

**UNITED STATES OF AMERICA
BEFORE THE NATIONAL LABOR RELATIONS BOARD
FOURTH REGION**

UNIVERSITY OF PENNSYLVANIA¹

Employer

and

Case 4–RC–20353

GRADUATE EMPLOYEES TOGETHER-
UNIVERSITY OF PENNSYLVANIA

Petitioner

DECISION AND DIRECTION OF ELECTION

Upon a petition duly filed under Section 9(c) of the National Labor Relations Act, as amended, a hearing was held before a hearing officer of the National Labor Relations Board.

In accordance with the provisions of Section 3(b) of the Act, the Board has delegated its authority in this proceeding to the Regional Director.

Upon the entire record in this proceeding, I find:

1. The hearing officer's rulings made at the hearing are free from prejudicial error and are hereby affirmed.

2. The Employer is engaged in commerce within the meaning of the Act, and it will effectuate the purposes of the Act to assert jurisdiction in this matter.

3. The labor organization involved claims to represent certain employees of the Employer.

4. A question affecting commerce exists concerning the representation of certain employees of the Employer within the meaning of Section 9(c)(1) and Section 2(6) and (7) of the Act.

¹ The Employer's name appears as amended at the hearing.

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Contentions of the Parties

The Petitioner seeks to represent a unit of the Employer's graduate students enrolled for Ph.D. or Research Masters degrees, who are employed as full time or regular part-time Teaching Assistants (TAs), Teaching Fellows (TFs), Instructors, Lecturers, Research Assistants (RAs), Research Fellows (RFs), Administrative Assistants, or Graders, at the University of Pennsylvania. The Petitioner would exclude RAs and RFs performing research in programs in graduate groups in the Natural Sciences,² as well as students in the School of Engineering and Applied Sciences and Biomedical Graduate Studies. The Petitioner would also exclude students in the University's professional schools and all hourly-paid graders and members of the staff of the Vice Provost for University Life (VPUL). The Petitioner also requests that a different eligibility formula be used for the election.³

The Employer seeks dismissal of the petition, contending that the graduate students sought by the petition are not statutory employees and that the Petitioner is not a labor organization within the meaning of the Act because it seeks exclusively to represent non-employees. The Employer further asserts that all of the graduate students in the petitioned-for unit are ineligible as temporary or casual employees. In the event the petitioned-for graduate students are found to be eligible employees, the Employer asserts that the unit the Petitioner seeks is under inclusive. Contrary to the Petitioner, the Employer would include all RAs in the Natural Science graduate groups, the School of Engineering and Applied Science, and the Biomedical Graduate Studies program, as well as certain hourly-paid graduate students and those performing comparable services within the University's professional schools. The Employer

² In this Decision, the term "Natural Sciences" includes various terms used by the parties at the hearing and in their briefs, including "life sciences," physical sciences," "engineering sciences," and "hard" sciences.

³ The Petitioner has indicated that it will proceed to an election in any unit found appropriate by the Board.

disagrees with the Petitioner's proposed eligibility formula and would use the Board's standard eligibility formula for an election.

Resolution Summary

I have concluded that the petitioned-for graduate students are employees within the meaning of Section 2(3) of the Act. Inasmuch as the Employer's argument that the Petitioner is not a labor organization hinges on a finding that the graduate students are not employees, I find that the Petitioner is a labor organization within the meaning of the Act. I further find that the petitioned-for TAs and RAs are not temporary or casual employees.

In accordance with relevant Board precedent, I shall exclude the RAs from the Natural Science, School of Engineering and Applied Science, and Biomedical Graduate Studies graduate groups, from the bargaining unit. I also shall exclude the TAs and RAs from the University's professional schools from the unit as temporary employees and because they do not share a community of interest with the petitioned-for employees. I will also exclude as temporary employees the VPUL staff and graduate students who are paid on an hourly basis. I shall not set forth a different eligibility formula for the election, but will apply the Board's standard formula.

Organization of the University

The University is located on a single campus in metropolitan Philadelphia⁴ and offers undergraduate and graduate education programs with the dual objectives of teaching and research. The University is one of 60 nationwide that have been designated as a Research 1 (R-1) university by the Carnegie Foundation. This designation signifies that a university produces at least 100 Ph.D.s per year and annually sponsors at least \$100 million worth of funded

research. The University has approximately 9900 undergraduate students, 4200 graduate students seeking Ph.D.s, and 6300 professional degree students.

The University is governed by a Board of Trustees functioning as a corporation. The President of the University has ultimate responsibility for oversight of all operations, including the University's extensive hospital and health care systems. The chief academic officer is the Provost. The University has 11 separate graduate and undergraduate schools: the School of Arts and Sciences, the School of Engineering and Applied Science, the Wharton School, the School of Social Work, the Annenberg School for Communication, the Graduate School of Fine Arts, the Graduate School of Education, the School of Nursing, the School of Dental Medicine, the School of Medicine, the School of Veterinary Medicine, and the Law School. The University also has a Biomedical Graduate Studies Program (BGS) that is not a separate school but has its own administrative structure to coordinate the University's biomedical graduate programs. Deans of each of the schools report to the Provost's office. The Provost and the Council of Deans collectively determine policies on behalf of the University as a whole. While these general policies are binding on all schools, each Dean is separately responsible for his or her school's budget, faculty, and academic programs.

Graduate education is coordinated through the Council of Graduate Deans and the Deputy Provost for Graduate Education.⁵ The Council of Graduate Deans sets minimum admission and graduation standards. Although graduate degrees are conferred in the name of the University as a whole, the degree programs are offered through individual "graduate groups," which are not necessarily co-terminous with undergraduate departments and may include faculty

⁴ The University also runs satellite programs in London and Germany, and the Wharton Business School has an extension campus in San Francisco.

members from different departments.⁶ The School of Arts and Sciences (SAS), the largest graduate school, has more than 30 graduate groups, and there are more than 50 graduate groups throughout the University.

Potential students apply directly to the graduate groups, which make independent decisions on admission and independently set degree requirements, subject to approval by the Dean, department Chair, and/or the Council of Graduate Deans. The number of students annually admitted by a graduate group is determined by the Deans and the graduate group's budget allocation. The Council of Graduate Deans sets minimum admission standards and program requirements, but graduate groups may set higher standards for themselves.

Overview of Graduate Student Funding, Degree Requirements, and Service

Virtually all students seeking Ph.D.s at the University are fully funded upon acceptance into the graduate programs. Full funding consists of tuition remission, waiver of fees, an annual stipend to cover living expenses, and coverage of health care premiums for the student.⁷

Beginning in September 2001, SAS initiated a simplified long-term funding program for Ph.D. students. Under the new program, incoming students are offered one of two basic financial packages: the four-year William Penn fellowship or the five-year Benjamin Franklin

⁵ According to the most recent edition of the University's Graduate Catalogue, there is also an elected body of faculty and students known as the Graduate Council of the Faculties, which participates in the administration of graduate programs.

⁶ For example, although there is no department of Ancient History, the University offers a Ph.D. in Ancient History through a graduate group faculty that includes professors from the Classics, Art History, Archaeology, Philosophy, and History departments.

⁷ Student health care coverage is mandated by the University. A few students are covered through their parents or spouses and decline additional coverage. Graduate students covered by the University can include dependents at an additional cost. The University does not pay the health care premium directly but increases the student stipend to cover it. In BGS, coverage is automatically included in most federally funded grants.

fellowship.⁸ By standardizing funding and offering uniform four or five-year packages, the University expects to compete more effectively for the best students. The new funding system was applied only prospectively, and those students admitted prior to 2001 who did not receive these fellowships remain subject to a patchwork of funding opportunities that are often reconfigured from year to year. In order to receive funding, students are subject to various service requirements, which may include teaching and/or research for the University.

In most SAS graduate groups in the Humanities and Social Sciences, both William Penn and Benjamin Franklin fellowships offer non-service support for the first and fourth years of the program, meaning that during those years, students have no research or teaching obligations beyond their regular course of study. During the second and third years, however, students usually have a service obligation. To meet this obligation, they are primarily expected to teach, but they may also be assigned to research duties. Benjamin Franklin fellows have an additional year of non-service funding for the fifth year of the Ph.D. program.

Students in the Natural Sciences graduate groups of SAS are expected mainly to perform research and, to a lesser extent, to teach. Their research work generally begins in their first semester.

In order to attain Ph.D.s, graduate students must successfully complete required course work, examinations, a dissertation, and any research or teaching requirements established by their groups. Ph.D. programs typically begin with students taking courses to establish a foundation of knowledge in their fields, and students progress to performing research as the program continues. Most students complete their course work by the end of the second year and then devote increasing amounts of time to research. In the Humanities and Social Sciences,

⁸ Both fellowships were previously awarded only to a few students on a highly selective and competitive basis.

during the two service years a student's semester course load is generally reduced from four course units to three to accommodate the time-consuming service obligation. While there is no reduction in course load to accommodate other services, independent study credits are often based on the ongoing research.

All Ph.D. students must write a dissertation as the culmination of their studies. The dissertation is a demonstration of the student's scholarly abilities and is expected to advance knowledge within the field. Many programs now require either a defense of the student's dissertation proposal at the beginning of work on the dissertation and/or a defense of the completed dissertation. Students reach dissertation status when they have taken at least 20 course credit units⁹ and have passed qualifying examinations. Some graduate groups may require additional credits, qualifying examinations, and/or preliminary research papers, and teaching.

Graduate students have traditionally performed service in the form of research or teaching for the University, but the University has not established a specific teaching requirement that applies to all programs. Some graduate programs specifically require teaching as a component of the graduate student's doctoral program, while others do not. Among those graduate programs requiring teaching, there are variations in the number of semesters required. In fact, the term "teaching" as applied to graduate students covers a range of activities, from grading papers and holding office hours for classes taught by professors, to teaching "stand-alone" undergraduate language, writing, or laboratory courses as the sole instructor of record.¹⁰ The term "research" also carries different connotations depending on whether the student is in the Humanities, Social Sciences, Natural Sciences, or other program. Research work within

⁹ The graduate groups generally award one course credit unit for each course, although some courses may be worth more credit units.

Humanities or Social Science courses tends to be individualized and library-based, while students in the Natural Sciences usually perform research in a laboratory as part of a team. Opportunities as an RA are far more plentiful in the Natural Sciences than in the Humanities or Social Sciences. The titles applied to graduate students – Research Assistants (RAs), Research Fellows (RFs), Teaching Assistants (TAs), and Teaching Fellows (TFs) – are often used interchangeably within departments and across schools.¹¹

Natural Science programs are largely supported by external grants. The largest source of these grants is the federal government, which funds scientific scholars through a wide array of agencies, most notably the National Science Foundation (NSF), National Institute for Health (NIH), Department of Education (DOE), and Department of Defense (DOD). Research grants are awarded to individual professors based on approved grant proposals to answer specific research questions. These grants may provide funds to support graduate students who work on the grant proposals.

In all fields, outstanding students may also receive prestigious individual fellowships from a variety of private and federal sources such as the Javits fellowship, Mellon Foundation awards, and individual NSF fellowships, which are awarded directly to students to use at the university of their choice. Some private grants may be more or less generous than University fellowships. Where they are less generous, the school supplements the external awards to bring them to the level of the other students in the graduate group.

¹⁰ Graduate students serving as stand-alone teachers are sometimes called “Instructors” rather than TAs.

¹¹ Terminology applied to the graduate students appears to be a matter of convenience among faculty members. The terms Teaching Assistant and Research Assistant predominate and will primarily be used in this Decision. The designations Teaching Fellow, Research Fellow, Graduate Fellow, and Lecturer, are used primarily by business centers in the school because of tax implications associated with the terms, but they are rarely used by students or faculty.

The University's budget system is also decentralized, underscoring the ability of the graduate groups to design service obligations according to the group's needs. Each school is financially responsible for its own revenues and expenses, and tuition is attributed as income to a particular school rather than the University. The schools' revenues are comprised of grants and sponsored research projects, tuition, gifts, endowments, and other sources. The University meets its operating expenses by taxing income to the different schools. Most of this tax is returned to the schools through a complex process known as subvention, which is the source of a department or graduate group's internal funding for graduate students. The percentage of subvention money returning to the schools varies from school to school. In SAS, the largest source of funding for graduate students is through subvention or University funds. Grants and sponsored research comprise the next largest source, and endowments and gifts,¹² which may go directly to a department within a school, make up the third major source of SAS graduate student funding. In the Natural Sciences, the largest source of funding is through external federal grants rather than University funds. Tuition "remission" for funded students is a term of art. Rather than being forgiven, tuition for the graduate students is actually charged as an expense against the graduate group or department's budget.

SAS has the largest graduate student population with about 2400 students. Most of them are in Ph.D. programs, but SAS also has some Masters degree students. Deputy Provost Peter Conn testified that the growing trend in SAS, as well as in the BGS program and the School of Engineering, has been to decrease the number of Masters degree students. SAS has recently been phasing out Masters degree programs, but students who do not complete doctoral programs may be awarded Masters degrees at the discretion of the graduate group. "Research Masters" student is a term used to describe a student on the path to a doctorate degree as distinguished

¹² Endowments or gifts may go directly to the department, separate from the SAS school budget.

from a terminal Masters degree. Research Masters students take courses and write theses within their discipline but are not expected to discover new knowledge within the field. Masters students do not receive funding and have no service obligations, although a few of them may seek out TA or RA positions to earn extra income.

In SAS, the average time for completing a Ph.D. is more than seven years. Under the new funding model, students are expected to teach during years two and three, whether they have been awarded a four or five-year funding package. In contrast, current students admitted before September 2001 under the prior funding system often undertook TA assignments beginning in their first semester of graduate school and taught more than the four semesters now anticipated under the new funding model.

After their funding package is exhausted, many students obtain externally funded fellowships. Graduate groups seek to continue to support students through other means as well. The University awards competitive non-service dissertation fellowships for a one-year period to students who received four-year packages and will be engaged in dissertation writing and research for a fifth year. In addition, further TA and RA opportunities are often available, and some Lecturer positions may be given to advanced doctoral students for one or two semesters. Professors directing research grants can sometimes fund dissertation students who are otherwise unfunded for a semester or two. There are also limited paid positions available for Graders and Administrative Assistants, as well as for instructors in the various writing programs.

TA Service

TA work is the principal method of service in SAS. TAs are often assigned to teach regularly scheduled recitation sections, which are subsections of large lecture classes with high

enrollment. Recitation sections meet weekly under the direction of a TA in order to review and supplement material from the professor's regular lectures and answer questions. TAs assigned to recitations routinely cover two or three recitation sections per week and usually hold office hours or respond to students' e-mail questions. TAs assigned to a particular lecture section usually meet on a recurring basis with their professor for instruction and discussion of problem areas. Once or twice during a semester, undergraduate students prepare evaluations of the TAs, and the professor also may observe and evaluate the TAs at the recitations. TAs also may be assigned as professors' assistants in non-lecture courses, where they arrange for materials and equipment, grade homework, examinations and papers, and fill in when the professor is absent. Other graduate students serve as the sole Instructor in stand-alone courses. These TAs are most prevalent in language and writing courses. In the Natural Sciences, TAs may be assigned small laboratory sections associated with a lecture course instead of recitation sections. The SAS has a one-day training seminar in the last week before the fall semester for all new TAs, and graduate groups typically supplement this course with additional teaching or training.

RA Service

The University received almost \$600 million for sponsored research projects during the academic year 2001-2002. This is the largest single source of revenue within the University's \$1.5 or \$1.6 billion operations, representing nearly 40 percent of the University's revenue. In accord with federal legislation authorizing universities to patent and license technologies developed through federally sponsored research, income to the University from these sources for the year 2000 was \$26 million. The School of Medicine generates the most patents, followed by the School of Engineering and SAS. Sponsored research projects in SAS account for \$40 million

in annual revenue to the University, the largest sources being grants from federal agencies such as NIH and NSF, among others. Federal research grants to graduate groups include overhead allowances to the University, often at 58.5 percent. Covered expenses on research grants include a proportion of faculty wages and benefits.

Funded research projects are led by faculty members called Principal Investigators (PIs), and the PIs are accountable for the direction and progress of the research projects, including the contributions of research team members. These teams are primarily composed of graduate student RAs. The faculty PI formulates the research grant proposal that becomes the research plan for the student team and is responsible for the day-to-day supervision of the scientific research. Graduate student participation in the planning and drafting of grant proposals is encouraged, and some graduate groups incorporate participation in the grant proposal and reporting experience into the curriculum.¹³

Writing Programs

The University also offers graduate students in all schools earnings opportunities through its writing programs. Writing courses are required of all undergraduates at the University, and the requirement can be satisfied through two options. The first, and more popular option, is to take a one semester writing seminar. The second option is to take two Writing Across the University (WATU) courses, which are writing intensive courses in different disciplines. Faculty members who teach WATU classes are assigned a WATU Fellow to assist students. About 40 graduate students serve as WATU Fellows each semester. WATU Fellows are not required to attend the professors' lectures, but they meet with the professors concerning the class

¹³ In BGS, when the need for students to work on grants exceeds the supply, doctoral students from the School of Nursing are offered positions as funded RAs in order to provide the needed number of researchers.

writing assignments. They also have multiple conferences with students to assist them with successive drafts of their papers. In some instances, a TA may also serve as a WATU Fellow for the same course and receive two stipends for fulfilling both functions. WATU Fellows are compensated at a rate of \$800 to \$1200, depending on the number of students in the section, plus \$50 if they already have experience as a WATU Fellow. They are trained by WATU Senior Fellows at the beginning of the semester, and they meet with them periodically to discuss issues and questions. About four or five WATU Senior Fellows are chosen per semester, and they are paid \$800 to help train and supervise the WATU Fellows.

About 20 Chimicles Fellows teach writing to classes of about 18 students using the content of particular subjects. Their courses are entitled “Writing About . . .;” for example, one course is entitled, “Writing About Poetry.” Chimicles Fellows receive a stipend of \$14,000, plus a training stipend of \$1500. They may also receive health care benefits. Applicants for Chimicles fellowships must be experienced writers who have passed their preliminary examinations. They tend to be fifth or sixth year students or beyond, as experience is required and the appointment is a method of obtaining funding. They are required to take 18 hours of summer training sessions and attend monthly meetings throughout the year. The “Writing About . . .” Instructors are observed in class by the Director of the Writing Program and a Teacher Education Coordinator, who meet with the Instructor and provide feedback. Two advanced graduate students are hired each year as Teacher Education Coordinators to supervise and train WATU and Chimicles Fellows and are paid about \$20,000 for this responsibility.

There are also about 10 graduate students per semester who serve as consultants at a Writing Center where undergraduates seek writing assistance.¹⁴ Writing Center consultants are all graduate students who work either three or six hours per week for \$600 or \$1200,

respectively, per semester. One graduate student is hired for a full year to act as the Writing Center Coordinator for a stipend of \$16,000 per year.¹⁵ The Coordinator's responsibilities include hiring and training consultants, maintaining the Writing Center schedule, and dealing with any problems. Occasionally, training is necessary for consultants, for example, to learn the conventions of scientific papers in order to assist students in the sciences who are seeking help with papers.

