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WORKERS INTERNATIONAL UNION *
AFL-CIO CLC, *
Petitioner *No.: PERA-R-17-355-W
~vs~ *
UNIVERSITY OF PITTSBURGH, *
Respondent *

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HEARING TRANSCRIPT

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BEFORE: STEPHEN A. HELMERICH, Hearing Examiner

HEARING: Tuesday, October 30, 2018
9:21 a.m.

LOCATION: Hilton Garden Inn
Pittsburgh University Place
3454 Forbes Avenue
Pittsburgh, PA 15213

Reporter: Kaylyn Shaffer

WITNESSES: David Swigon, Ph.D.
Maria Mori Brooks, Ph.D.
Paul Foreancig, Ph.D.

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I N D E X

I N D E X (cont.)

E X H I B I T S

Petitioner's Exhibits:

Number	Description	Page Identified	Page Admitted
242	Webpage Printout	1519	1520
243	Letter for Appointment of Teaching Fellow	1589	1593
244	Appointment Letter for GSRs	1592	1593
245	Public Health Home Page	1604	1606
246	Graduate Student Handbook	1627	1639

Respondent's Exhibits:

Number	Description	Page Identified	Page Admitted
96	Publication	1501	1607
97	Thesis	1501	1607
98	Progress Letter	1513	1607
99	Document	1544	1607

EXHIBITS NOT ATTACHED

E X H I B I T S (cont.)

Respondent's Exhibits:

Number	Description	Page Identified	Page Admitted
100	Document	1544	1607
101	Document	1544	1607
102	Document	1551	1607
103	Document	1555	1607
104	Document	1555	1607
105	Individual Development Plan	1558	1607
106	Published Paper	1619	1640
107	Dissertation Pages	1619	1640

EXHIBITS NOT ATTACHED

P R O C E E D I N G S

HEARING EXAMINER: We are back on the record in day six of PERA-R-17-355-W. Why don't we introduce the counsel for the petitioning union?

ATTORNEY HEALEY: Michael Healey of Healey, Block & Hornack in Pittsburgh, PA.

ATTORNEY MANZOLILLO: Brad Manzolillo, United Steelworkers.

ATTORNEY SHARMA: Maneesh Sharma, United Steelworkers.

ATTORNEY KILBERT: Nathan Kilbert, United Steelworkers.

HEARING EXAMINER: And counsel for the Respondent, University?

ATTORNEY FARMER: Shannon Farmer, of Ballard Spahr, Philadelphia, PA.

ATTORNEY DANTE: Meredith Dante, Ballard Spahr, Philadelphia, Pennsylvania.

ATTORNEY CORLEONE: Gianni Corleone, Ballard Spahr, Cherry Hill, New Jersey.

HEARING EXAMINER: Any preliminary issues that you'd like to bring to my attention?

ATTORNEY FARMER: None for us.

HEARING EXAMINER: I still have an

outstanding motion to quash certain evidence or subpoena requests for some disciplinary and health records.

Does the Union have anything they want to add or say about that outstanding motion to quash at this time? Have you gotten sufficient information from - via the witnesses? Or do you - what do you have as to the motion to quash?

ATTORNEY HEALEY: Can we talk it over in a break?

HEARING EXAMINER: That's fine.

ATTORNEY HEALEY: Okay.

HEARING EXAMINER: Do you have anything to add to your motion to quash at this time or will you address it as the week goes on?

ATTORNEY FARMER: Yeah. That's fine.

HEARING EXAMINER: All right.

We are on the Defense case in chief. Where are we at?

ATTORNEY FARMER: It's our case.

HEARING EXAMINER: All right. You're in Defense. Okay. Raise your right hand for me.

DAVID SWIGON, PH.D.,

CALLED AS A WITNESS IN THE FOLLOWING PROCEEDING, AND

HAVING FIRST BEEN DULY SWORN, TESTIFIED AND SAID AS FOLLOWS:

HEARING EXAMINER: Spell your name for us.

THE WITNESS: My name is David Swigon, S-W-I-G-O-N.

HEARING EXAMINER: Okay.

Your witness, then.

ATTORNEY DANTE: Thank you.

DIRECT EXAMINATION

BY ATTORNEY DANTE:

Q. Dr. Swigon, where are you currently employed?

A. I'm employed by the University of Pittsburgh.

Q. In what capacity are you employed by the University?

A. I am a Graduate Director in the Mathematics Department.

Q. Do you - are you also appointed as a professor?

A. Yes.

I am an associate professor in that same department.

Q. How long have you been the Director of Graduate Studies?

A. For the past six years. This is my sixth year.

Q. What are your responsibilities as a DGS?

A. As a Director of Graduate Studies, I oversee the progress of our graduate students.

Q. In which school is the Department of Mathematics housed?

A. It's in the Dietrich School of Arts and Sciences.

Q. Can you tell us -?

HEARING EXAMINER: Dietrich?

THE WITNESS: Dietrich.

BY ATTORNEY DANTE:

Q. Can you tell us just briefly about your educational background?

A. Yes.

I got my undergraduate degree in Charleston University and Prague. And then PhD and Master degrees in - at Rutgers University.

Q. Let's talk a bit about graduate education in the Department of Mathematics.

What types of graduate degrees are offered in your department?

A. We offer a PhD degree, Bachelor degree and Master degrees. Two types of Master's degrees. Master's of Arts and Master's of Science.

Q. Approximately how many PhD students do you have in the department?

A. Last year we had 79 graduate students.

Q. What is the purpose of having a PhD program in math?

A. The purpose of a PhD degree is for the student to be - to develop into an expert in the field. So the requirements are effectively that the student is able to - has a deep knowledge of a particular field.

In mathematics, that he is able to identify and research questions, open questions, at the cutting edge of the field. That he is able to address those questions in the research.

And that the student is able to present those answers and solutions to a wide audience, through written and oral presentations.

Q. When students enter the PhD program, do they have some of the skills and knowledge that you just described to be an independent researcher?

A. They may have some of the skills in some capacity, but they're not sufficient for them to do independent research. I mean, they generally mathematically lack the background in the area.

They don't have sufficient communications skills. And also they rarely have any written records of papers and publications of some sort.

Q. Do students - PhD students in the department receive funding?

A. Yes.

I mean, all our PhD students get guaranteed funding for five years in the program, as long as they stay on track. We call it satisfactory progress in getting their degree.

Q. Can students have different types of appointments over the course of their graduate studies?

A. They can and they generally do.

Q. And can that appointment change from year to year?

A. Yes.

Q. At a high level, what are the general core components of a PhD curriculum in math?

A. The core components, in terms of - of course they have to perform and they have to learn.

And then there's research they have to do. Complete their dissertation. And then there's a teaching requirement that we have. You know, for them to learn how to communicate with students and also with FTAs.

Q. Let's talk a little bit about research.

So you mentioned that one of the components is research. Is a student able to earn a PhD without conducting research?

A. No, that's impossible.

Q. Okay.

Is the research sometimes performed on an externally-funded granted?

A. Yes, yes.

Our type of PA grants coming from various external sources, NSF, NIH, DOD, various funding agencies. And through those grants they support students.

Q. Do students - can students perform research while on a fellowship as well?

A. Yes, yes. There is a fellowship that they can receive that's awarded by the - by the school.

Q. Do students earn academic credit for performing research regardless of the funding

source?

A. Yes.

I mean, when they - when they pass the comprehensive exam, they can enroll in what's called a thesis PhD credit course. And then they accumulate credits towards that - that degree, for research.

Q. And are those research credits needed to graduates?

A. Yes.

They need 72 credits total -.

HEARING EXAMINER: Do you know what course number that is?

THE WITNESS: I don't know. I think it's -.

ATTORNEY DANTE: 3000.

THE WITNESS: 3000?

BY ATTORNEY DANTE:

Q. Does that sound right?

A. Yes.

Q. For a thesis PhD?

HEARING EXAMINER: We'll see - we'll figure it out. Go ahead.

BY ATTORNEY DANTE:

Q. How - how do students go about conducting

the research for their degree?

A. Well, generally they start by choosing a research advisor. Then they discuss with the advisor the area that they are invested in.

They would pick the advisor based on the area they are invested in, which they usually get from their coursework. And then upon discussing with the advisor, they would take an area of more - more focused area.

They then - the advisor usually helps them to formulate a research question. And then they would advance that research.

You know, the advisor would point them towards particular papers or books they would need to read. And perhaps sometimes even opinions on how or suggestions on how the problem could be solved.

In mathematics it's usually an unanswered question they have to solve or a problem they have to find the solution to.

Q. Do - do mentors and advisors provide other kinds of opportunities for their students?

A. Well, besides guiding them in research, they help them with the networking. They introduce them to other faculty from other departments and other researchers in the field.

They also guide them in their presentation skills. They can help them, for example, rehearse their presentation. They can help them edit or look over their papers the students are writing and - and those sort of things.

Q. Why are those opportunities important for students?

A. Because, as I said in the beginning, the students are not ready to - or they cannot - they are not experts in the field when they enter the studies. So the faculty and then the whole program is designed to give them all the necessary skills.

Q. Have you been an advisor to PhD students?

A. Yeah.

I've advised, I believe, eight students.

Q. Can you describe a little bit what that relationship is like?

A. Well, it depends, you know. Each student - the relationship with each student is individual. So they - they can come to me in the beginning of their studies.

For example, during the second year it's common. Or some students approach me during their third year.

Some of the students have a better idea

about what they want to do in their research. Other students need more guidance.

And then they - and then I try to help them with formulating their - you know, showing them what the questions are.

You know, I usually go over the different areas of my research. I work in about four different distinct fields of mathematics that I show them through my presentations of what's interesting and what's out there. And then they pick from there. And then I help them - help them get started.

Some of them - depending on what the student lacks. Some of them are strong in mathematical but lack computational skills. Other students may have the opposite situation.

So - so I guide them through whatever they need. And then the - I help them to go through the program. They have to pass the preliminary exam and comprehensive exams.

And then I try keep them on track. I mean, there are nonexpert things that as an advisor you have to keep track. For example, you know, for the student being on time with their - with their assignments.

So I mean, we try to have them finished by the - by their fifth year in the program. So in order for them to do that, they have to progress through their milestones in a particular timing to be maintained.

Q. Are students encouraged to publish their research?

A. Yes.

I mean, it's more or less understood that the students are aware that if they want to find jobs, you know, their résumé won't look good unless they publish research based on - unless they publish papers based on their research.

Now, how many publications they have by the end of their graduation depends on the field.

So in some fields like Applied Mathematics or Mathematical Biology, they publish more papers, sometimes three or four.

In other fields, like Algebra, the background is difficult to acquire and the research is complex. So sometimes they publish after their degree, based on whatever the topics of their research is.

But we - we try -. It's not a stated appointment in their - in the - we have spelled out

appointments on our page as to what they need for a degree. The publications are not one of them. But it's understood in the field that for their future careers, it's best if they publish.

Q. Why is that?

A. Well, because that's what a fact of - that's what the hiring committees are looking at when they're hiring people for jobs, you know?

It's an evidence - it's evidence that they are able to present results of their work in a clear and succinct manner that's acceptable to peer reviews.

Q. Can the publications that students publish during the course of their program end up in their dissertation?

A. Yeah.

I mean, that's normally the case.

(Whereupon, Respondent's Exhibit 96, Publication, was marked for identification.)

(Whereupon, Respondent's Exhibit 97, Thesis, was marked for identification.)

BY ATTORNEY DANTE:

Q. Dr. Swigon, I'm going to show you what

I've marked as R-96 and R-97.

A. Okay.

Q. If you'd take a look at R-96.

Do you recognize that document?

A. Yes, yes. This is a paper published by one of our former graduate students. It's coauthored - it's coauthored with his research advisor.

Q. And how long, generally speaking, does the research take to - to formulate a publication like this?

A. Well, it generally takes several years. Usually two - two to three years. And then multiple projects, the students work on the same things.

Q. Does the student stop or start research based on what their funding source is?

A. No, no.

I mean, the students are expected to start research in their second year. And I mean regardless of their support.

This particular student was funded by a teaching assistant during his first year and then reassigned in the second and third year.

And then he went back to teaching - teaching fellowship in his fourth year and fifth

year.

Q. And throughout that time, was the student conducting research -?

A. He was conducting research on this project.

Q. And if we take a look at R-97, do you recognize that document?

A. Yes.

That's a thesis - Doctoral thesis of the student.

Q. And did R-96 make it in as a chapter to the student's dissertation in R-97?

A. Yes.

In fact, the first chapter of this dissertation.

Q. And is this comment, what you just described, where students performed research on appointments, and that leads to publications that are ultimately incorporated into a dissertation?

A. It's - it's very common.

I mean, the only exception would be when a student doesn't research in their first or second year and maybe they decide to switch directions. They find new advisors.

And in that case with the new advisor,

there'd be new direction to that PhD. But I mean the paper still is valuable, in looking through this case and their publication record.

Q. Is the research performed by a student on a GSR separate from that performed by a students towards his or her dissertation or degree?

A. No.

I mean, that would be very unlikely in our department. The students keep their research advisors based on the area they're interested in.

And the advisors are under those areas. So it's natural that the project they'd be working on would be in the same direction.

Q. And students are conducting research regardless of their funding source?

A. Yes.

I mean, the funding source is a means of providing the students with ways to support themselves, so they don't have to find any outside jobs outside of the University.

Q. Okay.

A. I mean, we don't want them to have any - have any financial problems while they're working on their PhD.

It's a common practice in all the

universities nowadays to provide guaranteed funding to all the students - all the PhD students.

Q. If I were to come into your office and observe you and a student conducting research, would I be able to tell how that student was funded?

A. Not during our research.

Q. That student could be funded on the fellowship?

A. Yes.

Q. Funded on a grant?

A. On a teaching assistant's employer grant. I mean, that's - it doesn't come up during the research.

Q. Let's talk a little bit about teaching I think you mentioned at the beginning. Does the - do PhD students in the Department of Mathematics have an academic teaching requirement?

A. Yes.

They're required to teach I think two semesters.

Q. And do your students satisfy the academic teaching requirement by being on a TA appointment?

A. Of course.

Q. What is the purpose of having graduate students teach?

A. Well, more than half of our graduate students will eventually find jobs in academia, the research-type universities or colleges, four-year colleges, some of them even high schools. So I mean teaching is a natural component of their job, future jobs.

So we want to provide them training. But besides that, even for people who do not end up in academia, they need the communication skills. They need to be able to address audiences of people. They need to be able to speak to experts in the field.

