





#### A finished work?

A bright picture has been painted of the new Pittsburgh and its future, but it is a work in progress. Community and philanthropic leaders describe changes needed in areas that require a closer look.

# 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 grantmaking programs:

Arts & Culture; Children, Youth & Families; Community & Economic Development; Education; and Environment.

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
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excellence. Recognizing that none
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**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 grantmaking 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, John Ellis, Donna Evans Sebastian, Carmen Lee, Grant Oliphant, Courtney Tolmer. Design: Landesberg Design

**About the cover** Pittsburgh's skyline is a popular subject for artists of all types, but a pretty picture doesn't reveal the challenges that the region continues to face. The framed image on the cover represents the Pittsburgh that people want to see. Local leaders, including Heinz Endowments staff, explain what's really there.



#### Rivertown Rebirth

In Pittsburgh's Hazelwood neighborhood, optimism and opportunities are increasing with each phase in the community's transformation.

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#### (Un)finished business

Our regional to-do list is not the final word on issues in southwestern Pennsylvania that require continued attention. But it's a helpful reminder that, while much has been accomplished in and around Pittsburgh, much still needs to be done.



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#### Gadgets & Gizmos & Community Gain

Flashing lights, colorful wires and cool computer programs can be entertaining, educational and an effective way to raise awareness about important community issues.

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### perspectives



reams Deferred," by Jeffery Fraser, was a sidebar to "Downtown and Upbeat," Fraser's cover story in Issue 2 of *h* last year. While the longer piece featured philanthropy-supported revitalization efforts helping Pittsburgh's Downtown to thrive, the sidebar highlighted challenges, including the restoration of the August Wilson Center for African American Culture, which a foundation-led coalition rescued from sheriff's sale in November. janera solomon, executive director of the Kelly Strayhorn Theater, and Tony Norman, a Pittsburgh Post-Gazette columnist, offer their views of how the center's transformation could add its own spark to the renewed vibrancy in the heart of the city.

#### What if...

The August Wilson Center will reopen this year, and its cultural mission will resume under a new director and board.

As someone who has written extensively about what the center must do to thrive after emerging from insolvency, I've taken the liberty of excerpting this unnamed director's future journal entries. (All speculation is mine and doesn't reflect the views of The Heinz Endowments.):

Entry 1: "The meeting with the new board went well this morning. They're a diverse and accomplished group of arts and business professionals. There isn't a dud among them, which is a miracle given all the showboaters and do-nothings who expressed interest."

Entry 3: "Everyone is excited by the proposal of local music archivists to incorporate a jazz hall of fame at the center. This feels like a no-brainer!"

Entry 7: "Unfortunately had to fire the facilities manager because he said we couldn't keep the entry space lit at all hours because 'we've never done it that way before.' I rehired him a few hours later after he said he'd 'seen the light.'"

Entry 12: "Gave a tour to church and community leaders who wanted to know what they could do to ensure our success going forward. One sweet old lady asked if we're too snobbish to stage her favorite Tyler Perry plays. I said, 'Of course not, as long as they bring in audiences.'"

Entry 38: "We've finally secured big exhibits of forgotten black Pittsburgh artist Mozelle Thompson and modern graphic artist Ed Piskor, whose 'Hip Hop Family Tree' is going to win him a MacArthur Foundation genius grant."

Entry 53: "The center's website is now easily the most attractive and navigable of all major Pittsburgh cultural institutions. Hallelujah!"

Entry 72: "Mayor Bill Peduto and Allegheny County Executive Rich Fitzgerald stopped in for lunch at our temporary restaurant. Both are looking trim these days, and I was pleased that we offered healthy vegetarian 'soul food.'"

Entry 101: "Three months in, and we've managed to deal with most challenges, though it hasn't always been easy. I have no real social life, but that's to be expected in rebuilding. The letters to the Pittsburgh Post-Gazette complaining about what we're doing have never stopped. Well, haters are gonna hate. I can live with that. We've turned this baby around."

Tony Norman is a Pittsburgh Post-Gazette columnist and member of the newspaper's editorial board.

#### **Making dreams happen**

The 2010 opening of the August Wilson Center and its recent recovery from foreclosure once seemed as unlikely as Wilson's rise from poor Pittsburgh high school dropout to Pulitzer Prize—winning playwright.

Designed by renowned architect Allison Williams, the center embodies a cosmopolitan ideal that, regardless of background, everyone sees something of themselves in African American cultural experiences. For many, the Downtown center's very existence, more than 20 years in the making, realizes this dream. The building, though, is just one part.

As a member of Pittsburgh's arts community invested in making the city a destination for culturally diverse arts experiences, I organized the August Wilson Center Recovery Committee, which hosted community conversations to allow concerned citizens to participate in reviving it.

The center's purchase by a community coalition has given it a new beginning without the burden of debt. Like many other arts organizations, it has a second chance to rally supporters, present great programming and fulfill the vision of a distinctive place for Pittsburgh to celebrate.

To succeed, the August Wilson Center must be a place to join and create diverse communities. Wilson showed his audiences every nuance of his characters, reveling in their uniqueness. He helped us understand that difference was not a barrier to community; in many ways, it's at the heart.

The building bearing his name and the community investment in it are big ideas that unfortunately not everyone welcomes. A number of online comments to articles about the center reveal deeply racist attitudes. To some, the idea of a place that brings diverse groups together to celebrate the richness of black culture, on par with others, seems farfetched and, worse, a waste.

Yet, the center's recovery symbolizes Pittsburgh's recognition of the value of African American culture and the African diaspora. Wilson loved and celebrated the intricacies of the black experience in Pittsburgh with absolute resolve. Now, the community must resolve that the center have a clear identity that resonates with African Americans and diverse stakeholders.

The August Wilson Center can help fulfill the promise of Pittsburgh's Downtown Cultural District as a hub for everyone. But, our community must answer the question, "How can we do this in a way that makes us proud?" It won't be easy. Call me a dreamer, but I believe that in America—and in Pittsburgh—all things are possible if we work together.

janera solomon is the executive director of the Kelly Strayhorn Theater in Pittsburgh's East Liberty neighborhood.

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#### celebrate



Recently I had the privilege to join Teresa Heinz as she received the prestigious Aldo Leopold Award from Yale University's School of Forestry & Environmental Studies. Only the third person ever to receive the honor, Teresa was recognized for her extensive lifelong contributions to protecting the environment.

Her unscripted remarks to an audience of faculty, students and family were a tour de force. Reflecting on her career and the state of the planet, she was modest about her own contributions, frank about the challenges facing the world and awaiting the students in their future work, and delightfully firm in her conviction that change is always possible if we work for it

Calling herself a "rebellious activist," she challenged the students to assume the mantle of leadership. "You have a

great opportunity here, and it's a treat to know that you are as committed as you are," she told them, adding that, if anything, she was jealous of "the chances that you will have that you will embark on, to really make this place — our world —safer, more pleasant and more beautiful than it is today."

But what will really stick with me longest from her remarks is the image of this quiet warrior for good issuing the call to courage quoted above. Teresa speaks softly, and never more so than on this occasion. But there was a ferocity in her words that was unmistakable — and that for me serves as a perfect antidote to pessimism and doubt.

— **Grant Oliphant**, president, The Heinz Endowments





REVITALIZATION OF PITTSBURGH'S HAZELWOOD
NEIGHBORHOOD ISN'T HAPPENING OVERNIGHT,
BUT WITH THE SUPPORT OF LOCAL PHILANTHROPIES
AND NONPROFITS, RESIDENTS HAVE PURSUED
IMPROVEMENTS THAT ARE VISIBLE, CONSISTENT AND
INDICATIVE OF A BRIGHTER FUTURE, BY JEFFERY FRASER

## RIVERTOWN REBIRTH

# TESTIFY TO THE NEW DAY DAWNING IN HAZELWOOD, WHERE THE LOSS OF THE LOCAL



STEEL MILLS
FUELED DECADES
OF DECLINE
THAT TESTED
THE RESILIENCE

OF THE RESIDENTS WHO REMAINED IN THE PITTSBURGH NEIGHBORHOOD.

Maurice Cole's home, above center, sits cozily among other similarly designed houses on Trowbridge Street in Hazelwood. A utilitarian three-story brick house on Trowbridge Street that stood vacant for four years is now his—gutted, rehabbed from carpet to ceiling and priced to suit his moderate income by a collaboration of nonprofits backed by city and private foundation dollars.

"It's a wonderful feeling to be able to stay in the community where you were born and raised," says Cole, 44, walking a friend through the first home he's ever owned as finishing touches are applied to the interior renovations. "I know everybody on this street."

Last June, the Carnegie Library Hazelwood branch—
rescued from closing only a few years earlier—opened in an
abandoned church that's been renovated and repurposed as a
neighborhood community center, which also houses new family
support and child care training programs.

In August, the charter school Propel Hazelwood welcomed its first students, bringing an end to a stubborn campaign for a neighborhood school waged by parents and community leaders since 2006, when the last public school in Hazelwood was closed.

The community also is coming together in the face of tragedy. On Oct. 13, 22-year-old Marcus Critten was shot and killed in neighboring Glen Hazel. It was the first homicide committed in two years, but the memory of more violent days in the neighborhoods is still fresh. Some 75 people rallied in a cold rain the following night to discuss how to prevent a resurgence of the violence. A week later, they staged a "walk for peace" through the streets.