Finally, there is a grant under the Mellon Foundation for assisting students with writing. Under that grant, from three to five graduate students are trained and assigned to work with groups of about 30 students each. The record does not indicate the earnings of the Mellon Writing Program Instructors other than that they likely earn more than the Chimicles Fellows.

College of General Studies

There are also numerous teaching opportunities for graduate students in the College of General Studies (CGS), the continuing education division of SAS. CGS supplements the full time day offerings in undergraduate and graduate programs with additional courses beginning at 4:30 p.m. weekdays or on Saturdays. Twenty-five SAS departments and numerous multi-disciplinary programs offer SAS classes. Some CGS classes are non-credit or community programs, but many courses carry full SAS credit. More than half of CGS students are not pursuing a degree. Fifty percent of spaces in CGS classes are reserved for matriculating College of Arts and Sciences undergraduates and are only released to non-SAS students if space is available.

¹⁴ Many of the students seeking assistance are foreign born and are not proficient in English.

¹⁵ In 2001-2002, two individuals shared the job for one-half of a year each.

Most CGS courses are at the undergraduate level. The largest single group of teachers consists of graduate students, but the courses may instead have part-time lecturers. For the academic year 2000-2001, there were 325 CGS courses taught by about 110 graduate students and fewer than 100 standing faculty. CGS coordinates with the individual departments to determine which courses will be offered, and the departments determine who will teach them. Some departments offer teaching assignments first to standing faculty and then to advanced graduate students; others reserve the courses for graduate students who are past their funding years. A very few departments instead assign CGS courses to fully-funded graduate students, supplementing their CGS income to bring it to stipend level. Graduate students teaching CGS courses that are not assigned under their funding package were paid \$4350 per course in 2001-2002, regardless of the graduate student's program year. However, students in their funded years also receive half tuition remission for the semester in which they are teaching a CGS course, and those at the dissertation stage receive remission in full for their reduced tuition rate.

Departments are responsible for supervising graduate students teaching CGS courses, but there is a wide variance in the level of supervision actually exercised. If enrollment levels for a CGS course drop too low, teachers are offered the option of canceling the course or accepting a per capita fee which is less than the standard rate. Finally, in addition to lectures, CGS offers science courses, creating teaching opportunities for lecture/recitation and laboratory TAs, each of whom is paid at the full lecture rate.¹⁶

¹⁶ The exception is the Physics laboratory, which meets less often than other science laboratories and pays half the regular rate.

Program, Degree Requirements and Funding in the University's Schools

School of Arts and Sciences

SAS offers doctoral degrees in the following programs:¹⁷ Ancient History, Anthropology, Art and Archaeology in the Mediterranean World, Asian and Middle Eastern Studies, Biology, Chemistry, Classical Studies, Comparative Literature and Literary Theory, Criminology, Demography, Earth and Environmental Science, Economics, English, Folklore and Folklife, Germanic Languages and Literature, History, History of Art, History and Sociology of Science, Linguistics, Mathematics, Music, Philosophy, Physics and Astronomy, Political Science, Psychology, Religious Studies, Romance Languages, Sociology, and South Asia Regional Studies.¹⁸ The University also offers Masters degree programs in some of these groups.

The parties offered considerable testimony about the graduate student programs in each of these groups. There are extensive variations in the degree requirements and funding among the programs, as set forth below.

Humanities and Social Science Graduate Groups

Ancient History is an interdisciplinary program with 21 faculty members from the Classical Studies, Linguistics, History, and History of Art departments. The graduate group confers a Masters degree as part of the doctoral program but does not separately admit students seeking only a Masters degree. From one to three students are admitted annually, on William Penn fellowships, and there were 11 Ph.D. candidates in the program in the year 2001-2002.

The program takes an average of seven years to complete. In addition to three years of course work, students must attain expertise in a language for their research and dissertation work

¹⁷ Three programs offering Masters degrees and Ph.D.s are being phased out and no longer accept admissions: American Civilization, Regional Science, and Russian Language and Literature. A fourth program, Social Gerontology, offered a Masters degree only and is also closed to further admissions.

and are required to teach during their second and third years. Students take a major comprehensive examination at the end of their third year and then focus on performing research and writing their dissertation. They must choose to specialize in two areas of Ancient History, and their areas of concentration directly affect the languages they study. Many students in this group perform field research, which can lengthen the period of study due to site access problems and archeological digging restrictions.

The graduate students serve as TAs primarily for Greek History and Roman History courses. They are likely to seek positions in university Classics or History departments after receiving their degrees, and their teaching experience enhances their opportunities. As TAs, they conduct sessions of recitation groups of 12 to 25 students, where they offer supplemental instruction and initiate discussion of the materials. TAs hold office hours, administer quizzes, and grade research papers and final examinations. Professors usually visit at least one TA section to observe a class. The TAs are also expected to deliver one lecture to the entire lecture class, with the professor observing, and they meet with the professor later the same day for a critique of their teaching. Students usually serve as TAs in the same two classes in both program years.¹⁹

There are no RAs assigned to assist faculty members with research grants in this program. Students are expected to start their dissertation research early in the program and perform research full time immediately after completing comprehensive examinations. The dissertation work is submitted to a faculty committee in segments for continual monitoring and feedback. Students may perform research abroad during their four-year funding package. After

¹⁸ No witnesses testified concerning the Criminology, Folklore and Folklife, History of Art, and History and Sociology of Science programs. This Decision therefore will not discuss these groups separately.

their fourth year of funding, they apply for further fellowships and funding, including the University's dissertation fellowship program and external funding from organizations including the Mellon and Carnegie Foundations. There is also a fellowship available through the German government for research conducted in Germany.

In addition to non-service fellowships for the years beyond the funding package, there are some teaching fellowships for students past the fifth year, that year itself being generally dedicated to dissertation work. About half of the sixth-year Ph.D. students receive non-service research funds, and half have teaching fellowships that provide full stipends, with tuition and health insurance coverage. They are financed by departmental funds, supplemented by discretionary graduate group funds to bring compensation to the stipend level.²⁰ Students in the later program years also may have CGS teaching opportunities.

Anthropology has about 150 students in its doctoral program. The graduate group admits from seven to 12 students per year, all of whom are fully funded with four-year William Penn fellowships. Students complete course work in about three years and spend a year writing four comprehensive papers on which they are examined orally. They next perform a research project that typically involves three years in a foreign country. During the period preceding their fieldwork, students also apply for individual external grants from the NSF, Fulbright Foundation, or other sources, as a means to fund their research. They normally learn a foreign language as part of the research phase, and funding from the U.S. Department of Education may be available under the Foreign Language Area Study fellowship (FLAS) program. Following their fieldwork,

¹⁹ The group makes accommodations for teaching difficulties where possible. For example, one student was uncomfortable delivering a lecture in the large class format and so was assigned to teach a senior Latin class that does not normally have a TA.

²⁰ As in all departments, the tuition rate drops dramatically once the student reaches dissertation status.

students spend a final year writing the research results as their dissertation. Doctoral students take an average of seven to eight years to complete their degrees.

Anthropology graduate students are required to teach for three or four semesters. Students with independent funding, like William Penn Fellows, serve as TAs, but they are not additionally compensated by the University.²¹ TAs do not receive course unit credits or grades for their service as TAs. The graduate group prefers to assign them to introductory large-lecture format courses, but there are not always enough slots available for TAs in these courses. The TAs for large lecture classes must attend the professors' lectures and are encouraged, but not required, to present one or two sessions of a lecture class. TAs assigned to lecture classes are responsible for conducting from one to three recitation sections per week and assisting students with lecture materials and research projects. The department Chair testified that he holds a weekly discussion session with his recitation TAs to review course issues and problems. There are four specialized fields within Anthropology, and students must have expertise and complete comprehensive papers in all four. The graduate group makes TA assignments based on negotiations with the students, and these assignments may take into account a student's need to supplement his or her knowledge in a particular field.

Students may also serve as RAs to professors during the course of their program, usually under a professor's grant. Only two students currently serve as RAs. RA research may become a part of the student's dissertation, but this is not necessarily the case. The group also underwrites summer research activities after the first and second years of the program. During the second summer of research, the student usually performs fieldwork geared toward

²¹ Although all incoming students are now funded, the graduate Chair testified that a few unfunded students were previously admitted and are currently in the program.

formulating a dissertation research proposal, perhaps including an investigative trip to the proposed study site to evaluate the project's feasibility as a dissertation topic.

Advanced students in "ABD" (all but dissertation) status are not funded by William Penn fellowships, which they have exhausted, and there is no additional compensation from the graduate group in the form of tuition remission, stipends or fees during this stage. At that point, they may be offered the opportunity to serve as Lecturers in a CGS undergraduate course for a semester at a time with authorization from the department. The Lecturer's fee for CGS courses helps support them.

The Anthropology graduate group has begun developing a new field of study in Molecular Anthropology. It is expected that fieldwork in Molecular Anthropology will follow the Natural Science research model, with funding available through large grants to professors to study particular research questions.

Art and Archaeology in the Mediterranean World is an interdisciplinary graduate group that has 13 doctoral students and admits an average of two Ph.D. candidates per year on William Penn fellowships or external funding. There are currently no Masters degree students. After attaining Ph.Ds, Art and Archaeology students generally seek academic appointments or museum curator positions. Course work for the Ph.D. includes rigorous language requirements, which contribute to the average six-year length of the program. The equivalent of two summer sessions of fieldwork on an archeological project is also required.

Graduate students also are required to teach for four semesters.²² Because the graduate group's faculty includes professors from several departments during their second and third years, students serve as TAs in other departments, mainly in Ancient History, Mythology, and Art

History classes. In addition to the SAS one-day training program, first-time TAs may be required to attend additional training in the departments in which their TA assignments are based. TAs can receive credit for the courses they teach by registering for an independent study course. In addition to assisting with lecture classes, there are some stand-alone teaching assignments, under the supervision of a professor, for students more advanced in the program. In addition to their second and third-year service requirements, some students perform service in later years of the program. The demands of fieldwork require flexibility, so that a student might accept fieldwork opportunities during the second or third year and defer TA service to a later year.

Fifth-year Art and Archaeology student Maura Cleffi testified that she did not teach in her first year but has taught every semester since then, for a total of six semesters. She has always been the instructor of record in stand-alone courses, as opposed to assisting a faculty member. In her second year, she taught undergraduate Latin 101 and 102 using a textbook selected by faculty members, but she prepared her own syllabus, assignments, and examinations. She graded the examinations herself. The Latin classes were Classical Studies department courses made available through CGS, for which she received the CGS fee, supplemented through her graduate group's budget to match her fellowship package stipend. On one occasion, she was observed by the SAS Dean for Graduate Studies, a Classical Studies department professor, who gave her informal oral feedback. She had no other supervision. In her third year, Cleffi taught two stand-alone courses through the Classics Department in CGS, "Medical Terminology and its Classic Origins," and "The Splendor of Rome." In both instances, she spoke to predecessors who had taught the courses but thereafter chose her own texts and designed her syllabi, papers, and examinations independently. During these two semesters, Cleffi also served as a WATU

²² There are no RAs on stipend in the graduate group.

fellow in the History department. She next served as a WATU fellow in a sequential European history series, which began the second semester of her third year and covered both semesters of her fourth year. In the fall of 2001, her fifth year in the program, she repeated one of these courses as a WATU fellow. The income she received from the WATU courses was more than her stipend income and CGS earnings.²³ Cleffi did not receive any course credit for teaching.

The Asian and Middle Eastern Studies graduate group offers programs dealing with South Asia, the Middle East, and East Asia, primarily China, Japan, and Korea. The department has between 80 and 100 Ph.D. candidates who complete the doctoral program in four to five years. Annually, the department admits about eight to 10 Ph.D. students. There are several sub-fields, which have their own course and curriculum requirements. In addition to studies of Japan, China, and Korea, there are sub-fields in Indic,²⁴ Egyptology, Arabic, the Ancient Near East, Jewish Studies, and Biblical Studies. All require 20 course credit units, variable language requirements, preliminary or qualifying examinations, and a dissertation defense. Masters candidates are almost never funded, and there are no Masters students serving as TAs.

Graduate Chair Cameron Hurst testified that teaching has always been considered a part of the student's training in this group, as most students will seek employment in academia, but this requirement is not in writing. He also testified that students who are externally funded or self-funded have no teaching requirement, although teaching assignments are made available to those who want them. The amount of teaching varies and is largely related to funding issues; those who receive less funding tend to do more teaching.

²³ In Cleffi's case, CGS earnings were supplemented by SAS funds to a stipend level of \$12,500, and WATU earnings were in addition to the stipend level.

²⁴ Indic is the study of the first 2000 years of Indian history, including Sanskrit studies.

For the year 2001-2002, there were nine TA positions in the department covering multiple discussion sections. Two students served as TAs for the Asian Middle Eastern Studies courses, and the other seven were assigned to sections of language courses at various levels. These language TAs participated in departmental training geared to the specific languages they will be teaching. Each language has both a Language Coordinator and a faculty supervisor to supervise the TAs. The Language Coordinator provides workshops and ongoing training and along with the faculty supervisor monitors the TAs' teaching and reviews student evaluations at the end of the semester. One or both of them will attend some discussion sessions led by the TA and critique the session with the TA afterward. A few students may serve as TAs in their first year if they are native speakers of the language, and some of them may serve as TAs more often than other graduate students.²⁵ Students occasionally serve as TAs in other departments such as Ancient History and Classical Studies.

Overseas field research work is required at the dissertation stage, usually by the fourth year, with variations based on the student's language level. External funding for fieldwork is most readily available for Japan studies, followed by China, with less funding available for the Middle East. Students at the dissertation stage may be allowed to teach stand-alone CGS courses, which provide their only compensation since funding packages normally have been exhausted by then.

There are 20 students in the Classical Studies doctoral program. In addition to the Ph.D., the Group offers a Masters degree, but there are no declared Masters students at present.²⁶ The doctoral program is designed to take five years, but students often take six or seven years to

²⁵ A few students may teach stand-alone courses in beginning Arabic.

²⁶ There have only been a few Masters degree students in this group during the last several years.

complete it. The group has offered Benjamin Franklin fellowships to all new students since about 1994 or 1995. Stipends for 2001-2002 were at \$14,000, and the funding package includes service work during program years two and three. Occasionally, a student with a Masters degree is admitted with a four-year Benjamin Franklin fellowship package requiring only one year of service.

Typically, students do not serve as RAs. Instead, they usually serve as TAs, teaching stand-alone classes in Latin to undergraduates. These TAs participate in the August SAS training program, including the language instruction component. TAs are also assigned recitation sections in large lecture style Mythology courses.

Doctoral students perform research independently. They may be required to prepare a research paper as part of a seminar program that begins in the first program year. During the third year, the student is expected to identify a dissertation project and submit a prospectus for it. Following faculty approval of the prospectus, the students work on the dissertation until they finish it.

Once the funding package has been exhausted, students are offered additional teaching opportunities as a source of income. These opportunities include teaching positions in Latin courses or general Classical Studies courses. Some of these courses are in CGS, and the graduate student's CGS pay is supplemented by the department, provided funds are available, to bring compensation to the amount of the stipend received by funded students teaching the same courses. Students at the sixth year and beyond may also become Chimicles Fellows to support themselves. There are occasional additional limited earnings opportunities presented, but these are for discrete short-term projects.

Comparative Literature and Literary Theory is an interdisciplinary program that concentrates on literature as a part of cultural studies. Doctoral students focus on at least two areas of study, and their degree may qualify them to teach in two different areas, e.g., French and Political Science. They are primarily funded through William Penn fellowships. There are about 20 doctoral candidates, with four to six students admitted annually. The program has various required courses and several examinations. Students must defend a dissertation proposal as well as their completed thesis. The program requires five to seven years to finish.

Two years of teaching are required for the program, in addition to a course in pedagogy within the department in which the students will teach. Credit is given for the pedagogy course but not for the TA assignment itself. Students teach one year in their major field and the next year in the extension field. The teaching experience includes faculty classroom visits, videotaping, and meetings to review performance. Two professors from different areas of study collaborate on observing the student and writing an evaluation, which is placed in the student's file. Students generally do not teach beyond the four required semesters.

Students are encouraged to study abroad, and a number of fellowships are available in Germany, Switzerland and Belgium. There are also several University internal fellowships for students who have advanced beyond the fourth year. Students are also encouraged to publish scholarly articles while preparing their dissertations. There are a few RA opportunities available for students, including assisting professors in the language departments.

Demography is the study of the growth and structure of human population. Only 25 percent of Demography graduate students will seek teaching positions, with most joining census or statistics bureaus, some in developing countries. The Demography program takes five years

to complete and has 29 students, including seven admitted in 2001. The group does not admit terminal Masters degree candidates. The program requires 10 courses over a two-year period, including two courses in Statistics. Up to eight credits may be transferred from other programs or schools, and the balance of the required 20 credits are research credits accrued mainly through independent study courses based on research grant work. In addition to the dissertation, two research papers are required, one each at the end of the first and second years. Students must pass a Masters examination at the end of the first year and a preliminary examination at the end of the second.

The program does not include a teaching requirement, but students may serve as TAs in large lecture classes. There were only two TAs in 2001-2002. Research is the core of Demography training, and RA work is the principal support vehicle.

The group receives four William Penn fellowships annually. Internal funding also includes Fontaine fellowships given by the University to minority students. There are three sources of external funding in Demography: federal training grants of up to five years; private fellowships of varying duration; and funded research grants. Training grants, whether from federal agencies or private foundations, have no service obligations. Some of the private grants and fellowships are supplemented by University funds in order to assure that all students receive the same levels of stipends and benefits. There were at least eight external grant sources supporting students during 2001-2002, some of which were targeted to students from particular regions or for studies of targeted regions or issues.

In addition to individual student training fellowships and grant awards, there are a number of specific research grants awarded to professors as PIs. A detailed grant proposal prepared by the faculty member seeking the grant will include allocations for personnel

including doctoral students, but the level of funding for students can vary with the grant. Research grants run for three or four years and are renewable; some research grants have run in excess of 20 years.

Students begin research as soon as their course work is completed, sometimes before the end of the second year. Those students assigned to work on PI grants are considered RAs. Once a student is assigned as an RA, his or her work is supervised and directed specifically toward the research grant objectives. As they develop more skills, students work more independently. It is expected that research performed under a grant will be used for the student's dissertation. Research in Demography is team based, and research grants are expected to produce high quality publications for scientific journals and conferences. Publications are a critical element in obtaining future grant funding and are reported annually to the funding agency. The department does not actively seek funding on behalf of students after five years, but external funding can support students who need a longer time to complete the program.

The Economics²⁷ graduate group includes the entire Economics department faculty and about 15 additional faculty members, primarily from the Wharton School of Business. It has about 100 Ph.D. candidate students and admits an average of 25 students annually. The graduate group does not offer a Masters degree.

