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Fortifying 4-H with Research

Scientists are studying how to
improve New York's largest
youth development program.
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What's

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Cornell's College of Human Ecology publishes
this magazine to illustrate how its programs
address complex societal issues to improve the
human condition. This mission of human improve-
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in research, outreach, and teaching—with an
emphasis on an ecological perspective, collabora-
tive projects, and multidisciplinary curricula within
and across five academic units: the Department of
Design and Environmental Analysis; the Department
of Fiber Science & Apparel Design; the Department
of Human Development; the Department of Policy
Analysis and Management; and the Division of
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*Toddlers play on new furniture
models designed and
constructed by DEA students for
the Dryden Head Start.*

*ON THE COVER: Biology and
Society senior Kylie Repasy and
a child inspect a cage of
spiders at a 4-H after-school
program for Ithaca youth.*

Photos by Mark Vorreuter

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Bringing Research to New York's Communities

In 2012, we celebrate the 150th anniversary of the Morrill Act of 1862 that established the land-grant system of universities in the United States. It would be hard to overstate the positive impact of that mandate to offer higher education to the broader public in every state. As part of the land-grant system, Cornell University exemplifies the ideal of public higher education.

This issue of *Human Ecology* features our 4-H program—the largest youth development organization in New York—and statewide nutrition education programs, examples of successful long-running extension programs that we continue to improve through research and evaluation. Additionally, more than 50 ongoing outreach projects are driven by faculty research at the college. We are meeting the changing needs of families and communities by applying the translational research model, adapted from the medical field's approach to moving lab discoveries from “bench to bedside,” to the social science disciplines that dominate our work.

As we celebrate historic commitments to public higher education and our inextricable link to communities, two new faculty members in the Department of Policy Analysis and Management are adding to a growing body of research on what is working for kids in schools as early as age 4 up to age 24. The same educational system that grew from sweeping calls for access like the Morrill Act is as critical today as any time in the past. We hope to support an informed and valuable public debate in this area.

Alan D. Mathios, Rebecca Q. and James C. Morgan Dean
The College of Human Ecology

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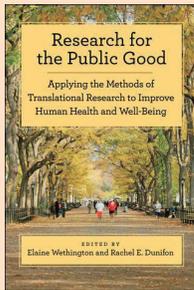
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In Short



New book details the value of translational research to social sciences

A new book co-edited by Elaine Wethington, professor of human development and of sociology, and Rachel

Dunifon, associate professor of policy analysis and management, shows how translational research applies to the social and behavioral sciences, with the potential to improve education, disease prevention, health care access and delivery, and more. Published May 15 by the American Psychological Association, *Research for the Public Good: Applying the Methods of Translational Research to Improve Human Health and Well-Being* promises to be a valuable how-to for graduate students and early-career scientists seeking to do translational research.

Workshops teach NYC residents how to 'live greener'

Cornell Cooperative Extension—New York City educators have been conducting workshops on energy efficiency and conservation, healthy homes, and sustainable living for the city's residents in affordable housing units. They hope to reach 900 such citizens in 2012. Sustainability educators teach people eco-friendly habits, such as shutting off electronics when not in use and eating more whole grains. "Sustainable living to some people may sound like an ivory tower ideal, but with a little bit of push, people can realize it really applies to their daily lifestyles," said Cornell undergraduate Richard Mai, a project intern.



Playing with little ones brings child development to life

A new program, Big Red Buddies, places Cornell students at the Cornell Child Care Center to read to and play with the children. Formed last fall by Elizabeth Stilwell, lecturer and teaching liaison in human development (HD), the program has grown to include 50 students spending one to two hours per week with children. HD sophomore Michael Verini, who helps coordinate the program and volunteers at the center, said: "Ultimately, we hope to extend Big Red Buddies to include off-campus, community-based child care programs to increase the diversity of settings."



Obama's election changed racial identity of black students

Human development professors Anthony Burrow and Anthony Ong found that Barack Obama's historic election in 2008 changed African-American college students' perceptions of being black. For the study, published in *Developmental Psychology*, the researchers surveyed more than 300 black undergraduate students on the importance of race

to a person's self-concept (centrality), whether or not they feel good about being part of their racial group (private regard), and how they perceive their racial group to be viewed by others (public regard). The team found increases in all three aspects of racial identity immediately after the election. "One main message here is that important race-relevant social or political events can shift the way individuals think about their race as well as their perception of how others view their race," Burrow said.

Speaker urges consumers to get political about their food

Marion Nestle, professor of nutrition, food studies, and public health at New York University and a former visiting professor of nutritional sciences in Human Ecology, believes calories are at the heart of the two most important food issues facing the world today: food security and obesity. As the inaugural speaker of the Joyce Lindower Wolitzer '76 and Steven Wolitzer Nutrition Seminar in February, Nestle said, "Calories can't be seen, they can't be smelled, and they can't be tasted," leading to confusion about what exactly a calorie is and why it matters.

Nestle and Malden Nesheim, professor emeritus of nutritional sciences, have co-authored a new book, *Why Calories Count: From Science to Politics*, on the topic. Nestle's solution is to "get political"—consumers can help change the food environment by supporting farmers' markets, neighborhood access to healthy food, and accurate food labeling.



Parent educators, researchers share wisdom at conference

Nearly 50 Cornell Cooperative Extension (CCE) parent educators from across New York gathered in Ithaca in January to hear the latest evidence on effective child-rearing from Cornell professors and extension associates. At the annual in-service conference, sponsored by the Parenting in Context initiative, parent educators also shared some of their wisdom for helping families and caregivers, as they traded tips and spoke about their counties' outreach programs to build parenting skills. Cornell presenters included Jennifer Tiffany, director of outreach and community engagement for the Bronfenbrenner Center for Translational Research (BCTR); Janis Whitlock, BCTR (pictured, above); and Maria Fitzpatrick, assistant professor of policy analysis and management.



Fashion students shine in scholarship contest

Seven undergraduates in the Department of Fiber Science & Apparel Design (FSAD) each received \$5,000 scholarship awards in the annual YMA Fashion Scholarship Fund competition. Winners Mariana Barreto, Amelia Brown, Susan Freeman, Matthew Gottesman, Brittany Lutz, Suyoung Min, and Lulu Mu were judged on multiple factors, including GPA, industry internship experience, an interview with a YMA board member, a personal essay, and their performance on the competition's case studies, which assess their business acumen and fashion design skills. FSAD associate professor Van Dyk Lewis and senior lecturer Anita Racine advised the students throughout the competition.



Kids under chronic stress more likely to become obese

A new study in *Pediatrics* by Gary Evans, the Elizabeth Lee Vincent Professor in the departments of Human Development and of Design and Environmental Analysis, suggested that ongoing stress makes it tougher for children to control their behavior and emotions. That, in turn, can lead to obesity by their teen years. "There's some evidence that parts of the brain that are vulnerable and sensitive to stress, particularly early in life, are some of the same parts involved in this self-regulatory behavior," Evans noted. While the study doesn't prove that a child's inability to delay gratification causes weight gain, there's strong evidence to suggest that it does, Evans added.

Fedrizzi speaks on sustainability at Beyer Lecture

Rick Fedrizzi, president, CEO, and founding chair of the U.S. Green Building Council (USGBC), a nonprofit dedicated to improved cost- and energy-efficiency in buildings, delivered the inaugural Glenn H. Beyer Memorial Lecture on campus in April. Speaking on "People, Planet, and Performance," Fedrizzi discussed the USGBC's oversight of the Leadership in Energy and Environmental Design (LEED) green building rating system and other efforts to plan more eco-friendly communities and structures. During his visit, Fedrizzi also met with student leaders from Cornell University Sustainable Design, toured the new Human Ecology Building, which is striving for a LEED Gold rating, and visited DEA assistant professor Ying Hua's undergraduate design class.



Fedrizzi (right) presents Dean Alan Mathios and college facilities director Kristie Mahoney with the U.S. Green Building Council's LEED Gold certification plaque for renovations to the east wing of Martha Van Rensselaer Hall.

Cohabiting couples are happier than wedded ones

Kelly Musick, associate professor of policy analysis and management, found that wedded couples experience few advantages in psychological well-being, health, or social ties compared to cohabitating couples. The study, published in the *Journal of Marriage and Family*, reported a spike in well-being immediately following both marriage and cohabitation, though those benefits are fleeting. "While married couples experienced health gains—likely linked to the formal benefits of marriage such as shared health care plans—cohabitating couples experienced greater gains in happiness and self-esteem," Musick said. "For some, cohabitation may come with fewer unwanted obligations than marriage and allow for more flexibility, autonomy, and personal growth."



Scientists at the Bronfenbrenner Center for Translational Research are studying how to improve New York's largest youth development program.

