In a Tight Academic Job Market, Union Activism Grows among Graduate Students

Support for graduate employee unions, traditionally strong in the humanities, is growing in the sciences. Do such unions destroy, or preserve, academic collegiality?

This spring, thousands of graduate student workers in the US are deciding on whether or not to unionize. In March, teaching assistants (TAs) at the University of California, Los Angeles voted overwhelmingly for union representation, and elections in April and May at the other seven UC campuses were expected to end similarly. At press time, the 4000 graduate assistants at the University of Minnesota were also awaiting the results of their union election. Meanwhile, organizing efforts continue at campuses around the country.

"Unionization is definitely the big issue right now in graduate employment," says Malaina Brown, who chairs the employment concerns committee of the National Association of Graduate/Professional Students. Graduate employees have won union recognition at about 20 universities in the US, in some cases after long and bitter struggles with the administration. Brown estimates that between 10 to 15 other campuses are actively organizing, and that the number will likely grow. "We think the California victory will provide a lot of momentum to the union movement," she says. "More and more students will look on unions as a way to gain what they perceive to be necessary on their campuses—better pay, more classroom training, lower teaching loads, better health care." The question of unionization remains controversial, she adds. "It will be highly debated."

Why unions and why now?

Traditionally, the doctoral candidate has been viewed as an apprentice, a professor in the making. But as more and more new PhDs have failed to secure tenure-track faculty jobs, graduate students have begun to look critically at the connection between the academy's reliance on part-time and nontenured instructors and the dearth of tenured posts. Increasingly, graduate students, especially at the large public research institutions, are viewing themselves as a source of cheap labor. The University of Michigan's TA union estimates that graduate instructors carry half of the undergraduate teaching load there. And a report issued in late March by Yale University's graduate employee union concludes that the number of TAs there has tripled over the last 20 years, while full-time faculty positions have fallen by 5%. (Most unions are restricted to only representing TAs, although a few also include research assistants, or RAs.)

"We expect much more from our TAs than when I was a student," notes Fred Byron, vice chancellor for research at the University of Massachusetts Amherst. "They're shouldering pretty serious instructional obligations"—leading discussion sections, running labs, grading exams. "And it's pushing them to think, 'Hey, we're delivering an important service here, we should be properly compensated for that.' "

Organizing in physics

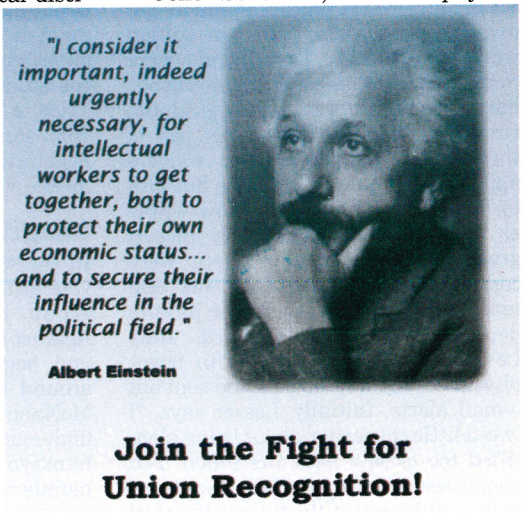
It's no secret that science and engineering students have it pretty good compared to their counterparts in the humanities. An English PhD candidate may not know from year to year where his or her support is coming from; in physics, like the other technical disciplines, federal research funding means that there are plenty of TA and RA positions to go around. Unions have therefore tended to find a bigger following in the humanities than in the sciences.

But at some campuses more science students are getting involved. At Yale, for example, pro-union sentiment in the sciences is quite strong, in contrast to "virtually zero a couple of years ago," says Dale Visser, a nuclear physics PhD student who serves as the union's secretary–treasurer. And at the University of Michigan's Ann Arbor campus, "there's wide support among the science students—just about all of them are members," reports Eric Dirnbach, a biophysics PhD student and currently the president of the school's Graduate Employees Organization. "But compared to in the humanities, there are fewer who are really active." Which is understandable, Dirnbach says. "I mean, they didn't come here to join a union. They came here to do their research and get out."