The Ph.D. program requires course work for the first year, which concludes with qualifying examinations in Microeconomics, Macroeconomics, and Econometrics. Course work continues through the second year. Students start research in the third year and produce a research paper, which must be approved by two faculty members and is expected to be

²⁷ Although the Petitioner contends that this group and the Linguistics group should be classified as Natural Sciences, I am discussing them in the Humanities and Social Sciences portion of the Decision, where they are

developed into the dissertation during the fourth year. Students must also pass an oral dissertation proposal examination before writing the dissertation. The average time frame for completing the program is about five years.

The Economics graduate group funding system is unique among SAS groups as a result of an arrangement devised by an innovative group Chair some years ago. Unlike other SAS groups, the Economics graduate group has not standardized its funding and routinely admits some students without an advance commitment for financial aid. The group funds students by applying credits for tuition against a fixed annual allotment of credit units. It also annually receives 10 fellowships for distribution, not all of which are distributed intact. The group ranks by merit the applicants it would like to admit to the program into four groups. The top group receives a five-year full support fellowship package plus a one-year bonus of \$3,000; the second tier receives the same full five-year package without the bonus, the third tier receives tuition support only, and the fourth tier is not offered any aid at the time of admission.

There are about 40 TA assignments per year, depending on the number of undergraduates. TA work comes in three forms. The most promising students are offered TA service in one of six graduate school core courses, for which they hold review sessions and grade problem sets and examinations. Students serve as TAs for the same course twice, once in the second program year and once in the third. Because TA work for these courses is demanding, they receive a non-service fellowship the other half of the second year, and they serve as TAs for undergraduate level courses in the other semester of the third year. Other TAs may serve as recitation instructors for twice a week recitation sections in large introductory lecture courses. A few instructors are assigned honors sections of the introductory course, and they add a

traditionally grouped. As discussed in the “Analysis” Section of this Decision, I have not found an adequate basis to classify those groups as Natural Sciences.

supplementary lecture to the recitation class. The third type of TA is assigned to upper-level undergraduate courses and is involved in grading, holding office hours, and conducting occasional review sessions.

Students must pass an English-speaking test in order to be assigned as TAs. The department meets with them for additional training following the SAS one-day training session. Thereafter, the lecture professors are responsible for supervising them. Professors attend at least one recitation session and provide feedback to the TAs and an evaluation at the end of the semester.

The department also has stipend RAs and external research grants from NIH and NSF for students who have completed at least three years of the program. The selection of RAs is decentralized; it takes place directly between the graduate students and the professors, with either side initiating the request. Students generally seek assignments closely related to their dissertation work, and their research is generally useful to, if not coextensive with, their dissertations.

RA compensation ranges from a full stipend to hourly pay. Those RAs with less than full stipend support might combine TA and RA positions for the same semester. An earnings cap applies, and students must seek permission from the graduate group Chair to accept RA positions. The group will refuse permission if the job requires too many hours or is not intellectually challenging. Publications from RA grant work are greatly encouraged, as they add to the reputation of the student and the University and enhance prospects for further grants.

About four students are assigned to teach stand-alone CGS classes as part of their stipend obligation. The graduate group supplements the CGS rate to stipend level, unless the student is

beyond the fifth program year. Summer CGS courses may also be available for students to teach, but these positions are not assigned as part of a stipend package.

The department of English has about 107 students in its graduate programs. About 10 to 12 students are admitted to the doctoral program each year, and they are funded by Benjamin Franklin fellowships. Stipends for 2001-2002 were \$14,000. It takes five to seven years to complete the Ph.D. Students take three to four course units per semester in the first three years to complete their credit requirements. Two years of teaching are required, and students take two preliminary examinations: a written examination in their field of research and an oral examination based on 50 books. The students must defend a dissertation proposal before researching and writing the dissertation.

Prior to the new funding program in SAS, English department students often assisted with professors' courses for the first year, then taught stand-alone courses for the next two years. The Benjamin Franklin fellowship requires service only in years two and three and provides secure funding for years four and five as well. Research funding in the department is not sufficient to support stipend fellowships, so students are funded through TA service. The department is responsible for writing programs that are staffed primarily, though not exclusively, by graduate students.

The English department offers from 80 to more than 100 sections of seminar style writing courses, any one of which will satisfy the undergraduate writing requirement. A few standing faculty members teach writing courses, but these courses are taught primarily by graduate students. The department does not use the recitation section model. Beginning with the 2002-2003 academic year, students will assist a professor with a large writing course in year two and

then teach a stand-alone course in year three. As a professor's assistant in year two, a graduate student will attend classes, evaluate or grade papers or examinations, and meet individually with undergraduate students to provide assistance. At times, the department has hired TAs from outside of the department when it could not meet its needs internally.

When students serve as TAs, their course credit requirements are reduced from four to three. Graduate students are required to take English 800, a one-semester pedagogy course, in conjunction with their first stand-alone TA assignment.²⁸ There is a common syllabus for all TAs teaching first-year writing. For the pedagogy course, the TAs read and prepare the works of literature taught in the freshman course and are expected to prepare a seminar presentation and a paper.

The department maintains a teaching folder on each graduate student, which includes evaluations and commentary from professors or mentors who have observed their teaching, as well as the undergraduate evaluations. TAs are also asked to prepare a self-evaluation for inclusion in the file. The teaching folders are examined as part of an annual review of student progress and to assist with fellowship and employment applications.

Students admitted before 2001 that do not obtain competitive additional funding beyond the first three years may teach additional courses as a means of support. There are one or two administrative TA assignments given annually to students to perform non-teaching services in the University's London program.²⁹ These are normally awarded to fourth or fifth-year students who also do their own research while they are there. The department tries to place as many advanced students as possible into non-service funding programs because they make better progress toward their degrees when they are not teaching. Research is a primary objective within

²⁸ In rare circumstances, this requirement may be waived.

²⁹ The London program is a "Study Abroad" program for undergraduates.

the department, but there are no research stipends. Professors may ask graduate students to assist with their own research; these students are paid at an hourly rate that does not affect their stipends.

Fifth-year English graduate student Martha Schoolman testified about her service as an RA and a TA. In her first year, she was a TA to an assistant professor in the Classical Studies department for a course entitled “Hollywood Classics,” which mixed classical literature and contemporary film. She attended classes and weekly film screenings, held weekly office hours, and graded essays and examinations along with the professor. She also met with students to review their papers. Schoolman next served as TA and a WATU fellow for a 20th Century Literature class. In her second program year, Schoolman taught successive composition seminars, “Writing About Literature,” and “Writing About Fiction” as the stand-alone teacher. She selected required readings, reviewed essays with students, and graded assignments. She designed the fiction course and the two stand-alone “Writing About...” courses she taught during her third program year. Schoolman was fully funded during these years and received no additional compensation. No faculty or senior graduate student mentor was designated to monitor her performance in her first semester stand-alone writing course, but at her invitation the Writing Program director observed the class in order to generate an evaluation for her file. Schoolman was awarded competitive, non-service dissertation fellowships for her fourth and fifth program years. In the summers before those years, she taught two CGS “Writing About...”³⁰ courses and was compensated at the CGS rate. She expected to teach another CGS course the summer following the hearing. Schoolman had applied for a research fellowship for her sixth and final year, and in the alternative anticipated further teaching in the writing program, in CGS, or both. Her experience as an RA consisted of working at an hourly rate for a professor

the summer following her first year and during her second program year, subject to an earnings cap that limited her to 10 hours per month.

There are 18 Ph.D. students in the Germanic Languages and Literature program. About three to four students are admitted per year on William Penn fellowships, and they take an average of six to seven years to attain their doctoral degrees. A Masters degree is awarded only to certain students who elect to leave the Ph.D. program.

The German language program coordinator oversees the first three years of language instruction and videotapes portions of the classes she observes as a training tool for the TAs. She visits each class once or twice a semester, prepares two evaluations of the TAs, and reviews her observations with them. She is aided by two Language Coordinators selected by the faculty from among the senior ABD students, who are paid \$22,000.

Non-tenure track Lecturers and TAs teach many of the undergraduate courses at the lower and intermediate levels. Currently, about five percent of first and second year courses and about 30 per cent of third-year courses are taught by tenure-track faculty. TAs take a required pedagogy course in conjunction with their first semester of teaching.

Fifth-year Germanic Languages student Violet Lutz testified that she received an external fellowship her first year, requiring a minimal amount of non-teaching service.³¹ Beginning in her second year, Lutz served as a TA for three semesters, a WATU fellow for two semesters, and an RA for four semesters. The department has funded a German dictionary project for a number of years. Lutz worked about 15 hours per week researching word usage for the dictionary and received four semesters of RA funding. As a TA, she taught stand-alone introductory language

³⁰ Each "Writing About..." course has centered on a different topic.

³¹ Lutz worked at a social center sponsored by the granting entity helping to prepare for social events.

courses under the direction of a Language Coordinator, who reviewed her work with her. At the time of the hearing, she was one of three TAs for a large lecture course.

The History graduate group's doctoral program has about 100 active students. The doctoral program offers both William Penn and Benjamin Franklin fellowships, depending upon whether the incoming student already has a Masters degree. The stipend level for 2001-2002 was \$14,000.³² The program is intended to take five years, but students typically finish in six or seven years. The History program has the standard SAS requirements, adapting the examination segment to require examinations in three fields at the end of the third year. There is also a language proficiency requirement of one or two years, depending on the student's specialty field.

History Ph.D. students mainly seek to achieve tenure track professor positions, as well as employment in museums and academic research centers. Teaching is expected but not required within the graduate group. There are about 24 TA positions available in the average year, depending on undergraduate enrollment. The graduate group appoints one graduate student as TA coordinator at a rate of \$1500 to \$2000 per calendar year, principally to assist with TA assignments, which take graduate students' preferences into account. The standard TA assignment for History TAs is based on the lecture/recitation model. Recitation sections are capped at 17 students, and no TA is allowed more than three sections. The amount of supervision of the TAs varies, with some professors specifying what must be covered in recitation sections or distributing weekly question sheets and others assigning a book for the week and allowing the TA to decide how to teach it. Professors are expected to meet regularly with TAs and to observe their recitation sections. They are also supposed to evaluate the

student's teaching, but very few professors prepare written evaluations for the students' files. The TA coordinator also conducts a training or orientation session for new TAs, and the department conducts occasional training sessions. A few students a year are promised TA positions which do not materialize, and they are given the full TA stipend to grade examinations. Some students are hired as Graders for a semester at a time at a flat rate lower than stipend levels, e.g. \$2,000, and others are used ad hoc. It is common for students to teach CGS courses in summers and evenings, but their earnings are not incorporated into funding packages. Funded students must obtain the Dean's permission if they will exceed the SAS earnings cap of \$21,000. Advanced students may also apply for an array of internal and external non-service funding for dissertation writing in year five and after. Many sixth and seventh year students have taught WATU or Chimicles courses as a funding source.

There are about seven or eight RA positions available to History Ph.D.s annually, including interdisciplinary RA positions.³³ RA positions in the graduate group are usually for one year. The faculty within the group is responsible for two RA positions each year, which are interdisciplinary and are not reserved exclusively for History graduate students. These assignments are likely to be awarded to more advanced students, who are past their funding package years. In addition, there are professors with endowed chairs providing RA positions for which the professor requires little or no service.

Second-year History doctoral student Julia Rabig testified that she was fully funded when admitted in 2000 and served as a TA during both semesters of her first year. The lecture professor, an ABD graduate student, observed a recitation section and critiqued her performance

³² Although it is not typical in graduate programs at the University, there are three current part-time doctoral students in History. Two are University employees eligible for tuition benefits, and the third is a high school teacher.

³³ There is one student involved in a joint History Ph.D. and Law degree program.

in an informal follow-up meeting. Some students admitted along with her have not taught because they have non-service support. Rabig was again serving as a TA at the time of the hearing but had the added responsibility of assisting students assigned to large group projects.

The group offers a terminal Masters degree requiring eight credit units and a thesis. There are currently about five or six students in the Masters program. Masters degree students are almost never funded, have no service obligations, and typically do not teach.

The Linguistics graduate group has faculty from the Linguistics department as well as interdisciplinary faculty from Psychology, Anthropology, Philosophy, the School of Education, and the School of Engineering's Computer and Information Sciences division.

There are from 44 to 50 Ph.D. candidates currently in the doctoral program. Six students per year are admitted on Benjamin Franklin fellowships under the new funding system, for which the stipend in 2001-2002 was \$14,000. In addition to taking 20 course credit units, students must pass four preliminary examinations. They must also pass reading examinations in two languages in which there is a significant body of work in the field. Defense of a dissertation proposal before the dissertation committee obviates the need subsequently to defend the thesis. There has been a teaching requirement in the program that was largely unenforced prior to the new funding system. In accepting the longer term, assured funding, the graduate group has committed to enforce its service requirements. Most students require six or seven years to complete the program.

There are six TA opportunities regularly available in the graduate group but only one consistently available RA position. Teaching may enhance employment prospects, and two students funded on non-service grants volunteered to serve as TAs at no cost to the department in

order to be competitive in the teaching market. An effort is made to match TA assignments with the student's area of interest. The recurring RA position is to maintain a Phonetics laboratory and it usually is awarded to a student demonstrating a special interest in Phonetics.

Linguistics is increasingly becoming understood as an area related to the structure of human cognition, and a professor testified that the discipline will eventually become a branch of cognitive science as a sub-field of Biology. The graduate group reports to the science sub-Dean although for funding purposes, it is treated as a Social Science, not a Natural Science.

There are research opportunities for graduate students through the Linguistics Data Consortium, a separate research institute founded by a University professor to produce computerized Linguistics resources, including on-line dictionaries. As a result of the limited number of available TA and RA positions, at least one funded student is assigned to assist with curriculum development. She is classified as a TA. Students researching certain languages may also be eligible for non-service fellowships. Beyond their funded years, students may teach CGS courses or do traditional RA or TA work, though TAs beyond five years receive the SAS minimum stipend of \$12,500.

The graduate group confers some terminal Masters degrees unrelated to other graduate degree programs. More often, Masters degrees are conferred on students supplementing a related Ph.D., such as a language or Computer Science degree; Linguistics Ph.D. students are also likely to seek complementary Masters degrees in these neighboring disciplines.

There are currently about 35 students in the Music graduate group. About six to eight students are admitted annually in four fields: Composition, Music Theory, Music History, and Anthropology of Music. All students do course work for the first three years and teach in the

second and third years. By the third year, students are also expected to be involved in research. The Composition doctorate degree does not require a dissertation and can be completed in three to four years. Students in the other three fields must complete dissertations and normally take five years to receive their doctorates. Students are funded through William Penn or Benjamin Franklin fellowships. Additional non-service fellowships are sometimes available at the dissertation stage. The group does not admit Masters students.

Teaching is a de facto requirement, although it is not set forth in the graduate program brochure as a formal requirement. Students are expected to teach for four semesters and take a pedagogy course in conjunction with their first teaching semester. They usually teach about 20 undergraduates in introductory Music course sections as the instructors of record, with faculty members teaching additional sections of the same courses. Each graduate student must prepare a course description, syllabus, and course materials and review them with a faculty supervisor prior to the start of the semester, and they attend weekly meetings of TAs and faculty to review teaching issues throughout the semester. The supervising faculty member visits and observes the TA's class, meets with the TA for a review of the visit, and completes an evaluation for the TA's file. Teaching experience is so desirable in the job market that some students on external fellowships have asked to be assigned to teach during semesters when they have no service obligation.

The department does not have RAs. There is one fully-funded TA position for a Composition student, which involves managing concert logistics and programming for the department. Students who have exhausted their funding packages often receive external fellowships for dissertation writing or for study and research abroad. Others are offered teaching opportunities in the Music department or CGS. As in other SAS programs, a student making

satisfactory progress toward a degree is usually supported when the degree takes a year or so longer than anticipated.

The Philosophy graduate group has about 28 students seeking Ph.D.s and admits about five students annually. The revised SAS funding system provides William Penn fellowships for new admissions, with a fifth year of funding provided by the graduate group or through the SAS competitive dissertation year fellowship. Stipends for 2002 were \$14,000. The program takes about five to seven years to complete. During the first two years and part of the third, students focus on course work and take a preliminary examination, and they present a thesis proposal in the last months of the third year. There were six Masters candidates in 2001-2002, but Masters candidates are not funded and do not serve as RAs or TAs.

The graduate group also offers joint degrees in two programs: the MD/Ph.D. and the JD/Ph.D. There were six students in the JD/Ph.D. program at the time of the hearing, but no students pursuing the MD/Ph.D. joint degree. Joint degree students do two years of course work, including teaching in the second year, then go to the School of Medicine or Law School. Law students in this program receive a stipend from the Law School for their first year and from the Philosophy department for the remaining two years. In the second and third years of Law School, they serve as TAs in Philosophy, and they return to the Philosophy group to resume their studies by the end of the third year of Law School.

The career path for doctoral students leads to teaching positions. One year of teaching is required for graduate students, and they are encouraged to teach for two years.³⁴ Student preferences are taken into consideration in making TA assignments but are not controlling.

³⁴ Some students are admitted to the program on external fellowships requiring no service; they are subject to the teaching requirement as part of the academic program.

Students serving as TAs in their second year are likely to be assigned only to grading and office hours, but by the third year they are assigned a recitation section with typical TA duties. Training for the TAs includes a mandatory round table discussion group that meets once annually for two to three hours. As is the case generally in SAS, professors observe the students teaching, provide feedback, and prepare a letter of evaluation of teaching in the student's file. Students are also encouraged to teach outside their areas of expertise as a learning tool.

Beyond the third year, there are further teaching opportunities available. The graduate group has developed a series of popular WATU courses called "Writing About Moral Issues," where TAs teach stand-alone sections. Recently, high enrollment in a new undergraduate major within Philosophy has made additional TA positions available, and these positions have gone to sixth and seventh year students. Advanced students are also occasionally permitted to teach courses in the department, particularly if a student has a Masters degree and some teaching experience. Sixth or seventh-year students often teach in CGS and receive a supplement from the department to bring their CGS earnings up to stipend level. The Graduate Dean must approve this funding and any related benefits on a case-by-case basis. The same supplement and benefits apply to WATU teachers at that level.

The graduate group has no RAs on stipend and has only one hourly-paid RA, whose pay is limited to \$10 per hour and is restricted to a maximum number of hours in order to remain below the Deans' earnings cap. This student receives full funding as a TA separately from the RA position.

The Political Science graduate group is coextensive with the Department of Political Science and has 65 doctoral students. The group also offers a separate terminal Masters degree

program, which currently has two students enrolled.³⁵ Under the new funding system, students are admitted on William Penn fellowships.

The program takes an average of six or seven years to complete. In addition to the required 20 course credit units, students must satisfy Political Science methodology requirements, pass examinations in two of four sub-fields within the department, and establish competence in a third sub-field through course work. Mastery of a foreign language is also required. A dissertation prospectus must be approved, and the completed dissertation defended.

