Erudition is published annually by the Adelphi University Office of Public Affairs. Address correspondence to: Bonnie Eissner, executive editor, Erudition, Adelphi University, Levermore Hall, Room 205, One South Avenue, P.O. Box 701, Garden City, NY 11530 or email eissner@adelphi.edu.

BOARD OF TRUSTEES

Robert B. Willumstad '05 (Hon.)
Chairman

Thomas F. Motamed '71
Vice-Chair

Frank Angello '77
Secretary

Steven N. Fischer '00 (Hon.)
Chairman Emeritus

Steven L. Isenberg '79
Chairman Emeritus

Robert A. Scott
President of the University

Z. Paul Akian '64 • Jeffrey Bolton '61 • Loretta Cangialosi '80 • Philip DiSanto '12 • Jeffrey R. Greene • Chantal N. Hamlin '07 • Noreen Harrington '81 • Osbert Hood '86 • N. Gerry House • Angela M. Jagger '62, M.A. '65 • Laurence Kessler '65 • Lindsey Kupferman, M.A. '02, Ph.D. '06 • Ronald B. Lee '67 • Susan H. Murphy • Grace C. Pilcer, M.A. '79, Ph.D. '84 • Peter Principato '87 • Gary Rosenberg, M.S.W. '63 • Paul J. Salerno '76 • Lois C. Schlissel • Patrick S. Smalley '86 • Helene Sullivan '79 • William Tenet '75 • Adaeze Udoji '08

A full list of emeritus trustees is online at adelphi.edu.

TABLE OF CONTENTS

3 • Working Toward a Healthier World
4 • Fixing Hospital Care Is a Matter of Life or Death
5 • Advancing the Science of Addiction and Trauma Recovery
6 • Better Medicine for All: Ensuring That Faith Leaders Are Knowledgeable About Clinical Research Participation
7 • Preserving the Health and Wealth of Kenyan Families Impacted by HIV
8 • Tracing the Growth of a Transnational Hindu Movement
9 • A New Approach to Mental Healthcare
10 • Retail Therapy: How Retailers and Manufacturers Can Collaborate to Boost Profits
11 • A New Equation: Math and Phys Ed Skills Without the Dull Drills
12 • A Sunnier Future for Solar Energy
13 • Can Patients Choose Their Hospital in a Pandemic?
14 • How Do Parents Help Kids Cope?
15 • Town and Country
16 • Faculty Highlights

Front Cover Photo: Courtesy of BAPS Swaminarayan Sanstha
Back Cover Photo: Willson Lee
Dear Reader,

In 2010, we launched Adelphi University’s Center for Health Innovation (CHI) as part of a comprehensive strategic plan. The intent was to leverage Adelphi’s outstanding health-related academic programs and outreach initiatives. Now in its fifth year, CHI is thriving—creating opportunities for transdisciplinary and translational research, addressing community health needs and fostering collaborative faculty scholarship. Erudition magazine is one of the many initiatives undertaken by CHI. Our goal in this annual publication is to share how Adelphi faculty members are impacting our collective health and the welfare of our local, national and global communities.

Elizabeth Cohn, Ph.D., R.N., the director of CHI, has written, “At CHI, health is more than physical well-being or the absence of disease, illness or injury. It is a constellation of factors—economic, social, political, psychological, ecological, cultural and physical—that comprise high quality lives for individuals and communities.”

Erudition highlights research and creative activity by faculty scholars and artists from departments throughout Adelphi. The diverse articles form a mosaic that reveals how interconnected and interdisciplinary health research can be. Most of the endeavors described in this issue have obvious connections to health. In other cases, the connections are more nuanced.

Improving treatment for people who struggle with substance abuse has become a national priority, especially given the research showing how cost-effective treatment is compared to the alternatives, such as crime and incarceration.

Since 2002, Denise Hien, Ph.D., a professor at the Gordon F. Derner Institute of Advanced Psychological Studies, has been a co-principal investigator with the National Institute on Drug Abuse (NIDA) Clinical Trials Network Greater New York Node. With significant grant support, she and her colleagues find ways to link leading research on substance abuse and trauma treatment with the community-based clinics that serve those most in need.

So often, we hear about the hardships of our retail economy—of wholesalers slashing prices and wages to meet the demands of large retailers, for example. Using game theory, Susan Li, Ph.D., a professor at the Robert B. Willumstad School of Business, and her colleagues have determined that collaboration, rather than competition, among wholesalers and retailers can boost the profits of both groups. Might wages rise—and, with them, worker satisfaction and well-being—from this approach? It seems a promising prospect.

Toward the end of the issue, you will find the Faculty Highlights section—a compilation of the work presented, published and performed by Adelphi faculty members in 2014. The listing is voluminous and impressive.

As ever, I am grateful to work with such talented and dedicated scholars, teachers, artists and leaders and invite you to learn about their important work in this issue of Erudition and online at adelphi.edu.

Sincerely,

Gayle D. Insler, Ph.D.
Provost and Senior Vice President for Academic Affairs
Running a hospital well or badly has life-or-death consequences. Wei Liu, Ph.D., and Susan Zori, D.N.P., know this all too well from their long experiences as hospital nurses and their more recent pursuits as academic researchers.

Prior to joining the Adelphi faculty as an assistant professor in the College of Nursing and Public Health, Dr. Liu worked for more than a decade as an emergency room nurse in China and Australia. Dr. Liu became fascinated by the complexities of how nurses, doctors and pharmacists communicate across their various disciplines in order to dispense medications.

