the sexiest stuff to deal with, but it is perhaps more important than anything else we'll do in the next 10 years in this region. We need to consider good, solid investment in green infrastructure. Consider me an ally," he told the group.

Kari Mackenbach, an expert on green infrastructure practice across the country, led a breakneck review of cities meeting consent orders with green projects. Louisville, San Francisco, Kansas City and Columbus have found quantifiable benefits in controlling stormwater through permeable pavement, replanted rights of way on streets, and other green solutions, she noted.

The results from peer cities showed promise. "What we saw at the [meeting] was lots of data in places not dissimilar to Pittsburgh," argues Glotfelty. "There are viable options, and lots of data we can apply to see how far we can get."

In July, the Pittsburgh authority submitted a feasibility study to the state Department of Environmental Protection and the Allegheny County Health Department that included \$10 million over the next four years to test and implement green infrastructure solutions such as permeable asphalt, rain gardens and landscaped swales. Along with conventional infrastructure upgrades, such as the construction of a water tower and widening of pipes, the estimated cost of implementing the plan is \$165 million.

Supplanting gray infrastructure with green requires flexibility, says Chris Crocker, deputy director of the Philadelphia Water Department. That city's \$1.2 billion plan relies primarily on green infrastructure to meet EPA requirements, with the federal agency's blessing (see sidebar on page 31). "It's covering the same [tasks] with lots of little steps along the way, lots of little lifts."

For Etna, even little steps are big. "We've already spent \$1 million in compliance up till now, ranging from engineering studies to televising our sewer system," says Borough Manager Ramage. With an annual budget of \$3.9 million, she has scrounged grants and partnerships to add green projects.

The borough will break ground on a new renovation of the Butler Street business district before the end of the year. The community also recently received \$50,000 in EPA funding for the design of another block of Butler. The green streetscape will

FORGES AHEAD

include a handful of innovations to soak up rainwater: a portion of the sidewalks, street curbing and three parking lots will be repaved with permeable concrete. Tree trenches surrounded by decorative grates will catch more water.

The town's recreation center will add oversized rain barrels to catch roof runoff. A rain garden alongside the town swimming pool will be maintained by the local garden club, which will use the rain barrels to water community garden plots. Taken together, the efforts will allow the area to capture 1.25 inches of rainfall, in excess of current municipal standards. The EPA is providing \$375,000 for the project through the state's Growing Greener program, and Etna will contribute \$25,000 in matching funds.

And the borough is going even further. Engineers are now pinpointing what Ramage calls "hot spots"—areas that contribute the most overflow to the system—and has offered incentives for homeowners to disconnect their roof downspouts from sewers. It's working closely with its uphill neighbor, Shaler Township, to design a retention pond renovation that would recharge groundwater and wetlands.

Publicly owned land offers opportunities to demonstrate how municipalities can tackle sustainable stormwater management. "This is a local land use issue, and few municipal engineers have experience" in green technologies, says 3 Rivers' Schombert. "Between our slopes and soils, there's an urban legend that green infrastructure won't work. The reality is, it can be made to work. We can direct water toward green infrastructure."

Still, Ramage and others know that green can't solve all the region's wet weather issues.

"We could never install enough green infrastructure to solve all our issues—both flooding and the consent order," says Ramage.

Schombert agrees that pipes and tanks remain the backbone of the regional system. "We won't control big storms with green approaches alone. The volume is so enormous. The gray facilities are there to handle peak flow."

But Ramage believes that collaborations and new ideas are more welcome as the region re-attacks its wet weather plan. "Maybe this is the consent order's silver lining," she muses. "Now, doing things on a regional basis is becoming more palatable to communities. It's kind of cool. We're in a position to start from ground zero." *h*



hile most Northeastern metro areas struggle to add green projects to gray infrastructure, Philadelphia's wet weather plan relies on sustainable projects to lead the way.

With the theme "Soak It Up, Philly!" the effort endorsed by the Environmental Protection Agency deploys \$1.2 billion in permeable pavement, stormwater planters, rain gardens and green roofs. The Navy Yard in Philadelphia is a 1,200-acre former naval base that is being redeveloped into a vibrant business campus along the Delaware River. Plans for it include the creation of Central Green Park and the installation of reflecting pools and stormwater canals that will purify stormwater while beautifying new residential and mixed-use neighborhoods.

Already completed are League Island Park and a new recreation trail.

"We're leading with green and leveraging the gray we have in place," explains Chris Crocker, deputy director of the Philadelphia Water Department. "Tunnels don't work for us — we'd spend \$8 billion or \$9 billion, versus \$1.2 billion over the same period of time."

Crocker says the city is committed to a triple-bottom-line approach to capital projects, meaning that they must meet social, environmental and financial performance. "The rough number we have is that spending \$1 on combined sewer outflows with green methods yields \$1 of improvement for the public, in property values, heating and cooling, and inhs."

The city offers stormwater bill credits to developers who meet new standards. Crocker says 350 have already applied for the incentive. Because Philadelphia is both a city and a county, it has bypassed the turf issues that complicate municipal consent agreements in southwestern Pennsylvania. John Schombert of 3 Rivers Wet Weather says that's not the sole reason complicating the ALCOSAN negotiations.

