Senior Katherine Paez, one of four winners of this year’s Dyckman Scholarship Fund, cites her sister as one of the keys to her academic success. "With the first person in my family to go to college," says Paez, "so she had experience with scholarship grants, and she helped me think about what I needed to do." Thanks to her sister’s influence, Paez applied for Columbia’s Dyckman Prize, a fund run by the Rutgers University-Newark/Middlesex College to benefit students from northern Manhattan who would like to attend the University but cannot afford to do so without assistance.

At a ceremony held on Oct. 27 and hosted by Community Board 12, Fund chairman Martin Collins conveyed his congratulations to Paez and three other scholarship winners: freshman Arcania Garcia, sophomore Vera Tsvetikyan and junior Brenda Cepeda. “We recognize the level of academic excellence these students have achieved and join in congratulating them and wishing them well as they continue their education at Columbia College.”

Paez is a political science major planning to work at the Arpeja & Kahn law practice next year. She grew up in Washington Heights. Her family is from the Dominican Republic. “I hope other students from the area will look at me,” says Paez, “and realize that they, too, can achieve things and succeed.”

New Jersey has been making an effort, she says, to counteract these trends. “While not a dramatic innovator, it has taken a series of steps to expand coverage and has experimented with a variety of strategies to keep costs down.”

She points to the state’s hospital assistance program, which provides financial aid directly to needy patients who require hospital care rather than to the hospitals themselves.

New Jersey’s small group and individual health plans also are receiving a lot of attention, although Glied says their success in expanding coverage is highly debatable.

The reports, which have been commissioned by the Hall Institute of Public Policy, NY, may be accessed at www.balnij.org/cm/listing.jsp?clid=2

By David Poreta

Spiralling Health Costs Challenge New Jersey

ew Jersey’s health care costs are a “substantial” burden on both the state’s private and public sector and its governors, says Sherry Glied, chair of the Mailman School of Public Health’s Health Economics program. In Part 1 of a planned three-part series of white papers on New Jersey’s health care landscape, Glied reports that New Jersey’s small businesses pay health premiums up to a third higher than the national average.

The second of Glied’s studies will focus on Medicaid and will appear early next year, and the third will analyze methods of controlling the state’s health costs.

Rising Medicaid costs, says Glied, “particularly associated with seniors and pharmaceutical coverage, continue to be a problem.”

McVeigh explains: “The kids get real world knowledge of how a biosystem works and how to keep it working by understanding percentages, decimals, functions, multiplication and division, as well as chemistry, biology and literacy.”

The current project involves 1,400 students from grades 4, 5 and 6 at eight New York City schools.

The students spend all of their time in the classroom, working to build robots, which they will later use to tend to the fish, tomatoes and pumpkins remotely.

Once the robots are assembled, the students then learn how the software and related geometry are used to make a robot’s arm rise, fall or swing sideways.

“Not to simulate what they will experience on the farm itself,” McVeigh, on the advice of TC professor John Black, has his students use a children’s programming language known as Squeak. “The idea,” Black explains, “is for kids to see how something would work—to run it and see if what they want to happen will happen.”

Once the robots have been built and ideas mastered, the time comes for the students to apply what they’ve learned. McVeigh and other teachers take them to a farm run by the Rutgers University EcoComplex, where they are put to work planting hydroponic tomatoes and placing fish in tanks.

“They’ve got to understand percentages,” says McVeigh. “If I’m going to put 400 fish in a 600 gallon tank, how much food do I feed my fish?”

Often, a teacher will walk them through it as a math problem. “Math teachers sometimes take that experience and use it in lessons. They have students work with the problem throughout the year while they’re managing their fish and plants.”

Back in the classroom over the next three to four months, students can dial into the greenhouse to check the sensors that monitor the tomatoes as well as the tank water and food levels for the fish.

If they discover, for example, that the fish water contains too much ammonia, they must guide their robot via the Internet to add baking soda, using commands mastered in the earlier part of the course. They watch the robots on computer screens to ensure that their commands are executed properly.

As the school year ends, students return to the farm to evaluate their progress and begin a summer and fall project: planting and learning how to remotely cultivate pumpkins, which they will harvest come October. Caring for pumpkins means that students gain exposure to new skills and still more science.

McVeigh points out that besides teaching students important skills, hands-on technology-based learning also teaches them to have greater respect “for themselves, for each other and for the achievement of common goals in the garden and fish farms.” He notes that many of the youngsters “are more at ease on the farm, given the atmosphere and open space.”

Before becoming a full-time student, McVeigh was a business entrepreneur, who developed telecommunication tools for class-room use. His life took a new direction when, after making several phone calls to Teachers College faculty for advice on his projects, he was finally told, Why don’t you enroll and get the information firsthand?”

But he can’t take the entrepreneur out of the man, so McVeigh continues to innovate real-world applications for the theory he learns in the classroom.