

TRANSCRIPT

The Work Goes On

Guest: Ronald Oaxaca

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Ronald Oaxaca:

Certainly employers now have to pay more attention to their wage structures, even if they feel that they're not discriminating or don't have no intentions of discriminating. They have to worry about, how does this appear?

Orley Ashenfelter:

Welcome to [The Work Goes On](#), a podcast from the [Industrial Relations Section at Princeton University](#). I'm your host, [Orley Ashenfelter](#), the Joseph Douglas Green 1895 Professor of Economics at Princeton University. In this podcast series of conversations with leading thinkers and practitioners, we are creating an oral history of an entire generation of industrial relations experts and labor economists whose contributions to their fields have been absolutely extraordinary. Our guest today is [Ronald Oaxaca](#), the McClellan Professor of Economics Emeritus at the University of Arizona. He is renowned for his work in labor economics and especially for his work on gender differences in worker pay, an area he pioneered in the 1970s. Ron, welcome to [The Work Goes On](#).

Ronald Oaxaca:

Thank you Orley I'm very happy to participate in this noble endeavor.

Orley Ashenfelter:

Really glad to have you here. Let's begin the discussion by talking about your background. Where did you grow up?

Ronald Oaxaca:

Well, I grew up in Fresno, California, Central Valley.

Orley Ashenfelter:

And did you go to elementary school there?

Ronald Oaxaca:

I did indeed, yes.

Orley Ashenfelter:

And where did you go to college?

Ronald Oaxaca:

I went to what is now known as Cal State University at Fresno. And maybe not particularly notable, but Ray Fair at Yale was a classmate of mine at Fresno, one year ahead of me, so somebody's heard of the institution.

Orley Ashenfelter:

So economics must have been pretty strong if you were there?

Ronald Oaxaca:

Well, they had a very good program. It was in social science college rather than business. I think they've moved over to the business college now, but as I say, I was there. It was an exciting time to be an econ major there. And Ray Fair, as I said, was there; he was a year ahead of me and we had many stimulating discussions.

Orley Ashenfelter:

I'm curious, you're name is... Many, many people have a hard time pronouncing it.

Ronald Oaxaca:

Yes. Including those in Mexico.

Orley Ashenfelter:

Is that right? How do you pronounce your name?

Ronald Oaxaca:

Well it's pronounced Oaxaca, but some people that I've spoken with in Mexico might say something like Waxaca and I said, 'well, no, it's Oaxaca'. And they said, 'oh, it's like the state'. I said, 'It is indeed'. Exactly.

Orley Ashenfelter:

But what did your mother and father do?

Ronald Oaxaca:

Well, my father was a policeman and then he passed away early and my mother worked for the county health department all her life. So, we're just a middle-class family in Fresno, California. Yeah.

Orley Ashenfelter:

What about, do you have brothers and sisters?

Ronald Oaxaca:

I have one sister, a younger sister, and she lives in Fresno.

Orley Ashenfelter:

I know your wife, Amy.

Ronald Oaxaca:

Yes.

Orley Ashenfelter:

Is she from Fresno too?

Ronald Oaxaca:

She grew up in Fresno. She was actually born in Newhall, California, which was at the time a concentration camp for Japanese Americans. But she grew up in Fresno and that's basically her hometown.

Orley Ashenfelter:

I didn't know that. I didn't know that she was in one of those concentration camps.

Ronald Oaxaca:

Yeah, well she was very young then. I mean, she left the camp probably by the age of two.

Orley Ashenfelter:

Fascinating. Well, now of course you went to graduate school in economics. How did that happen?

Ronald Oaxaca:

Well, originally, I can tell you my thought was for some reason I wanted to be a Naval Officer. Cal State Fresno did not have a Naval ROTC, so I joined the Naval Reserve and was active with them. And I had a four-year deferment, in effect. But by the time I was reaching my senior year, one of my professors, very inspiring professor by name of Dale Bush, convinced me that I should go on for graduate work in economics, in a PhD program. And I decided, I agreed with that. And so I declined orders to go to Officer Candidate school, but I had a report for active duty for two years in the Navy. And then I got out and that's when I arrived at Princeton.

Orley Ashenfelter:

So you were a gob?

Ronald Oaxaca:

A gob?

Orley Ashenfelter:

When I was a kid, they called ordinary Navy guys gobs.