What does it mean, for example, that doctors make medication decisions at the central staff station, away from patients’ bedsides? Or that they make their medical ward rounds when nurses are absent? What is the impact on patient care when doctors, nurses and pharmacists conduct separate staff meetings?

Through interviews with and observations of doctors, pharmacists, nurses and patients, Dr. Liu documented patterns of communication and miscommunication in medication management at a major metropolitan hospital in Melbourne, Australia.

As a nurse in a separate ward at the hospital, Dr. Liu was able to establish credibility and rapport with the professionals and patients she was studying, to the point that they allowed her to videotape their clinical interactions.

Dr. Liu’s ultimate goal was to improve patient safety at the hospital. In addition to publishing papers based on her research, she took her findings back to the hospital professionals. In focus groups, she shared her data and a DVD she produced and encouraged discussion. Her aim, she said, was to “have them look at their own practices to see where the communication gaps might be and how we could improve our interdisciplinary communication and then improve our patient safety.”

Dr. Zori, a clinical assistant professor at Adelphi’s College of Nursing and Public Health, has practiced nursing for 40 years, many of them as a nursing director at prominent hospitals in New York City and on Long Island. During decades of overseeing teams of nurses, she grew curious about why some teams exuded positive energy and excelled while others seemed disgruntled and performed less well.

She suspected that the nurse managers’ critical thinking abilities and attitudes played a significant role.

In an often-cited study of nurse managers and their staffs, Dr. Zori and her colleagues validated this hunch. Nurse managers who scored high in seven categories of critical thinking disposition, ranging from open-mindedness and inquisitiveness to truth seeking and cognitive maturity, had staffs who felt better about their work and, as a result, were more likely to provide safer and more effective patient care.

Dr. Zori has since been testing ways to boost the critical thinking skills of up-and-coming nurses. Working with administrators at North Shore-LIJ Health System’s Center for Learning and Innovation, for example, she created a critical thinking class for nurses in the system’s fellowship program. From journals that the nurses kept, Dr. Zori observed that many had become more attuned to the importance of being inquisitive and analytical in their work.

In her classes at Adelphi, Dr. Zori encourages critical thinking by emphasizing case studies and interaction. “For me, it’s constantly challenging myself to find a way to get [students] to critically think and to be creative and interactive so that they’re not just learning information, they’re applying it to real-life situations,” she said.

“My aim was to have them look at their own practices to see where the communication gaps might be and how we could improve our interdisciplinary communication and then improve our patient safety.”

—Wei Liu, Ph.D.
What is the relationship between early-life trauma and addiction? What treatments are most effective for people, particularly poor women and families who are struggling with these often-linked challenges? How can these treatments be implemented in community clinics?

These are questions that Denise Hien, Ph.D., a professor at the Gordon F. Derner Institute of Advanced Psychological Studies, has been seeking to answer throughout her career. A researcher, clinician and teacher, her overarching aim is to “understand how early-childhood abuse evolves over the course of life and intersects with substance use and other kinds of problems.”

Dr. Hien has noted that “as many as 80 percent of women seeking treatment for drug abuse report lifetime histories of sexual and/or physical assault.” Through her clinical work with women and families in New York City’s Harlem, Morningside Heights and Washington Heights neighborhoods, as well as her national research, Dr. Hien works to improve treatment outcomes for patients who struggle with trauma and substance abuse.

Since 2002, Dr. Hien has been a co-principal investigator with the National Institute on Drug Abuse (NIDA) Clinical Trials Network Greater New York Node. The network is a federal initiative to link researchers and community-based treatment centers to collaborate on studies of drug treatments. In a recent NIDA-sponsored study, for example, Dr. Hien and her team examined what happened when an antidepressant medication was added to a cognitive behavioral therapy treatment for PTSD and alcohol use disorders. The researchers found that the drug combined with the therapy, known as Seeking Safety, was significantly more effective at treating PTSD and alcohol abuse than therapy alone.

“You might think, ‘Well isn’t that obvious? That’s what people do—they give [patients] medication and they give them therapy,’” Dr. Hien said. “But nobody really knows if it works. So here’s a trial that showed that it really works.”

In another NIDA-sponsored project, Dr. Hien and her colleagues worked with drug counselors across the country to see if they could safely and effectively conduct trauma treatment groups with their clients. “The answer was yes, they could, so it provided support for being able to translate treatment into the real world,” Dr. Hien said.

Having conducted numerous clinical trials, Dr. Hien is intimately familiar with their advantages as well as their shortcomings. “It’s hard to show big effects with relatively small sample sizes,” she pointed out, adding, “And then there’s the problem of ending up testing what amount to short-term treatments for long-term problems.”

How can these challenges be overcome? For Dr. Hien, the short answer is big data. She is now applying for a grant to create a large data set from more than 20 clinical trials that tested the efficacy of medication and psychotherapy in treating PTSD and substance use disorders. Dr. Hien explained that with information on thousands of patients, “you can ask questions that are more nuanced when it comes to trying to advance the science of treatment.”

Dr. Hien teaches master’s- and doctoral-level psychology courses at Adelphi and says that her work in the field amplifies what she can offer students in the classroom.

“My clinical work and my research inform my teaching because they’re what I’m passionate about, and usually I’m teaching things that link up to these topics,” she said.

by Bonnie Eissner
A study published in Cancer in 2014 revealed some troubling statistics about clinical trials funded by the National Institutes of Health. According to the study by researchers at the University of California, Davis, minorities are significantly underrepresented in such research. In fact, only two percent of the clinical trials sponsored by the NIH’s National Cancer Institute focus on any minority population. The implications of this imbalance are significant, and researchers, such as Elizabeth Cohn, Ph.D., the director of Adelphi’s Center for Health Innovation, have been looking for ways to diversify clinical trial participation.

