C. Barnes: Welcome! I am Courtney Barnes, an intern with the University of Wisconsin Archives Oral History Program and I will tell the story of women working in science, engineering and mathematics at the University of Wisconsin – Madison over the past century.

In the early part of the 20th century, women that were married to another university faculty member faced unique challenges while conducting scientific research. The careers of many female researchers in science, engineering or mathematics depended on the influence of their husbands.

Ethel Allen was the wife of Oscar Allen, a Professor of Bacteriology in the 1920s. While she was not employed by the UW, she was able to conduct her own scientific research alongside her husband in the lab.

E. Allen: And I could work in the department, not in any paid position but I could “help” my husband. As everybody in the department would say, “are you here helping your husband?” I was—

D. Collins: You know at that time that must have been pretty unusual to have people coming into the lab and not being part of the paid staff.

E. Allen: Well I suppose so. Yeah, yeah, that’s right too. I wasn’t helping my husband, heck I was helping myself. You know, I was with him and we could have lunches together.

C. Barnes: Assistant Professor Elizabeth Hirschfelder worked in the Mathematics department between 1931 and 1953. Her husband, Joe Hirschfelder, also worked in the same department. He requested that the department terminate her appointment in order to fit his needs.

E. Hirschfelder: Well after we were married—

B. Teicher: This is you and Joe Hirschfelder?

E. Hirschfelder: Yes. Joe was very anxious that I should be free to do things when he did a lot of traveling giving lectures and so on. In fact he had in mind the fact that he had piled up quite a collection of places that they wanted him to come. So he went to Mark Ingraham and said how about firing Betty? And Mark said, if you want to get her to stop teaching, it’s up to you to go and fire her.
So I did stop. We were married in 1954, and in 1957 we went on this six month trip. We started as Joe gave lectures in Hawaii, and then on to Japan, and India, and on to Europe. So this was quite a trip.

C. Barnes: Wage-gaps that exist between genders were especially prominent in the early to mid 1900s before federal legislation—such as the Equal Pay Act of 1963—was enacted.

Margaret Irwin, who was associated with the UW intermittently between 1932 and 1951, relates her experience of wage-discrimination to Interviewer Donna Taylor.

M. Irwin: There has been discrimination against women. They haven't received the salaries that the men have for doing exactly the same work very often. Don't you think that's true often?

D. Taylor: It would seem to be. Did you feel this while you were working at the university?

M. Irwin: I didn't mind the money actually, because I didn't really need it.

D. Taylor: But were you aware that you were not getting equal pay, so to speak?

M. Irwin: Yes, definitely I was aware, because I had a husband on the staff, I wasn't getting a salary that I would normally have commanded. But somehow, in my generation, we didn't fight that.

D. Taylor: You assumed this was the way it was.

M. Irwin: We just assumed this was the way it was.

C. Barnes: Discrimination often comes from superiors, as in the case of equal pay, but peer-to-peer bias has followed women studying science or engineering as well. Monica Turner shares her experience of how it was unpopular for a girl to succeed in academics during the 1960s.

M. Turner: My mom was telling me recently that she remembered me not liking biology class, at all, when I was in high school and she was really surprised that I ended up really wanting to major in biology as a college student because she just didn’t remember me having much, really, liking it much at all.

S. Pfahler: Do you remember any-?

M. Turner: I don’t remember it very well, to be honest. Actually the interesting anecdote, which I have shared with other people, about high school is just at that age I had been a very good student all the way through and then you get to be a teenager and at least
for girls at my high school and at my age, being smart was not something that was respected. At least amongst your peer group.

And I placed my grades for the first few years of high school. So I would purposefully answer things wrong on tests so that I wouldn’t get too high a grade. And I would keep the grade high enough not to get into trouble at home, but low enough that I would not be embarrassed with my peers. Which is kind of crazy. So I would get my grades kind of in the high 80s where I would be sort of “safe”. So that’s one of the things I mostly remember in terms of academic behavior and such.

C. Barnes: Ann Burgess was a UW student in the early 1960s. Her experiences show that women studying science may not have felt a sense of “belonging”.