Fortifying 4-H

BY TED BOSCIA

On a warm late afternoon in March, a group of grade-schoolers are running low on patience. The six kids, participants in the 4-H Urban Outreach Program offered by Cornell Cooperative Extension of Tompkins County, are wriggling in their seats around a table in the lower level of a large, two-story room at Ithaca's West Village Apartments.

They live in the building with their families, and on this day they've welcomed Heather Connelly, a graduate student in entomology with the Cornell Naturalist Outreach Program. Connelly has brought along a few guests of her own: spiders, giant peppered roaches, and vinegaroons—close cousins of arachnids that spray a vinegary acetic mist when startled. There are crickets, too, though they're fated to be snacks for the spiders.

The kids, ages 5 to 8, have listened attentively throughout Connelly's lessons and activities on insect communication. But young children can be expected to sit still for only so long when there are bugs present; they are itching to see and touch the critters up close.

At last, it's time. Connelly invites them over to the cages and opens the lid on a case of peppered roaches, which clamber atop one another and on a hunk of wood. She pulls out a large female—about the size of an egg—and lets it skitter down the arm of a girl, who squeals and laughs. Other children are watching spiders size up their lunch or trying to catch a whiff of a vinegaroon's distinctive scent. It's a happy commotion—what Connelly later called “contagious excitement.”

The hubbub over bugs is a common scene at West Village Apartments, home to twice-weekly 4-H after-school sessions for young kids and teens. Program manager Jamila Walida Simon tries to incorporate science into nearly every lesson—one of the three mission mandates for 4-H is science, technology, engineering, and math—so the children are often in the complex's garden, exploring nature, or learning alongside a Cornell expert.

“We view ourselves as an extension of the school day, a way to continue building the knowledge they are getting in the classroom,” Simon said.

The Ithaca program is one of hundreds operating across New York through the reach of Cornell Cooperative Extension (CCE). 4-H, the largest youth organization in the United States, provides programs in nearly every city and county of the state through camps, clubs, after-school and school-based projects, and other settings. In 2009–2010, almost 17,000 volunteers and 113,000 youth from urban, suburban, and rural communities participated in 4-H. Healthy lifestyles and citizenship, along with fostering an excitement for science, are the main program components at every site. As with the children at West Village Apartments, the emphasis is on hands-on activities, where kids learn by doing. >>>

A “cloverbud” at the West Village Apartments 4-H after-school program directed by Cornell Cooperative Extension of Tompkins County reads during a designated story and homework period.





Above: Cornell graduate student Heather Connelly shows children a video on insect communication. Right: Program manager Jamila Walida Simon helps a child with his homework.

While 4-H educators and volunteers are getting New York children and teens charged up about science, the state program is going under the microscope. With oversight of 4-H transferred to the College of Human Ecology's Bronfenbrenner Center for Translational Research (BCTR) last fall, 4-H is being intensively studied by BCTR researchers to uncover evidence on the most effective youth development strategies. The need is critical, not only to further improve programs that are shown to propel youth down a positive path for life, but to demonstrate 4-H's worthiness at a time when lawmakers and the public are closely counting where tax money goes.

Being anchored in the BCTR, 4-H educators, volunteers, and program leaders enjoy connections to youth development experts, and vice-versa. The goal is a "continuous exchange between scientists and practitioners," said Valerie Adams (see sidebar, page 7), CCE assistant director and New York's 4-H Youth Development Program leader.

"The idea is to embed research in every facet of 4-H," added Stephen Hamilton, professor of human development and BCTR associate director for youth development. "The content young people learn at 4-H, whether about robotics or nutrition, should be rooted in sound science, and the entire system under which 4-H operates should be tested and improved to maximize positive impacts on youth. Every decision should be informed by findings on the needs of young people and the needs of educators, volunteers, and staff to deliver the most effective programs."

Research on youth is scant

Studies by Richard Lerner, a renowned youth development researcher at Tufts University, have conclusively shown that 4-H succeeds at preparing youth for the demands of adulthood. In a large longitudinal survey, for instance, Lerner found that—controlling for various social and economic factors—young people who participate in 4-H show developmental advantages compared to their peers who do not. This difference is why nearly every 4-H program in the country touts its ability to foster "life skills" in youth.

Still, Hamilton concedes, researchers are looking at an incomplete picture when it comes to understanding why 4-H

works, what programs and practices are best, how they should be delivered, and how they should be evaluated. Cornell and other land-grant universities have produced some valuable evidence, to be sure, but the study of youth development is minimal compared to the roughly \$60 billion spent annually in the United States on medical research. In contrast, Hamilton estimates about \$5 billion per year is devoted to social science research on all populations, of which a fraction is targeted at youth development.

"I've been involved with 4-H for a long time," said Hamilton, who joined Cornell in 1974 as an extension associate focused on youth and community, "and there are recurring debates about the role of competition in youth development programs, how to retain youth and volunteers longer, and other important topics. Rarely would anyone ask, 'what does the research tell us about this issue?' That's not a discredit to the program leaders and front-line volunteers, who are working long days and weeks to make programs succeed and don't often have time to stop and evaluate. It's a recognition that research has to go hand-in-hand with practice."

Since oversight of 4-H was transferred to the BCTR, program leaders are taking concrete steps to close the gap between the two. For the first time, a project is bringing together campus researchers and 4-H educators, volunteers, and youth to evaluate and enhance the operations of the entire 4-H system. Overseen by Hamilton, Adams, and other BCTR leaders, the three-year study, known as "Making the Best Better: Research for Continuous Improvement of 4-H," is funded by a grant from Cornell Cooperative Extension.

Angela Northern, regional 4-H research specialist based in Erie County, leads a team of 16 4-H educators in the state's western district (Erie, Genesee, Orleans, Niagara, and Wyoming counties) to identify a handful of critical issues that might be solved by research. They began discussions last fall and appear to have homed in on a few common challenges: youth leaving 4-H as they age, difficulties recruiting and retaining program volunteers, and a lack of data on the costs and benefits of county fairs.

"It is so valuable to have the local educators involved from the start, because they see every day what is working and what needs improvement," said Northern, a former 4-H

educator on special assignment for the project. “This ensures that the research will be in areas that matter to them.”

The group is at the beginning of a four-step cycle known as Plan-Do-Study-Act. Once they settle on the key issues,

“The idea is to embed research in every facet of 4-H. The content young people learn at 4-H, whether about robotics or nutrition, should be rooted in sound science, and the entire system under which 4-H operates should be tested and improved to maximize positive impacts on youth.”

—Stephen Hamilton

Northern and others will examine the existing research to seek out possible solutions. At the same time, they also will draw on firsthand observations by educators, youth, and volunteers to develop possible fixes. Once they devise a plan, they’ll try it out, all the while studying its implementation and outcomes. The knowledge generated could lead to new standards for youth development programs and practices or spawn additional research questions, starting the cycle anew. The findings will be shared widely across Cornell Cooperative Extension and with other land-grant universities to broaden the group’s impact.

“There’s a great deal of excitement among the educators to apply more objective evidence to what we’re doing,” Northern said. “The researchers at the Bronfenbrenner Center are helping us to test what we think to be true based on our experience in the field. But we’re often working at such a high rate of speed that it can be hard to pull back and measure the impact you’re having beyond just anecdotal impressions.”

Take poor youth retention, for example. It’s a problem that plagues not just 4-H but nearly every youth development program. Kids get involved in 4-H at a young age but drop out as their parents move around or as sports and other school-based extracurricular activities limit their free time. A few small studies suggest that teens want more control over program activities, so the Cornell team might test ideas to give teens a greater voice in 4-H to help boost satisfaction and retention.

“There’s a sense that the longer kids stay with the program, they gain more developmental advantages and are able to become role models for younger kids and to have a large impact in their community,” Hamilton said.

That sense appears to be validated at the West Village Apartments 4-H after-school program, part of a neighborhood-based approach applied at two other locations in Ithaca to reach youth in the places they call home. Shortly

New 4-H Director Brings Wide-Ranging Experiences



Soon after 4-H oversight moved to the BCTR, the program also gained a new director: Valerie Adams, who became New York’s 4-H Youth Development Program leader and CCE assistant director this past August.

From Philadelphia to South Africa, Adams has worked extensively with youth and planned related research projects in a variety of settings. Most recently, she was research coordinator for the Preventing Long-Term Anger and Aggression in Youth Project at the University of Pennsylvania, where she helped develop and implement culturally relevant interventions for minority youth.

A former 4-H educator in Philadelphia—her hometown—she also has worked with Junior Achievement, Children’s Defense Fund Freedom School, 21st Century Community Learning Center, Center for Youth Development at the United Way of Southeastern Pennsylvania, and as a lecturer in Namibia.

“What’s appealing to me about this position is the opportunity to support people who work directly with young people,” Adams said. “And with the translational model, we are working to get valuable research findings and data out to practitioners and young people in a much shorter time span, where we can have the greatest impact.”