"Instead of sitting at home saying, 'Here we go again,' they came out. I've never seen people this committed," says Kristine DiPietro, who has lived all of her 67 years in Hazelwood. "I think it's because they see all of these changes happening."

Hazelwood residents and community organizations that refused to allow the neighborhood to break under years of economic and social distress are beginning to see the payoff. Prospects of regaining economic opportunities long absent improved when four local foundations set out to transform a brownfield separating the neighborhood from the Monongahela River into a 21st-century mixed-use community. And a special initiative of The Heinz Endowments to position the

neighborhood to seize those opportunities is providing a level of resources, financial and otherwise, that is greater than any they've had available to support their work in the past.

In 2002, the Endowments and the Richard King Mellon, Claude Worthington Benedum and McCune foundations bought the 178-acre site of Hazelwood's abandoned steel and coke works with the idea of creating a sustainable mix of office space, light industry, residential housing, parks and trails that would set new standards for urban brownfield development. Their vision of the project known as Almono, an acronym for the city's three rivers, includes integrating it with the existing neighborhood—something residents insisted on from the onset.

"We've worked hard to make sure the foundations know that we want this to be seamless, that we don't want walls around it. It's important that it becomes one neighborhood," says DiPietro, whose volunteer work on hunger, community development and other local issues dates back several decades.

In response, the Endowments chose Hazelwood as the focus of its first place-based initiative, which involves all of its grant-making programs in supporting the neighborhood's rejuvenation and finding ways for local residents and businesses to benefit from the Almono development and not be displaced by it.

"The exciting part of Hazelwood is that we can plan for that environment to unfold," says Rob Stephany, director of the Endowments' Community & Economic Development Program.

Hazelwood's prosperity has long been influenced by what transpired on that brownfield. In 1960, when the steel and coke mills were at their peak, some 13,000 people and 200 businesses called Hazelwood home. In the 1980s, the steel industry collapsed, and the decline of the neighborhood, already thinned by migration to the suburbs, accelerated.

When the last mill closed in 1998, only 6,000 residents remained in Hazelwood. By 2010, only 4,317 were left. Businesses dwindled to a handful. The incomes of nearly 24 percent of the neighborhood fell below federal poverty thresholds. The housing market was dismal.

Two years ago, the Endowments staff set out to explore a partnership with the neighborhood around revitalization. They assembled a local advisory board and recruited those known for







#### HAPPENING IN HAZELWOOD

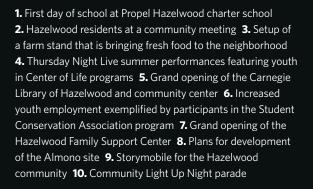
Revitalization efforts in Hazelwood are fueled by residents' energy and public-private investment that's apparent by the range of activity in the neighborhood. Here are a few scenes that capture community change in progress.

















their work to improve Hazelwood, beginning with the Rev. Tim Smith, executive director of the nonprofit Center of Life, which is highly regarded in the neighborhood. The advisors were anything but shy, rejecting the Endowments' suggestion that the first order of business be a comprehensive community plan.

"The neighborhood beat us over the head and reminded us that they've had dozens of studies done over the last 10 years that never resulted in demonstrative change or improved people's lives or opportunities," says Eric Stoller, the Endowments' Community & Economic Development program officer who also keeps an office in Hazelwood. "Before we could get people to participate in something like that, there first had to be some hope that this was going to be different."

They met over the course of a year to identify issues that had long been neighborhood priorities and work out strategies to address them. The Endowments began investing in the neighborhood with grants totaling more than \$5 million in 2012 and 2013 alone.

One priority was the Carnegie Library Hazelwood branch. Neighborhood residents drew a line in the sand when the library board announced in 2011 that the branch would be closed due to systemwide deficits. To save the library, people petitioned, rallied, lobbied and collaborated with other communities whose branches faced a similar fate. For Hazelwood residents, it was about more than saving the books, CDs and computers that their tiny library above a beer store offered.

"When you've lost schools, lost population, lost good housing stock, had your bus service cut and then your library is closed, to many in the community that would've been seen as the final nail in the coffin," says James Richter, executive director of the Hazelwood Initiative, the local community development corporation. "It says you're not valued, that there are other stronger communities worthy of more interest. That's the tide we're trying to change."

Their efforts were rewarded when city voters approved a 0.25-mill real estate tax to support the Carnegie Library of Pittsburgh, rescuing the Hazelwood branch and others from elimination.

When the neighborhood library moved into the new Hazelwood Community Center in June, it settled into the 7,000-square-foot first floor of the once-vacant building. Library membership has soared. Now twice the size of the

previous branch, it offers 1,800 CDs, books, magazines and DVDs; computers and Wi-Fi; a teen space and a separate children's area; a community meeting room; and a steel mural of animals and birds in the trees of "Hazel Woods" by West Homestead artist David Lewis.

In August, an outdoor concert at the library featuring young neighborhood jazz musicians drew a crowd large enough to overwhelm the library plaza and to move future concerts to a parking lot to accommodate the unexpected popularity.

"People came from all over. It was crazy," says Mary Ann McHarg, the library branch manager. "And it was fun."

The Endowments worked with the nonprofit ACTION-Housing to buy the former church, awarding more than \$1.9 million to transform it into a community center that is the region's first commercial building constructed to Passive House standards, which require exceptional energy efficiency. The center also is seen as an anchor to a revitalized Second Avenue because it is strategically located in the heart of the neighborhood within sight of the roughly graded plains of Almono, where new neighbors will someday live and work.

Several blocks to the east, the former Burgwin Elementary School is alive with children after sitting quiet and empty for eight years. It's a reversal of fortune for a community whose longing for a school was apparent when LaKeisha George, principal of what is now Propel Hazelwood charter school, met neighborhood parents for the first time this summer.

"Parents and grandparents would say they used to go to school here, and they wanted the same thing for their children and grandchildren," she recalls. "They wanted a place in the community where children can learn, a place where learning is valued. They wanted to be a part of the school. And not having a school made it seem like the community isn't important."

Propel Hazelwood opened in August with a near-capacity 197 students in grades K–4. Securing a building was not the stumbling block it had been in previous attempts to bring a charter school to the neighborhood. The Hazelwood Initiative bought the Burgwin school with a grant from the Endowments and other funding partners, including the DSF Charitable Foundation. As part of an arrangement to preserve the school as a local asset, Propel's rent payments are split between covering the costs of building maintenance and supporting a community development fund created to help finance neighborhood projects.



It takes a village to rejuvenate a community, and investment in Hazelwood has included participation by veterans like Joel Laudenslager, who along with other members of The Mission Continues Pittsburgh Service Platoon volunteered with Rebuilding Together Pittsburgh to rehabilitate an abandoned four-story house in the neighborhood.

#### "WHEN YOU HAVE A SOLID NEIGHBORHOOD AND ALL OF A SUDDEN HOUSES BECOME VACANT, TWO THINGS HAPPEN: EQUITY DROPS WHEN MORE THAN TWO HOUSES ON THE STREET GO VACANT, AND CRIME GOES UP."

Steve Hellner-Burris, executive director, Rebuilding Together Pittsburgh

Providing additional educational opportunities in the neighborhood is a new Hazelwood-based Reading is FUNdamental Storymobile, which was unveiled in October. Supported by another Endowments grant, the library-on-wheels not only makes more books available to children and families, but also allows RIF Pittsburgh to offer supplemental resources and activities to early childhood centers and classrooms, after-school programs and public housing communities.

Another anchor of learning in the community is Center of Life, which has been finding creative ways to engage children in education for longer than a decade as part of its mission to empower local residents and the neighborhood.

Its popular Crossover program, for example, requires children playing in its sports leagues to participate in the organization's Fusion tutoring initiative, where tutors assist with homework and parents learn how to help students with their schoolwork at home. As part of The KRUNK Movement,

students express themselves through jazz, hip-hop, dance, recording engineering and visual arts while running the program as a production company and learning some lessons in business along the way. The Center of Life Jazz Band, born through the music program, took second place at the Monterey Jazz Festival Next Generation competition in 2011 and then returned the following year to take first place, earning a standing ovation from the California audience for its performance.

Because of this track record, Center of Life was awarded a three-year, \$1.35 million grant from the Endowments in 2012 to expand its work. But, Smith mentions another measure of success that underscores the conditions under which many of the children in these programs grow up and manage to thrive.

"We haven't had one kid who's been in our music and arts program get killed," he says.

Back at the yellow brick house on Trowbridge Street, Cole marks his entrée into the ranks of Pittsburgh homeowners. For the nonprofit partnership that made the sale possible, his experience represents a small but important step in a strategy to help heal Hazelwood's dysfunctional housing market.

In 2010, nearly one in five houses in the neighborhood stood vacant, the Trowbridge three-story being one of them. The median sale price of a home had fallen to \$5,700, and 41 percent of taxable property was tax-delinquent—twice the citywide average.

Cole's house was the first put on the market under a "rehab to resale" program that is part of a market-stabilization strategy supported by the Endowments to improve housing stock and curb vacancy. With help from the foundation funds, Hazelwood Initiative buys vacant houses, and the home improvement nonprofit Rebuilding Together Pittsburgh rehabilitates them. The organizations recover their costs through the proceeds of sales and second mortgages provided by the city Urban Redevelopment Authority, and income-eligible buyers can avoid paying those mortgages by living in the house for at least five years.

"When you have a solid neighborhood and all of a sudden houses become vacant, two things happen: Equity drops when more than two houses on the street go vacant, and crime goes up," says Rebuilding Together Pittsburgh Executive Director Steve Hellner-Burris.