Teaching is not required but is strongly encouraged in this graduate group. The group assigns TAs to undergraduate courses with at least 40 students. In these courses, the professor teaches two lecture sessions a week, and two or three TAs teach one or two discussion sessions of 15 to 20 students once a week. TAs attend the lectures, read course materials, lead discussion sessions, hold office hours, and grade assignments and examinations. They also meet with the lecture professor and report on problem areas and students' performance levels. Their work takes an average of 20 hours per week.

Under the new funding model, students are not expected to teach for more than four semesters, but historically they have taught for up to four additional semesters in this group, especially when funding is needed. TA work is awarded in reverse seniority: first to second-year students, then to third year students, and so on. While serving as TAs, students carry a course load reduced from four to three, and one of these courses is an independent research course in which little additional work is expected due to the demands of the TA assignment. Some advanced students also teach CGS courses during evenings or summers, if the department

³⁵ Students must write a course paper or a research paper but are not expressly required to teach or serve as RAs. Two joint degree programs are offered.

approves it. In addition to fifth-year dissertation status fellowships and other support from within the University, there are a number of external fellowships available.

There are far fewer RA than TA positions available. In 2001-2002, there were 16 or 17 TAs and only two RAs supported by professors' research grants. These RAs may share publication credit for their work, depending on their contribution. The work is not invariably related to their dissertation research, but it helps them prepare for the comprehensive examinations. There are two additional RA positions on a continuing basis, both of which involve administrative responsibilities. One is the Undergraduate Liaison RA, who advises undergraduates inquiring about graduate school in the department, and the other is the Washington Exchange Program RA.

Graham Dodds, a seventh-year Political Science doctoral candidate, testified that he has been a TA for seven of his 14 semesters, an RA for four semesters, a WATU Fellow for three semesters, a lecturer in CGS for four summers, and a Grader. Dodds entered the Political Science program as a self-funded student in 1995 and accepted a WATU fellowship in his second semester. He has been fully funded since his second year. Dodds served as a TA in the same introductory Political Science course four times under two different professors. Dodds led three sections totaling 60 students for recitations, and he delivered guest lectures in these classes. The other three classes in which he served as a TA were also lecture/recitation classes and were within his areas of expertise. He served simultaneously as a WATU teacher and a recitation TA for one semester of the introductory Political Science class, earning about \$1300 additional income for standard WATU duties. Dodds also testified that the lecture professors visited his recitation sections only once during his seven semesters as a TA. Dodds served for four consecutive semesters with the Washington Exchange program and graded papers and

examinations for one semester for a professor who did not have a TA. At the time of his testimony, Dodds was funded on a non-service fellowship to write his dissertation. If he is unable to secure non-service funding for any additional semester, he anticipates seeking out TA work as a funding source.

There are 45 students in the Psychology program, with about eight students admitted annually. The program offers 11 specialty areas, all geared toward research.³⁶ Students are required to take 20 course credits, but up to 11 credits can be for research work in independent studies, allowing students to move from course work to research by the end of the second year. Students are required to teach for four semesters, preferably after the first year. They normally take about five years to complete the program. The group may confer a Masters degree on a student who leaves the doctoral program without completing it.

Students are admitted with four-year funding packages and an offer of a funded TA position for a fifth year. The graduate group receives substantial external funding, principally through federal agencies, but has a policy of not using faculty research grants to fund students for the first four years so as to assure their intellectual independence. Professors' grants may be used for support in summers and during the academic year beginning at the fifth year. Some students arrive at the program with their own support, usually through NSF fellowships. For the first four years, training grant funds, University funds, and numerous TA positions provide support for students. The stipend for 2001-2002 was \$14,600.

The graduate group encourages students to teach in the first semester of their second and fourth years and both semesters of the third year. All students serve as TAs for introductory

Psychology courses and then for other courses based on their areas of specialization. The TAs are not assigned recitation sections, but they attend lectures, manage course materials and teaching aids such as audio-visual equipment, design and help grade examinations, and respond to student e-mail inquiries, which have largely supplanted office hours. Some professors invite TAs to deliver guest lectures on occasion. Students spend about seven or eight hours a week on their TA duties. The graduate group Chair, John Sabini, testified that the requirement for four semesters of teaching is related to the department's need to have enough TAs for the undergraduate courses.

Since students are not supported by faculty grant money during the first four years of the program, there are no RA positions except at the fifth year and beyond, or during summer months for those students and faculty members who make those summer arrangements by mutual agreement.³⁷ Students in their fifth year are permitted to teach CGS courses, and students at all levels are permitted to teach CGS summer courses.

The Religious Studies program has 30 doctoral candidates, and three new students are normally admitted each year. The program requires the standard 20 course credit units, a qualifying examination and specialization examinations, competency in two languages, and a dissertation that must be defended. Most students take eight years to complete the program. Under the new funding design, students receive a four-year William Penn fellowship, with the prospect of a dissertation year fellowship to follow. William Penn fellowships require students

³⁶ One sub-field is Clinical Psychology, which includes a practicum to maintain its accreditation for licensing purposes. The Petitioner does not seek to represent students engaged in the clinical practicum unless they are also serving as TAs at that time.

³⁷ The Petitioner does not seek to include students supported by faculty research only in the summers.

to hold either a TA or RA position during the second and third program years. The graduate program does not offer a Masters degree.

As in the Humanities and Social Science programs generally, TA positions are more common than RA positions. Because teaching is a program requirement, even students with external funding are obliged to teach. There are six large undergraduate lecture courses where TAs are needed on a regular basis. The typical assignment is the lecture/recitation model, with TAs leading two discussion sessions per week. TA positions are given first to students in years two and three, and then to longer-term students if available. Student preferences are taken into account in making TA assignments. Students are not evaluated by the lecture professor.

Students at the fifth and sixth years who need funding are occasionally assigned to teach stand-alone courses within the department. More often, they teach CGS courses in the evenings and summers. There are four CGS courses per academic semester, although full-time faculty members are offered those courses ahead of graduate students. Students teaching CGS courses are paid at a set rate tied to how far along they are in the program. Stipends are paid over nine months, so compensation for teaching CGS courses in the summer has no impact on stipends or the earnings cap.

Although there are no students with fully-funded RA positions, students may do research for a professor for a flat rate per semester, paid out of department research funds or professors' grants. This type of research may not be directly related to a student's dissertation but is helpful in establishing his or her credentials for purposes of future grants and employment opportunities. At the time of the hearing, one long-term graduate student was hired at \$3000 per term for research on a new project. Other external grants may fund a student for a specific research project or for work in a particular geographic area.

The Romance Languages group includes programs in Spanish, French and Italian languages and culture. The Spanish division is larger than the other two programs combined. Currently, there are 15 to 17 doctoral students in Spanish, five of whom are first-year students, and about the same number of students are studying the other two languages. Requirements include 20 course credit units, doctoral examinations, a dissertation, and teaching. Students must obtain approval of their dissertation proposal before preparing the dissertation, which also must be defended upon completion. Pre-dissertation publications are highly encouraged within the graduate program but not required.³⁸

Students are admitted under Benjamin Franklin fellowships. There are no research grants and no RAs. Students are required to take a course entitled, “Foreign Language Teaching Methodologies” in the spring semester of their first year in preparation for teaching in the following two years. The course includes language classroom visits and some practice teaching. They also take a week-long SAS seminar in August before their first teaching assignments. For their first teaching year, graduate students are assigned elementary or intermediate language courses and the following year are assigned to teach advanced language or culture courses. There are four full-time Language Coordinators helping to assure consistency in the content of the courses. The Coordinators are tenured faculty members responsible for different levels of the course offerings. Faculty Program Directors visit the graduate students’ classes to monitor their teaching and to write letters of recommendation for their files. A file on each graduate student is

³⁸ There are two publication vehicles available to language students at the University. One is the University’s student-edited literary publication, “The Hispanic Review,” which is distributed to over 4,000 paid subscribers worldwide. Also, an editor of the “Publication of the Modern Language Association” is the chair of the Romance Languages Department and now offers a course entitled “Advanced Writing Workshop,” the intent of which is to turn student work into articles suitable for journal publication.

maintained for the purpose of assisting with job placements and includes a mandatory two-page statement of the student's teaching philosophy.

Non-tenure track Lecturers also teach Spanish at the same levels as the graduate students. According to Spanish Program Director Anthony Esposito, the Lecturers are less costly to the University than are the graduate students, because the students are fully funded and teach fewer courses or sections than the Lecturers. Esposito estimated that only six or seven of the 90 Spanish courses are taught by doctoral students.

Students who have exceeded their funding packages may be given further teaching responsibilities. Part-time Lecturer positions or CGS courses are made available to advanced students in need of support, although they do not receive stipends. Ben Franklin fellowship stipends for the year 2001-2002 were \$14,000 or \$15,000.

French graduate student Dan Edelstein came to the University as a Masters student in 1999 and converted to a second-year doctoral student in September 2000. In his third year of the program at the time of the hearing, he had served as a TA each semester, and his stipend level had remained at \$12,500 throughout his studies. Edelstein testified that as a native French speaker he was not assigned to teach introductory courses. In his first year, he was assigned two second-year undergraduate courses, which he planned himself. Each section met four times a week, and he and other teachers of the same courses took turns planning chapter tests. Instructors, including the TAs, graded the students' proficiency examinations collectively, and all teachers attended a three-day training seminar as preparation for administering and grading the oral segment of the test. Edelstein went on to teach increasingly more advanced classes. Edelstein's career goal is to secure a position as a French Literature professor, but he testified that teaching second-year language courses did not add to his skills as a teacher. He also

testified that while a Language Coordinator reviewed his teaching of the second-year language class, no one visited or evaluated his upper-level courses.

There are about 45 to 50 Sociology doctoral students, with an average of eight students admitted annually with full funding under William Penn fellowships. The degree typically takes five years to achieve and requires course work, field examinations in two specialties, and a dissertation. Half of the students in the two service years and the fifth year are supported as RAs on outside grants under faculty PIs. As RAs, students typically perform data analysis of research information collected pursuant to faculty grants. Faculty members have been awarded funded grants to perform field research on issues such as AIDS and family planning in Africa. Student stipends cover nine months, but some additional funding for summer RA positions is available. On occasion, data from funded research projects provides an RA with a dissertation topic. The Sociology group does not offer a terminal Masters degree.

Teaching is not a program requirement, and unfunded students have no teaching obligations. Students are asked for their preferences as to TA positions, and an attempt is made to match students and faculty. Students in their later years may teach CGS courses, but the department does not supplement their CGS earnings.

Fourth-year graduate student Joan Mazelis served as a TA in six courses, including two in which she was assigned recitation sections. She has not had any non-service years of study, having been admitted to the program before the standardization of funding. Some courses required more time from the TA than others. She also served as a WATU fellow for the first semester of her third year in a required research seminar for senior undergraduate Urban Studies majors. Mazelis also held a two-semester RA position during her third year, assisting the PI for

a four-city study on the impact of welfare reform on women and children funded by an outside research grant. Her own dissertation topic, concerning the implications of negative stereotypes about welfare among welfare recipients, parallels that project in some respects, but she will need to collect new data for her dissertation research.

South Asia Regional Studies is the oldest department of its kind internationally and has in recent years shifted its focus from the Masters degree to the Ph.D. The graduate group studies south Asia, including India, Pakistan, Bangladesh, Sri Lanka, Myanmar and Afghanistan. There are five doctoral candidates in the program, three of whom were in their first year as of the hearing. The group funds its students with William Penn fellowships. Following course work and preliminary examinations, students start fieldwork to gather dissertation data, normally by the end of the fourth year or the beginning of the fifth year. Support for fieldwork is available competitively from a variety of sources. Dissertation year fellowships, which are also competitive, may be available for a year or two of dissertation writing following fieldwork. Language studies are an important part of the program. While the group offers a Masters degree, there are no declared Masters candidates at present. There are no fully funded RAs in the department, as faculty grants are not sufficient to support year-long RA stipends.

The department Chair testified that teaching is required, but this requirement is not reflected in the University's web site describing the curriculum and degree requirements for the program. Historically, the program has had many foreign students, but those intending to return to their home countries have been excused from TA work, although the graduate group incorporates teaching skills into its program. In the past, there have been three courses in which large undergraduate enrollments have typically warranted recitation section TAs. There are few

if any TA prospects from students within the graduate group,³⁹ so TAs have generally been sought from other departments.

Natural Sciences Graduate Groups

The Biology graduate group has two subgroups, Cellular Biology and Ecology and Evolution.⁴⁰ Of the 50 students in the doctoral program, 35 are in Cellular Biology and 15 are in Ecology and Evolution. The funding methods and operating structures for the Ecology and Evolution group follow the Humanities funding model, while Cellular Biology more closely parallels funding models from the Biomedical Graduate Studies (BGS) program. There is no Masters program in Biology, although a student who leaves the doctoral program without completing it may be awarded a Masters degree.

The Biology group does not use the new SAS funding system. Stipends in Biology for the academic year 2001-2002 were \$18,000, compared to the \$12,500 minimum established by SAS and the \$14,000 common to most of the SAS Humanities and Social Science groups. In addition to health insurance coverage, Biology Ph.D. candidates also receive a \$300 allowance for books and supplies.

The average time to complete the program is five years. Biology graduate students take 20 units of course work during their first two to three years, excluding dissertation research. They must pass a comprehensive examination at the end of the second year and a preliminary examination in their thesis area, and they must defend their dissertations. In addition, the program requires one year of teaching.

³⁹ The only two students who were beyond the first year of the program were unavailable to teach in 2001-2002 due to health issues. The graduate group has only conferred five Ph.D.s since 1990, so the short supply of doctoral candidates within the group is a continuing problem. There has not been a TA from within the graduate group since 1996.

Cellular Biologists perform research almost entirely in laboratories and are funded mainly by federal grants. They begin research with a series of three consecutive laboratory rotations in their first two semesters and one rotation during the following summer.⁴¹ Students receive course credit for the rotations. By the second year, the students choose one of the three laboratories for their dissertation research.

During the first two to three years of course work, Cellular Biology students frequently receive training grants from NIH or NSF. In addition to stipends, training grants cover full tuition for students in the pre-dissertation stage, where tuition exceeds \$20,000. When students have finished their course work and reached dissertation status, the tuition rate drops to around \$4,000. At this stage, students usually move from training grant funding to professors' research grants, where the grant allowances for student tuition are at the \$4,000 level. Professors' research grants are dedicated to answering specific research questions through pre-approved methods described in the professors' comprehensive grant proposals. Grant research is intended to be used in the student's dissertation, except when the research proves unsuccessful.⁴² Research grants are also expected to generate publications of research results in scientific journals for peer review. In Cellular Biology, research is collaborative, and publications name all of the members of the research team as authors, including the Principal Investigator (PI).

By contrast, research in Ecology and Evolution invariably consists of fieldwork. Experiments in Ecology and Evolution are often designed and implemented entirely by the students, so single author publications are not unusual. Very little grant money is available for research in Ecology and Evolution. As a result, these students are supported by TA work

⁴⁰ Within Cellular Biology, there is a further division between plant and animal biologists.

⁴¹ They learn genetics, molecular techniques, and cellular biology techniques for research.

⁴² The record refers to unsuccessful research as a "dead end."

throughout the program, while Cellular Biologists at the fourth and fifth-year levels primarily work as full-time RAs supported by faculty PI grants.

All Biology doctoral students serve as TAs beginning in their first year of study, and they continue to serve as TAs every semester while completing their course work. They do not receive course credit or grades for serving as TAs, but their course load is reduced from four to three during this time. According to the Graduate Biology Program brochure, the first year of TA income is not subject to city, state, and FICA taxes because two semesters of TA service is required for the academic program, but subsequent TA service is subject to taxes.

Ph.D. candidates must satisfy the teaching requirement in order to receive their degrees. The department generally has about 30 TA slots per semester. First-year TAs are assigned to assist with introductory Biology courses, and they are closely supervised by the course professors. The TAs present 20 to 30 minutes of instructions in the laboratories, and they give quizzes and grade examinations. The student evaluations are reviewed by the faculty and problem areas are addressed. As graduate students progress in the program, they are assigned to more advanced courses. They run discussion sections, grade examinations, and may help with computer work. TA work takes about 20 hours per week at the introductory course level but may require as little as five hours per week for more advanced courses.

The Chemistry graduate program has four main divisions: Biological, Organic, Inorganic, and Physical Chemistry. There are 177 students in these graduate programs.

All Chemistry doctoral candidates take 20 credit units. Only six of these units are classroom courses, and the remaining 14 credits are independent research units earned for laboratory research performed in furtherance of federal grants. Cumulative examinations are

required, along with two semesters of teaching.⁴³ Each candidate must complete an independent research project under the guidance of a faculty member, and the student must defend his or her doctoral dissertation. The vast majority of students teach during both semesters of their first year, but there are eight Gann fellowships in the department that allow students to defer their teaching obligation to a later year.⁴⁴ The handful of students who teach beyond the two-semester requirement serve as TAs for no more than one or two additional courses. Following their first-year funding, students are assured of research support for the balance of five-and-a-half years, the average time for a Ph.D. in the department, and they can expect continued support for as long as they maintain satisfactory progress toward the degree. The stipend level for 2001-2002 was \$18,600.

There are two types of TAs in Chemistry. Of 50 TAs in a given semester, about 13 are assigned to teach small recitation sections of 16 or 17 students in larger introductory lecture courses of roughly 150 students. The other TAs are assigned to teach laboratory sections of the courses, which have six or seven students per laboratory. Some advanced first-year students are assigned to teach higher-level courses, either as recitation TAs or laboratory TAs.

All incoming doctoral students are required to attend a week-long training and orientation program prior to the start of the program. Among other things, the training session addresses teaching techniques and responsibilities. Students are videotaped in a demonstration exercise at the end of the session, and based on their performance may be selected as recitation TAs or laboratory TAs for the year. In addition to the week-long training session, the department makes subsequent workshops and training opportunities available for TAs during the year.

⁴³ A document entitled "Policy Statements" for Chemistry graduate students states that unsatisfactory teaching may be grounds for termination of funding support, but the only student who has been dismissed from the program also had academic problems.

⁴⁴ The record does not disclose whether Gann fellowships are from within the University or external funding.

At recitation sections, TAs and students discuss problems with homework or lecture materials. TAs are supervised by the faculty lecturer, who usually monitors a recitation session early in the semester and also observes the TA if a student reports a problem. Lecturers also meet weekly with their recitation TAs to assure that the TAs are covering material at about the same pace as the lecturer. At these meetings, TAs provide feedback to the professors by identifying areas of difficulty for the students.

The laboratories are operated under the direction of two full-time laboratory supervisors, aided by a laboratory technician.⁴⁵ The laboratory supervisors assist with the week-long training session and provide training and instruction throughout the semester. They also prepare the TAs for the experiments in advance of each laboratory session and are present during the sessions, assuring that safety procedures are followed.