Jeff Sheen, an RA at Wayne State University who works in relativistic heavy-ion physics, says that most of his physics peers "are pretty happy with what they have. Their attitude may be, What can [the union] win for us that would make our lives better?" Campus-wide concern over healthcare cuts was what triggered the union drive at Wayne State. Although in the end no cuts were made, the union won recognition last spring and is now negotiating its first contract.

"We came together to do things as a group that we couldn't do separately," says Dave Przybyla, a former atomic physics student at Wayne State who now works as a paid organizer for the union. He notes that some people he approaches are ideologically opposed to unions, which they may associate with leftist causes, or may deem inappropriate for academic settings. "'Union' is a real loaded word—a lot of people are scared or unhappy when they hear it."

Jeno Sokoloski, an astrophysics



A QUOTE from Einstein's essay "For An Organization of Intellectual Workers" is featured on a poster for the TA union at UC Irvine. (Courtesy of Association of Graduate Student Employees, UC Berkeley.)

PhD student at UC Berkeley who supports the TA union there, says professors in the department have remained quiet on the union question, with one or two vocally in favor or opposed. In the latter case, she says, "I think they feel like they treat their students well, and it's ungrateful for them to want more."

Mark Krumholz, a first-year physics graduate student at Berkeley, hears similar sentiments from some peers. "Probably the most common reason I hear [for opposing the union] goes something like this: 'When you decided to come to Cal, you knew what you were getting into. If you don't like it, you shouldn't have come.' But without a contract, the university can, and has, unilaterally changed pay, benefits, and working conditions. If we're supposed to be rational actors who know what we're getting into, I think it is entirely reasonable for us to want an enforceable contract spelling that out in writing." The vast majority of classmates he talks to say they plan to vote for the union, Krumholz adds.

At UMass Amherst, a special group has been created to drum up union participation in the sciences and engineering. According to physics student Dan Miller, one goal of the Science and Engineering Organizing Committee is getting more international students involved. "There's no repercussions for joining the union, but they aren't really sure about their legal status in the US, and so they are careful about what organizations they join," Miller notes.

At the University of Wisconsin—Madison, home of the country's oldest TA union, several physics students got involved in the drive to win tuition waivers. Although TA stipends were competitive with those of other schools, having to pay tuition meant graduate employees had the lowest net pay of the Big Ten schools. Tuition waivers appealed not only to students but also to faculty, who viewed the low wages as hurting their ability to recruit graduate students, and there were campus demonstrations, sit-ins and teach-ins on the issue. As the physics department's union steward, Amy Lesser, a graduate student in space physics, stuffed mailboxes and sent out e-mail alerts. Initially, Lesser says, "I was a little concerned about being identified too closely with the union. But people seemed to appreciate what I was doing, and some of them even thanked me." Last year, the state legislature (with which the union negotiates) finally agreed to a tuition waiver, effectively raising TA salaries by $800 to $1200 per year.

"I think it's a big mistake when unions refuse to attempt to enlist science students," says Brian Schwartz, a nuclear physics graduate student at Wisconsin who was active as an organizer during the tuition-waiver effort. "Without scientists or any other particular group of students, you're guaranteed a union that brings division to a campus instead of unity."

Research or work?

Whatever their common interests, there is an important difference between the work done by students in the humanities and in the sciences. It's common for a physics PhD student to teach for just a year or two before moving into a research assistantship. RAs in the humanities are almost unheard of. And, unlike a TA, whose job can be readily distinguished from his or her studies, "the RA is paid to work in the lab while he's getting his thesis together, and hopefully going out with the PhD," says Byron of UMass Amherst, one of the few campuses where the union includes RAs. "That's not to say there's no benefit that accrues to the faculty adviser, but there's reciprocal benefit."

