

An Unknown Quantity

Olin College students, faculty and administrators create an innovative new university from scratch

Photos by Rick Friedman, Black Star, for CrossTalk

By Jon Marcus

NEEDHAM, MASSACHUSETTS

THE STUDENTS MINGLE shyly, carefully turned out to look as if they don't care how they look. Their parents, anxious to appear as if they aren't watching, stare like hawks. The administrators smile and make speeches in the shade of a yellow-and-white-striped tent, where there is a buffet with tofu burgers for the vegetarians. "This is the first day of an extraordinary journey," one reads from his notes. It is, in short, a typical opening of the academic year at a small New England college.

But this particular small college is far from typical, and these are not typical students, and this is not just another academic year. It is the first day not only of an extraordinary journey, but of an audacious and staggeringly expensive experiment: the creation of the first new freestanding undergraduate engineering college in the United States in nearly a century, and one of the few new private U.S. universities of any kind in decades.

Beyond the yellow-and-white-striped tent, construction crews are scrambling to finish the modular buildings that will temporarily house the faculty and these first 30 students until work is completed on the campus, which so far consists mainly of steel beams sprouting from a suburban Boston hillside. This opening

day begins a year of collaboration between students, faculty and administrators to achieve the singular goal of starting a brand-new university from scratch.

When finished, these buildings will stand as a physical symbol, an implicit rebuke of the way higher education is provided in America today—and of the snail's pace at which it seems able to change. Paid for by what could ultimately amount to the entire financial assets of the Franklin W. Olin Foundation, Olin College

Olin College is meant to hasten the laggard reform of engineering education, but also challenges many long-held practices of traditional higher education in general.

is meant not only to hasten the laggard reform of engineering education, but also to challenge many long-held practices of traditional higher education in general.

Built next to Babson College, which specializes in



Olin College's first buildings rise behind college President Richard Miller (second from left) and students Susan Fredholm, Matt Hill and Julianna Connelly.

management and business, Olin aims to turn out business-savvy engineers. It has a vice president of innovation and improvement. And to avoid the male-dominated "geek" culture of other engineering programs, at least half its students will be women. In an attempt to remove barriers to interdisciplinary cooperation, there will be no academic departments ("We don't want the chemists only to talk to the chemists," spokesman Joseph Hunter said). There is no tenure. And Olin doesn't charge tuition; each accepted student will receive a full four-year scholarship covering tuition and accommodations.

"If you look at tuition alone (at other universities), how much more can they increase it? The whole system is a house of cards that's bound to collapse," said Lawrence Milas, the outspoken president of the Olin Foundation. "We want to be the college that is constantly innovative, and we're trying to organize ourselves and develop the kind of culture that will support that kind of innovation. And we can do it, because we don't have people dug into their turf afraid or resistant to change. We can be risk-takers."

There was enormous competition for 32 slots in the inaugural class. The school attracted more than 3,000 inquiries and 664 applicants; barely one in 20 was accepted. That made Olin one of the most difficult colleges in America to get into, even before it had a campus or a faculty or a library or a curriculum. All of these accepted students posted standardized test scores in the top three percent nationally, and had nearly

perfect grades. Seventeen play at least one musical instrument. There are actors, athletes, dancers and debaters. One helped his parents build a geodesic dome-shaped house, and restored a vintage Volkswagen Bug while he was still in high school. They have enough computer knowledge to run a large company.

Their academic performance was so good, in fact, that the incentive of free tuition probably was not a factor in the decision of these students to apply, since most were offered full scholarships to engineering programs at some of the nation's top universities and colleges. Nor were they necessarily swayed by the fanciful self-deprecating promotional campaign that used the genre of 1950s horror movie posters to advertise "The College That Doesn't Exist!" They had other reasons for selecting Olin.

"Before I came, there was a slight bit of doubt, but that's true no matter where you go to college," said Jessica Anderson of Albuquerque, one of these first students. "When I came to the candidate weekend and I met the faculty, the administration, I realized they could be anywhere else doing anything, and also saw how passionate they were about making this place amazing. And I realized it couldn't fail."