Ronald Oaxaca:

Well, or swabbies-

Orley Ashenfelter:

Swabbies

Ronald Oaxaca:

Was the other term. Yeah, that's right.

Orley Ashenfelter:

Were you on a ship?

Ronald Oaxaca:

Well, I was on a ship only for two weeks of training while I was in college in the reserves. But I did recruit training in San Diego for almost three months, and then I reported to college. And then after I finished, graduated from college, I was then stationed in San Francisco for about a month waiting orders for communication school. And that was in Pensacola, Florida. I was there six months, and then I was stationed in Adak, Alaska for a year. And then my last duty station was back in California near Napa and near Vallejo, and I was there for roughly six months. And then I got out. After I was out, I showed up at Princeton.

Orley Ashenfelter:

How did you end up at Princeton?

Ronald Oaxaca:

I applied for a number of schools and I was accepted by Princeton, but on the west coast I had an acceptance from Stanford. And I guess at that time I was sort of parochial, so I was thinking in terms of remaining in California. But my mentor and advisor urged me, he said to "go east young man." And I'm glad that I followed his advice and I accepted Princeton's offer and it was one of the best things I ever did.

Orley Ashenfelter:

We'll get to your doctoral dissertation in a second. When you came to Princeton, were you married?

Ronald Oaxaca:

Yes, Amy and I married while I was still in the Navy.

Orley Ashenfelter:

So you moved to Princeton with Amy and then somehow you fell under the influence of Al Rees?

Ronald Oaxaca:

Yes. That's an interesting story too, because when I applied to Princeton, my interest at the time was in what was then termed mathematical economics. I had minored in mathematics; I enjoyed mathematics. But during my first year at Princeton, I didn't find mathematical economics as exciting as I thought it would be. But some of my classmates a year ahead of me had taken Al Rees' labor economics course and highly recommended it. I decided, well, I think I would take his course. And that just convinced me I wanted to be a labor economist. I thought it was so fantastic and that's how I ended up as a labor economist.

Orley Ashenfelter:

In retrospect, what struck you most about him?

Ronald Oaxaca:

Well, what I appreciated was that Al Rees, I mean he had arrived at Princeton just before I showed up. He'd come from, I guess he was department chair at University of Chicago. But what impressed me was he was right in the midst of this enormous transformation of labor economics from an institutional field to a sort of micro econometric field. And I very much appreciated being in that position, to sort of develop in that direction with Al Rees's recent hire. And I thought it was a fantastic direction for labor economics to go. And so, I considered myself most fortunate. And of course you were a professor of mine as well, and in the same mold as Al Rees in terms of pioneering this evolution of labor economics into a very modern and sophisticated field.

Orley Ashenfelter:

Now, your dissertation topic actually has been a subject of a lot of discussion and we'll have some of it too. Tell us what it was.

Ronald Oaxaca:

Well, I mean, I guess I would start with how I happened upon that topic. As you know Princeton had this requirement for something like a second- and third-year thesis proposal. And I started thinking about it and I was interested in wage differentials. And I quickly realized that most of the empirical work at that time in labor economics focused on racial wage gaps. But I didn't see much on gender wage gaps. And I thought, well, the data sources would be the same except you just go to the gender field and sort your data that way. And that's how I started on gender gaps.

Orley Ashenfelter:

And then your dissertation actually there, I don't know how many papers you've written on gender gaps, but a lot I guess.

Ronald Oaxaca:

Quite a few. Yeah.

Orley Ashenfelter:

I can't fail to mention, and you should probably expand on, that the Oaxaca decomposition of wage gaps between men and women. And of course it's now used for many other wage gaps. It's so well known that it's actually a command in the statistical language that many of us use, Stata.

Ronald Oaxaca:

Stata, yes.

Orley Ashenfelter:

And of course, when you were doing it, you weren't using a simple laptop; you must have had to go to the mainframe.

Ronald Oaxaca:

Well, at the time, of course we didn't have personal computers. We had the mainframe at Princeton and there wasn't the kind of software that we have now. So I realized that I was going to have to learn some computer programming. So, I think it was during the reading period and the Christmas break at

Princeton, maybe in the beginning of my third year that I went to the Princeton bookstore and purchased a manual on Fortran Four. Never forget, it was written by an engineer named McCracken. And I obtained a computer account and I worked through the manual and then started doing my coding and simple things at first, computing standard deviations and variances and things of that nature. And then graduating to inverting matrices. And so I applied that to a program that existed on the mainframe, but it's a program that allows you to put in your own code. And so I did my dissertation entirely with my own code for inverting matrices and obtaining variance / covariance. I always tell that story to my students because now it's pretty simple with Stata, but that's not what we had at the time. And-

Orley Ashenfelter:

Well, it's more than that. And now in fact, you just write down the Oaxaca Command.

