

TRANSCRIPT

The Work Goes On

Guest: Robert Willis

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Robert Willis:

It's a body of longitudinal data that now covers from 1992 until today... called the Health and Retirement Study. A majority of the world's population is now covered by these surveys.

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 [Robert Willis](#), professor of economics emeritus at the [University of Michigan](#). He is renowned for his work in labor economics and especially for his work on the economics of family structure and the economics of the life cycle, as well as the collection of data associated with that. Bob, welcome to [The Work Goes On](#).

Robert Willis:

Thank you. Glad to be there.

Orley Ashenfelter:

Let's begin the discussion by talking about your background. Where did you grow up?

Robert Willis:

Well, I was born in Great Falls, Montana, and at age one I moved to Renton Highlands, Washington, where my father was engaged in riveting wings on B-17s during the Second World War. And I ended up growing up in Seattle until I went to college, and so that was my origins.

Orley Ashenfelter:

Now I have to ask you this. I know you went to Dartmouth. How in the world did you get from the state of Washington to Dartmouth?

Robert Willis:

Okay, well, I had expected, like most of everybody in my high school class, that I would go to the University of Washington. But I got a phone call from a young lawyer who had an Ivy League legal training, who was a Dartmouth alum who called me and asked me if I would like to come to a presentation at Dartmouth. The lawyer's name was Slade Gorton, and he later became... he moved Washington, to Seattle, basically on the grounds that Ivy League lawyers were a dime a dozen on the East Coast, but they were pretty rare in the northwest, and he actually was right.

He ultimately became an attorney general of the state of Washington and then served two terms as a senator from the state of Washington later in his career. When I went to the presentation, I found out three things. One, is he bragged about their math department and I was interested in mathematics at the time. They also said that Dartmouth owned its own ski mountain, which intrigued me at that. That was a big factor. And thirdly, and the biggest factor is that they gave scholarships. and I came from a family without much money and having a scholarship to go to the East Coast was intriguing enough that I did it.

Orley Ashenfelter:

Actually, you probably were a little surprised. It's not actually on the coast.

Robert Willis:

No, I did realize that it wasn't on the coast. I investigated the geography, particularly the ski part.

Orley Ashenfelter:

I see. Are you still a skier?

Robert Willis:

Well, I was a skier then and stayed a skier for a long time. I did manage to break a pair of skis at Dartmouth. In my sophomore year I had a knee injury and had to have an operation on my knee, so I missed that year of skiing.

Orley Ashenfelter:

How did you get into economics? Was there someone there at Dartmouth?

Robert Willis:

Well, that was actually quite interesting as well. During the summer, before I was admitted to Dartmouth, I got a thing to fill out, the first quarter's curriculum, and I filled it out, but I was asked to have one course that I could be assigned to if something didn't happen with some other course. So, I put down economics as this extra course. So, I think I had opted for physics and a math course and an English course, and then a required English course and then economics was the option. Well, it turned out when I arrived at Dartmouth, I had exempted out of English, and so I went into economics and I scarcely knew what a bank was, but it was taught by Colin Campbell who had been a student of Milton Friedman's when he was in graduate school, and he taught a very nice course. They tried very hard to hide the mathematics in it, but I did get some inkling that this really hard finite difference kind of methodology that was there was related to math.

Orley Ashenfelter:

That's very interesting. He's quite a well-known guy, Colin Campbell in this day. So, now the next step, of course, is you go back to Seattle, I guess you're tired of skiing or other things, and to University of Washington. What happened in between time? Did you go straight back to the University of Washington for a PhD?