Still, by the time of the scheduled opening day in late August 2001, things had not gone entirely as planned. Conceived by Milas in 1993, the school had received its charter from the state of Massachusetts in 1997 and had picked a 70-acre site on the wooded 370-acre Babson campus 12 miles outside of Boston. (Milas is a Babson graduate). The land was purchased from Babson for \$15 million. The foundation had hired the college's first employee in 1999: Richard Miller, who was lured away from his job as engineering dean at the University of Iowa to become president.

By March of 2000, however, construction had yet to begin because of design and permit problems, threatening plans to start classes in the fall of 2001; the first shovels-full of dirt wouldn't be dug until August of 2000. Miller and his tiny group

of administrators were working in the former bedrooms, and even attics and closets, of a few old Colonial-style homes that had come with the Babson property, looking out over the mud that was supposed to become their innovative campus.

But faculty already had been hired, and student recruiting had begun. Miller convened a meeting of what he called his SWOT team, which stood for "strengths, weaknesses, opportunities, and threats." (If Olin has adopted one thing from traditional higher education, it is a fondness for acronyms, although it uses them with something of a sense of humor.) The group decided that opening on time was probably impossible, and agreed that the buildings weren't the only things that would not be ready. It would take another year to test the curriculum.

So the SWOT team proposed that the inaugural class of students not take classes, but spend a year helping to design the classes they would eventually take. The students would be housed in temporary accommodations at no charge, and serve on committees with the faculty to plan the school's curriculum. And they wouldn't be called students. They would be called "Olin partners." Miller said: "Nearly everyone who thoroughly thought about this was easily persuaded by the logic of it. It turns out to have been a major defining moment. We were doing something that was not in the plan. And let's not overlook the fact that involving students in the design of the curriculum is itself heretical" in higher education.

It was these Olin "partners" who were milling around on the first day under the yellow-and-white-striped tent set up on the lawn of the wooden Colonial where the president's office occupies an upstairs bedroom. They would spend five years here, not four, returning in their second year as freshmen. Some sported brightly hued hair, others conservative crew cuts. One, Matthew Hill, showed off his Frisbee skills, balancing a disk on a finger and tossing it beneath his leg. Another, Julianna Connelly, sang a song she wrote for the occasion; yet another performed a ballet solo. The wife of the vice president of external affairs sold commemorative T-shirts for \$10 at a folding table. Balloons were anchored from cinderblocks, and there was the din of a bulldozer sculpting some dirt into what will become the entrance to the campus. Unlike similar scenes at other private colleges, there was no sense of history—except for history about to be made.

"Every one of these kids turned down a full ride to someplace else," said Jim Poisel, whose daughter, Joy, was the valedictorian of her Indiana high school class and scored in the top one percent on her SATs before deciding to enroll at Olin. "If this doesn't work out, she's only 18 years old. I doubt her life will be over. There are a lot worse things you can do with your life than to come out here and be involved with this. We raised her this way." Poisel, a firefighter in Indiana, added:

To avoid the male-dominated "geek" culture of other engineering programs, at least half of Olin's students will be women.



Prospective Olin College student Frances Haugen, shown participating in an engineering game during a campus visit, already has been accepted by MIT and CalTech.

“We told her life is a risk.”

How much of a risk is there really? “We have no alumni network, no campus, no track record,” said college spokesman Hunter. “There are going to be challenges. Failure is a possibility, if a remote one.” Very remote, considering the fact that the Olin Foundation has pledged its entire substantial financial support to making the school a success.

Another pair of parents, Nancy and Ken Fredholm of Hudson, New Hampshire, bubbled over with enthusiasm. “My worst professor in college was tenured,” Nancy Fredholm said in a not-so-subtle nod to Olin’s system of five-year faculty contracts instead of tenure. “I’m so envious,” said Ken Fredholm, himself an engineer who remembers being educated in “large lecture halls, not like the kind of one-on-one experience they’re going to have here. If they had had this back then, I wouldn’t have had any hesitation about enrolling here.”

