

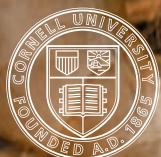
Human ECOLOGY

College of Human Ecology, Cornell University
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Thought for Food

Cornell dietetics students learn to blend research and practice to promote healthy eating.

page 4



Cornell University

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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-
ment is accomplished through faculty initiatives
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
Nutritional Sciences, a unit shared with the College of
Agriculture and Life Sciences. The college includes the
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*Dietetic intern Divya Aggarwal
conducts a fall harvest cooking
class for the Cornell Wellness
Program. Photo by Mark
Vorreuter.*

*ON THE COVER: Sarah Wilson
is the first student in Cornell's
new combined PhD/RD
program in dietetics, where
her dissertation focuses on
helping parents and
communities to prevent
childhood obesity. Photo by
Robert Barker/University
Photography.*

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Connecting Research to Communities

The college's outreach efforts—part of our threefold mission of research, teaching, and outreach—are reflected in a wide range of activities. Applying a translational research model, we aim for a seamless link between science and service, moving new findings directly to populations that will benefit greatly.

Such outreach occurs through the usual avenues of extension programming and community partnerships, but also by expanding knowledge in our fields of study and training students to integrate community feedback as a pillar of their research approach. For instance, you will read in this issue about a new PhD/RD program in dietetics that teaches students to translate health and nutrition findings into effective policies and interventions while gaining firsthand experience working alongside community practitioners and clinicians.

In Policy Analysis and Management, faculty researchers are examining the complex regulatory policies at both state and federal levels that shape our everyday lives in a broad range of areas including consumer protection laws, public infrastructure, and other common issues. And for 16 years, faculty and student researchers in Design and Environmental Analysis have been adding to a growing lexicon of interior design archetypes, providing professionals and researchers with a common language to speak about design practices.

On all of these subjects, you can see threads reaching back to the earliest days of the college. The Dean's Fellowship in the History of Home Economics has supported more than 20 years of scholarly work to understand these substantial contributions by pioneering home economists, guided by Martha Van Rensselaer and Flora Rose.

Thank you and please enjoy this issue of *Human Ecology* magazine.

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

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In Short

Student scholar traces threads of prep style from 1920s onward

Drawn to the widespread influence of prep style, senior apparel design major

Anu Lingala has extensively researched since her freshman year the origins and exclusivity of prep culture. Her work paid off in March: A paper she wrote on the topic was accepted at the Popular Culture Association/American Culture Association national conference—a rare achievement for an undergraduate researcher. Much of Lingala's research involved reading books and college newspaper archives dating back to the 1920s about colleges, prep schools, and the development of an American aristocracy. She also applied her findings to create a hybrid prep-punk collection for the 2012 Cornell Fashion Collective runway show. "This is a story of the blending of conventional academic research with creative studio work," said Charlotte Jirousek, associate professor of fiber science and apparel design.

Natural disasters hit elderly hard

Speaking to journalists at an Inside Cornell session in early March, Elaine Wethington, professor of human development and of sociology, explained the disproportionate effects of natural disasters on the elderly. "Over half of the people who died in Hurricane Katrina were 65 and older," noted Wethington, a researcher in the Cornell Aging and the Environment Initiative—the first major initiative in New York state to study aging and climate change. As Hurricane Sandy proved, older people are particularly vulnerable to severe storms, she said, because many no longer drive and may be closed off from public transportation. She recommended that New York and other coastal cities "shore up social infrastructure," because the most overlooked risk factor in coping with disaster is social isolation.

Brain scan can decode whom you are thinking about

Our mental picture of someone produces unique patterns of brain activation that can be detected using advanced imaging techniques, reported neuroscientist Nathan Spreng and his colleagues in a study published in *Cerebral Cortex*. For their study, the researchers asked 19 young adults to learn about the personalities of four people who differed on key personality traits and then presented participants with different scenarios and asked them to imagine how a specified person would respond. During the task, their brains were scanned using

functional magnetic resonance imaging (fMRI), which measures brain activity by detecting changes in blood flow. The researchers found that different patterns of brain activity in the medial prefrontal cortex were associated with each of the four different personalities. "When we looked at our data, we were shocked that we could successfully decode whom our participants were thinking about," said Spreng, the study's lead author and an assistant professor of human development and Rebecca Q. and James C. Morgan Sesquicentennial Faculty Fellow.

Beck honored for leading Brooklyn service projects

Sam Beck, senior lecturer and director of the college's Urban Semester Program, received the 2013 Daisy Lopez Leadership Award from Churches United for Fair Housing (CUFH) Feb. 20. The award honors Beck's work with community partners to improve the lives of low- and middle-income families in Brooklyn, many of whom have lost their homes or face displacement as the borough gentrifies. A social and cultural anthropologist, Beck leads Urban Semester students in a variety of engaged learning projects to benefit Brooklyn residents, including an analysis of Census data to document the redistribution of racial groups and outreach efforts to help extend CUFFH programs to more families.

"It is a unique privilege for the university and students to be able to contribute to the improvement of people's lives in this way," Beck said.

Students design campus meditation room to help Cornellians de-stress

When the grind of classes or work intensifies, Cornell students, faculty, and staff have a new retreat: a meditation and reflection space in Mews Hall on North Campus designed and built by students in the Department of Design and Environmental Analysis. Guided by the mindfulness rituals of Zen, Hindu, Christian, and Buddhist faiths, students constructed a room open to people of all religions and cultures. The students applied universal design principles to ensure that the area, which opened last fall, accommodates people with disabilities, including those who use wheelchairs. The space is the product of a semester-long collaboration between two courses in the college: the Environment and Social Behavior taught by Gary Evans and an interior design studio taught by Paul Eshelman.



Multiple moves found harmful to poor young children

Poor children who move three or more times before they turn 5 have more behavior problems than their peers, finds a study in *Child Development* led by Kathleen Ziol-Guest, postdoctoral associate in policy analysis and management. Using national data on 2,810 children from the Fragile Families and Child Wellbeing Study, a longitudinal, representative study of children born in 20 large U.S. cities between 1998 and 2000, Ziol-Guest and co-authors sought to determine how frequent moves relate to children's readiness for school. The study found that 23 percent of the children had never moved, 48 percent had moved once or twice, and 29 percent had moved three or more times. Children who moved three or more times had more attention problems and aggressiveness or hyperactivity at age 5 than those who had moved fewer times or never—increases found only among poor children.



Lindsay France



Teen dating violence linked to long-term harm

Teenagers in physically or psychologically aggressive dating relationships are more than twice as likely to repeat such damaging relationships as adults and report increased substance use and suicidal feelings years later, compared with teens with healthy dating experiences, reports a study by Deineria Exner-Cortens, MA '10, a doctoral student in human development, and John Eckenrode, professor of human development and director of the Bronfenbrenner Center for Translational Research. Published in *Pediatrics*, the paper is the first longitudinal study of a nationally representative sample to show links between teen dating violence and later multiple adverse health outcomes in young adults. "Teens are experiencing their first romantic relationships, so it could be that aggressive relationships are skewing their view of what's normal and healthy and putting them on a trajectory for future victimization," Exner-Cortens said. She notes that the findings have important implications for doctors, therapists, teachers, parents, and others who work with teens and can spot signs of dating abuse.

Robert Barker



Mark Vorreuter



Two DEA professors named Engaged Learning + Research Fellows

Nancy Wells and Jack Elliott, both associate professors of design and environmental analysis, are part of the inaugural cohort of faculty fellows sponsored by Cornell's Engaged Learning + Research center. The center was founded in 2011 to revitalize and expand the university's public service mission. Its 14 faculty fellows receive support to teach courses and lead research projects that directly engage with the community. Elliott, whose artwork and research explores the intersection of the built and natural environments, plans to lead a team of students to design and build sustainable structures to support impoverished communities in the Dominican Republic and Ghana. Wells, an environmental psychologist, plans to develop a new undergraduate service-learning course, Healthy Places: How Planning and Design Affect Public Health, which aims to pair students with local organizations to help them address challenges related to the environment and health. For more information, visit www.elr.cornell.edu.



Thought for Food

BY SHERI HALL

Sarah Wilson knows that obesity and poor dietary choices raise one's risk of various chronic diseases and health conditions—many types of cancer, Type 2 diabetes, heart disease, high blood pressure, and even mental health ailments. Eating right can be a major difference between a lifetime of good health and one plagued by a slew of health problems.

But Wilson also realizes that there are many barriers to proper nutrition—cultural attitudes, limited access to fresh foods, economic insecurity, and just plain old bad habits that are hard to break.

“Most people by now recognize that their diet is connected to their overall health,” Wilson said. “But that does not necessarily translate into healthy dietary choices. Thus, dietitians are challenged to make the evidence relevant to the choices people have to make.”

As the first student in the Division of Nutritional Sciences' new combined PhD/RD program in dietetics, Wilson is researching how to help people overcome such obstacles to achieve better health. Her dissertation work focuses on helping parents and communities to prevent childhood obesity—a major public health concern with 17 percent of all U.S. children and adolescents obese, according to the Centers for Disease Control and Prevention. While kids face many of the same barriers to proper nutrition as adults, reaching them early is important because their eating habits are often solidified for a lifetime.

Last fall, as part of her community rotation in Cornell's Dietetic Internship (DI) program (which all PhD/RD students complete in their second year), Wilson visited Parkchester Greenmarket in the Bronx, where many shoppers are low-income residents who receive government assistance to help put food on their tables. There, Wilson overturned people's assumptions about the high cost of fresh produce and demonstrated how to make tasty meals with fruits and vegetables at the center, not the edges, of their plates.