Rebuilding Together also is doing smaller-scale renovations on owner-occupied houses, ranging from something as simple as patching or painting to replacing a roof or siding on a house. Such work has been done on 55 Hazelwood houses in the past 18 months.

"We see it as a way to keep their value and stabilize these streets so other houses don't go vacant," Hellner-Burris says.

In addition to the community advantages, the initiative helps support the financial stability of individuals who participate in some fashion. Existing and new homeowners can benefit from their increased housing values. A small crew of Hazelwood residents who do much of the work are part of an on-the-job training program run by Rebuilding Together, where they earn an hourly wage and are taught carpentry and other skills. Two of the eight men have already landed jobs elsewhere with skills learned last summer.

Sixty-seven-year-old DiPietro is looking forward to even more improvements in the only neighborhood she has known. She remembers Hazelwood's mills, the "terrible sulfur smell" that neighbors associated with jobs, and a robust business district that included two movie theaters. She watched those businesses leave and witnessed the corrosive effect of population loss and prolonged disinvestment. And she's convinced the dark clouds are finally lifting.

"I've seen Hazelwood in its heyday and its down days," she says. "Now, I'm seeing its resurgence." *h* 

t's early fall, and Hazelwood's first family support center will not open to the public for another two weeks. But already 4-year-old Kartiye is looking forward to the days he will visit it with his mother. She is one of the parents who was asked to offer ideas to help shape the program and choose a provider to run it.

"He's been smiling from ear to ear ever since we started coming here," says Zoie Pitzarella as her son pops his head into the doorway, beaming, as if on cue.

The family support center opened in late October in the new Hazelwood Community Center, occupying 2,900 square feet on the first level of what had been a vacant church on Second Avenue in the heart of the neighborhood. It shares that part of the building with The Pittsburgh Association for the Education of Young Children's latest Early Learning Hub, which supports parents, early childhood educators and other caregivers. The neighborhood Carnegie Library occupies the second floor of the center.

Both the community center and the family support center are part of a Heinz Endowments place-based initiative that includes all of its program areas in efforts to strengthen the neighborhood and empower those who live there. The Endowments created the initiative three years ago to better position the existing Hazelwood neighborhood to gain from the development of an expansive brownfield in the community center's backyard that the Endowments and three other foundations bought with designs of turning it into a 21st-century mixed-use community.

Early work involved engaging residents in the process of identifying their most pressing needs, as well as strategies to address them. Family support emerged as one of the strategies mentioned by a group of residents who had been asked to discuss issues affecting children and families.

"Top on the list of needs were supports for families and a place where families could go and get help with parenting skills and their child's development," says Marge Petruska, senior director of the Endowments' Children, Youth & Families Program. "That just fit the role that family support centers play in communities."

The Endowments helped introduce the concept of family support centers to Allegheny County over 20 years ago. Today, more than two dozen centers operate in county neighborhoods. Each offers services and activities that promote the healthy development of young children, stable families and effective parenting. One distinguishing characteristic of the centers is their reliance on the parents themselves to tailor programs to suit their community.

Studies suggest that family centers in Allegheny County and elsewhere are both popular and effective in strengthening parents and families in ways important to the outcomes of children, particularly those growing up in low-income homes.

In Allegheny County, more than 3,400 families with 5,600 children are enrolled in family support, and most of those families have household incomes below the federal poverty line. Nearly 60 percent of the families have participated in the programs for at least two years.

## WE ARE FAMILY:

#### HAZELWOOD FAMILY SUPPORT CENTER HELPS TO CHANGE A COMMUNITY

The Allegheny County Department of Human Services has long embraced the concept of family support centers and commits about \$8 million to the program each year. "It's one of the few programs that really empowers parents," says Director Marc Cherna. "They drive the program, choose what they want and have a real voice in what happens. They also recruit their peers, and that's critical.

"It's often difficult to get people to come in for services," Cherna adds. "And people who are the most isolated are the toughest. The best way to get them in is to have their neighbors recruit them. That's what happens in family support. Families get the support they need and don't end up in the human services system because of that."

Among the indicators of the programs' effectiveness: Some 98 percent of children enrolled in county family centers start kindergarten on time, and the immunizations of 96 percent of the children are up to date. A recent survey also suggests that family support markedly improves parents' understanding of how to get help when they need it, and boosts confidence in their ability to meet their family's needs with the resources they have. And parents give family support centers high marks for improving their parenting skills, reducing their stress and helping to achieve goals set for their families and themselves.

In Hazelwood, nearly one in four households live in poverty and another 23 percent are "near poor," with incomes of no more than twice the federal poverty level. Some 30 percent of all households have children, and 61 percent of those families are headed by single mothers.

A panel of Hazelwood parents was organized by the Endowments to help establish the neighborhood family support center. Part of their job was to choose an agency to run the program. Through a process of interviews with applicants and visits to their family centers, they selected the Council of Three Rivers American Indian Center, largely based on its record and reputation earned while operating the community's Head Start and Early Head Start programs for decades.

A grant awarded by the Endowments helped start the family support center and covers expenses to operate it for the first two years, after which the Allegheny County Department of Human Services picks up the operating costs. "It's a wonderful model of a public-private partnership," Petruska says.

For the Council of Three Rivers American Indian Center, the new family center offers an opportunity to reach a broader population of local families in need.

"There are many people in Hazelwood who are just above the poverty line whose children can't get into Head Start because of that," says Debbie Gallagher, who oversees the family center and the nonprofit's Head Start programs in the neighborhood. "With family support, we can serve anyone in the greater Hazelwood community who has a young child, and we aren't going to ask about their income."



Based on parents' suggestions, the center will have three family support specialists on staff, giving it the capacity to provide in-home services to as many as 75 families to address issues such as child development, nutrition and parent-child interaction. Other services and activities that could emerge include parenting education, assistance for family members seeking a driver's license or applying for a job, or a support group for grandparents who are raising their grandchildren.

The Hazelwood center also is designed and equipped to accommodate learning and fun. With its turquoise-and-gold color scheme, the space contains shelves of books, games and craft supplies; a collection of toys; and a built-in water table where children can create waterfalls and sail toy boats.

"We want our kids to be safe and have goals and dreams," says Chelsea Pitzarella, 23, who lives a few blocks from the center and is a stay-at-home mother to her 2-year-old daughter, Chanel. "And everyone wants their kids to go to college."

Like her identical twin, Zoie, Chelsea Pitzarella served as one of the parent advisors to the family center. "I think the center will help put it in [the children's] heads that ... they can be what they want to be."

Hazelwood's revitalization has included a focus on children and families, and the new neighborhood Family Support Center is central to that effort. From left to right, Tayler Webster, Danielle Gill, Debbie Gallagher, Maharia Lane and Tillie Figlar-Quinlan help cut the ribbon during the center's grand opening in October. Standing behind Tillie are Sherry Hoover and Greg Quinlan.

"WE WANT OUR KIDS TO BE SAFE AND HAVE GOALS AND DREAMS. AND EVERYONE WANTS THEIR KIDS TO GO TO COLLEGE. I THINK THE CENTER WILL HELP PUT IT IN [THE CHILDREN'S] HEADS THAT... THEY CAN BE WHAT THEY WANT TO BE."

Chelsea Pitzarella, Hazelwood parent

# FINISHED BUSINESS

Some to-do lists can be easily forgotten — but not this one. Despite racking up achievements in significant quality-of-life categories, Pittsburgh still faces challenges on several fronts, even in areas that might have been considered in the "done" column. Heinz Endowments staff and regional leaders came up with 10 examples of issues that require additional attention. By Christine H. O'Toole

ick a category. Any category. Give Pittsburgh a "best" or a "worst" ranking compared to other world cities and then share the news online. The city's social media network will light up, keeping obsessive track of Pittsburgh's place in the metropolitan pecking order. A salient characteristic of Pittsburghers: We're equally adept at crowing and complaining.

For more than seven decades, The Heinz Endowments has worked alongside thousands of committed individuals and groups to tip the metro scales in a positive direction. The Pittsburgh region has made impressive strides in tackling challenges that have stymied other regions, such as reinventing a grimy Downtown as a residential neighborhood and arts destination, building the state's first-ever structure for early childhood education, and bolstering public education in the city with a \$100 million college scholarship program. And the world has taken notice. (Cue the Twitter feeds.)

But, as '70s teen idol Leif Garrett advises today's social-media-saturated pop stars, "Don't believe your own publicity." Pittsburghers are understandably proud of the recognition and praise the region has received for its dynamic transformation, especially in the past 10 years. But while there is much to celebrate, there is also still much work to do.

Endowments President Grant Oliphant wants to keep the pressure on. "Let's be careful about conflating progress with success and becoming apathetic as a result," he recently wrote for the foundation's blog.

The Endowments' ongoing work, overlapping and intersecting across five program areas and making an impact across southwestern Pennsylvania, resembles a series of Venn diagrams — or, perhaps, a set of hula hoops in constant motion. As foundation staff and local leaders consider the changes that have occurred in the region over the past few decades, they acknowledge that whittling down a "to be continued" roster is a challenging exercise. The list of 10 they developed is not exhaustive but gives a sense of the significant issues that remain unresolved.

#### **CHARTING THE** PROGRESS FOR GREAT CITY SCHOOLS.

The good news: Pittsburgh Public Schools test scores, enrollment in Advanced Placement courses and graduation rates have been improving. The creation of the Pittsburgh Promise scholarship program in

2008 for eligible city graduates of public high schools has now helped more than 1,000 students advance to earn college degrees. But the district - still the largest concentration of students in the region - continues to contract, and school officials warn of looming financial troubles.