Robert Willis:

Actually, I went back to Washington without any fixed plan about what I was going to do with the rest of my life. I had looked at different ideas. One of the ideas that I had, I really got interested... I started out wanting to be a mathematician, discovered that that was not the right thing to be in for me when I was at Dartmouth and I ended up majoring in economics, but I didn't really catch on until my senior year, and so I had relatively mediocre grades, not good enough to get into MIT, for example, and I didn't know what I was going to do. I didn't have any income left over. So, I went back to Seattle, and I did what I had been doing since I was age 16. I worked on the Washington State Ferries and that summer I had long days and nights on the weekends and it was off during the week. So, I decided to take a macroeconomics course in summer school at the University of Washington, and the teacher of that was a guy named Dudley Johnson, who's quite a character that I learned about later. And I did pretty well in that class. And there was a group of people who were scheduled to be teaching assistants that year who went to Central America on some professor's project. And so there was an opening there. So, at the last minute, I suggested that I should apply to the graduate program, and I got in and I became a TA, and that provided enough income for me to go to graduate school.

Orley Ashenfelter:

And stop working on the ferry boat.

Robert Willis:

Well, yeah, I was actually an ordinary seaman and I still have my seaman's papers.

Orley Ashenfelter:

You're not the only one who's had something like seaman's papers who I've had in the podcast. It ranged all the way from Ron Oaxaca, who was in the Navy, to Bob McKersie, who did a ROTC scholarship at Penn in order to be in the Navy. So you're in a long line of labor economists, all of whom have been on the water for one reason or another. Who was your dissertation advisor at Washington?

Robert Willis:

My advisor was John Floyd, who had been a student at Chicago of Harry Johnson's and taught international trade. And I was actually interested in finding a dissertation in international trade, but I couldn't come up with a topic. The other person I had worked with was Charlie Tiebout, did public finance, and I thought about a project there and I couldn't figure out what to do there that looked like a good topic. And then finally Floyd said, "Well, I've always thought that the economists could say more about population than they have." And for some reason or rather, that struck a light bulb in my... So, I started going to the library. I read a bunch of stuff in demography and some of it written by economists, and most of it seemed to me to be very weak. And I finally ran across an article that was buried in a NBER volume by Gary Becker that talked about a theory of fertility. And I was inspired by that and ended up writing my dissertation on this. So, I didn't really have anybody who was advising me on the topic that I had.

Orley Ashenfelter:

Distinguished faculty but not known for working in the area you worked in. And I know that that dissertation, I think, became an early paper of yours that I think probably to this day is well known. Can you describe what you found?

Robert Willis:

Well, so what I did was I looked at this paper of Becker's, and I wanted to construct a theory where I ended up using a number of the Becker ideas and putting them together actually with some theorems from international trade. It was basically as a theoretical paper in which I argued that the non-market activities of mothers was an economically valuable thing, and people valued their having children. They also valued the quality of their children and not just the quantity. And that the women's labor force participation was determined by a trade-off between the shadow prices of, at the time, working they spent at home and the market value of their labor if they went to work. And so I put all of that stuff together and showed that as income rose, I used the Rybczynski theorem from international trade to say that as household income rose, the ratio of money to time increased, and that tended to increase the shadow price of the woman's time and tended to induce some substitution between quantities and qualities that worked in favor of having more investment in the children.

So, that was the idea of the paper, and it was a very long paper, and it took me a very long time to write it. My first teaching job was at Wesleyan University in Connecticut, and I arrived there, recommended by Charlie Tiebout who had been a Wesleyan undergraduate, and I didn't have a dissertation at that time, so I worked for about three or four years at Wesleyan, and I was writing that dissertation, and finally I had my connection. My next connection was really to the foundations of labor economics is that I ended up getting an offer to come to the NBER, which was then in New York where Becker and Mincer and their students and others were assembled. And I arrived in New York and met a bunch of other people, and that was... I listened to your podcast with Robert Solow and he talked about the importance of groups in the history of economics. And there was a group in New York at that time that was just absolutely amazing, and that had a huge influence on mine.

Orley Ashenfelter:

Did you actually write your dissertation at the National Bureau in New York?