Adams fondly remembers assisting children with the popular embryology 4-H project, in which kids care for fertilized eggs and young hatchlings. Another project, Kids and Cash, helped children learn to comparison-shop and stretch their budget.

“When you are working with youth, it’s always so rewarding when you can see the positive changes that occur over time,” said Adams, who holds degrees from Philadelphia University, Temple University, and the University of Pennsylvania. “I’m looking forward to helping to gather the evidence to document that change and to make recommendations for youth development that can go far beyond a single program. In the big picture, knowing what works best for youth development will have a major impact on our nation’s educational and global competitiveness.”

after the program for “cloverbuds”—the elementary-age kids—ends, a group of preteens moves in. The same components apply—science, engineering, and technology, healthy lifestyles, and citizenship—only with greater sophistication. The preteens support older youth with community service projects, including a fundraiser to sew and sell handmade 4-H aprons.

“It’s so hands-on and educational and the kids just love it,” said program manager Simon. “The older ones do a great job of taking the young kids under their wings. We want to expose them to a whole range of experiences and let them see the many opportunities.”

It’s the conditions that lead to these experiences that College of Human Ecology researchers are trying to isolate and replicate. The stakes couldn’t be any higher, according to Hamilton.

“Improving youth development is important for so many reasons with great implications for society,” he added. “When young people are able to learn and develop personal and social competence not only in school but out of school, they will eventually become productive workers, engaged citizens, and nurturing family members. We want to match the research and practice to do everything we possibly can to help young people achieve those long-term objectives.” ● ● ●

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Doing Good **by Design**

BY TED BOSCIA

Professors Paul Eshelman and Gary Evans like to push their students beyond “their realm of familiarity.” This belief has led to some unexpected encounters: meetings with disadvantaged teens at Boys & Girls Club of America locations, observations of toddlers in daycares, collaborations with physically disabled students and facilities managers, and sit-downs with elderly residents at senior centers and retirement homes.

“It’s always an exciting scene—how much experience does a 20-year-old Cornell student have with preschool education or the lives of 75-year-olds?” said Evans, the Elizabeth Lee Vincent Professor in the departments of Design and Environmental Analysis (DEA) and of Human Development.

Each fall for the past 16 years, the professors have been inducing their students into the unknown as part of a partnership between two courses: Evans’s The Environment and Social Behavior and Eshelman’s Junior Design Studio. The students team up to tackle technology and design challenges faced by community facilities that serve populations with out-of-the-ordinary needs. One year, that charge led them to research, design, and build exercise and physical therapy spaces for residents of Kendal at Ithaca, a retirement community. Another time they studied and fabricated activity modules—spaces for homework, games, art, and other pursuits—in consultation with facilities executives from the Boys & Girls Club of America.

“By focusing on users whose needs are different than their own, the design students can’t just fall back on their personal experiences,” said Eshelman, professor of design and environmental analysis. “They’re forced to work closely with the client to develop solutions. It’s directly translatable to >>>

(l-r) Justine Dupal '11, DEA professor Lorraine Maxwell, and librarian Kluane Synder view floor plans developed by Maxwell's students during a tour of the revamped library at Caroline Elementary School.



MUST & IDEAL	
MUST	IDEAL
Name	
Age	
Gender	
Address	
Phone	
Interests	
Reading Habits	
Learning Style	
Strengths	
Weaknesses	
Goals	
Notes	





Gary Evans (left) and Paul Eshelman see firsthand how children respond to new play spaces designed by their students at the Dryden Head Start.

the work world, where you're on a team and have to rely on the input and expertise of others."

In the DEA department, Evans and Eshelman are not alone in providing students with hands-on opportunities with real-world clients. In the popular course Programming Methods and Design, professor Lorraine Maxwell's students have advised area schools, local nonprofits, a Syracuse center for people with Alzheimer's disease, Habitat for Humanity as it constructed an energy-efficient home in Cortland, N.Y., and a new grocery store planned for Ithaca's north side. Lecturer Rhonda Gilmore seeks out community agencies,

"By focusing on users whose needs are different than their own, the design students can't just fall back on their personal experiences. They're forced to work closely with the client to develop solutions."
—Paul Eshelman

such as the Ithaca Cancer Resource Center and the Alcohol and Drug Council of Tompkins County, that don't have the budget to hire professional designers and facility planners.

"Our students are hungry for this kind of work; they want to use design to make a difference for compromised communities or people who might otherwise go without such assistance," Gilmore said. "Design thinking is a powerful catalyst and has applications for many social issues."

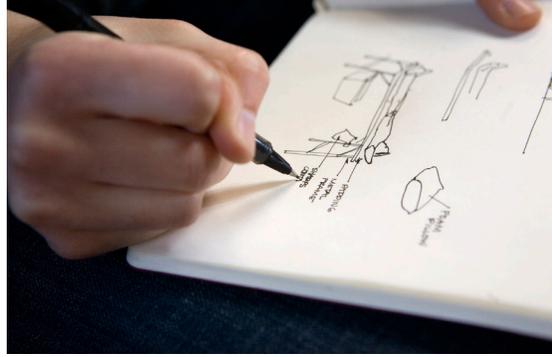
In that way, the College of Human Ecology's DEA students are emblematic of a growing national movement at

top universities to use design to do good. Through the Cornell Design for America (DfA) studio, for instance, DEA students and their peers in the College of Architecture, Art, and Planning and the College of Arts and Sciences are engendering healthy living, sustainability, and other common good on campus and in the Ithaca area. (Last fall, four DEA students and alumni involved in DfA graced the cover and pages of business magazine *Fast Company* in an ode to the power of design.) Cornell's DfA studio, advised by DEA lecturer Leah Scolere, meets regularly outside class to explore solutions to local issues. "Our students are really attracted to the notion of human-centered design, which is a point of emphasis in our curriculum and also a priority of Design for America," Scolere said.

Good design not only bridges Cornell and the surrounding community, it also links students within DEA, which offers degree options in interior design, human factors and ergonomics, and facility planning and management. In the case of Evans and Eshelman, offering the two distinct courses—Evans's is for undergraduates on DEA's facilities planning and management or ergonomics tracks, while Eshelman's is geared toward interior design majors—allows students to venture even deeper into unfamiliar realms.

Evans's students assume the role of behavioral consultants, studying the social, cognitive, and developmental needs of a facility's users. Their findings inform the sketches, spatial layouts, and full-scale models devised by their design counterparts. With most top design firms espousing the power of evidence-based solutions, students leave the courses appreciating both components—analytical research and creative vision—demanded by good design.

"My students supply the evidence and information on the population needs, and Paul's students interpret that in the



Sketches and well-researched floor plans and programming documents by DEA students provide the basis for furniture models and new layouts for community facilities.



context of design,” Evans said. “The magic occurs when you put the two together.”

Looking from all perspectives

Gary Evans believes that “what might be good for the kid might be bad for the janitor.” It’s his way of remembering that good design accounts for the needs of all potential users of a space—not just children and teachers at a daycare, for example, but parents, administrators, the general public, and the workers who clean the floors each night. “We’re trying to increase students’ sensitivity to everyone who enters a space,” Evans added. “So they think about it from the perspective of the janitor, of the teachers, of the kids and their family members—anybody who has a stake in the operations of a facility.”

With that in mind, Evans’s and Eshleman’s students last fall transformed the classrooms at the Tompkins Cortland Community College (TC3) Head Start, which serves toddlers ages 3 to 5 from low-income families. They formed teams focused on three priorities: transition, the entryway where parents drop off children and store their belongings; nourishment, the central room where children eat and gather; and enrichment, multipurpose areas for play and group activities.

To start, the students observed children in the space, interviewed teachers, and heard from staff and administrators about their greatest challenges and also met with Cornell Cooperative Extension, community, and faculty members with expertise in early child care education and development. The behavior science students read research findings on child development and prepared recommendations for the design teams. In ideation sessions—brainstorms where the teams jotted down dozens

“We’re trying to increase students’ sensitivity to everyone who enters a space. So they think about it from the perspective of the janitor, of the teachers, of the kids and their family members—anybody who has a stake in the operations of a facility.”

—Gary Evans

of ideas—the students translated these data into design interventions. After more consultations with TC3 Head Start leaders and Cornell and community experts, the students custom-built colorful wooden furniture where the toddlers can eat, play, learn, and socialize.

Their creations, Eshelman said, are “innovative solutions” that “break out of the box of conventional practice.” The new transition area, for example, includes nook-like cubbies where children can stow their coats and backpacks, but also a space to sit and draw on a small easel.

Junior interior design student Arielle Levy called the collaboration with her behavioral science peers “a wonderful change and addition to our usual design process.” She valued their insights into toddlers’ developmental needs and enjoyed

the challenge of incorporating their evidence-based recommendations into the design teams’ aesthetic vision. “Their research gave our resulting concepts more meaning because of their social, cognitive, and developmental relevance,” she added.