"Philadelphia has done well. They are seeing this as an opportunity for redevelopment," he notes.

here&there

WATER WONDER

Point State Park fountain, the crown jewel of the Downtown green space, reopened this summer, marking the completion of major park renovations overseen by Riverlife, the state Department of Conservation and Natural Resources and the Allegheny Conference on Community Development. The Endowments contributed \$1 million toward completion of rehabilitation work on the iconic fountain that has helped define the Pittsburgh skyline for decades. Among the changes to the 150-foot spray were the additions of a disappearing edge waterfall feature; new lighting, including colors for special events; new surfaces; new pumping equipment and controls; and public restroom renovations.

Good Behavior Grades

With the help of Endowments-supported training in positive behavioral interventions, teachers at Pittsburgh Faison K-5 designed procedures for addressing student behavior problems that are credited with causing the number of suspensions in that school to fall from 425 in 2011-12 to 30 in 2012-13. Children are taught how to become "positives" or "lions," and

those recognized as doing well in terms of their behavior are publicly praised. Also, an academy with a small teacher-student ratio was created to focus on students who need extra help with behavior. These and other changes reflect growing agreement among educators across the country that suspension is often ineffective in improving how students behave.



CLEAN AIR FESTIVAL More than 500 people enjoyed a day of running, walking, climbing and exploring how cleaner air could make such activities even better as part of the first Clean Air Dash and Festival. The Oct. 19 event was organized through the Athletes United for

Healthy Air campaign of the Group Against Smog and Pollution—GASP—and received support from the Endowments-funded Breathe Project Coalition. Activities included a 5K run along the Three Rivers Heritage Trail and a festival at Pittsburgh's South Shore Riverfront Park, featuring a climbing wall, yoga demonstrations, pumpkin painting, an obstacle course, food and music.

Cello

20,000 X

TreeVitalize Pittsburgh reached its goal in November of planting 20,000 trees in five years. The 20,000th tree was planted in Point State Park near the refurbished fountain. TreeVitalize Pittsburgh, a joint project of

Allegheny County, the City of Pittsburgh, Tree Pittsburgh, the Pennsylvania Department of Conservation and Natural Resources, and the Western Pennsylvania Conservancy, has received \$700,000 from the Endowments since 2008.



HAZELWOOD TRANSFORMATION CELEBRATION

Mary Ann McHarg, above left, manager of the Carnegie Library of Pittsburgh's Hazelwood branch; the Rev. Timothy Smith, right, executive director of the Hazelwood-based nonprofit Center of Life; and Smith's wife, Donna, center, review designs for a new, green library and community center in that neighborhood. They were among the more than 100 Hazelwood residents and local community leaders who gathered Sept. 21 in a vacant building, despite pouring rain,

to celebrate the transformation of the empty structure into a state-of-the-art library. The renovation is part of a series of neighborhood revitalization initiatives, which include a detailed door-todoor survey. Dubbed a "community census," the poll is intended to discover residents' aspirations for Hazelwood and to collect data that will help provide direction for addressing issues such as transportation and family services.

Board & Staff News

Endowments board member **Christopher Heinz** served as keynote speaker for Pittsburgh
Pays Tribute, the inaugural western Pennsylvania
fundraiser for the Navy SEAL Foundation and

The 31 Heroes project. Hosted by the national One Team One Fight initiative, the event was held Nov. 2 at the Senator John Heinz History Center. Education Program

Officer **Melanie Brown** is one of this year's recipients of the YWCA of Greater Pittsburgh's Racial Justice Award. The honor recognizes individuals, organizations and companies that have shown a long-term commitment

to ending racism and discrimination through their work to promote equality, diversity and inclusion. Recently promoted Arts & Culture Program Senior Officer **Justin Laing**'s writings on the potential educational and social impact of the arts have been included in two publications. He contributed a chapter, "Free Your Mind: Afrocentric Arts Education and the Counter Narrative School," to the book "Culturally Relevant Arts Education for Social Justice: A Way Out of No Way," which

was edited by Mary Stone Hanley, George Noblit, Gilda Sheppard and Tom Barrone. Laing's article "Opportunities Abound: Antiracism and Arts Philanthropy" was included in the summer of issue of the Grantmakers in the Arts' GIA Reader.

CREATIVE MARKETS

The Garfield Night Market debuted this summer with a diverse group of vendors and entertainment attractions, drawing nearly 550 people to the community revitalization initiative. The occasional pop-up market is supported by Endowments grantees cityLAB and the Bloomfield-Garfield Corp. as part of cityLAB's 6% Place experiment. The name refers to a study by CEOs for Cities that found if creative workers and industries—such as those involved in design, the arts, publishing and broadcasting — comprise 6 percent of a neighborhood's population, the community becomes a local attraction. The Night Markets are part of cityLAB's effort to encourage such groups to move to Garfield.

CLEAN AIR HONORS In September, the Breathe Project presented its first-ever Breathe Awards, which recognized individuals, businesses and organizations in the Pittsburgh region for outstanding efforts to improve air quality and raise awareness about air quality issues. The award winners were PITT OHIO, a Strip District-based transportation solutions provider; Global Links, a Green Tree medical

relief and development organization; and Brian Brown, a community organizer with Hill District Consensus Group and a former Endowments youth philanthropy intern. The Breathe Project gave a \$1,000 grant in the name of each Breathe Award winner to a nonprofit organization of their choice whose work helps to improve the lives of children with asthma.

BREATHE

THE HEINZ ENDOWMENTS

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All hands-on deck. PAGE 4



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