"The biggest challenge yet for public education is not unique to Pennsylvania and Pittsburgh," says Ronald Cowell, president of Education Policy and Leadership Center, a statewide advocacy organization and Endowments grantee. "It's for public education to demonstrate that it can effectively educate a high percentage of students where there is a great concentration of poverty."

Because it has the region's largest enrollment, the Pittsburgh school district has received the lion's share of the Endowments' attention. Education Program Director Stan Thompson says that will continue.

"We know that Pittsburgh public schools serve the majority of the city's students," he says. "Consequently, the Endowments won't walk away. We have an obligation to support the district."

Bill Isler, a long-time Pittsburgh school board member and former board president, confirms that dwindling enrollment and a looming funding crisis are fundamental problems. Superintendent Linda Lane is "whacking away" at both, he says. "We have a high cost per child. We must close and sell buildings, and get them off the tax rolls. There

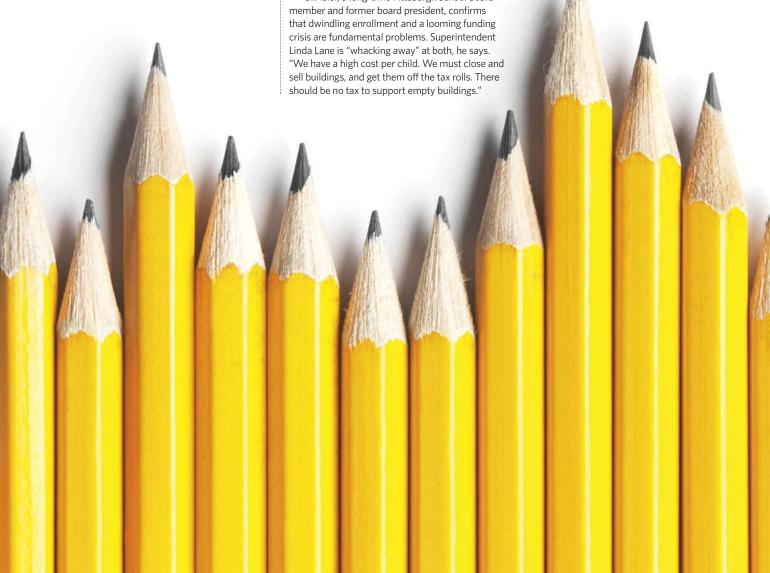
But on issues of student readiness and performance, Isler sees clear goals ahead.

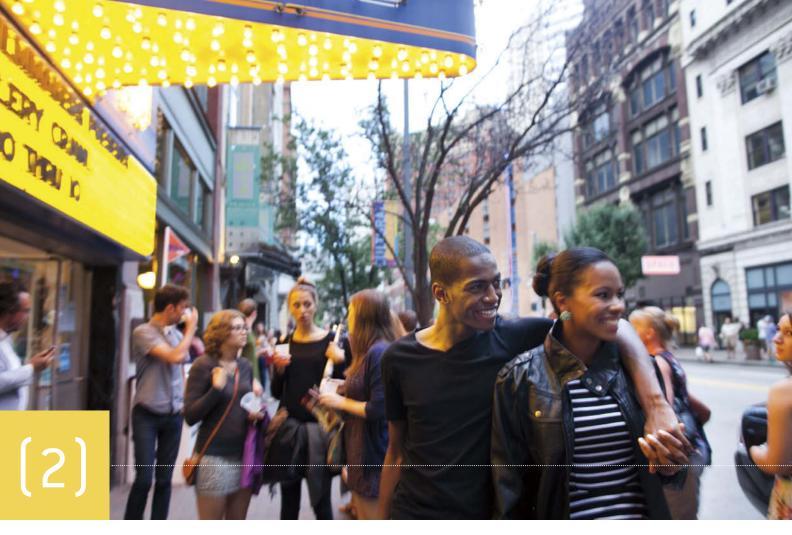
"We have to work hard on getting pre-K education," he explains. "We now have support from the mayor on that. Our children should be reading by third grade, passing algebra in high school and, especially, graduating."

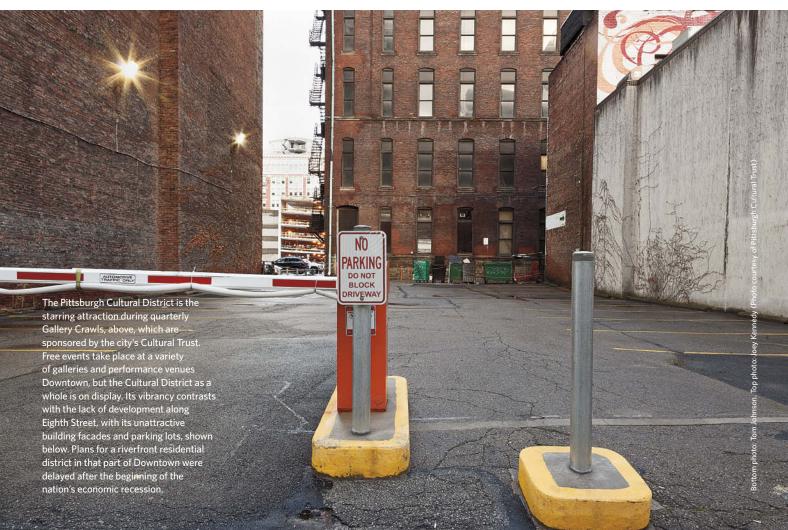
Both Thompson and Isler foresee career education receiving increased emphasis in the near future. "The way the region is changing, the trades are needed and necessary," says Isler. "We need to match our programs to careers."

Teacher evaluations have been a minefield in school improvement. A \$40 million grant from the Bill & Melinda Gates Foundation to the city schools has been held in limbo while the teachers' union and the district argue about how to measure teacher effectiveness. One Endowments grantee, the advocacy group A+ Schools, has publicly urged the opponents to strike a deal.

The loss of the massive grant "would be devastating for the school district," Carey Harris, the organization's president, said in a local television interview last year. "It would be devastating for the city, but most of all, it would be devastating for the kids."







#### FINISH THE CULTURAL DISTRICT ...

Fleshed out with galleries, theaters, apartments, year-round festivals, a performing arts high school, and an explosion of upscale bars and cafes, Downtown Pittsburgh's Cultural District now attracts 2 million patrons a year. As the Cultural Trust celebrates its 30th anniversary, it has become a national example of how the arts can revitalize a faded urban center. But even the Trust's president readily admits that the 14-block neighborhood isn't complete.

"We have to open the doors wider and wider and wider," says Kevin McMahon. "We need to make sure we are diverse in all ways in the programming mix, so everyone feels there's something for them, at different price points, in and out of theaters. You're never done."

Diversity dominated public discussions on the bankruptcy and sale of Downtown's August Wilson Center for African American Culture last fall. Community and foundation leaders argued that the center could serve a need unmet elsewhere in the Cultural District: the celebration of African American culture in a city still largely segregated by race. A coalition that included the Endowments, the Pittsburgh and Richard King Mellon foundations, the Urban Redevelopment Authority, and city and county officials fended off a bid to turn the center into a hotel, allowing the foundations to purchase the building and preserve its mission. Now, plans include a role for the Trust to help operate the building while an African American-led entity is created to design high-quality, community-responsive programming.

Five years ago, as the region and nation plunged into recession, the Trust put its most ambitious project on hold. RiverParc, envisioned as a \$460 million residential, retail and entertainment development in the Cultural District, has an unrealized future. Its proposed location remains an assemblage of parking lots and shabby sliver buildings. A protracted legal battle with the developer should be resolved this year, and McMahon says that a new neighborhood, similar to the past plan, may still arise.

"But the Downtown housing market is robust now," says McMahon. "We'll look at what the market and city tell us about highest and best use."

As creative arts initiatives in Pittsburgh neighborhoods grow in number, they are attracting the attention of local philanthropies and helping to build a regional arts infrastructure that includes programs in struggling communities.

One example is the YMCA Westinghouse Lighthouse Project in Homewood, which uses media arts such as music production, graphic design, film and photography to teach youth about leadership and career readiness.



#### ... AND INVEST IN CULTURAL DEVELOPMENT.

The Greater Pittsburgh Arts Council recently published a report showing that the region comes in last in the number of organizations founded after the year 2000. That ranking is despite the fact that total arts spending in Pittsburgh is among the highest in its peer group, and the city continues to attract more artists, on a per capita basis, than other comparable cities do.

"So many of us are old organizations," says Karla Boos, who founded Quantum Theatre 25 years ago. "There aren't that many new. But we can't just say that the climate is not nurturing new organizations. It also suggests that there are new groups that are conceiving themselves in other ways."

If new arts talent is infiltrating neighborhoods far from the klieg lights of the Cultural District, fans and funders must follow.

The shift from generous support for a few high-profile groups to sustaining a broader arts community has occurred gradually over the past decades. Janet Sarbaugh, who steers the Endowments' Arts & Culture Program, expects that large and small donors will need to step up to new projects. Among those she hopes the community will support: more small and mid-sized arts organizations; high-quality arts education in and out of school; live-and-work spaces for artists; performance opportunities at smaller neighborhood venues, such as the New Hazlett Theater on Pittsburgh's North Side and the Kelly Strayhorn Theater in East Liberty; and professional development programs such as Flight School, a boot camp for rising artists.

