As student labor movements grow, scientists turn activist

A 2016 federal ruling gave graduate assistants the right to unionize. Now students on both sides of the issue are mobilizing.

The eve of final exams can be draining for graduate teaching assistants. They must satisfy a swelling demand for office hours, even as they conduct research, write papers, and prep for their own exams. So when Yale University graduate student Robin Canavan resolved on 25 April to stop eating, she didn't take the decision lightly.

Two months earlier Canavan and her fellow teaching assistants in the department of geology and geophysics had voted to form a union, along with colleagues in seven other departments on campus. They sought, among other things, better health coverage, better grievance procedures, and better pay. The newly formed union, Unite Here Local 33, summarily petitioned the university to begin negotiating a labor contract. They imposed 12 April and then 25 April as the deadline to begin bargaining.

When Yale administrators, who were contesting the vote's legality, allowed the deadlines to pass, Canavan and seven fellow Local 33 members "decided to continue waiting for them to negotiate with us, but to wait without eating." They dubbed it "the fast against the slow."

The hunger strike comes in the wake of a National Labor Relations Board (NLRB) ruling last August that overturned 13 years of precedent to give graduate teaching and research assistants the right to collectively bargain. The case was brought by students at Columbia University, but the ruling has widely been interpreted to apply to all the country's private universities. (Labor laws for public universities are set by states, 16 of which currently recognize graduate student unions, according to the Coalition of Graduate Employee Unions.)

Almost to a person, university administrators opposed the ruling. Stanford University, MIT, and all seven of Columbia's Ivy League peers cosigned an amicus brief arguing that graduate assistants are primarily students, not employees, and that collective bargaining rights would intrude on institutions' academic freedom. But in a three-to-one decision, the NLRB ruled that graduate assistants are both students *and* employees, under the 1935 National Labor Relations Act.

YALE GRADUATE TEACHING ASSISTANTS STAGE A HUNGER STRIKE in protest of the university's refusal to negotiate with their newly formed labor union.

The ruling has unleashed a wave of student labor movements around the country. Not content to be swept passively along, science and engineering students on both sides of the debate have embraced roles as activists.

Split over unions

In Ithaca, New York, where members of Cornell Graduate Students United (CGSU) had been organizing for years in hopes of being recognized as a union, the NLRB ruling cleared the way for them to affiliate with the American Federation of Teachers and hold a sanctioned vote. But when CGSU representatives canvassed Nicole Wiles, a materials science student, in advance of the vote, she became skeptical of what she saw as a lack of transparency. "Their meeting minutes were behind a password-protected wall. They did not allow nonmembers to come to their meetings," she says. "I thought, 'What do they have to hide?'"

After she and a friend in mechanical engineering discovered they shared similar misgivings, they and a third student formed At What Cost, a group whose

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goal, she says, "was to make sure that everyone who was voting was fully informed." The group launched a website that challenged union talking points on dues, the membership-card process, and other matters. It also organized informational sessions, including a debate-style forum with the pro-union CGSU.

The group's brand of activism closely parallels that of physics student Jae Hyeon Lee, who in the span of a few months went from being a volunteer for Harvard University's union movement to one of its most outspoken critics. He says he fell out with union advocates when he "realized they were more interested in having a union for the sake of having one than for actually solving problems." He emailed his departmental colleagues, warning them to be skeptical of claims made by union representatives. He then penned an op-ed in Harvard's student newspaper, launched an anti-union website, and created an antiunion Facebook page that garnered hundreds of followers.

Lee says a common worry among his physics classmates is that unionization will lead to lower pay. Science and engineering students generally receive larger stipends than do students in other disciplines, he explains, and there's some concern that a union would standardize pay across departments. "If I had to guess," he says, "that's probably not going to happen." Still, he doubts that a union would be able to negotiate stipend increases large enough to offset the nearly $500 that he estimates students would have to pay in annual dues.

For many proponents of unions, however, pay ranks low among the issues they hope a union will address. Yale's Canavan is especially dismayed by what she perceives as a lackluster response to sexual misconduct on her campus, where, according to a 2015 survey by the Association of American Universities, 54% of the university's female graduate students have suffered sexual harassment. "I feel like every woman in science has stories," she says. "I was told by a faculty member that I shouldn't worry about the job market because I could just use my boobs to get a job."

Canavan would like to see a grievance procedure that allows students to file complaints to third-party arbitrators, as can the school's unionized clerical and technical workers. Yale spokesperson Thomas Conroy contends that the university already "has in place strong policies and practices to prevent incidents and respond to complaints of misconduct," and he notes that "twice a year we put out a report of all complaints received and how they were addressed."

Tif Shen, a sixth-year doctoral student in Yale's math department, hopes a union can win improvements in health coverage. He recalls having to wait a month and a half to be treated by a therapist for depression during his third year. Conroy says the school has been expanding mental health staff to meet growing student demand. But to union advocates, the situation may, if anything, be worsening. Says Canavan, "I've been waiting now four months to see a therapist."