In three other local school settings, DEA students taught by Lorraine Maxwell have applied a similar approach to create optimal learning environments based on the needs of faculty, students, and staff. At Ithaca’s Fall Creek Elementary School, Maxwell’s students helped redesign the library as administrators sought to upgrade it from a traditional book-based set-up to one focused more on digital resources. The year before, at New Roots Charter School, a new Ithaca public high school located in the 180-year-old Clinton House, they helped school leaders convert the one-time hotel into a proper educational environment. Maxwell’s course also recently aided Caroline Elementary School as it upgraded its library on a shoestring budget.

In every case, Maxwell emphasizes a three-pronged “must, should, could” strategy to help clients with limited or,



Large photo: For a project at an Ithaca retirement community, DEA students worked in the college's wood shop to build attractive noise-reducing screens to make the facility's dining spaces more intimate. Inset: DEA lecturer Rhonda Gilmore (right) and Stefana Scinta '11, MS '12, tour a Red Cross mobile blood donation site to explore how to improve wayfinding and ease donor anxiety.

sometimes, no extra funds to spend on design enhancements. “Musts” are the low- or no-cost improvements required to make spaces function better, “shoulds” are more substantial changes, and “coulds” are pricier wall-to-wall overhauls. The students’ advice comes with detailed programming documents to recommend new spatial layouts and options on furniture, carpet, and other needs.

“Having to work within the constraints of a real budget gives the students a great challenge,” Maxwell said. “If the sky is the limit, they don’t get practical experience of having to meet the demands of a client.”

Sometimes, no-cost solutions blossom into something more. In the Caroline school, simply by rearranging existing furniture, students were able to relieve congestion near the library’s circulation desk and provide clear lines of sight for staff to keep an eye on children. After the success of the initial redesign, school leaders later approved funds to revamp its computer lab based on Maxwell’s students’ more ambitious plans.

To DEA professors and students, first-rate design is critical to improving education, the environment, health care, and individual and societal health and well-being. Nowhere is that more evident than a recent project by Rhonda Gilmore’s students, who rethought the everyday experience of giving blood for regional Red Cross leaders.

It turns out that only 4 percent of eligible Americans donate blood, which leaves the Red Cross struggling to maintain its supply. Most people shy away for two reasons: needle anxiety

and concerns about how long it takes to donate. Gilmore’s students addressed both through design interventions.

For mobile blood donation sites—portable pop-ups that are set up and broken down in one day—they created landmarks, signage, and layout recommendations to make the site more soothing and to usher people through the process more quickly. It is being piloted in Buffalo and studied as a potential model for other Red Cross mobile sites.

“I’m always impressed by what students are able to accomplish over a single semester on a limited budget,” said Gilmore, whose office is adorned with photos of each group of her students who have done such community projects since 1999. “The assignments challenge their skills and creativity and require them to dig deep to understand the issues. But their enthusiasm and commitment to design as a means to serve humanity makes every project memorable.” ● ● ●

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Recipe for Success

BY SHERI HALL



Interactive lessons are central to the Navigating for Success curriculum used to train frontline nutrition educators.

More than 22,000 low-income families in New York each year learn about food safety, portion size, and how to stretch their dollars at the grocery store, through a series of nutrition programs given by Cornell Cooperative Extension. In one particularly powerful lesson, nutrition educators ask participants to calculate and measure out the amount of sugar in a variety of beverages. Most people are surprised to see the pile of sugar contained in beverages like fruit juice and soft drinks.

The educational curriculum is compelling and practical—designed to give participants tools they can use to save money and improve their families’ nutrition. But less than a decade ago, the program was entirely different.

“There was very much a teacher-classroom dynamic,” said Joan Doyle Paddock, a senior extension associate in the Division of Nutritional Sciences. “Some teachers were lecturing for the whole hour without taking questions. The content was more about the science of nutrition. But our participants don’t need to know what vitamin C does in their bodies. They need to know what to buy at the store, and what to do with it when they get home.”

In 1999, Doyle Paddock and nutritional sciences associate professor Jamie Dollahite brought together a team of extension professionals to create the training curriculum that became Navigating for Success. The evidence-based training course teaches frontline nutrition educators how to reach New Yorkers of modest means with engaging educational sessions that will help the participants improve their own nutrition and save money.

The course has transformed nutrition education in New York and many other states. According to surveys given to participants before and after they took Navigating for Success, educators’ skills have improved and participants in programs led by those educators make significantly greater behavioral changes. The benefits are spreading across the country; Cooperative Extension programs in nine other states have adopted parts or all of the program. >>>



Navigating for Success lessons, such as this training on the Cornell campus, are grounded in authentic, practical exercises.

Navigating for Success is used to train community educators who work in two Cornell Cooperative Extension nutrition programs: Expanded Food and Nutrition Education Program (EFNEP) and Eat Smart New York, which educates participants in the Supplemental Nutrition Assistance Program (formerly referred to as food stamps). Both of these programs help families and youth with limited resources follow the national dietary guidelines.

Lessons that engage the group

For more than 40 years, nutrition educators from Cornell Cooperative Extension (CCE) have visited families in their homes, often preparing a meal with them. But over the past three decades, most nutrition education has shifted from one-on-one to group sessions.

This shift has demanded different skills from nutrition educators. Instead of making a personal connection with participants, they needed to hone their group facilitation skills. But during on-site visits in the late 1990s, faculty members noted that many of the educators' group presentations didn't resonate well with participants.

"The curriculum we were using to train educators was old and outdated," said Jennifer Reardon, a regional coordinator for nutrition education with CCE. "They weren't teaching the type of class that adult learners would enjoy attending."

Reardon was part of the initial team that conducted a nationwide review of adult learning theory and nutrition curricula designed for the general public to find a new way to train frontline nutrition educators.

During their search, they met Joye Norris, a consultant with a doctoral degree in counselor education who envisioned a new way to help adults learn. She designed a model of teaching called the 4-A approach that creates a dialogue in the

classroom that encourages learners to share their own experiences. The method's steps: 1) Anchor—participants share personal experiences on the topic, 2) Add—the teacher explains new concepts, 3) Apply—the group uses the new concepts, and 4) Away—students talk about the takeaways from the lesson and how they will change future behaviors.

The Cornell team was intrigued by Norris's approach and decided to apply the principles in New York. They spent five years creating a new course called Navigating for Success that puts the 4-A approach to work twice—first when training the extension educators, and second when the educators teach program participants.

"We're not interested in them just gaining knowledge; we're looking for them to apply the information in their lives, making behavioral changes."

—Jamie Dollahite

"It's really engaging people head-on from the minute you're with them, but related to the topic at hand," Reardon said. "One of the rules is that we don't call on people, but allow them to join the conversation when they feel comfortable. A lot of our participants may not have done well in school or may have low self-confidence. When they see we're not going to put them on the spot or tell them they're wrong, they're much more willing to participate."

The curriculum includes 19 units designed to teach educators who don't have formal nutrition training how to

facilitate group presentations. Nutrition educators learn to include a food experience with every lesson. In one session, educators learn to lead a class where participants plan meals for an entire week and make a shopping list for those meals. In another, educators show participants displays of how germs grow and spread in their kitchens.

“The curriculum is really interactive. People participate more, they ask more questions, you can see participants’ minds moving. It’s been an amazing transition.”

—Jennifer Reardon

In 2004, CCE piloted the program with newly hired nutrition educators and then evaluated the new curriculum. At the beginning and end of every nutrition education series, participants take a survey about their grocery shopping, food preparation, and eating behaviors. The evaluations also ask about specific behaviors, such as whether participants wash their hands before eating or if they use a shopping list.

“We’re not interested in them just gaining knowledge; we’re looking for them to apply the information in their lives, making behavioral changes,” Dollahite explained.

The new curriculum showed a clear improvement over the old one. Once educators were trained in Navigating for Success, participants in their nutrition programs reported about 10 percent greater change in behaviors than did participants in programs led by educators not trained in this approach, a statistically significant increase. The new evidence made it clear: Cornell Cooperative Extension needed to implement Navigating for Success with the entire nutrition education staff—more than 300 people statewide.

“Some people were right on the bandwagon from the beginning, and others weren’t,” Reardon said. “But as the staff experienced the lessons taught in this different way, they began to see the value.

“The curriculum is really interactive,” she said. “People participate more, they ask more questions, you can see participants’ minds moving. It’s been an amazing transition. Now I can’t imagine going back.”

Neither can Tina Snyder, a frontline nutrition educator in Tompkins County. “When the program first came along, we were all a bit reluctant,” she said. “The teaching method seemed redundant. But the repetitiveness helps it become part of how you deliver your programming. You get so much conversation going as a result, and people really enjoy the lessons more.”

A culture shift across the nation

Once Navigating for Success was fully implemented in New York, the Cornell team began sharing the curriculum with extension professionals in other states. “The response has been extremely positive,” Dollahite said. “As far as we know, it was really the first program of its kind in the nation.”

