



WHY IS COOPER UNION BEING OCCUPIED?

4 DECEMBER 2012

Students for a Free Cooper Union lock-in to Cooper Union's Foundation Building to preserve free education

We, the Students for a Free Cooper Union, in solidarity with the global student struggle and today's Day of Action, have locked ourselves into The Peter Cooper Suite on the top floor of Cooper Union's Foundation Building. This action is in response to the lack of transparency and accountability that has plagued this institution for decades and now threatens the college's mission of free education.

We have reclaimed this space from the administration, whom we believe is leading the college in the wrong direction. In recent years, plans to expand Cooper Union with tuition-based, revenue generating educational programs have threatened the college's landmarked tradition of "free education to all." These programs are intended to grow the college out of a financial deficit caused by decades of administrative mismanagement. We believe that such programs are a departure from Cooper Union's historic mission and will corrupt the college's role as an ethical model for higher education. To secure this invaluable opportunity for future generations, we have taken the only recourse available to us.

We will hold this space until action has been taken to meet the following demands:

- 1. The administration must publicly affirm the college's commitment to free education.** They will stop pursuing new tuition-based educational programs and eliminate other ways in which students are charged for education.
- 2. The Board of Trustees must immediately implement structural changes with the goal of creating open flows of information and democratic decision-making structures.** The administration's gross mismanagement of the school cannot be reversed within the same systems which allowed the crisis to occur. To this end, we have outlined actions that the board must take
 - Record board meetings and make minutes publicly available.
 - Appoint a student and faculty member from each school as voting members of the board.
 - Implement a process by which board members may be removed through a vote from the Cooper Union community, comprised of students, faculty, alumni, and administrators.
- 3. President Bharucha steps down.**

Students Occupying Cooper Union Insist on Founder's Vision

by Isabelle Nastasia
The Nation
December 4, 2012

The clock tower of the Foundation Building of Cooper Union on 3rd Avenue and 7th Street in Manhattan stopped at 12:40 pm on December 3rd, signifying the start to the occupation of the Peter Cooper suite, a studio room behind the clock where twelve students barricaded themselves yesterday. The students mounted the protest to urge the school not to begin charging tuition to undergraduates.

The taking of the 8th floor was followed by the quick arrival of security staff and administrators who tried to literally saw their way through the bolted door. These attempts were put on hold out of fear of injuring the students that were physically defending the space with their bodies pressed against the barricades.

Aside from military schools across the US, Cooper Union is one of eight free higher education institutions in the country. Founded by philanthropist Peter Cooper in 1859, the school

is known for its rigorous admissions program and a curriculum providing free, high-quality education for the brightest and most innovative budding engineers and artists from all over the world. Cooper himself asserted that university was founded on the idea that education at the institution would be as “free as air and water”, and its mission being to create access to art education to students regardless of their race, religion, sex, wealth or social status.

Like the City University of New York [a public institution that first implemented tuition in 1975, at which the cost of education has gone up 500% for students since], Cooper Union was free through the Great Depression. However, over the past several years the Board of Trustees have been devising plans to address the institution's growing deficit of 16.5 million dollars, largely the result of an expansion plan, by shifting the weight of administrative spending onto the shoulders of students and their families. The school says it has not made a decision on charging tuition for undergraduates but in April, it broke precedent by charging tuition to graduate students for the first time in its 110-year history.

The twelve occupiers students along

with the group, Students for a Free Cooper Union, released a statement with three tough demands:

- 1) The administration publicly affirm the college's commitment to free education.
- 2) The Trustees must immediately implement structural changes with the goal of creating open flows of information and democratic decision-making structures.
- 3) The President of the college, Mr. Bharucha, step down from his position.

In the evening, the students put on a session on education and debt in the Great Hall of Cooper Union that involved performances, presentations, videos and a brief livestream of the occupiers from a mere seven floors above the gathering.

Writer and organizer Marina Sitrin began the session by locating the current occupation of Cooper Union in the larger context of social movements across the globe, from the Arab Spring to the anti-austerity movement of Chile to the #YoSoy132 movement in Mexico to the student movement that successfully stopped the proposed tuition increase in Que-

bec. Sitrin asserted that what makes our movements significant and also threatening to the status-quo is that they are not only movements of refusal and the rejection of policies that do not reflect the world we want to see but also movements of creation, where we assemble, learn from one another, make art, and build social relations that are pre-figurative.

The occupying students themselves are not only refusing to allow their institution to implement tuition for students that will come after them (they are not self-interested, but are hell-bent on protecting the integrity of their school for future generations to come) but also outside while they reclaimed the interior of their school building, fellow students and allies providing free and participatory classes outside through the Free University--providing a creative and pre-figurative component to the protest.

Sitrin also stressed that what's especially exciting about the last year is how we have been able to borrow strong messaging, tactics, strategy and imagery from other successful social movements and have thus built a dialectic relationship across the globe in the process. The occupation of Peter Cooper suite was a prime example of how students in the US are learn-

ing from other student struggles: the bright red banner was reminiscent of the Quebec student strike of 2012, the messaging of “free education for all” was similar to that of the banner drops and signs at CUNY student protests over the past several years.

The students continue to occupy the space today. When they will leave or be ejected is anyone’s guess. Moving forward, examples of grassroots struggle for social change abound. In New York City, where I live, the Cooper Union struggle to remain a tuition-free institution may yet be tied together with the continuous organizing in communities post-Hurricane Sandy, the fast food workers strikes that occurred late last week and the new Rolling Jubilee that buys people’s anonymous debt for pennies on the dollar and broader movements across workers, students, housing and other social struggles.