The research assistant's dual roles as worker and student are so intertwined that the UMass union has avoided enforcing workload limits for RAs. "Most RAs enjoy what they're doing, and they don't mind working 60 hours a week," notes Miller. But for those who do have a dispute with their adviser, the union has recommended what it thinks may be a less confrontational approach to the formal grievance procedure. "We're proposing an *ad hoc* committee made up of the student and his or her adviser, the department head and the principal investigator, plus one other person chosen by the student," explains Christopher De Vries, a PhD candidate in astronomy who served on the union's contract negotiating team. "Together, the committee would hash out a solution."

Being collegial

In the weeks leading up to the union vote at the University of Minnesota, a group called Graduate Students Against Unionization set up a Web site and began posting antiunion flyers around campus. GSAU member Ron McNabb, a fourth-year grad student in high-energy physics, says the group's hundred or so members are drawn mainly from the sciences and engineering. Among other things, GSAU doubts that any pay raise or other benefits that a union may win would offset the annual $200 or so in dues that all graduate assistants would be required to pay. The group also questions the estimated $500 000 in dues that would go each year to the National Education Association and the American Federation of Teachers, of which the Minnesota union would be a local collective bargaining unit. (All of the existing graduate employee unions are affiliated with a larger national union.) "And I certainly would not want to go out on strike just to increase pay in the English department," McNabb says.

Indeed, the strike is the most powerful, and most controversial, tool that a union wields. The TA strike at the University of California campuses last December, timed to fall shortly before final exams, is widely seen as helping spur the administration to grant union recognition. At the University of Michigan, TAs staged a two-day walkout in mid-March; three days later, the administration and union reached a tentative agreement on a new three-year contract. It includes a 10.5% raise over three years for all graduate student instructors, plus an additional 25% raise for about 500 of them.

Strong measures like walkouts and strikes lead many to fear that a union will create an adversarial atmosphere, pitting students against the administration and against their own professors. UC Berkeley's Joseph Duggan, the administration's point person on union matters, says that has already happened at his campus, where graduate employees known as readers and tutors have been unionized since 1993. "The readers in the English department filed a grievance," he recalls. "When faculty members were called to testify at hearings, they felt like they were being put in the hot seat, and accused of things they didn't do. Afterwards, the students had to go back and work with those same faculty. It was not insurmountable in the end, but the academic relationship is very delicate."

Physics graduate students at unionized campuses report that their interactions with professors have not suffered. At Yale, for instance, where the Graduate Employees and Students Organization has repeatedly clashed with the administration over its right to represent TAs there, the environment in the physics department is generally good, says Visser. "We feel free to be involved in the union or not, without fear of recrimination." Earlier this year, physics faculty and students discussed the union at a departmental meeting. "I found it to be quite a useful meeting," says John Harris, director of graduate studies in physics. "The students were saying that they don't see major problems. They more sympathize with their fellow students in other departments, who may earn less and have to teach more." Visser says that he and his adviser don't discuss his union involvement. "I think for him, it's like whether I'm a Democrat or a Republican—it's

not really his business."

Susan Pearson, the associate chancellor at UMass Amherst, and the administration's chief negotiator with the student union, remembers that when the union first began organizing in 1989, "people expressed fears about the negative effects on the relationships between faculty and students. None of that has materialized." She admits that the relations between union and administration, especially during contract negotiations, is "somewhat strained." The last contract, for example, took two years to nail down. But Pearson also credits the union for having raised the pay and benefits for graduate employees "in ways that benefit the whole institution."

As the University of Michigan's Dirnbach sees it, "The administration's priorities are just different from those of the graduate employees. Nobody can look out for our interests the way we can."

Adds Miller of UMass Amherst, "We really feel that we're part of a national movement that is going to affect the course of academia. We think it's a great thing for higher education."

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DOE Opens WIPP for Nuclear Waste Burial

Before dawn on 26 March, a truck rolled into the Waste Isolation Pilot Plant (WIPP) near Carlsbad, in southeastern New Mexico. The arrival of its radioactive cargo marked the controversial opening of the world's first deep geological repository for nuclear waste.