Dr. Cohn is nearing the end of an in-depth study on minority representation in clinical trials and genomic research. Having found disparities, she and her team are now working with churches and other religious institutions that serve minority populations to ensure that leaders and congregants are knowledgeable about clinical trial participation.

While Dr. Cohn understands the medical urgency of expanding the pool of clinical trial participants, she wants to ensure that participants make an educated decision about participation. “My goal is for people to make the best decision... while still understanding the risks and benefits,” she said.

The final phase of her current study looks at how leaders of churches and other faith-based institutions in Harlem, New York, decide whether to promote specific research studies to congregants. She and her team are also developing a decision tool to help people make the call.

Dr. Cohn and her collaborators are conducting interviews, focus groups and outreach meetings with Harlem faith leaders, including ministers, pastors, first ladies and imams, as well as congregants. The purpose is to understand the questions, considerations and attitudes of those who are weighing research participation.

As an example, Dr. Cohn described her work with the Abyssinian Baptist Church in Harlem, the historic and influential church that is led by Reverend Dr. Calvin O. Butts III, who also serves as president of SUNY Old Westbury. Dr. Cohn has had a long partnership with the church and has followed its decisions about which clinical trials to promote to its members. Recently, the church’s leaders declined an invitation to participate in research that required wearing a GPS tracking system.

“That has much too high of a risk for the value that might come of it,” Dr. Cohn said, adding, “But they are a very educated church.” She aims to help other churches make similarly wise choices on behalf of their congregants.

by Bonnie Eissner
It is often said that you can’t buy health or happiness. But, according to Njeri Kagotho, Ph.D., an assistant professor in Adelphi’s School of Social Work, there is “an incontestable link between a family’s wealth and the physical and mental well-being of its members.” Understanding this so-called health-wealth nexus and identifying social policies that preserve it are at the core of her research initiatives.

In particular, she is studying HIV-impacted households in Kenya. As of 2013, 6 percent of Kenyans between the ages of 15 and 49 were living with an HIV diagnosis. Between 1 million and 1.3 million Kenyan children are AIDS orphans, having lost one or both parents to the disease.

In a 2012 study funded by an Adelphi Faculty Development grant, Dr. Kagotho found that those living with HIV in Kenya’s Kiambu County were highly susceptible to wealth loss. In essence, women and low-income individuals with HIV were at risk of having assets, such as household valuables and land, taken away by relatives following the death of the primary breadwinner or head of household.

Now, as one of four research scholars selected to participate in the HIV Intervention Science Training Program (HISTP) for promising new investigators from underrepresented groups, Dr. Kagotho is designing a follow-up study. Housed at Columbia University School of Social Work and funded by the National Institutes of Health, HISTP seeks to diversify the pool of scientists studying HIV in underserved populations.

With guidance from her HISTP mentors, who include Adelphi School of Social Work Professor Subadra Panchanadeswaran, Ph.D., Dr. Kagotho is preparing to collaborate with interventionists working in grassroots organizations in Kenya to learn whether they have witnessed the wealth loss that she documented and, if so, to find out how they are addressing it. Her intention, she said, is to identify “innovative programs that could stop this or address this particular issue.” Dr. Kagotho’s ultimate goal is to find interventions that can translate into scalable, sustainable social policies that will preserve the wealth and well-being of those living with HIV and their families.

“There is an incontestable link between a family’s wealth and the physical and mental well-being of its members.”

—Njeri Kagotho, Ph.D.
TRACING THE GROWTH OF A TRANSNATIONAL HINDU MOVEMENT
Robbinsville Township, a small, largely white community in New Jersey, is about 7,600 miles from Gujarat, India. But the two regions have become inextricably linked. In 2014, Robbinsville became the new home of a carved stone mandir, or temple, constructed by Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha, also known at BAPS, a Hindu devotional community originating in Gujarat.

The large and elaborately carved Robbinsville mandir is just one expression of the rapid growth of BAPS. Founded in Gujarat a little more than 100 years ago, BAPS has become a transnational movement with more than one million members. Hanna Kim, Ph.D., an associate professor of anthropology at Adelphi’s College of Arts and Sciences, is writing the first ethnography, or scholarly book based on fieldwork, on BAPS and the factors behind its impressive reach. Earlier this year, she won a Franklin Research Grant from the American Philosophical Society, which will fund upcoming research trips to India, Africa and the Middle East. “Any place you find Gujaratis, you will find BAPS devotees,” Dr. Kim said.

Dr. Kim said that BAPS temples and temple complexes, the latter known as Akshardham, are “rich sites for exploring changes in culture, attitudes and ideas about identity, spaces, migration and the particular means by which” BAPS has grown.

The numbers are staggering. In the United States alone, there are 80 BAPS temples, six of which are entirely carved out of stone, including the Robbinsville mandir, which encompasses 11,600 square feet and is surrounded by 160 acres of grounds that are still under development. The BAPS guru, Pramukh Swami Maharaj, was recognized by Guinness World Records in 2008 for inaugurating the largest number of temples—713 at the time. The BAPS Akshardham temple complex in New Delhi, India, also set a Guinness world record for being the largest comprehensive Hindu temple in the world, at more than 86,000 square feet. Open to the public, it contains a mandir as well as a large-screen movie theatre, among other attractions.