This is what democracy looks like.

Students for a Free Cooper Union call for press conference Tuesday afternoon

We, the Students for a Free Cooper Union, who reclaimed The Peter Cooper Suite from the current Cooper Union administration yesterday at noon, have established base overnight. We will continue holding this space until our demands are met or we are otherwise removed: we will not negotiate. To this point we have publicly presented our terms and principles and reached out to the broader community and press, but we have yet to be contacted in any capacity by the president. Faced with ideological opposition to the expansionist model, Jamshed Bharucha has withdrawn from public view and shirked his responsibilities overseeing the college.

We denounce our president's repeated absence in the face of community organizing. Last year, while the New York City Police Department arrested our students, our administration was nowhere to be seen; and chants of "Where is our president?" still echo today. We need transparency, not invisibility. In contrast, the public has come together in support of our principles and demands. Displays of solidarity—from tweets all around the world to a candlelit vigil eight floors below—resonate our rejection of the global system of student debt and articulate aggravations that are felt worldwide.

Yesterday, an anonymous source shared a report with us detailing the results of a committee convened to analyze the feasibility of implementing undergraduate tuition in the School of Engineering. The research concluded that within 10 years, students could face between \$40,000 and \$80,000 in tuition fees. Since we received and shared this document, other members of the community have stepped forward to clarify the nature of the report. It is our understanding now that this committee was one of many tasked to research revenue generation for the school. We struggle with the fact that all of this information has come to light solely from a leaked document, and not the from our expectations of transparency and candor.

In response to the undervaluing of student voices and the continuous dismissal of community organizing, Students for a Free Cooper Union are holding a press conference on Tuesday, December 4, 2012 to address the aforementioned points. We are organizing our fellow students as public intermediaries to speak on our behalf while we retain the Peter Cooper Suite.

We invite everyone to this press conference in front of Cooper Union at 7 East 7th Street, New York, New York at 2:30 PM.

Executive Summary

The Undergraduate Tuition Committee ("UTC") was tasked with reviewing the Maguire tuition data, reviewing the "cost of charging tuition" data (Admissions, Student Services, etc.) and also to study issues like "could we The Cooper Union keep the current 'funnel' size the same" (i.e. not pay \$6 per high school prospect, but increase yield to retain current student quality)? In addition the UTC collaborated with CDG GDC, Cooper Union's consultants who provided mathematical models illustrating the financial impact of charging tuition. The UTC operated entirely independently of the "Graduate Tuition Committee" until the Committees had a joint meeting on November 8th that included Norm Lieu of CDG. Mr. Lieu ~~was asked to~~ combined the results of the two Committees in a single Excel model that would permit exploring the overall revenue consequences of pursuing various revenue sources (e.g., expanded master's programs, a post-baccalaureate pre-med program, undergraduate tuition) that might begin at different points in time. For example, starting expanded master's programs at the earliest possible time, and delaying the onset of undergraduate tuition until necessitated by under-performance of other revenue sources. This report focuses solely on the work of the Undergraduate Tuition Committee ~~undergraduate tuition model~~.

As a preliminary matter, the term "tuition" requires some explanation. Currently, The Cooper Union has a stated tuition of almost \$40,000 annually, but grants all of its students a 100% discount (a "full tuition scholarship"). Having a stated tuition, and then discounting it by 100% is ~~done~~ for a number of reasons, such as allowing ~~our~~ Cooper Union students to receive TAP grants, which would not be available to an institution that had claimed it was "tuition-free". In the event that undergraduate tuition is adopted, The Cooper Union's stated tuition will remain the same, ~~however~~ ~~we~~ it will give a discount smaller than 100%. For example, if ~~our~~ The Cooper Union's stated tuition is \$40,000 and ~~we~~ ~~it~~ lower: the discount rate to 80%, students and their families would be required to contribute \$8,000 annually to the cost of the student's Cooper education.

The members of the UTC have concluded that a low undergraduate tuition (e.g., initially ~\$9600/yr) holds the prospect of a minimal and reversible impact on the academic quality of future classes and on the institution's reputation, while still achieving the School of Engineering's five year revenue target if implementation costs are kept to a bare minimum. Furthermore, in the event that more risk-laden revenue generation efforts underperform, progressive increments in undergraduate tuition might be applied by The Cooper Union to cover the bulk of the ten year target.

Initially, the UTC was told that the institutional cost of charging tuition was approximately \$3M annually. This figure was provided to ~~us~~ the UTC by our Vice President of Finance and

Administration, and was based on information supplied by the Dean of Students and the Dean of Admissions as well as ~~This figure was based on~~ the assumption that tuition would be charged to students from all three schools, not just the School of Engineering. It was also assumed that tuition would be charged at "market rate" (approximately \$40,000) which would lead students and their parents to assume that certain amenities and services would be provided on campus (e.g., a full time psychologist, additional career counselors and financial aid counselors). Further, this figure relied on the statistical results from the Maguire Report combined with the assumption that, in the event that tuition was charged, the School of Engineering would go to great lengths to insure there would be no significant change in the profile of our incoming students (e.g., average math SAT score). Therefore, these figures assumed that ~~we~~ The Cooper Union would purchase large numbers of 'student leads,' spend substantial sums on various forms of advertising, and greatly expand the size of the Office of Student Services. ~~Finally~~ Consequently, the \$3 million figure was something of a "worst case" scenario.