“You can encourage people to eat more fruits and vegetables, but if they > > >



PhD/RD dietetics student Sarah Wilson presents a spinach, strawberry, and feta salad at the Culinary Lab. Photo by Mark Vorreuter.



Left: At a cooking workshop for the Cornell campus, dietetic intern Divya Aggarwal shows how to make simple and healthy dishes using kale and other seasonal produce. Above: Led by Cornell dietetic interns, University of Rochester medical students discuss dietary changes for unhealthy patients. Photos by Mark Vorreuter.

don't know how to obtain and cook them in a way that they and their family will want to eat, what good is it?" added Wilson, who visited the site while working on programming for the statewide Cornell Cooperative Extension Food & Nutrition Education in Communities program.

Her focus is on translating findings into workable policies and interventions—a hallmark of the combined registered dietitian-doctoral dietetics program and also the Dietetic Internship program. By blending evidence with programs and policy, the college's graduate programs are preparing the next generation of dietitians to make a meaningful impact on family and individual health.

The stakes are high: each year, chronic diseases account for more than 1.5 million deaths in the United States and lower the quality of life for about 25 million Americans. Improved nutrition, program leaders believe, is at the center of treating and preventing many chronic diseases.

"We know that diet is an important part of preventing chronic disease, and yet many Americans are not achieving the recommendations that promote health," said Patsy Brannon, professor of nutritional sciences and director of the Cornell Dietetic Internship. "There is a tremendous need for dietitians who can contribute to translating research into practical policies and programs."

Funded in part for more than 30 years through a training grant from the National Institutes of Health, Cornell's dietetics program is one of the longest-running in the nation.

"Most people by now recognize that their diet is connected to their overall health. But that does not necessarily translate into healthy dietary choices. Thus, dietitians are challenged to make the evidence relevant to the choices people have to make."

—Sarah Wilson

It includes the undergraduate Didactic Program in Dietetics, preparing students for careers in nutrition; the post-baccalaureate Dietetic Internship, for those students intending to become registered dietitians; and the joint PhD/RD program.

The programs are united by a strong translational research component that teaches students to connect research with practice. Students in the

internship and joint doctoral program study the latest evidence on nutrition, and then complete rotations at community sites and the University of Rochester Medical Center, where they learn to apply the evidence to real-life situations.

"There is no substitute for experiential learning to achieve an in-depth understanding of community needs, program delivery approaches, and the challenges faced by individuals and families," said Jennifer Wilkins, senior extension associate and community coordinator for the DI program. "Furthermore, the food systems approach we take helps our interns put these challenges into broader contexts."

Blending research and practice

In 2011, the Division of Nutritional Sciences launched its combined PhD/RD dietetics program to equip nutrition research leaders with the knowledge and skills to influence practice and policy. It stands alone nationally as the only academic program to integrate the practical components of a dietetics internship with a research-focused doctoral curriculum.

"There is a growing demand for clinically trained



Dietetic intern Kirby Moore credits the program with teaching her how to tailor her nutrition knowledge to help people eat right. Photo by Rocco Laurienzo.

scientists in nutrition who understand both research and the practice of dietetics in the community and clinical settings,” said Patrick Stover, director of the Division of Nutritional Sciences. “Nutrition continues to be essential for improving public health.”

The new program focuses on a broad range of disciplines including genetics, molecular biology and biochemistry, epidemiology, sociology, psychology, and economics. The five-year program includes graduate coursework, one year spent in the Dietetic Internship, and a third practical experience focused on national nutrition policy or advanced clinical research. Students focus their thesis research on one of four specialties: molecular nutrition, human nutrition, community nutrition, or international nutrition.

In addition to the combined PhD/RD program, Cornell offers a Dietetics Internship, which prepares students to become registered dietitians through the Commission on Dietetic Registration of the Academy of Nutrition and Dietetics. The program, accredited for 10 students, has been filled to capacity since 2008 thanks to its stellar reputation. During the past five years, 100 percent of Cornell DI graduates have passed the RD exam on their first try and gone on to find employment.

The program begins with graduate coursework and translational research, along with a community placement where students aid in program development. Interns work in roles at employee wellness programs; the Women, Infants, and Children Supplemental Nutrition Program; school meal programs; grocery stores; food banks; and nutrition programs for the elderly.

“The interns are placed at well-established community sites and are mentored by experienced and highly skilled food and nutrition practitioners,” Wilkins said. “They learn through direct experience and observation the many roles and responsibilities these professionals perform in a community nutrition setting.”

Interns often make a sizable impact at their sites. One intern presented a plan for lowering the sodium content of school lunches to a group of regional school lunch managers. Another intern created a seminar on the growing number of grocery stores employing nutritionists, which was broadcast online through the Academy of Nutrition and Dietetics.

Kirby Moore, an intern this year, spent her community rotation in the corporate office of Wegmans grocery store, where she worked on the company’s initiative to expand its offerings of gluten-free foods. Her responsibilities included teaching Wegmans employees about gluten-free diets and answering questions on the topic from the public.

“It related to a class we took about understanding the population you are treating—the barriers they face to good nutrition, the diseases that impact them, and the nutrition tricks that would work best for them,” Moore said. “It’s interesting to see how people understand the information out there in the media and apply it to their lives.”

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www.human.cornell.edu/dns/dieteticinternship/index.cfm



Dietetic intern Nicole Edsell describes the MyPlate eating guidelines to 4th graders at Ann McGuinness Elementary School in celebration of National Eating Healthy Day in November 2012. Photo provided.

Eat Smart: Dietetics Education at Cornell

The Cornell Dietetics Program, one of the longest-running in the country, provides training for undergraduate, professional, and doctoral students through three main programs:

Didactic Program in Dietetics, which provides undergraduates with broad perspectives in nutrition (ranging from chemistry to public policy to the social sciences) and prepares them for careers in nutrition;

Dietetic Internship, a joint program with the University of Rochester Medical Center to offer in-depth community, clinical, management, and research experience to students seeking to become registered dietitians;

Combined PhD/RD Program in Dietetics, with a focus on translational research to enhance the effectiveness and impact of clinical and public health nutrition.

Food as medicine

Cornell Dietetic Interns spend the second half of the year in a clinical nutrition and management rotation at the University of Rochester Medical Center, where they work with patients to treat and prevent disease with proper nutrition. They rotate through a range of practices including cardiology, oncology, surgery, pediatrics, and others. They also spend six weeks in a management rotation that includes food service management and employee nutrition education.

As part of the clinical rotation, the interns also work together to conduct a daylong workshop, dubbed the Culinary Lab, for University of Rochester medical students to teach them the basics of dietetics and demonstrate to them the role of registered dietitians to the team charged with treating a patient.

During the workshop, the dietetics interns provided case studies for the medical students, who then had to suggest > > >



Kirby Moore serves a pizza low in salt and sugar and loaded with veggies cooked by University of Rochester medical students at their annual Culinary Lab. Photo by Mark Vorreuter.

Interns Dish Out Nutrition and Cooking Knowledge at Culinary Lab

BY TED BOSCIA

On a bright midwinter morning, 100 or so University of Rochester medical students may need to be fitted for a different sort of white coat. They've traded in their stethoscopes and scalpels for spatulas and skillets as part of their annual Culinary Lab, becoming chefs for a day to learn how to advise patients on eating well for good health.

Guiding the future doctors are ten Cornell Dietetic Interns, who lead them through four different case studies of hypothetical patients—such as a middle-aged Mexican American man with rising blood pressure and a palate for spicy, salty foods and a woman with celiac disease who recently suffered a stroke and is desperate to improve her diet.

Interns Kirby Moore and Gabrielle Gambino are advising a group of seven medical students on dietary changes for an obese African American teen girl who complains of fatigue, admits to drinking lots of soda and eating vending machine snacks, and shows early signs of diabetes. On the menu is pizza, but with a healthy twist: one with whole wheat crust, low-fat mozzarella, tomato puree in place of a canned sauce loaded with sugar and salt, ground turkey rather than pepperoni, black beans, and a bounty of vegetables on top.

Before the cooking begins, Moore quizzes them on the nutritional basis for their recipe substitutions. Noting the girl's lethargy, they determine her diet is probably lacking vitamin D, calcium, and iron. Her pre-diabetes makes them want to cut down on her carbohydrate intake. And they recommend more whole grains, fruits, and vegetables as a fiber boost.

Moore agrees, and then asks, "What is the mechanism of fiber in the body?"

"It sequesters cholesterol," says a student next to her.

"Right. And it also decreases the absorption of carbohydrates," Moore replies.

After a few more minutes of discussion, the medical students roll up their sleeves and enter the kitchen. They chop onions, red peppers, and tomatoes; sauté the veggies and cook the meat; and arrange exact amounts of cheese, puree, and other toppings on the crust before sliding their pizza into the oven.

As the pie bakes, Moore recaps their discussion and reminds the students of the many barriers to healthy eating. In this scenario, the young girl often snacked away from home and her mother complained about limited access to fresh fruits and vegetables available in their neighborhood. Patients may balk at making major dietary changes, may not know how to cook, or may have a fondness for cultural comfort foods high in sugar and salt.

"You can't just tell people to eat more fruits and vegetables," Moore says. "You have to understand the psychology of the patient and be willing to start in a place they're comfortable with. You can design the perfect meal plan for a person, but if they don't follow it, it won't work."

The pizza is ready, just in time for lunch. The groups of medical students around the room sample their healthy dishes, while two Cornell interns recap each of the case studies and explain the role of registered dietitians in patient care.

As a final thought, they close with a Hippocrates quote that reflects their belief in the importance of nutrition and diet to overall health: "Let food be thy medicine and medicine be thy food."