There is also another issue. Many of our students are international students. And they don't have the necessary language skills that we would like them to have when they enter a workforce.

So teaching - teaching is a good opportunity for them to practice those language skills. They listen to students asking questions and responding to them appropriately.

Q. Before students enter the classroom, does the department do anything to help prepare them?

A. Yes. We have introductory teaching orientation, where the students are familiarized with our system and with our coursework. And that's

during - before the first semester in the program.

And then we have a teaching orientation course, Math 2020. No. It was a different number. It's called teaching and orientation. It's one course they're required to take during their first year they are teaching.

So they're on a fellowship course that first year they would take when they start teaching. And they are doing their orientation course. They basically practice various components of teaching.

And they talk about responsible behavior in the classroom and how to handle students, questions and various other things and effective teaching methods, pretty much.

Q. But while the students are teaching, do they receive any mentoring?

A. They receive mentoring based on - for example, if they do recitations or grading they're always assigned to work with a faculty lecturer. So they're being trained by the faculty lecturer.

It's a common practice that the lecturer visits the teaching recitation, for example, of a student and provide them with feedback.

And also have a TA mentor. That's a senior graduate student who goes to - who attends

the recitations of our beginning TAs and he gives them - and they give them hints and guidance as to, you know, how to do - how to teach effectively.

Q. As the Director of Graduate Studies, do you ask students for their preferences when it comes to teaching assignments?

A. Yes, yes, of course.

Each student we ask them for their schedule, because we don't want there to be any conflict between the teaching assignments and what courses they have to take.

And they can also notify us about any conflicts with their like research advisors' meetings or if they want to study or they prefer the mornings to evenings, you know, those kind of preferences.

And also what type of teaching assignment they want to have. We have different assignments, starting from recitations of lower-level classes and recitations and upper-level classes and grading. So they can choose among those assignments.

And then after the assignments are done, they can - they can exchange with each other those assignments and they can trade those assignments.

Q. If they want?

A. If they want.
Q. Are there also some undergraduate TAs?
A. Yes.
Some of our courses, the low-level introductory Algebra, for example, there, we utilize undergraduate teaching assistants. You know, those are undergraduate students who want to practice their teaching skills.
I'm not responsible for those appointments.
Q. We talked about research and teaching.
Does the program track the hours that student spend conducting research?
A. No.
I mean, it's up to the individual student to put in whatever work is necessary to make sufficient progress in the research.
Q. And what about for teaching?
A. The same thing.
We tried the maximum. We don't want the student to be burdened with too much teaching. So we require that they teach no more than 20 hours a week.
And so if any student has a - has a problem, they have too difficult of a teaching

appointment, we try to work it out, you know, spread it around. So they can come to me or the Chair and we'll try to address that issue.

Q. What's the purpose of that 20-hour component for that - for the teaching?

A. Well, there's a certain amount - I mean, when you're training and trained in a particular area of research or teaching, there is a certain amount of hours you need to put in per week to become proficient in that particular skill.

So we believe that a certain amount of teaching is necessary at any - you know, during the week, to become - to come to that proficiency.

And the same with research. But we don't put any lower limit on - on research.

Q. Okay.

Are students evaluated regarding their academic -?

HEARING EXAMINER: Can I interrupt for a moment?

ATTORNEY DANTE: Sure.

HEARING EXAMINER: You said there's no lower limit.

So you could have someone satisfy the teaching requirement by teaching zero hours?

THE WITNESS: Well, no.

HEARING EXAMINER: Well, so there is - there is a lower limit?

THE WITNESS: Well, there is a teaching assignment, standard teaching assignments that we give to the students. And there has never been a situation where the students would refuse to participate in those assignments or not come to class.

HEARING EXAMINER: What would happen if they did?

THE WITNESS: I would - we would have to resolve that. We don't have a mechanism.

HEARING EXAMINER: Go ahead, Miss -.

ATTORNEY DANTE: Sure.

BY ATTORNEY DANTE:

Q. Are students evaluated regarding their academic progress toward a degree?

A. Yes, yes.

There are milestones that they have to satisfy. There is a preliminary exam that they have to pass, which is based on introductory courses.

There is a comprehensive exam, which is based on more advanced courses, that judges whether they - whether they're prepared to do independent

research.

And then there's an overview, which spells out whether the area they chose for research is adequate, and whether the research projects they're planning to make would satisfy the thesis - the defense requirements.

And then there is the thesis defense, where they present the results.

Q. Do -?

A. And then in addition to that, there is a certain number of courses. They have to take ten courses of a certain level with - with satisfactory grades.

They have to satisfy what you call a sequence requirement, which combines certain courses to provide a complete background in a particular area. And then - then there is a credit requirement.

Q. Do your students receive any sort of letter that documents their progress?

A. Yes.

We give every student every year a progress letter that spells out how they're proceeding.

Q. I'll show you what I marked as R-98.

(Whereupon, Respondent's Exhibit 98, Progress Letter, was marked for identification.)

BY ATTORNEY DANTE:

Q. Do you recognize that document?

A. Yes.

This is an example of our progress letter.

Q. Can you explain what's going on in this one?

A. This was a student who didn't pass the comprehensive exam on time, which would be by the end of their second year. So as a rule we need to spell out the possible consequences of their not -. The student was not on a satisfactory progress in their - in their studies.

And therefore, since support is guaranteed based on satisfactory progress, we need to notify the student that they're behind, and that they need to complete their milestones to get back on satisfactory progress.

Q. And if they don't, what - what could happen?

A. Well, the only real situation where they

- the students have lost support in the past were the preliminary exams. So if the student doesn't pass preliminary exams by the end - by the end of their second year in the program, we don't guarantee support for their third year.

Now, depending on whether there is enough support available, we might. And we have been funding those students.

But it's not - as I said it's not guaranteed. It's based on availability.

Now, if they don't pass, then it's awarded on a - on a - support is awarded on a semester-to-semester basis. Because we have two opportunities to take the preliminary exam.

And then if they don't pass by the end of their third year in the program, then they cannot continue in the PhD Program. And they can transfer to the Master program, which does not provide support.

Q. Okay.

Have there ever been any instances of a student's academic appointment being terminated early or not renewed because they did not meet the expectations of the appointment?

A. Of the teaching appointment or research?

No.

HEARING EXAMINER: What did you say?

THE WITNESS: We have never terminated students' support because they didn't meet expectations of the teaching assignment or the research assignment.

That means they would not perform their duties properly. I guess that was the question?

ATTORNEY DANTE: Uh-huh (yes). Yeah.

HEARING EXAMINER: Didn't you say essentially now, though?

ATTORNEY DANTE: No.

HEARING EXAMINER: You didn't?

ATTORNEY DANTE: No qualifications.

HEARING EXAMINER: Thank you. Go ahead.

ATTORNEY DANTE: Okay. Thank you.

BY ATTORNEY DANTE:

Q. And - okay. So when you started - when you started testifying, you stated that the purpose of graduate education for PhD students was to have students become experts in the field, be able to identify and address questions, research those questions independently and then present their

findings to a wider audience.

Do you recall, generally, that testimony -

A. Can you restate the question?

Q. - earlier today?

When you started, you stated that -

A. Yes.

Q. - the purpose of graduate education for PhD students in your department was for students to become experts in their field and be able to identify problems, answer those problems through conducting independent research and then present those findings to a wider audience?

A. That's right.

Q. Are the requirements and the training opportunities that we discussed today designed to achieve that purpose?

A. Yes.

ATTORNEY DANTE: I don't have anything further from this witness.

HEARING EXAMINER: All right.

How much time would you like to prepare?

ATTORNEY KILBERT: Five to ten.

HEARING EXAMINER: All right. Why

don't we do 15? We'll just come back at 10:00.

All right. Come back at 10:00. Please don't talk to anyone about your testimony.

(WHEREUPON, A SHORT BREAK WAS TAKEN.)

HEARING EXAMINER: Back on the record. Cross Examination.

CROSS EXAMINATION

BY ATTORNEY KILBERT:

Q. Good morning, Professor. My name is Nathan Kilbert. I am an attorney for the Union. I just have a few questions for you.

We heard from Professor Federspiel in early October, who indicated he was affiliated with the McGowan Institute for Regenerative Medicine.

You're also affiliated with that McGowan Institute for Regenerative Medicine?

Correct?

A. Yes. Yes, that's correct.

Q. And what is that affiliation?

A. I'm formally part of the - part of the - the group of researchers. They maintain contact

with us through my collaboration with Dr. Joe Klinmon when we worked on the research and tissue cell migration and influence -.

Q. Some people who are -.

HEARING EXAMINER: Wait. Aren't you mathematics?

THE WITNESS: Yes.

This was mathematic modeling.

HEARING EXAMINER: Oh, okay.

Go ahead.

BY ATTORNEY KILBERT:

Q. Some people who are PhD students in the Mathematics Department work as teaching assistants or teaching fellows for more than just two semesters.

Isn't that correct?

A. That's correct.

Q. And in fact, Mr. Young did so himself.

Isn't that correct?

A. Yes.

Q. Do all students finish their PhD in the five years when funding is guaranteed?

A. Generally, no. About half of them need the sixth year to finish.

Q. All right.

I am going to hand you a document that has been marked as Union 242.

(Whereupon, Petitioner's Exhibit 242, Webpage Printout, was marked for identification.)

BY ATTORNEY KILBERT:

Q. Take a look at this and let me know when you're ready.

A. Okay.

(WHEREUPON, WITNESS COMPLIES.)

THE WITNESS: Yes.

BY ATTORNEY KILBERT:

Q. What is this document?

A. It appears to be a printout of our webpage. The graduate handbook that's listed on our webpage.

Q. This is the handbook that is -?

A. The Department of Mathematics.

Q. So this is the handbook that your PhD students in the Department of Mathematics are governed by?

A. Yes.

ATTORNEY KILBERT: Union moves 242.

ATTORNEY DANTE: No objection.

HEARING EXAMINER: Admitted.

(Whereupon, Petitioner's Exhibit 242, Webpage Printout, was admitted.)

BY ATTORNEY KILBERT:

Q. I wonder if you could turn to the first page?

A. Uh-huh (yes).

Q. And if you could just read the final sentence on that first page?

A. You mean the starting - teaching assistants and fellows are expected to work 20 hours a week per week in addition to the time required for coursework and study.

Q. Thank you.

And can I please ask you to turn to page eight?

A. Uh-huh (yes).

Q. There's a list of nine things toward the bottom of that page.

A. Yes.

Q. Could you please read item nine?

A. Participate in a teaching assignment of at least one lecturer or recitation section per term for a minimum of two terms.

Q. And -.

A. This requirement can be waived by the Graduate Committee.

Q. So you testified on Direct somewhat about a one credit teaching course?

A. That's right.

Q. That has a component that's separate from the teaching assistant's duties, in terms of teaching. It has a classroom component.

Is that right?

A. It's a classroom component, yes.

Q. Does this handbook indicate that that teaching course is required of PhD students?

A. I'm not sure whether it does. It should, but it's possible that we haven't included it yet.

Q. Okay.

Could you put that aside for a moment -

A. Yes.

Q. - and turn to Respondent's Exhibit 98, which is the review letter?

A. Yes.

Q. Does this review letter mention anything

about satisfaction of teaching requirements?

A. No.

Q. You testified on Direct somewhat about undergraduate and teaching assistants?

A. Yes.

Q. Are those individuals paid?

A. I'm not sure what the method is. I know in the University some undergraduate TAs get coursework credit, some get paid.

Q. And you're not sure what the case is for these?

A. No, I'm not responsible for this.

ATTORNEY KILBERT: Nothing further.

HEARING EXAMINER: Redirect?

ATTORNEY DANTE: One minute.

HEARING EXAMINER: Thank you.

ATTORNEY DANTE: I don't have any further questions.

HEARING EXAMINER: You may step down, sir. Thank you very much for your testimony.

Do you need a break to get your next witness?

ATTORNEY FARMER: Yes.

HEARING EXAMINER: All right.

What time do you need?

ATTORNEY FARMER: I'm going to see if we - the witness was supposed to be here at 11:00. I'm checking right now to see if we can get her quicker.

HEARING EXAMINER: Off the record.

(WHEREUPON, A SHORT BREAK WAS TAKEN.)

MARIA MORI BROOKS, PH.D.,
CALLED AS A WITNESS IN THE FOLLOWING PROCEEDING, AND HAVING FIRST BEEN DULY SWORN, TESTIFIED AND SAID AS FOLLOWS:

HEARING EXAMINER: What's your name?

THE WITNESS: My name is Maria Mori Brooks.

HEARING EXAMINER: M-O-R -?

ATTORNEY FARMER: Can you spell that for the court reporter?

HEARING EXAMINER: Yeah.

THE WITNESS: Sure.

M-A-R-I-A, M-O-R-I-, B-R-O-O-K-S.

HEARING EXAMINER: Thank you, miss. Go ahead.

DIRECT EXAMINATION

BY ATTORNEY FARMER:

Q. And Dr. Brooks, where do you work?

A. I work at the University of Pittsburgh in the Graduate School of Public Health.

Q. And what specifically within the Graduate School of Public Health? Are you in a specific department?

A. Sure.

I have a primary appointment in the Department of Epidemiology, that is my home. And then I have a secondary appointment in the Department of Biostatistics.

Q. Do you also have any administrative appointments?

A. I do. I serve as what's called the Vice Chair for Education within our department. And then in our department we have two vice chairs, one for research and one for education. And I am the Vice Chair for Education.

I also am the co-director for the Epidemiology Data Center, which is one of the - I think it's considered a center within the department. And it's a large research group, where

we coordinate multicenter clinical studies.

Q. How long have you worked at Pitt?

A. I've been at Pitt since 1995. I started as a staff person and as a statistician. And I've been faculty since 2001.

Q. And how long have you held the role as the Vice Chair for Education?

A. I began that role in January of 2013.

Q. Can you tell us about your educational background?

A. Sure.

I was an undergraduate mathematics major at Williams College. I then got a Master's degree in statistics from Harvard University. And then a PhD, also in statistics, from the University of North Carolina, Chapel Hill.

Q. And when you were at Pitt as a staff person, what were you doing?

A. I was working as a statistician on the bypass angioplasty revascularization investigation. So basically the same sort of thing, but in a staff-type role working in a multicenter clinical study.

Q. And let's just now talk about graduate education in the School of Public Health.

Can you give us an overview of the structure of the school?