While foundations have been major benefactors to Pittsburgh's arts groups, providing 18 percent of recent revenues, individual contributions have lagged. Donors nationwide provide nearly a quarter of arts groups' budgets. By contrast, according to the Arts Council's Cultural Data Project, individuals in the Pittsburgh region give far less — only 4.4 percent. Designated Days of Giving, which include matching funds from philanthropies, are encouraging private gifts, and online crowd-sourcing is boosting new projects.

Building support for the arts also includes arts education. While the vast majority of adults in the region believe that the arts are integral to K-12 education, many schools have reduced or eliminated quality programs. In addition, out-of-school programs remain very important but do not have enough resources. The Endowments and the Grable Foundation have worked with the Pittsburgh Public Schools to build a division of arts education, and they continue a commitment to increasing the quality and equitable provision of arts education in the district.

Creating an arts infrastructure that serves distressed communities is the goal of two projects supported by the Endowments. The Lighthouse Project, an after-school program operated by the Homewood-Brushton YMCA and Pittsburgh Westinghouse Academy 6–12, offers multimedia instruction, mentoring and academic support. The foundation's Transformative Arts initiative is currently focused on developing a strategy with a community advisory board. This group will plan the use of Endowments funding to strengthen out-of-school-time work in and through the arts in African American and low-income communities in Allegheny County.



#### OLEANTHEAIR NOW

Pittsburgh has shed the "hell with the lid off" image it had before the mid-1950s. But clearer skies don't mean clean and healthy air. Despite significant progress in recent decades, air quality in the region

still remains among the worst in the nation, and it isn't improving as quickly as in other urban areas. For example, as fine particulate matter kills 130,000 Americans each year, Pittsburgh ranks among the worst 13 percent of U.S. cities for average annual levels of fine particle pollution. The cancer risk from air toxics in Allegheny County is in the top 2 percent in the nation.

Exposure to modern-day levels of air pollution in southwestern Pennsylvania has been linked to asthma, heart and lung disease, cancer, autism, adverse birth outcomes and even premature death. Poor air quality has contributed to an asthma epidemic in Pittsburgh and affects the ability of schoolchildren to perform well. It has harmful effects on the health of the workforce, leading to increased medical costs and loss of productivity. It also hinders corporate recruitment efforts and drives away economic growth industries of the future

Raising public awareness about these air-quality issues is another challenge due to the widely held misperception that the problem dissipated along with the heavy smoke of the last century. At a Pittsburgh City Council hearing last year, one local resident argued that Pittsburghers can — and should — expect and demand more when it comes to the air they breathe.

"Better is not good," a frustrated Jody Handley told council members. "It's not even 'just not good enough'— where we are right now, it is not good."

Philip Johnson, the Endowments' Environment Program interim director, agrees. "If we want to be known as a truly livable city, we have to contend with our major air pollution problem," he says. "We also have to take responsibility for the significant fraction of air pollution created by sources in our region."

Scientists at the Clean Air Task Force estimate that one-half to two-thirds of the harmful pollutants in Pittsburgh are generated in Pennsylvania, not by coal-fired power plants upwind in other states. That's bad news because the region is producing a lot of air pollution, but it's good news because it means individuals, organizations and businesses hold the power to make a change.

One example is the Breathe Project, which the Endowments launched in 2011 to help improve the region's air quality. The Breathe Project coalition has grown to include nearly 200 businesses, nonprofits, hospitals, foundations and government agencies in support of its mission. The initiative has developed a robust body of scientific research detailing the health and economic impacts of poor air quality in southwestern Pennsylvania. The Breathe Project also has helped to position air quality on the civic

agenda as a key benchmark of Pittsburgh progress, while

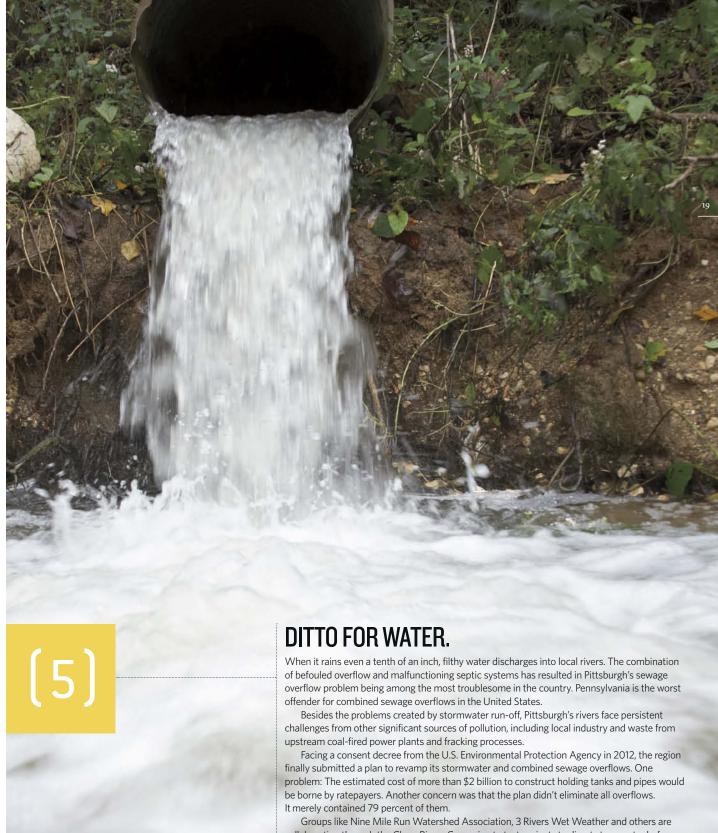
pursuing collaborative solutions toward cleaner air.

"We can never eliminate air pollution," says Johnson. "But we can set in motion a community conversation, and demonstrate broad and measurable

"WE CAN NEVER **ELIMINATE AIR** POLLUTION, BUT WE CAN SET IN MOTION **A COMMUNITY CONVERSATION, AND DEMONSTRATE BROAD** AND MEASURABLE **SOLUTIONS.**"

Philip Johnson, interim director, Heinz Endowments Environment Program





Groups like Nine Mile Run Watershed Association, 3 Rivers Wet Weather and others are collaborating through the Clean Rivers Campaign to test projects to divert stormwater before it reaches the sewers. This year, the group will begin a million-dollar project in Pittsburgh's Homewood neighborhood. Its long-term goal is to reduce the 25 million gallons of sewage flowing into Nine Mile Run each year by 25 percent. Solutions at three sites include bioswales, rain gardens, tree planting and residential rain barrels.

Brenda Smith, executive director of the Nine Mile Run group, says the work adds value beyond just meeting federal standards. "If you're going to spend money, why not get as many benefits as you can?" she asks. "For the money we're spending, [by using green infrastructure] we could get cleaner air, cooler temps and revitalized business districts."

Other cities have outpaced Pittsburgh in employing clean water strategies. New York has already saved \$1.5 billion by creating hundreds of green infrastructure installations. Pittsburgh's handful of test projects lag in comparison.

Meanwhile, when it rains, stormwater still pours.

### GET THERE FROM HERE, SUSTAINABLY.

Good transportation systems can ease congestion and pollution. In developing its East Busway, Pittsburgh created an efficient system for moving people from Downtown to some neighborhoods. Rob Stephany, the Endowments' program director for Community & Economic Development, calls the busway a "Main Street" but observes that Main Streets often separate wealth from poverty.

Transit-oriented community development, wildly successful in 21st-century Denver, is now being adapted around the East Liberty Busway portal to jump-start growth in adjacent neighborhoods. In two years, Stephany predicts, riders will exit the busway not merely to walk home, but to visit a crop of new businesses and services.

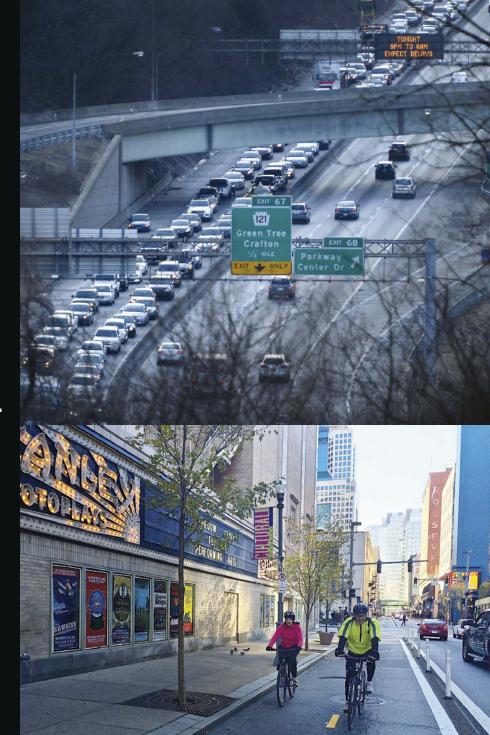
"There's great potential," he says. "The current land uses aren't the highest possible. Ridership is huge, so it's clearly an important connector, but not yet a neighborhood amenity."

Stephany argues that transportation solutions done well support economic development, and he notes other neighborhoods ill-served by public transit that are overdue for solutions.

"Spatial juxtaposition is a huge opportunity. We have Google in Larimer. Hazelwood is now a riverfront neighborhood," he observes, citing communities that could benefit from transit changes. "The new city leadership is talking about transportation, be it a rail circulator or rapid bus transit. It's expensive, so the philanthropic role is visioning and planning."