"There is no substitute for experiential learning to achieve an in-depth understanding of community needs, program delivery approaches, and the challenges faced by individuals and families. Furthermore, the food systems approach we take helps our interns put these challenges into broader contexts."
—Jennifer Wilkins

diet modifications for patients with a variety of health conditions. The interns explained the importance of minding barriers that might prevent patients from eating healthier, including the cost of food, lack of mobility, and inability to commit to a major lifestyle change (see related story).

"This was a unique and incredibly valuable part of the internship," explained Wilson, who is scheduled to complete her PhD and RD certifications in 2016. "It's also a way to make a connection with doctors and help them understand that dietitians can be a fabulous resource for them and their patients."

Divya Aggarwal, currently enrolled in the Dietetics Internship, also helped coordinate the Culinary Lab. As an undergraduate at Case Western Reserve University, she originally considered medical school before becoming interested in nutrition as a career.

"It's been exciting to see physicians bring nutritionists into the health care team," she said. "Nutrition is associated with so much more than just obesity. There is a nutrition component with every condition, and the preventive aspects of eating healthy are important too."

Aggarwal came to Cornell interested in clinical nutrition, and found that her rotation at the University of Rochester Medical Center confirmed her interest in working in a medical setting.

"Since starting the clinical rotation, I'm even more excited about it," she said. "My personal hope and vision is that we see medicine moving toward using food as treatments." • • •



Stephen Ceci (left) and Jefferson Cowie lead the course *Six Pretty Good Books*, which will be adapted into Cornell's first MOOC.

College Joins Cornell's Early Efforts to Offer MOOCs

The rise of so-called MOOCs (Massive Open Online Courses) figures to revolutionize higher education, providing instruction, typically for free, in a range of subjects to citizens around the globe. As Cornell is offering its first MOOCs, several academics in the College of Human Ecology are helping to lead the way.

Christina Stark, senior extension associate in the Division on Nutritional Sciences, demonstrated the potential for broad online participation last fall when her free online course on infant and young child feeding, developed jointly with UNICEF, enrolled more than 3,800 participants from 150 countries—more than 15 times the expected signups.

Because MOOCs commonly reach 100,000 or more participants, Stark and others have dubbed the course, Programming for Infant and Young Child Feeding, “a mini-MOOC.”

Stark coordinated the development of the course jointly with Mandana Arabi, PhD '07, former nutrition specialist at UNICEF headquarters, and her colleagues Nune Mangasaryan and Christiane Rudert in the Infant and Young Child Nutrition Unit at UNICEF headquarters. Stark also serves as course coordinator and program leader for Cornell NutritionWorks, DNS's online professional development program hosting the course.

The course, administered by Cornell and funded by UNICEF, was originally envisaged as a training course for UNICEF staff and partners. But when UNICEF circulated the announcement to various networks, news spread rapidly, and more than 84 percent of course participants—the bulk of them from developing countries—are not UNICEF-affiliated.

Following that momentum, *Six Pretty Good Books: Explorations in Social Science* (HD 2840), a course co-taught by Stephen Ceci, the college's Helen L. Carr Professor of Human Development, will soon launch as the university's first full-blown MOOC. The course, first offered on campus in fall 2011, previously broke ground as one of Cornell's first “University Courses,” which are a group of classes led by distinguished professors that cross disciplines and are open to students in any college.

Ceci and his collaborators, Michael Macy, the Goldwin Smith Professor of Sociology; Jefferson Cowie, professor of collective bargaining, law, and history; and Jeffrey Hancock, associate professor of communication, received a \$50,000 grant from Google, which shares online teaching innovations through its Course Builder website.

Six Pretty Good Books explores the social sciences through books by prominent authors including Steven Pinker, Nicholas Christakis, Robert Frank, Duncan Watts, and Dan Ariely.

Last fall, university leaders formed a committee to consider whether Cornell should offer MOOCs. The committee, which included Sean Nicholson, professor of policy analysis and management, recommended that Cornell encourage faculty to develop MOOCs, provide funding for MOOC development, and create a faculty committee to select suitable courses.

The committee also recommended that Cornell join one of the consortia that distribute MOOCs, such as EdX, founded by Harvard University and the Massachusetts Institute of Technology and now including four other institutions, or Coursera, with courses from 33 universities.

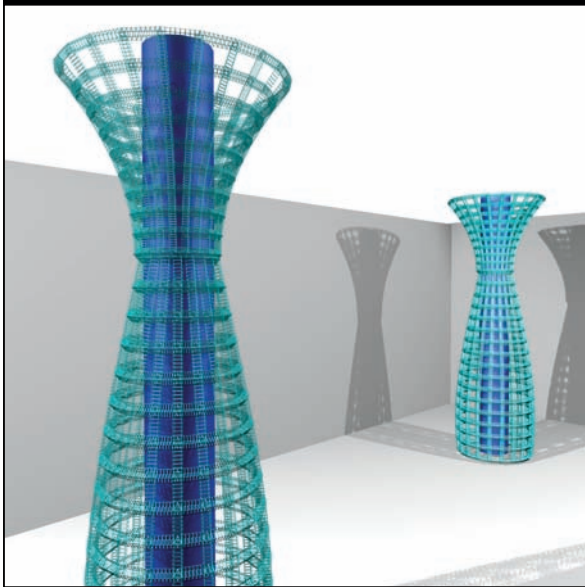
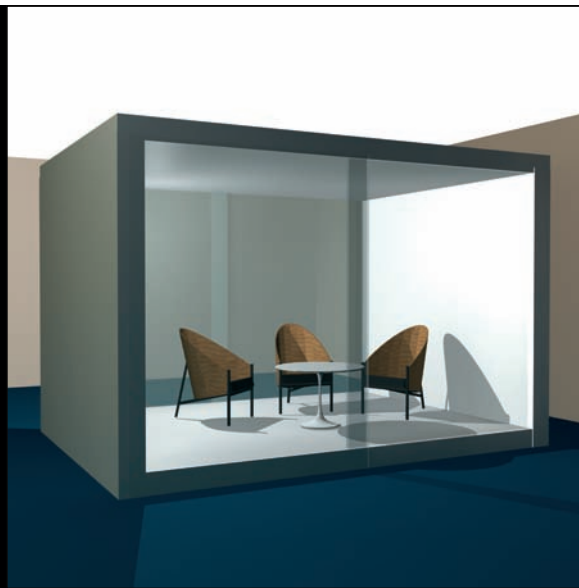
For *Six Pretty Good Books*, the instructors are developing new software to consolidate student questions for online Q&A sessions with the authors and to facilitate “peer grading.” As in many MOOCs, students will grade each other's essays and discussion-group participation.

“By reading, thinking about, and grading peers' papers, students realize what an excellent essay looks like, and they also see what is poorly conveyed in a not-so-good essay,” Ceci explained. “They eventually begin to see their essays as others see them.”

Cornell Chronicle writers Bill Steele and Joyanna Hansen contributed reporting to this story.

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Selected images from the Intypes database, an online collection of interior archetypes researched by Cornell design faculty and students.

Design

The college's long-running Intypes project offers a language for the discipline and practice of interior design.

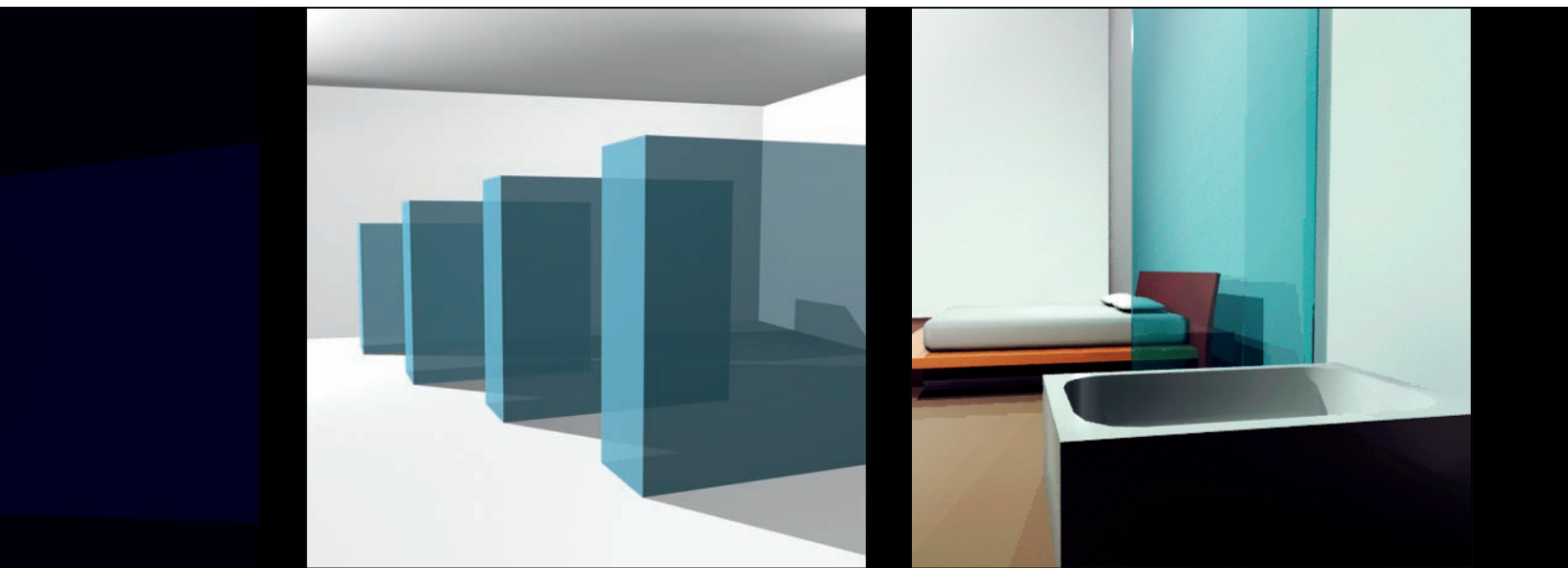
BY SHERRIE NEGREA

Arielle Levy '13, MA '14, had just switched her major to design and environmental analysis when one of her professors gave her an unusual assignment: find examples of “unrooms”—residual spaces in homes and commercial buildings that have no furniture but attract people—in design magazines dating back several decades.