The modular buildings that will serve as temporary housing and offices were also behind schedule, and the students settled into temporary space at Babson. It would be two weeks before they could move their things into what they quickly dubbed the “Olin trailer park”: a parking lot and two flat-roofed buildings—bigger on the inside than they looked—which included reception areas, laboratories, classrooms, kitchens with perpetually brewing coffee, and folding chairs and tables, all connected through a maze of hallways.

The students attended the usual round of orientation mixers. At Olin this included a visit to the New Hampshire home and office of entrepreneur and engineer Dean Kamen, the inventor of the scooter-like Segway Human Transporter, who showed them his collection of antique technological artifacts. From the college itself, each student got a Franklin W. Olin “baseball card” encased in Lucite as a keepsake.

Raised in Vermont, Franklin Olin had only one term of formal schooling after the age of 13, but was accepted by Cornell, where he majored in civil engineering and was captain of the baseball team. The founder of the Olin Corporation, he used his personal fortune in 1938 to establish a foundation, which has since given more than \$300 million to build and equip 72 buildings on 57 campuses. Building and endowing Olin College is likely to eat up the remaining \$500 million. “We said, If this thing succeeds, that’s exactly what’s going to happen,” said Milas, the foundation’s president. “And right now it looks as if it’s going to succeed.”

The school’s governing board, or President’s Council, came to the campus for a routine meeting the same weekend that the college opened. It is an impressive and influential group that includes John Abele, founder and director of the medical device company Boston Scientific; Stephen Director, dean of engineering at the University of Michigan and chairman of the National Academy of Engineering Committee on Engineering Education; Gregory Shelton, vice president for engineering and technology at Raytheon; Sheri Sheppard, professor of engineering at Stanford and an advocate for reforming engineering education; Lee Shulman, president of the Carnegie Foundation for the Advancement of Teaching; and William Wulf, president of the National Academy of Engineering.

Choosing to establish an engineering college, of all things,



Jessica Anderson, one of Olin’s first students, chose Olin because of “how passionate they (the faculty) were about making this place amazing.”

was a particularly risky proposition for the Olin Foundation. The number of accredited engineering programs has grown steadily, from 1,410 in 1990 to 1,602 in 2000. Yet since 1985, the number of engineering majors has declined by nearly 20 percent. “It came this way,” Milas said: “Okay, let’s start a college. And if we’re going to do that, why not an engineering college? Does America or the world need another engineering college? We discovered that there was an opportunity for a brand-new engineering college because, unlike the humanities and maybe some other fields of knowledge, science and engineering is a body of knowledge that is always growing and expanding.”

It is also true that the National Science Foundation, accrediting agencies, and other groups have been urging the reform of engineering education since the close of the Cold War by requiring instruction in team-building, communication and entrepreneurship, and by increasing the number of minority and women engineers. But at existing engineering schools, such reforms have been slow to be adopted. “Major business leaders have been asking for changes in what engineering grads know when they leave school,” said Miller. “And they’re making progress, but the progress is really slow. It has been disappointing.”

Not that Olin has yet realized all its goals. Participants at an NSF-sponsored workshop for women academic engineers complained that it was likely to simply reflect the existing white male-dominated culture of engineering. And while nearly half of the students are women, Olin has been less successful in attracting a broad representation of minorities. Among the first group of 62 students (the 30 original

When completed, the distinctive collection of buildings on a hilltop will have 500,000 square feet of space, with 27 fully networked labs and classrooms.

There will be no academic departments. There is no tenure. And Olin doesn't charge tuition; each accepted student will receive a full four-year scholarship covering tuition and accommodations.

"partners," plus 32 more who will join them as freshmen next fall), there are 12 Asians, five Hispanics and one African American.

As Olin students and faculty fell into a routine, a supermarket-style newsletter began to circulate called OVAL, for "oddly verifiable approximations and leaks"—more engineering humor. It predicted that "the official opening of Olin College will prompt an earthquake that will cause large cracks in the

engineering education establishment. There will be no serious injuries, only a few bruised egos."