Pennsylvania's aging roads, highways and mass transit systems have all received D's on a recent infrastructure report card from the American Society of Engineers. Stephany adds that, locally, old suburban vectors need a revamp. For example, he described Route 51, running south from Pittsburgh, as a "corridor of blight" with the parallel roadway, busway and railway causing headaches for motorists and pedestrians.

With support from the Endowments, a Carnegie Mellon University team is imagining a 21st-century redesign of the thoroughfare.



Rush-hour traffic jams, such as the slow morning commute into Downtown Pittsburgh, are daily reminders of the need to reconsider the region's transportation systems.

Bicycle lanes, like the one above on Penn Avenue that runs through Downtown, have been one response, but broader efforts also are being examined.



#### CONNECT MORE COMMUNITIES TO RIVERS.

Concerted planning for the development of public property in Pittsburgh has resulted in renovations of Point State Park and the David L. Lawrence Convention Center Downtown, the North Shore and sections of the South Side. Included in the improvements have been efforts to create visitor-friendly linkages between these locations and their adjacent rivers. But harmonious civic design involves more than riverfront paths.

While cities like Houston and Philadelphia speed ahead with civic projects that combine water access and innovative green infrastructure, Pittsburgh remains in the planning stages on several important expansions of waterfront projects.

Existing plans call for extending shoreline connections, notably along the Allegheny Riverfront Green Boulevard, a still-developing stretch of trails, commuter rail lines, environmental landscaping and other riverfront projects. These improvements would continue through the city's Strip District and to the West End via pedestrian paths on the West End Bridge. The latter project will create the first-ever walking connection between North Side and West End neighborhoods, and has been on the books since 2006, with a cost now estimated at \$12 million.

Lisa Schroeder, former president of Riverlife, a public-private nonprofit tasked with creating a blueprint for reinventing the city's riverfronts, calls the gaps "under-activated" sections of the shorelines and says designs are ready to move forward.

"For the West End pedestrian bridge, there is a beautiful, efficient design that was selected through an international competition," says Schroeder, who recently left Riverlife to head a foundation in Baltimore. "Fast forward to today, and there's even more activity along the banks of the Ohio River to which the proposed pedestrian bridge will connect. Rivers Casino now occupies the northern bank, and the southern bank is busy as a very active barge staging and river operations area."

The pedestrian bridge project has not moved forward due to the challenges of coordinating with a south shore rail freight line and the Pennsylvania Department of Transportation's long-term construction plans. But that doesn't mean the ideas for improvements have stopped.

Next on the to-do list: riverfront neighborhood connections in Lawrenceville and a new 160-slip marina for the South Side.

asaki Associates, Inc

#### REVITALIZE MORE NEIGHBORHOODS AND USE RENEWABLES.

Rebuilding older, neglected neighborhoods can't be accomplished with new storefronts alone. A comprehensive attempt to make communities sustainable cleans the air, conserves water and generates investment. Research on energy-efficient solutions at regional universities and companies can benefit local efforts to rejuvenate neighborhoods. Connecting residents to new job opportunities that result from the research can make communities even more stable for the long term.

"There's been lots of [local] effort on the energy-efficiency side," says Mike Schiller, president of the Green Building Alliance. The alliance has found "tremendous uptake" on its Pittsburgh 2030 projects, for which commercial building owners commit to 50 percent reductions in energy, water and carbon emissions in the next 15 years. "More occupants of buildings are starting to care."

Local entrepreneurs are inventing solutions using wind turbines, batteries and solar power. "It's finally ramping up," Schiller says. "If growth continues, in another 10 years, a whole lot of renewable energy will be deployed."

Neighborhoods can benefit economically from industries tied to sustainability as the region's workplaces evolve. "The most important piece of the workforce puzzle is to connect residents to the new economy, not just construction jobs," the Endowments' Rob Stephany says.

Testing that theory will be two major development tracts in the city: the Pittsburgh Penguins' mixed-use project, slated for the former Downtown location of the hockey team's arena, and the Almono riverfront property, once the

site of a Hazelwood coke works, that's now owned by the Endowments and three other foundations.



East End Cooperative
Ministry's new \$15 million
Community House was built
to LEED — Leadership in Energy
and Environmental Design —
Platinum standards, which
involved incorporating a
"green" roof that included
a garden and terrace.

[8]

Middle photo: Copyright, Pittsburgh Post-Gazette, 2015, all rights reserved. Reprinted with permission.; Bottom photo: Ruth Graham Photo, Mistick Construction





#### INVEST MORE IN EARLY EDUCATION.

For the past 20 years, researchers have spread the word to anyone who'll listen: Education for children ages birth to five gives them skills that sustain them the rest of their lives. The Endowments supported some of the earliest local pilot projects through its Early Childhood Initiative beginning in 1994 and, in the past two years alone, has awarded \$9 million to fund programs in the Pittsburgh region and across the state.

The state's funding contribution to early education has grown since legislation passed in 2008. Meanwhile, corporations have supported early childhood initiatives, based on the research-based approaches championed by the Endowments and anchored in hard evidence: For every \$1 invested in early childhood education, \$7 is saved on remedial programs later.

While all this is good news, it is not enough. State funding has not been sufficiently increased to support the large numbers of children across Pennsylvania who need access to high-quality pre-K programs. In Allegheny County, 65 percent of young children — some 16,000 three- and four-year-olds — are unable to attend such programs.

"We still don't have enough slots," says Michelle Figlar, executive director of the Pittsburgh Association for the Education of Young Children. "We finally have a state-funded program, but it serves only one in six eligible Pennsylvania children. The city and county can't do this on their own. Lawmakers at the national and state levels really need to make this a priority. Every child, regardless of where they live, has the right to high-quality pre-K programs. They're only birth to five once — they don't get a second chance."

At a White House press conference in December, the Endowments was among the philanthropies pledging renewed support for parental education, home visiting, Early Head Start, quality child care, Head Start and preschool programs. The foundation will spend \$9 million on those efforts locally in the pert few years.

"We have to close the gap and finish what we began two decades ago," says Marge Petruska, the Endowments' senior program director for Children, Youth & Families, agreeing that limited access to quality pre-K remains a concern. "We know without a doubt that these programs benefit children, parents and society."

Research has shown that high-quality early childhood education makes a difference in the lives of young children. Among the Pittsburgh sites that offer creative programs integrating hands-on play and learning is the Pittsburgh Children's Museum, which has two pre-kindergarten / Head Start classes for children ages 3–5 that are provided through a partnership with the Pittsburgh Public Schools.









# GADGETS SOLUTION OF THE PROPERTY OF THE PROPER

Jennifer Cross crouches over a table as she helps three seventh-grade girls at Springdale Junior-Senior High School, northeast of Pittsburgh, troubleshoot the robot they are building. The robotics doctoral student from Carnegie Mellon University jiggles some wires. Then Elizabeth Puskar, one of the I2-year-old programmers, does a test run and watches the lights blink on cue.

"Yes! It worked!" Elizabeth calls out, pumping her fist triumphantly.

Mind you, this middle school robot doesn't look like a cyborg. It resembles your typical school craft project: a pumpkin-patch diorama inside a cardboard box, illustrating the Carl Sandburg poem "There in Yellow." And the robotics training isn't taking place in technology class, but during a coed honors language arts class. Even so, Elizabeth and her two teammates are learning how to use motors, sensors and LEDs to program their diorama pumpkin to spin around to reveal an illuminated jack-o'-lantern face, timed to poetic meter.

"I didn't like robots before," says Bre Cummings, I2, who recorded the poem using a computer program. But the project has helped her warm up to robotics, she explains, while giving her a deeper understanding of the Sandburg poem.

That's the idea behind Arts & Bots, one of the many innovative projects developed by Community Robotics, Education and Technology Empowerment Lab, known as CREATE Lab. Available now to students of both genders in elementary through high school, this integrated approach to technology originally targeted girls in their tween years. Girls often enter middle school as excited as boys about robots and computers. But somewhere between sixth and eighth grade, at a time of hormones, peer pressure and emerging identities, their interest in technology often fades.

Rekindling that enthusiasm is among the real-world challenges tackled by the 30 scientists, engineers and other staff at CREATE Lab. They use their considerable brainpower to reach out into the community and create robot-flavored answers to problems as diverse as air pollution, water quality and the dearth of girls in technology.

# GAIN

With deep-pocket support from foundations, the technology wizardry brewing within Carnegie Mellon University's CREATE Lab is addressing social challenges in ways that empower individuals and communities as well as assist them. By Cristina Rouvalis

"This is a lab, but it's not your normal kind of lab," says Illah Nourbakhsh, founder and director of CREATE Lab and a professor of robotics at Carnegie Mellon. "It's a lab that is always tinkering and experimenting and partnering with the organizations. We are averse to technology for technology's sake. We want to develop technology for humanity's sake."

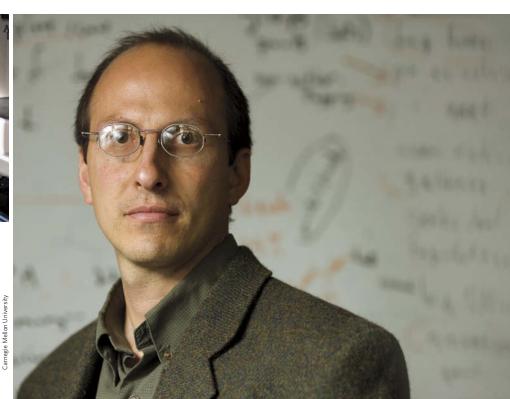
CREATE Lab also differs from most research labs in that it doesn't accept short-term funding from government or corporations, instead relying mostly on long-term grants from foundations. "We want longer-term money that lets you take risks," Nourbakhsh says. "We don't take Department of Defense funding. If you work on war robots, you work on robots you hope don't get used. We work on technology that we hope gets used."