When Levy and fellow student Emily Mitchell '13 pored through hundreds of issues of *Interior Design* at the Cornell Library Annex, they found more than 50 photographs from as far back as 1960 that showed these pockets of space beneath staircases, next to columns, or enclosed by balconies. The students then spent a month seeking unrooms in the crevices of Cornell's architecture and found them in the Johnson Museum of Art, Milstein Hall, Uris Library, and many other campus buildings.

Based on their research, the unroom will be officially inaugurated this summer into the Intypes (Interior Archetypes) Research and Teaching Project—a typology of contemporary interior design practices used throughout history and across cultures. When it is posted on the Intypes website, the unroom will become the 86th Intype and the first researched by undergraduates.

Jan Jennings, professor emerita of design and environmental analysis, launched Intypes in 1997 as a way to develop a



Speak

Intypes by the Numbers

16 years of continuous research

21 associated masters' theses

85 documented Intypes

More than 500 professional images on the website demonstrating interior design practices



Jan Jennings. Photo by KingKirby.

vocabulary that would explain recurring design patterns in the seminars and courses she taught at Cornell. She had no words, for example, to describe the furniture arrangement of two chairs facing a couch, often with a table or area rug between them, commonly found in living rooms or offices for nearly a half-century.

"It's something we do all the time in corporate reception areas in the workplace and in hospital waiting rooms, but there was no name for it," Jennings said. When graduate student Sue Yin nominated it as an Intype, the project's research group named the arrangement "Face to Face."

Though Jennings retired last year, the Intypes project continues to transform the teaching of design at Cornell and is shaping practices in architectural and design firms throughout the country. Jennings, who lives in Tulsa, Okla., still directs the Intypes project while Kathleen Gibson, associate professor of design and environmental analysis, now supervises all the students who work on it.

Graduate students in the department are the primary researchers of new Intypes and explore them in their masters' theses. Though the process was once loosely structured, graduate students now must follow a seven-step process that analyzes roughly 1,000 issues of design journals to identify a new interior archetype and then present their findings to the Intypes Research Group, a cross-

disciplinary faculty committee that deems whether a new Intype will be accepted.

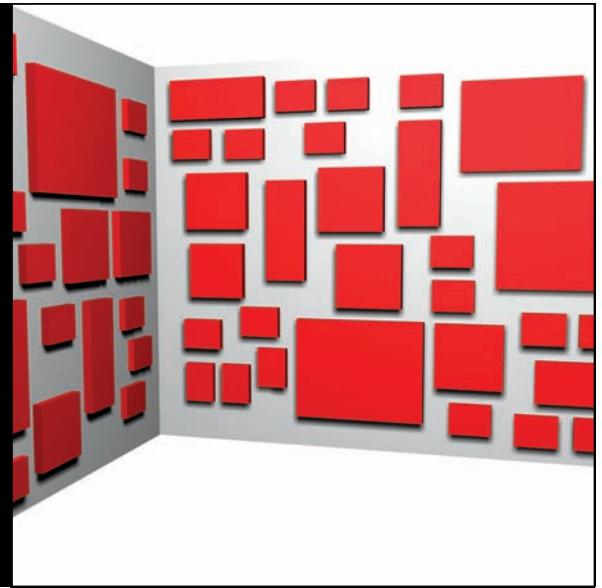
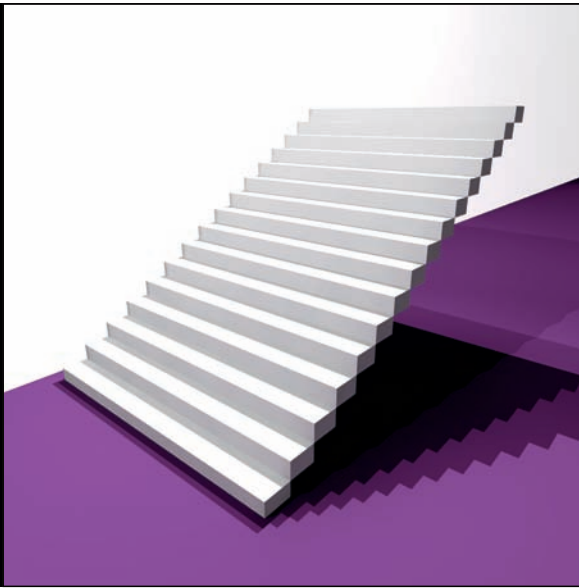
Gibson emphasized that the process is research-based and derives from images seen in the periodicals, along with field studies by students. "The magazine images drive the Intypes," she said. "It's what they're finding through the evidence."

Once the student has made the case for an archetypical practice, the research group engages in an intensive discussion to select a name for the proposed design feature. For Jennings, the gathering of more than a dozen scholars from disciplines ranging from theater arts to landscape architecture to name an Intype was always an "electrifying" process. "Everyone was stimulated, lively, and engaged in ways I had never experienced," she said. "Sometimes our meetings went an hour over their mark, but no one left."

One longstanding member of the research group is Paula Horrigan, associate professor of landscape architecture in Cornell's College of Agriculture and Life Sciences, who has been involved in the project from its inception.

"It's been an exciting opportunity to engage with the project, and it certainly has made an impression on my own thinking and work and teaching," Horrigan said. "I think the idea of seeing history as being always constructed and made is a really important and critical idea."

Among the 85 documented Intypes are (clockwise) Showcase Stair, Wunderkammer, Scene Seen, and Red Room.



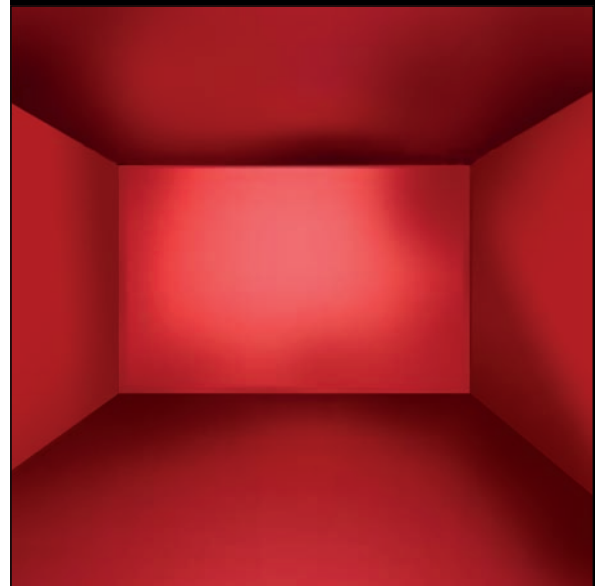
“We feel we have enough information amassed that it’s very usable for practitioners, educators, and researchers. Now we’re interested in broadening the base of people that knows about Intypes and getting the word out.”

—Kathleen Gibson

After its website was redesigned in 2009, the project began building up its database of Intypes, which then became accessible to professionals in the design field. Jennings, who has written or co-authored five books on design, has also promoted the project at national conferences and in special presentations to architectural firms across the country.

Another way of teaching professionals about the project is through the creation of a continuing education course about Intypes, which Gibson is creating in an online format. “We feel we have enough information amassed that it’s very usable for practitioners, educators, and researchers,” she said. “Now we’re interested in broadening the base of people that knows about Intypes and getting the word out.”

As the project is promoted to a wider audience, Jennings believes design professionals will see the benefit of using a common language to describe elements of their work. “The value of the project to me is the development of a vocabulary for our discipline,” Jennings said, “that is, to add to the language we know and borrow from the fields of architecture and the decorative arts and art, architectural, and design history.” • • •



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Building Better Boots and Gear **for Firefighters**

3-D technology sheds new light on hazards of bulky garb.

BY SARAH CUTLER

The top firefighter injury isn't burns or smoke inhalation, but musculoskeletal damage, such as ankle sprains.

A College of Human Ecology protective clothing expert is trying to change that with a five-year project to make firefighters' movements more natural and comfortable by designing better-fitting protective gear, mainly boots.

Bulky gear is a major cause of firefighters' onsite injuries, said Huiju Park, assistant professor in the Department of Fiber Science & Apparel Design, the project's principal investigator.

"Boots provide mechanical protection from burns, but they're very uncomfortable. Every step is an effort to move forward," said Park.

With graduate students and undergraduate members of his Functional Aspects of Clothing Design class, Park and his research team are using advanced 3-D motion capture system technology and plantar pressure sensors to assess how protective equipment affects firefighters as they walk and climb stairs in a simulated work environment. The 3-D imaging—the same technology used to create special effects in films and video games—records subtle changes in balance, foot comfort, and joint movement. Park aims to develop new performance and design guidelines for protective gear as part of a larger study with researchers at the University at Buffalo and Colorado State University.

In such sessions to date, Park has analyzed the range of motion at each joint for male and female firefighters, and measured the pressure applied inside their shoes. His team

has also examined the ways the body is affected by wearing protective gear, as well as what causes poor balance and inefficient movement.

Park is particularly interested in the difficulty many female firefighters have in finding well-fitting coats and pants. Because firefighting is traditionally a profession for men, manufacturers don't consider women to be major customers.

"Female firefighters don't often get the right size, right fit. Sometimes they just wear men's clothing," he said. "When there's an uncomfortable fit, there's more danger of injuries."