The first of a succession of five-week "modules" began next. It included the start of work to design the curriculum, plus student-faculty research projects and something called the Olin Challenge—the idea of a professor who believes in hands-on collaboration as an integral part of engineering education. The professor wanted the group to build the

world's smallest working bicycle; the students overruled him, pointing out it would be hard for more than just a few of them to take part in creating something so tiny. They chose instead to build the world's biggest Rube Goldberg device, designed to hit the snooze button on an alarm clock in 130 steps; the previous record was 113 steps. In the end, the project became a lesson not only in collaboration, but in Murphy's Law, when only 124 of the 130 steps actually worked.

Construction of the campus, on the other hand, was going smoothly, helped by unseasonably warm weather. When completed, the distinctive collection of buildings on a hilltop will have 500,000 square feet of space, with 27 fully networked labs and classrooms. Each seat will have data and power ports, and two of the classrooms and most of the labs will have complete computer workstations for every student. Dorm rooms will be doubles with private baths and connections for power and cable television, telephone and data, plus fiber-optic outlets at each desk.

About 300,000 square feet will be completed in the long-awaited first phase, now scheduled to be finished this summer, including dormitory space for 195 students. It will take ten years for the school to reach its planned final enrollment of 600 to 650 students.

Olin College had 38 faculty and staff late last fall, but was

UPDATE **Olin College** **April 2009**

THE PLANS for Olin College were ambitious from the start, anticipating a student body that would grow from an initial class of 32 to more than 600, along with about 60 faculty, in its first ten years. Those projections turned out to be overly optimistic. However, the college has maintained its core founding principles, and continues to provide each student with a full four-year scholarship covering tuition.

After the first two years of operation, during which accommodations were included in the scholarship, the college did begin charging students for room and board. (For the 2009-10 academic year, the cost of tuition is \$36,400; room and board is \$13,230, along with about \$2,600 for health insurance, a laptop computer and student fees.) Of the estimated "total student budget" of \$54,523 for the current year, \$18,123 is not covered by the Olin scholarship.

National CrossTalk visited Olin College in 2001 when it was admitting its first class of students, or "partners," who would share in the creation of the college—from the dorms to the curriculum. "Things have developed a lot since that time," said Joseph Hunter, assistant vice president for external relations and director of communication, in an interview. "We still don't have traditional academic departments; we don't charge tuition; faculty are on five-year contracts, and there is no tenure."

The college has also completed the task of developing its curriculum, and has won accreditation from both its regional accreditor, the New England Association of Schools and Colleges, and from the Accreditation Board for Engineering and Technology.

There are currently about 300 students at Olin—a substantial increase, but only half of what was originally envisioned. "The idea of an enrollment of 600 had been discussed when we started recruiting students, but now we have built the curriculum and have a sense of the

cost per student," Hunter explained. "And so we settled in around 300 students—probably where we will stay for a while, at least until the stock market recovers."

Because Olin provides such generous support to its students, and relies on the return from a large endowment for its funding, tough economic times can be especially treacherous. "We are vulnerable,"

Hunter said, adding that there are advantages to Olin's position as well. "We have some strengths coming out of that also, because part of the idea of Olin, and the full-tuition scholarship, was that we would have such a large endowment that we could weather these storms. We still have one of the largest endowments per student in the country, and that helps us out a lot."

Still, the question remains: Will Olin be forced to begin charging tuition? "Somewhere out there, there is the possibility that we will charge tuition, or give a partial scholarship," Hunter acknowledged. "That gives us an advantage compared to others that are already maxing out on those—and private schools that are already charging high tuitions." Hunter emphasized that Olin would only charge tuition "as a last resort," and is not considering such a move at this time. "That is not something that is currently being planned," he said. "Not charging tuition has been such a signature thing for us."

An economic downturn does not affect Olin immediately, because the value of its endowment is averaged over a three-year period, and the college's budget is based on this three-year average. This accounting

Because Olin College provides such generous support to its students, and relies on the return from a large endowment for its funding, tough economic times can be especially treacherous.

adding more. The faculty will eventually number about 60. Three thousand people applied for the first 15 advertised positions. Only three of those who were offered jobs declined them, two after being promoted by their current universities to discourage them from leaving, according to Miller. Olin has hired faculty away from MIT, Cornell and Vanderbilt; one, Stephen Holt, was director of space science at the NASA-Goddard Space Flight Center. Another faculty member was a professor of mechanical engineering and director of the new products program at MIT, and former host of the PBS series *Scientific American Frontiers*.

