Claudia Goldin: Women’s increase in the labor force is the single most important change in the labor force for almost every country I can think of.

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 Claudia Goldin, who is the Henry Lee Professor of Economics at Harvard University. She is renowned for her work connecting labor economics and economic history, especially her study of the growth and importance of women in the labor market. Claudia, welcome to The Work Goes On.

Claudia Goldin: I am delighted to be here, Orley.

Orley Ashenfelter: It’s a pleasure to have you. Let’s begin the discussion by talking about your background. Where did you grow up?

Claudia Goldin: It’s a long story, of course, like everyone else’s. So I grew up in the city. There is only one city; it’s the real city.


Claudia Goldin: Well, a lot of people say they grew up in the city, but they grew up on Long Island or they grew up in Westchester. I grew up in the Bronx.

Orley Ashenfelter: Oh, really?

Claudia Goldin:
I grew up in Parkchester. I grew up right above Macy's Parkchester, which was a bit of my playground. So I was an inner-city kid. I had no playing fields, no bicycles, no flowers, no grass, no forests, but I had the best of New York City. I had its art museums; I had its young people's concerts with a conductor whose first name was Lenny; I had ice skating in the Wollman Memorial Rink in Central Park; and I had the best food in the world. So in fact, I was going to ask you a question. So before I get on with how I grew up, the question is, why does it take eight million people to produce a bagel?

**Orley Ashenfelter:**

I'm a huge bagel fan and I'm afraid New Jersey, much as it has a lot of good stuff, the bagel world has really collapsed. So I'm afraid New York is the only place left.

**Claudia Goldin:**

Yeah, well, it's the only place with just about anything. I mean, in Boston, I went out the other day and I decided... I was in Brookline... I could get some chicken soup with matzo balls. And I went into a big deli, and I ordered that, and they pointed me to the freezer cabinet. And I said, "I know you're not in charge, but this is not a deli, it's a grocery store."

**Orley Ashenfelter:**

Where did you go to school?

**Claudia Goldin:**

So here. So, I benefited as well from New York City's test schools, and I went to the Bronx High School of Science, which at the time was the best. At the time, Stuyvesant, which is now a front runner, was all boys and it wasn't anywhere as good as Bronx Science. Had I not gone to Bronx Science, I would've gone to a place called James Monroe High School. And many people know that James Monroe High School was the largest high school in the United States at the time, and it was eventually closed because it was impossible to rule. And at the time, I was afraid that I would go to James Monroe because they had knives. And so, people are afraid of guns; I was afraid of knives.

**Orley Ashenfelter:**

Well, I know you ended up at Cornell. How in the world did you get to Ithaca from there?

**Claudia Goldin:**

Well, I certainly didn't walk, but that would've been just as convenient. My mother always wanted me to go to Cornell. First of all, people were very, very much based on where they were. They were in New York, so there were places in New York I could go. I could go to Rochester; I could go to Cornell; and she really wanted me to go to Cornell. And so I went to Cornell with the idea that I would do science. I had done a course at Cornell when I was a junior in high school during the summer. I did a course in bacteriology, and I just thought that I knew everything there was to know about bacteria, and I was going to major in bacteria.

So I received terrible guide... I mean the guidance, when I talked to my students at Harvard today, now I tell them, "You have no idea of how good guidance you have. I had practically nothing." And no one told me how to become a bacteriologist. In fact, no one told me that the occupation, the field was changing. No one told me that there was this thing called genetics and cellular and molecular biology. I just knew about bacteria. But in some sense, none of that mattered since I quickly realized that I knew very little
about everything in the world, and there were lots of other parts of knowledge. And I soon began to broaden my interests as one is supposed to do in college; just try lots of subjects. And so like many people, I took lots of subjects and I happened to take one by an extraordinary economics professor named Alfred Kahn.

**Orley Ashenfelter:**

Al Kahn.

**Claudia Goldin:**

Do you remember Al Kahn?

**Orley Ashenfelter:**

Oh, of course. The deregulation and CAB and the [inaudible 00:06:25]

**Claudia Goldin:**

He was known as Fred Kahn, and he's got to be the only person in the history of agencies who becomes the head of an agency and then dissolves the agency. So he essentially dissolved the Civil Aeronautics Board, which was regulating the prices of airline tickets. But of course, he did that after I was an undergraduate, but he was just intensively interested in regulation, and he really got me hooked into wanting to know more about industrial organization. And so I went to graduate school at Chicago, and I went there to study IO. Fred had an infectious personality, a passion for industrial organization, and I sort of caught that disease, and I went to Chicago. He wasn't very pleased about the fact that I was going to Chicago since he was a Yale person. And I went there to study with people, and I did like Stigler and Coase.

**Orley Ashenfelter:**

Stigler, sorry, would've been one of the masters, right?