Robert Willis:

No, I wrote it at Wesleyan. At Wesleyan, we had a really very good faculty there, and we had a visitor who was a well-known Dutch econometrician, and he was apparently on the NBER mailing list. And he knew that I was working on fertility behavior, and he saw that there was a paper that was being given at the NBER, had a weekly seminar, that was being given at the NBER that was on population. And he told me something like, "Well, I don't know how it is in your country but my country, having somebody else working on this topic would be the end of my career." So, I was frightened enough that I decided to come down to New York and I found out where the NBER was and where the seminar was, and I went to the seminar.

Orley Ashenfelter:

You crashed the seminar?

Robert Willis:

I crashed the seminar, and I came in and it was quite a remarkable thing. One that turned out, to my comfort, that the paper was pretty unimpressive paper. So, in my country, I didn't think my career was ended.

And the other thing was I was a strange face around the table where everybody else seemed to know one another, and one of the people at the table was Vic Fuchs, who was then the vice president of the NBER New York. And he was also noticed that I was a stranger. And he came over and he said, "Now, who are you?" And I was introduced to Jacob Mincer. I was introduced to a number of other people. I

don't think... Gary Becker by then had left for Chicago, but everybody, all these other people were there. That was very nice. And it turned out that when I got my dissertation done, one of my other professors at the University of Washington, Yoram Barzel, I think wrote to Vic or to somebody to suggest that I had a really good dissertation and that they should bring me in. And I was actually brought to the NBER with this dissertation in hand and finished with a full year fellowship. Chris Sims was the other person who got that fellowship.

Orley Ashenfelter:

Very, very nice. Of course, Chris is a colleague of mine here at Princeton now. I'm so glad you brought up that National Bureau of Economic Research research group that was in New York, because I don't know if you were there during how long you were there or if you were there during the full period, but it had a remarkable group all the way from Jim Heckman, Finis Welch, I think Mel Reder for a while. Were they all there at the same time as you?

Robert Willis:

Yeah. So, in fact, what ended up happening... I could have gone back to Wesleyan, but Finis Welch was there, and he decided to stay in New York and was recruited as the chair of the graduate center at City University. And he made me an offer and Jim Smith an offer. Jim Smith was a new Ph.D. in the market then, and I was eligible to be poached, I guess.

Finis recruited both of us that I ended up staying. There's another story that I should mention is that when I was at the Bureau in my first year when I was a fellow on leave from Wesleyan, my wife and I were desperate to collect enough money that we could buy a house. We had two young children and we wanted to buy a house. And when I arrived at the NBER, everyone was gone to some conference in England except Jacob Mincer. Mincer came to me when I walked in and said, "Well, we hired this guy at Columbia, but he's not finished with his thesis yet. So, we decided to give him no courses for the fall, but he was scheduled to teach an intermediate micro theory course. Would you be willing to do that?" And I said, "Well, yeah, money is worthwhile."

So, I agreed to do this, and Mincer said, "There's one condition though, when you come to up to Columbia, you're going to need to share the office with this guy," that they just hired. Well, the guy turned out to be Jim Heckman. I walked into the office and Heckman was sitting at the desk and he said, "Well, who are you and what have you done?" And I said, "Well, I wrote a dissertation. I just finished my dissertation. It's on fertility behavior." He was incredulous because he had gone to Princeton. Using economic theory on a topic like fertility was forbidden at Princeton.

Orley Ashenfelter:

Well, there was a group of, still here by the way, a group of actual demographers, and they had some hostility to that.

Robert Willis:

So, Jim switched into labor economics. Jim and I ended up doing some work later, and I stayed actually in New York for about three years. And then another transition occurred that John Meyer, who was the NBER president, was succeeded by Marty Feldstein, the Bureau, an anonymous donor donated money for NBER West in Stanford. Vic Fuchs was selected as the person to go to Stanford, and he brought me and Robert Michael to Stanford with him.

Orley Ashenfelter:

To the NBER-

Robert Willis:

To the NBER, and I had a joint appointment in the economics department there, and I was there for about four years.