At the study's end, Park hopes to be able to suggest a better design for protective gear. He expects manufacturers to be interested, but, he emphasized, that's not the primary goal of his project.

"This is not about business," Park said. "It's about protection for first responders who care for our community."

Park has collaborated with International Personnel Protection Inc. on his research, and Honeywell First Responder Products donated 26 pairs of rubber and leather firefighter boots to the experiment.

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What Should Government Do?

BY SHERI HALL

The 2012 U.S. presidential campaign revealed a sharp divide between Republicans and Democrats on the role of government in American society, sparking a philosophical debate on how much citizens should rely on lawmakers, courts, and bureaucrats to stimulate economic growth, promote fairness for all, and protect basic human freedoms.

Politics aside, the influence of government has undoubtedly grown along with the increasing complexity of American society—taking on a major role in regulating commerce and financial transactions, shielding buyers from unfair practices, and providing infrastructure and services for such basic needs as transportation, communication, and water.

To better understand the influence of government on our everyday lives, faculty members in the Department of Policy Analysis and Management (PAM) are investigating policies and regulations, as well as the financial costs to taxpayers, put forth by government. They also are training students to evaluate the myriad functions of government, with a new undergraduate minor in Law and Regulation (see sidebar on page 17) launched last fall.

Watching the watchdog

PAM associate professor Sharon Tennyson examines government regulation of private transactions between firms and consumers, studying laws and policies designed to prevent businesses from engaging in unfair practices. Her work has spanned areas including pharmaceuticals, credit cards, insurance, and the airline industry.

Editor of the *Journal of Consumer Affairs*, Tennyson described her research as “looking at data from a market that is being regulated and trying to assess whether the regulation is having an effect—positive or negative.”

Tennyson explained: “The question to ask is how close the market comes to looking like a perfectly competitive market. If we feel a market is not functioning well, we have to think about what we could do to help that market work better. That could be something done through the court system, through legislation passed by Congress, or through rules that regulatory agencies make.”

Most recently, Tennyson has evaluated the effect of “black box” warning labels on prescription drugs, which the U.S. Food and Drug Administration requires when a medicine is

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Rick Geddes is a national expert on the economics of U.S. infrastructure and warns that a looming crisis calls for an expanded role of the private sector. Photo by Lindsay France.

found to have potentially fatal side effects. In a recent paper co-authored with Kosali Simon, professor at Indiana University; Joseph Price, PhD '07, assistant professor at Brigham Young University; and Cornell labor economics doctoral student Kristy Parkinson, Tennyson looked at how consumers' use of antidepressant drugs changed in response to a black box label that warned of potential suicidal thinking among teens who start antidepressants.

They found that fewer teens began taking antidepressants once the label was used, but fewer adults also began using the drugs, even though the warning doesn't apply to adults.

"The research suggests that the label conveys more negative information than is intended, which may have negative health consequences for adults," Tennyson said, explaining that the label may have been too restrictive.

In other research, Tennyson, Căzilia Loibl, associate professor at Ohio State University, and PAM doctoral student Lauren Jones examined the effects of new disclosures required on credit card billing statements. After the 2008 financial crisis, these disclosures were designed to help consumers better understand the cost of credit.

They found that since the disclosures have been included, more consumers are fully paying off their credit cards each month. However, among those who did not pay off their credit cards each month, there was little behavioral change.

"So, in our view, the new disclosures are a partial success," Tennyson said.

A cure for ailing infrastructure

America's infrastructure is on shaky ground: In March, the American Society of Civil Engineers graded its bridges, roads, tunnels, water systems, and other assets a D+ on its quadrennial report card.

PAM associate professor Rick Geddes, a national expert on the economics of U.S. infrastructure, has warned that a crisis is looming, calling for an expanded private role in such assets in his 2011 book, *The Road to Renewal: Private Investment in U.S. Transportation Infrastructure*.

"In the U.S., thinking about infrastructure investment is a new area," Geddes said. "It could be water, power, transportation, and other systems."

His research focuses on public-private partnerships to fund infrastructure improvements and



“For many years, transportation infrastructure has been the province of engineers, but it’s gotten a lot more complicated. The challenge is not in just building things, it’s in planning them, paying for them, and operating them. This requires a wide range of disciplines.”

—John Foote

maintenance, work that has guided policymakers at the national level.

Some of his recent research is focused on the best way to fund upgrades and maintenance for roads, highways, and bridges. Currently, federal and state governments rely on gas taxes to raise revenue for road repairs and maintenance.

“That system worked well for many years, but it is now breaking down because we are encouraging people not to burn as many fossil fuels due to environmental concerns about global warming,” Geddes explained. “For the first time since the end of World War II, people are actually driving fewer miles.”

Led by Geddes, a group of faculty from across the university have formed a new, multidisciplinary organization called the Cornell Program in Infrastructure Policy (CPIP) to develop and disseminate policies that improve the delivery, maintenance, and operation of all types of infrastructure in the United States.

Through CPIP, Geddes has teamed with experts in engineering, planning, and policy to explore new ways to fund infrastructure improvements. One idea is creating public-private partnership leases, where the government pays a private company to maintain roads to specific engineering standards. Another solution is to raise money for road improvements by charging U.S. residents for every mile they drive, instead of a tax on gas.

Among Geddes’s collaborators is John Foote ’74, an engineering graduate and visiting lecturer in the Cornell Department of City and Regional Planning. Foote helped guide the rise of EZ-Pass, a multi-state electronic toll system that allows drivers to pay road fees wirelessly via a virtual account when passing through toll areas. Foote co-founded Transcore, which manufactures transponders, writes software, and operates EZ-Pass systems under contract with toll roads.

“Both Rick and I have been thinking about similar things from different perspectives,” Foote said. “I’ve been a strong proponent of a user fee for the use of infrastructure. Not only can we raise the necessary money, but also we can send the right price signals to users which will result in more efficient use of the system.”

CPIP is the perfect venue to work on such solutions, Foote said, because of the interdisciplinary nature of the issue.

“For many years, transportation infrastructure has been the province of engineers, but it’s gotten a lot more complicated,” he said. “The challenge is not in just building things, it’s in planning them, paying for them, and operating them. This requires a wide range of disciplines.”

CPIP addresses a variety of infrastructure systems, including energy and water systems and building performance. The program includes 17 Cornell faculty members from 12 academic units, along with faculty affiliates from universities and corporations across the globe, and students focused on infrastructure research.

“It’s not just a Cornell effort, but it’s coordinated with experts globally. The U.S. is way behind the curve in terms of infrastructure financing, so there’s a lot we can learn from colleagues throughout the world,” Geddes explained. • • •

New Minor Teaches Ins and Outs of Regulation

A new minor in Law and Regulation, which launched last fall, provides Cornell undergraduates with a deeper understanding of the interfaces among government, the private sector, and citizens.

“The focus is on the practical justifications of having government intervene in markets, and what are the causes and the consequences,” said PAM associate professor Rick Geddes, director of the minor. “Those are sometimes complicated topics for undergraduate students, but nevertheless extremely useful for them to understand.”

The minor could help students with a wide variety of career plans, from working for government agencies to Wall Street firms, Geddes said.

Among the courses offered are the Economics of Consumer Policy and Regulating Financial Institutions, which cover how law and policy affect markets—topics not covered in typical government classes. “The broad range of government actions in markets, and the many circumstances in which government action may improve market outcomes, is important for all informed citizens to understand,” said PAM associate professor Sharon Tennyson, who teaches the classes.

The new minor unveils new possibilities for Michael Lemm ’14, a PAM major who is interested in pursuing a career in law or economics research.

“Regulations are something that often go unnoticed, but I’ve learned what a big impact they have,” he said. “The classes in the minor teach about historic regulations, as well as what’s happening today. They provide a holistic and practical view of national policy.”

Teaching about regulation is a strong component of Cornell’s history, Geddes said. One of Cornell’s influential academic leaders was Alfred Kahn, an economist credited with deregulating the airline industry so that low-cost carriers like Southwest Airlines could enter the market.

“We have a tradition of academic excellence in this area, exemplified by Kahn’s work,” Geddes said. “It’s important that we try to preserve and build on that tradition.”

For more information on the minor, visit www.human.cornell.edu/pam/academics/undergraduate/minor_in_law_regulation.cfm.

—Sheri Hall

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Facing stereotypes of home economics as glorified housekeeping, college leaders launched a fellowship two decades ago to show the field as a force for women's progress and for improving living standards.



Fellow Bruce Pietrykowski argues in his book that home economics developed a new form of consumer-based economics that was important in the U.S. and abroad. The photo shows Cornell professor Hazel Hauck (far right) discussing international home economics efforts in southeast Asia with Voice of America. Photo courtesy of the Division of Rare and Manuscript Collections, Cornell University Library.

Elevating Home Economics

BY TED BOSCIA

For historian Megan Elias, the inspiration for her graduate dissertation—and, eventually, her first book—was partly uncovered in the clearance bin at a library book sale in Ithaca. Browsing an assortment of books “no one would ever read,” Elias said, she was struck by a collection of 20th-century extension pamphlets issued by Cornell home economists to homemakers.

She bought the book and toted it back to New York City, where she was a graduate student in American history at the City University of New York. She could hardly put it down. “It was intriguing to me; I hadn’t really known the full extent of the conversations going on between home economists and

women around New York,” she recalled. “From that little green book, I had found my dissertation topic.”

Elias was studying the evolution of home economics in higher education from the late 1800s to the present. Cornell was the ideal location for two reasons: its rich archives, but also its legacy as an early leader in women’s education following the arrival of Martha Van Rensselaer in 1900 to begin a reading course for farmers’ wives. By 1919, the university had founded a Department of Home Economics, with the College of Home Economics—the precursor to the College of Human Ecology—to follow in 1925.