A. Sure.

So the School of Public Health is obviously one of the schools within the University. Within the school there are seven departments. Epidemiology is one of those departments, as is Biostatistics.

Q. Is Epidemiology the largest department?

A. I believe it is. I think both in terms of research dollars, faculty and I think graduate students as well.

Q. What type of graduate degrees does the school offer?

A. Our department offers four. I think some other departments may offer another one. There's the MPH, which is the Master's of Public Health, there is an MS, which is the Master's of Science. There is a PhD, which is a Doctor of Philosophy. And there's a DRPH, which is a Doctor of Public Health.

I do think health administration, for example, has a Master's of Health Administration. But we offer those. The Department of Epidemiology offers the four degrees I mentioned.

Q. Within this School of Public Health, are there also undergraduates?

A. There are no undergraduates that are enrolled in the school.

Q. So it's graduate only?

A. Yes.

In fact, it's called the Graduate School of Health.

Q. Okay.

When students are seeking admission, what are - what is that admission based on?

A. We look for students who are very capable. And I think those are - that's generally exemplified through their grade point average, as well as their GRE scores. As well as we really do want them to have a passion for public health.

And so we do want to see some commitment toward - ideally toward research to a certain extent, but certainly toward public health. The understanding of prevalence of disease, spread of disease, treatment of disease, that sort of thing.

Q. What's the difference between a DRPH and the PhD?

A. Sure.

The PhD is intended to be a research

degree. It is intended for the students, I think, to pursue academics afterwards. I think academics can be very broad.

The DRPH has a strong emphasis towards leadership and management. And so both in terms of the course requirements as well as dissertation focus.

We do expect more of a management-type focus, evaluation of programs, implementation of programs. And I think the concept is that they are more likely to go into government type or like the State Health Department, that type of a position.

It's not always as clean-cut as all of that, but that's the distinction of the two programs.

Q. Okay.

What types of funding do graduate students in the program receive?

A. Well, they're Doctoral students.

Q. Okay.

A. Our Master students occasionally have a scholarship of sorts. But I think that's largely it.

Q. Okay.

A. Our Doctoral students, there really are

three major types of funding. The most common one is the graduate student researcher position.

Do you just want me to name them or do you want me to describe them?

Q. Yeah. Go ahead.

A. So the graduate student researcher position.

And then we have - currently we have a couple of active T-32 training grants for both actually pre-Doctoral and post-Doctoral students. But we fund several Doctoral students on that.

And we just had a couple more funded. So we're very pleased that we should be expanding that element. And then we do have a couple of - and literally when I say a couple I mean two - TA positions in our department as well.

Q. Okay.

Why are graduate students and Doctoral students specifically provided funding?

A. I think it's two things. One is it is to help them with the financial burden of graduate education. But I think much more importantly it does provide experiential learning. And it allows them to be part of the research projects or part of the academic mission of the department.

Q. And this may seem like a silly question, but why have PhD programs or Doctoral programs?

A. I'm sorry. Say that again? Why have them?

Q. Yeah.

A. That's a good question. Right?

So I think that we have them -. You know, I want to be idealistic. I work in the School of Public Health. I was originally trained as a statistician. Right?

And we go to find an area that appeals to us. And I think it's not an accident mine was School of Public Health.

I do believe we have a very important mission of improving the health in this country and actually across around the world. I tend to do more focused in this country.

I do believe that the Doctoral students and those who ultimately have a Doctorate have the correct skills and the rigorous methodological approaches to best be able to produce research that reflects the scientific principles. And then, therefore, apply them to help people appropriately throughout our country.

Q. Do you have international students with

public health who are funded, for example, by their own countries?

A. Absolutely.

We always have a couple who come in, often physicians. And then they come in and get a Doctorate in Epidemiology. Sometimes a Master's, but most often a Doctorate. And then they go to Kazakhstan, Saudi Arabia. Those are some of the countries I can certainly think of.

And they're - Chile. They may work within the Department of Health for their country. That's most common. That's often who sends them. Or they may work in other kind of public health positions.

Q. We heard the terms faculty advisor, academic advisor, faculty mentor, sometimes used interchangeably. So I may call them mentors. I know people talk about them as advisors.

But how are they assigned to students within public health?

A. Sure.

And I do think they are very overlapping but somewhat distinct at times as well. We have one advisor. And so your advisor is assigned largely due to an overlap of interest of what the student is

expressing that they want to do. They sometimes change their mind. They sometimes change advisors.

But the whole purpose of matching the advisor with a student is to take advantage of common interests.

Q. And does that happen during the admission process or when students get on campus or both?

A. It's probably somewhere in between. We - they might express their interest of who they want their advisor to be. We typically don't assign them until they say they're coming. Because like every institution, not everybody comes who's accepted.

Q. And do you personally advise students, graduate students, PhD students?

A. I certainly do.

Q. Can you talk about what is involved in being the advisor for a PhD student?

A. Sure.

So at the beginning in a Doctoral program the way it typically works the first two years they're mostly taking courses. And so - and then the next couple years they're mostly doing research. So it sort of - there definitely is a shift there.

And so at the beginning you're trying to evaluate what their long-term goals are. And then

trying to help them put together a curriculum. There's a lot of requirements.

But in addition trying to meet the needs of where they are heading with their - with their research degree. I literally had an appointment today with one of my Doctoral advisees, who is in her second year. And I am trying to advise her which electives would be best suited for her, for her path.

Q. Can you talk - just give us an overview of what a typical student's first year in the program looks like, how they're spending their time, what they're doing?

A. Sure.

They're largely - they have - I think a full-time student has to be taking nine credits. And many of them are taking at least 12. And so they're taking courses on biostatistics, they're taking courses on epidemiology. They may be taking courses on other things like health policy and environmental health.

They're learning basically I like to think the building blocks of what we need to do research and what we need to appropriately evaluate data and make decisions.

Q. When do they take their qualifying exam?

A. Typically after the second year. Different students come in. Some of our students come in with an MPH from another program. Some come in with an MPH from our program.

They can take it after the first year. Nobody comes in and immediately takes it. Either the first or second year.

Q. And when do the students start doing research?

A. So they often start exploring and doing preliminary research from the beginning. I think part of our goal - University of Pittsburgh is a research institution. I think that goes without saying.

In many ways we also have an academic mission. But we - we are committed to, I think, doing high quality research.

And we have a lot of research programs available. And so I think at the beginning they're exploring different research projects, different research interests and then - but they're mostly taking classes.

And so by again the end - really the summer after their second year they should be

getting more involved in the research program.

Q. So you said that you have advisees. You've advised students and you obviously currently do.

Are those students typically supported on your grants?

A. Yes. Not all, but most of them are, yes.

Q. So if you're supporting a first-year student on one of your grants that are appointed on the GSR, what are they doing?

A. At the beginning, they are learning. They are - so I could describe for you one of the studies I work on.

Q. Uh-huh (yes).

A. I have two studies currently where I'm the PI of a major grant. And one of them is called the Study of Women's Health Across the Nation. It's a study of women as they transition through menopause and sort of describing that transition and the health repercussions that go along with that transition.

So we get everything from hormone levels from blood, over time studies going on for 20 years. Symptoms that women have. We get carotid scans of arthrosclerosis, we get bone-density scans.

We get quality of life in many dimensions. We get physical function, physical activity, sleep. And so there is - these studies are very complicated, with a wide array of data. And I mean the fun part is that the data changes over time.

And as we see as women age, we see that bone density decline and the arthrosclerosis increases, et cetera. And so understanding how the database is created, how retention occurs within these studies.

We don't actually see any participants. We are a Data Center. So we have all the health data. So to understand what the variables are, how they're defined, how they've been coded, how they're associated with one another, how they change over time.

They start reading the literature in the area, so that they understand the basics of women's health and aging. And actually depending on what they're interested in, perhaps reproductive health or cardiovascular disease or bone health.

And so they're learning about the area, they're learning about the study in particular. And they're learning - and all of these are actively

funded.

So they're learning about how we conduct the study. And they take part in our staff meetings, our conference calls, et cetera.

Q. And does their involvement in that research then change over time as they're progressing through that program?

A. Absolutely. Absolutely.

I think I - all of us learn over time. That at the beginning the graduate students come in with usually a very strong knowledge base in one area. But their skillsets are usually quite limited at the beginning.

And that's part of what they're learning. And that's part of the whole program. Not just the research project, but also the classes.

Both of those combine together to help build those - those skillsets. I think as they do learn more about database management, as they do learn more about statistical methods and statistical programming, they're able to apply what they learned to the data that we have as part of our study. And then I mean the ultimate goal, besides their dissertations, that they work within the study to produce some meaningful research. Which might be a

presentation, it might be a publication. And they may be a part of a team that does that.

Q. So is working on funded research projects the way in which graduate students learn to conduct research?

A. I personally think that it is one of the important things that they learn how to conduct research. Because I think they learn the principles in class. There's no question.

We build out - we are very I like to think dedicated about building our curriculum to cover the competencies, so that they do learn the principles.

And we try to cover all of those principles. But I think seeing the complexities of - and most of what we do is human research. Right?

And so it is very complex. And how we conduct research, how we collect those data, how we analyze those data, how we interpret the results I think is part of what they gain from the process.

Q. How do students determine what area they're going to focus on for their dissertations?

A. Some students come in knowing what they want to do. And they - they do choose an area.

I think more commonly students know they

want to do public health. They might even have a leaning one way or the other. And if they're more interested in cancer research, they're more likely to have an advisor in the cancer research area.

And so I think they try to find a topic that excites them, but that is feasible. And so often these studies provide a feasible way for them to pursue a topic. Because there often are existing data. Or there often are existing infrastructure so that they can pursue a particular topic within that area.

Q. Is it common for students who are doing funded research to incorporate that into their dissertation?

A. Yes. I think that's very common.

Q. Is that the goal?

A. You know, I think it is. It is part of the goal. I don't think it has to be.

And we've seen - we've seen many different combinations. But I think that that works very well. They learned that study very well. They understand how - I'd like to believe it fits into the larger field. And then they're able to use a part of that study to pursue their own research and then accomplish their goals.

Q. And that funded research that they're working on, could they be on a GSR while they're doing that?

A. Yes, yes.

Q. Could they also be on one of those trainings grants?

A. Absolutely. In fact, I've had two students who started as GSRs and went on to training grants. Because the training grants, I think they have the luxury of being a bit more selective and conservative.

And they almost never take first-year students. They always want students who have been there for a year and have proven their capabilities.

And so the training grants, if we have a GSR that is doing very well and that is interested in our current ones, our aging research and cardiovascular research, and they're interested in cardiovascular research, they're a nice fit for the training grant and then that complements their learning. They continue to work on a project when they go on the training grant.

They don't - they don't - it's not like we lose them. We actually - we keep working with them and they are partners in the research.

Q. Do students typically publish based on the research they're involved in?

A. They generally do. And I - so there is a distinction. The ones that they do for their dissertation, which may or may not be on the same project will typically be the first topic.

And then they - not uncommonly, in fact it's our goal is to have a few of these. They'll often have a couple other papers where they're not the first author, but they are the coauthor on a team from the project. And that's - that's actually a different kind of learning experience, which I could go into detail.

Q. Why is that a goal that they would have that mix?

A. So they have the role. Often being like the person who's analyzing the data and interpreting the data for our clinical colleagues. They collaborate with our clinical colleagues. They help write up the sections for - you know, with the team.

And I actually think - I think it's essential, actually, to learning some of those collaboration skills that are so important in research.

Q. Where the students are the first authors

of publications that you mentioned, does that generally then form the basis of their dissertation?

A. It does, yes.

In fact, our dissertation we have one format that is used the majority of the time. It doesn't have to be this. But it's - three publishable papers are the three primary chapters of your dissertation. The introduction on the field, the gaps in the field, et cetera.

You have a discussion that synthesizes the work from the three papers and emphasizes the public health importance and significance of that question.

But the three chapters that are the core content of the dissertation actually are supposed to be publishable papers. And that's eventually - that's a majority of our dissertations are like that.

Q. What does it mean to be a publishable paper?

A. We debate that and faculty does as well. A publishable paper - because obviously there's everything from The New England Journal to much smaller journals as well. But I think it's - it's work that's done in a rigorous way that there is

confidence in this scientific merit of what they do and the scientific merit of the conclusions that they draw from their research.

Such that it could be published in the journal. And I think the concept is, we don't want to hold them up. That it has to be published before they leave.

Like they could be doing the submission process. But that's often somewhat of a time-consuming process or while they're a graduate student or while they're a post-doc or some other point. But that we believe that the quality and the scientific rigor is appropriate for publication.

Q. Do students leave with actual published papers and -?

A. Generally they do. Generally, they - if they have three in their dissertation the very common thing will be one is already published. And the other two are probably not yet accepted, but are in that process.

And then they may have - generally again, in order to learn the field and in order to learn the research we're doing, we have them on collaborative teams. So they often are - I've had a couple of papers with a team where they're not the

first author. But that that's the same area.

ATTORNEY FARMER: Okay.

We're going to do 99, 100 and 101.

(Whereupon, Respondent's Exhibit 99, Document, was marked for identification.)

(Whereupon, Respondent's Exhibit 100, Document, was marked for identification.)

(Whereupon, Respondent's Exhibit 101, Document, was marked for identification.)

BY ATTORNEY FARMER:

Q. Dr. Brooks, I'm showing you what we're marking as Exhibits 99, 100 and 101. Can you - first let's with 99 and 100.

Can you explain what these are?

A. Yes.

So Andrew Althouse was my Doctoral student. He probably finished about four years ago. I could probably check. In 2013. Okay.

So five years ago he finished his dissertation. He worked on BARI 2D, which is a randomized clinical trial that looked at both different forms of treatment for patients who have both coronary artery disease and diabetes.

And in particular he was quite interested in the diabetes-type treatments, which either give people insulin or they make their body more sensitive to the insulin that is circulated. They're called insulin sensitizers.

And peripheral arterial disease, this was an area that he actually really explored within the trial. The main outcomes were something else, death, heart attack, stroke, for the trial.

But then as part of his dissertation, he was very interested in peripheral arterial disease, which is how blood flows to the legs and other coronary events outside of the heart.

And so part of his dissertation - he was a BARI 2D GSR. He then went on the cardiovascular training grant. And on his dissertation he used the BARI 2D Data. And these were actually great papers. They were diabetes care, they're an insulin journal. And they showed that in particular this insulin sensitization type drugs had a benefit for peripheral arterial disease.