**Claudia Goldin:**

He was the master, but it was really Sam Peltzman who was the person on the ground doing the teaching. George was a show person. And Les Telser, who I absolutely adored, and Ron Coase, who we all think amazingly of, and I happened to take his course in antitrust.

What many people don't know is that although right now I'm known for one type of work, I began in a very different field. I began in industrial organization.

**Orley Ashenfelter:**

That is fascinating. Well, how did you get switched over to economic history?

**Claudia Goldin:**

Well, I first got switched over to labor because the next thing that happened was that Gary Becker came to Chicago. So, he left Columbia, visited Chicago, and then decided to stay at Chicago. And I took his course, and it was a form of economics that I never knew before. And I remember sitting in his class and light bulbs! It was as if I was at some tree lighting event. Light bulbs were just going off. And I realized this was a way of looking at human behavior that I hadn't thought about at all. At the same time, I was taking, as we all took in those years, a course in economic history, and that was with Bob Fogel. And I
realized then that my love of history and the things that I had discovered when I was an undergraduate, that I could put it all together.

There was a time when I thought I was going to do the history of antitrust and industrial organization and concentration, and then I switched a little bit to more the history of labor. But something came in between, which was that I wrote my dissertation on slavery in the US South, and then I started working on war. I worked on the Civil War and the cost of war. And in some sense, I did a fair amount of work on that, and my estimations of the cost of war became a page in the Stat Abstract, which shows how important that... That's, I think, the only page I have ever had in the Stat. I don't even know if the Stat Abstract still exists.

Orley Ashenfelter:
Oh, I'm sure it's in our library, but it reminds me slightly of when I talked to Ron Oaxaca, there is now the Oaxaca Command in Stata. This is a little bit, I would say this is a similar version for an economic historian to get a page in the Statistical Abstract.

Claudia Goldin:
So if they changed it to the Kitagawa-Oaxaca...

Orley Ashenfelter:
I don't know. I don't think so. I don't know who did it, but that's what they call it now. I think they liked the way it sounds. I don't know. That's interesting. I know you did write about, and it was about urban, not the part of slavery that most people think about.

Claudia Goldin:
Right.

Orley Ashenfelter:
And what did you find?

Claudia Goldin:
The study that I originally did, which was one of... One does a dissertation in economics because one finds something clever and interesting, but then one realizes that one doesn't know that much about the field in general. So, the clever and interesting thing was to realize that the flows of slaves into cities and out of cities follows, you know, prices of cotton. So, people would be in these cities and bring slaves into cities to work in cities, but when the price of cotton becomes higher, slaves leave and go into the plantation areas. But that was part of the modeling, the economics, the empirical.

Orley Ashenfelter:
Yeah, so that's real economics. I can see why people would be excited about it.

Claudia Goldin:
Yeah, but what I became more interested in is what slaves were doing in cities and the fact that they had considerably more freedom in cities. So, slaves were hired out. So, if you had a trusted slave, you wouldn't want to stand over the person. So, this is just like labor. If you have a trusted worker, you're not going to stand over them all the time. You're going to allow them to earn wages themselves, and
you might tax them a bit for something. And so that's what I was looking at. I was looking at slaves that were hired out. I was looking at hire rates. I was studying diaries and letters to understand this part of slavery that was, in some sense, less rigid.

**Orley Ashenfelter:**

It's real labor economics, actually. I was aware of your work, but I haven't looked at it for such a long time.

**Claudia Goldin:**

Well, neither have I.

**Orley Ashenfelter:**

Well, maybe it's something you should come back to. I do want to ask you of course, about your latest book and several others that are connected to what I consider, I'm sure you do too, one of the greatest social as well as economic transformations in the US, and that's the role that women now play in the labor market. But before we do that, I have to ask you about a paper you wrote with, I believe a former student of yours, my colleague, Cecilia Rouse, called “Orchestrating Impartiality”, about the use of screens to do blind auditions in orchestras. I want to ask you partly because I'm very curious how you got onto the topic in the first place, but also because the New York Philharmonic just announced recently that over half of their performers are now women. So, it's gone from maybe 30 percent at the end of the period that you looked at to over half now, and I'm sure that's true in many other orchestras. How did you get started on that topic?

**Claudia Goldin:**

Certainly. And you're going to be amazed that in fact you were the reason. Okay, I'll explain. This is very interesting. Just to go back, actually, when we stopped our study, the New York Philharmonic was only about 20 percent women. At least that's what I recall. It was 20 percent and 25 years later, it's 50 percent. So, here's how it began, and once again, this is a great story for people to hear so they understand how research proceeds. So, the paper began because of the AER randomization and because of Becky Blank's 1991 AER paper on the effects of double-blind versus single-blind refereeing.