Dr. Kim’s research has led her to travel to Gujarat and other BAPS sites. “It’s really very striking, the very strong sense of connectedness that all these communities have,” she said.

Dr. Kim attributes the connectedness to a number of factors, including the centralization of BAPS teachings. “They have their own publishing firm that cranks out books in all different languages that are in all the temples around the world,” she said.

Extensive travel by Gujaratis who are members of BAPS is another reason for the community’s connectedness and growth. Followers journey to visit temple sites, attend festival events and see family around the world. Dr. Kim has documented how, upon seeing the guru in person and becoming inspired by his qualities, some male devotees have decided to become sadhus, or monks, who renounce family ties and interactions with women, among other behavioral changes, to devote themselves to serving their guru and BAPS.

The sadhus, now numbering more than 900, are part of the sophisticated organizational structure of BAPS. Sadhus in Ahmedabad, Gujarat, for example, managed the construction and design aspects of the New Delhi Akshardham.

“The community has a very specific organizational structure,” Dr. Kim said. “To some eyes, it might resemble a corporate-like structure—it is hierarchical.” She pointed out that the structure of BAPS, with the living guru at the top and specific roles for followers below, is a significant factor in the movement’s transnational spread.

Technology is another way BAPS connects its far-flung followers. In 2007, for example, BAPS provided telecasts of its 100th-anniversary celebration. When the guru, who recently turned 94, visited Robbinsville last year, videos of his U.S. travels were uploaded to YouTube. Followers could subscribe to text messages for immediate updates on his planned appearances.

Dr. Kim has been studying BAPS since she was a Ph.D. student and has earned the trust of its leaders. She even spoke at its 100th-anniversary celebration and is sharing the content of her book with BAPS leaders prepublication.

“This is reflective of how cultural anthropologists work,” she said. “We don’t fly in and fly out, but, rather, this kind of work cannot be done without literally the buildup of time that allows for trust.”
A NEW APPROACH TO MENTAL HEALTHCARE

For too many people with mental illness, crisis medical care has become the norm—a trend that takes a great personal and financial toll. In 2013, hospitalizations for Nassau County residents who received Medicaid mental health services cost the agency more than $35 million. The fact that many patients are rehospitalized within 30 days of discharge calls into question the effectiveness of this crisis approach to mental healthcare.

To address this issue, New York State is now working with physicians and health clinics to provide health homes for Medicaid recipients who suffer from chronic mental and physical illness. The health home concept is to offer an integrated system of care in which a patient’s needs—from scheduling medical appointments to providing transportation to those appointments to setting up social services—are coordinated by a small interdisciplinary team or an individual care manager.

Central Nassau Guidance & Counseling Services, Inc., based in Hicksville, New York, is one agency that offers health home services. Last year, with funds from a New York State Innovation Fund grant, the agency established its Stability at Home pilot program to help Medicaid recipients with serious mental health conditions transition from hospitalization or haphazard community care into a more stable home health system of care.

Chrisann Newransky, Ph.D., an assistant professor at Adelphi’s School of Social Work, explained that a primary goal of this new approach is to facilitate the many healthcare responsibilities and tasks that seem routine to the rest of us. “If people stay connected to the system—they don’t drop out of the system—then they’re less likely in general to use emergency care, which we know is completely expensive and not all [that] effective,” she said.

After consulting with Adelphi’s Center for Nonprofit Leadership and its faculty director, Peter Chernack, Ph.D., Central Nassau Guidance & Counseling tapped Dr. Newransky, whose primary research interests are disease prevention and health disparities, to be the external evaluator of Stability at Home. Dr. Newransky is advising on the best sources of data and approaches to data collection for evaluating the program’s effectiveness for the nearly 150 participants and their families. She is also conducting independent follow-up research with the participants and families.

“What’s unique about the [program] design is that different organizations are coming together,” she said, noting that the Long Island Crisis Center and Options for Community Living, Inc., are also involved in the project. This coming summer, Dr. Newransky plans to interview the leaders of the three organizations in order to document this model of interagency collaboration and to understand what worked well and what improvements can be made.

by Bonnie Eissner
Think that supply chain modeling has little to do with your daily life? Think again. Supply chains are practically everywhere—from the toothpaste you buy at Costco or Walgreen’s to the car that you haggle over at the dealership.

In a traditional supply chain, manufacturers and retailers have competing interests. Manufacturers prefer high wholesale prices, while retailers prefer low ones. Such conflict can lead to price wars that undermine the profits of the two groups. Research by Susan Li, Ph.D., a professor at the Robert B. Willumstad School of Business, shows, by contrast, that cooperation between wholesalers and retailers can yield bigger profits for both.

Dr. Li has long applied her expertise in information systems and business modeling to understand how for-profit and not-for-profit organizations can optimize their efficiencies. In a recent study published in the Encyclopedia of Business Analytics and Optimization, Dr. Li and her collaborators used game theory to show how a manufacturer and a retailer can work together to create an advertising strategy and set a final product price and, in so doing, maximize their gains.

Dr. Li and her colleagues incorporated into their model a key factor: reference price. The reference price is the amount that consumers expect to pay for a good or service based on its assumed features and the prices of similar items or services.

“A firm can form a higher reference price in the minds of consumers via various marketing mixes, among which advertising and pricing are the most important ones,” Dr. Li and her co-authors wrote. “Generally, advertising that aims at building up brand awareness can form a higher reference price whereas a price discount leads to a lower one.”