To that end, The Heinz Endowments has awarded CREATE Lab more than \$1 million over the last five years for a variety of leading-edge inventions. Among the Endowments-supported educational projects are Arts & Bots and the Finch, an interactive instructional robot for computer programming courses. Environmental efforts the foundation has funded include Speck, a low-cost particle pollution monitor, and Breathe Cam, imaging technology that helps people visualize air quality.

This is a lab, but it's not your normal kind of lab... We are averse to technology for technology's sake. We want to develop technology for humanity's sake."

**Illah Nourbakhsh**, founder and director of Carnegie Mellon University's CREATE Lab





"CREATE Lab is one of the most exciting sources of innovation we have in the city," says Endowments President Grant Oliphant. "They do a fabulous job of working at the intersections of disciplines to create new ways of problem-solving."

The gadgets dreamed up in CREATE Lab also can be an economic generator, spawning spinoff companies that manufacture them. For example, BirdBrain Technologies, started by CREATE Lab alumnus Tom Lauwers, sells a robot kit called Hummingbird to Allegheny Valley School District in Springdale, northeast of Pittsburgh, and hundreds of other school systems. More than 10,000 students across the world have used a Hummingbird kit, which contains a controller, motors, LEDs, sensors and cables.

Similar to Arts & Bots, Hummingbird was developed for girls, but is popular among boys, too. Cross and other CREATE Lab employees have trained teachers in Pennsylvania and West Virginia how to use the technology. But they never tell them what to do with it. They leave that to the teachers' imagination. One physical education teacher had his students build a human arm out of craft supplies and use Hummingbird robotics to spring it to life.

The ideas that give birth to Hummingbird, Arts & Bots and other projects are honed inside CREATE Lab's space on Carnegie

Illah Nourbakhsh, a Carnegie Mellon robotics professor, combines his technical knowledge with humanitarian interests and a bit of whimsy as he directs the work of CREATE Lab, which he founded in 1997.

Mellon's campus, where robotics engineers and computer scientists puzzle out problems in an open room filled with commuter bikes, errant gizmos and zany craft materials. The vibe in this office seems three parts brainy, one part whimsical.

During a recent staff meeting, 20 employees, many in their 20s, sat in a large circle with no table and took turns giving updates on their projects. Nourbakhsh offered encouragement as he cut and served ice-cream cake to celebrate three recent birthdays, including his own.

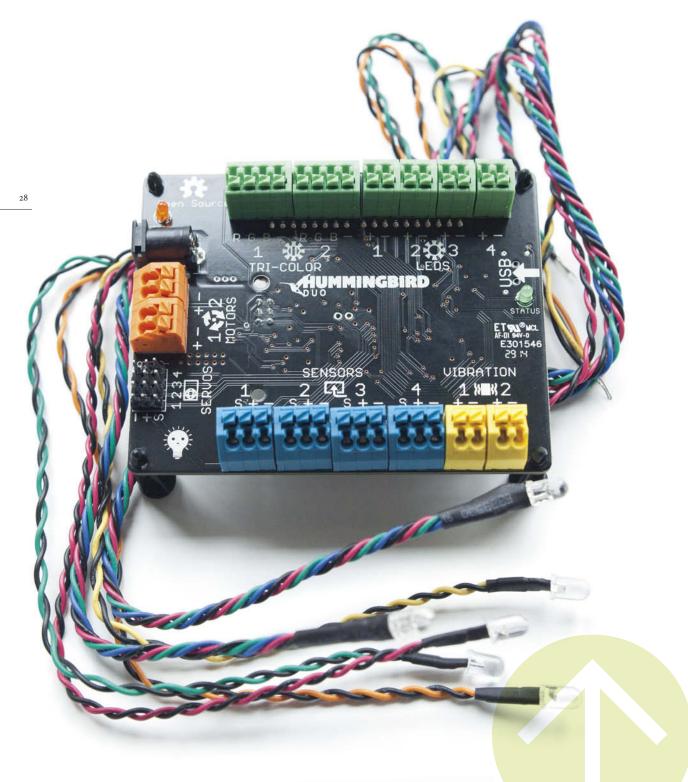
Tall, thin and effusive, Nourbakhsh is the epitome of the right-brain/left-brain synergy of CREATE Lab. Born in Iran, Nourbakhsh moved to Kansas City, Mo., at age 9 and was raised in a household of technological innovation. His father, the late Dr. Mahmoud Nourbakhsh, was a pioneer in laparoscopic surgery, and he used to take young Illah with him on Saturdays to watch operations.

Nourbakhsh went to Stanford University, where he earned a bachelor's, master's and doctorate in computer science, specializing in artificial intelligence. But he had started out studying comparative literature and was always interested in social justice. He became a robotics professor at Carnegie Mellon and, in 1997, founded CREATE Lab. The only other lab Nourbakhsh knows with a similar philosophy is the Lifelong Kindergarten group directed by learning research professor Mitchel Resnick at the Massachusetts Institute of Technology's Media Lab.

"Illah is one of a kind," says James Denova, vice president of the Claude Worthington Benedum Foundation, another funder. "He is a computer genius, but he is an extraordinary humanitarian."

Colleagues say Nourbakhsh has a knack for drilling down complex technology to its simplest truth. "When you think about it, we are making what is invisible visible," he says, such as the way Arts & Bots makes the words of a poem tangible or the Speck device counts microscopic particles imperceptible to the naked eye.

Hear Me, another project funded by the Endowments, makes teenagers' perspectives visible by creating a stage—rather, stages—for them to present their opinions on political and social issues. Their thoughts about school safety and other concerns are digitally recorded, edited into stories or commentaries of a minute or less, and made available in audio devices placed in separate plastic boxes



#### Hummingbird

No technical experience is needed to use the Hummingbird, but the educational robotics kit developed by CREATE Lab brings technology to life for students as young as 11. By animating arts-and-crafts creations with lights, sensors and motors, Hummingbird shows students how robotics can be used to communicate thoughts, feelings and ideas.



Jessica Pachuta

Hear Me

Hear Me uses multimedia projects such as voice boxes and online interviews to capture the perspectives of children and youth and to share their voices with adults who can make a difference. These elementary school gifted students from the Wilkinsburg School District visited CREATE Lab and told stories about their most favorite and least favorite aspects of their community. The interviews were placed on the Hear Me website.

with the students' first names on them. Anyone can listen to the teenagers' voices by hitting a button on the boxes, which are displayed in coffee shops, museums and libraries across Pittsburgh.

Endowments Education Program Director Stanley Thompson explains that his program has supported Hear Me and Arts & Bots because they take learning "beyond prescribed textbooks to real-world applications."

"Subsequently," he says, "students seem to be empowered to venture outside the more confining and critical places of learning to a freer and satisfying space."

Jessica Kaminsky, project manager of Hear Me, agrees that teenagers, who often feel unheard, are empowered by seeing their voice boxes displayed in prominent places. She has interviewed teenagers at high schools on issues ranging from the new Pittsburgh police chief to school technology policies. Sometimes their audio files are sent to local officials or legislators and help shape public policy. Four have been placed at the U.S. Department of Education.

"It was awesome to tell students, 'Your voice is in D.C.,' "Kaminsky says. "They were super excited."

Kaminsky is struck by the impassioned opinions of teenagers. After the 2012 school killings in Newtown, Conn., students were asked whether they would be in favor of arming school resource officers. "No. No. No. No," a teen girl can be heard insisting, her adamance reverberating from the recording.

Often even the most disinterested student will relish the opportunity to share an opinion when the recorder is rolling. "I have seen some students who were total goofballs, not listening to anyone," Kaminsky recalls. "But given the opportunity to talk, they give a very honest view."

The Endowments-funded Speck, formerly called AirBot, is an air-quality monitor that makes the invisible visible by detecting fine particulate matter, pollution particles about 1/30th the diameter of a human hair that can be inhaled deeply into the lungs and

cause serious health problems. Readings are refreshed every second, and the device uses a color code to indicate risk level. Users also can see the particle levels recorded for recent hours.

Nourbakhsh is trying to raise venture capital funding so that CREATE Lab can mass-produce the Speck for about \$100 to meet international demand for the product as global concerns about air pollution mount. Meanwhile, the lab has been lending Speck sensors to interested groups, including the Southwest Pennsylvania Environmental Health Project, which addresses the health of people living near Marcellus Shale natural gas drilling sites. For a month at a time, residents in proximity to the gas fields can use the Speck to monitor the air quality inside their houses.

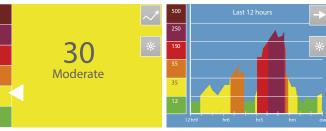
"They will call us if it is in the 'red,'" says Ryan Grode, the project's environmental health educator. If the warning level persists for a few hours, Grode might advise them to leave their homes for a while. With the help of the Speck, other residents have taken steps to protect their indoor air with filters and other measures. In fact, Grode says, people get so attached to their Specks that many don't want to give them back at the end of the month.

A Speck also is on loan to the City-County Building in Downtown Pittsburgh, with plans for more monitors to be put in city offices to make local government a living laboratory on indoor air quality and how it is affected by ambient air pollution.