Many faculty gave up substantial seniority to come here, and most agree with the idea that doing away with tenure is “a bulwark against mediocrity,” as one put it. The dean of the faculty is Michael Moody, who came from Harvey Mudd College, where he chaired the math department. Provost David Kerns was lured away from Vanderbilt, along with his wife, Sherra, vice president of innovation and research. Duncan Murdoch, vice president for external relations and enrollment, came from the University of Southern California.

When the second five-week module began, students were encouraged to undertake community service projects. Some collected used computers and refurbished them for low-income families. Others went to a nursing home for



Olin College will occupy a 70-acre site next door to Babson College, which specializes in business and management. The first permanent buildings will be finished this summer.

patients with multiple sclerosis and devised a way to install inline-skate wheels on the corners of their wheelchairs to help prevent them from becoming stuck against the walls. Two students were cast in the Babson College theatrical

practice serves to “iron out the peaks and valleys,” Hunter explained. “The 12-quarter average works for us in bad times, and a little bit again in good times. We feel that we are going to ride this out pretty well.”

Another advantage Olin enjoys is an unusually committed group of alumni. “The students see themselves as the co-founders of the institution,” Hunter said. “They are the most involved alumni that you’ll find anywhere. They were pioneers, and now they are our ambassadors in the world, getting good positions in companies, going to graduate schools. We are counting on them to talk up the Olin experience.”

Matthew Hill was a member of that pioneering first class (which graduated in 2006), and is now pursuing a Ph.D. in mechanical engineering at Stanford. “The fact that I went on to Stanford and won a fellowship there sort of puts the stamp of approval on Olin,” Hill said. “Having the Stanford name also opens a lot of doors.”

The decision to participate in the first class at Olin “was definitely a risk,” Hill said. “At first it was like going into the deep end, not knowing if your feet will touch the bottom. But by my second year I was getting offers for internships, and I was feeling a little better about it. I’m glad I took the risk of going to a small school that was so engineering focused—not like going to Stanford, were you can take anything you want. I think for almost everyone in our first class it turned out well!”

Two of Hill’s fellow Olin alumni, Kate Blazek and Polina Segalova, are also at Stanford. They were awarded National Science Foundation graduate research fellowships, along with Susan Fredholm and Que

About one-third of Olin’s first class of students went on to graduate school, while most of the rest found positions in engineering or related fields.

Anh Nguyen. Two other graduates, Jay Gantz and Joy Poisel, accepted Fulbright Scholarships for study in Europe.

About one-third of the class went on to graduate school, while the rest found positions in engineering or related fields. A few pursued other interests as varied as the Peace Corps and an acting career.

“We’re extremely pleased at the exciting postgraduate plans of our first class of students,” said Olin President Richard Miller, in the summer 2006 issue of *Innovation*, the campus magazine. “The prestigious offers our graduates are receiving exceed our expectations—and our expectations were high.”

Perhaps because of the influence of students at Olin, the college has been rated very high in national surveys of campus amenities. In recent rankings by the *Princeton Review*, Olin placed seventh on the list for best food, and second in the category of “dorms like palaces,” just behind Loyola College in Maryland. “When they built the new dorm, we pushed to have the rooms be suites—so everybody had a little bit of privacy, but shared common amenities,” Hill said.

“In that first year, we learned the value of involving students,” Hunter said. “They are very smart. They are on all the important committees, and we feel like it is very important to get their voice on things.”

Currently about 40 percent of the students at Olin are women—less than the target of 50 percent, but still considered a favorable ratio for an engineering program. “The national average for women in engineering programs is about 20 percent, so we are about twice that,” Hunter said. The college’s faculty-student ratio is admirable as well. “We have about 35 faculty members—about nine-to-one. We feel that that’s about right for the kind of faculty-intensive program we have here.”