In the past five years, Cooperative Extension programs across the nation have implemented parts or all of the curriculum. Among them is Ohio State University Extension. Joyce McDowell, an associate professor in the Department of Human Nutrition at Ohio State, heard about

Navigating for Success through a colleague who saw a Cornell presentation at a professional meeting.

McDowell and her colleagues had already hosted workshops on the 4-A process for their frontline nutrition educators, but the organization couldn’t change educators’ teaching style from lecture to dialogue-based sessions.

“We were looking for a systematic way to make this change,” she said. “Up to that point, we used a single-session approach to training. This was the first series of training classes that we adopted.”

The course translates well to other states because it uses universal principles for facilitating adult education and teaches many of the principles outlined in the U.S. federal dietary guidelines.

In 2009, all of Ohio’s frontline nutrition educators had been through the Navigating for Success program. As in New York, Ohio is using behavioral surveys to measure the impact of the curriculum, and they’ve seen significant improvement in participant behavior change.

“Land-grant universities have a responsibility to use science-based curricula and to document the quality of program outcomes,” McDowell said. “All of our nutrition educators have completed the training, and we’re seeing great results.”

The Cornell team has also worked with Cooperative Extension leaders in eight other states, helping them to integrate the approach into their programs.

“To say that we’ve been pleased with the results is an enormous understatement,” Dollahite said. “It’s changed the culture across the nutrition programs in Cornell Cooperative Extension, and now other states as well.” ● ● ●



Nutritional Sciences senior extension associate Joan Doyle Paddock leads a recent training.

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Dollars and Sense of **Education Policy**

BY SHERI HALL

Ensuring that children and young adults are well-educated and prepared for productive careers is a top priority in communities across the United States. How to achieve those goals and improve our education system is hotly debated at local, state, and federal levels—with policymakers and school administrators trying to make evidence-based decisions on everything from curricula to school funding and the value of standardized testing.

An expanding core of faculty members in the Department of Policy Analysis and Management (PAM) are having a direct impact on those debates, especially in the growing field of education economics. With two new hires in 2011—Damon Clark from Princeton University and Maria Fitzpatrick from Stanford University—the department now has five professors studying aspects of education policy.

“PAM’s group of education scholars focuses on critical issues in our public education system,” said department chair Rosemary Avery. “Their research informs the public debate over school performance on issues such as the effect of universal pre-kindergarten on children’s academic achievement, the impact of bilingual education on school performance, and the impact of higher education standards on student outcomes.”

Early start on the right track

Assistant professor Maria Fitzpatrick is examining the effects of early-childhood education on children’s long-term academic achievement. She has shown that universal preschool programs allowing children to start school at age four, instead of the usual age five, improve the academic achievement of low-income children and those in rural areas—while having no negative effects on the achievement of other children.

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Clockwise from upper left: Maria Fitzpatrick, Jordan Matsudaira, Michael Lovenheim, and Jennifer Gerner.

Professor Jennifer Gerner, also focused on early-childhood education, has found that children’s school experiences prior to kindergarten have an impact on their performance in kindergarten and beyond. Gerner compared achievement scores of children in states with varying mandatory ages to start school to assess what policy is best for kids.

“The evidence is increasingly piling up that the younger you start kids, the better off they’re going to be,” she said. “Early-childhood education has an impact on graduation rates for students 15 years down the road. Basically, if you miss something in your education early on, you don’t get a chance to make it up. When kids are 12, you can’t give them something back that they missed when they were four.”

Inducements for teachers

PAM faculty members are also investigating the most cost-effective methods to improve how we recruit, evaluate, and compensate teachers.

Assistant professor Michael Lovenheim delved into a teacher pay program in Texas that awards teachers when their students score well on standardized tests. “It’s something that policymakers seem to love on both sides of the aisle,” he said. “But the evidence is not as strong that this works in developed countries.”

Fitzpatrick’s work has focused on whether public school employees value their retirement benefits at the same level it costs taxpayers to provide them.

“Given the potential burden on taxpayers of public-sector wages, the importance of education for economic success, and the stark contrast to private-sector compensation mechanisms, determining compensation structures for public school teachers that attracts the highest-quality teachers is an imperative,” she said.

Fitzpatrick’s research has found that public school teachers do not value increases in their retirement benefits at a level that justifies the costs of those benefits. Paying teachers higher current wages and lowering their retirement benefits

Human Ecology courses related to education policy and economics:

- Child Policy taught by Jennifer Gerner
- Waiting for Superman? Perspectives on the ‘Crisis’ in American K–12 Education taught by Jordan Matsudaira
- Education and the Labor Market taught by Damon Clark
- Education Policy taught by Maria Fitzpatrick
- Education Economics and Policy Analysis taught by Michael Lovenheim

Fitzpatrick's research has found that public school teachers do not value increases in their retirement benefits at a level that justifies the costs of those benefits. Paying teachers higher current wages and lowering their retirement benefits would therefore be a more efficient way of attracting good teachers into public schools.

would therefore be a more efficient way of attracting good teachers into public schools.

Together, Lovenheim and Fitzpatrick are looking into teacher retirement incentives and the impact of retiring teachers on children's academic achievement.

"The teacher labor force is aging, and a huge mass of teachers is approaching retirement now," Lovenheim said. "The question is what's going to happen when you replace these experienced teachers with new, young teachers."

The pair used data from all public schools in Illinois from the 1990s, when the state provided additional benefits to teachers who retired early. "For the most part, the retirements did not have a negative effect on students," Lovenheim said.

Low-down on higher education

Higher education is also an important field of study for Lovenheim. His project on public schools in Texas, with colleagues at the University of Texas at Dallas, links demographic information and test scores from students' school careers with their higher-education records and subsequent earnings. One aspect of the project traces how students move through the higher-education system.

"We have this idea that you're in high school, you apply to college, you go, and you graduate," Lovenheim said. "But over the past several decades, that model has been inaccurate. It's really more of a story of students moving across institutions and having enrollment gaps."

Students who start at community colleges, for example, with the plan of transferring to a four-year university tend to have lower graduation rates and earning potential. "The evidence is clear that it does hurt the student," he said. "Community colleges are serving so many different groups and with fewer resources compared to universities. When you expose students to lower resources, they tend not to do as well."

Lovenheim is also looking at the issue of how the real estate market impacts college enrollment. He's found strong evidence that students from lower-income families whose parents experience increases in housing wealth while they're in high school tend to go to more expensive universities with better resources and tend to graduate more often. > >

Beyond the Rhetoric: Education Policy in an Election Year

As the presidential campaign heats up, the political parties are developing their platforms on how to improve education. A few PAM experts discussed which policies are making the grade and which are failing.

The Obama administration's key policy to improve K-12 education—called Race to the Top—is designed to spur reforms by awarding extra funding to states that implement specific educational policies such as using test scores to measure teacher performance, promoting charter schools, and introducing computers to school districts.

While the policies promoted by Race to the Top appear to help improve student achievement, there isn't a body of evidence that proves they are effective across diverse populations, said Jordan Matsudaira, assistant professor of policy analysis and management.

"For example, a lot of money is available to states that use test scores to evaluate teachers, but there is not a lot of evidence about how these evaluations impact schools because this program has never been implemented on a large scale," he said.

Promoting charter schools is one policy that does seem to work, said assistant professor Damon Clark. But it's not clear if that's because principals have more autonomy to choose their teaching staff or because charter schools typically receive more funding than traditional public schools.

At the college level, the Obama administration's main policy to reduce college costs was to increase Pell Grant and subsidized Stafford loan levels—changes that have fostered college attendance, according to assistant professor Michael Lovenheim. But the administration has not focused on the students who drop out of college, he said. Fewer than half of students who start college obtain their four-year degree, and that share is declining.

"I would like to see our policymakers focus more on trying to get the students who go to college to finish, rather than try to induce more students to go," Lovenheim said. "The evidence we have points strongly to the higher-education system struggling to support the volume of students currently in the system. This issue receives almost no attention by either major political party."

One policy that clearly yields results is investing in early-childhood education, professor Jennifer Gerner said. "But it's a politically tough issue because it's a long-term strategy, which takes 10 or 15 years to see the results in young adults, so policymakers often focus on K-12 education instead."

Another model that has been yielding sizable results is "no excuses" charter schools, exemplified by the Harlem Children's Zone and the Knowledge Is Power (KIPP) charter schools. These are non-profit organizations in low-income neighborhoods that use longer instructional time, rigorous student assessment, high expectations, and, in the case of the Harlem Children's Zone, parenting workshops, a pre-school program, and health programs. The Obama administration has made efforts to replicate these types of programs in other low-income neighborhoods around the country.

"This model delivers results, but it takes a lot of money to do what they're doing," Gerner said.