Orley Ashenfelter:

You've mentioned three people. Well, some of them. Jim Heckman of course, I have done a podcast with him. You've mentioned three people I wish I could do podcasts with, and they're not with us anymore. I almost got to Vic Fuchs in time, but he just died as you know a few months ago. But you mentioned Vic and Jim Smith and Finis Welch. I wasn't close enough. There was no way I could even try to find them. They were already gone. But there's a fourth one that you haven't mentioned yet that I think I'd like to ask you about. It's Lee Lillard, because you and he wrote a paper in *Econometrica* that I much admired and read many years ago. It's about income dynamics and it has a quite modern flair to it. How did you come to write that?

Robert Willis:

Well, so the NBER West in some sense was a continuation of the New York group. In that, Lee Lillard, had been Finis's student, and Finis brought Lee to the NBER in New York. Essentially, there was centrifugal force and Heckman went to Chicago ultimately, but actually came to the NBER West during that summer, and other people came that summer that were around, and Finis went to RAND and Lee was actually somebody that Vic also wanted to be at the NBER. So, Lee was recruited there. Heckman and I had written a paper earlier that was in the JPE that was on female labor force participation in which we used, I think we made the first use of longitudinal data that was provided by the PSID. We had about five years of data, and we asked the question of how female labor force participation varied over that time.

So, the idea of using longitudinal data was now starting to come up. And Lee and I talked a lot about... There was some use of discrete Markov Chain type models in economics at that time to account for mobility. And we thought that they were rigid and introduced some possibilities for misleading results and we spent quite a bit of time thinking about, well, how could you model this properly? And we ended up with doing this paper, and then we presented it at a world econometrics meeting in Toronto, and our discussant was Art Goldberger. And Art Goldberger liked the paper, and he did something I've never seen replicated since, which is he wrote discussant comments that were like about a five-page outline of a way in which one could estimate our model using LISREL.

Orley Ashenfelter:

It's funny you say that, because Art was the clearest writer in econometrics of all time. I'm sure that was helpful.

Robert Willis:

Oh, it was absolutely helpful. And I have to say this, I never had any econometrics course at the University of Washington.

Orley Ashenfelter:

Oh, shame on you.

Robert Willis:

It was shame on me and shame on them. Walter Oi was the person who was teaching econometrics, and everybody was afraid of Walter at that time... And Walter's blackboard talents as a blind person were really quite legendary.

Orley Ashenfelter:

He visited Princeton many times. I'm very fond of him.

Robert Willis:

So was I. So, at any rate, Lee and I spent a long time thinking about how to do this, and we wrote this paper, got good reviews from Art, and actually the econometric suggestions really made Lee's subsequent career. He essentially developed and expanded on what Art had talked about and developed his own software and so forth.

Orley Ashenfelter:

So we've covered a lot of people and we obviously have a lot of people that we know in common, many of whom are gone. I did want to ask you about two more things. First, you spent quite a lot of time... I know you were at Chicago for a length of time and then moved on to Michigan, and at Michigan I guess, or maybe it was at Chicago, I'm not sure which. You were very active in developing the survey research that's used for studying retirement. That was a big operation, and you not only were, I think the director, but not only that, you wrote several papers about ways to improve the collection of data and other things. What are your takeaways from that experience?

Robert Willis:

This was a very interesting thing. I was at the University of Chicago at the time that Richard Suzman, who was a scientific director for the National Institute on Aging, had the idea that, and Jim Smith was the author of a white paper commissioned by Suzman that said the fact that we were facing demographic change and economic change with the decline of mortality and the decline of fertility, that was going to change age structures and create problems all around the world with dealing with changes in the demographic structure and the aging of societies. And Jim Smith wrote a thing in which he characterized the lack of data on this as a national disgrace. And that national disgrace line was used by Suzman to convince the NIA that they should invest in a survey. I was at Chicago, and I ended up putting together a team that included Jim Smith and Lee Lillard and Michael Hurd and a number of other people, and we wrote a proposal for that.