The Ph.D. candidates begin research laboratory work in the second year of the program. Most of them work in a chemistry laboratory, but a few students in theoretical chemistry do their research work in a computer-based environment. The department provides funding for a half summer of research following the first year. Students normally work in the laboratory where they expect to do their Ph.D. research. The group does not expect independent productive research from a first summer student; he or she may be paired with a post-doctorate student or senior Ph.D. student to learn research techniques and skills. In the first summer, they register for an independent research course and receive course credit for their research. They are expected to continue to perform research in the summers during the rest of the program, but that research is grant funded, and they do not receive further course credit. Beginning in the second year, they are expected to perform productive research in furtherance of a grant, but it is understood that

⁴⁵ The Petitioner does to seek to include the laboratory professionals or the technician in the unit, as they are not students.

their research productivity will start at a low level and increase rapidly over time. Faculty PIs supervise the research, but graduate students are considered the core of the research group.

Research groups are expected to issue publications. Students increase their contributions to publications over time and are expected to be producing publication-quality work by their third and fourth program years. Many Ph.D. candidates are named as research group authors on publications prior to completing their dissertations, which must also be of publication quality. In their fourth year, graduate students attend national conferences to present research papers.⁴⁶ Annual reporting of research results and publications is required under grants, including the contributions of students, and is a critical factor in obtaining additional grants. Students are brought into the grant writing and reporting process as part of their educational training.

The department offers a Masters of Chemistry Education program funded by the NSF. That program is available on a part-time basis to full-time high school teachers in Philadelphia and qualifies them to become Chemistry teachers. The graduate group offers two other Masters degrees. The Master of Science is a research degree. The Masters in Environmental Studies is a separate program, directed toward students who want to advance professionally and learn more about environmental science. Funding is available for the Master of Science degree and for the Ph.D. but not for the Masters in Environmental Studies. There are about 15 Masters in Environmental Studies candidates annually, but there were no students enrolled in the Master of Science program at the time of the hearing.

There are three areas of study in the Earth and Environmental Science graduate group: Solid Earth, Environmental Studies, and Periobiology, which involves the study of the history of

⁴⁶ Expenses to attend conferences may be specifically authorized under the grant or may be borne by the department.

life on earth. The doctoral program had 12 students in the year 2001-2002, who were funded on William Penn fellowships that had a stipend of \$14,000.

The Ph.D. takes three years to complete. Course work requires two-and-a-half years for Ph.D.s, and by the second summer students are expected to perform required field or laboratory work. Students must take preliminary examinations. They are also required to be able to read scientific articles in a language in which there is a large body of geologic literature and to teach and have the ability to write funding proposals. A doctoral dissertation is expected to yield three publishable articles.

Ph.D. candidates are required to teach for one full year and expected to teach for additional semesters. The candidates are assigned to assist different professors in different semesters to expose them to various teaching styles. They attend the professor's lectures and prepare short recitation sections, which take only about 15 minutes. The lecture professor delivers the first recitation section of the week, which the TAs must attend, and the TAs teach all of the other recitations. There is also one departmental laboratory course, which the graduate students primarily teach. The supervising professor designs the course and instructs the TA on what to cover and then attends the laboratory sessions on occasion and leads any field trips. All program students also assist with proctoring and grading at examination time and as needed during the semester. Professors do some of the grading themselves and discuss procedures for fair and consistent grading with the TAs. TAs are expected to work an average of 10 to 20 hours per week. As in many departments, they are asked to sign a TA compact that outlines their duties and expectations. Course credit is given for serving as a TA for students who are still completing the 20 credit unit program requirement.

All students are required to do research. About half of the students in their service years serve as TAs, and half serve as RAs. Dissertation work satisfies the program requirements for research. When the student serves as an RA on a project for which the professor has an external grant, the student's dissertation or Masters research also furthers the grant. As part of the research process, students are required to assist in writing grant funding proposals for their own research and for professors writing larger grants. These activities are regarded as essential training for academic researchers, and obtaining such grants benefits both the student and the University. As with other Natural Sciences groups, publications are highly sought after, and thesis advisors assist the students in producing writings that meet scientific journal publishing standards.

Graduate students are expected to perform summer work, and some funding is competitively available for that purpose. After their funding period is exhausted, Ph.D. candidates can apply for competitive dissertation year fellowships from SAS. They may also teach CGS courses. Occasionally, the graduate group may refer ABDs to teach courses at other area schools and universities to supplement their income after full funding has ended.

Course work for the Masters degree takes about one year. The thesis is about one-third the length of a Ph.D. dissertation, and students must take examinations. Ph.D. and Master of Science programs are administered jointly with Bryn Mawr College, which is located a few miles from the University. Students admitted to programs in either school may take classes freely at the other. After registration, the course locations are assigned at one campus or the other based on course enrollment per school.

There are about 60 students in the Mathematics doctoral program. Students must pass a preliminary examination, receive 20 course credits, pass advanced oral and written examinations, and present and defend their dissertations. They must also attend a series of seminars at which graduate students make presentations in areas of general interest, and by the second year they are encouraged to make presentations themselves. The program generally takes five years to complete.

The Mathematics graduate group has not been included in the new funding system. Though all students are admitted with full funding support, the funding is not uniform, and some students are funded by different means from year to year. Stipends also can differ, with the highest-rated students receiving additional amounts. Some students arrive in the program with external multi-year fellowships that can be used at any school, and others are selected by the faculty for fellowships at various points during their studies. All students are also given a summer fellowship, which can be used for research in the first summer or held for use when the students are fully engaged in dissertation research and writing. Except for the single summer fellowship, students are not guaranteed summer support, although it often becomes available.

Students are required to teach for two semesters and expected to teach for four semesters. Mathematics students who receive full four or five-year fellowships do not teach in their first program year; the others normally serve as TAs during both semesters of their first and second years. TAs are assigned to recitation sections in courses for non-majors. Student preferences for TA assignments are taken into account, and it is not uncommon for students to serve as TAs for the same course in different years. Professors are expected to observe recitation sections at least once, complete an evaluation form, and provide feedback to the TAs. The evaluations are

included in files concerning TAs' teaching experience for use in future recommendations. Senior TAs with good teaching reputations are appointed as mentors for the newer TAs.

Because teaching is a program requirement, foreign students unable to satisfy an English requirement have had to leave the program.⁴⁷ Some students struggling with English are classified as TAs but given grading duties that do not place them in front of classes. These students receive the full TA stipend and benefits.

As students progress in the program, they become more engaged in research until they are working entirely on their dissertations. Some research support is available, including grants from federal agencies for research in communication theory and code theory. These grants may provide for students to assist professors and may lead to publications. The professors normally designate which students they would like assigned for this research assistance.

Students may teach in CGS for summer sessions, and the graduate group gives priority to doctoral students in assigning CGS courses. Summer CGS courses pay Ph.D. candidates more than the summer fellowship awarded to all students.

Mathematics offers two levels of Masters degrees, the Master of Arts (MA), and the Master of Philosophy (M Phil). There are only about five or six Masters students. The MA candidates take eight credit units and write a Masters thesis; the M. Phil candidates take 14 courses and write a longer thesis. The group also administers joint degree programs with the Computer Sciences department in the School of Engineering and the Statistics graduate group in the Wharton School of Business.

⁴⁷ Students have one year to pass the test, which may be taken several times, and they are advised of the requirement before they accept a place in the program. Language programs are offered for students needing help with English.

There are about 100 Ph.D. candidates in the Physics and Astronomy program, which has two specialties: Theoretical Physics and Experimental Physics. About 17 students are admitted to this program per year. The graduate group funds all students but does not follow the new SAS funding model. First-year students may be TAs or RAs, but externally funded students such as NSF fellows have no service obligation the first year. The program has about 23 TA positions annually and about 10 other fellowships for further support. TAs received a stipend of \$17,500 in 2001-2002.

It takes about five years to complete the Ph.D. program. Program requirements include 20 course credits, 10 of which can be for laboratory research, an oral examination, and a dissertation. All students are encouraged to be in a research group.

The graduate group has research funding in excess of \$6 million annually, mainly from NSF, NASA, and NIH grants, as well as from some private foundations. Theoretical physicists receive less research money than experimental physicists, so TA positions are more plentiful for theorists while RA positions are more common for experimentalists. Theorists usually perform their research at the University laboratories, while experimentalists need to travel in teams, along with faculty members, to conduct experiments in other places. Experimentalists are likely to present their results and research at academic conferences as opposed to journal publications.

Summer support is routine in the graduate group. The summer following their first year, theory students may be asked to serve as TAs, while experimentalists may be part of research group. Graduate assistants work with a Ph.D. physicist directing an advanced undergraduate summer laboratory in which students build equipment or write software for new equipment. More traditional laboratory TA positions are available during subsequent summers, and research groups may also fund students in the summer and occasionally into the academic year if the

research is continuing. Once students find a research group, they tend to stay with it for the entire length of the program. Students who serve as TAs during the summer may take one course in the same summer at no tuition expense.

Reports on research results are required, and publications are encouraged as evidence of progress for reporting purposes. Graduate students are frequently listed as first authors of team publications, which include other student contributors and faculty. In Physics, students normally use their published papers as the core of their theses.

There is no teaching requirement in the program. On average, Ph.D. candidates teach one semester before moving to RA positions. TA positions, which require about 10 hours a week, help solidify the students' knowledge for their oral examinations. Of 16 admissions in September 2001, 12 were TAs and three were RAs. Funding sources for RA positions cover tuition, but at a reduced rate. Subvention pays all of the tuition. By contrast, TA positions charge the full tuition to the undergraduate Dean's budget, so they are less costly from a graduate group budget standpoint.

Seventeen of the 23 TA assignments are for laboratories loosely associated with eight different undergraduate Physics lecture courses. Pairs of graduate students normally teach laboratories, which are attended by about 14 to 16 undergraduates three times per week. Two laboratory supervisors who are not graduate students are also present. The TAs grade examinations and hold office hours. They are not evaluated by the professors in charge. Sometimes the number of TA positions is insufficient to cover all laboratory slots, and the group will send out e-mail messages soliciting other individuals to teach one laboratory section for about \$1000. TAs are also required to operate telescopes for Astronomy courses. In Physics, there is no formal limit on earnings. In addition, graduate students who cannot pass the English

test may not teach laboratories, but are used as Graders and receive full support including stipends. There are also five or six additional fully funded Graders who are hired at a semester rate of \$500 above their stipends.

The group does not have a terminal Masters degree, but offers the Master of Physics, a professional degree obtained in conjunction with the Medical School's Radiology department. Physics training is necessary for operating Magnetic Resonance Imagery and CAT scanners. Masters of Physics degree candidates are not supported through the graduate group, and no TA positions are dedicated to Masters candidates.

School of Engineering and Applied Science

The School of Engineering and Applied Science has the largest Ph.D. enrollment other than SAS, with about 350 students in seven graduate groups. Doctoral candidates must attain the minimum 20 course credit units, pass a sequence of examinations, write and defend a dissertation, and fulfill teaching requirements in some graduate groups. It takes an average of about six years to complete a doctoral degree in Engineering.

Administratively, the Dean is assisted by the Associate Dean for Academic Affairs and the Deputy Dean for Research. Each of the seven departments has a Chair, assisted by graduate and undergraduate Chairs. The seven graduate groups and their doctoral student enrollments are: Computer and Information Science (115 students); Systems Engineering (10); Electrical Engineering (20); Chemical Engineering (40 to 45); Materials Science Engineering (35 to 40); Bioengineering (76); and Mechanical Engineering and Applied Mechanics (45).

In 2001-2002, the value of one year's funding package was about \$52,000, including a stipend of \$20,000. The School of Engineering does not generally provide health insurance

coverage because NSF, a major funding source, prohibits applying funds to health insurance costs. Instead, the school grants a larger stipend to enable students to purchase health insurance. Half of student tuition costs are charged to research grants, while the Provost absorbs the other half through subvention.

There are several types of Masters degrees offered by the School. One is a professional Masters, for individuals already in the work force with expertise as supervisors or managers. These Masters degrees combine engineering and business expertise, and students can complete them on weekends over one or two years. Biotechnology and Telecommunications and Networking are among the specialties of this degree. Beginning in 2002-2003, they will be jointly administered with the Wharton School. There are also joint programs for Ph.D.s in Mathematics to obtain a Masters degree in Computer Information Technology or Computer Science. Finally, there is a technical Masters degree, which takes about one year and centers on new advances within the discipline for individuals already employed in the field. All Masters degree students either pay their own way or are funded by their employers.

All of the graduate groups other than Systems Engineering have considerable research grant funding and use department funded TA positions to provide tuition and stipends for Ph.D. candidates in their first year. Systems Engineering does not mandate teaching as a program requirement, but since TA positions are the group's principal support method, Systems students generally teach for two semesters in the first year. They are typically assigned to help with large lecture and laboratory courses, by grading homework and assisting with course development, for up to 20 hours per week. After their first year, they are assigned to faculty research grants for the rest of their program time.

Four graduate groups have a teaching practicum requirement. Computer and Information Science and Mechanical Engineering and Applied Mechanics each require three semesters of teaching practicum, Chemical Engineering requires two semesters, and Electrical Engineering requires one semester. Students in these programs who serve as teachers are classified as RFs, because they are funded through professors' grants throughout their studies, even when they are engaged in teaching practicums. They perform duties comparable to the Systems TAs, but in smaller classes with fewer students. The practicum students are expected to maintain a high level of research and publication activity within their research group during their practicum semesters, in keeping with their status as research-grant supported students. The Chemical Engineering group does not grant course unit credit for time spent teaching, but the other three programs grant half credit units for each semester of teaching. The graduate group Chair for Chemical Engineering testified that his group considers the teaching practicum to be an added incentive for students to choose the University. Only the Mechanical Engineering group requires a pedagogy course, to be taken simultaneously with the first practicum.

Research grants are the primary funding source for graduate students in the School of Engineering. About 90 percent of external funding comes from federal grants. Many graduate groups provide course credits for independent study performed in the research laboratories. Students choose a professor's research group within their first semester and begin learning advanced research techniques. Student contributions to research and publications increase over time, and course work decreases in proportion to grant work over the program years.⁴⁸ The grants are always under the direction of a PI, who retains overall responsibility for the research, financial expenditures under the grant, and periodic reporting obligations to the granting agency.

⁴⁸ Publications often take the form of presentations at professional society meetings and conferences.

Occasionally, a Masters student is offered a place in a research laboratory, but only if no Ph.D. is available to fill the position. A Masters student who has chosen to write a thesis⁴⁹ may produce a thesis based on this research but would not receive a fellowship from the department for the research work. Rather, the PI will award the Masters student some compensation from grant funds.⁵⁰

Graduate student research work performed under the sponsorship of a grant must further the grant, but the grant research usually overlaps with the student's dissertation work. Research groups effectively compete with one another for students, who may be asked to rank their preferences among research groups, but preferences are honored as much as possible.

The only other regular funding source for doctoral students is hourly-paid grading and teaching assignments. Any graduate student regardless of funding source can apply for extra earnings as an hourly-paid Grader for a large course. Advertisements for Graders are posted by e-mail messages, and assignments are restricted to 10 hours per week. Occasionally, an Engineering student will serve as a TA outside the Engineering school in a closely related discipline, such as a Chemical Engineering student serving as a TA in the Chemistry Department. Students who intend to teach after receiving their degrees may seek these opportunities even when they do not need the funding.

Among the 76 Bioengineering doctoral students, eight are pursuing joint MD/Ph.D. degree programs. The NIH has a Medical Scientist Training program to help fund these

⁴⁹ Masters degree students are not required to write a thesis but are encouraged to do so. Students who receive research funding are also urged to write a separate collaborative publication with the grant PI.

⁵⁰ In Mechanical Engineering and Applied Mechanics, three or four of the 15 Masters students are funded in this way. In Material Science Engineering and Chemical Engineering, Masters degrees are occasionally funded by grants. In Computer Information Science, Electrical Engineering, and Bioengineering, no Masters degrees are funded.

students, who must satisfy degree requirements in both the Medical and Engineering Schools. NIH traineeships are also awarded to Bioengineering students with some frequency.

*Biomedical Graduate School*⁵¹

The Biomedical Graduate School (BGS) is an oversight body under the jurisdiction of the School of Medicine for a number of distinct but related doctoral programs. Various doctoral research graduate groups are coordinated through BGS: Biochemistry and Molecular Physics, Cell and Molecular Biology, Genomics and Computational Biology, Immunology, Neuroscience, Parasitology, and Pharmacological Sciences. These BGS graduate groups also overlap outside of the School of Medicine with the Biology department from SAS and the Bioengineering program in the Engineering School.⁵² The eight BGS groups each have their own Chair and program degree requirements, but BGS is in charge of admissions on behalf of all groups and has interdisciplinary committees to manage curriculum, academic standards, and other matters. There are about 550 students in BGS, all fully funded for five years, and about 75 of them are admitted annually with full funding for five years. Students require an average of six years to complete a Ph.D. in BGS, and they remain funded beyond five years as long as they make satisfactory progress towards the degree. About 150 of the BGS students are pursuing dual degrees either in the Medical School (MD/Ph.D.) or the School of Veterinary Medicine (VMD/Ph.D.), and they are primarily funded through the NIH's Medical Sciences Training Program. These students must satisfy requirements in their respective professional schools, as well as BGS requirements for the Ph.D. in their graduate groups.

⁵¹ This Decision does not separately discuss the School of Medicine because there is no evidence that any individuals sought by the petition are students there, other than the BGS students discussed in this section.

⁵² There is also a new graduate group within the Medical School, Epidemiology and Biostatistics, which is associated with BGS but administered and funded separately from the BGS group.

Ph.D. candidates in all BGS groups must take two years of course work in basic sciences, complete required laboratory rotations, pass preliminary examinations, and write a thesis. Those in the joint degree programs need only one year of course work, having already taken two years of basic courses within their professional schools.

All groups require three laboratory rotations beginning in the first year, with the exception of Immunology, which requires only two rotations. The purpose of the laboratory rotations is to expose students to different areas of research within the laboratories and to teach them basic research techniques. By their third year, students are expected to have chosen a laboratory in which to do funded grant research and their dissertation, and they will work there until their dissertation is completed. While doing laboratory rotations, for which course credit is given, students are assigned a research project that may be completed within a semester rotation. The rotation work is expected to advance the research grant, but it is not expected to constitute a significant portion of the grant work. Once the student has selected a laboratory, the student's thesis research will be related to work performed in this laboratory.⁵³

BGS students are supported through three principal sources: general training grants through NIH, which are distributed through the University; individual research grants awarded to professors as PIs; and additional fellowships from various agencies and foundations. The grants and fellowships generally do not cover the full costs of graduate programs, and the University supplements the tuition and stipends with Provost's matching tuition funds and Medical School/BGS funds.⁵⁴ In the first two years, when the student is in pre-dissertation status, the

⁵³ A student can change laboratories or graduate groups after having chosen a thesis laboratory, but such changes are not typical.