"They are empowering citizens to measure their environment in a way that doesn't require expensive equipment and science," says Philip Johnson, the Endowments' interim Environment Program director. The hope is to turn Speck into an app so that people can monitor air quality wherever they go.

Air pollution is no small issue in Pittsburgh, which ranks among the worst 13 percent of U.S. cities for average annual particle pollution and also has dangerous levels of cancer-causing air toxics and other pollutants like smog and sulfur dioxide. The city is celebrated for its gorgeous skyline, but on many days, there is not a





#### Speck

With its emphasis on community empowerment as well as community improvement, CREATE Lab produces devices that enable people to gather information on their own about their environment. An example is Speck, an indoor fine particulate monitor that's being developed as a low-cost tool people can use to determine their personal exposure to public health hazards and take control of their air quality.

clear view of Downtown and other scenic vistas due to a veil of white or brown haze hanging in the air.

Raising awareness about this problem is why the Endowments' Breathe Project—an initiative launched in the fall of 2011 to help improve air quality in southwestern Pennsylvania—collaborated with CREATE Lab to develop Breathe Cam. Panoramic cameras are used to see the Pittsburgh skyline from various sky-high vantage points. CREATE Lab software stitches those images together to create video time lapses along with a real-time camera feed. With a click of the mouse, users can zoom in on various locations and see pollution on the horizon, and make comparisons by time or date. Breathe Cam debuted in December on the Breathe Project website, http://breatheproject.org/learn/breathe-cam.

"It is the most sophisticated air-quality visualization in the country," Johnson says. "You can zoom in and see things on the horizon, such as how often smokestacks emit plumes, or train activity through the city. It's a powerful tool to engage people on what good air looks like and what bad air looks like."

Breathe Cam and CREATE Lab's other accomplishments so far are just the start of what Nourbakhsh hopes to do. He loves sending his small army of socially conscious techies into schools, city halls and neighborhoods facing environmental challenges.

"These engineers and computer scientists could get fantastically well-paying jobs in corporate America," Nourbakhsh says. "Instead, they stay in relatively modestly paying positions here because they like the mission. It's exciting to create a space where engineers get paid enough to make ends meet and feel like their days are being spent doing something worthwhile." h

#### **Breathe CAM**

Another tool that puts information about the environment in the hands of individuals is Breathe Cam. The online program uses a zoomable live camera feed to provide high-resolution panoramas of Pittsburgh's skyline and other views in the region so that people can better observe and understand the air they are breathing.





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#### INVESTING IN THE FUTURE

The Heinz Endowments has pledged \$9 million in new early education funding over two years as part of the national Invest in US campaign. President Barack Obama announced the initiative in December and urged business leaders, philanthropists, advocates and public officials to build a better nation through high-quality early childhood programs for children from birth to age five. The Endowments is among the nearly 40 foundations, nonprofits and corporations that have made significant commitments in support of the campaign, which has been organized by the First Five Years Fund and its philanthropic partners. In recognition of the Endowments' groundbreaking work in early childhood development over the past 20 years, Marge Petruska, senior program director for Children, Youth & Families, was invited to participate in the White House summit launching the initiative.



With support from a \$50,000 grant from The Heinz Endowments' Environment Program, Pittsburgh's Office of Public Art recently brought "Particle Falls" to the city's Downtown. The art installation by digital-media pioneer Andrea Polli was projected on the façade of the Benedum Center as a large-scale, real-time visualization of air-quality data, which appeared to rush down the building's exterior like a waterfall. "Particle Falls," which has been in several cities across the world, was displayed in Pittsburgh from Nov. 17 through Jan. 2.

Small arts, big impact More than 120 Pittsburgh artists, arts organization leaders and arts supporters gathered in October at the Hill House Association's Kaufmann Center for "Celebrating the Unsung Majority in the Pittsburgh Arts Community," which focused on ways to promote the importance of small and mid-sized arts organizations in enriching the region's cultural fabric. The one-day event was sponsored by The Heinz Endowments and The Pittsburgh Foundation, and included discussion sessions revolving around "The Unsung Majority," a study that looks at the growth, contributions, challenges and artistic evolution of arts organizations with budgets under \$1.5 million. The research was conducted by Boston-based TDC—Technical Development Corporation—a nonprofit consulting and research group. The study was commissioned by a consortium of small arts funders, which included the



Endowments, The Pittsburgh Foundation, the Allegheny Regional Asset District and the Greater Pittsburgh Arts Council.

#### AFRICAN AMERICAN MEN AND BOYS

Making stronger connections About 50 nonprofit leaders who head programs that work with African American males in the Pittsburgh region met with representatives of the Institute for Black Male Achievement in October to learn more about connecting with each other locally and with similar organizations in other parts of the country. The Endowments' African American Men and Boys Task Force co-sponsored the event with the institute, which is a national membership network that provides guidance and support to leaders and organizations committed to improving the life outcomes of black men and boys through systemic change.

Better life lessons Also in October, about 150 educators and policy leaders gathered at the University of Pittsburgh for the education summit "Are Academics Enough?" to discuss promising strategies for helping black males develop nonacademic skills that can bolster success in learning and life. The event was co-sponsored by The Heinz Endowments' African American Men and Boys Task Force and Pitt's School of Social Work and Center on Race and Social Problems. Keynote speaker Howard Fuller described how individual grit, self-efficacy and resilience contribute to transformational learning. A nationally

recognized education-reform advocate, Fuller is an education professor at Marquette University in Milwaukee and founder/director of its Institute for the Transformation of Learning. He is known for participating in Black Power and African Liberation movements in the 1960s and 1970s as well as for instituting a controversial private school

a controversial private school voucher system while serving as superintendent of the Milwaukee Public Schools in the 1990s.

#### STAFF AWARDS

Carmen Anderson, an Endowments Children, Youth & Families senior program officer, and Melanie Brown, the foundation's Education program officer, have each been honored recently for the positive impact they have made on the Pittsburgh region. Brown was selected as one of 2014's "40 Under 40," a recognition program sponsored by Pittsburgh Magazine and PUMP—the Pittsburgh Urban Magnet Project — to celebrate young leaders who are making a positive difference in Pittsburgh. Anderson was chosen by the New Pittsburgh Courier as one of 50 Women of Excellence, which recognizes local

African American women

for their contributions to

the community.







#### STUDIES. FINDINGS AND OUTCOMES

Air and autism A Heinz Endowments-funded study by the University of Pittsburgh's Graduate School of Public Health has found that children with autism spectrum disorders are more likely to have been exposed to higher levels of certain air toxics during their mothers' pregnancies and their first two years of life than youngsters without the condition. Children from southwestern Pennsylvania who participated in the study were born between 2005 and 2009 and lived in Allegheny, Armstrong, Beaver, Butler, Washington and Westmoreland counties. Because little research had been done previously on the connection between air toxics and autism spectrum disorders, Pitt scientists report that more study needs to be conducted.

Parent power Another Endowments-supported study, this one conducted by Brown University's Annenberg Institute for School Reform, determined that there has been little community-based work aimed at empowering Pittsburgh parents to have more of a say in what they want in their children's schools. In response to the findings, the Endowments is investing nearly \$585,000 in efforts by 10 competitively selected community groups to train and organize parents to advocate on behalf of their children's education. The organizations will be working with Annenberg to boost parent engagement in the Pittsburgh Public Schools.

Summer learning scores The Pittsburgh Public Schools has received some good news about its Summer Dreamers Academy, which was among five summer learning and enrichment initiatives evaluated by the RAND Corp. Funded by the New York-based Wallace Foundation, the study found that the 5,600 students who attended the summer programs, most of whom came from low-income families, noticeably improved in math. And of the five districts studied, Pittsburgh students performed the best. The results did not indicate an immediate impact on reading.

Pittsburgh school officials used federal stimulus funds in 2009 to launch Summer Dreamers, which has received support from The Heinz Endowments over the past six years, including a \$300,000 grant for this year's program. In 2011, Pittsburgh and the other four districts in the study — Boston; Dallas; Duvall County, Fla.; and Rochester, N.Y. — received funding from the Wallace Foundation as part of its six-year National Summer Learning Project. Release of the RAND results followed a national survey by the Grantmakers for Education's Out-of-School Time Funder Network, which found that, for philanthropies, practitioners, researchers, educators and advocates, the four most desired outcomes for out-of-school-time funding were improved academic achievement, increased student engagement, positive youth development, and 21st-century skill building. The Endowments is a member of the network and GFE.

#### THE HEINZ ENDOWMENTS

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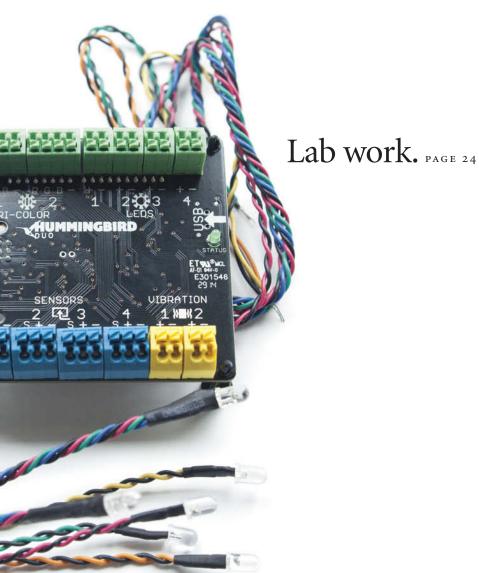
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