This - this actually was a really nice example. Because the trial actually was neutral for the primary outcome, which again was death and heart attacks and strokes. There was not a significant

benefit with one of these drugs.

And in his research he pursued the secondary outcome, which is actually a very important outcome in terms of quality of life and function and did find that there was a benefit to one of the drug types. So it was both meaningful and it was an interesting question.

Q. And the research that he did that formed the basis of these papers was then part of his dissertation?

A. Absolutely.

And we do - so two of the chapters were exactly probably these two things. And the third chapter actually wasn't published. It was a nice complement.

It was how you measure peripheral vascular disease. It was actually a study of nice - a nice demonstration of measuring. But these two published papers I think - I don't know. Are they chapters one and two? I don't actually know. But they would be two chapters of his dissertation.

Q. Yeah.

And then the table of contents is in there?

A. Yeah.

Q. Let's switch gears for a minute and talk about teaching?

A. Sure.

Q. Is there a teaching requirement for PhD students?

A. So not - not teaching, per se, in terms of leading a classroom, -

Q. Okay.

A. - leading a class, rather. But we have - so on the funding side we have those two TAs that I spoke about. Those are paid positions.

In addition, we have what's called a teaching practicum.

Q. Okay.

A. That is a requirement within - within our program.

Q. And the teaching practicum, does that require students to get classroom experience as part of it?

A. Absolutely.

We have - again, I keep using the word competencies. Because that is sort of a part of how we think about it. We have a communication competency. We have a data management competency.

And we have what we think is a teaching

competency. Many people, whether they go into academics or even if they go into working for the federal government or even I think pharmaceutical firms, et cetera, do - do a certain amount of teaching and instruction and communication.

And so the teaching practicum is a requirement and it is for credit. They get credit for it. They don't - they don't get paid, but they do get credit.

To support one of the classes in our department -. And when I say support it can be a variety of tasks. But it is, again, meant to help both, you know, the student learn how class is conducted, as well as how we evaluate students, how - how we interact with students, even sometimes when their problems - plagiarism, et cetera. And all kinds of issues that are part of classroom work.

Q. And when do students typically take this practicum?

A. So almost always they use the class that they've already had. So almost always it's second, third year or something like that.

Q. And who are the students involved in teaching? Since you don't have undergraduates in the School of Public Health.

A. Oh, who are the students?
Q. Yes.
A. They are fellow students who are either Master students or they're Doctoral students who are a year or two, you know, more junior within the program.
Q. How do students get assigned to what class they're using to satisfy this academic requirement?
A. Mostly, it's by their choice. We do have to make sure that several of classes are covered. But I have to say I teach an epidemiology methods class. And I have been fortunate, but I always tend to have volunteers who ask if they could be the teacher, the teaching assistant for my class the next year.

I think they typically choose a class, if possible, that they - typically they did very well and they liked the class.

And I like to assume they liked the way the class was run and so they want to be part of that. Occasionally I have had students who volunteer, because they want to work extra hard in that area. They maybe felt like they didn't fully understand the area.

And so they are helping with the course. But I think - I think sometimes the motivation is to help prepare themselves.

Q. So you mentioned that you have two TA spots within - within the department?

A. Uh-huh (yes).

Q. If the student is in one of those TA spots, can they also be taking the practicum in the same semester?

A. I think they can. I mean, I guess if they were the TA the whole time they'd have to do that at some point, like an overlap. It's not common. I mean, they wouldn't be -. The teaching practicum has a little bit more of an emphasis on -. In fact, I think there's a requirement that they have to be - they have to present a certain amount of time in the classroom.

Which is really meant to be like an internship. You know, give them some chance to both be doing grading as well as presenting, et cetera. So you'd have slightly different responsibilities for the teaching practicum. But it's very overlapping with what the TA does. The TA covers more classes at a time.

Q. And those - those two TAs, what degree

program are they typically in?

A. I mean, they're Doctoral students for sure. But they - our program is probably 90 percent PhD and ten percent DRPH. And to be honest, once the students are there, we, as faculty, don't tend to know the difference very well, who's who.

Like we don't give different physicians to different students because they're a DRPH or because they're a PhD. We try to treat our Doctoral students regarding both the teaching side and the research side, you know, based on their skills and their interests and where - where they're going.

Q. I'll show you what we're marking as 102.

(Whereupon, Respondent's Exhibit 102, Document, was marked for identification.)

BY ATTORNEY FARMER:

Q. Can you identify what this is?

A. Absolutely.

I mean, I teach a course every year. I always teach one course a year. That's typical in our department.

But what we have is, again, for your - the person who is your - who is doing the teaching

practicum with you, I think it always works better when our expectations are aligned. And so we start with this agreement form.

And we meet typically a month or two before the class begins and we talk about what the teaching practicum will involve.

So it would be all of these aspects. But you'll say that you would like them to lead one of the classes. You'd like them to grade homeworks, but not exams, because I like to grade the exams myself.

I would like them to have office hours and communicate with the students who are having difficult in the class and to work with those students. And so, again, this is exactly what I was speaking about. The minimum of three minutes - 30 minutes in front of the classroom.

For my class we have two classes a week. Each one is an hour and 15 minutes. Typically the TA leads one of the classes. Or one class period of the three class periods that TA leads.

I usually meet with them a couple times before, go over their slides, give them recommended reading before they prepare their slides. And then so we talk about what - again, what is going to be

involved before they start the process.

Q. So in this expected workload section, -

A. Uh-huh (yes).

Q. - is that something that is done jointly between the student and the faculty member? Or is that set by the faculty member?

A. I think - I mean, there's some - there is some discussion. But largely the concept would be, we have weekly homeworks. So we expect that he'll be grading a weekly homework.

And therefore, I would also like weekly office hours, because effectively the purpose of office hours is to assist the students as they're preparing for their homework.

So it's a discussion, but I think it is guided by the parameters of the course.

Does that make sense or -?

Q. I'm sorry.

And the course that they're assisting the faculty member with?

A. Exactly, exactly, exactly. And in some sense, I will also say their choice of which course they assist is based on part of that format. Right?

I mean, because some of our classes are SAS classes, which are in the lab. Some of our

classes are larger lecture classes. Some of our classes are smaller discussion classes.

So again, part of what they're choosing to do their teaching practicum in, the class parameters, again, differ course to course.

Q. When students are taking the practicum, could they be on a GSR?

A. Yeah, yeah.

This is a credit. Absolutely. It doesn't - it's like a class. It shows up on their transcript like that.

And in fact, it was very interesting. The students like them. It's documentation that they have had experience and work - and I think we heard this from our student representative on the Improvement Committee, which actually surprised me. They like that was there, so that when they go and their transcript is there, they're able to demonstrate that they also have some teaching experience.

Q. Meaning they like it for the job market?

A. Yeah. Absolutely.

Q. Are graduate students ever the primary instructor for a course?

A. No.

I don't think in our school at all. But certainly not - I can speak for our department, not in our department.

Q. I'm going to show you what we're going to mark as 103 and 104.

(Whereupon, Respondent's Exhibit 103, Document, was marked for identification.)

(Whereupon, Respondent's Exhibit 104, Document, was marked for identification.)

BY ATTORNEY FARMER:

Q. Can you identify what these are?

A. Do you mind if I start with 104?

Q. Sure.

A. Because 104 goes with 102.

Q. Okay.

A. Oh, no. No, I'm sorry. They both do. I'm sorry. I misunderstood.

Okay. You've got a student on the teaching side. Okay. Got it. Got it. So this is our - so what you've given me as 102 was what we do before we start.

Q. Okay.

A. And that's to make sure our goals are

aligned. After the course is over, we meet with the person who is serving in the teaching practicum.

And we not only talk to them about how they - you know, what they do well, what they could improve, what aspects went really well and what maybe didn't go as well.

And similarly, they tell us what - as part of that experience - because, again, this is a class for them - what was valuable, what wasn't maybe so valuable. And what could be improved as we move forward, in terms of the teaching practicum.

And since most of us tend to teach the same class, I tend to be in a cycle where I teach the same class for six or seven years. And even if I go on to a different class, it actually is useful to get their feedback about what worked well and what didn't work well. And I actually do believe that it does help for them to get the feedback as well.

Typically we fill these out each on our own. We come together and we meet. And we meet usually right at the end of the semester or right after the semester is over.

But I don't think they get credit unless these are turned in. So I think it's right at the

end of the semester we meet. And we discuss them. And I think it's actually a nice way to close out that whole experience.

Q. So just so it's - 103 is the one that's completed by the faculty member?

A. Correct.

Q. 104 is sort of that self-evaluation completed by the student?

A. Correct, correct, correct. So I apologize. I got mixed up at the beginning. That's absolutely correct.

Q. Do students seek out additional teaching experience sometimes?

A. Occasionally they do. Occasionally, as I said, you know, we have discussion classes. We have classes that are a little bit more lecture format.

I can recall a couple - I can recall a couple instances where students wanted to do a second teaching practicum, because they were particularly interested in going into academics and they did want that experience.

They don't always do it as a teaching practicum. Sometimes they even do it - they can get other kinds of certificates. I guess there's a certificate of - it's an education-type certificate.

So that they put together a portfolio.

They can get that kind of credit as well and some students do that.

Q. Could they also seek out one of the TA slots to do that?

A. They could. They - they could, they could. Because there's only two they don't turnover as often, but they could.

Q. This will be 105.

(Whereupon, Respondent's Exhibit 105, Individual Development Plan, was marked for identification.)

BY ATTORNEY FARMER:

Q. I'm showing you what we've marked as Exhibit R-105.

Can you identify this?

A. Absolutely.

This is our - I would normally call it our IDP or Individual Development Plan. But I guess it's formally called the Graduate Student Development Plan. This is - this is really a tool for us to use with the students that we advise.

And we - every year we are supposed to go over - they are supposed to complete this. They

send it to us or they bring it. And we are to discuss this information with them each year.

BY ATTORNEY FARMER:

Q. And what's the purpose of having this?

A. Personally there are two major purposes. There are probably more. It's - historically, this was introduced, interestingly enough, by NIH due to the concern that too many academicians assumed that their students wanted to be academicians, too. And so I think it was required, something close to this, not exactly this.

But they created a template. That it was required for all students who have federal funds. And almost all of our GSRs are NIH-trained, are on NIH grants. So that's considered federal funds as well as the training grants.

And I think it is to help the advisor understand what are the career goals of the student.

Which I think that the main point was in case they're not to be just like the advisor, him or himself, but rather they want to go into federal government, work for the FDA, work for CDC. Or if they want to work for industry, we should know.

The second part I really like about it, what I find useful. Because I'd like to believe

that I'm in touch with my graduate students and I do know what their career goals are. But that's a great goal. The part that I find the most useful is the assessment - their self-assessment of their skills. There's a list in here of the various skills.

I'm often surprised by that part, what they think they need more work on, what they want to work more on. And so it helps us then tailor their program to meet what they see as their deficiencies within the program, or within their training, I guess, is a better way to put it. Deficiencies within their own training so far.

Q. So let's - you talked about the career goals, -

A. Uh-huh (yes).

Q. - which is the first section on page one. The program requirements and the required coursework, does this give an opportunity for the faculty advisor to talk to the student about which courses they should be taking?

A. Yeah, it does. It does. I think we have - personally I think we have better tools. But this is another place where we have to do that. There are - you know, a Doctoral program is 72 credits.

Probably about half of that are required courses.

What you don't want to happen is them to think they're practically done and you realize you've missed a requirement. And so this is a way to help us keep track, to make sure that they're covering their requirements.

Q. So in section three, which is on page four, it lists formal mentors. And then in section five on page five it lists informal mentors.

A. Uh-huh (yes).

Q. Could you explain what the difference is and why you try to capture both of them?

A. Sure, sure.

So formal mentors, once you get beyond coursework -. And in fact basically these milestones. Once you're past your preliminary exams, which are the written exams, you create a Dissertation Committee.

And so as part of that Dissertation Committee, you have a dissertation advisor, who often is your academic advisor.

But at that point you could change. I one time did have student after two years took a different position and changed who their advisor is. And that happens, you know, due to many reasons of

changing interests, et cetera.

But generally you then have your primary advisor for your Dissertation Committee, who is, you know, the primary mentor, hopefully, in terms of guiding your research. But then you have - and I really think this is an essential element of the dissertation. We have to have committee members.

And there are - there are rules at the University level and at the school level of how many need to be in your department, how many need to be outside of your department. How many are graduate faculty staff and how many need to be core faculty, et cetera. We also say that someone should have quantitative skills, for example.

And so you create a committee and they are your Dissertation Committee. They are the ones who eventually will evaluate the work and determine whether it is worthy of a PhD.

And in addition they are the ones who are guiding you through the whole process. So I actually just had someone who did their overview yesterday, one of my students. And so it was the first time the committee got together.

And we have someone who has cardiovascular expertise, we have someone that has

reproductive health expertise. We have someone who is a biostatistician that's there. And we have someone who's worked directly on SWAN besides myself, who's there.

And so the idea is that, this committee is selected to be able to formally mentor or guide the research of the student as they're moving forward. And often each with their own area of expertise to be able to lend to that process. And I think - I think this works really well. If you treat your committee well, it works very well.

Q. And what about the role of the informal mentors that you also have?

A. So informal mentors, you form your committee and then you start going through. And then it might be, oh, my goodness, I need to know more about bioinformatics. And you may start working with someone who is helping you with bioinformatics and they're not part of your committee. But you've learned a lot from them.

They be a coauthor on a paper with you. Or they might just be someone who's helping you. It also could be a staff person.

So we have - we have Doctoral level and high level Master's level staff people within our

projects who know a ton about the data and the area. And so it's not uncommon that a staff person is also working with the student, in terms of mentoring them and helping them learn, again, more about the area that they're going into.

Q. And just so the record is clear, you used the acronym SWAN. That is that Study on Women's Health that you mentioned previously?

A. The Study of Women's Health Across the Nation. Uh-huh (yes).

Q. Okay.

So turning to the section for the skill development section on page three that you talked about, so there is a list of items in the top half of the page.

A. Uh-huh (yes).

Q. Are these what you - and you meaning the department, considers to be sort of the essential types of skills that you need to be able to successfully complete a Doctoral degree?

A. We do.

And I think this might even be on a list that the school originally developed. I actually think it's probably good for the whole School of Public Health.

But this is specific for epidemiology. And absolutely, I think we have building blocks of knowledge. Like epidemiology and biostatistics. We have building blocks of skills, like using SAS, which is a statistical software, our data-management packages, et cetera.