Already a budding expert in the topic of home economics, it

wasn't until receiving the college-sponsored Dean's Fellowship in the History of Home Economics, reading letters by Van Rensselaer, Flora Rose, and other matriarchs of the home economics movement, that "the story of these women came to life," Elias said.

Elias relied on the Archives' original documents to piece together her account of the rise of home economics as a field in higher education, including how classes at Cornell and elsewhere quietly defied traditional gender roles to become a force for women's progress. The research led to her first book, *Stir it Up: Home Economics in American Culture*, published in 2008 by University of Pennsylvania Press.

"The Archives helped me to see who these women really were and allowed the story to unfold," Elias said. "It was as if I was finally really getting to know the characters, the home economists at Cornell, in much greater detail. I could look deeper than an administrative history of the field to see the relationships and networks—whom Martha and Flora were corresponding with and who came over to dinner and how that was reflected in teaching and ideas."

For more than 20 years, an impressive roster of historians, economists, and other researchers have used the fellowship to explore the university's rich records—original photographs, correspondence, course curricula, faculty biographies and oral histories, and more—to discover and assemble, like Elias, new insights on the field of home economics, as well as on such specific topics as food and nutrition, child development, ergonomics, and consumer behavior. Established in 1991, the fellowship, awarded annually in a competitive process, has supported research for books and papers on everything from wartime food rationing to rural development to child rearing.

Their body of work has also led scholars to rethink the importance of home economics to women's progress in the 20th century and to acknowledge how the field has improved living standards for millions thanks to scientific advancements in matters of the home: food and diet, clothing and textiles, home design, cleaning and sanitation, consumer economics and policy, and parenting and youth development.

This newfound respect for home economics—castigated by many feminists of the 1960s and 1970s as shackling women to traditional gender roles—is no accident.

More than 'simple homemaking'

For generations of Americans, the term home economics called to mind such perceived trivialities as sewing quilts and baking cakes. Joan Jacobs Brumberg, Cornell professor emerita of human development, once counted herself—and many other feminists—among that group. Teaching a course on the history of women in the professions—nurses, teachers, librarians, social workers—in the late 1970s, she realized that home economists had been overlooked because of these negative stereotypes.

"There was a misunderstanding then on many levels," said Brumberg, a social and cultural historian focused on women, children, and family issues. "[We] naively degraded home economics, and the public thought that it was all 'just simple homemaking.'"

"The popular assumption is that home economics programs only served to hold women back by reaffirming gender norms, but the reality is far more complicated. They were actually quite empowering for women, leading them to professional careers and the ability to take charge of their lives."

—Bruce Pietrykowski

Part of the reason for the ignorance was a lack of scholarship. In response, Brumberg and a group of researchers and college leaders organized a conference at Cornell titled, "Rethinking Women & Home Economics in the Twentieth Century" in 1991. Sponsored by the New York Council for the Humanities and the College of Human Ecology, the two-day event attracted more than 300 home economists, teachers, professors, extension agents, and community volunteers from two dozen states and 27 universities.

In news clippings, Brumberg described the conference as a way to prompt dialogues between historians and home economists to understand how the field shaped American society and "to counteract the notion that home economics was nothing more than glorified housekeeping." The wide interest in the conference, which resulted in a book, *Rethinking Home Economics: Women and the History of a Profession*, released by Cornell University Press, signaled that home economics bashing had ceased.

It also helped provide the impetus for the Dean's Fellowship in the History of Home Economics, established under then-dean Francille Firebaugh. In 1992, the first grants went to Kathleen Babbitt, a researcher at Binghamton University whose resulting dissertation on farm women's production and consumption became a finalist for the Lerner-Scott Prize for the Best Dissertation in U.S. Women's History, and Julia Grant, now a well-known scholar on women's issues at James Madison College. More than 20 years later, the program continues to fund high-caliber research, having survived the tenures of four deans and state and university funding cuts that have undone other programs.

"Of course I am simply delighted that the fellowship continues through thick and thin," said Firebaugh, college > > >



In 2001, Megan Elias used the fellowship to trace the evolution of home economics education in the United States, depicted here in a lecture from the 1920s on food. Photo courtesy of the Division of Rare and Manuscript Collections, Cornell University Library.

dean from 1988–1999. “It’s remarkable that it has continued for this long and that it has rekindled an appreciation and reexamination of the field of home economics.”

Firebaugh added that part of the reason for the fellowship’s longevity is the one-of-a-kind resources in Cornell’s Archives. Eileen Keating, archivist for the College of Human Ecology, said that Van Rensselaer and Rose “did a phenomenal job” of record-keeping. “They kept everything, and there is a letter where they encourage staff, faculty, and alumni to also keep records because I think they sensed that they were breaking ground in home economics and women’s education.”

And the growth of the fellowship also sent an important signal to historians: few places can match Cornell’s holdings in the field of home economics, Keating said. Indeed, in 2004, the American Association of Family and Consumer Sciences (formerly the American Home Economics Association) entrusted its papers to Cornell, giving the university key documents from the early 20th century to the present.

As scholars make use of these records, Brumberg has observed a definite shift in public and academic attitudes toward home economics. Gone is the ridicule, she said, replaced by “attention to the real record and accomplishments of women in home economics, especially new writing about the history of home economists as scientists and players in the 20th century marketplace of food, home appliances, and other areas.”

Baby food and buying power

In the early 1900s, Cornell was a hotbed of home economics activity, thanks to teaching, research, and extension activities led by Martha Van Rensselaer and Flora Rose. For the first time, farmers’ daughters were attending college in large numbers, and thousands of women relied on extension bulletins and demonstrations to apply scientifically tested ideas for improving their homes.

Due to anti-home economics stereotypes, however, many historians and economists had written off this work as inconsequential, little more than happy homemaking. But Bruce Pietrykowski, professor of economics at the University of Michigan–Dearborn, credits these women with developing a sophisticated view of economics and consumer behavior,



NYU professor Amy Bentley researched 20th-century infant feeding practices during her fellowship in 1998, with her book on the topic due to be released next year. Photo courtesy of the Division of Rare and Manuscript Collections, Cornell University Library.

one rooted to the home, the hub of activity for most Americans.

A fellowship recipient in 1997, his research shed light on this alternative school of economics, one that he argued “took economics in new directions and developed it in ways that were at odds with traditional methods.”

“Through the use of time surveys and production diaries, home economists of the 20th century expanded the scope of economics and consumer behavior,” said Pietrykowski, whose fellowship research led to his book, *The Political Economy of Consumer*

Behavior: Contesting Consumption (Routledge, 2011).

“Unfortunately, many economists have ignored these alternative theories and approaches because they were performed by home economists, not ‘real economists.’”

Still, the dismissive attitudes by many in the academy provided Van Rensselaer, Rose, and other early home economists cover to be quite radical in their approaches. In the Archives, Pietrykowski uncovered a syllabus for a home economics course at Cornell from the 1920s and 1930s. Among the required readings was “The Home-Maker,” by Dorothy Canfield Fisher. What seemed by its title like a staid reading was actually a subversive tale that questioned the era’s traditional gender roles of men as breadwinners and women as homemakers.

“The Archives helped me to see who these women really were and allowed the story to unfold. It was as if I was finally really getting to know the characters, the home economists at Cornell, in much greater detail.”
—Megan Elias

“The popular assumption is that home economics programs only served to hold women back by reaffirming gender norms, but the reality is far more complicated,” Pietrykowski said. “They were actually quite empowering for women, leading them to professional careers and the ability to take charge of their lives.”

The year after Pietrykowski’s work in the Archives, Amy Bentley, at the time an assistant professor at New York

University, received the fellowship. The author of a book on food rationing, she investigated the history of baby food and infant feeding practices. Similar to Pietrykowski's research, Bentley demonstrated how women, aided by the work of home economists, are at the center of many major consumer decisions for the household, few as important as what to feed their kids.

"It seems that so much of the marker of a good mother in our modern capitalist society is what you are buying for your children—the right foods, right toys, right strollers," said Bentley, associate professor of food studies at NYU. "To be a good mother is to be a good consumer in a lot of ways. Baby food is a prime example of this."

For her book on baby food due to be published in 2014, Bentley traced the shifting science on infant feeding and nutrition and the steep rise of the commercial baby food industry in the past 75 years. Promising that it's "not a diatribe book," Bentley argues that the commercialization of baby food corresponds to a decline in breastfeeding and also acclimates children to an industrialized food palate that shapes their tastes for years to come. It has also elevated the importance of fruits and vegetables to infant diets, whereas meats and grains were once thought to be essential.

Bentley said her Dean's Fellowship influenced multiple chapters in the book. She recalled finding a Ph.D. dissertation by Rachel Sanders Bizel, a student at Cornell in the 1930s who visited homes around New York and documented infant feeding practices for some 700 babies. She also examined notes from a Cornell child study club, where experts would respond to women's concerns about their babies' nutritional needs.

"It was fantastic for me to have access to these firsthand data and accounts," said Bentley. "It's very easy to look back at advice manuals issued by experts, but it is much harder to figure out what the general public is actually doing."

Through such firsthand research, Bentley, Pietrykowski, Elias, and 19 other scholars have used the fellowship to paint a more nuanced picture of the work of home economists on issues that are central to everyday life. And despite rapid upheavals in U.S. society in the past century, their work continues to be vitally important, Elias argued.

"Today the buzzword is sustainability, but that's something home economists have studied from the beginning—the home as a social animal, consumer behaviors, and use of resources," said Elias, at work on a history of American cookbooks. "It's about applying science to home life and taking responsibility for your place in the world." • • •

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<http://rmc.library.cornell.edu/homeEc/default.html>

Fruitful Fellowship

1992 Kathleen Babbitt, "Social Reform in the Countryside: Rural Women and Cooperative Extension Home Economists in New York State, 1870–1940."