“The study looked at students whose families earned less than \$75,000 a year,” he said. “Those are the students you worry most about being able to afford college, because they don’t qualify for financial aid but they don’t have a lot of extra money.”

Education policy from A to Z

There’s myriad other education policies that are the subject of research by PAM faculty members. Assistant professor Jordan Matsudaira has investigated how mandatory summer school policies affect student achievement in a large, urban school district. His work found improvements in both math and reading achievement. “The study suggests that summer school may be a more cost-effective way of raising student achievement scores than class-size reductions,” he said.

He is also looking at how schools respond to incentives in federal subsidy programs to secure increased funding and investigating the impact of bilingual programs on the educational and economic outcomes of the children of immigrants.

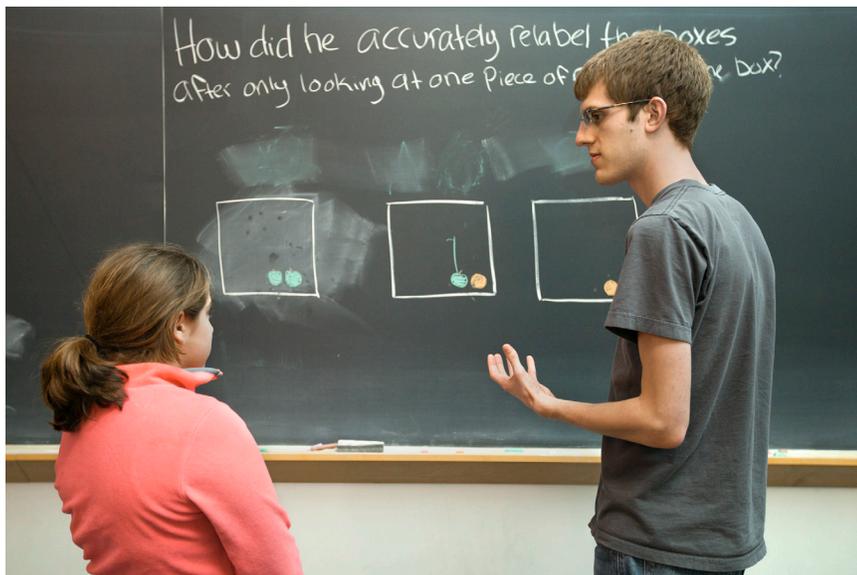
Assistant professor Damon Clark has compared the educational performance of children in charter schools—which receive public money but are not subject to the same regulations—with children’s performance at traditional schools in the United Kingdom.

“The evidence is increasingly piling up that the younger you start kids, the better off they’re going to be. Early childhood education has an impact on graduation rates for students 15 years down the road. Basically, if you miss something in your education early on, you don’t get a chance to make it up. When kids are 12, you can’t give them something back that they missed when they were four.”

—Jennifer Gerner

“Test scores improved, and the effects were quite big,” he said. “It’s difficult to explain exactly why the charter schools performed better. One story is that principals are able to make independent personnel decisions, and the other story is that these schools got more money.”

Clark has also studied a regulation in Florida that requires high school students to pass an exam to receive a diploma. His goal is to conduct research that helps improve schools. “You want to have an impact on the debate, if not the policy,” he said.



Lansing 6th grader Shiloh Worthington listens to Nathan Jacobson '13 during the Math Club Puzzle Night, an event to engage area students in math in a fun and welcoming environment.

Because of sweeping changes in the American economy, the state of our nation’s education system is more relevant than ever before, argues Lovenheim. With a steep decline in blue-collar jobs, education is a key pathway to financial stability.

“The U.S. economy in the past 40 or 50 years has shifted from being a manufacturing economy to a service economy,” he said. “That means getting an education is more important than probably ever in the history of our country—because the economy requires it for you to get a well-paying job.”

Matsudaira points out that legislators and school administrators are moving toward education policies that are evidence-based. “Much of federal legislation includes money for evaluation, and there are clearly cases where research has been used to push an agenda forward.”

While education policy research by PAM faculty members runs the gamut of ages and topics, the group works together collaborating on specific research projects, co-teaching courses, and sharing ideas and projects in weekly meetings of an education policy working group of 10 education-focused faculty members across Cornell’s Ithaca campus.

The team is also expanding its course offerings on education policy for undergraduate and graduate students.

“Every resident of the U.S. has a stake in the success of our education system,” said Fitzpatrick. “As voters, taxpayers, and potentially future parents and policymakers, our students will benefit from greater understanding of our educational system. Our expanded courses are designed to teach students of all levels about education policies and existing evidence about their efficacy.” ● ● ●

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Students from the Food and Finance High School helped prepare the meal.

Inset: Dean Alan Mathios at the centennial dinner with Lazarus Lynch, a senior at Food and Finance High School.



Human Ecology Celebrates Century-Long CCE Partnership

Since 1911, Cornell Cooperative Extension (CCE) has teamed up with the college to improve the human condition, “not just engage in abstract theory and detached analysis,” but to “draw conclusions with real, real impact,” said Alan Mathios, the Rebecca Q. and James C. Morgan Dean of the College of Human Ecology, speaking at a 100th anniversary dinner at the Cornell Club in Manhattan last November.

Students from the Food and Finance High School helped prepare the meal, some of which used ingredients from a fish farm and hydroponics lab that Cornell Cooperative Extension–New York City helps the school maintain through a “community partnership.” The hors d’oeuvres, for example, featured tilapia cakes from fish raised at the school.

“The earliest outreach efforts on behalf of the college began with a focus on the complexities of the household and family needs, improvements which could have a multitude of social impacts,” Mathios said. “They included education, nutrition, health, aging, and the plain cost of running a household—actually life hasn’t changed that much when you think about those things.”

Communities have changed, though, Mathios said, particularly in regard to family work life, the dynamics of health and illness, and the aging of America. Such college programs as RTRgist (Gist-enhanced Reducing the Risk), developed by human development professor Valerie Reyna, is an example of how extension uses research findings on risk and decision-making to help teens learn how to make better decisions regarding sexual health, healthy eating, and fitness.

Despite difficulties associated with the economic downturn, Mathios said he was optimistic about CCE’s future. “I think the federal government understands now what we’ve known for a long time: that creating research just to go into academic journals is not enough, and extending it and making it matter is what it’s about. So we’ll be there.”

Also speaking at the event was Don Tobias, associate director of CCE, who noted that extension in New York City has a presence in every borough, more than 120 employees, and the ability to communicate in more than five languages. CCE, Tobias said, has for 100 years been “doing good with research . . . and changing people’s lives.”

As an example, more than 90 percent of the Food and Finance High School students go on to a post-secondary education. With new funding, the school will soon build a state-of-the-art greenhouse on its roof. And the school already has more than 7,000 tilapia, which Tobias described as Cornell red, and which he said New York City restaurants are lining up for.

The CCE relationship with the school has had other benefits: the student government is now a 4-H Club, students receive training as nutrition educators, and they have access to numerous internships.

Lazarus Lynch, a senior at Food and Finance, had a summer internship his freshman year teaching in his local community in Jamaica, Queens, about food and nutrition. He also has traveled to Washington, D.C.; Des Moines, Iowa; and to Beijing, where he conducted soybean research. His experiences, he said, “taught me to view food in a totally new and life-sustaining way.

“I realize how greatly impacted my life has been as a result of Cooperative Extension,” Lynch said. “And the lesson I’ve learned from being raised in a struggling family and also a struggling community is never to despise small beginnings.”

The dinner event, which was part of a centennial lectures series held in 2011, was hosted by the College of Human Ecology and Cornell Cooperative Extension. ● ● ●

Lichter Heads Cornell Population Center—a ‘Hub For Social Sciences’

For nearly every pressing social and political issue—immigration, poverty, education reform, public health, and environmental protection, for instance—Dan Lichter sees a common thread: demography.

“Population change sets the broader policy context for almost every problem that’s on our radar screen, nationally and internationally,” said Lichter, Ferris Family Professor in the Department of Policy Analysis and Management. “Demographic research helps to explain what is driving such issues and also helps to project where we are headed in the future.”

As the new director of the Cornell Population Center (CPC), Lichter and other CPC leaders are uniting faculty members and graduate students from a wide swath of disciplines to apply demography in three main areas: families and children, health behaviors and disparities, and poverty and inequality. Founded in 2007 as the Cornell Population Program, the CPC now includes 96 faculty members and research associates from 17 departments and 10 centers and programs across campus. Lichter described it as an “intellectual community and hub for major social science projects.”