According to Dr. Li and her colleagues, this conflict between advertising that raises the reference price and discount pricing that lowers it is rarely examined in scholarly papers. By considering the impact of reference price on the joint advertising and pricing strategy of a manufacturer and a retailer, Dr. Li and her collaborators offered a new framework for understanding how to create efficient and profitable supply chains.

by Bonnie Eissner

Dr. Li and her collaborators offered a new framework for understanding how to create efficient and profitable supply chains.
Watch typical preschoolers playing and one thing is obvious: These kids love to move. Most are happiest when given the freedom to roam and frolic, preferably outdoors or in large, open spaces. Many young children also gravitate toward mathematical activities—identifying and sorting shapes, building with blocks, counting.

By the time kids hit middle school, though, attitudes have changed. Physical education and math tend to be dreaded subjects, associated with demeaning or dull exercises, drills and tests.

The consequences of this shift are profound. Skyrocketing rates of childhood obesity mean that nearly one in three children in the United States is overweight or obese. The most recent results from the Program for International Student Assessment (PISA) showed that 29 other nations outperformed the United States in high school math proficiency—up from 23 in the previous study. When more companies are recruiting internationally for jobs that require technical and mathematical expertise, the U.S. underperformance has dire economic impacts.

How can schools reverse these troubling trends? Two faculty members in Adelphi’s Ruth S. Ammon School of Education have some answers. Kevin Mercier, Ed.D., an assistant professor, has teamed up with colleagues to study student attitudes toward physical education and how to adjust them, particularly in the middle and high school years. In studies, he has found that between 6th and 12th grade, attitudes toward physical education become more negative, especially
among girls. He is now studying the reasons behind the change in perception and how they can be addressed.

One driver, according to research by Dr. Mercier and his colleagues, is fitness testing. For most of us, the term conjures up vivid—often sour—memories of being required to perform push-ups, pull-ups or the mile run with or in front of classmates. When poorly implemented, these mandated tests can ruin kids’ appetites for physical education. Conversely, when effectively administered, they can lead to a lifelong interest in sports and health.

“A lot of people have written for years on how fitness testing should be accomplished, but haven’t really done a lot of data collecting on what is actually occurring,” Dr. Mercier said.

It is widely accepted, for example, that teachers can motivate students by sending fitness test results home and by working with students to develop individual plans and teach them to assess their fitness levels. From his work with a number of Long Island school districts, Dr. Mercier has gathered evidence to show that many teachers are not following through on this work. Dr. Mercier correlates negative teacher attitudes toward fitness testing with students’ poor feelings about it.

“The goal is to promote lifelong activity,” Dr. Mercier said. He added, “There are a number of physical fitness educators who do it well. It’s just not as prevalent as we would like to see.”

Barbrina Ertle, Ed.D., also an assistant professor in the Ammon School, specializes in early childhood and early elementary math education—preschool through second grade. She teaches aspiring teachers, and, on the first day of class, gives them a math test as well as a survey to see how they feel about the subject.

The results? About 85 to 90 percent of students have a fear of math, dislike math or think that they’re not good at the subject. “I’ve done this survey in other places, too, so it’s not just Adelphi,” Dr. Ertle said.

Dr. Ertle’s goal in the classroom and in her scholarly and consulting work is to change these perceptions. “Math can be fun and we should be making it fun,” Dr. Ertle said.

By fun, she means more child-centered and accurate. She helps aspiring teachers understand that certain conventions in math education are wrong and even detrimental to students. It is common, for example, for teachers to believe that students should learn to count sets of objects from left to right, the same way they read from left to right. “That just emphasizes that we don’t understand that reading is a convention, where rules are set,” Dr. Ertle said, adding, “However, math is not a convention; it’s a science. And we cannot and should not be imposing rules that do not exist. …It’s limiting [to] a child’s thinking.”

A few years ago, the government of Abu Dhabi teamed up with Vanderbilt University to create model schools as part of an overhaul of the country’s educational system. Vanderbilt, which is responsible for teacher development for the preschool and elementary schools, in turn hired Dr. Ertle to provide the mathematics training. She also has a hand in shaping curriculum. For the past three summers, Dr. Ertle has traveled to Abu Dhabi to conduct weeklong workshops with the teachers. She also returns three times during the school year.

Dr. Ertle said that, despite the challenge posed by language differences, “the children are doing amazing [in] mathematics,” and she called teachers “passionate and open to new ideas.”

“The reality is that children, before they enter school, all love mathematics,” Dr. Ertle said. “We teach them to hate mathematics.”

by Bonnie Eissner

“The reality is that children, before they enter school, all love mathematics. We teach them to hate mathematics.”

—Barbrina Ertle, Ed.D.
Thanks in part to generous federal tax breaks, solar energy use in the United States is inching up. According to the Solar Energy Industries Association, 36 percent of new electric capacity in the United States in 2014 came from solar energy. Another report by The Solar Foundation indicated that solar industry employment grew by 40 percent in New York State in 2014.

The keys to sustained solar energy growth are greater efficiency and lower costs. That is where chemists like Justyna Widera, Ph.D., an associate professor at Adelphi’s College of Arts and Sciences, play a crucial role. Dr. Widera has devoted a significant portion of her research career to studying and testing materials that will lead to more efficient solar cells.

Most recently, Dr. Widera has teamed up with fellow scientists at the University of Warsaw in Poland to study the electrodeposition of three types of nanoparticles—cadmium, tellurium and cadmium telluride.