Hill has no regrets about his choice to attend Olin. “It was somewhat limited in terms of some opportunities that you would have at other schools,” he said. “But I felt that they did things really well... I left with a good skill set and a job offer.”

—Todd Sallo



Student Matthew Hill, shown working on his art project, looks forward to Olin's first year of "real" courses.

production of "The Real Inspector Hound." Jessica Anderson and another student made the Babson Dance Ensemble, and two others joined Babson's *a cappella* singing group. (Olin students also started their own outing, bowling, film, yoga and CD listening clubs.)

Olin's relationship with Babson is closely tied to its mission. "It's an ideal place to partner with because of our entrepreneurial experience," said Babson spokesman Mike Chmura. "Babson business students will learn early how to work with the people who will create the products they will later help to market, develop, produce and sell. Likewise, Olin students can bring Babson students on board to plan the business aspects of selling the products they design."

As a practical matter, Olin doesn't have to build an athletic complex; its students will use Babson's. And Olin students will use the Babson library for non-engineering materials. Olin also pays Babson to provide dining, security and healthcare services. Olin President Richard Miller serves on Babson's board of trustees, and Babson administrators are members of Olin's governing committees.

Holt encouraged a dozen students to enter a NASA competition to design a greenhouse that could operate on Mars. Matt Hill, the Frisbee fanatic, served as design team leader. The Olin proposal was named one of six finalists, beating out upperclassmen from Cornell and other large established universities. Olin's team also created a tongue-in-cheek online radio show it called *The History and Mystery of Mars*.

Around this time, students and faculty started to become disenchanted with one of the innovations Olin had proposed to make: shortening the segments of the academic calendar. The modules were proving frustratingly short, and there was a consensus that half-semesters (called "quamesters") also wouldn't necessarily work. It was agreed that the curriculum would be taught in sets of three linked courses—calculus, physics and engineering design, for

instance. A group of, say, 25 students would take all three of those courses together, and the instructors would jointly design the curriculum and projects to be complementary. Students would work on engineering projects that bring together the basic concepts of calculus and physics.

After the winter holiday break, students and faculty tested this idea. Their project: building a cannon that could fire a golf ball far and accurately, with a budget of \$300. The two student teams were bested by the faculty cannon, the "Silver Bullet," which drove a ball more than 500 yards with greater accuracy.

The curriculum also will include art, philosophy, psychology, language, and other electives, most of them provided by Babson, Brandeis, Wellesley and other nearby schools. Students proposed, and administrators agreed, that credits should also be awarded for "passionate pursuits" like dance or music.

"They really are walking the walk of saying engineers need to be much more well-rounded," Jessica Anderson said, returning to the "trailer park" one morning after boning up on her French with fellow students over breakfast. The entire class was preparing to spend a month at the Georgia Tech campus in Metz, France—part of Olin's philosophy of exposing its students to other cultures in an era of globalization.

Anderson was on a restructuring committee at the high school she attended. "I had been allowed a little bit to express my opinion," she said. "I wouldn't say it's a shock, but it's been a relief. I envisioned college as a place where you could have nerdy conversations about random things, and that's what we get to do here. We've gotten so used to being able to express our opinions and having them listened to for the most part."

It was the students, for example, who polled the faculty about what math prerequisites were necessary for their disciplines. As a result, the subject of statistics will be introduced far earlier at Olin than at other engineering schools. Students also comprised most of the residential life, honor code, orientation and student government committees. They voted on a mascot, rejecting a dragon, a sprocket, a resistor and other suggestions in favor of a phoenix—because, they said, the intention of the college is to continually reinvent itself. They even shared their opinions about the menu with the school's food service company. "We joke about asking for featherbed mattresses," Anderson said. "We're awed at how spoiled we are."

But students also admitted to some exasperation. Accustomed to being at the top of their classes, they were being used as guinea pigs to test new courses, some of which were based on material they had not yet studied. "It's like building an airplane while you're flying it," said Anderson. "A lot of this year has been testing out balances and testing out limits."