The UTC met with Deans Lipton and Lemiesz, Vice President Westcott, and Mary Ruokonen (Financial Aid Coordinator within the Registrar's Office), reviewed the Maguire report, consulted with institutions that had made the transition from tuition-free to charging tuition, and engaged in internal discussion.

The results of ~~our~~ CDG's analysis are found at the end of our report (pages 6-7) as 4 Figures.

Figure 1 employs a model that locks tuition at a fixed dollar amount (here, \$9,600, or a 76% discount rate) for each of an undergraduate student's four years at The Cooper Union. The next entering class will also face a locked tuition, but at a rate that has grown by inflation, assumed to be 3%. This allows The Cooper Union ~~us~~, if relying solely on undergraduate tuition, to nearly meet the School of Engineering's ~~our~~ 5 year target, but not ~~our~~ its 8-10 year target. The dashed target line represents the growth of ~~our~~ the School of Engineering's target due to inflation.

Figure 2 employs a model in which there are inflationary increases both in annual tuition for a given student, as well as for each new entering class. This change brings the School of Engineering ~~us~~ slightly closer to meeting ~~our~~ its 5 year target, but not ~~our~~ its 8-10 year target.

Figure 3 employs a model similar to Figure 1, in that tuition for a given student is locked for 4 years and each new class sees an increase coupled to inflation. Additionally, the discount rate gradually ~~drops~~ reduces from 76% to 60%. ~~We~~ Here the School of Engineering comes closer to meeting ~~our~~ its 8-10 year target.

Figure 4 employs a model similar to Figure 2, but adding the gradual ~~drop~~ reduction in discount rate. The School of Engineering ~~We~~ comes somewhat closer to reaching its ~~our~~ 8-10 year target.

Undergraduate Tuition Committee Report

1. Other highly regarded engineering schools (e.g., Rice, Olin) have managed to survive the transition from being tuition-free (a 100% discount rate) to charging undergraduate tuition (e.g. a 50% discount rate) without a loss of reputation or a reduction in student quality (beyond a possible temporary decline).¹
2. We reject the Maguire report's characterization of Cooper Union as an institution that is perceived to be of high value, but not perceived to be of excellent quality, which might merit going to extraordinary lengths to insure no loss of student quality.
3. Even in the event of a moderate decline in such metrics as average math SAT score, we reject the assumption that we cannot remain an excellent school of engineering.
4. Any expected decline in student quality would be strongly coupled to ~~our~~The Cooper Union's discount rate. It is therefore critical to reduce the institutional cost associated with charging tuition. After discussion with the VP of Finance and Administration and the Deans of Admissions and Student Services they reduced this predicted institutional cost from \$3 million annually to \$650,000 annually.
5. With this reduction in the cost of charging tuition, the School of Engineering may meet its five year revenue target by the end of the five year period, solely by changing the discount rate from 100% to 76% (students and their families would be expected to contribute \$9,600). That is, the School of Engineering's target ~~could~~ may be met without pursuing any additional revenue generation methods, such as tuition-based summer programs or graduate programs. This conclusion was ~~supported by~~ based on a model developed by Norm Lieu of CDG, which included such factors as inflation and attrition.
6. In the event of underperformance of other revenue generation efforts, in academic year 2017-18 The Cooper Union could begin to gradually change the above described model to meet the 10 year target of \$6 million/yr for the School of Engineering. These adjustments might include an enlargement of incoming freshman classes, a more aggressive effort to replace students lost to attrition through acceptance of greater numbers of transfer students, and a progressive retreat in the discount rate provided on the school's stated tuition. In this "worst case" scenario the discount

¹ It should be noted that neither institution is directly comparable to The Cooper Union. For example, Olin is a young institution (it admitted its first full class in 2002) and Rice is a much larger institution than Cooper, and introduced tuition in a different era, when issues such as desegregation in the South were at the forefront.

would need to be reduced to about 60% by academic year 2022-23. Since The Cooper Union's nominal tuition is projected by CDG to inflate to over \$50,000 by that time, the contribution from students and their families would exceed \$20,000 in 2018 dollars.

7. At an initial discount rate of 76% the "effective tuition cost" of \$9,600 annually is substantially below that of most engineering schools that ~~we would consider~~ may be considered to be our 'competition.' The only local school with a lower cost than Cooper Union ~~would be~~ is CUNY at \$5,430 for in-state residents.

8. While there may be a substantial psychological shock to the reduction of the discount rate from 100%, Cooper Union currently has student fees and there is a substantial cost involved in living in NYC (the average Cooper student spends between \$15,000 and \$20,000 to live within commuting distance of school). The real comparison, for students and their parents, is the total cost of attending a particular engineering school. On this basis, the School of Engineering may remain competitive with a 76% discount rate.

9. Charging undergraduate tuition is the most likely method to succeed in meeting ~~our~~ the School of Engineering's five year target. Some alternative approaches, such as creating new graduate programs (for which tuition will be charged) are, in the short term, too uncertain to rely on, and may require substantial investments of time and money, etc. In the long term, the success of alternative revenue generation sources may enable ~~us~~ The Cooper Union to increase the discount rate.

10. A topic of discussion relating to tuition is that it may be seen as inappropriate to charge it in the School of Engineering, but not in the Schools of Art or Architecture. (It is unknown at this time what methods of revenue generation will be used in these schools.) The UTC notes that employment opportunities and starting salaries for engineering graduates are greater than those for graduates from the other schools. If an engineering student is required to take out loans in order to pay their tuition, they are more likely to have an income after graduation that will allow them to repay their loans.