In February, Yale joined a growing list

of research universities that have held votes to unionize since last year's NLRB decision. At Duke University, graduate students voted down unionization. Votes at Harvard and Cornell remain too close to call. Columbia graduate assistants voted by more than a two-to-one margin to unionize. And at Yale, where union votes were held by department, eight, including math and geophysics, voted to unionize. One—physics—voted against. Several other departments didn't vote.

Yet even at schools where union supporters scored victories, students are barely closer to a labor contract than they were a year ago. Like Yale, Columbia is appealing the legality of its vote, alleging voter intimidation by union supporters. Although an NLRB hearing officer has recommended that that school's objections be overruled, university officials have signaled that they won't enter labor negotiations until their appeal is formally settled. Yale officials, who are questioning the legality of a department-by-department rather than campus-wide vote, have done likewise.

Waiting for Trump?

Administrators at Columbia and Yale say they're simply allowing the legal process to play out, but union advocates suspect an ulterior motive behind the appeals. NLRB rulings on student labor rights have historically flip-flopped along party lines, and President Trump is widely expected to staff the NLRB with members who'll reverse last year's Obama-era decision. If universities haven't signed onto a union contract by then, they may not have to.

That's why Canavan and her Local 33 colleagues felt they had little choice but to stage a hunger strike. On 25 April they erected and occupied a makeshift encampment in Beinecke Plaza, outside the office of Yale's president. After 10 days of consuming only water, Canavan's health deteriorated, and fellow geophysics student Sarah Arveson took her place in the fast. A week and a half later, Arveson was hospitalized with dehydration.

On 22 May, the day of Yale's commencement ceremony, Local 33 ended the hunger strike, despite the university's continued holdout against negotiations. "We decided that because commencement is the beginning of a new thing, it was a meaningful way to end the fast," says Canavan. Three days later the university dismantled and removed the Beinecke Plaza encampment, still occupied at the time by three graduate students.

Through it all, Canavan says her and her colleagues' resolve to bring university officials to the negotiating table is none the weaker: "We are going to hold them accountable."

Ashley G. Smart

Grim news for science and research in Trump budget

Across-the-board cuts to civilian R&D programs would help pay for increased defense spending, but they face an uncertain future in Congress.

President Trump in his budget for fiscal year 2018 proposes the biggest cuts to federal nondefense R&D spending of any administration in a generation, even surpassing President Ronald Reagan, who came the closest more than 30 years ago. According to estimates by the American Association for the Advancement of Science (AAAS), federal support for R&D would tumble 16.8%, or $12.6 billion, from its current-year level, with disproportionately larger cuts to the National Institutes of Health and the research programs of the Environmental Protection Agency and the National Oceanic and Atmospheric Administration. NSF would be hit with an 11% reduction from its FY 2017 funding level.

Delivered to Congress on 23 May, Trump's budget proposal adheres closely to the skeletal framework the White House released in March. Although any president's budget in recent years is routinely declared "dead on arrival" by a large fraction of lawmakers, Trump's request is certain to be significantly altered, if not largely ignored, by Congress. Members previously indicated their distaste for big reductions in R&D spending when they ignored Trump's request for deep cuts in the omnibus FY 2017 appropriations bill. Instead, they added substantially to NIH's budget, slightly increased funding for the Department of Energy's Office of Science, and upped NASA's science programs 3%, among other provisions.

According to an analysis of AAAS data by PHYSICS TODAY, since 1996 the difference between what the president has proposed for nondefense R&D and what Congress has appropriated has never varied by more than $5 billion. In 2011 Congress allocated $5 billion more than President Barack Obama had requested in his budget, and in 2017 it apportioned $5 billion less than Obama's proposal. Over the same period, the variation has been somewhat greater for defense R&D, where appropriations ranged from $7.8 billion below Obama's request in 2013 to $6.4 billion above that submitted by President Bill Clinton in 2000.

The administration's overarching motivation for the proposed reductions is to transfer $54 billion in nondefense discretionary funding to pay for a defense buildup. But the Bipartisan Budget Act of 2015 presents a significant impediment. That law established separate, binding caps for defense and nondefense discretionary spending that will have to be breached if the transfer is to occur. Should the House of Representatives agree to revisit the spending caps, changes would require a 60-vote margin in the Senate, where Republicans hold only a two-seat majority.

NIH an unlikely target

Among Trump's proposed R&D cuts, none are less likely to survive than those for NIH, which has enjoyed staunch bipartisan support for decades. As pundits have repeatedly pointed out, the desire for longer, disease-free lives crosses party lines. Congress added $2 billion for NIH this year, a 6.2% increase, bringing its budget to $33.3 billion. Trump now proposes to cut NIH funding by 22%, or more than $7 billion, in FY 2018.

The DOE Office of Science, which funds basic research in the physical sciences, received a 1% increase for FY 2017. The office would get a 17%, or $847 mil-