Ronald Oaxaca:

Yeah, that's right.

Orley Ashenfelter:

I mean you write the Oaxaca Command and then it does what you apparently-

Ronald Oaxaca:

Yeah. There are some options, and you can have an interaction effect if you like in your decomposition, which I, at one point never used to do. But in later years I've done that.

Orley Ashenfelter:

I've forgotten when the first paper was published, do you remember the year?

Ronald Oaxaca:

Yeah, it was 1973. And it appeared in International Economic Review.

Orley Ashenfelter:

What was the reaction to your work?

Ronald Oaxaca:

Very, very interesting. I gave my practice job talk at Princeton, but when I went in the job market, I gave the job talk, and I think one of the places was Livingston College in New Jersey. I was urged by the department to accept their invitation to give a paper, a job talk, even if I'm not particularly interested maybe in going there, but that it would help Princeton and other graduate students get invites. So I did that and Livingston College had a reputation. I mean they were fairly liberal, so this resonated very well with them. The methodology was new, I mean, using this econometric method and basically what we called counterfactuals. So I've got a very good reception.

Orley Ashenfelter:

And was that true generally?

Ronald Oaxaca:

At least in terms of my job talks. But I can tell you on one occasion, and this is after I'd left Princeton, I did give a talk on this topic. It was at an NBER conference on Income and Wealth at University of Michigan. And so I presented this work and the late Zvi Griliches was in the audience and I could see he was fidgeting a lot and I knew he was going to want to say something and then when I was finished, his hand shot up and he said, "well, I'm going to make a statement and they may hang me for it, but I'm going to make it anyway." He says, "where gender is concerned," he says, "I don't think there's any such thing as wage discrimination." And I said, "well, Zvi I see that they're erecting the gallows as we speak." And his argument was, it's a free market and men and women make their choices and the choices women are making are optimizing for them.

And I said, "well, yeah, I think that's always true." But I said, I said, "let me give you another example. Let's imagine we have somebody that wants to purchase a commodity. The problem is that they can only purchase the commodity from a monopolist. And so they pay the monopoly price, but they walk away complaining and grumbling and you tell them, 'well, but you could have said no and you didn't'. So you must be optimizing. Or let's suppose somebody mugs you, points a pistol at you, wants your wallet, you give your wallet to them, you go to the police department, you file a report, and the police say, 'well yeah, but you voluntarily gave your wallet to them, you must be better off after the transaction than you were before.'" So, I just didn't think that that logic really carried. Zvi didn't really respond, but-

Orley Ashenfelter:

It's a very kind of interesting set of examples. Now, I know that your work went beyond just academic activity and that you in fact were involved in and have been involved in some litigation where allegations of discrimination-

Ronald Oaxaca:

Yes.

Orley Ashenfelter:

Were made.

Ronald Oaxaca:

Yes.

Orley Ashenfelter:

What did you learn from that?

Ronald Oaxaca:

Well actually, I learned a lot. So the first case I was involved in, and I believe you were as well, it was the AT&T case. And that case started when AT&T at one point, when AT&T was a regulated monopoly, they applied for what they thought would be a routine rate increase. And there was a young lawyer at the time, he had a Harvard Law degree, which he used to say Harvard was the Stanford of the East Coast, but I think it was Dave Copus-

Orley Ashenfelter:

Copus, I remember him.

Ronald Oaxaca:

So he was working for the EEOC, the Equal Employment Opportunities Commission, at the time. And he read this passage in the newspaper that AT&T was requesting a routine rate increase. And he thought to himself, I bet they discriminate against women. And did a little nosing around, and then he filed something that held up that rate increase. And so it ended up going to, it was an administrative trial and an administrative judge, and I was recruited to be an expert witness in the case. And John Pencavel was, and you were and many others.