But then there are all these other things, like being able to think through research, like the critical thinking. And there's the part that isn't directly taught in many classes. Like the management and leadership, the professionalism and ethics, the writing.

I mean, we may touch on various classes. But there are things that we're expecting them to pick up as they go through the program. And some have better opportunities to do so than others.

Q. Does the experience that students get on funded research as a GSR or trainee help to develop these skills?

A. I am absolutely convinced that it does. I think, you know, like you said before, teaching, you know, maybe comes from the academic department and other aspects. But the management and the professionalism, ethics, all kinds of things.

We have ethics of human research of who

we're working with in terms of participants. But we also have ethics of how we work with each other in a collaborative environment, which is more complex than I think one typically thinks of doing their own modules.

It seems awfully simple. Like which way is the right way and which is the wrong way. And you get into these research projects and the professionalism, the management, I think are things that they develop and they're exposed to initially. And then hopefully they participate to a - to a certain extent in those processes.

Q. So you mentioned that you think earlier that you think the self-reading of the skills of the students is actually one of the most valuable parts of this.

So if you sit down with your students and ---?

HEARING EXAMINER: Self-what, Ms. Farmer?

ATTORNEY FARMER: Excuse me?

HEARING EXAMINER: You said the self-what?

ATTORNEY FARMER: The self-rating -

HEARING EXAMINER: Thank you.

ATTORNEY FARMER: - of these skills is one of the most valuable parts of this process.

BY ATTORNEY FARMER:

Q. So if you sit down with your student and you see either an area where they identify that they have low skills or maybe there's a disconnect between what you think their skills are in an area, what they think their skills are in an area, what do you do?

A. I mean, I think we - sometimes it's coursework. But often it's other kinds of opportunities.

So if they feel like communication is something that they have as - that they would like more. And I think, oh, you know, we really should have them attend a conference and maybe try to present a poster. And often that's using the data that they're working on.

And if they think that some of the management is - is lacking, you know, again within - the studies that I work on tend to be multicentral, which means not everybody's here at the University of Pittsburgh. And so we have weekly or monthly conference calls, some of which are actually are managing the study and some of which are actually

working on papers and research projects.

And so again, depending on the kinds of things that they might want to get involved with we definitely say, you know, maybe you should start joining the monthly calls and see how the management - how the Executive Committee works for this study or vice versa, join a research group.

Q. Turning your attention to page five, which is the last page. Under section six it says finding your next position.

A. Uh-huh (yes).

Q. Why is that included?

A. So I like to be idealistic and say that they're here to learn. But they're also here ultimately to get a job. And we do recognize that.

And we do want to help with that process throughout - throughout their graduate studies. And again, as I said right at the very beginning, understanding what their goals are for getting a job is important, in terms of tailoring their - their program.

But they also need to be prepared to go on the job market. And part of that is several of the things that are here. Putting together a résumé, meeting with the Career Office.

And then actually asking, often us, do we have connections in various programs, various areas about networking? Could they go to conferences, when they could again, network? You know, are there ways we could help them find a job?

Q. You mentioned, and this refers to the Public Health Career Services Office, -

A. Uh-huh (yes).

Q. - can you explain what that is?

A. Sure.

We have - as a matter of fact I think her name is Joanne Anson is in charge of our Career Office. And she - she does talk to each of the faculty.

She comes and talks at faculty meetings and lets us know what they have as opportunities. So that we're aware when we're advising our students that we can bring those up, in case they haven't recognized that.

They do a few things. I think they have - the things I can remember that I've heard are very helpful, they have like an interview workshop, so they can role play through interviews. They have alumni networking breakfasts. So alumni, local and sometimes even from as far as like the DC area and

such, may come to have - that's a schoolwide event.

But it's a nice networking event, so that our students -. I actually think both learn about what kind of careers are out there as well as maybe get hooks into various organizations.

Q. So this Individual Development Plan that we've been talking about, this Exhibit 105, is this used by all graduate students in the program?

A. Yes.

So it - originally, as I said, it came about because NIH said that we needed to use it for federally funded graduate students. But we thought, you know what, this actually - this was several years ago - that it was a good idea for everybody.

And so we do mandate it in our department that every year - so once a year, typically in the spring advising, when you're advising them for courses in the fall or whatever they're doing in the fall, dissertation, we go through this with the students.

We do need to turn this into our Student Services Office. And this does need to be documented on an annual basis.

And it is really useful. It's like all those kinds of things. It's very useful.

Q. So you testified earlier that when students enter the Doctoral program they may have extensive knowledge in a single area. But they don't really have typically extensive research skills. Not the skills to be - to do Doctoral-level work.

Does the program give them those skills that they need?

A. Yes.

So I think - I think probably like most areas, we have -. There's sort of knowledge and skills. Right?

So there are these skills of being able to understand data analysis, statistical software. But there's also a lot of skills that come with the knowledge of understanding epidemiology methods, understanding biostatistics, understanding the diseases, the prevalence of disease and the spread of disease.

I think we do try very hard. We document what we think they should know as skills. And we've tried very hard to make sure -.

HEARING EXAMINER: These are like very high-order skills you're talking about.

Right?

THE WITNESS: You know, interestingly -.

HEARING EXAMINER: I think I answered the question.

THE WITNESS: They are.

But you know, on the other hand, they're writing and programming, too. It actually goes from - and I don't think you want me to go off on a mini, mini tangent.

The School of Public Health, I really do think is unique in that very few people come in with undergraduate training in extensive public health. So we really do have - I can tell you among my students - people who have been math majors, people who have degrees in food science. People who have MDs that come in with those degrees.

And so they come across a spectrum. And so they tend to all be bright and talented people. But we need to make sure that they're - comprehensively, that they have the skills both within public health and those tools to be able to do public health research.

HEARING EXAMINER: I understand what you're saying. But you're admitting into your program everybody who has a BS or a BA.

Right?

THE WITNESS: Absolutely.

And the Doctoral program, a majority already have a Master's degree, a Master's as well.

HEARING EXAMINER: So what base level expectation of skills do you see or do you want?

THE WITNESS: So I actually believe we want talent and capability and -.

HEARING EXAMINER: What kind of capability?

THE WITNESS: I'm sorry?

HEARING EXAMINER: What kind of capability?

THE WITNESS: Within our program, they definitely do need both quantitative skills, because they do need to compute relative risks and attributable risk and the rate of diseases. And that is one area that definitely is limiting to some. So quantitative skills.

And I think the complement to that - well, I say there are three. They do need some type of a scientific comprehension. They need to have had biology.

They need to have a basic understanding of public health principles.

And then third, and I believe this is universal, but it's true for us, too, communication. Both written and verbal communication skills.

So for us that may be specifically grant writing. For us it may be manuscript writing. So we may tend to focus on the parts of communication that are most appropriate for our area. But it's quantitative communication and the content of some sort of biological area.

HEARING EXAMINER: Go ahead, ma'am.

BY ATTORNEY FARMER:

Q. Does the experience that students get as GSRs contribute to developing the competences they need to be successful?

A. Absolutely.

I've repeatedly had students tell me that what they've learned through their GSR, which often are more things like learning how to manage some of the statistic software packages, learning how to manage some of the data management packages, and as well as how to utilize these things and apply them to real data -. That those are - that those are skills that - that go very far.

Q. And the skills that the students learn, are they all important, whether the students decide

to ultimately go into academia or not?

A. I think they are, because -. Actually I think what they do at the CDC or even in pharmaceutical firms is really not - is really not that different. Right?

They're developing a drug. They're evaluating a device. They're evaluating a program. Most of what our people do in public health, there's a lot of overlap of what they're doing in the industry and the government, as well as academics.

Q. Do you need graduate students to do this research?

A. Do we need graduate students? Actually, truthfully, probably not.

Q. Why?

A. I'm not sure what you're looking for. But do we need them? No.

If - if I, you know, for each of these projects, if I had at least - you know, I have at least like ten people on one and, you know, 16 on the other, I have one or two graduate students.

Most of the - most of what we do is faculty and actually staff. We have 70 staff at the Data Center that are working on these projects.

ATTORNEY FARMER: Nothing further.

HEARING EXAMINER: If you look at R-100 in front of you. It's a document -

THE WITNESS: Yes.

HEARING EXAMINER: - and your name's on there?

THE WITNESS: Whose name is on there?

HEARING EXAMINER: Your name's on there.

THE WITNESS: Okay. My name's on there? Yep.

HEARING EXAMINER: Is this article on your Curriculum Vitae?

THE WITNESS: It is.

HEARING EXAMINER: Okay.

So this is considered to count as one of your publications?

THE WITNESS: It is, it's interesting. We do - we do -.

HEARING EXAMINER: It's very interesting today. That's good. All right.

THE WITNESS: So it is on my CV and it does count on my CV. And it is interesting. I mean, we are evaluated for teaching service and research. And when I put this on my CV, I do - it's bold or underlined - but if we have a student where

we are their primary advisor, we do underline their name.

And this actually partially counts towards the mentorship and in terms of the - when we think of teaching, teaching has two components. Teaching is classroom teaching. And teaching is mentorship like on committees and -.

HEARING EXAMINER: So it's a double hitter for you?

THE WITNESS: And I think it is the kind of work we want to do, in terms of developing these kinds of students' research. But I'm very proud of this paper.

HEARING EXAMINER: So you're tenured. Right?

THE WITNESS: I am not.

HEARING EXAMINER: You're not?

THE WITNESS: I am actually - I have to tell you, I'm not on the tenure track.

HEARING EXAMINER: Okay.

And you're familiar with the tenure track?

THE WITNESS: I certainly am.

HEARING EXAMINER: And I think you already mentioned it, you have service, publication

and teaching -

THE WITNESS: Research.

HEARING EXAMINER: - research, are the triumvirate -

THE WITNESS: Yeah.

HEARING EXAMINER: - of what you're graded on? Or not graded on, evaluated on.

And well, how are you evaluated now?

THE WITNESS: No, I am a full professor.

HEARING EXAMINER: All right.

THE WITNESS: But I am not on the tenure track. I am - I am - I have - we have - I don't even know what they call it, the regular track, which is what I am.

HEARING EXAMINER: Yeah.

THE WITNESS: We have a tenure track. And they have a research track, too. But I am - I am a full professor, but I am not tenured.

HEARING EXAMINER: Okay.

But you're evaluated?

THE WITNESS: I am evaluated every year.

HEARING EXAMINER: Who evaluates you?

THE WITNESS: My Chair.

HEARING EXAMINER: Okay.

And then what standards are you evaluated on?

THE WITNESS: So it is the same.

HEARING EXAMINER: Okay.

THE WITNESS: It's - it's research, and research if obviously the project we do, not just the publications, -

HEARING EXAMINER: Right.

THE WITNESS: - but the work we do within the projects, as well as the teaching and service.

HEARING EXAMINER: So what year was this published, 100? It looks like 2014?

THE WITNESS: Correct. Uh-huh (yes).

HEARING EXAMINER: But you kind of would have known it was going to be published before that?

THE WITNESS: Yes.

HEARING EXAMINER: Okay.

So, but this would have shown up during your 2013 to 2014 evaluation with your Chair. This article would have been reviewed by your Chair as part of your evaluation review?

THE WITNESS: It is. And I don't know

before they're published.

HEARING EXAMINER: Right.

THE WITNESS: But I do wait until they're published. But I would say that it falls in the category more so for the mentorship than it does for the research. It is on my CV, but it is part of the mentorship that we do in our role as faculty.

HEARING EXAMINER: And then we had another article. What's the - what's the custom in your academic profession for first authors?

THE WITNESS: The custom is that they did it's usually most of the writing I think is the idea. That they wrote the initial draft. And so for a student like this, actually it's - you know, the journals do say what kinds of things you need to do.

These data were collected entirely by the study, by BARI 2D. He analyzed the data, he presented the data to this writing group, some of whom are in our department, but some of whom are people outside of our department.

He drafts the article. He sends it out to the writing group, they give comments. He revises it based on their comments. And then generally he goes through that process of submitting

it and then responding to the journal revisions and completes it that way.

HEARING EXAMINER: So again, you said this R-100, this one you evaluated, this mostly went to the teaching -?

THE WITNESS: You know, I don't know exactly where it goes to. But I certainly - I certainly very strongly designate it as my students'.

HEARING EXAMINER: You mentioned the graduate students sponsored by foreign nations.

THE WITNESS: Uh-huh (yes).

HEARING EXAMINER: Are they GSRs or -?

THE WITNESS: No, no. They are - they are a - the GSR provides, you know, funding for the student for living expenses -

HEARING EXAMINER: Yeah.

THE WITNESS: - as well as tuition. They typically don't do that. So they have their own funding.

They often volunteer to work on projects, because they need a dissertation, too. But they do not have a GSR.

HEARING EXAMINER: So they don't have any assistance?

THE WITNESS: No. We have a few that don't have any.

HEARING EXAMINER: And then they get PhDs just the same?

THE WITNESS: They do.

HEARING EXAMINER: Okay.

You mentioned 70 staff members. Yeah? You have to say yes or no?

THE WITNESS: Yes.

HEARING EXAMINER: All right.

THE WITNESS: I mean, I was in the Department of Epidemiology.

HEARING EXAMINER: Yeah.

That's all I want you to talk about.

THE WITNESS: Okay.

HEARING EXAMINER: Can you broadly categorize them, please?

THE WITNESS: Sure.

Within - so again I work in the Epidemiology Data Center. And our mission is to conduct clinical studies. And generally we focus on multicenter clinical studies.

We largely have three areas of staff, what I call administrative, data management and statistical. There is some overlap, but the

administrative are what we call coordinators.

They are the people that are working with the site coordinators and helping kind of with the training, helping with other kinds of issues with recruitment, regulatory issues. Making sure everybody has their IRB approval, making sure they - anything serious events get reported, et cetera. So that's our administrative group.

We have a data management group. And so the data management group and assistance group are people who are expert on database, both the development as well as the collection of data, as well as the creation and cleaning of data.

HEARING EXAMINER: Those people that have backgrounds in computer science?

THE WITNESS: We do have some people that have - yeah, it's a type of computer science.

HEARING EXAMINER: All right.

And then what's the third group?

THE WITNESS: Statistics.

So those people analyze the data and work with our colleagues who -.

HEARING EXAMINER: Are those post-docs?

THE WITNESS: No.

I don't think we have any post-docs. We - they're staff. Or they're staff or faculty.

HEARING EXAMINER: And -.