11. Many of our students do not currently fill out FAFSA forms. ~~We~~ The School of Engineering therefore has ~~have~~ incomplete information on the ability of many of our students to pay tuition at \$10,000 annually. ~~We~~ The UTC ~~have~~ inquired about requiring the next entering class to fill out FAFSA's, solely for the purpose of gathering information, but this is not permitted, according to Dean Lipton, since it will not be tied to an actual grant.

12. ~~Our~~ The Cooper Union's Tax Equivalency status with NYC is not threatened by a reduction in the discount rate, according to Vice President Westcott, who conferred with counsel and the NYS Attorney General.

13. A remaining issue the UTC considered is that the revenue generated by reducing the discount rate may be reduced if The Cooper Union continues with ~~our~~ its current "need-blind" admission policy rather than converting to a "need-sensitive" admission policy. Vice President Westcott suggested that public perception of the school would preclude such a change. ~~Our~~ CDG's model met ~~our~~ the School of Engineering's five year target with an initial undergraduate enrollment of 100 students. The model assumed decreasing attrition rates each year (e.g., 15% attrition between freshman and sophomore year, 10% attrition between sophomore and junior year), which to some extent would be mitigated by accepting a number of transfer students. But the UTC strongly suggests admitting at least 10 additional students per year with a 100% discount rate to insure that The School of Engineering would have a reasonable number of particularly strong students in each class.

14. Some have expressed a concern that reducing the discount rate of the engineering program will deprive some of the neediest of an engineering education. This concern is strongest when the neediest may also be minority candidates. We note that strong minority candidates for engineering ~~will receive much better~~ may receive good financial packages from a number of excellent engineering programs – in addition to full-tuition scholarships they may receive room and board. In any event, Cooper Union's financial aid packages, including its ~~our~~ own outright grants will prove adequate for many at this low tuition point.

Mary Ruokonen (Director of Financial Aid) notes: "The following chart lists the maximum federal and state financial aid available for the very poorest first year students, if the discount rate is reduced. These are current funding levels and are subject to changes in federal and state appropriations:

Federal Pell Grant	\$5,550
Federal Supplemental Opportunity Grant	\$4,000
Federal Subsidized Stafford Loan	\$3,500
Federal Unsubsidized Stafford Loan	\$2,000
New York State Tuition Assistance Program	\$5,000
TOTAL	\$20,050

Parents with good credit scores can obtain a Federal Parent Loan for Undergraduate Students (PLUS Loan) up to the remaining cost of attendance."

15. ~~Our projections have been developed in isolation from the Graduate Tuition Committee, however their report notes that "The proposal does NOT reduce the size of the population of undergraduate students." In any event, we believe a "critical mass" of students are required within each major, so would oppose a reduction of the number of undergraduates, regardless of which revenue plans may be put into effect.~~

The UTC does not endorse reducing the size of the undergraduate programs. Having too few students in any of the four majors would reduce the below "critical mass" in terms of offering a variety of attractive electives, "populating" special projects and research activities, and supporting faculty development. Therefore, all analyses here and in the programs proposed by the GTC presume retaining no fewer than 100 undergraduates per year (plus potentially an additional 10 with a 100% discount rate, as stated above).

16. In the event that the discount rate is reduced, the UTC suggests that an additional overload fee could be charged, per credit, if a student registers for more than 19 credits in any semester or exceeds the number of credits required for graduation.

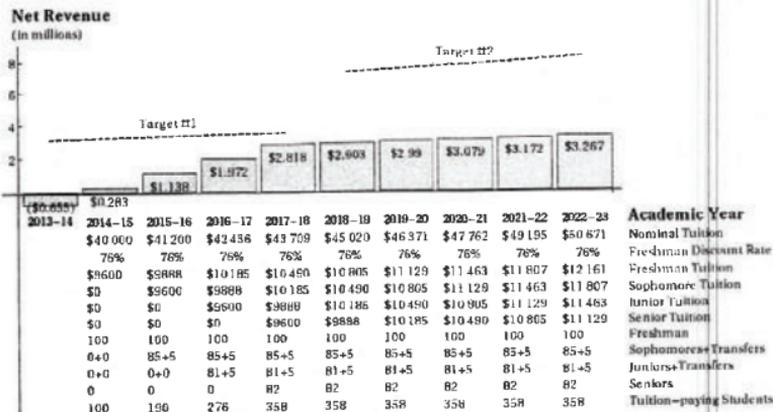
17. The UTC notes that planned increases in the Admissions budget provide for new recruitment activities which include more active recruitment of international students. We believe that it is reasonable to expect that Cooper can gradually attract more talented students from abroad who can enrich our community and themselves benefit from our programs.

18. The results of our CDG's models follow. They include such effects as attrition, inflation, transfer students.

Four Models to meet 5 year / 8-10 year Revenue Targets

Model 1: Tuition Lock

A given student pays the same annual tuition for 4 years. Each new class sees an increase coupled to inflation.



Model 2: Discount Lock

Tuition increases each year coupled to inflation for existing students and new classes.