1992 Julia Grant, "Modernizing Motherhood: Child Study Clubs and the Parent Education Movement, 1915–1940."

1993 Nancy Berlage, "Professionals and Agricultural Change: Home Economists and Home Demonstration Work in Rural New York, 1910–1930."

1993 Mary Summers, "Rethinking Interest Group Politics: The Making of the United States Department of Agriculture."

1994 Carolyn Goldstein, "Mediating Consumption: Home Economics and American Consumers, 1900–1940."

1995 Janet Hutchison, "Home Economists and Better Homes During the Interwar Period."

1996 Karen Stupski, "The Role of the Laboratory in the Home Economics Movement, 1900–1930."

1997 Bruce Pietrykowski, "Home Economics and Homo Economicus: The Creation and Diffusion of Diverse Sources of Economic Knowledge in the 20th Century."

1998 Amy Bentley, "Behind the Gerber Baby: A Cultural History of Solid Infant Food and Feeding Practices."

1999 No fellowship awarded.

2000 Kathy Cooke, "Non-Sense and Anti-Sentimentality: Home Economics, Euthenics, and the 'Threat' to Race Betterment Efforts in America."

2001 Megan Elias, "Stir It Up: The Home Economics Movement in Higher Education, 1900–1950."

2002 Jan Scholl, "Click, Flash, and Flicker: Educational Technology Used by Home Economists in the Twentieth Century."

2003 Charlotte Biltekoff, "The Problem of Changing Food Habits: National Well Being, Nutritional Health, and Food Reform, 1937–1946."

2004 Gabriella Petrick, "Putting Home Economics to Work: Using Home Economics Research to Tell the Story of the American Diet."

2005 Helen Veit, "Food and the First World War: American Food Aid and Home Economics."

2006 Mary Anne Beecher, "To Make Space Most Useful: The Impact of Home Economics Education and Outreach on Domestic Storage Improvements, 1900–1950."

2007 Karen Dunn-Haley, "The College on Wheels and Post-World War II Extreme Home Makeovers."

2008 Gwen Kay, "Taking the Home out of Economics: From Home Economics to Human Ecology."

2009 Anna Flaming, "The Homemaker and the Home Economist: Definitions and Identities in the Second Half of the Twentieth Century."

2010 Rachel Moran, "Weighing: Physique as Pedagogy and Propaganda, 1920–1950."

2011 Amrys Williams, "Cultivating the Country's Best Crop: Developing Youth through 4-H in the Early 20th Century."

2012 Annie Schatz, "Fixing Family Problems Around the World: Home Economics at the Cornell School for Missionaries."

MRI to Help Unlock Mysteries of Risky Teen Behavior

Project is first to occur in new Cornell MRI Facility.

BY KARENE BOOKER

The National Institutes of Health (NIH) has awarded \$1.7 million to the College of Human Ecology to enhance our understanding of why adolescents are prone to taking risks.

The study, which will compare differences in the brains of teens and adults when faced with risky decisions, will be the first to use the Cornell MRI Facility, a new, state-of-the-art center for neuroscience and other fields of research in Martha Van Rensselaer Hall.

Led by Valerie Reyna, professor of human development, the project will bring together a team of economists, psychologists, and neuroscientists to examine decision-making processes in adolescents and adults and shed light on competing theories about how the teen brain works.

“Research suggests that adolescents differ from adults in emotional reactivity, motivation, and self-regulation, but substantial ambiguities remain about how these factors determine adolescents’ risky decision making,” said Reyna, principal investigator for the grant and co-director of the Cornell MRI Facility. “Our research will disentangle these key causal factors to better understand, predict, and ultimately reduce adolescents’ unhealthy risk taking.”

Other investigators on the grant include William Schulze, the Kenneth L. Robinson Professor of Agricultural Economics and Public Policy; David Dunning, professor of psychology; Ted O’Donoghue, professor of economics; Brian Wansink, the John Dyson Professor of Consumer Behavior; Barbara Ganzel, research scientist in human development—all from Cornell University in Ithaca—and Henning Voss, associate professor of Physics in Radiology at Weill Cornell Medical College in New York.

The team will answer unresolved questions about how adolescents’ responses to rewards might differ from responses to losses or negative consequences and how desires, strong emotions, or the way risks are presented may change responses to risk and to reward. Using functional magnetic resonance imaging (fMRI) techniques performed on the 3 Tesla MRI scanner at the Cornell MRI Facility, they will also look at how the adolescent brain reacts differently from the adult brain when making decisions about risks.

The universitywide facility is the newest addition to Cornell’s imaging resources and will provide detailed structural and functional images for a broad range of scientific studies involving humans, small animals, plants, and biomedical materials. The powerful scanner is expected to open new areas of research as Cornell scientists from a variety of fields—engineering, veterinary sciences, agriculture, and others—begin using the new technology to gain rich, in-depth images.

Already it has become a draw for top neuroscience researchers. This fall, Adam Anderson, associate professor at



Valerie Reyna with the 3 Tesla MRI scanner at the Cornell MRI Facility.
Photo by Mark Vorreuter.

the University of Toronto who specializes in the psychology and neuroscience of emotions, and Eve De Rosa, associate professor and comparative cognitive neuroscientist at the University of Toronto, are joining the college’s Department of Human Development. Previously, neuroscience researcher Nathan Spreng, assistant professor of human development and Rebecca Q. and James C. Morgan Sesquicentennial Faculty Fellow, joined the department to further his work on large-scale brain network dynamics and their role in cognition.

Karene Booker is an extension support specialist in the Department of Human Development.

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Scientists, Practitioners Set Research Agenda for Palliative Care

Team discusses 'big questions' facing booming area of medicine.

BY TED BOSCIA

The emerging field of palliative care—which offers treatments to alleviate pain, suffering, and stress for patients diagnosed with serious illnesses, but distinct from hospice care—is taking hold in U.S. medicine. While it wins praise for its patient-centered approach and potential cost savings, the field remains largely unstudied, leaving practitioners with little evidence to improve methods.

Addressing these gaps, a team of researchers from the College of Human Ecology, the Bronfenbrenner Center for Translational Research (BCTR), and Weill Cornell Medical College met with Ithaca palliative and hospice care professionals in a workshop Feb. 15 at Cayuga Medical Center (CMC). The meeting, co-sponsored by the CMC Palliative Care Program and Hospicare and Palliative Care Services of Tompkins County, followed a consensus workshop model, an approach invented by College of Human Ecology scientists that places researchers alongside practitioners to share their knowledge on a topic before voting on a research agenda.

“Our belief is that if you want to bridge the gap between researchers and practitioners, you have to create these micro-environments where the two sides can come together,” said workshop organizer Karl Pillemer, the Hazel E. Reed Professor in the Department of Human Development. “Simply receiving our written recommendations or listening to a formal presentation is not nearly as powerful as sitting down together to hash out the big questions regarding palliative care.”

Prior to meeting, the Cornell team studied more than 200

journal review articles on palliative care and interviewed more than 50 academic thought leaders from the field. They distilled their findings into 14 specific topics to research.

“We are looking at a lot of research that’s produced—some of it is valuable and some of it is more esoteric,” said Dale B. Johnson, executive director of Hospicare and Palliative Care Services of Tompkins County. “I saw nothing off base in the Cornell group’s recommendations, and they touched on the whole range of issues we face.”

Deb Parker Traunstein, coordinator for the CMC Palliative Care Program, noted a sharp increase in palliative care consultations by the hospital in recent years. Among her recommendations, she urged researchers to consider how to tailor treatments to a diverse patient base and how best to deliver care in a variety of community settings.

Though researchers cautioned that the workshop results are not final, a few recommendations stood out:

- Adapt palliative care programs for people with mental illness or developmental disabilities;
- Assess public awareness of the dying process and end-of-life care to build better education programs;
- Examine family communication practices related to end-of-life planning.

The Cornell team will merge the results of the Ithaca workshop with recommendations from a similar gathering with palliative care professionals they hosted in January in New York City. Eventually, they will publish their recommendations in an academic journal and distribute them to major funding agencies to help steer an agenda for the field.

The workshops were funded by the Lawrence and Rebecca Stern Family Foundation, which provided \$200,000 to the College of Human Ecology to support research on a national model for palliative care. Once the workshop recommendations are final, the gift also will fund a number of pilot projects by Cornell researchers on the most pressing topics in palliative care.



College of Human Ecology researchers joined with a variety of local practitioners—nurses, doctors, social workers, and others—to share ideas on improving palliative care. Photo by Mark Vorreuter.

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www.bctr.cornell.edu/projects/translational-research-priorities-in-palliative-care-project

Online Dashboard Powers Up Classes on Energy Use

Tool is seen as a driver for conservation campaigns.

BY SARAH CUTLER

Thanks to a new online dashboard, the college's facilities staff can view real-time data on water and energy consumption in the LEED Platinum Human Ecology Building (HEB).

Students and professors in the Department of Design and Environmental Analysis (DEA) are also plugging in, using the interface as a learning tool to uncover what building occupants and other stakeholders can gain from such information and how building energy dashboards can steer conservation campaigns.

Their findings have helped guide the development of a broader campus-wide energy dashboard system overseen by Cornell Facilities Services, a tool set to launch later this spring that will provide instantaneous energy usage readings for 50-some campus locations.

Last fall, students in DEA assistant professor Ying Hua's course Collaborative Sustainable Building Practice evaluated the HEB dashboard and a separate online dashboard platform, comparing the structure, quality of information presentation, and level of engagement each platform encouraged.