More simply put, solar cells, like computer chips, are made of semiconductors. Dr. Widera and her collaborators are studying novel types of semiconducting materials that will maximize energy output. An added benefit of the new materials is that they could make solar cells cheaper and easier to produce. “The semiconductors used for the current state-of-the-art [solar cells] are very expensive because it is difficult to produce them with no defects in the structures,” Dr. Widera said. She pointed out that the materials and synthetic processes that she and her collaborators are proposing will be far more affordable.

Equally exciting, Dr. Widera has involved undergraduates in her research. Last summer, with support from Adelphi’s Horace McDonell Fellowship and the Honors College Summer Research Fellowship, she brought two students—Vivian Matubia and Diana Chaykina—to Poland to conduct research with her and her colleagues. Next summer, she plans to bring two more students to Poland.

Since the summer, Dr. Widera and a colleague have been looking at the effects of adding polymers to the nanoparticles. The next step is to add enzymes to the mix.

Dr. Widera is confident that her accumulated knowledge from past research and future endeavors will pay off in the next generation of solar cells. “Sometimes what happens is you combine all of your knowledge and you come up with one great idea of a novel design of solar cell that’s actually a synthesis of all the different parts you studied before,” she said.

by Bonnie Eissner
With the outbreak of Ebola in Africa and the looming threat of avian flu and other highly transmissible diseases, the threat of a pandemic has taken on a new urgency, at least in the public consciousness. According to Jiang Zhang, Ph.D., an associate professor at the Robert B. Willumstad School of Business, the U.S. government has been concerned for some time about the possibility of an influenza or avian influenza outbreak. What would this look like? The Centers for Disease Control and Prevention estimates that it could mean from just shy of a million to more than nine and a half million hospitalized victims.

Recently, Dr. Zhang, an operations management expert, teamed up with a colleague, Lihui Bai, Ph.D., an assistant professor in the Department of Industrial Engineering at the University of Louisville, to examine how patients can be enticed to choose the hospitals that will best serve them.

At the heart of the issue is the unequal distribution of hospitals and hospital beds. Urban areas, such as New York City, have larger, more prominent hospitals. But the demand for beds is much greater. During a pandemic, this imbalance could lead to bottlenecks at city and suburban hospitals, while rural hospitals remain underutilized.

How do you spur people to travel to the hospitals that will serve them most efficiently? One option is for the government to assign people to particular hospitals. Another is to entice them.

Dr. Zhang and Dr. Bai showed that an incentive-based model is as effective as an assignment-based model. And it’s likely to be more palatable. They used a simple incentive: shorter wait times. According to the model, shorter wait times can be used to offset the time spent traveling to more distant hospitals. The model is akin to using tolls to encourage drivers to use less crowded roads, bridges and tunnels.

The study, published in 2014 in the International Journal of Mathematics in Operational Research, has drawn significant attention. Dr. Zhang said, “The reason our paper has been picked by the journal and sent out was because it’s relatively new...in this type of setting.”

Dr. Zhang noted that, as hospitals and doctors focus more on service delivery and cost savings, operations management models and expertise will become more relevant. Already, he is working on another hospital-related study, and he said that the physicians who participate in Adelphi’s M.B.A. program are showing increased interest in understanding how to apply business models to their own work. Both are examples of how operations management is becoming more interdisciplinary.

by Bonnie Eissner
It is intuitive and proven that secure parent-child relationships benefit children. But questions remain to be answered about why this is true or the precise ways in which parent-child attachment impacts child development.

Laura Brumariu, Ph.D., an assistant professor at the Gordon F. Derner Institute of Advanced Psychological Studies, explores these questions in her research.

Dr. Brumariu explained that a secure parent-child attachment is a relationship in which children perceive their caregivers as available, sensitive to their needs and havens of safety in times of distress. One question she is now addressing is: “Why does having a secure relationship with a parent help somebody have lower anxiety?”

She is primarily focused on how parent-child attachment affects a child’s ability to regulate emotions and cope with stressful or unexpected situations. In a series of studies involving children of different ages, she showed that children in secure relationships are better at identifying and managing emotions and have better peer relationships.

According to her findings, children with disorganized-insecure attachments, by contrast, have more difficulty managing emotions and have poorer peer relationships. They also tend to evaluate ambiguous situations more negatively and, when they encounter difficulties, are less likely to seek support or engage in problem solving.

“In turn, difficulties with emotion regulation and peer relationships have been linked with more anxious feelings in children,” Dr. Brumariu explained.

Dr. Brumariu readily acknowledges that attachment is not the be-all, end-all of childhood happiness. She and her colleagues are also looking at how temperament and parent-child communication relate to child anxiety.

For example, in one study in which child-mother pairs were asked to discuss a conflict, mothers of less anxious children were more supportive, exhibited more warmth and interest in the child and were more elaborative during conversations. Further, more anxious children showed heightened emotion and were less engaged in the conversation.

“I’m trying to look at it all in a context, because we don’t believe in a vacuum,” Dr. Brumariu said. “There are other pieces to this puzzle of why some kids are anxious and some are not, including genetics.”
Kellyann Monaghan, an associate professor of art and art history at Adelphi’s College of Arts and Sciences, has exhibited her urban and pastoral landscapes in solo and group exhibitions throughout the New York metropolitan region and internationally. Urban landscapes have been part of her repertoire since 2001, when she had her first studio in Brooklyn’s DUMBO neighborhood. In 2010, she participated in La Muse Artist and Writer Residency in the southern France village of Labastide-Esparbairenque. The experience gave her the courage to depict the French countryside. “At first I felt very intimidated by the French landscape,” she said. “As an urban landscape artist, I just thought it was too beautiful to try to capture.” She now paints en plein air on return summer visits to France.