Julianna Connelly added: "At times it has been frustrating when a faculty member gives an assignment to do something I've never done before and don't know how to do." Matt Hill said Olin felt more like a corporation than a college. "We don't feel like students at all." But he admitted: "I'm looking forward to the structure" of the coming academic year, when the courses will be for real. He is also looking forward to seeing

The Franklin W. Olin Foundation has pledged its entire substantial financial support to making the school a success.

the school's enrollment grow from its initial size of only 30 students. "It's nice knowing everybody, but it would be nice to still have people that you haven't met," he said.

Hill admitted to having gone to bed at five o'clock that morning. Student burnout and lack of sleep became significant concerns among administrators. The dean of student life even arranged a seminar in time management. "It's been a baptism by fire," said Connelly, who earned a perfect 1600 on her SATs and got all A's at Thomas Jefferson High School for Science and Technology in Fairfax, Virginia.

Connelly took several "test courses," including "Lepidoptera of Nabokov," which scrutinized the author's moth and butterfly references, and "What Is I," a humanities course that looked at self-perception and pondered whether a computer can be an "I." Every class ended with a post-mortem, and every Friday at noon students sent what they called "minute papers" to their professors by e-mail, evaluating their classes. (They recommended jettisoning the textbook used in "What Is I"). "The big difference next year will be that we won't be able to say, 'I didn't like this

Other Olin partners walked around dispensing advice and encouragement—and looking like they own the place. "The whole point is to introduce them to what Olin's going to be: very project-based," said Anderson. "We do own the place," she added. "We have pride of ownership." Another partner, Adam Horton—the student who built the geodesic dome in high school—said, "We love this place. This is our baby. We are taking a risk by coming here, so it has to be."

An audience of onlookers—mostly beaming parents—grew on a balcony. The drama intensified. It was probably the first time in this gym that the cheers of the crowd were for an engineering competition.

"Everything we have found so far is exactly what our son has been asking us to find for him in an institution," said

Jaime Cabezas of San Jose, Costa Rica, whose son Luis was hard at work below him. Luis had also been accepted by MIT; his father was not concerned that Olin College is far less well known. "Does that really count for so much? If Olin College becomes famous, he will have been in the starting class."

Tom Haugen, whose daughter Frances was also accepted by MIT and CalTech, was not entirely convinced. A professor of pathology at the University of Iowa who went to UC Berkeley, he said: "I've heard many times about higher education being reinvented. Just what effect that all has in the long term, I don't know. It's clear that it's a very good faculty. It's just an unknown quantity."

But Frances, whose mother is also a professor at the University of Iowa, said she already knew she wanted to come here. Those other schools, she said, "don't stress the integrated approach, the application-based process. They stress learning, rather than applying what you learn. Part of the fun is that we're engaged in an act of creation here." Just then, a fellow student asked her to take a picture of their team with a tiny lens connected to his Palm Pilot. "You know you're in nerd country," she said, obviously delighted. ♦

Jon Marcus is a writer based in Boston who covers higher education in the U.S. for the (UK) *Times Higher Education* magazine.

Many faculty gave up substantial seniority to come here, and most agree with the idea that doing away with tenure is "a bulwark against mediocrity," as one put it.



Potential Olin students competed in an engineering exercise as parents and others watched from the gym balcony.

assignment, so I didn't do it," Connelly said.

By that time, more than 5,000 people had inquired about enrolling among the next class of students. There were 536 applicants for 32 spots, even though the application deadline was moved up a month to January 1. Once again, all were at or near the top of their classes, with nearly perfect SAT scores. They had built robots, translated books from Czech into English, and created computer-generated music. Seventy-six were invited to the campus with their parents for a weekend to see the still-unfinished buildings, meet each other, and work on a massive problem-solving project in a Babson gym.

"Olin College?" asked the baffled Babson student at the desk in the athletic center. But teams of high school seniors in plastic safety glasses were already at work just ahead, trying to find a way to build the longest cantilever, or projecting structure anchored at one end, out of Styrofoam, unsharpened pencils, crepe paper, five-gallon water jugs, and file boxes. ("We didn't have a box when we did it," said Joelle Arnold, a member of the Olin partners class.)