Net Revenue
(in millions)

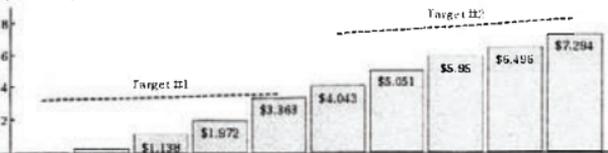


Academic Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Nominal Tuition	\$40,000	\$41,200	\$42,436	\$43,709	\$45,020	\$46,371	\$47,762	\$49,195	\$50,671	
Freshman Discount Rate	76%	76%	76%	76%	76%	76%	76%	76%	76%	76%
Freshman Tuition	\$9600	\$9888	\$10185	\$10490	\$10805	\$11129	\$11463	\$11807	\$12161	
Sophomore Tuition	\$0	\$9888	\$10185	\$10490	\$10805	\$11129	\$11463	\$11807	\$12161	
Junior Tuition	\$0	\$0	\$10185	\$10490	\$10805	\$11129	\$11463	\$11807	\$12161	
Senior Tuition	\$0	\$0	\$0	\$10480	\$10805	\$11129	\$11463	\$11807	\$12161	
Freshman	100	100	100	100	100	100	100	100	100	
Sophomores+ Transfers	0+0	86+5	85+5	85+5	85+5	83+5	85+5	85+5	83+5	
Juniors+ Transfers	0+0	0+0	81+5	81+5	81+5	81+5	81+5	81+5	81+5	
Seniors	0	0	0	82	82	82	82	82	82	
Tuition-paying Students	100	190	276	358	358	358	358	358	358	

Model 3: Tuition Lock/Discount rate gradually decreases

A given student pays the same annual tuition for 4 years. Each new class sees an increase coupled to inflation. Additionally, the discount rate gradually drops from 76% to 60%.

Net Revenue
(in millions)

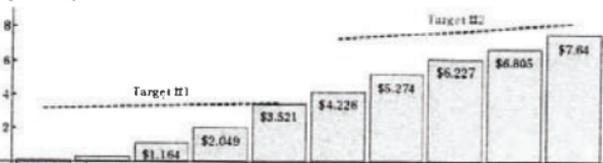


Academic Year	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
Nominal Tuition	\$40,000	\$41,200	\$42,436	\$43,709	\$45,020	\$46,371	\$47,762	\$49,195	\$50,671	
Freshman Discount Rate	76%	76%	76%	76%	70%	65%	65%	65%	60%	
Freshman Tuition	\$9600	\$9888	\$10185	\$13113	\$13506	\$16230	\$16712	\$17218	\$20268	
Sophomore Tuition	\$0	\$9600	\$9888	\$10185	\$13113	\$13506	\$16230	\$16712	\$17218	
Junior Tuition	\$0	\$0	\$9600	\$9888	\$10185	\$13113	\$13506	\$16230	\$16712	
Senior Tuition	\$0	\$0	\$0	\$9600	\$9888	\$10185	\$13113	\$13506	\$16230	
Freshman	100	100	100	110	115	120	120	120	120	
Sophomores+ Transfers	0+0	86+5	85+5	85+15	94+15	98+15	102+15	102+15	102+15	
Juniors+ Transfers	0+0	0+0	81+5	81+10	80+10	98+12	102+12	105+12	105+12	
Seniors	0	0	0	82	86	95	104	108	111	
Tuition-paying Students	100	190	276	383	410	438	455	462	465	

Model 4: Discount Lock/Discount rate gradually decreases

Tuition increases each year coupled to inflation for existing students and new classes. Additionally, the discount rate gradually drops to 60%.

Net Revenue
(In millions)



2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	Academic Year
\$40,000	\$41,200	\$42,436	\$43,709	\$45,020	\$46,371	\$47,762	\$49,185	\$50,671	\$52,235	Nominal Tuition
78%	78%	78%	78%	78%	78%	78%	78%	78%	78%	Freshman Discount Rate
\$8600	\$9888	\$10,185	\$11,113	\$13,506	\$16,230	\$16,717	\$17,218	\$17,735	\$20,268	Freshman Tuition
\$0	\$9888	\$10,185	\$10,450	\$13,506	\$13,911	\$16,717	\$17,218	\$17,735	\$20,268	Sophomore Tuition
\$0	\$0	\$10,185	\$10,450	\$10,805	\$13,911	\$14,329	\$17,218	\$17,735	\$20,268	Junior Tuition
\$0	\$0	\$0	\$10,450	\$10,805	\$11,129	\$14,329	\$14,758	\$17,735	\$20,268	Senior Tuition
100	100	100	110	115	120	120	120	120	120	Freshman
0+0	85+5	85+5	85+5	94+5	98+5	102+5	102+5	102+5	102+5	Sophomores+Transfers
0+0	0+0	81+5	81+10	90+10	98+12	102+12	105+12	105+12	105+12	Juniors+Transfers
0	0	0	82	86	85	104	108	111	111	Seniors
100	190	276	383	410	438	455	462	465	465	Tuition-paying students

No Tuition: The High Price of Free Excellence

by Peter Passell
New York Times
November 6, 1994

The poster-crammed bulleting boards, grubily clad undergraduates mingling in clumps and scent of old dust mixed with fresh paint bring to mind any of a hundred urban campuses.

But this isn't just any campus. The students, a potpourri of races and ethnic groups, are among the most talented in America, and the curriculum is among the most demanding. More striking, the only barrier to entry is the fierce competition for places in the freshman class. For this is Cooper Union, a specialized college of art, architecture and engineering in Greenwich Village and the only private American college of its caliber that charges no tuition.

How does it provide the best and remain free? Can it keep on doing it? More subtly, should it keep doing it for those students whose families can afford to pay?

The economics of Cooper Union, like its curriculum, are unique. But

the problems of keeping the college accessible to everyone with brains and motivation parallel those of other ambitious colleges that must increasingly rely on big donors to write checks.

Henry Cobb, former dean of Harvard's School of Architecture and senior partner in the firm of Pei, Cobb & Fried, calls the school "the hidden gem of New York." It is the legacy of Peter Cooper (not only the designer of the first American inventor of Jell-O), whose 1859 endowment specified that the school should be "as free as air and water."