“TOWN AND COUNTRY

“I use landscapes and urban landscapes as a journey and stage for the drama of light, air and movement. I attempt to see past the structured architecture into the otherworldly qualities of the landscape. I am intrigued by the way light plays on architecture, energizing and describing form.”

—Kellyann Monaghan

Kellyann Monaghan, an associate professor of art and art history at Adelphi’s College of Arts and Sciences, has exhibited her urban and pastoral landscapes in solo and group exhibitions throughout the New York metropolitan region and internationally. Urban landscapes have been part of her repertoire since 2001, when she had her first studio in Brooklyn’s DUMBO neighborhood. In 2010, she participated in La Muse Artist and Writer Residency in the southern France village of Labastide-Esparbairenque. The experience gave her the courage to depict the French countryside. “At first I felt very intimidated by the French landscape,” she said. “As an urban landscape artist, I just thought it was too beautiful to try to capture.” She now paints en plein air on return summer visits to France.

by Bonnie Eissner


**Martha Cooley** (English), with A. Romani, cotranslated the following stories by Antonio

Orion Duckstein (Dance) participated in creating the following dances: “Red,” an intense exploration of the music of Julia Wolf and Josquin Desprez, at Adelphi University, Garden City, NY, April 2014; “When We Rise” with Annmria Mazzini, which premiered on June 19, 2014, New York, NY; and “Love 15” with the Patricia Kenny Dance Collection at the Jacob’s Pillow Dance Festival, Becket, MA, July 2014.


Jennifer Fleischner (English) was a commentator of the documentary film on Elizabeth Keckly at New Millennium Studios, Petersburg, VA, June 2014, and was a panelist at the Exploring Critical Issues Series at the 100th Anniversary of WWI, Telecare TV, May 2014.


Carson Fox (Art and Art History) gave four artist lectures: one at Houghton College, Houghton, NY, January 2014; one at the University of Arkansas, Fayette, AK, April 2014; and two at the University of the Arts, Philadelphia, PA, June 2014 and December 2014. She presented “Ephemeral” at the College Art Association, Chicago, IL, February 2014, and, with B. Carroll, K. Shepherd, P. Drake and A. Lawrence, “Living and Sustaining a Creative Life” at the New York Academy of Art, New York, NY, February 2014.


Hanna Kim (Anthropology) gave the following presentations: “Travelling Cultures and Other Essential Ingredients: Approaching Gujarati Otherwiseness Through Food” at the Global South Asia Conference, New York University, New York, NY, February 2014; “From Ayurvedic Spas to Leisure Temple Spaces: Tracing Narratives and Seeking Interpretive Strategies for Approaching the Indian Middle Class” at the Association for Asian Studies, Philadelphia, PA, April 2014; with K. Bhatt, “Green Fields, Healthy Cows, and a Full Moon: Tracing Rural-Urban Imaginaries Through the Sankari Swaminarayan Temple” at the Conference on the Study of Religions in India, Butler University, Butler, IN, June 2014; “Ajivan Sevaks, Lifetime Devotees: Humanising the Pathway from Singular Devotion to Collective Gains” at the European Conference on South Asian Studies, University of Zurich, Zurich, Switzerland, July 2014; “Ontological Stabilities and Ethnographic Knowledge: Experiencing the Mega Temple Complex and Swaminarayan...”

Jessica Klein (Sociology) gave the presentation “The Bully Society” at Norwalk Community College, Norwalk, CT, April 2014.


Margaret Lally (Dance), with B. Blackledge, copresented “Speaking with Young Artists: Response Training for Faculty” at the Kennedy Center American College Theatre Festival, West Chester, PA, January 2014.

Catherine Lawrence (Dance) taught ballet classes to advanced students at Cecchetti East Coast Conference, University of Maryland, College Park, MD, March 2014. She choreographed “VIS A VIS,” performed at Dance Adelphi, Adelphi University, Garden City, NY, December 2014.

Traci Levy (Political Science) gave the presentation “Armed and Caring? U.S. Military in Political Rhetoric and Family Policy” at the Western Political Science Association, Seattle, WA, April 2014.

Deborah Little (Sociology) and Traci Levy (Political Science) copresented “Care Pooling: Disabled Parents, Young Careers, and Personal Assistants” at the Eastern Sociological Society’s Annual Meeting 2014 Mini-Conference: The Invisible Work of Care, Baltimore Hilton, Baltimore, MD, February 2014.


Cindy Maguire (Art and Art History) curated the following exhibitions: Outside My Window at the Woodstock Artists Association and Museum, Woodstock, NY, September 2014, and Outside My Window: Western Sahara at Camp Boujdour, Algeria, November 2014, both of which included artwork by children and youth from Kosovo and the United States. She, with T. Lenihan, cowrote “Social Justice in Art Education: Fostering the Capabilities of Individuals and Enhancing Collective Solidarities” in Practice Theory: Seeing the Power of Teacher Researchers, p. 284–286 (Reston: National Art Education Association, 2014). She presented the following: with J. Giroux, “Creating the Commons” at the College Art Association’s Annual Conference, Chicago, IL, February 2014; with K. Zysman, “For More Than Art’s Sake: The Contributions of the Arts to Social Change in Kosovo” at the Archbishop Desmond Tutu Centre Conference on Arts, Peace and Conflict, Liverpool.


Kellyann Monaghan (Art and Art History) participated in the following exhibitions: Bridges, Rivers and Towers—Solo Exhibition at Piermont Straus Gallery, Piermont, NY, January 2014; Between the Boroughs, a group exhibition at George Billis Gallery, New York, NY, July 2014; and Summer Invitational, a group exhibition at Art Essex Gallery, Essex, CT, September 2014.