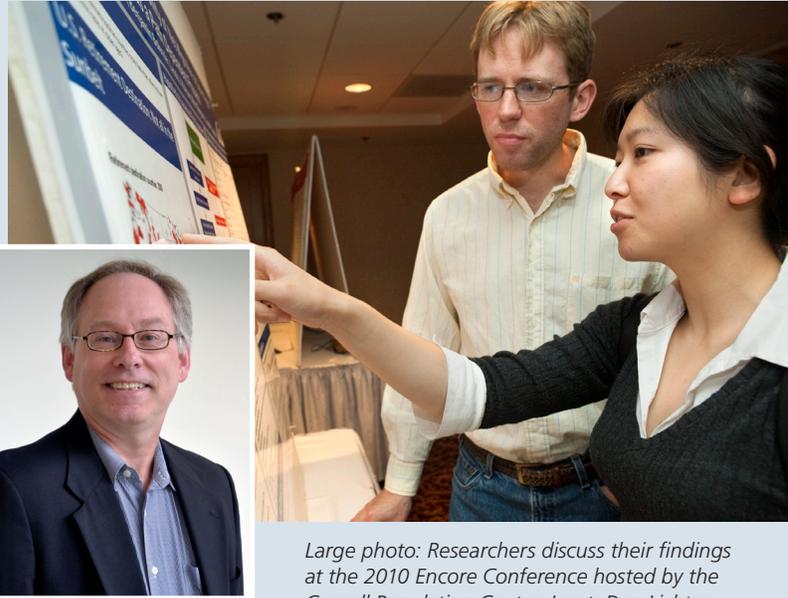
“There is so much talent in demography and social sciences across Cornell, but it is at times fragmented,” he said. “We want the CPC to be the broker that supports this research and connects faculty members across disciplines.”

In that vein, CPC functions as a one-stop shop for population researchers, providing assistance with grant proposals and management, training in the latest statistical methods, support for data analysis and enhanced computing services, and multiple grant programs to help fund promising projects and scholars.

“Research projects can be thought of as a sequence of activities,” said CPC associate director Parfait Eloundou-Enyegue, associate professor of development sociology in Cornell’s College of Agriculture and Life Sciences. “The CPC infrastructure helps boost the productivity and quality of population research by lowering the barriers to productivity that researchers often encounter at each of these steps.”

The center recently awarded its first Frank H. T. Rhodes Postdoctoral Fellowship to Bongoh Kye in the Department of Policy Analysis and Management. The fellowships, funded by a \$5 million gift from the Atlantic Philanthropies and named for Cornell’s president from 1977 to 1995, are meant to further scholarship and research in such areas as poverty alleviation, public health, human rights, and supporting the elderly and disadvantaged children. Kye’s research examines how differences in demographic behaviors such as marriage and childbearing contribute to the perpetuation of social inequality.

To grow its “intellectual community,” the CPC’s seminar series invites leading social scientists at Cornell and other institutions who are applying demography in novel ways. Examples of topics so far this year: census data and labor



Large photo: Researchers discuss their findings at the 2010 Encore Conference hosted by the Cornell Population Center. Inset: Dan Lichter, CPC director.

markets, links between medical marijuana laws and traffic fatalities, and educational outcomes of single-sex schools in South Korea.

Scott Sanders, a graduate student in development sociology, noted that the seminar series in particular helped him gain new insights.

“Not only do we hear research from some of the top scholars in the country, but CPC also organizes time for graduate students to meet and talk with the speakers,” he added. “I was able to talk with one of the top experts on Asian demography, who helped me formulate my dissertation research questions and provided professional contacts that played an essential role in my data collection.”

Each fall, CPC also hosts an encore conference, where faculty members and graduate students present papers and posters they have shared at conferences in the past year.

Lichter, current president of the Population Association of America, believes the center is primed to grow into a National Institutes of Health (NIH) population center, of which there are 18 in the country. Cornell is one of six sites to receive a five-year, \$1.15 million NIH “baby grant” to build the research infrastructure needed for a full-fledged national center. This fall, CPC leaders will submit a grant proposal for full NIH funding.

Among the many factors that stand out at the CPC, Lichter said, is the cross-disciplinary nature of its research.

“The single-investigator approach to research only goes so far,” he said. “Most major discoveries and breakthroughs occur at the boundaries between disciplines, and we are building those bridges among many faculty members.”

For more information on the Cornell Population Center: www.cpc.cornell.edu ● ● ●

New FSAD Chair Shares Big Ideas for Weaving Fashion and Technology

Jintu Fan, an innovator in textile science and design and developer of the world's first sweating fabric manikin, joined the College of Human Ecology Jan. 1 as professor and chair of the Department of Fiber Science & Apparel Design (FSAD).

Most recently associate head and professor of the Institute of Textiles and Clothing at Hong Kong Polytechnic University, Fan is the first of three anticipated Rebecca Q. and James C. Morgan Sesquicentennial Faculty Fellows in the college. Jim Morgan '60, MBA '63, and Becky Quinn Morgan '60 gave \$10 million to Cornell last fall in part to support such strategic faculty hires.

"Bringing Jintu Fan to our college is a major step toward bridging the technical interface of fiber science and apparel design in an increasingly competitive field," said Alan Mathios, dean of the College of Human Ecology.

Fan answered questions recently about his wide-ranging vision for the department and how, he said, "FSAD research, teaching, and outreach can benefit the greater public through the improvement of human conditions and performance, enrichment of life with new fiber arts and fashion innovations, and new business opportunities in related industries."

What factors attracted you to the college?

I was attracted to Cornell because it is a renowned university with a proud history, and it is the only university in the Ivy League with a program in fiber science and apparel design. I like the College of Human Ecology because it cuts through the traditional boundaries of disciplines, yet focuses on what is important to human conditions. The trans-disciplinary nature of the college offers tremendous opportunities for collaboration and cross-fertilization.

What stands out to you about FSAD?

Although FSAD is a relatively small academic department, it covers perhaps the broadest range of expertise—from fiber to fashion. Our faculty and students are very talented and dedicated to excellence.

What are your main research interests?

I am interested in understanding the interaction between the human body, clothing, and the environment, with a view of developing clothing to enhance the wearers' functional performance and aesthetic appearance. In particular, I am focused on two fundamental areas—comfort and beauty—through multidisciplinary approaches. In regard to comfort, I am interested in the objective evaluation of thermal comfort and the engineering of materials and garments to improve comfort. In regard to beauty, I am interested in identifying the objectivity of beauty and investigating how one's beauty perception can be enhanced.

What are some future priorities for FSAD?

Clothing and textiles are not only necessities of mankind, but also a major industry. Although textile and apparel manufacturing in developed countries may continue to decline due to high labor costs, the industry around the globe

will continue to grow. Fiber consumption per capita of many highly populated developing countries falls far below those of developed countries. As the fashion and textile industry becomes increasingly globalized, FSAD is well positioned to provide top-notch education to the future leaders of this global industry.

But the current fiber consumption model of the developed countries is not sustainable. The fiber consumption per person in developed countries like the United States is about 30 kg annually. If everyone consumes at that rate, the world fiber consumption would rise by four times, causing a huge shortage in natural resources—petroleum, arable land for natural fibers, and energy and water, for example.

FSAD should focus on the innovations that will make a real impact on the challenges facing the world, which include sustainability, health and safety, and inequality.

As an academic discipline, there's a need for further integration and cross-fertilization of design, technology, and business in fashion and textiles. New materials and technologies are often the impetus to creative design and business innovation. FSAD can contribute to the flow of ideas within the Cornell community and help bring about new breakthroughs in fiber science and apparel design, and at the same, make significant impacts on art and science in general.

How might the department contribute to the growth of CornellNYC Tech—the new academic campus being led by Cornell and Technion-Israel Institute of Technology?

New York City is a global fashion center. CornellNYC Tech offers a unique opportunity for FSAD to bring its world-class expertise and research capability in fiber science and fashion design right into the center of the fashion world. Through the new campus, I imagine FSAD can play a much-needed role in supporting applied research and development and potentially a master's program in fashion design and technology.



Large photo: Walter, the world's first sweating fabric manikin, developed by Jintu Fan and collaborators at Hong Kong Polytechnic University. Inset: Jintu Fan, new FSAD chair.

College Welcomes New Faculty in Key Areas

Cornell has quickened the pace in hiring new faculty, aiming to bring on board up to 100 professors by the university's sesquicentennial in 2015.

Contributing to this initiative, the College of Human Ecology is attracting new faculty to work on such major cross-college collaborations as neuroscience, human development, and psychology; health behaviors, health economics, and disparities; and demography. Ten new scholars have joined the college this year.

Dean Alan Mathios said he was very pleased that such a diverse and talented group of scholars is joining the college's faculty. "They have very impressive credentials and will strengthen the college's teaching, research, and outreach in key multidisciplinary areas. I expect this group to have a profound impact on the future of the college," he said.

The fall 2011 issue of *Human Ecology* introduced five of the 10 new faculty hires; here follows details on the other five.