And we were engaged by a consulting firm that had contracted with EEOC. And I learned a lot from that. And I remember the AT&T attorney putting me on the stand and he asked some questions, but one of the things, he made a statement and he said, "well, Dr. Oaxaca, isn't it true that your method for measuring discrimination is biased?" And I said, "well, I'm glad that you raised that question because you're absolutely correct. It is biased." I said, "however, it's biased towards understating discrimination rather than overstating." And before I could explain why he cut me off, he said, "well, let's talk about something else." That was in the morning and in the afternoon, the EEOC attorney put me back on the stand and asked me the same question so I could finish and explain why I actually was understating the bias on the conservative side.

So that was interesting. And then I learned some things from consulting with the World Bank, Mike Ransom joined me in that. And we prepared some report, confidential report for them, kind of looking at their gender wage gap issues and promotion issues. But it was funny, at some point they'd had our report for maybe a couple of months, I received a call and they said, "well, we received a report, we've read it very carefully. It was very good. So now what should we do?" And I was taken aback by that question because I thought at the time, well, I just run regressions. I mean, don't you have human resources, and don't you guys figure out what to do? And so, Mike Ransom and I were summoned to a meeting at the World Bank, and we spent an afternoon trying to discuss what they should do because they had a specific case of somebody that they had hired, a woman, who started at lower pay grades than men who were comparably qualified PhD in economics and prior experience.

And they wanted to be able to do something about that. And it's not trivial because if you say, well, I got a regression here and you just plug the woman's circumstances into this regression estimated for males and then pay her on the basis of that, the problem is that men do not even get paid according to their own regression, only on average. And then the problem was they couldn't just bump her pay because in her job title, that would create kind of inequity. And they couldn't simply just promote her because through no fault of her own she wasn't qualified. And so we came up with a plan for offering a special position where she could acquire the skills necessary to be promoted in a shorter period of time. But that's the kind of thing I had never thought about before in my research.

Orley Ashenfelter:

It is true that the remedy for this was a very difficult problem when the Civil Rights Act was first passed in 1964 because there was intentional discrimination that somehow had to be resolved without really making the person who had been benefiting from the potential discrimination worse off. So, there was a lot of babies that had to be thrown out with the bathwater, I guess you could say, in order to try to resolve it.

We're getting to the end of our discussion. I would like to ask you about one more thing. I think we've given people an interesting aspect of what you've done. But issues about women and discrimination, which you've worked on for many years are still around. And in fact, they've even come really, I guess the way we discuss it now is the Me Too movement.

Ronald Oaxaca:

Yes.

Orley Ashenfelter:

What's your view about the role that gender differences has played in how things have changed, if they have changed since you started working in this area?

Ronald Oaxaca:

Well, I think in terms of employment practice, things have changed a lot. I mean, certainly employers now have to pay more attention to their wage structures, even if they feel that they're not discriminating or have no intentions of discriminating, they have to worry about how does this appear and things, you know. Well, for example, with the problem that the Women's Professional Soccer team for the US, the issues that they've raised about their pay Vis-a-vis the males. And that's been in the papers for quite a while now. I think they have it resolved. But I'd looked into that in more detail and I could see clearly what the issue was. And the issue was this, that the men and women have different contracts, I guess they have different unions. And I felt that if women were paid according to the contract for males, they would probably earn more than males, I mean, given how the women were doing and what things you reward. But the problem was that their contract, they wanted features that were more family friendly because they had these family responsibilities that aren't symmetric with the men. And so the question was how to structure that contract in a way that they can be more comparable to men in their pay, but not have to trade off the more family friendly components of the contract that they had negotiated in the past. So the field has changed a lot. We still have discrimination cases, but it's clearly there's a heightened sensitivity, I mean, that there was not in the early days.

Orley Ashenfelter:

Well Ron, it's just been a great pleasure to talk to you and I'm so pleased that you could come on to discuss this. And a little I learned about your and Amy's background, I was surprised by. Our guest today has been [Ronald Oaxaca](#), the McClellan Professor of Economics Emeritus at the University of Arizona. Please join us again for the next episode of [The Work Goes On](#), an Oral History of Industrial Relations and Labor Economics from the [Industrial Relations Section at Princeton University](#), when we will speak with [Ronald Ehrenberg](#), the Irving M. Ives Professor of Industrial and Labor Relations and Economics at Cornell University. I'm your host [Orley Ashenfelter](#). Thanks for listening.

Announcer:

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