Christopher Saucedo (Art and Art History) participated in two exhibitions at the Acadiana Center for the Arts, Lafayette, LA: Oyster Shell Kingdoms, a solo exhibition of sculptural installations, January 2014, and Face to Face, a group exhibition celebrating artists that explore portraiture, March 2014.


Melissa Van Alstine-Parris (Chemistry), with J. DeGrote, S. Tyndall and K.F. Wong, cowrote the article “Synthesis of 7-Alkoxyl-


COLLEGE OF NURSING AND PUBLIC HEALTH


Patricia Facquet gave two presentations at the International Court Systems’ Women’s Conference, Cincinnati, OH, October 2014: “Unusual Head and Neck Cancers in Transgendered Women” and “STDs/STIs in Lesbian, Bisexual and Transgendered Women.”


Anne Peirce published “Heretical Thoughts on the Need for Change in Our Language from Care to Protection from Harm” in Clinical Scholars Review, 7 (2), p. 175–177, 2014.

Janet Raman, with J. Bryer, copresented “The Application of Narrative Pedagogy to Promote Excellence for Nursing Students in the Clinical Setting” at the Bronx EdTech Showcase, Bronx Community College, CUNY, Bronx, NY, May 2014.
Maureen Roller gave two presentations at the Eastern Nursing Research Society, Sheraton Downtown Hotel, Philadelphia, PA, April 2014: “Older Adult Exercise Adherence Research at an Assisted Living Facility” and, with H. Ballestas, “Improving the Cultural Competency of a Group of Baccalaureate Nursing Students.” She also presented “Cultural Competency Quantitative Research: One-Year Post Experience in Costa Rica” at the Fourth Annual Farmingdale College Nursing Education Conference, University Center, Farmingdale, NY, October 2014.


A. Hasan Sapci presented “A New Model to Develop Mobile Point-of-Care Applications in Academic Medical Centers” at the Point-of-Care and m-Health Diagnostics Summit, Boston, MA, November 2014, and “The Establishment of Health Informatics Laboratory for Specialized Wireless Remote Monitoring Training and R&D” at the American Medical Informatics Association Annual Symposium, Washington, DC, November 2014.


Katherine Fiori, with C.A. Denckla and A.J. Vingerhoets, cowrote “Development of the Crying Proneness Scale Associations Among Crying Proneness, Empathy, Attachment, and Age” in the Journal of Personality Disorder, online, April 2014. She gave two presentations: with K. Coyle, “The Relationship Between Facebook Use and Emotional Well-Being as Moderated by Interpersonal Relatedness Among College Students” at the Meeting of the National Conference on Undergraduate Research, Lexington, KY, April 2014, and, with A. Rauer, “Two Can Be as Bad as One: Marital Quality, Loneliness, and Mental Health in Older Adulthood” at the Annual Scientific Meeting of the Gerontological Society of America, Washington, DC, November 2014.


Carolyn Springer presented “The Need for Caring in North and Central Brooklyn: A Community Health Needs Assessment” at the 25th Anniversary Symposium
from Community Research to Community Action Utilizing Community Health Needs Assessments to Inform Health Planning and Policy, Brooklyn, NY, June 2014.


**LIBRARY**


**ROBERT B. WILLUMSTAD SCHOOL OF BUSINESS**


**RUTH S. AMMON SCHOOL OF EDUCATION**

**Jane Ashdown** copresented, with E. Mandinach, M. Orland and P. Kowolski, “Schools of Education and Data Literacy” at the Council for the Accreditation of Education Preparation, Washington, DC, September 2014.

**Department of Communication Sciences and Disorders**


**Reem Khamis-Dakwar** copublished, with K. Froud, *Perspectives on Arabic Linguistics XXVI* (Amsterdam: John Benjamins, 2014), in which they cowrote the book


**Pavan Antony** gave the following presentations: “Medical Professionals and Families of Children with Disabilities: India Practical Tips for Collaboration” at the Comparative International Education Society: Revisioning Education for All, Toronto, Canada, March 2014; “Exploring the Cultural Beliefs and Practices for Teachers and Students with Disabilities” at the 13th Annual Partnerships in Health Conference: Campuses, Communities and Schools Working Together to Improve the Health of Youth, Adelphi
University, Garden City, NY, November 2014; and, with G. Kwan, “Pathways to Employment: Helping ELL Youth with Disabilities for Employment” at the TASH Annual Conference, Washington, DC, December 2014.


Carl Mirra presented “Teaching Zinn” at the NYU Tamiment

William Niles gave the presentation “Guided Discussion Groups: Engaging All Students Through Jigsaw and Dilemma Discussion Group Strategies” at the Academic and Business Research Institute International Conference, San Antonio, TX, March 2014.


Department of Exercise Science, Health Studies, Physical Education and Sport Management

Kadi Bliss presented “Health Care Reform Advocacy Options: Reaching Consensus Among Health Professionals” at the American Alliance for Health, Physical Education, Recreation and Dance National Convention and Exposition, St. Louis, MO, April 2014.


**Shannon Lane**, with J. McClendon, wrote the book chapter “Homeless People” in the *Handbook of Social Work Practice with Vulnerable and Resilient Populations*, p. 3345–3365 (New York:


UNIVERSITY COLLEGE

Collaborative research is at the heart of the Adelphi experience. Learn more inside and at Adelphi.edu.