Dug out 655 meters underground in a salt bed, WIPP is intended for the permanent disposal of radioactive waste generated by the country's nuclear weapons buildup during the cold war. (See PHYSICS TODAY, June 1997, page 50.) Specifically, it's meant for both transuranic waste (items contaminated with radioactive elements of higher atomic number than uranium) and mixed waste (transuranic waste mixed with chemically hazardous materials such as solvents or lead).

Waste earmarked for WIPP is currently stored above ground at 23 sites in 15 states. Most of it is contaminated with plutonium-239, which has a halflife of 24 000 years. Since exploratory drilling began in the mid-1970s, the Department of Energy (DOE) has spent about $2.5 billion on WIPP, and the total cost, including operating the site for 25 to 35 years, is expected to top $19 billion.

Wendell Weart, a Sandia National Laboratories geologist who was the chief WIPP scientist from 1975 to 1995, is "gratified that we, as a nation, finally had the gumption and guts to get on with the job. It's far safer to bury transuranic waste in WIPP than to leave it where it is."

Permit pending

The 26 March shipment, from Los Alamos National Laboratory, contained only radioactive waste, as did the next shipment, on 6 April. (Some eyebrows went up at the news that the first load included nonweapons radioactive waste from building a power supply for the Cassini spacecraft; see PHYSICS TODAY, October 1997, page 91. DOE explained that it couldn't be physically separated from weapons waste.) But to fill WIPP as planned, DOE still needs the go-ahead from New Mexico, which oversees mixed-waste disposal at the site under the federal Resource Conservation and Recovery Act (RCRA).

New Mexico had "encouraged DOE to wait" to open WIPP until after the RCRA permit became final, probably this fall, according to Nathan Wade, a spokesman for the state's environment department. "We think the government is a better environmental actor when it is subject to external regulation." The state permit is supposed to be based on WIPP's being empty, adds Wade, so making early shipments, though legal, "may jeopardize the permit we intend to issue" because it will provide opportunities for dispute, and "pretty much everything so far has been challenged."

Indeed, legal challenges, combined with changing federal law, have delayed the site's opening by more than a decade. Public opinion remains divided over using WIPP, with polls conducted annually for the past nine years by University of New Mexico political scientist Hank Jenkins-Smith showing that the state's residents are closely split on the issue. Some state and city agencies also question aspects of WIPP. For example, at press time, DOE was still haggling over transport times with the city of Santa Fe, through which many WIPP-bound trucks must pass.

And some critics have vowed to keep fighting WIPP, citing safety as their main concern. For example, although Weart claims that "a room that we fill with waste would be cocooned in solid salt in 100 years," Don Hancock, of the Southwest Research and Information Center, doubts the waste will really be safely enclosed, arguing that salt is more likely to crack than to creep. He also worries about prospectors drilling for oil and gas in the general area, concerns that DOE dismisses.

Hancock and many other WIPP critics say they would agree to deep burial of nuclear waste—just not in WIPP. Says Hancock, "The WIPP site was chosen for political reasons, not technical ones. We hope that the [RCRA] permit will eliminate some of the waste coming to WIPP—prohibiting chemically incompatible, corrosive, explosive, and reactive wastes, for example. We think there are lots of risks beyond what the DOE has considered."

TONI FEDER

DOE

TRANSURANIC WASTE in drums is packed underground at the Waste Isolation Pilot Plant near Carlsbad, New Mexico. Still being excavated, the facility is planned to have a total storage volume of 175 000 cubic meters.

Physicist Wins Religion Prize

Ian Barbour, a physicist and theologian at Carleton College, is the 1999 winner of the Templeton Prize for Progress in Religion. Established by global investor John Templeton, the prize goes annually to "a living person who has shown extraordinary originality in advancing humankind's understanding of God and/or spirituality," and carries the world's highest monetary award (designed to beat out the Nobels). This year, it is worth $1.24 million.

Barbour holds a 1949 PhD from the University of Chicago, and early in his career did research in high-energy physics. But after a few years on the physics faculty at Kalamazoo College, he began gravitating toward ethical