But we lost to Tom Juster, who was at that time at the University of Michigan. I had known Tom before because he was the other vice president at the New York Bureau at the same time that Vic Fuchs was. And Tom won it. And Suzman said, "Well, the people who were in the losing side should join with the winning side in designing the survey," and he gave Michigan a million dollars to have workshops basically of experts in all kinds of areas to design what this survey should look like. And Tom Juster organized that, and I was part of that effort, and as were people like Michael Hurd and Lee Lillard.

And we designed the survey by really asking questions about what is the research question that we could address if we added this piece of information. And we covered all kinds of areas across disciplines. So we had labor economics, and wealth, and income, and health, and psychological disturbances and so forth. It's a body of longitudinal data that now covers from 1992 until today, is a continuing longitudinal survey called The Health and Retirement Study. And that also generated an idea that Richard Suzman had to collect similar data in other countries. And I just came back from England where I talked with

people at the English Longitudinal Study of Aging, and I'm on an advisory committee for the SHARE, which is this survey of health, aging and retirement in Europe that covers 28 countries, all the EU countries plus Switzerland and Israel, and has another one that I was involved with is a survey in China that's similar. And these surveys all have comparable data. We've been able to use the data in papers that compare across countries as well as within countries. A majority of the world's population is now covered by these surveys.

Orley Ashenfelter:

It's fascinating. I'd ask you to go into detail about what you think you found, but it'd probably take another podcast, I'm afraid. And there is one last question I like to ask you. You have actually written quite a few papers that are almost like detective work. I was surprised when I went through your curriculum meeting to see some of them and they're like a specific, for example, let me give you one that really struck me. It's titled something like, "Why Do German Women have Fewer Children but Work Less Than Swedish Women," something like that. It's a why question. First of all, I'm just curious, did you answer that question, by the way?

Robert Willis:

To some extent, that's actually a paper that I don't remember all that well, but it's a paper. There was a woman named Siv Gustafsson who was a Swedish economist who was actually was interested in this question. She been a visitor at Chicago when I was there, and she invited me to come to Stockholm for a few weeks in the summer. And one of the things that I did was... She was interested in this question, and one of the reasons that she had that she talked about quite a bit was the role of constraints... That apparently German schools, for example, did not serve lunch at school. They had the young kids come home to eat their lunch. And that made it difficult for German women to have a career outside the household. Whereas in Sweden, there was a major enterprise, which was the hiring of some women to care for the children of other women. Later on, Sherwin Rosen wrote a paper on this that got him labeled as the Great Satan.

Orley Ashenfelter:

Oh, I see. So that's probably why you forgot this. Well, I was asked about it because I noticed there had been a number of papers that have popped up now and then, and obviously they were well after your dissertation in many cases. And I wondered whether or not you had a lesson that you learned from that. Are there some of those that you think went very well and others that... For example, there's another one you wrote about teen fertility, which has to do with unwed mothers.

Robert Willis:

Yes.

Orley Ashenfelter:

How did come to write that paper?

Robert Willis:

Well, I'd always been interested in fertility. We talked about that at the beginning of the podcast. Yoram Weiss and I had earlier written a paper on children as a public good, and looking at what problems that a child being the joint consumption good of a father and the mother created when the father and the mother split up or were not married to when we looked at divorce settlements. And a further question

was that I addressed in this out of wedlock childbearing paper was what about the situation when men are not doing well as was true with Black men and other low-income men who wanted to have sex, were able to have sex, we're not really able to support their children. When I was at Chicago, I'd become friends with Bill Wilson and Bill Wilson had talked a lot about this. And so I started thinking about, well, this paper that I'd written with Weiss has theoretical elements that carry over to this question of what happens where you have men who don't have a lot of economic potential to contribute to the family, don't marry, and women end up being single moms. And that was the idea behind that paper.

Orley Ashenfelter:

Interesting. Bob, thanks for joining us.

Robert Willis:

It was my pleasure.

Orley Ashenfelter:

Our guest today has been [Robert Willis](#), professor of economics emeritus from the [University of Michigan](#). 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](#). I'm your host, Orley Ashenfelter. Thanks for listening.

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