A. Burgess: ...now there’s all these learning communities, and women in science and engineering dorm, and things like that. I think it’s so wonderful, and I’m so glad they’re doing that. Because I do remember feeling very isolated in the dorm. I lived in Chadbourne Hall the first two years. It was an all-women’s dorm at that time. That was back in those olden days, they segregated the men and the women.

And if I had a question about a chemistry problem, there wasn’t anybody around that I could just go work with. Whereas in the men’s dorm, lots of people were. And I didn't know anybody well enough to call them up and do it on the phone. So I didn’t even realize at the time-- I was very isolated, but I didn’t realize it at the time.

The other thing I do remember, though, is people treated me as weird because I was a chemistry major.

S. Pfahler: Other women students, you mean, or any students?

A. Burgess: Everybody! And I belonged to a sorority, and we used to have to go to these things called beer suppers that I just hated. I hated those things, but it was required to go. So the sorority and fraternity would get together for this Friday night dinner, and some fraternity guy would come up to me and start a conversation, and then pretty soon he’d ask me what I’m majoring in, and when I said chemistry, usually he’d just turn around and walk away! So anyway. That’s my experience.

And while I’m talking about sororities, anybody that got engaged, they had this huge ceremony. Everybody-- I can't remember how they called us to the living room, but it’d be a darkened living room, and you’d pass around a candle, and the person who got engaged blew out the candle, and oh, it was such a big deal!

I got a fellowship to Harvard, and it wasn't a bit deal to anybody! And I just remembered thinking, how ironic.
C. Barnes: At the university, tenure discrimination has been prominent over the years. This discrimination may begin as early as the assignment of research topics or the expectations of tenure-track staff and it often continues through the tenure application process. Marion Namenwirth discusses her experiences at the university, which culminated in tenure discrimination during the 1970s.

M. Namenwirth: I got an idea about how the tenure considerations worked. One faculty member would take responsibility for shepherding the case through the faculty. You know, that person would carefully examine the record of the candidate and presumably, have talked with them and have some idea about their strengths and weaknesses.

But when I came up for tenure, nobody was willing to take that position. I think part of the problem was that there was something sociologically embarrassing about taking up the cause of a woman. So a problem was created in the structure of the way the tenure system was to work. And what was problematic about it was that there was no rule in the university that said one person shall act as the defender or lawyer or representative of the candidate. This is something that had developed informally. So that when nobody wanted to do it for a woman, nobody realized that this was— they weren't even so conscious that that's what usually happens or that if it didn't happen for a woman, that this would create a problem in itself. You know, so that's an example of one of the things, which by the end of the 70s was a paradigmatic situation that universities realized they had to step in and deal with. And there were many things like that, including for instance, the tendency to give women a whole lot of teaching to do and then ask why they weren't doing so much research. There were many things like that that were sort of not exactly planned, but they ended up in biased decisions.

C. Barnes: The campus climate for women, especially women in science and engineering, has dramatically changed over the years. With a long way to go, women in science, engineering and mathematics have come far at the UW in the past century. Elizabeth Craig, the current chair of the department of Biochemistry, describes how the campus climate for women has changed since she arrived at UW in 1979.

E. Craig: I think the climate is not great, not bad. I think the climate is a really complex issue. One of the things I've struggled with the last number of years is it's much easier if you're in a position as you're an advocate for like, the climate is bad. The situation is bad. How can we make it better? Being in a situation of being a department chair where you have to be everyone’s advocate, in some ways you can accomplish much more. But it’s much harder to say oh, the climate’s terrible. Part of it is you're a part of it perhaps. I think it is a very complex issue.
I think it is much better than it was 25 years ago. Just in that there are more women. There were very few women in biological sciences when I came. I remember in cell and molecular biology program that had 103 trainers and I was the third woman as a trainer in that program. But that doesn't mean we don't have a long way to go.

C. Barnes: As Elizabeth Craig stated, women studying science, engineering and mathematics have come a long way over the years, but there are still barriers that need to be overcome.

For more information about the Women in Science and Engineering project or other Oral History Program projects, please visit http://archives.library.wisc.edu/.