Damon Clark, assistant professor, policy analysis and management

Academic focus: economics of education, labor economics, public economics

Previous positions: visiting assistant professor, economics, Princeton University, 2009–2011; assistant professor, economics, University of Florida, 2005–2011

Academic background: B.A., economics, Newcastle University, 1994; M.Phil.,

economics, Nuffield College, University of Oxford, 1997; D.Phil., economics, Nuffield College, University of Oxford, 2002

I chose Human Ecology: because it fits extremely well with my research interests.

www.human.cornell.edu/bio.cfm?netid=dc738



Maria Fitzpatrick, assistant professor, policy analysis and management

Academic focus: economics of education, labor economics, public economics

Previous position: Searle Freedom Trust postdoctoral fellow, Institute for Economic Policy Research, Stanford University, 2008–2011

Academic background: B.A., economics, University of North Carolina at Chapel

Hill, 2000; M.A., economics, University of Virginia, 2004; Ph.D., economics, University of Virginia, 2008

I chose Human Ecology: because of its interdisciplinary focus on policy analysis. I enjoy working with people from different perspectives and from other disciplines to determine effective and efficient public policies.

www.human.cornell.edu/bio.cfm?netid=mdf98



Tasha Lewis, assistant professor, fiber science and apparel design

Academic focus: technology and innovation in the apparel industry, including 3-D body scanning and mass customization; sustainability and fashion

Previous position: assistant professor, School of Fashion, Ryerson University, 2009–2011

Academic background: B.A., Spanish, Ohio State University, 1995; M.S., consumer and textile science, Ohio State University, 2000; Ph.D., apparel design, Cornell, 2009

I chose Human Ecology: because I am a graduate of the college and greatly appreciate its emphasis on improving the human experience.



Nathan Spreng, assistant professor, human development

Academic focus: large-scale brain network dynamics, their role in cognition, and lifespan developmental changes

Previous positions: postdoctoral fellow, Rotman Research Institute at Baycrest, Toronto, 2008; postdoctoral fellow, Department of Psychology, Harvard University, Cambridge, 2008–2012

Academic background: B.A., Sarah Lawrence College, 2000; M.A., psychology, brain, and behavior, University of Toronto, 2003; Ph.D., cognitive neuroscience, psychology, University of Toronto, 2008

I chose Human Ecology: because of the diversity of faculty interests and the commitment to an exciting future in human neuroscience research.

www.human.cornell.edu/bio.cfm?netid=rns74



Felix Thoemmes, assistant professor, human development

Academic focus: quantitative methods in social sciences

Previous positions: visiting professor, College of Education, Center for Empirical Educational Research and Educational Psychology, University of Tübingen, Germany, 2010–2012; visiting professor, psychology, University of Jena, Germany, 2010;

2010; assistant professor, College of Education and Human Development, Research, Measurement and Statistics, Texas A&M University, 2009–2010

Academic background: Pre-diploma, psychology, University of Koblenz-Landau, Germany, 2002; M.A., experimental psychology, Indiana State University, 2005; Ph.D., quantitative psychology, Arizona State University, 2009

I chose Human Ecology: because I had a strong sense that Cornell faculty place an enormous value on high-quality scholarly work. This appreciation is reflected in their own work as well, which is done with outstanding scientific rigor. The keen interest and thoughtful questioning of my own work made me realize that this is a place where I will have wonderful colleagues to learn from and to collaborate with.

www.human.cornell.edu/bio.cfm?netid=fjt36

Afterword

CCE Summer Internships Strengthen Communities, Inspire Students

BY JENNIFER TIFFANY

From improving access to healthy foods to reducing risk-taking by adolescents, College of Human Ecology students will work with faculty researchers throughout the summer to address pressing concerns in communities across New York, thanks to the wide reach of Cornell Cooperative Extension (CCE). Established in 2007 to support Cornell's land-grant mission, the CCE Summer Internship Program enables students to discover and contribute to faculty research while also engaging in outreach and gaining a hands-on understanding of the university's extension system.

This summer, 22 students will assist faculty members from all five academic departments in Human Ecology (see sidebar on Human Ecology projects), as well as researchers in the College of Agriculture and Life Sciences.

The initiative has been embraced widely by Human Ecology faculty members, according to Dean Alan Mathios. "It is especially encouraging that faculty with and without extension appointments are participating," he said.

The students will engage with CCE associations and communities in nearly every part of the state—from New York City to Western New York. The internships build and strengthen connections between community-based CCE associations and campus-based faculty, further supporting the translational research mission of the college's Bronfenbrenner Center for Translational Research (BCTR).

The internships are closely aligned with the college's tripartite mission of teaching, research, and outreach. Faculty report that the internships initiate or continue a partnership with a Cornell Cooperative Extension association and the communities it serves. For students, the internships provide an experience that helps define long-term goals and

aspirations. For some, it is a transformative experience that inspires them to go down a new and unexplored path.

Support for the Human Ecology internships is provided by the college and the CCE Director's Innovation Fund, as well as by gifts from Cindy Noble and Elizabeth Poit Cernosia, who support three internships for "students who focus their research on the health and well-being of children from infants to teenagers."

In the fall, at an annual CCE Internship poster presentation and reception, students will report on their experiences, their findings, and how their projects have deepened connections between Cornell, CCE, and the communities they serve. The public is welcome to attend this showcase on Sept. 24 from 5:00 to 7:00 p.m. In addition, the BCTR will sponsor a roundtable discussion for student and faculty participants in the internship program at the beginning of the fall semester.

—Jennifer Sarah Tiffany is associate director for outreach and extension in the College of Human Ecology and director of outreach and community engagement in the Bronfenbrenner Center for Translational Research.



2012 Summer Internship Projects

Testing Educational Resources for Diverse Audiences

Faculty: Charlotte Coffman (FSAD)
CCE Location: Ontario County

Adopting Healthy Habits

Faculty: Jamie Dollahite (DNS)
CCE Location: Jefferson, Lewis, and St. Lawrence Counties

Parent Education in and around Tompkins County

Faculty: Rachel Dunifon (PAM)
CCE Location: Tompkins and adjacent counties

The PROSPER Partnership Model in New York State: An evidence-based delivery system for preventing risky behaviors in youth, promoting positive youth development, and strengthening families

Faculty: John Eckenrode (HD)
CCE Location: Schuyler or Livingston County

Early Origins of Income Achievement Gap

Faculty: Gary Evans (DEA, HD) and Marianella Casasola (HD)
CCE Location: Cortland, Tompkins, and Yates Counties

Public Acceptance of Congestion Pricing of Transportation

Faculty: Rick Geddes (PAM)
Location: Cornell's Community and Regional Development Institute

Research for Continuous Improvement of 4-H

Faculty: Stephen Hamilton (HD)
CCE Location: Erie, Genesee, Wyoming, and Orleans Counties

Interventions for Risk Reduction and Avoidance in Adolescents

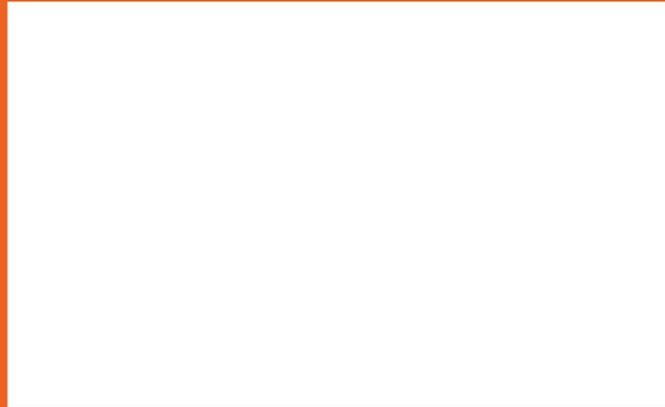
Faculty: Valerie Reyna (HD)
CCE Location: New York City and Broome County

Healthy Gardens, Healthy Youth

Faculty: Nancy Wells (DEA)
CCE Location: New York City, Suffolk, Wayne, Monroe, Schenectady, Rockland, and Delaware Counties

Developing Strategies for Fruit and Vegetable Distribution from Farms to Schools in Wayne County

Faculty: Jennifer Wilkins (DNS)
CCE Location: Wayne County



The Art of Cooking

Virginia True's iconic mural in room 166 of Martha Van Rensselaer Hall—a backdrop to countless College of Human Ecology courses and events—turns 75 years old in 2012. True (shown at work below), who died in 1989 after a long career as a professor of housing and design and an administrator in the college, titled the painting *Home Economics*. Dominating the top-center of the mural is what True referred to as "Primitive woman, who represents elemental needs and urges." The surrounding scenes depict the scientific study of home economics in the kitchen, the lab, and the home. Keen-eyed viewers will also spot the college's founding co-directors, Martha Van Rensselaer and Flora Rose, top-left, and former First Lady Eleanor Roosevelt, an advocate for the college's domestic studies, bottom-left. A voice for the arts on campus, True established an art gallery in MVR Hall, a first on campus, and exhibited her work widely throughout the United States in galleries and museums.