In collaboration with the Energy & Sustainability Department in Facilities Services, Hua asked students to evaluate each from the perspectives of a variety of stakeholders: facilities staff, the general public, and specific occupants. Class members held focus groups and studied dashboard conventions, compiling their findings into a report for college and university facilities leaders.

"Student input and evaluation of the energy dashboards really helped Facilities Services decide which dashboard would be right for Cornell," said Erin Moore, energy outreach coordinator for Facilities Services. "Prof. Hua's students were really enthusiastic about gaining hands-on experience with a real-time energy dashboard and learning how the system plays a role in building performance."



Assistant professor Ying Hua and Will Higgins '14 and graduate student Raechel Schneider assessed various energy dashboards to find the right model for Cornell. Photo by Mark Vorreuter.

Hua noted that the project also helped students envision uses for such dashboards, including connecting individual actions to a facility's total energy usage.

"People see it as a big screen showing yearly trends," Hua said. "But that's only a fraction of what the dashboard can do. The dashboard gives me the chance to talk about building energy consumption and profiles of energy use in a context that students are very familiar with."

By the end of Hua's class, graduate student Raechel Schneider said she realized that a dashboard offers a powerful feedback loop to encourage building occupants to turn off lights, power down unneeded equipment, and optimize resources in lab spaces.

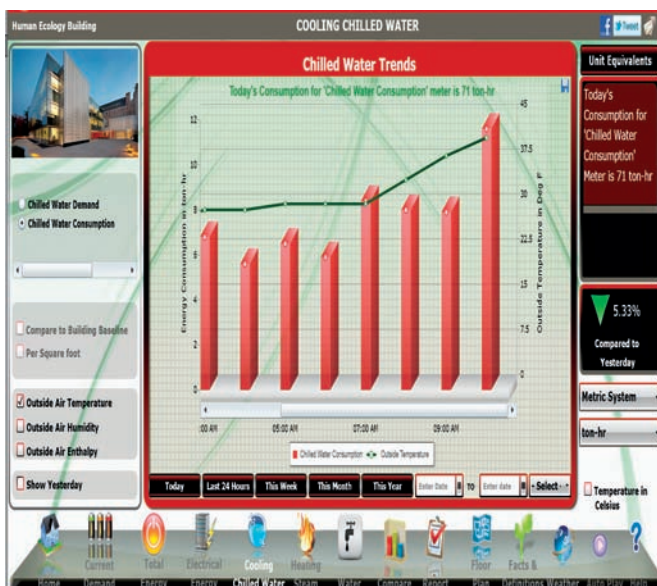
"This board lets people be engaged," she added. "We're usually pretty passive users of buildings, but the dashboard allows for active use. That's something I'd like to see more of, both on college campuses, in office spaces—any type of user group can benefit from it."

Will Higgins '14, also enrolled in Hua's course, credited the project with shedding light on how different groups interact with an energy dashboard.

"For students, you want it to be really quick, with basic info on the front page," he said. "For facility managers, you want people to be able to dive in a little more—depth you wouldn't want on the front page. You want energy use by floor, by plug load, by lighting."

In the long term, Hua said, she plans to use the dashboard to run simulations for illustrating the effect of various energy-saving scenarios.

Sarah Cutler '16 is a student communications assistant for the College of Human Ecology.



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Afterword

Mapping the Brain Is a Team Effort

BY CHARLES BRAINERD

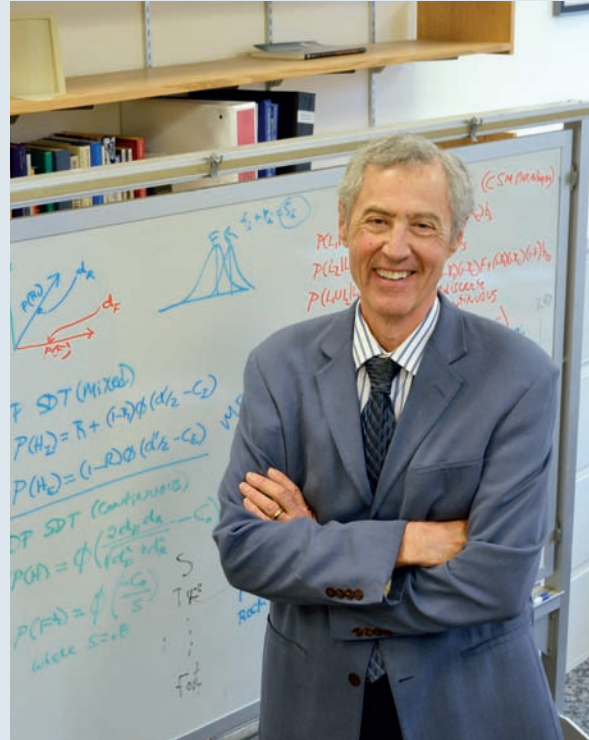
Those of us in the field of human development are excited by President Obama's decision in April to commit \$100 million in the coming year's federal budget to a new proposal to map the activity of every neuron in the human brain, shedding new light on the brain's role in decision-making, memory, physical health, and other areas. Known as the Brain Research Through Advancing Innovative Neurotechnologies (BRAIN) Initiative—and commonly referred to as the Brain Activity Map Project—such a focused scientific effort presents a fascinating challenge with broad implications for the future of government-sponsored research in many fields.

The enormous scope of the research challenge posed by the Brain Activity Map Project requires a broad assessment of what we already know about the connections among human behavior, memory, disease, and decision-making. Therefore, collaborative research efforts that include a mix of perspectives from such disciplines as psychology, medicine, and physics are more likely to accelerate attempts to understand the complex relationships between brain function and human disease and behavior.

As one example, the successful prevention and treatment of Alzheimer's dementia is hoped to be an outcome of the federal brain mapping project. While affecting more than 70 percent of known dementia sufferers, the early detection of the disease, successful prevention, and development of drugs aimed to reverse the related physical and cognitive declines for sufferers have proven to be elusive. Frequent news reports attest to the disappointment we all share that drug treatments for Alzheimer's that showed early promise have failed to make measureable advances against the disease.

Asking new and different questions could help refocus investments and research efforts. For example, with support from a multi-year grant from the National Institutes of Health, I joined other researchers in the college's Department of Human Development, the Mayo Clinic, Duke University, and the University of Michigan in an effort to improve the identification and classification of mild cognitive impairments assumed to be precursors to dementia. The research findings published in the January issue of *Neuropsychology* showed that the e4 allele previously thought to be a genetic link to Alzheimer's dementia is instead connected to a form of mild cognitive impairment.

Unlike Alzheimer's disease, many types of cognitive impairments are more easily detected and might be forestalled (and perhaps prevented) with proper diet and exercise. Therefore, our new findings have far-reaching implications for medical research but also the clinical practice of geriatrics. The simple assessment tools that allowed for the accurate cataloguing of hundreds of subjects for this research effort could be one transferable finding that would help researchers overcome often-cited challenges of measuring the results of drug tests in similarly affected adult study subjects.

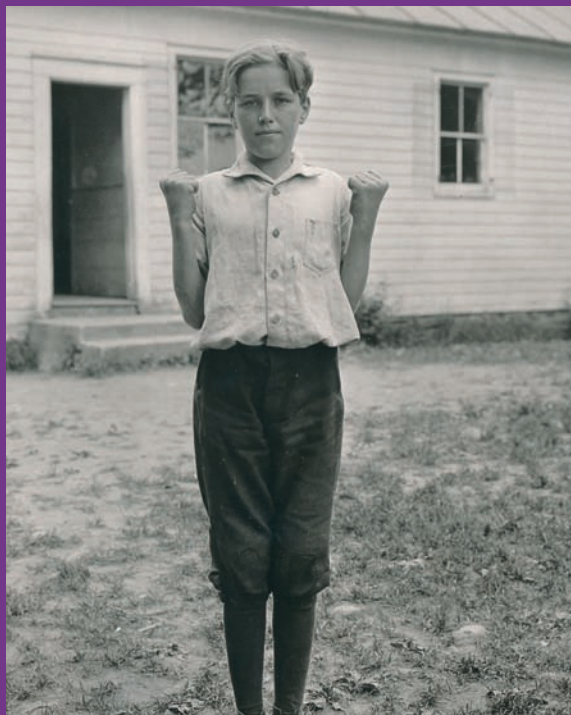


As for clinical practice, mild cognitive impairments seem to play an even more central role in late-life cognitive decline than is currently supposed. And genetic testing seems to be a better diagnostic tool for predicting whether a healthy person will develop mild cognitive impairment than for predicting whether an impaired person will develop dementia.

Alzheimer's is one of many mental and physical disorders that can be better treated as research decodes the mysteries of the human brain. Using advanced mathematical models of cognitive processes and brain imaging techniques connects the field of psychology to new opportunities to explore and test critical research questions. We are excited that the federal government is making significant investments in neuroscience at the same time that the College of Human Ecology is embracing the field with the opening of the new Cornell MRI Facility, which promises to facilitate exciting new directions in research.

The MRI Facility and the research underway invites the broad collaborations required if we are to meet the President's bold goal of mapping the brain and improving key areas of human health. As chair of the Department of Human Development, I am excited to see many faculty experts working across disciplines to tackle these immense challenges.

Charles Brainerd is a professor of human development.



A young boy flexes his muscles outside a one-room schoolhouse near Ithaca during a visit by a county extension agent circa 1920. Cornell extension agents visited local schools monthly to discuss nutrition and fitness with children and teachers. The sessions served to educate young children about proper health habits and also to extend the knowledge generated at Cornell into the community. Around the time of the photo, the field of home economics was achieving growing prominence at Cornell: in 1919 the Department of Home Economics formed, followed by the establishment of the New York State College of Home Economics in 1925.

Photo courtesy of the Division of Rare and Manuscript Collections,
Cornell University Library