The founding tradition of accessibility still has echoes in a half-dozen Cooper Union community outreach programs in science and art. But the primary focus of the institution is the undergraduate college, with an enrollment just topping 1,000.

Its engineering school consistently ranks near the top in the nation among specialized undergraduate programs. And no wonder: Three-quarters of the freshmen admitted in 1993 had math S.A.T. scores above 700, out of a possible 800, in the top 2 percent in the country.

Cooper Union's architecture program, with a reputation for nurturing creativity while still teaching the nuts and bolts, was called "perhaps the most important architecture school in the world" by Domus, the architecture journal. And while the Art School is arguably the least sparkling of Cooper Union's jewels, it still can boast of a higher selectivity rate than Harvard's -plus a long list of distinguished graduates including George Segal, Alex Katz, Eva Hesse, Tom Wesselman, Milton Glaser, Lee Krasner, Joel-Peter Witkin, Edward Sorel and Mark Alan Stamaty.

What makes Cooper Union's standards all the more remarkable is its diversity. One-quarter of the students are Asian and 17 percent black or Hispanic. Almost half the freshmen last year were born outside the United States. Perhaps most striking, 30 percent of the engineering students are women - "twice the average for comparable school," reports Eleanor Baum, dean of engineering.

Cooper Union does not aggressively recruit minorities, notes John Jay Iselein, the president, because it need not. He attributes this to the college's emphasis on teaching marketable skills, plus its non-threatening atmosphere for the urban poor.

In part, Cooper Union manages free tuition the old-fashioned way: with pots and pots of endowment money. This year, roughly \$15,000 per student will come from leases on college-owned real estate and income from securities. Gifts from alumni and friends will add about \$2,000 per student. A grab-bag of other sources, including state aid, dormitory charges and recreation fees, will generate another \$2,000.

That income is no more than flows into a dozen other well-endowed schools that nonetheless charge more than \$20,000 a year.

What makes it possible for Cooper Union to deliver an exceptional product for roughly 40 percent less than the Haverfords, Williamses and Princetons of the world?

For starters, frugality reigns. Space is barely adequate: the aisles between architects' drawing boards and engineers' work stations are as narrow as economy class on a Boeing 747. And vice president Robert Hawks reports that Cooper Union runs with a "very lean" support staff. Mr. Hawks, the college's chief financial officer, serves as the rental agent for the half-dozen retail spaces in Cooper Union's campus buildings.

The school provides virtually none of the amenities of elite liberal arts colleges. Princeton Review's annual survey of students scored Cooper Union the most unsightly college in the nation. There is no communal dining hall, and the sole dormitory has space for just one student in six. While many freshmen live on campus, sophomores are strongly encouraged to find their own apartments or live at home.

There are no athletic facilities other than nearby city-owned public tennis courts and pools. Nor is there much of library; Cooper Union maintains a specialized collection, contracting with New York University for access to its research resources. Indeed, there is a pattern here: Cooper Union makes do with far less because it uses New York City's assets so effectively. The campus is set amid a paradise of galleries, theaters, concert halls and ethnic restaurants.

And, while faculty salaries are competitive nationally (full professors average \$72,000 annually, assistant profs \$47,000), an astonishing half the classes are taught by inexpensive part-time faculty without sacrificing instructional quality. This is possible because New York is brimming with successful architects, artists and engi-

neers eager to mingle with and sometimes hire gifted students.

It would be nice to conclude that the endowment and ongoing generosity of alumni would be sufficient support. But that is not the case. While Cooper Union's management remains indefatigably optimistic, the school is spending more than it can count on earning, and bigger troubles loom.

Of Cooper Union's \$15.2 million income from the endowment this year, four-fifths comes from a single source: the land beneath the Chrysler Building. This prime property generated a bonanza during New York's real estate boom; lease payments have risen sixfold since 1973, permitting the school to invest in a residence hall and raise salaries of then-underpaid, militant faculty. But under the terms of the Chrysler lease, concedes vice president Hawks, there is little reason to believe that the income will even keep pace with the cost of living for the foreseeable future.

Mr. Hawks thinks more cash can be squeezed from the college's commercial holdings near the campus. And some administrators are floating the idea of charging those students who do not complete their degrees in four years. But this income would amount

to peanuts, on a budget pushing \$25 million.

One plausible solution would be cutting enrollment and staff - Cooper Union is already educating 100 more students than it officially wants. But William Bowen, an economist who is president of the Mellon Foundation, notes that "downsizing almost never makes sense in higher education" because so much of its cost is embedded in plant and equipment.

Downsizing is particularly problematic for Cooper Union because any meaningful cut would require a show-down with the unionized permanent faculty. Paring part-timers who now work for bargain rates would save very little. Besides, it would sabotage Cooper Union's valuable relationship with the art and architecture elites of New York.

What's left? David Breneman, an economist at Harvard's School of Education, wonders whether it really makes sense to hold the line on charges. "They're giving the wealthy kids a windfall," he points out. Economists would find it tempting to set tuition at some very substantial sum, and then give discounts as great as 100 percent according to need.

But tuition remains a four-letter word at Cooper Union. For one thing, argues President Iselin, the potential revenue from tuition is more modest than might be expected because Cooper Union families are poorer than their elite college counterparts.

For another, argues Andy Rabinbach, a professor of history at the school, tuition would undermine its image, creating psychological barriers for minorities and immigrants who now feel at home in this egalitarian setting. Last, the tuition option would open questions of whether current employees are adequately paid.