⁵⁴ Medical School Vice Dean Glenn Gaulton testified about funding variations among BGS students. According to Gaulton, students on training grants, whether through the NIH or private sources, are designated as pre-doctoral trainees. Those funded primarily through the University or the Medical School funds are called Educational Fellows, while those funded through research grants from PIs in the Medical School or BGS are deemed RFs. All of these individuals may perform the same type of work in a research laboratory, but there are

University pays a larger share of the costs. At the dissertation stage, students are funded primarily with professors' research grants, along with a smaller supplement from the University. At this stage, tuition drops from around \$20,000 to \$1,000. The University also covers health insurance benefits if the grant does not provide for it. An individual fellowship awarded directly to a student saves costs for the PI, as certain funding obligations would otherwise be chargeable to the grant. Stipends were at \$20,000 for 2001-2002 and are paid on a 12-month basis during all years of the program.

Among the graduate groups in BGS, only the Neuroscience and Biostatistics groups require teaching, and they only require one semester. Students do not generally teach within the first two years of course work. They are not separately paid or funded as TAs while they are fulfilling the one semester requirement but are considered RAs. Students may opt for a second semester of teaching or respond to e-mail messages soliciting teacher applications, but they do not frequently seek these opportunities. These students must have permission to teach and are paid a fee in addition to their stipends.

There are 10 doctoral students in Biostatistics, three of whom attend school part-time and are therefore not fully funded, though they receive some financial support from work on research grants. There is one fully funded student on an NIH trainee grant, and the other six are supported through NIH RA positions, with supplemental funding from the University. All students, including the NIH trainee, are required to serve as TAs for one semester. Biostatistics also has a Masters program. There are three students in that program, and they are currently funded in part by NIH research grant money, and some of them have stipends. Masters degree students are responsible for their own tuition payments.

different tax consequences depending on how they are classified. Thus, income taxes are not withheld from the checks to RFs or Educational Fellows but are from PI research grant funding. Students can move in and out of these

School of Social Work

The School of Social Work grants Ph.D.s in Social Welfare and Masters of Social Work (MSW) degrees. There are 50 doctoral students and about 240 MSW students.⁵⁵

It takes about two years on a part-time basis and three years full time to earn an MSW degree. MSW students may receive direct aid from the School based on need or merit, or they may work in the field for modest stipends. Maximum aid does not cover all costs. Because MSWs perform fieldwork three days per week, they do not have time to serve as TAs or RAs.

The Ph.D. takes an average of five years for students entering the program with a Masters degree, and two additional years for those without a Masters degree. The Ph.D. requires 13 core courses, a qualifying examination, and a dissertation, including a formal proposal and defense. Ph.D. students receive full-funding support from the school, which includes tuition coverage and a stipend of \$13,000 per year, for the three years of course work required.

Ph.D. students serve as RAs during these first three years. Typical RA assignments might include reviewing literature, interviewing research subjects, data analysis, assisting with grant proposal writing, and working on collaborative articles for publication. Generally, the research grants provide half of the students' stipend money and half of their tuition, and the Provost matches the research dollars with tuition money. There are also external grants to students, but many of these grants require that the funds go directly to the students as stipends and not toward tuition support. In those instances, the School funds tuition from its general revenues. From 60 to 80 percent of doctoral students are published before finishing their Ph.D.s.

categories during their studies, even while continuously working on the same project.

⁵⁵ About three percent of students who receive MSW degrees apply to continue in the Ph.D. program. There are also some long-term students in the "Doctor of Social Work" program, a professional degree program that has not admitted new students in eight years.

Work performed as a funded RA must further the grant questions, but by the end of the third year all work should be directed toward the student's dissertation.

Ph.D. recipients from the School of Social Work tend to seek careers as professors, researchers for agencies and research institutes, and administrators of social welfare agencies. Their course of study does not require them to work with individual clients or serve as TAs. There are no undergraduate courses in the School of Social Work, so students who wish to teach do so in the MSW program after they have completed their first three years of course work and are in dissertation status. Some students serve as TAs informally for the same professor for whom they are serving as an RA, but they receive only one stipend and do not teach stand-alone courses. Students past their first three years and in need of financial support may work as TAs or RAs in years four or five of the program, with the same stipend received by RAs in the first three years. A few students at the dissertation stage may be permitted to teach stand-alone classes in the MSW program, and they are paid at a Lecturer's rate.

Social Work doctoral student Robert Fairbanks testified that he has been an RA for all three years that he has been in the program. Fairbanks was contacted and recruited as an RA on the day he moved to the campus. On his first project he was supervised by a professor from Temple University. During his second year, he began assisting a University professor on a publication for which he will share in the credit. Fairbanks, who came into the program with an MSW and TA experience at another University, was selected from a group of applicants to teach an MSW course as professor of record in the first semester of his third year, and he received \$4,000 for this assignment in addition to his RA stipend. Fairbanks testified that he received no training prior to teaching that course, nor did any professor observe his teaching. He believes

that teaching experience and publications will enhance his employment prospects, as he hopes to become a professor.

Graduate School of Education

The Graduate School of Education offers three kinds of degrees in several different program areas. The Master of Science degree (MS Ed.) is for students seeking an entry-level position in education. The Doctorate of Education (Ed.D.) is a practice-oriented degree for students interested in positions such as administrators at the university level. The Doctorate of Philosophy (Ph.D.) is a research degree for scholars and researchers in the field. There are about 300 candidates each in the MS Ed. and the Ph.D. programs and another 150 in the Ed.D. program. The MS Ed. takes 12 months to complete, and the doctorates each take about five years.

MS Ed. students are not funded and have no service obligations. Most Ed.D. students attend school part-time and are therefore ineligible for funding. Virtually all Ph.D. candidates are funded. Both Ed.D. and Ph.D. programs require two years of course work, preliminary examinations, and a dissertation. They differ in that Ed.D. candidates must perform a field experience internship and Ph.D.s must complete a research apprenticeship.

Funding is linked to research. The highest level of support goes to Ph.D. students who are funded on Educational fellowships, which also are awarded to the best-qualified Ed.D. candidates. All Educational Fellows receive three years of funding and stipends and are expected to perform research for 20 hours per week. Annually, there are about six fellowships awarded by the University at a stipend of \$12,000. There are also external fellowships that commonly require research work. The next tier of Ph.D. and Ed.D. students are funded

expressly by RA positions from funded grants, and they also receive stipends. Other Ed. D. and Ph.D. students are offered graduate assistantships, providing less than full-time support in exchange for academically related service that may include research. These students are supported for a semester or a year at a time and may receive tuition remission and fees. The amount of service varies depending on the level of funding.

The RAs perform their research on funded research projects under the direction of faculty members, and the cost of the RA position is chargeable to the research grant. Both RAs and external fellows are partially supported by the University, which supplements the tuition and stipends from fellowships and grants. Virtually all doctoral students are funded as fellows or RAs while completing their course work. RAs and fellows are generally exposed to various phases of a research project before beginning their own dissertation research, usually by the third year. The School attempts to match students with their preferred faculty members. This apprenticeship research work may be used in the student's dissertation, but even if the subject areas differ, the student learns techniques that benefit the dissertation research.

Teaching is not a requirement in the doctoral programs, but some RAs may assist mentors with course work as part of the range of apprenticeship training for academics and researchers. Some students serve as paid TAs outside the School of Education, in language or other courses, or serve as WATU teachers. Others teach in CGS courses, particularly during the summer.

Christina Collins, a third-year student on an external fellowship, testified that she has performed research on several projects and served informally as a TA for a class taught by her advisor. She led discussion sections for half the class, graded papers, and assisted students with drafting papers. She did not receive financial compensation above her stipend for any of her

efforts, but she believes that these positions will improve her future prospects as a professor. Her research was required as a condition of her fellowship but not for her academic program.

School of Nursing

The School of Nursing has an undergraduate division, a Masters (MSN) program, and a Ph.D. program. There is also a joint degree program with the Wharton School for an MBA/Ph.D. and a joint Bioethics MS/Ph.D. The Ph.D. program has 58 students, 24 of whom attend school full time and are fully funded for four years, the average time required to complete the program. Part-time students are not funded. Most Ph.D. students begin the program with an MSN degree and then take two-and-a-half years of course work. Preliminary examinations are required, along with a teaching residency, a research residency, and a dissertation. Funding includes tuition, fees, a stipend of \$14,500, and health insurance. Funding sources through the University include fellowships and RA or TA positions. There are also external sources for fellowships, and federal and private training and research grants.

Ph.D. residencies take one semester and are for the purpose of training students in research methods, skills, and ethical issues. Students work as parts of teams with experienced researchers. About 20 to 30 percent of the time, the research team's work will be on the same track as the student's dissertation research. Where the topics are not directly related, the student will learn research techniques and methods to be used in dissertation research. Seminars on research areas and issues are part of the research residency. The student's career objectives and prior experience are taken into account in assigning a residency, and an effort is made to match the funding source for the residency with the individual's objectives. The graduate group also

seeks a written evaluation at the conclusion of the residency on how well it served the needs and expectations of the student.

A research residency is distinct from an RA position, which is directed toward a specific question posed by a grant. An RA position provides funding for the student with the requirement that the student perform research to advance the grant. Publications are an expectation of the grant research and are critical for grant renewal purposes.

One-semester teaching residencies are also required and are similarly tailored to the needs and career expectations of the students. They may have specific objectives such as working with certain types of educational materials or subjects. Although teaching residencies are separate from TA positions, they may include traditional assistance in support of a professor's course work. TA positions also are intended to address specific needs of the student, and student preferences for these positions are taken into account. Students can have teaching residencies and TA positions at the same time.

The MSN degree is a professional degree for practitioners. There are about 280 students in the program. Most students complete the degree in one year. Students are not required to prepare a thesis but are encouraged to publish. MSN students are not generally funded, but some full-time students receive RA positions when there are not enough Ph.D.s to fill the positions.

There are also course assistant positions available to MSNs. The assistants perform similar duties to the Ph.D. TAs, but are paid at an hourly rate, from \$15 to \$20. In addition, there are clinical laboratory positions available to both Ph.D.s and MSNs licensed in Pennsylvania. Students are paid at an hourly rate of \$30 to assist undergraduate nursing students with clinical rotations in the laboratories. Ph.D.s are not permitted to work more than eight hours per week in the laboratories. Finally, there are hourly student workers in various capacities around the

school, but these students are paid at lower rates than students working in the clinical laboratories.

Annenberg School for Communication

The Annenberg School for Communication offers a doctorate degree, which requires 20 credits,⁵⁶ a preliminary examination, and a dissertation. There are 45 students in the Ph.D. program, who are fully funded with a stipend of \$20,000. Ph.D.s are funded for eight semesters if they enter with a Bachelors degree or five semesters with a Masters. They are also funded for an additional 12 months after their dissertation proposal defense with a stipend of \$23,300 and no service requirement. The average time for completing the degree is four-and-a-half to five years.

As part of the funding arrangement, students are required to serve either a research or teaching apprenticeship under a faculty mentor each semester, and they are encouraged to try both teaching and research apprenticeships. Students are assigned to be TAs or RAs for their first semester. For additional semesters, they are asked to fill out a service preference sheet that must include at least one TA assignment among three choices. Student preferences are taken into account as much as possible in making these assignments. The students are not graded or given credit for the apprenticeships, but faculty members are asked to complete evaluation forms, and students often ask professors to write letters of reference for them. Training for TAs and RAs is covered during a one-week orientation program conducted by the Annenberg School in the beginning of the first semester.

The Annenberg School does not have an undergraduate division, but SAS offers a Communications major, which provides a number of TA positions for Annenberg School

students. These courses occasionally have discussion or recitation sections, and some courses have TAs assigned because they are writing intensive.⁵⁷ When serving as RAs, students carry out a wide range of research assignments for professors. They also serve as CGS instructors at times.

The School has offered a terminal Masters degree program but ceased accepting Masters admissions effective September 2002. There were 28 students in the Masters program in the academic year 2001-2002. The Masters program requires two years of course credits and a Masters thesis but no examinations. Masters students are fully funded, including fees, tuition and a stipend of \$18,500. No health insurance coverage is provided.

Graduate School of Fine Arts

The Graduate School of Fine Arts has four departments: Architecture, City and Regional Planning, Landscape Architecture, and Fine Arts. A fifth field, Historic Preservation, cuts across the four departments. Only two of these departments, Architecture and City and Regional Planning, offer Ph.D.s, and there are only 60 Ph.D. students out of a total of 550 students in the School. Because of limited funding resources, each graduate group in the School of Fine Arts funds only two students per year for the first three years of course work. Ph.D. students take an average of five to five-and-a-half years to complete their degrees.

The Architecture Department has 30 Ph.D. students. Program requirements include 20 course credit units, with credit for prior Masters courses at the University, a qualifying examination, and a dissertation. Funding for Ph.D. students is decided on the basis of merit;

⁵⁶ Up to 12 of these credits may be transferred from Masters programs.

⁵⁷ Second-year Annenberg Ph.D. student Emily West testified about a range of courses in which she served as a TA, both as a doctoral student and as a Masters candidate. Her assignments ranged from conducting traditional discussion sessions to assisting professors making feature length films for video production classes.

currently six of the 12 pre-dissertation students are fully funded for three years, and the remaining students are self-funded. Students beyond the first three years are often funded by sponsored research programs with faculty or TA positions. The sponsored research is not necessarily related to the student's dissertation research.

The one-year MS Architecture program, which is oriented toward research and independent studies, usually has only two students. MS Architecture students generally work with professors as informal RAs for 10 hours a week and may receive financial aid on the basis of need. Students gain experience as researchers, which may lead to joint publications with faculty members or materials to be used in their own papers in satisfaction of degree requirements.

The Masters in Architecture (M Arch) is a professional degree for practitioners in the field. The program has 200 students and can take from one to three years, depending on the student's prior experience.

The Ph.D. program in City and Regional Planning has 30 students. City Planning students are required to complete 20 course credit units, a qualifying examination, and a dissertation. Masters students in this group engage in two years of study, including four studio-based projects. There are 110 students in the Masters program. Students also serve an internship the summer between their two years, such as at a city planning department or consulting firm. For this work, they may be paid by the internship organization, but the School does not pay them.

The Landscape Architecture program offers only a Masters degree. It is studio-based and requires three years of full-time study. There are 60 students in the program.

The Master of Fine Arts covers a wide range of specialties, from traditional sculpture and painting to videography and graphic arts. During the two-year program, students spend about 25 percent of the time acquiring technical skills in courses and seminars and the rest in individual studios producing artwork.

The Historical Preservation program offers a two-year Masters degree. Students take course work in studios, classrooms and seminars, and they also work on a project in the field, usually a conservation effort. The field project usually provides the material for a required thesis. There are a number of dual-degree students in Historical Preservation, who are also in the Architecture, Landscaping, and City Planning programs. These students can take at least one extra semester after earning their other degree and acquire a Certificate in Historic Preservation.

The School of Fine Arts handles financial aid in the same way in all departments. Work-study positions are needs based. Some students receive direct grants from endowments applied as tuition discounts, which do not require service. Some grants reserved for minority students are also available. The "Save America's Treasures" program offers grant money to students with a tuition component and stipends for part-time research on a project to preserve Mesa Verde National Park. Additional external grants are currently available for work in restoring cemeteries in New Orleans, an historic wall in Cairo, and other projects. Grants from the United States Department of Housing and Urban Development in combination with matching funds from the University are used to support internships at schools in West Philadelphia. RA opportunities with faculty members are sometimes available, and some faculty members have money for assistance with studio projects or for TAs to assist in laboratories or workshops. These positions are hourly-paid. Masters students may only serve as TAs in undergraduate courses and do not

teach independently. Of the 200 Architecture Masters students, only about 25 have support with a service requirement.

The School recently adopted a one-semester teaching requirement for Ph.D.s in Architecture and City Planning. Historically, many students have voluntarily taught or performed research for compensation in addition to their stipends, because it improves their employment prospects. Under the new teaching requirement, students will receive no additional compensation if they are funded, but those who are not funded will be provided with funding for that semester. Additional TA and funded research positions are offered whenever possible to fourth and fifth-year students to enable them to finish their studies. In addition to the six funded students per year in each of these Ph.D. programs, there are some students who are funded through external means or by their employers.

The University's Professional Schools

Wharton School

The Wharton School has four divisions: undergraduate, MBA, Ph.D., and a non-degree Executive Education program. The School's departments include Management, Finance, Health Care Systems, and Accounting.

The MBA program admits about 900 candidates a year. Of these, about 750 are enrolled in the standard two-year program, and an additional 100 or so take the same program in a concentrated weekend study format.

In the doctoral program, a total of about 35 to 40 fully-funded candidates are admitted each year across 10 specialties. Stipends for 2001-2002 were \$17,000, and health insurance coverage was added effective September 2002. The requirements include two years of course

work,⁵⁸ a Teacher Development Program, a second-year research paper, a comprehensive examination, and a dissertation.

The School usually provides funding to doctoral students for four years, although the average student takes five years to complete the program. Students are required to provide service in return for the funding, and they may serve as RAs or TAs. At the fifth year and beyond, students frequently obtain external funding support through fellowships or grants. The School generally provides support to those students who do not receive external funding through at least the fifth year; thereafter, the level of support diminishes steadily.

Students are paid an hourly rate for research in addition to their stipends. Less than half of these students are funded by external grant money, and the remainder of their funding comes from the faculty's discretionary budget. Many professors use unspent budget or research sums to finance graduate students to work through the summer. About half of the students do non-dissertation research work, while the other half are directed simply to work on their own dissertation research or writing.

For many students, two semesters of service as a TA are required under the terms of their funding package. The typical TA experience is in a large introductory undergraduate course such as Marketing. The TA is assigned a small discussion group which meets twice a week and performs the usual additional TA duties including grading exams and holding office hours, and has regular meetings with the professor. There are about four introductory Marketing courses offered per semester, each with up to 250 students and about 12 TAs. As there are frequently not enough second and third-year doctoral students to cover all of the sections, four of the TAs are likely to be MBA students. MBA students are not funded and have no teaching requirement as part of their program but may serve as TAs to earn some income. Professors have the option of

⁵⁸ Some courses may be waived because the student completed them during prior MBA studies.

paying these TAs per hour or a flat fee per course. From 20 to 40 percent of Ph.D. candidates serve as TAs even after satisfying their teaching obligation⁵⁹ and are then paid in the same way and at the same rate as MBAs, with no effect on their stipends. Funds to hire TAs are budgeted within the professor's allocated expenditures, and the rate of pay for TAs is from \$1,000 to \$2,000 per course. At times, a professor's class will not be large enough to warrant a TA assignment, and funds for a Grader may be allocated instead. These Grader positions are usually hourly-paid and may be given to Ph.D.s or MBAs. Occasionally an advanced student in need of funding will teach a stand-alone course in the MBA program for a fee or will teach a CGS course.

The Teacher Development Program, usually taken in the fall of the second year, is a prerequisite to serving as a TA. It is a one-semester course that provides structured readings, lectures, and teaching practice opportunities, including videotaping of students.