THE WITNESS: So that's what I am. I was one of those to start with for six years.

HEARING EXAMINER: I would assume none of the administrative staff have PhDs?

THE WITNESS: I think that's correct.

HEARING EXAMINER: Okay.

The - the other two groups. Do any of them have PhDs?

THE WITNESS: So -.

HEARING EXAMINER: And my follow-up question would be, do they have Bachelor's degrees?

THE WITNESS: So they at least have Bachelor's degrees. And most of them have Master's degrees. So they do have - in fact, a lot of our people who get Master's degrees become coordinators or analysts.

And so these coordinators of the study often have Master's degrees. So the administrative type - the data management people I think almost all have Master's degrees.

HEARING EXAMINER: Right.

THE WITNESS: And then the statistics

people, again, I think they almost everybody except like administrative support almost everybody has a Bachelor's degree.

HEARING EXAMINER: Right.

THE WITNESS: Statistics are a combination of Master's and we have a few Doctoral people.

HEARING EXAMINER: Or experience that is substantially equal to those levels, right, if they don't actually have that?

And then where is everyone working?

THE WITNESS: For us?

HEARING EXAMINER: Yeah.

THE WITNESS: So -.

HEARING EXAMINER: Like literally geography.

THE WITNESS: Yeah, yeah, yeah.

HEARING EXAMINER: In Oakland?

THE WITNESS: Yes, absolutely.

So the Epidemiology Data Center is literally one-half mile parking distance from the School of Public Health. It's called Schenley Place.

HEARING EXAMINER: And then everyone has a cubicle or an office?

THE WITNESS: Correct.

Including the - including the students, the GSRs do, too.

HEARING EXAMINER: And then what are your hours?

THE WITNESS: Mine?

HEARING EXAMINER: No, for the staff.

THE WITNESS: For the staff? So the University of Pittsburgh staff hours are 37-and-a-half hours a week. And so we usually have some flexibility. Some people work four days, that's okay, but it's 37-and-a-half hours.

HEARING EXAMINER: But generally it's like 7:30 to 3:00, 3:30 to 4:00?

THE WITNESS: Oh, 8:00 to 5:00, right. I mean, I think the doors are open 8:00 to 5:00.

HEARING EXAMINER: Let me see if I have any more questions.

ATTORNEY FARMER: While you're doing that. Just for the record, IRB, can you define what that is?

HEARING EXAMINER: Yeah.

THE WITNESS: Internal Review Board.

HEARING EXAMINER: That's the human studies one.

Right?

THE WITNESS: That's correct. That's correct.

And again, an essential part of what we do is human research. And I think we respect that.

HEARING EXAMINER: And if you look at R-99, that's the other - Dr. Althouse.

THE WITNESS: Okay, okay. Uh-huh (yes).

HEARING EXAMINER: With our conversations about R-100, it would be similar for this one.

This one's been listed on your CV?

THE WITNESS: Yes.

HEARING EXAMINER: And then it would have been part of - when you are evaluated by your employment requirements, you were evaluated, this would have been a substantial -. Who knows how much weight it would have had, but it would have had some weight as part of your evaluation?

THE WITNESS: Correct.

I am an academic. And part of my role is to teach and mentor. And this is evidence of that role.

HEARING EXAMINER: Would you like time to prepare for Cross Examination?

ATTORNEY MANZOLILLO: Yes. Fifteen (15) minutes.

HEARING EXAMINER: Do you want to come back at 11:00 - well -.

ATTORNEY FARMER: It's 11:40.

HEARING EXAMINER: How about noon?

ATTORNEY MANZOLILLO: Sure.

HEARING EXAMINER: Let's come back when you want. Off the record.

(WHEREUPON, A SHORT BREAK WAS TAKEN.)

HEARING EXAMINER: Back on the record. Cross Examination.

CROSS EXAMINATION

BY ATTORNEY MANZOLILLO:

Q. Ms. Brooks -

A. Or -.

Q. - or Dr. Brooks?

A. That's fine.

Q. My name is Brad Manzolillo, an attorney

with the Union.

Okay. So you talked a little bit about - a fair bit about the teaching practicum. And that is a two-credit course?

A. That is correct.

Q. And they're graded on that?

A. They don't get letter grades, but they do get a grade. Uh-huh (yes).

Q. And you mentioned that there are a couple TA positions?

A. Correct.

Q. Those are actual funded positions?

A. Correct.

Q. I'll give you Union Exhibit 243.

(Whereupon, Petitioner's Exhibit 243, Letter for Appointment of Teaching Fellow, was marked for identification.)

BY ATTORNEY MANZOLILLO:

Q. And can you tell us what this is?

A. To be honest, I'm not familiar with the details of this. But this looks like a letter for the appointment of our teaching fellows, which are now teaching assistants, yes.

HEARING EXAMINER: Do you known who Ann Noon is?

THE WITNESS: She is my Chair.

HEARING EXAMINER: Go ahead.

BY ATTORNEY MANZOLILLO:

Q. So this would be a letter for the teaching assistant appointments?

A. Correct.

Q. For the academic term. So I'm looking at their duties. Tell us your understanding of the difference between having a TA position - a TA or a TF position and being in the course practicum.

A. So if you are in the practice, you are assisting with one course.

Q. Uh-huh (yes).

A. If you are - have the TA position, that is as you said a position that has financial support with it. As well as it supports the tuition for that student. Right?

And so they tend to support the classes that need more than one student that's helping out with the class. So some of the required classes that are large in nature, as well as like the seminar, one of the things that are there helping with the seminar, which is our weekly opportunity to

have an exchange of research ideas from other faculty in the area and for the department.

Q. So part of the difference is just there's more work to be done in those classes?

A. It's making sure - yes. The larger classes have - they have a lot of students. And they have a lot of things that need to be done. Uh-huh (yes).

Q. And also looking at the second paragraph in 243, it says in the second sentence -.

A. Uh-huh (yes). Okay.

Q. It says you will be required to attend and provide AB support for the weekly department seminars.

A. Uh-huh (yes).

Q. So they provide AB support. What does that mean?

A. So the department owns a projector. And - and microphones or the school owns microphones. Actually I think we own the projector and I think the microphones are part of the school. But the seminar is in the auditorium. And so they need to help set up a projector for the person's slides, get the slides loaded up. So that when they give their talk, it all works. And they get a microphone.

Q. So for this particular position, part of their hours are going to include this AB thing in addition to the grading and office hours -

A. Correct.

Q. - and whatever course-related things they need to do?

A. Correct.

HEARING EXAMINER: Is it back to that? Okay.

ATTORNEY MANZOLILLO: This is Exhibit 244.

(Whereupon, Petitioner's Exhibit 244, Appointment Letter for GSRs, was marked for identification.)

BY ATTORNEY MANZOLILLO:

Q. All right.

So I'm going to give you this. If you want to review it here?

A. Okay.

Q. This is Union Exhibit 244. How about this one?

A. Again, I'm not familiar with the details, but I am aware of what this is.

Q. And would this be an appointment letter

for GSRs?

A. Correct.

Also from the chairman of - chairwoman of our department.

Q. And if you read the second paragraph, that would discuss a 20-hour work requirement again.

A. Yeah.

Q. Okay.

ATTORNEY MANZOLILLO: I'd move to admit the Union Exhibits 243 and 244.

HEARING EXAMINER: Any objections?

ATTORNEY FARMER: No.

HEARING EXAMINER: Admitted.

(Whereupon, Petitioner's Exhibit 243, Letter for Appointment of Teaching Fellow, was admitted.)

(Whereupon, Petitioner's Exhibit 244, Appointment Letter for GSRs, was admitted.)

BY ATTORNEY MANZOLILLO:

Q. Now, if you can look at Union's exhibit 32. It should be in one of the binders up there.

HEARING EXAMINER: Let me help you out.

What did you say?

ATTORNEY MANZOLILLO: Thirty-two (32).

HEARING EXAMINER: All right.

THE WITNESS: Okay.

BY ATTORNEY MANZOLILLO:

Q. And this would be the student handbook for the epidemiology Doctoral program?

A. Correct.

Q. So this would be the document governing the record students of the department?

A. It's a handbook, so it's guiding. It's guiding the - yes.

Q. Okay.

And if you look through this, there's a number of student responsibilities. And it goes through the sort of department requirements. Towards the back it talks about the Doctoral student funding options.

HEARING EXAMINER: It looks like 5830, if you look at the bottom.

THE WITNESS: Okay. Thank you. Okay.

BY ATTORNEY MANZOLILLO:

Q. Could you read to yourself just the Doctoral student funding option, the bottom of page 5830 and the top of the next page?

A. Okay.

Q. And does this document make clear, again, that there's an expectation of a 20-hour work week for a GSR appointment in exchange for the salary and tuition?

A. I think it does make clear what the expectations are in terms of working on the project.

Q. And it also says, if you look at the bolding, on the second page, the bolded portion, -

A. Okay.

Q. - that makes it clear that funding is not guaranteed, for the - due to the limited number of GSR positions.

So not every student gets a GSR position?

A. Correct.

It is something they generally desire.

Q. And then - if I go down and look at the supervision evaluation, there's a GSR evaluation form.

Can you turn also to Union's Exhibit 214?

A. I'm sorry?

HEARING EXAMINER: It's probably one of those other binders.

THE WITNESS: Okay.

HEARING EXAMINER: It would be the other white one, I think. The one you have in your

hand.

THE WITNESS: Okay. I'm sorry. I don't see two. I see one - 214? Is that you said.

ATTORNEY MANZOLILLO: Yeah, 214. If it's not in the binder we can mark a new one.

HEARING EXAMINER: Let's go off the record for one moment, while we find the exhibit.

(WHEREUPON, A PAUSE IN THE RECORD WAS HELD.)

HEARING EXAMINER: We're back on the record.

BY ATTORNEY MANZOLILLO:

Q. And I just want to clarify. Is this the GSR evaluation form that is referred to in that link in the bold on the Union Exhibit 32?

A. I believe it is. I mean, it's something that - yes, we use it all the time, to, again, I think make sure that we're working together in a way that both meets the students' needs and our needs.

Q. And the sort of check - satisfactory check offs, worked 20 hours per week consistently, performance matter, exceeded objectives, those are all sort of standard evaluations for GSRs?

A. They are.

And again, I guess I would just say that the word consistently means exactly what it says. Which is not that it's 20 hours every week. When they have exams, they're allowed to, you know, adjust accordingly, because they are students first.

And then when they have coursework demands that are high, we expect that they'll adjust accordingly as well.

Q. I understand.

So there's going to be fluctuations in the hours. It's not a clock in, -

A. Right. No, absolutely not.

Q. - set 20 hours a week.

A. And that's where that consistently comes in.

Q. Yeah. Okay.

So I guess to understand a little bit about this Epidemiology Data Center -

A. Sure.

Q. - that you talked about, what - can you tell us, how is that funded?

A. Mostly we're funded through NIH grants. And we do have some grants through the CDC. But mostly we have projects that we're doing that NIH is funding.

So the one I spoke about, SWAN, is funded by the National Institute on Aging. And currently funded also a clinical trial with the National Heart, Lung and Blood Institute.

And they're looking at the effectiveness of transfusion for patients who had heart attacks and low blood levels.

So we're funded by a series of projects that almost all are through NIH. But a number could be - some are through other organizations, like the CDC or occasionally a private institution.

Q. And I'm trying to step beyond the - I understand there's funding, -

A. Sure.

Q. - but NIH is - is the majority of NIH funding what we would call an RO1 grant?

A. So probably the University or in our department probably the majority is RO1. Personally I don't have any RO1s, because truthfully the projects I work with are a little bit bigger.

And so I think both of them are UR 1s, they're called. But it's a similar concept. It's something I apply for.

I write up a proposal. I write up a budget and I get funded, if I'm lucky.

Q. And is - the Epidemiology Data Center, is that - I assume that's a collection of PIs putting into that funding or is that solely you?

A. No.

I am one of the three co-directors. But we have ten faculty.

Q. Three co-directors?

A. Uh-huh (yes).

Q. Okay.

A. But we are all faculty within the Department of Epidemiology. So we are part of - and our staff are all staff at the Department of Epidemiology. So we were are part of the Department of Epidemiology, but we're a center.

Q. Okay.

You're a center - the Department of Epidemiology -?

A. That's correct. So we're part of the School of Health.

Q. And when you - and you mentioned you were a staff person before you came over?

A. I was.

Q. Was that at this center?

A. Yes.

Q. Okay.

So you served - you were one of those quote, unquote, 70 staff people that you had working -

A. Right.

Q. - on this project?

A. I was.

Q. So now as a co-director, and one of the primary sort of people who deal with grants, I assume continued successful research is a big part of to ensure you will continue to be funded going forward?

A. Yes.

Q. And do you determine how many folks or how many staff are - or at least you and the other co-directors, how many staff, how many faculty, how many GSRs will be employed at the center?

A. I mean, again, partly it does have to do with the funding that we bring in. We write a budget before we submit it.

And in that I often try, very hard, based on my academic mission, to include one. And if it's a large project, two slots for a GSR. And then if it gets funded, then I have the ability - because you have to - as I'm sure you know, we have to include, you know, resources for things like the

tuition and other things.

The GSRs are funded differently. So we get those in our budgets to start.

Q. Now I talked to several GSRs in your department.

A. Uh-huh (yes).

Q. And you said ideally they're all doing work that they can use in their dissertation.

A. Uh-huh (yes).

Q. That's not always the case.

Correct?

A. It is not. We'd like to believe that the work, even if it's not directly part of their dissertation, it is academically-valuable. And that the skills that they learned from that work can be - I think can be applied to many other areas and even actually be promoted as they look for positions and jobs.

Q. And hopefully so. But regardless, it's still whatever work they perform on the grant continues to the grant.

Correct?

A. It does.

But we give GSRs, to be honest, quite a bit more leeway to pursue projects that are of their

interest that would be related to the grant.

Obviously it's funded by NIH for that purpose. So it has to be related.

But they are - they are given a different amount of leeway than the typical staff person would be given to work on projects of their interest within the project - within that -.

Q. At least through their grant or in the project?

A. Yeah.

Q. Tell me a little bit about what a GSR - what the GSRs do.

A. Sure.

They may help with - so we collect data and then we have to create datasets that would be analyzed.

So part of it they may be going through the data scene when there are errors in the data, when there's missing data. Follow up with sites to find out better about the scores.

So we have things like how heavy people are, what is their blood pressures? What are their lipid levels, their risk scores?