In the end, then, Cooper Union's financial problems and solution have an all too familiar ring. "The name of the game in higher education these days," says Mr. Bowen, the economist, "is muddling through."

The difference - and perhaps advantage - is that Cooper Union's survival means so much to New York's (and America's) dream of mobility through education.

One College Sidesteps the Crisis: As Many Endow-

ments Suffer, No-Tuition Cooper Union Builds, and Basks

by John Hechinger

Wall Street Journal

June 30, 2009

Harvard University put the brakes on a major campus expansion. Wellesley College froze salaries and laid off employees. Middlebury College cut financial aid for international students.

But one private college is quietly skirting the crunch in higher education: Cooper Union for the Advancement of Science and Art, in Manhattan's East Village.

The 150-year-old college, which charges no tuition, is nearing completion of a shimmering \$150 million academic building designed by noted architect Thom Mayne. It is renovating its landmark main building, hiring for a new biology program, launching an environmental-design institute and starting a new master's degree program in architecture.

The expansions stem from Cooper's decision three years ago to ratchet back the financial risk in its endowment, enabling it to avoid the losses that have racked its peers. The college renegotiated a lease to lock in a future income stream from its key

property, sold another parcel at a favorable price, raised its cash holdings and picked investment managers that hedged against stock-market declines.

Administrators say they wanted to be especially careful because of the school's no-tuition policy, which leaves its budget largely dependent on investment income. After the tech-stock collapse and the terrorist attack of 2001, the school's endowment dropped by more than a third, and officials consulted bankruptcy lawyers. "We knew that if we took a big risk and lost, we couldn't recover," says George Campbell, Cooper's president.

As a result of its conservative approach, Cooper's endowment, valued at \$600 million on June 30, 2008, is expected to be about the same -- or even up slightly -- when the school's fiscal year ends this month. By contrast, most U.S. colleges are struggling with endowment losses between 20% and 30%, according to a recent report from Moody's Investors Service. Earlier this month, citing a 22% endowment decline, Franklin W. Olin College of Engineering, which also offers a free education, said students at the Massachusetts school will have to pay about \$18,000 a year, starting in 2010.

John Michaelson, who heads Cooper's investment committee, said other schools could benefit from taking a lower-risk investing approach. He is especially critical of what has been known as the "Yale model."

Yale University profited from pioneering moves away from U.S. stocks into often illiquid alternative investments, such as private equity, commodities and timber. Yale's strategy avoided losses in the tech-stock collapse.

But Mr. Michaelson of New York private-equity firm Imperium Partners says Yale's approach, widely emulated in recent years, places too little emphasis on colleges' annual cash needs and is "deeply flawed." In December, Yale projected that its endowment, \$22.9 billion last June, would fall 25% in the year ended June 30. Yale spokesman Tom Conroy noted that for the 10 years ended in June 2008, Yale reported annualized returns of 16.3%, topping the charts for endowment performance.

Cooper has a rich, 150-year history. Founder Peter Cooper, a 19th-century inventor and industrialist with less than a year of formal schooling, aimed to provide working-class students a "first rank" education "as free as air or water." The college's eight-story main building, an Italianate

brownstone considered a forerunner of the modern skyscraper, was one of the first in New York City supported with rolled-iron I beams, produced by Peter Cooper himself. Abraham Lincoln gave a famous antislavery address at Cooper. Thomas Edison studied chemistry there, and alumni include physicist and Nobel laureate Russell Hulse, graphic artist Milton Glaser and architect Daniel Libeskind.

Cooper's most valuable asset is a gift from Peter Cooper's family -- the land under the Chrysler Building. With 1,000 students and a \$57 million budget, Cooper currently receives \$7 million annually in ground rent from the iconic Art Deco skyscraper. And under an unusual arrangement with roots in the school's original charter, the holder of the Chrysler lease is assessed city real-estate taxes -- but that money, currently \$12 million annually, goes to the school. Over the decades, New York City has challenged the arrangement, but Cooper has prevailed in court. The school would lose the lucrative tax-related benefit if it sold the property.

Under a 150-year lease struck with real-estate powerhouse Tishman Speyer Properties in 1999, the rent was due to reset in 2018 at then-prevailing market rates. In 2006,

Cooper and Tishman Speyer struck a deal that instead locked in the rent payments at \$32.5 million annually in 2018, \$41 million in 2028 and \$55 million in 2038. Mr. Michaelson says Cooper reached the agreement near the peak of the real-estate boom and contends Tishman “would not do that deal today.”

Steven Rubenstein, a spokesman for Tishman Speyer, said the 2018 rent payments represented a two-thirds discount from the value of midtown Manhattan space at the time, and the deal locked in favorable terms for 40 years. “This discount was a great deal then, it’s a great deal now and it’s going to be even better in 2018 when it kicks in,” he said. In 2008, the Abu Dhabi Investment Council, which couldn’t be reached for comment, bought 90% of the Chrysler lease for \$800 million, with Tishman retaining the rest.

Mr. Michaelson says the Tishman Speyer deal helped Cooper borrow cheaply for its new building and avoid a substantial write-down of the property in the school’s endowment that it would have otherwise taken in the New York real-estate plunge.

In 2007, Cooper also sold a six-story academic building for \$97 million to a developer planning an office project. Mr. Michaelson says the property

would be worth half that today. Cooper placed that money in short-term bonds.