All Ph.D. candidates are expected to engage in research activity. They generally perform research in years two, three, and four of their program. The second-year research paper, usually started during the preceding summer, is the initiation into the research process at the doctoral level, and most students write it in conjunction with a professor. This paper may, but does not necessarily, lead to a dissertation topic. After completing that paper, students are expected to select a professor performing research in an area of common interest and provide research assistance for about 10 hours per week. Professors usually use their research budgets to fund students with small flat sum payments or hourly pay for their research, as distinguished from the fully-funded RA positions found in the Natural Sciences.

⁵⁹ Permission must be obtained for teaching these additional classes but is routinely granted to students in good standing.

There are 25 Ph.D. candidates in the Management group, with four or five admitted annually. Students serving as TAs in this department are required to work for two semesters but are discouraged from serving for any additional semesters because it would interfere with work on their dissertations.

The Finance group has 27 Ph.D. candidates and admits from four to six students per year. Students in this group are required to serve as TAs during their second, third, and fourth years.

The Health Care Systems group has a National Research Services Award providing federal grant money for research, and a large proportion of students are supported by that grant. There are 15 Ph.D. students in the group, and they perform research work for two years. Teaching is not required, but a majority of students, about six in any given semester, serve as TAs at least once.

The Accounting group does not require teaching, but many of the eight Ph.D.s serve as TAs in their second or third year in courses that generally do not have recitation sections. The department emphasizes research over teaching but the 10-hour per week research requirement has only been loosely enforced. When they are performing research, Ph.D. students are paid about \$30 per hour.

Ph.D. candidate Tom Whittingham testified that he served as a TA in his first year of the program. In this capacity, he conducted a two-hour weekly Statistics lab. He was not required to serve as a TA, but if he had not done so, he would not have received funding. Most available RA opportunities were for one semester. George Knox, who seeks a Ph.D. in Marketing, expects to serve as a TA in his second year and will be paid \$3000 in addition to his other funding.

School of Veterinary Medicine

The School of Veterinary Medicine admits about 100 students per year to a program that leads to a doctorate in Veterinary Medicine (VMD). Students are not funded and have no teaching or research obligations.

The School provides employment opportunities for veterinary students through a Nursing Assistant Training Program. The program provides clinical experience for interested students during all four-years of the Veterinary program. Students take a 15-hour training session before they begin and are paid at \$12 to \$13 per hour. Their responsibilities range from managing laundry to administering invasive treatments for patients, and they are never without supervision. The program is entirely voluntary and carries no credit.

There are about three or four combined VMD/Ph.D. degree students, who are eligible for federal funding through the NIH's Medical Scientist Training Program.⁶⁰ Any teaching and research service they perform is determined by their BGS obligations, which include three laboratory rotations and dissertation work. The combined degree program takes twice the time as the VMD, but these students are funded throughout their studies.

School of Dental Medicine

Most of the students in this school seek a Doctor of Dental Medicine (D.M.D.) degree, which requires four years of study. There are also several students with dental degrees from foreign countries who seek dental licensing in the United States, as well as students seeking dual degrees in conjunction with other University programs. The programs involve classroom studies and clinical training.

⁶⁰ The NIH \$16,000 stipend is supplemented to \$20,000 by the University, and the tuition component of \$18,000 is also supplemented.

There are a number of hourly-paid part-time positions at the School of Dental Medicine. About 12 TAs are used annually to help with anatomy laboratories and clinical laboratories. These positions pay \$25 per hour for two to three- hour sessions about twice a week for courses that last up to four months per year. Most students assist with only one course. There are also several computer assistants and tutors who work only a few weeks per year at \$10 per hour. Some students also may serve as research assistants during the summer and school breaks for monthly stipends of \$800 to \$1200. The students are not otherwise funded.

School of Law

The School of Law provides a three-year program leading to a J.D. degree. All students are required to participate in the School's Legal Writing Program, and the school uses three Legal Writing Fellows to assist with this program. The School also uses 18 Instructors, third-year students who teach practical research and writing skills to first-year students, throughout the academic year. Instructors are paid \$1750 and Fellows, who teach just one semester, receive \$875. Instructors and Fellows also receive course credit for their work, but they do not receive a tuition remission or stipend. Fellows and Instructors attend a two-day training session before the start of the semester and meet weekly during the year with one another and the Legal Writing Program Director. Law students do not receive other funding.

Graders and VPUL Staff

Graders are appointed by professors for one semester. Most of them are paid on an hourly basis, and if otherwise funded they are limited to 10 hours per week. A few Graders are paid a lump sum, from \$1000 to \$1500 per semester. Their appointments depend on class size

and budget allocations. Students interested in Grader assignments may be hired through e-mail advertisements or direct contact with professors.

The office of the Vice-Provost for University Life (VPUL) sponsors a wide range of programs and activities for students, including health and counseling programs and community initiatives. Various hourly employment opportunities arise at the University under the auspices of VPUL and are available to undergraduate, graduate, and professional students. During the academic year there are about 20 to 25 graduate students employed through VPUL as tutors, counselors, and alcohol policy monitors, among other part-time positions. A few graduate students on stipend, most of whom attend the Graduate School of Education, perform services through VPUL as part of their funded service activities or as a means of gathering research information. There are about 18 College House resident advisors who receive room and board in lieu of wages, and about six of them earn an additional \$2000 per year for administrative tasks related to resident advisor scheduling. Some of the resident advisors serve for more than one year. Nearly all students who perform VPUL work are hourly-paid. Any students who are otherwise funded while working in VPUL positions do not receive additional hourly pay; their wages are submitted to the sponsoring department to offset against their stipend.

Analysis

Employee Status of the University's TAs

In *New York University (NYU)*, 332 NLRB No. 111 (2000), the Board found that a university's graduate students who served as teaching and research assistants were employees within the meaning of Section 2(3) of the Act. Relying primarily on its earlier decision in *Boston Medical Center Corp.*, 330 NLRB 152 (1999), which held that medical interns and residents at a

hospital were statutory employees, the Board found that graduate students are not in any of the categories exempted from the Act's definition of "employee."⁶¹ The Board found that the graduate students performed their duties as teachers and researchers for and under the control of the university and were compensated for their work. Under these circumstances, the Board concluded that the graduate students' relationship with the university, "was indistinguishable from a traditional master-servant relationship," and they therefore were employees. In three cases following the Board's issuance of *NYU*, regional directors issued decisions finding that graduate students at other universities are employees within the meaning of the Act when serving as teaching and research assistants. *Brown University*,⁶² *Columbia University*⁶³ and *Tufts University*.⁶⁴ The Board has not yet reviewed those decisions.

The University disagrees with the *NYU* decision and contends essentially that the benefits to the graduate students so outweigh the importance of their service to the University that they are not employees. In the University's view, the students' overriding educational objective precludes a finding that they are statutory employees while performing services incidental to this objective. The University characterizes the compensation to TAs and RAs as financial aid rather than wages in exchange for service. The University also argues that permitting the graduate students to engage in collective bargaining would infringe on its academic freedom. The University further contends that its relationship with its graduate students is significantly different from *NYU*'s relationship with its graduate students, and the *NYU* decision therefore does not control this case. In this regard, the University contends that in *NYU*, most of the

⁶¹ *Boston Medical Center*, in turn, relied heavily on the Supreme Court's decision in *NLRB v. Town & Country Electric*, 516 U.S. 85 (1995), in which Court emphasized that the language of Section 2(3) is to be broadly interpreted, consistent with its literal language as well as the purposes of the Act.

⁶² 1-RC-21368 (Nov. 16, 2001).

⁶³ 2-RC-22358 (Feb. 11, 2002).

⁶⁴ 1-RC-21452 (March 29, 2002).

graduate students performed service voluntarily, while at the University teaching and research are integral parts of the students' academic requirements for most of the graduate groups.

Contrary to the University's contentions, the Board's decision in *NYU* compels a finding that the University's graduate student TAs are employees within the meaning of the Act. Similar to *NYU*, the graduate students and the University mutually benefit from the students' service as TAs. On their side, the graduate students receive considerable financial support from the University while acquiring the knowledge and skills necessary to enter teaching professions. In return for its support of the graduate students, the University receives their extensive assistance in teaching and training undergraduates, a service that is critical to the University's mission. The Board's finding in *NYU* that the graduate students were employees was based on the essential master-servant relationship between the parties when the graduate students were performing TA and RA services. The basic nature of the relationship between graduate students and the University is similar to that at NYU in all critical respects, despite differences in the universities' funding systems and service requirements. Thus, the graduate groups at the University determine how many semesters of teaching service are required from students, the times when these services will be performed, and the nature of the assignments. When the graduate students serve as TAs, they do so under the control and supervision of University professors and administrators, who determine what training they receive and retain ultimate authority over the content of courses they teach. The University sets the terms of the compensation, including tuition payments, fee waivers, stipends, and health insurance coverage.

Graduate students' service as TAs is essential to the functioning of the University. Throughout the University, large introductory lecture classes in many disciplines are routinely supplemented by the use of TAs as recitation or laboratory section leaders assistants outside the

classroom. The TAs also hold office hours for students, respond to their e-mail inquiries, and administer and grade their examinations. In courses in which the need for teaching support is particularly compelling, such as introductory Psychology, the graduate groups require the graduate students to teach in order to ensure that the classrooms are sufficiently staffed. In fact, in some departments, including Physics and Astronomy, the demand for TAs is greater than the number of available students in the graduate group, and these groups routinely solicit for TAs outside of the department and pay them for their services. In particular, graduate students are the mainstay of the mandatory undergraduate writing and language programs, in which they often serve as Instructors in stand-alone courses, and the CGS program relies heavily on graduate students, who comprise the largest group of Instructors.

The University maintains control over its TAs' training and teaching. Virtually all graduate groups require specific training programs, which range from the brief SAS August training session for all new TAs to week-long seminars and lengthy pedagogy courses. In the Asian Studies and the Romance Languages groups, for example, there is extensive training for the TAs, while the School of Social Work and the School of Engineering and Applied Science (other than the Mechanical Engineering department), provide minimal training. In any case, it is the University that determines how much training to provide, and it can change the requirements at any time. When TAs serve as assistants for recitation or laboratory sections, they work under the supervision of the professor, who tells them what topics to cover and may observe and evaluate their work. Supervision for the writing seminar TAs in their first year, and for language teachers in their first two years, is particularly extensive. Even when TAs teach stand-alone courses, they must submit their syllabi for review, and they are liable to be observed by a member of the administration while teaching classes.

The Board in *NYU*, citing *Boston Medical Center*, supra, directly refuted the Employer's contention that the educational benefits derived by graduate students for performing service to the University preclude a finding that they are employees. In *Boston Medical Center*, the Board stated, with respect to the hospital's residents and interns:

The advanced training in the specialty the individual receives at the Hospital is not inconsistent with 'employee' status. It complements, indeed enhances, the considerable services the Hospital receives from the house staff, and for which house staff are compensated. That they also obtain educational benefits from their employment does not detract from this fact. Their status as students is not mutually exclusive of a finding that they are employees.⁶⁵

In *NYU*, the Board recognized that graduate students receive considerable educational benefits from serving as teaching and research assistants but found that, like the house staff in *Boston Medical Center*, these educational benefits did not preclude a finding of employee status.⁶⁶

In *NYU*, the Board also rejected the Employer's argument that permitting collective-bargaining rights for graduate students would infringe on academic freedom. In this connection, the Board noted that it has approved units of university faculty members for 30 years and that the fear of infringement turns largely on speculation as to what might become part of an eventual collective-bargaining agreement. The Board expressed confidence that the parties could deal with issues of academic freedom, as with all other issues, through the bargaining process.⁶⁷

The University contends that its TA positions are more integrated into the educational program than at NYU because more departments require teaching as part of the curriculum and give course credit for work as a TA. Teaching requirements, however, are far from universal in

⁶⁵ *Boston Medical Center*, supra, 330 NLRB at 160-161. The Board analogized the hospital's house staff to traditional apprentices who train in their crafts while performing services for their employer and are undoubtedly statutory employees.

⁶⁶ *NYU*, 332 NLRB No. 111, slip op. at 3.

⁶⁷ *NYU*, 332 NLRB No. 111, slip op. at 4.

the University's graduate groups. Some graduate groups expressly require teaching as part of the degree requirements. In other groups teaching is expected but not required, or is required only because of the student's funding package.⁶⁸ Some graduate groups, such as Sociology and Physics and Astronomy, as well as the School of Education, do not require teaching at all, and most of the groups do not give course credit to their students for TA assignments. Additionally, in *NYU*, some of the graduate departments, albeit a minority of them, required students to teach as part of their academic program. While a far higher percentage of the University's graduate students are required to teach than at *NYU*, this factor is not determinative of the graduate students' employee status when they serve as TAs or RAs.⁶⁹

In practice, whether formally required or not, many of the University's graduate students serve as TAs and are compensated for their teaching. Graduate students who were admitted before the standardization of funding in SAS have been RAs or TAs for as many as seven semesters, and while the new funding system has reduced graduate student teaching requirements, most students still may expect to teach for four semesters in their first three years. Some graduate students, such as those in the Biology, may teach for more than four semesters. In other schools, including Engineering and Applied Science, Nursing, and the Annenberg School, graduate students are also likely to perform service for the University, and teaching is required, to varying extents, in some graduate groups. Students often teach for reasons other than to satisfy degree requirements. Thus, in order to support themselves after their funding runs out, many graduate students resume teaching while preparing their dissertations. Others teach to gain experience that will help their careers. Moreover, graduate students' teaching is not always

⁶⁸ Several graduate group Chairs testified that teaching was required but was not listed in the brochures and other printed materials setting forth the program requirements.

coextensive with their course of study. Although most departments take graduate students' areas of academic interest into account when making TA assignments, there are no guarantees that students will be fully accommodated; sometimes student preferences yield to the needs of the University.

Finally, the University contends that it does not assign TA work solely based on its own needs but primarily on the academic needs of the graduate students. The University asserts in this connection that it would be more economically effective to hire adjunct faculty who could teach more courses and receive less compensation than the graduate students. This suggestion, however, is unrealistic because in order to realize these cost savings the University would have to curtail its level of financial support for graduate students, and the University needs to maintain this support and to provide teaching and research opportunities in order to remain attractive to the best students. Moreover, the suggestion that the University would need to hire other employees to provide these services supports the conclusion that the graduate students provide important services to the University and are therefore employees within the meaning of Section 2(3) of the Act.⁷⁰

Employee Status of the University's RAs

The Petitioner contends that the University's RAs are employees within the meaning of the Act, with the exception of the RAs in the Natural Science graduate groups, the School of Engineering and Applied Science, and BGS. The Petitioner asserts that the non-science RAs,⁷¹

⁶⁹ Former Member Hurtgen's concurring opinion, however, strongly emphasized that the NYU graduate students were not required to serve as graduate assistants. He found this fact critical in distinguishing the case from *Boston Medical Center*, supra, a case in which he dissented.

⁷⁰ Therefore, the Employer's contention that the Petitioner is not a labor organization within the meaning of Section 2(5) of the Act is without merit.

⁷¹ The term "non-science RAs" refers to RAs who are not in the Natural Science graduate groups of SAS, the School of Engineering and Applied Science, or BGS.

like the TAs, perform services integral to the University's mission under the direction and control of the University and are compensated for these services. The Petitioner lists RAs in the following SAS groups among its proposed Natural Science exclusions: Biology, Chemistry, Earth and Environmental Studies, Economics, Linguistics, Mathematics, and Physics and Astronomy.

The Employer asserts that none of the RAs are employees, for essentially the same reasons that it contends TAs are not employees. The Employer asserts, however, that if the other RAs are found to be employees, Natural Science, Engineering, and BGS RAs should also be part of the unit. In the Employer's view, the RAs in these groups provide important services to the University under the control of the faculty and cannot be meaningfully distinguished from other RAs.

Non-Science RAs

I find that similar to the TAs, the University's RAs in Humanities and Social Science programs in SAS, as well as RAs in the Annenberg School for Communication, and the Schools of Nursing, Education, Social Work, and Fine Arts, are employees within the meaning of Section 2(3) of the Act because their service benefits the University, they work under the direction of the University's faculty and administration, and they are compensated for their service. Accordingly, as the Board explained in *NYU*, there is a master-servant relationship between the University and these RAs.

The RAs confer significant benefits upon the University. Some of the non-science research is pursuant to outside grants, from which the University derives revenues. Moreover, successful research is helpful to the University's reputation as well as its budget. Although

supervised by PIs, graduate student RAs play a critical role in completing this research, performing much of the hands-on work. They do not, however, work independently; faculty PIs are ultimately in charge of the research and they direct the RAs' work. In the non-science groups, the RAs are not performing research solely to advance their personal educational objectives, as compensated research work is generally not coextensive with the students' dissertations.

Natural Science RAs

In *Leland Stanford Junior University (Stanford)*, 214 NLRB 621 (1974), the Board found that graduate students in a petitioned-for unit of RAs in the university's Physics department were not employees.⁷² Rather, the Board found that they were students seeking to advance their own academic training by performing research on their chosen projects and that the relationship between the RAs and Stanford was not grounded on the performance of tasks that were designated and controlled by the employer. In *NYU*, the Board, relying on *Stanford*, excluded from the unit various Natural Science and biomedical science RAs funded by external grants, finding that the evidence failed to establish that they performed a service for the university.⁷³

At the University of Pennsylvania, RAs in the Natural Science programs, in many important respects, are similar to the other RAs who perform services for the University. The University derives substantial financial benefits from the RAs' work, and its reputation is enhanced by their research. In fact, the University obtains \$660 million annually in funded research grants, almost \$300 million in BGS programs alone. The University also earns

⁷² The petitioner did not seek to include any other employees in the unit.

⁷³ 332 NLRB No. 111 (2000), slip. op. at 4, fn. 10. In *Brown*, supra, the regional director followed these Board decisions and excluded RAs in the physical and life sciences. In *Columbia* and *Tufts*, however, all research

considerable revenue from patents on revenue-producing inventions developed from its scientific research. Indeed, the University is one of the nation's leading research institutions. Similar to the other RAs, the Natural Sciences RAs perform work under the direction of the PIs, and they are compensated for their research services. No party disputes that they provide the core of research groups and that the quality of their work is critical to the success of the projects. Although much of the research work in these fields is useful for the graduate students' dissertations, this is not invariably the case, because if the research proves fruitless, it will not be used for the dissertation. In these circumstances, it is difficult to accept the proposition that RAs perform research solely for themselves and do not provide service to the University.

Moreover, there is no clear demarcation between Natural Science RAs' research work and the work of the non-science RAs. As a result of shifting academic trends, the line between natural science and social science methodology is becoming increasingly blurred. Social Science research is sometimes funded by outside grants, while Natural Science research projects are not always funded. For example, a new Molecular Anthropology program is being developed using a Natural Science model, and in the Demography group, RAs regularly participate in research projects that are funded by outside grants. Conversely, in Biology, the Ecology and Evolution program receives few if any outside grants to fund RAs. While Natural Science RAs are more likely to perform research that is coextensive with their dissertation work, this is not invariably the situation. Thus, for example, RAs in Earth and Environmental Science perform grant-related tasks that are for not for purposes of their dissertations, while Demography and Social Work RAs perform extensive research that directly relates to their dissertations.⁷⁴ The Petitioner's

assistants were included in the units. In those cases, the regional directors found that the research assistants performed services for the universities.