Right? And so - and their establisher scores.

And so one of the projects that recently one of the GSRs did in our study was to program this risk score based on this data.

So again, it's - then that score is used by they could be using it or other colleagues within the study might be using that score within a paper to evaluate the risk.

Q. So that risk score is a way of evaluating - to help to evaluate the data you're collecting on the project?

A. Yeah.

And to evaluate the patients.

Q. And it's available to anybody in the study who can use them?

A. Right, exactly.

And then -.

HEARING EXAMINER: Hold on. Hold on.

THE WITNESS: Sorry.

HEARING EXAMINER: What are you about to talk about?

THE WITNESS: Well, he said that they do. Because I was going to say to start they're doing a lot of basic program.

And as they move on, at least within a place like the Data Center, our goal is that, again,

they are doing some analysis of the data to work with colleagues to hopefully, you know, produce something that's publishable and meaningful.

BY ATTORNEY MANZOLILLO:

Q. Okay.

So part of their goal may be - part of their work may also be the analysis of data?

A. Correct.

Q. We're just about done here. This is 245.

(Whereupon, Petitioner's Exhibit 245, Public Health Home Page, was marked for identification.)

BY ATTORNEY MANZOLILLO:

Q. And this - this is a copy of your public health home page?

A. Correct.

Q. So your teaching has primarily been the epidemiology method?

A. Correct.

Because my degree is in statistics. So the method sides of epidemiology is the area that I'm in most.

Q. And looking at active research studies, -

A. Uh-huh (yes).

Q. - so these are the primary projects that you're working on now?

A. Correct.

Q. And are these all tied to the Data Center or are they independent projects as well?

A. I think the last one is not tied to the Data Center, but the first four are.

Q. Okay.

And that one, how would you - how would you - how would you carry out that study, if it's not tied to the Data Center?

A. So in that one, I am simply an investigator. And I am advising on analytic methods and how they should approach the data.

But they have their own staff that are not Data Center staff. So I am faculty at the Department of Epidemiology and I am a code investigator on that last study.

But the - the analysis and the data management are done by other people, they're not done by the Epidemiology Center.

Q. Okay.

A. But the other four are.

Q. And those would all be grants you either wrote or co-wrote seeking funding for -?

A. Right.

Q. And they would work in the same way we described already -

A. Correct.

Q. - for the use of the staff?

A. Correct.

ATTORNEY MANZOLILLO: I don't have anything further.

I would move to admit Union's 245.

ATTORNEY FARMER: No objection.

HEARING EXAMINER: Admitted.

(Whereupon, Petitioner's Exhibit 245, Public Health Home Page, was admitted.)

ATTORNEY DANTE: Can we just - can we move our exhibits before we go off the record?

HEARING EXAMINER: Yeah. I have my list.

ATTORNEY DANTE: Ninety-six (96) through 105.

HEARING EXAMINER: Any objection?

ATTORNEY HEALEY: No objection.

HEARING EXAMINER: Ninety-six (96) through 105 are admitted.

(Whereupon, Respondent's Exhibit 96, Publication, was admitted.)

(Whereupon, Respondent's Exhibit 97, Thesis, was admitted.)

(Whereupon, Respondent's Exhibit 98, Progress Letter, was admitted.)

(Whereupon, Respondent's Exhibit 99, Document, was admitted.)

(Whereupon, Respondent's Exhibit 100, Document, was admitted.)

(Whereupon, Respondent's Exhibit 101, Document, was admitted.)

(Whereupon, Respondent's Exhibit 102, Document, was admitted.)

(Whereupon, Respondent's Exhibit 103, Document, was admitted.)

(Whereupon, Respondent's Exhibit 104, Document, was admitted.)

(Whereupon, Respondent's Exhibit 105, Individual Development Plan, was admitted.)

ATTORNEY DANTE: Thank you.

Give us just a bit.

HEARING EXAMINER: Off the record.

(WHEREUPON, A SHORT BREAK WAS TAKEN.)

HEARING EXAMINER: Redirect?

REDIRECT EXAMINATION

BY ATTORNEY FARMER:

Q. Dr. Brooks, you were asked on Cross Examination some questions about the, you know, the international students who may be funded by their own countries.

And you mentioned that they will sometimes volunteer to work on some of the funded projects. Was that your testimony?

A. Yes, probably.

So again, they have to pick a dissertation area. And so they are often working on the same projects side by side with our GSRs and other people. When I say work on it, they're, again, generally using these skills for their dissertation project. But they are - they have a desk right next to the person with the GSR.

Q. And the teaching practicum, they have all the same requirements?

A. The teaching practicum has - yeah. That's a department requirement for all. It's meant to building the teaching in the department.

Q. And the IDP forms are the same?

A. Yes.

Q. So if I walked into the Data Center, would I be able tell by walking in and looking at what students are doing who was a GSR versus who was self-funded, if I just looked at them?

A. If you just looked at them and saw who they are.

Q. Right.

A. No, I don't think you can tell that.

ATTORNEY FARMER: I have no further questions.

HEARING EXAMINER: Limited Recross.

RECROSS EXAMINATION

BY ATTORNEY MANZOLILLO:

Q. Just in the practicum you mentioned, that everyone has to take the practicum, the people who are funded as TAs and TFs, just a point of clarification, they also have to take the practicum at some point?

A. I think they have to have the practicum. I think they do. That's my impression. I'm not 100 percent certain.

But my impression is that they would have to do that. It might be that they can have that overlap with their TA duties. They might be able to use the same class and just make sure that they fulfill some of the requirements of the practicum. But I think that they do have to do it.

ATTORNEY MANZOLILLO: I don't have anything else.

HEARING EXAMINER: All right, ma'am, professor, you can step down.

Off the record.

(WHEREUPON, AN OFF RECORD DISCUSSION WAS HELD.)

HEARING EXAMINER: Back on the record.

Raise your right hand for me.

PAUL FLOREANCIG, PH.D.,
CALLED AS A WITNESS IN THE FOLLOWING PROCEEDING, AND HAVING FIRST BEEN DULY SWORN, TESTIFIED AND SAID AS FOLLOWS:

HEARING EXAMINER: Spell your name for us.

THE WITNESS: Paul, P-A-U-L, F-L-O-R-E-A-N-C-I-G.

HEARING EXAMINER: Can you say that?

THE WITNESS: Floreancig.

HEARING EXAMINER: Your witness, ma'am.

ATTORNEY DANTE: Thank you.

DIRECT EXAMINATION

BY ATTORNEY DANTE:

Q. Dr. Floreancig, where are you currently employed?

A. The University of Pittsburgh.

Q. And how long have you been at the University of Pittsburgh for?

A. Since 1999.

Q. In what capacity are you employed by the University?

A. I'm the professor of chemistry and the Director of Graduate Studies in that department.

Q. How long have you been a professor?

A. Since 2010.

Q. In what school is the Department of Chemistry housed?

A. It's in the Dietrich School of Arts & Sciences.

Q. Do you have an administrative role in the department?

A. The Director of Graduate Studies.

Q. Okay.

And how long have you held that role for?

A. One year.

Q. Okay.

And what are some of your responsibilities as the Director of Graduate Studies?

A. As Director of Graduate Studies, I work with an administrator. And we inform studies the various expectations that they have, in terms of different benchmarks that they want to achieve, different guidelines that they want to follow.

I act as an intermediary at their disputes between the students and the faculty or the program in any way. I act on behalf of the graduate students.

Q. Okay.

Approximately how many graduate students

are in the department?

A. Approximately 200.

Q. And what types of graduate degrees does the department offer?

A. The vast majority of our students work toward a PhD degree. Those who have a change of heart in the program can earn a Master's degree.

And we also offer a Master's degree for students who may be in local industry or in law firms who want to have some sort of scientific documentation as part of a degree.

So they can get a Master's degree. But the vast majority of our students enter the program in the PhD - seeking a PhD.

Q. Okay.

And for those PhD students, do you provide funding to them?

A. Yes, we do.

Q. What is that funding contingent upon?

A. That funding is contingent upon having - sorry, the proper phrase is eluding me at the moment, but they're in good standing in the program.

Q. Okay.

And can students switch between funding sources during their time in the program?

A. Yes, they can.
Q. And could that vary from year to year?
A. Yes, it can.
Q. And semester to semester?
A. Yes.
Q. So someone could be on a fellowship one semester and GSR the next semester or something like that?
A. That is correct.
Q. What is the purpose of providing funding to the graduate students?
A. The purpose of providing funding to the graduate students is that it allows them to meet their basic living requirements without having to be distracted from their focus of study.
Q. Okay.
Are students expected to gain research experience during their time in the PhD program?
A. Yes, they are.
Q. When do they typically begin their research?
A. Most people begin their research during the summer after their first year of classes.
Q. And is that research sometimes supported by an externally-funded grant?

A. Yes, it is.

Q. How do students figure out what their dissertation topic will be?

A. The dissertation topic is part of a number of dialogues and takes several steps. So students will come in and meet with several different professors who have made presentations to the entire first year graduate class about the general topics that they are working on.

After this, the students will meet with the faculty members. They will have the opportunity to have desks in their labs, so they can interact with the graduate students in those groups. And if a student selects a particular advisor, then the dialogue becomes more focused on the particular project.

Again, a student is going to select a research advisor based on the mash of interests. And then the advisor will present a number of subtopics that fit with the themes of the research and the group, and ask the student about interests, about career aspirations. And then enter into the dialogue about what the specific project is going to be.

Q. All right.

Can you give us some examples of what research looks like in the Chemistry Department?

A. Okay.

So the Chemistry Department is very broad, in terms of the types of research that it does. One major area is synthetic chemistry. And synthetic chemistry is running a sequence of chemical reactions and isolating the products, getting the identities of the products, testing the hypothesis as to whether these are correct or not and then developing strategies for moving forward.

We also have a strong analytical component, where we might take a material or something like a biological sample. And a student will be asking questions about the content of this.

So they will - will look at this through various types of instrumentation that gives information on the content of the material. A third area is computational chemistry. This is theoretical in its content.

And that means that there will be more discussions and more time spent at a computer.

Q. So for - for a number of the examples that you mentioned, it seems like students, in order to do the research that they need to do for their

degree, would need access to institutional resources?

A. That's correct.

Q. Chemical compound. I think you mentioned certain isolating products. Things of that nature?

A. Yes.

Q. And are those resources often covered by a grant?

A. That is correct.

Q. And is that true for students who may be conducting research when they're supported by fellowship?

A. That is also correct, yes. They will be using chemicals that are purchased from a grant, though everything else would be covered by the fellowship.

Q. So they could still be working of the same project that someone who is on the GSR on a particular grant is working on?

A. Yes, absolutely.

Q. Do you expect that the research that students are doing, including research when it's funded on an external grant, to contribute in some way to their dissertation?

A. Yes, it does.

Q. Do students publish during the course of their time in your program?

A. Yes, they do.

Q. Why - why is that?

A. The publication, the purpose of publication is multifold. From the student's perspective, though, it provides hard copy for establishing a record of accomplishment.

Further career objectives would be based on their having this record of accomplishment.

Q. And do students publish regardless of how they're funded?

A. Yes, they do.

Q. Have you published with students before?

A. Yes.

Q. Can you explain what your role was in that process?

A. My role is to offer my guidance as someone who has been involved with approximately 80 publications over the years to the students. So it's an interactive process, where the student and I will discuss - particularly the student will get the first response of defining what's important about the project. How we set up the background, how we talk about what's going to be important. And to set

up a draft.

The - my responsibility is to make sure that the language is proper. People - people don't come into graduate school with an innate ability to put out a scientific publication.

There is differences in language. There is differences in active and passive voices. And these are the things that I work with the students and explain the purpose of how different language is used. And ultimately things go back and forth. And we get a product that we're all happy with and submit.

Q. Okay.

I'm going to show you what I've marked as Respondent 106 and 107.

(Whereupon, Respondent's Exhibit 106, Published Paper, was marked for identification.)

(Whereupon, Respondent's Exhibit 107, Dissertation Pages, was marked for identification.)

BY ATTORNEY DANTE:

Q. Starting with R-106, do you recognize this document?

A. Yes, I do.
Q. Can you explain what it is?
A. Okay.
So this was a paper that I published with my graduate student, Chung Lang Liu, and another graduate student who works in Professor Ken Jordan's lab in the Chemistry Department, who has more of a computational expertise.
Chung Lang did the chemical reactions in this. And Shoga did the computational work for this.
It was based on a project that we were working on as part of two different grants.
One grant ran into the other. So it was covered on two different grants. And it was based on making molecules of a particular candidness. Just like our hands, molecules have mirror image relationships.
So we were trying to make molecules of one-handedness through a simple process that was related to some earlier work that we had done in the group.
Q. Okay.
And approximately how long did the research take to - that ultimately resulted in the

publication?

A. This research took approximately two years.

Q. And did this research ultimately end up in the student's dissertation?

A. Yes, it did.

Q. And if you could take a look at R-7 - R-107? Do you recognize this document?

A. Yes.

Q. And what is this document?

A. This document is the first several pages of Dr. Liu's dissertation.

Q. And did R-106 become a chapter in R-107?

A. Not exactly, because the publishers own the copyright for the exact words. But the content in R-106 became a chapter in R-107.

Q. And can you separate the research that the student performed on his appointment from the research that is contained in the dissertation?

A. No.

Q. And is - what you just described from the research standpoint and the publications and the dissertation, is that common in the Chemistry Department?

A. Yes, it is.

Q. Do students receive academic credit for the research we just discussed?

A. Yes, they do.

Q. And are - do students need those credits to graduate?

A. Yes.

Q. So the research that you just talked about that the student might be doing on their appointment is also the same research that they're receiving academic credit for?

A. Yes.

Q. Let's move on to teaching.

Does the Chemistry Department have a teaching requirement?

A. Yes.

Q. Why does it have a teaching requirement?

A. Teaching serves many roles. The key one is that it's actually true that to teach something is different than to learn it in a class.

Teaching a chemistry lab will provide a much greater depth of understanding of the topic and the techniques than you can possibly get by passively sitting in a classroom.

Q. Does the department prepare its students in any way before they enter the classroom?

A. Yes, extensively.

Q. Can you explain what they do?

A. Okay.

So there are multiple areas of teaching. The most important that we can look at is training the students in safety. And so we have to be certain that our students are safe in the lab and that they can keep the other students safe in the lab.