The college also put most of its \$150 million stock and bond portfolio into hedge funds focused on “absolute return” strategies designed to generate modest returns in good and bad markets. These strategies included funds combining bets that stocks will fall with wagers that they will rise. For the nine months ended March 31, Cooper’s hedge funds were down about 18%, compared with a loss of 27% for the median endowment, according to investment consultant Cambridge Associates. They are expected to have recovered somewhat in the market rebound.

To the Barricades, Variously

by Rosie Gray
Village Voice
December 7, 2011

At the beginning of November, Cooper Union students held an “Open Forum” outside their Foundation building on Cooper Square. They didn’t want to call it a walkout. For an afternoon, students and professors sat outside and huddled under blankets

while doing homework and writing on a chalkboard. The issue: the suggestion by Cooper Union's president that the school might, for the first time in its history, have to charge tuition like other schools do. The walk-out wrapped up later on indoors with a speech from new president Jamshed Bharucha.

Later that month, City University of New York students threw down with police during a rally at Baruch College, a few subway stops north of where the Cooper Union walkout had occurred. It was timed to coincide with a hearing of the CUNY board of trustees to discuss a new round of proposed tuition hikes. Students refused to leave the lobby of Baruch as the trustees met upstairs, and the police moved in. "We could hear the screams of people getting beat," says Fernanda Pardo, 23, a student organizer at John Jay College who was upstairs waiting outside the hearing. "We were hysterical and crying." Fifteen were arrested and detained.

Both protests were part of a current resurgence in student activism in New York that has coincided with the Occupy Wall Street action—there was also a short-lived New School occupation, and there has been some activity from something called NYU

4 OWS. The activism at New York City colleges is filling the void as OWS struggles to find its way, but it's taking different forms across town.

A large portion of Cooper's money comes from its real estate holdings, the value of which has been dropping. The school has had to resort to selling off assets and skimming off the principal of its endowment in order to continue its no-tuition policy.

Cooper senior Ryan Evell told the Voice last month that "if Cooper starts charging tuition, that would be as radical as Harvard saying that everyone who gets in gets a full scholarship." Evell also referred to the possible tuition charges as a "sad loss not just for New York but for the entire nation." But the school that's "as free as air and water" is the only one of its kind in the country, and its policy is starting to look quaint, especially for a small private school in the middle of an economic downturn.

A public institution designed to serve New York City's working class, CUNY hasn't been free since 1975, and it is increasingly less free as time goes on. The board of trustees approved a new set of tuition hikes on November 28, which will raise tuition

by 31 percent over five years. This will manifest as a \$300 increase each year.

Students at CUNY campuses saw the writing on the wall months ago and formed Students United for a Free CUNY over the summer. Their timing matched up to the origins of Occupy Wall Street, which in its early phase was a series of General Assemblies attended by organizers in Tompkins Square Park. The CUNY group consists of around 20 organizers from campuses across the city, including Pardo and Venetia Biney, a 22-year-old junior at Hunter College.

“I work full-time and go to school full-time,” says Biney, a third-generation CUNY student. Of the tuition hikes, she said “it’s going to affect me immensely because I don’t have my mom and dad to rely on.”

That’s a common story at CUNY, where many, if not most, students are working one or multiple jobs on top of classes, like Sarah Pomar, 25, a junior sociology major at Hunter, who has two jobs and pays out of pocket for school. She has had to move back in with her parents.

“CUNY is a working-class public institution,” Pomar says. “You can justifiably assume that a lot of students

are experiencing a lot of financial hardship.”

CUNY says it gives financial aid of some kind to 70 percent of full-time undergraduate students—but the 30 percent left over in a system that includes close to 500,000 people is considerable. And under the new rules, qualifying for financial aid will become more difficult. As an aside, it’s worth noting that CUNY chancellor Matthew Goldstein’s salary has nearly doubled in the past decade.

At the end of November, those unions and OWS people joined up with CUNY students for a large rally at Baruch while the board of trustees voted on the tuition hikes. The hikes passed. Meanwhile, students at Cooper Union organized an art show at the Foundation building about free tuition. It ran for four days to little buzz.

Even without better results, Fernanda Pardo, the John Jay student, feels encouraged. “People are starting to get the hint.”

Mr. Cooper was a poor boy, born of good Revolutionary stock, but, like most of the patriots of that time, he had a good deal more patriotism than money. He began life as an apprentice. There were no schools in New York in those days,—no night schools. He was very anxious to get on, but there was no place where he could obtain an education. He had no money with which to pay a teacher. So he had to get what knowledge he could get by himself, and, as I have often heard him say, by the light of the single tallow candle which his means made him able to get; and that every night he passed his time trying to acquire some knowledge which would be of use to him in the battle of life. This made a great impression on him, and he determined that the reproach of New York, of its lack of means for free education, should be removed.

This occurred about the beginning of the last century, in 1804 or 1805, and he set himself to work, alone, without friends, without suggestions from any quarter, to get money enough together to open what he called a night school, for at that time there was not a single free night school in New York City. This was the purpose of his life.

The time came when he had accumulated money enough to begin to build a building. His original idea of a night school was of a rather moderate character, but it very soon enlarged itself until at last, having selected this site, on which he had carried on business for some years, he was able to buy the whole block, and he proceeded to erect this building. He knew, when he undertook this task, that his means would not suffice for more than the erection of the building, and he was determined not to incur any debts. When he called the Trustees together to receive the property at his hands, he said to them: "Here is this building. I want it appropriated as soon as possible to the education of the young men and young women of New York City, and appropriated to *free* education. There must be no fee paid in the Cooper Union, for education ought to be as free as air and water."