⁷⁴ See also *NYU*, slip. op. at 16, fn. 51, where the regional director found RAs in Psychology and Economics, among others, who had stipends funded by faculty research grants, to be employees. She found that these RAs were

contention that the Economics and Linguistics graduate groups should be treated as Natural Science groups also highlights the difficulty in distinguishing between RAs in the two groups. Although these departments have traditionally been grouped with Humanities and Social Sciences, they are increasingly relying on Natural Science methodologies.

However, while I would otherwise agree with the University's contention that Natural Science RAs should be treated the same way as other RAs, I am compelled to follow Board precedent, and as to this issue, this case cannot be meaningfully distinguished from *Stanford* and *NYU*. Therefore, pursuant to those decisions, I find that the Natural Sciences TAs in SAS, the School of Engineering, and BGS, are not employees within the meaning of the Act, and I shall exclude them from the unit.

I shall not exclude the Economics and Linguistics graduate students from the unit, however. Although these disciplines are increasingly relying on scientific methodologies, the record does not provide a sufficient basis for removing them from their traditional Social Science and Humanities classification,⁷⁵ and to do so would disenfranchise the RAs in these groups.

The Employer's Contention That TAs and RAs are Temporary Employees

The Employer contends that even if the TAs and RAs are found to be employees within the meaning of the Act, they are ineligible as temporary or casual employees because their service to the University is of finite duration. In this regard, the Employer asserts that although the doctoral program may last for four to seven years, in most instances TAs and RAs serve for

assigned specific tasks and worked under the direction and control of the faculty members, in contrast to the Natural Science RAs who were working exclusively on their own dissertations.

⁷⁵ Thus, in Economics, not all research projects directly relate to the students' dissertations. The Linguistics group has only a single regular RA, who helps to maintain the Phonetics laboratory.

no more than two consecutive years and take a one or two year hiatus before providing additional TA or RA service.

The Board has previously considered and rejected the same basic argument. In *Boston Medical Center*, the Board stated that:

[T]he Board has never applied the term ‘temporary’ to employees whose employment, albeit of finite duration, might last from 3 to 7 or more years, and we will not do so here. In many employment relationships, an employee may have a set tenure and, in that sense, may not have an indefinite departure date. Athletes who have 1, 2, or greater years’ length employment contracts are, theoretically at least, employed for a limited time, unless their contracts are renewed; work at a legal aid office may be for a set 2-year period; a teaching assignment similarly may be on a contract basis. To extend the definition of ‘temporary employee’ to such situations, however, would be to make what was intended to be a limited exception swallow the whole.⁷⁶

In *NYU*, the Board adopted the regional director’s finding that graduate students were employees, although they averaged three years of service and some graduate students served for less than that amount of time.⁷⁷

I find that the University’s graduate students serve sufficient time in their TA and RA positions to bring them beyond temporary or casual status. In SAS, graduate students typically have service obligations in the second and third years of the program, and, following a hiatus, they are likely to serve as TAs or RAs after the conclusion of their funded years.⁷⁸ The vast majority of SAS TAs and RAs are pursuing doctoral degrees, which commonly take more than four or five years, and they have a reasonable expectation of performing more than two years of service, although their service may not be continuous. In other schools, the practices are more

⁷⁶ *Boston Medical Center*, supra, slip op. at 15.

⁷⁷ *NYU*, slip op. at 11. In *Brown*, supra, and *Tufts*, supra, the regional directors considered and rejected similar contentions that graduate students were temporary employees. Indeed, in *Tufts*, the regional director included employees who performed service for the university for as little as one semester.

⁷⁸ While the majority of graduate groups apply the new funding model, some groups, including Biology, Mathematics, and Economics, have their own systems.

varied, but the graduate students usually serve as TAs and/or RAs for more than a year.⁷⁹ The graduate students who work as TAs or Instructors in the various writing programs or CGS courses usually serve for one course at a time, but they can expect to be offered additional opportunities after they complete the first course.⁸⁰ Thus, although their employment is not always continuous, most of the graduate students fall well within the parameters set forth in *Boston Medical Center*. I therefore find that the University's TAs and RAs are not temporary or casual employees and that they are eligible voters.

Graders, VPUL Staff, and Other Hourly Employees

If the TAs and RAs are found to be eligible employees, the Employer would include the hourly-paid Graders, other hourly-paid employees, and VPUL staff in the unit on the ground that they perform services comparable to the services performed by unit employees. The Petitioner would exclude them as temporary or casual employees.

In *NYU*, the regional director excluded graders and tutors whose employment lasted from one week to one semester, finding that their employment was sporadic and irregular. She noted that their assignments were relatively brief, for finite periods of time, and there was no evidence that they could anticipate receiving additional assignments. The Board did not disturb the regional director's finding.

⁷⁹ In the School of Social Work, students needing financial support after their three years of funding expire often support themselves by serving as TAs or RAs for their remaining year or two. In the Graduate School of Education, most of the funding programs require students to serve as RAs throughout their course of study. In the Annenberg School, students are required to serve as TAs or RAs for their entire program in order to be funded. In the School of Fine Arts, students often serve as TAs or RAs in order to receive financial aid. In the School of Nursing, graduate students are required to perform two semesters of TA and RA service and encouraged to perform additional semesters.

⁸⁰ Thus, student witnesses Cleffi (Art and Archaeology), Schoolman (English), Lutz (Germanic Languages and Literature), and Dodds (Political Science) each taught multiple courses in these programs.

The hourly-paid Graders, other hourly employees, and most of the VPUL staff at the University are employed on essentially the same terms as the tutors and graders at NYU. They work for relatively small increments of time, without an expectation of continuing in these positions on a recurring basis. For the most part, they are employed for only one assignment or one semester. Unlike TAs and RAs, they do not have program requirements or funding commitments that are satisfied by these temporary positions.⁸¹ Accordingly, I find that the University's hourly-paid Graders and most of the VPUL staff are temporary or casual employees, and I shall exclude them from the unit.

Students in Professional Schools

The Petitioner would exclude students from the School of Dental Medicine, the Law School, the Wharton School,⁸² the School of Veterinary Medicine, and the School of Medicine (with the exception of BGS TAs),⁸³ who serve in various capacities on the ground that they are temporary or casual employees and because they do not share a community of interest with the doctoral candidates.⁸⁴ The Employer would include in the unit any students in those schools who provide services similar to those performed by TAs and RAs in the other schools, including

⁸¹ The fully funded RAs who are assigned through their graduate groups to do research projects involving VPUL-sponsored activities are employees by virtue of their status as RAs, not because the data they are collecting comes from VPUL. The Graders on stipend are also included in the unit.

The College House resident advisors may serve for more than one year. Even if they are not temporary employees, however, they are excluded on community of interest grounds because their responsibilities are not related to academics and unlike TAs and RAs, they are paid with free room and board.

The consultants at the Writing Center, who work on an hourly basis for three to six hours per week for one semester, are excluded.

⁸² The Petitioner would include the 35-40 Wharton School Ph.D. students, but not the approximately 850 MBA students.

⁸³ The record does not indicate that any students in the School of Medicine serve as TAs or RAs, other than those discussed in connection with the BGS program.

⁸⁴ The Petitioner does not seek to exclude graduate students in the Annenberg School of Communications, School of Social Work, Graduate School of Fine Arts, or School of Nursing. The Petitioner would also include TAs, but not RAs, in the School of Engineering and Applied Science and the BGS program.

dental school tutors, hourly-paid laboratory and animal hospital assistants, and Legal Writing Fellows and Instructors.

For the reasons set forth above concerning Graders and VPUL staff, I shall exclude as temporary employees the students seeking professional degrees who hold various types of positions. The vast majority of these positions are hourly-paid and of short duration. Thus, in the School of Veterinary Medicine, the only available position is an hourly-paid job through the Nursing Assistant Training Program. In the Dental School, students serve as hourly-paid laboratory assistants for a few hours a week for less than a semester. Only students in the Law School and MBA students in the Wharton School serve for as much as two semesters, and they graduate at the end of their second semester of service and have no opportunity to extend their terms of employment. Accordingly, the professional school students are excluded as temporary employees.

I further find that the professional employees do not share a community of interest with the doctoral and Masters degree students. In examining community of interest, the Board examines such factors as mutuality of interest in wages, hours, and other working conditions; commonality of supervision; degree of skill and common functions; frequency of contact and interchange with other employees; and functional integration. *Ore-Ida Foods, Inc.*, 313 NLRB 1016 (1994), *enfd.* 66 F. 3d 328 (7th Cir. 1995). It is well settled that the unit need only be *an* appropriate unit, not the most appropriate unit. *Morand Brothers Beverage Co.*, 91 NLRB 409, 419 (1950), *enfd.* on other grounds, 190 F.2d 576 (2d Cir. 1951).

The Petitioner does not seek to include students in the professional schools in the unit, and these individuals do not share a significant community of interest with the doctoral and Masters students. Their degree requirements are markedly different than for doctoral students,

and unlike them, they do not receive fellowships or other funding packages. Other than Wharton, the professional schools do not confer doctoral degrees, and the students do not need to write a dissertation or thesis in order to complete their programs. Rather than seek Ph.D.s or Masters degrees, the students' objective is to become practitioners in their fields. They are generally paid on an hourly basis, rather than by stipend or salary. The professional schools are self-contained, and there is little evidence that their students interact with students from the doctoral programs.⁸⁵ Accordingly, I find that they lack a community of interest with the doctoral and Masters students.

Voter Eligibility

As previously noted, the University's graduate students do not always perform all of their service work on a continuous basis. Rather, many of these students serve as TAs or RAs in some semesters and at other times fully devote themselves to their course work and dissertations. Accordingly, there is an issue concerning the eligibility of graduate students who are not currently serving as TAs or RAs but have previously performed such service or anticipate doing so in the future.

The Petitioner has proposed an eligibility formula whereby, in addition to those graduate students currently performing service, TAs and/or RAs who have served at least two semesters, but are not currently engaged in service, would be eligible to vote. The Employer contends that the Board should not impose a different eligibility formula in this case, but that the standard eligibility rules should apply, i.e., only those graduate students serving in included categories during the payroll period immediately preceding issuance of this Decision and Direction of

⁸⁵ Although Wharton Ph.D. students may interact with Wharton MBA students at times, this interaction is an exception.

Election and at the time of the election should be eligible. The Employer further contends that students expecting to graduate at the conclusion of their current TA or RA service should be found ineligible as temporary employees. The eligibility issue was not raised in *Boston Medical Center*, supra, or *NYU*, supra, because in those cases, the students' service to their institutions was continuous. The Board in both cases applied the standard eligibility formula.⁸⁶

I find no convincing basis to depart from the Board's traditional eligibility rules. There is insufficient evidence to show that a failure to use the Petitioner's proposed formula will inappropriately disenfranchise any employee, and use of such a formula could improperly permit voting by some graduate students who performed service work in the past but are unlikely to do so again.⁸⁷ Accordingly, I shall apply the Board's traditional formula, and I find that the following individuals constitute a unit appropriate for collective bargaining within the meaning of Section 9(b) of the Act:

Included: All graduate students enrolled in Ph.D. or Masters⁸⁸ degree programs who are employed by the Employer as full-time or regular-part-time Teaching Assistants, Teaching Fellows, Instructors,⁸⁹ Lecturers, and Graders,⁹⁰ in the School of Arts and Sciences, the School of Engineering and Applied Science, the School of Social Work, the Annenberg School for Communication, the Graduate School of Fine Arts, the Graduate School of

⁸⁶ In *Tufts*, supra, the regional director considered using an eligibility formula similar to that proposed by the Petitioner, but decided against it. In *Brown and Columbia*, the regional directors applied the Board's traditional eligibility formula without discussion.

⁸⁷ Contrary to the Petitioner, *The Catholic University of America*, 202 NLRB 727 (1973), and *C.W. Post Center of Long Island University*, 198 NLRB 453 (1972), in which the Board applied unique eligibility formulas, are not controlling. Those cases involved the eligibility status of adjunct professors, who had long-term continuing relationships with the universities. In *C.W. Post*, the Board found that the adjuncts were often reemployed annually contingent on the availability of work.

⁸⁸ While the petition seeks only "Research Masters" students, I see no basis for excluding other Masters students who serve as TAs or RAs and otherwise meet the criteria set forth in this Decision. For example, Masters degree students serving as TAs in the School of Fine Arts should be included in the unit as they are employed on the same terms as the Ph.D. TAs in that school.

⁸⁹ The term "Instructors" includes teachers of stand-alone courses, including Chimicles Fellows and CGS course teachers.

⁹⁰ The included Graders are the graduate students receiving stipends for serving in this capacity, not the graders paid on an hourly or lump sum basis.

Education, the School of Nursing,⁹¹ the Biomedical Graduate Studies program, and doctoral students in the Wharton School; and Research Assistants and Research Fellows in the non-science graduate groups in the School of Arts and Science (Ancient History, Anthropology, Art and Archaeology in the Mediterranean World, Asian and Middle Eastern Studies, Classical Studies, Comparative Literature and Literary Theory, Criminology, Demography, Economics, English, Folklore and Folklife, Germanic Languages and Literature, History, History of Art, History and Sociology of Science, Linguistics, Music, Philosophy, Political Science, Psychology, Religious Studies, Romance Languages, Sociology, and South Asia Regional Studies), the School of Social Work, the Annenberg School for Communication, the Graduate School of Fine Arts, the Graduate School of Education, and the School of Nursing.⁹²

Excluded: All other employees; graduate students in the School of Medicine (other than students in the Biomedical Graduate Studies program), School of Veterinary Medicine, School of Dental Medicine, Wharton School (except for doctoral students serving as Teaching Assistants), and the School of Law; Research Assistants and Research Fellows in the Natural Science graduate groups in the School of Arts and Science (Biology, Chemistry, Earth and Environmental Science, Mathematics, and Physics and Astronomy), the School of Engineering and Applied Science, and the Biomedical Graduate Studies program; hourly-paid graders, Vice-Provost for University Life staff members; other hourly employees; adjunct, visiting and regular faculty members; undergraduate students; post-doctoral fellows; guards; and supervisors as defined in the Act.

DIRECTION OF ELECTION

An election by secret ballot shall be conducted by the undersigned among the employees in the unit found appropriate at the time and place set forth in the notice of election to be issued subsequently,⁹³ subject to the Board's Rules and Regulations. Eligible to vote are those in the

⁹¹ Students in the School of Nursing serving teaching or research residencies (unless they are simultaneously serving as TAs or RAs) are not included in the unit. These positions are not sought by the petition and they are limited to one semester.

⁹² The petition lists "Administrative Assistants" among the proposed inclusions. The record shows, however, that the only graduate students who hold this title also serve as TAs and RAs, such as those who help administer the Political Science department's Washington Exchange Program and the English department's London program. As these individuals are already included in the unit, I shall not include the category of Administrative Assistants.

⁹³ Your attention is directed of Section 103.20 of the Board's Rules and Regulations, a copy of which is enclosed. Section 103.20 provides that the Employer must post the Board's official Notice of Election at least three full working days before the election, excluding Saturdays and Sundays and that its failure to do so shall be grounds for setting aside the election whenever proper and timely objections are filed.

unit who were employed during the payroll period ending immediately preceding the date of this Decision⁹⁴, including employees who did not work during that period because they were ill, on vacation, or temporarily laid off. Employees engaged in any economic strike, who have retained their status as strikers and who have not been permanently replaced are also eligible to vote. In addition, in an economic strike which commenced less than 12 months before the election date, employees engaged in such strike who have retained their status as strikers but who have been permanently replaced, as well as their replacements are eligible to vote. Those in the military services of the United States may vote if they appear in person at the polls. Ineligible to vote are employees who have quit or been discharged for cause since the designated payroll period, employees engaged in a strike who have been discharged for cause since the commencement thereof and who have not been rehired or reinstated before the election date, and employees engaged in an economic strike which commenced more than 12 months before the election date and who have been permanently replaced. Those eligible shall vote whether or not they desire to be represented for collective bargaining purposes by

GRADUATE EMPLOYEES TOGETHER – UNIVERSITY OF PENNSYLVANIA.

LIST OF VOTERS

In order to assure that all eligible voters may have the opportunity to be informed of the issues in the exercise of their statutory right to vote, all parties to the election should have access to a list of voters and their addresses which may be used to communicate with them. *Excelsior Underwear, Inc.*, 156 NLRB 1236 (1966); *NLRB v. Wyman–Gordon Company*, 394 U.S. 759 (1969). Accordingly, it is hereby directed that an election eligibility list, containing the **full** names and addresses of all the eligible voters, must be filed by the Employer with the Regional Director for Region Four within 7 days of the date of this Decision and Direction of Election. *North Macon Health Care Facility*, 315 NLRB 359, 361 (1994). The list must be of sufficiently large type to be clearly legible. I shall, in turn, make the list available to all parties to the election. In order to be timely filed, such list must be received in the Regional Office, 615 Chestnut Street, Seventh Floor, Philadelphia, Pennsylvania 19106, on or before **November 29, 2002**. No extension of time to file this list may be granted except in extraordinary circumstances, nor shall the filing of a request for review operate to stay the requirement of such list. Failure to comply with this requirement shall be grounds for setting aside the election whenever proper objections are filed. The list may be submitted by facsimile transmission. Since the list is to be made available to all parties to the election, please furnish a total of **3 copies**, unless the list is submitted by facsimile, in which case no copies need be submitted. To speed preliminary checking and the voting process itself, the names should be alphabetized (overall, or by department, etc.). If you have any questions, please contact the Regional Office.

⁹⁴ I recognize that the use of this eligibility date may present an unusual issue because fall term classes end on Monday, December 9, 2002, prior to the conduct of the election in this matter, and spring term classes do not begin until Monday, January 13, 2003. With the beginning of the new term, the Employer may hire additional TAs and RAs who would not be eligible to vote in the event the traditional payroll eligibility date is utilized. The NLRB Casehandling Manual, (Part Two) Representation Proceedings Sec. 11312.1, provides that the Regional Director may use a date other than the payroll period ending before the Direction of Election in unusual circumstances. In view of the foregoing, I invite the parties to submit, within 7 days, statements of their position as to whether a modification of the eligibility date is warranted in this matter.

RIGHT TO REQUEST REVIEW

Under the provisions of Section ten2.67 of the Board's Rules and Regulations, a request for review of this Decision may be filed with the National Labor Relations Board, addressed to the Executive Secretary, Franklin Court, 1099 14th Street, N.W., Room 11613, Washington, D.C. 20570. This request must be received by the Board in Washington by **December 5, 2002**.

Signed: November 21, 2002

at Philadelphia, PA

/s/

DOROTHY L. MOORE-DUNCAN
Regional Director, Region Four

177-3925-4000
362-6730-0000
362-6736-0000
460-5067-7000