The students are shown the experiments that they will be teaching throughout the course of the semester and they will perform them on their own. So that they have this hands-on experience and can understand the problems, the students will also get information on proper evaluation techniques and on how to - how to interact with students with respect to the grading process.

Q. Do they receive any mentoring during the time that they are engaged in teaching?

A. Yes.

During the course of the semester they will meet with their lab instructor once a week to provide additional insights as to how the experiments are going.

Q. Do students satisfy this academic

teaching requirement by serving as a TA?

A. Yes, they do.

Q. Can students receive academic credit for teaching?

A. They can.

Q. Can they request a letter grade?

A. They can request a letter grade, yes.

Q. Why do students do that?

A. Students would request a letter grade if they have aspirations for an academic career and want an official record that shows that they have been involved in teaching.

And usually the students who request a record are very good at teaching, so that grade will be A.

Q. And that will show up on their transcript?

A. That will be on their transcript. And that's something they can have as a record in their interviewing for their future jobs.

Q. And that's something that they could have done to satisfy the academic requirement for teaching?

A. Yes, sure.

Q. And done by serving as a TA?

A. Yes.

Q. When students arrive into the program, what is their skillset? And how does that differ from being and independent researcher, when they leave?

A. Skillsets will vary. I would say that even our best students who have extensive undergraduate research experience still only have technical skills.

We have to remember that even the - the most ambitious undergraduate researchers only have approximately 10 to 15 hours in their week where they can be doing research. That means that our - our most experienced first year graduate students only have time to learn the techniques.

Independent research requires an interaction with the project. It requires abundant experimentation. And it requires hypotheses that must be tested.

It requires analysis to tell if that hypothesis is correct. And when it's not, what does the failure tell us? This is something that is a much higher level than any student can possibly receive as an undergraduate researcher.

Q. So are - the teaching and the research

experiences that you talked about today, do you believe that they are integral components of the academic program?

A. Absolutely.

ATTORNEY DANTE: I don't have anything further.

HEARING EXAMINER: Cross Examination - oh. Time for your defense?

ATTORNEY SHARMA: Just a minute.

HEARING EXAMINER: We will take a break, sir, off the record.

(WHEREUPON, A SHORT BREAK WAS TAKEN.)

HEARING EXAMINER: We're back on the record for Cross Examination.

CROSS EXAMINATION

BY ATTORNEY SHARMA:

Q. Good afternoon, Professor Floreancig. My name is Maneesh Sharma. I'm an attorney with the Steelworkers.

I actually do only have a few questions for you. I say that every time, but I mean it this

time.

ATTORNEY DANTE: So this time we'll believe you?

ATTORNEY SHARMA: Yeah. Well, we'll see how it is. But I hope it's only a few questions.

I'm going to begin by handing you what I have marked as Union Exhibit 246.

(Whereupon, Petitioner's Exhibit 246, Graduate Student Handbook, was marked for identification.)

BY ATTORNEY SHARMA:

Q. Can you look at that and let me know if you recognize it?

A. I recognize it. But I couldn't quote verse for you.

Q. Well, could you tell me what it is?

A. This is our Graduate Student Handbook.

Q. Okay.

There is a few things I wanted to ask about in here. So first of all, you talked about with the teaching requirement that you can get a credit for that.

A. That's correct.

Q. Is that correct?

But that credit does not count towards the minimum 12 credits that you need for working towards a Master's degree.

Correct?

A. Okay.

I think - and I just want some clarification here. So to earn a Master's degree, students need to have 12 credit hours in what we call our graduate-level courses, which are 1000 level and above.

Q. Uh-huh (yes).

A. And you are correct that teaching does not count toward those 12.

Q. Okay.

And I'm going to ask you to turn to page six on there.

And if you look at what looks like section 2.2.

A. Okay.

Q. Universitywide 12-credit requirement, GPA classification. And it says that the requirement of the 12-credit coursework at the 2000 to 3000 level. And that - and that excludes the teaching credit.

Is that correct?

A. Okay. This is correct.

I will apologize for not being clear. We're under the process of perhaps changing some requirements there.

And 1000 was in my head, but it is currently 2000 or 3000.

Q. Okay.

And then we turn to the next - turn to page eight, please. And under Section 2.4(c). You had testified that you could request a letter grade for your teaching.

Is that correct?

A. That is correct.

Q. But that as indicated in this section that teaching grade would not be counted in the GPA.

Is that correct?

A. That is correct.

Q. And I'm going to ask you to turn to page 15, appendix one. And in the paragraph that begins at the end of the first term of teaching, do you see that paragraph?

A. Yes.

Q. The last sentence there talks about the number of appointments.

Do you see that sentence?

A. Number of appointments will be dependent upon undergraduate teaching schedule, yes.

Q. And so the number of available TA, TF, positions, depending on the number of undergraduate courses that are being offered, projected enrollment in chemistry courses, in laboratories. And a number of TA, TF allocations that have come from the University.

Is that correct?

A. That is approximately correct.

Q. Okay.

And how would that be more correct?

A. It would be more correct by realizing that the department will find funds to support additional students on teaching fellowships beyond what the Dietrich School will fund, if there is a great need.

So at times of very lean government funding, the department will step up to be certain that students can continue into the program.

Q. Okay.

And by - when you say great need, is that defined by the available courses as far as the available teaching slots for the courses?

A. No.

The need that I was discussing refers to the stipends that the students received. So the support that the students received.

The students can be supported either through a grant or through teaching or through some mixture thereof. And in very lean fiscal times, grants are not abundant. And the department will make accommodations, so that students can continue in the program with their current level - at their proper level of support.

Q. Okay.

But will those students necessarily be given a teaching appointment or will they get some other sort of appointment or some other sort of grant?

A. There are some other appointments that benefit the students as well. So we have them work at our instrumentation labs.

And these are generally students who have career aspirations in analytical techniques. So we try to match them with a position where their skillset will be enhanced by working with the instrumentation groups.

Q. Okay.

Now, I'm going to ask you to turn in this

to - so it looks like page 35. These are the policies for teaching assistants and teaching fellows.

Are you familiar with these?

A. Not specifically.

Q. Okay.

HEARING EXAMINER: But generally? Generally, yeah?

ATTORNEY SHARMA: Generally.

HEARING EXAMINER: That's good enough.

BY ATTORNEY SHARMA:

Q. You are the Director of Graduate Studies of the department?

A. That is correct.

Q. Okay.

HEARING EXAMINER: General knowledge is good enough.

ATTORNEY SHARMA: Okay.

BY ATTORNEY SHARMA:

Q. And I see here, for instance, if you look at page 36, you have the duties of teaching assistants, teaching fellows. And then the first one says prepare for and meet all assigned classes promptly at the scheduled time and place.

Do you see that one?

A. Yes, I do.

Q. And then it talks about unexcused absences.

Do you see that?

It's in the last paragraph. I mean, the last sentence. And then it talks about that if you have unexcused absences, it will jeopardize future TA appointments.

Is that in - it sounds like you've only been DGS for a year. But have you had that experience, of somebody have unexcused absences that had put in jeopardy their TA appointment in the future?

A. That is correct.

And that's because we view the teaching in a way that reflects the standing of the student in the field.

I will say that when students - we have very good students. If they are not showing up for their assignments, then sometimes they have had a change of heart about their career. And that's the manifestation of that.

So but yes, it does reflect poorly on their standing in the program if they are shown to be unreliable in their teaching role.

Q. Okay.

And if you'd turn to the next page, page 37. Do you see about halfway down the page? It requires that the TAs, TFs attend all schedule TA, TF, lab instruction meetings -

A. Yes.

Q. - in person?

And again the consequences for failure to do so will result in written warnings to remove all the TA assignments and loss of TA funding.

Is that - so again, as you were describing, it is important that TAs and TFs attend the lab instruction meetings?

A. That is correct.

Q. And then they lose their TA funding, if they have it?

A. Yes.

So these - these weekly instruction meetings will focus on safety aspects and will focus on how to communicate the material properly. So they are quite important for successful completion of a teacher - teaching role.

Q. Okay.

And then just below that, I see that there's recommended schedule for TA, TF workload.

A. Okay.

Q. And both of these add up to about 20 hours. Twenty (20) hours is the expectation for teaching assistant, teaching fellows.

Correct?

A. That is a guideline. That is what we tell students, because history tells us that their role as a TA will take about 20 hours per week.

There is no requirement for 20 hours per week. But so students can mentally prepare for the week ahead, we give them this guidelines.

Q. Right. Okay.

And the - the expectation is that they don't work more than 20 hours.

Is that correct?

A. That is correct.

Q. I'm going to distribute a copy of - we actually already have this in the record. This is Union Exhibit 99. I thought it'd be easier to have another copy of it.

Do you recognize that document?

A. No, I do not.

Q. You've never seen a letter like this before?

A. No.

Q. All right.

A. This comes from the Dean's Office, not the Chemistry Department.

Q. It doesn't come through - and it's not returned to you when it's done?

A. No.

Q. Okay. Okay. Well, we can just put that aside.

Going back to the handbook. If we can turn to page 40.

The first bolded line, there's a lack of accepted - lack of acceptable performance and teaching responsibilities may lead to a loss of teaching assistantships in the future.

This - why don't you review this section? And I'll ask you some questions about it.

(WHEREUPON, WITNESS COMPLIES.)

THE WITNESS: Okay.

BY ATTORNEY SHARMA:

Q. This is - is it fair to say this is essentially saying that you expect to perform at an acceptable level as a TA, TF?

Correct?

A. That is correct.

And I would also highlight the fact that there are multiple opportunities for the students to meet with the instructors. If any personal problem is going on, we do see this from time to time.

So this is not a situation where the student has no recourse. If there is a significant issue that arises, there are multiple pathways that the student can explain the failure to meet a particular requirement.

Q. Okay.

And in fact, you give that opportunity by issuing warning letters?

A. Yes.

Q. And it's only after the third incident, according to this policy, that the TA position will be withdrawn?

That gives the student the opportunity to correct, -

A. That is correct.

Q. - prior to the TA position being withdrawn?

A. Yes.

Q. And then turning to page 43. This, as I understand it, is an acknowledgment of safety rules

and coursework requirement.

This is for somebody who's appointed to teach a lab.

Is that correct?

A. That is correct.

Q. And these are sort of the safety guidelines that that person is expected to adhere to.

Is that correct?

A. That's correct.

Q. And includes, on page 44, the third bullet down, that as a condition of the person's employment that they're obligated to attend all regular TA meetings.

Is that correct?

A. That's correct.

Q. And that's so that they can be up-to-date on current safety concerns?

A. That's correct.

Q. And then just turning to R-106.

A. Yes.

Q. This is a publication that if I were to go - if I were to look at either your CV or your website, I would see this on the list of publications.

Correct?

A. That's correct.

Q. And in fact, on your website I see a number of listed publications that you, as a co-author, would provide to assistants.

Is that correct?

A. Yes.

Q. And you said that this was funded by two separate grants. Were those grants that you had applied for and secured?

A. One was a grant where I was sole applicant. Another was a grant where there were several professors at the University of Pittsburgh who were working together on a - on a much larger project.

Q. Okay.

ATTORNEY SHARMA: I have no further questions.

HEARING EXAMINER: And Union 246 is admitted.

(Whereupon, Petitioner's Exhibit 246, Graduate Student Handbook, was admitted.)

HEARING EXAMINER: Redirect.

ATTORNEY DANTE: Can I move for 106 and 107?

ATTORNEY SHARMA: No objection.

HEARING EXAMINER: They're admitted.

(Whereupon, Respondent's Exhibit 106, Published Paper, was admitted.)

(Whereupon, Respondent's Exhibit 107, Dissertation Pages, was admitted.)

ATTORNEY DANTE: Thanks.

Just two minutes.

HEARING EXAMINER: Off the record.

(WHEREUPON, A SHORT BREAK WAS TAKEN.)

HEARING EXAMINER: Okay? Redirect?

REDIRECT EXAMINATION

BY ATTORNEY DANTE:

Q. Dr. Floreancig, you were asked on Cross Examination about the teaching credit and whether it counts toward the 12 credits for the Master's. Does the teaching credits count towards the 72 credits

required to get a PhD?

A. Yes, it does.

Q. And if you could turn to page 16 of U-246, which is the handbook?

A. Yes.

Q. There was - you were asked some questions about this particular page on Cross Examination.

Could you read the sentence that had - that starts with in addition and followed by the underlying portion? In the middle of the third paragraph.

A. Okay.

In addition, teaching assistantships, TA and teaching fellowships, TF, will not be awarded to those who fail to satisfy the minimum progress requirement or fail to maintain a cumulative 3.00 GPA.

Q. Okay.

And if you could turn to page 36 as well.

A. Yes.

Q. You were asked some questions about the first italicized paragraph under section B, that's entitled Duties of Teaching Assistants and Teaching Fellows.

A. Yes.

Q. And in that last sentence that references unexcused absences, does it also state that unexcused absences will be reflected in the grade for the teaching assignments?

A. Yes, it does.

Q. And if we - if you turn to page 37 and you look to the paragraph right before section C, is there - is there a requirement for - is there where the requirement exists for students to register for a class, to satisfy the teaching requirement?

A. Yes, that is it.

Q. And if someone is satisfying the academic teaching requirement registered in this class, all of these requirements or duties listed on page 36 through 38 apply to those students as well.

Correct?

A. Yes.

Q. And that's - those are students who are getting academic credit while on a TA, satisfying the teaching requirement for the program?

A. Yes.

ATTORNEY DANTE: That's all I have.

HEARING EXAMINER: Limited Recross.

RECROSS EXAMINATION

BY ATTORNEY SHARMA:

Q. Doctor, can you be a TA, TF without being enrolled in 2970?

A. I do not believe that's the case. Although I can't say that with certainty.

Q. You don't believe that they could be?

A. I do not believe that you could be a TA without enrolling in that course.

Q. Okay.

And that's one credit.

Right?

A. Yes.

ATTORNEY SHARMA: I have no further questions.

HEARING EXAMINER: Okay.

ATTORNEY DANTE: Okay.

HEARING EXAMINER: All right.

Sir, you can step down. And off the record. I'll see everyone tomorrow.

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HEARING CONCLUDED AT 2:10 P.M.

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CERTIFICATE

I hereby certify that the foregoing proceedings, hearing held before Judge Helmerich, was reported by me on 10-30-18 and that I, Kaylyn Shaffer, read this transcript, and that I attest that this transcript is a true and accurate record of the proceeding.

Dated the 30th day of November, 2018

Kaylyn Shaffer,

Court Reporter