So just so that people understand, the AER randomization was because when Orley was the editor of the AER, which he was for as long as anyone can remember, and as long as he can remember, he decided, and he can correct me if I get the facts wrong here, that he wanted to understand just what randomization was achieving because, and in fact, today, randomization would achieve nothing because we all could just Google someone's paper and we would know exactly whose paper it was. So, in those days, you couldn't do that, but you had a pretty good idea who was working on what. So, he wanted to see what impact randomization was actually happening. And so, he randomized single-blind versus double-blind, and he gave the data to the great Rebecca Blank to analyze. And she did that and produced a paper in the 1991, of all places, it was published in the AER.

**Orley Ashenfelter:**

Well, we should say AER stands for *American Economic Review*.

**Claudia Goldin:**

Orley Ashenfelter:
And blind and double-blind is, blind means that the author doesn't know who the referee is. Double-blind means the author doesn't know who the referee is, and the referee doesn't know who the author is in principle.

Claudia Goldin:
Right. So, what I was struck when I read Becky's paper was the fact that women were disadvantaged in a far more complex manner than I had thought. It wasn't that they were rejected as women. In fact, they were rejected because they were disproportionately in what we call Tier Five institutions in economics. So, Tier Five institutions would be some of the larger state schools. The University of Oklahoma, for example. Oklahoma State, University of Nebraska would be in Tier Five. When I say Tier Five, they are still very good departments, of course; they have some incredibly good faculty.

The reason, so when Becky wrote this paper, this is what she found, and then she leaves it up to her readers to piece together why this is the case. And I piece together that it's because referees like to know that when someone gets an R&R, which means that they are being invited back to resubmit it, to do some revisions and resubmit it, then in fact the author can actually make these revisions. And referees know that that could take help in their departments. And those at Tier Five schools, if that is known to the referee, will be disadvantaged. In addition, Becky also found that there was a sense that people who were at what are called Tier One schools like Princeton should know better. So, if I'm a referee and I get a paper from the likes of Orley and I see that it's sloppy, I'll want to slap them in the face and say, “Rejected because you should know better.” But people in the middle schools both have people in their home institutions who can help them, and we don't want to slap them in the face.

So that's how the paper began, because now you're wondering where this happens. I was sitting in the NBER kitchen thinking about that paper and reading the senior thesis suggestions from outside my department and came across one about orchestral conductors, and it included a throwaway line about blind auditions. And at that very moment, at that very moment, who should walk into the room, but Cecilia Rouse, who was just finishing up her dissertation, leaving Harvard to go to Princeton, she walked into the kitchen, and I said, and she's known as Ceci. I said, “Ceci, what do you know about all these things?” And she sat down, and we discussed the possibility of exploring orchestras the same way that Becky Blank had explored submissions to the AER. And-

Orley Ashenfelter:
That is absolutely fascinating. Do you play an instrument?

Claudia Goldin:
It turns out that both Ceci and I play the flute, and I've also played the piano, but I assure you, Ceci plays the flute 100 times better than I. Okay?

Orley Ashenfelter:
I have to hear you guys play at some point.

Claudia Goldin:
No, the last time I picked up a flute, I couldn't get any sound out of it. It takes a while to learn how to blow across the flute. Ceci on the other hand, I think could pick up a flute and get sound out of it.
And so at the time, we discussed the possibility of simply using roster data, which is in the public domain. But one thing led to another in this conversation, this shows the... In fact, I've often said to Jim that we should have a little book about things that came out of the NBER kitchen, other than that nasty food that we don't want to talk about. And one thing led to another, and Ceci, it's interesting, I'm the economic historian who's gone to archives all around the US and it was Ceci who said, “Well, maybe we can see if this audition data really existed.” It must have taken us from that moment to when we had a first draft, it must have taken us about four to five years to get any orchestra to pay attention to us. So it also shows that you have to have faith and you have to put in the time. And Ceci, let me say, was very bold because she was not just untenured, she hadn't even started at her job, and I, of course, had the luxury of being able to sit back and just put in the time and see what happens.

Orley Ashenfelter:
That's wonderful. We should get talking about your work in... I always have a long discussion about women in the labor force because of course, the transformation of the American labor force from where women work in the market in the early part of the 20th century to where they are now, in most countries, it's pretty remarkable. And you have actually followed everything. I wonder if I could just ask, I know this is a huge summary to ask, but could you pick out three things that you think are the messages that you've learned from all of this work over these years?

Claudia Goldin:
The first very, very important part of this is that the increase of women in the labor force is probably the single most important factor in the labor force. So, the movement of women from their homes to the labor force in terms of increasing gross national product, now doing that calculation is a problem because it's not that they're leaving doing nothing. They were not people of leisure, and so they're leaving so that their homes perhaps are a bit dirtier or they purchase capital equipment or they purchase the time of other people to do it. So, the first very important part is that women's increase in the labor force is the single most important change in the labor force for almost every country I can think of. Other changes of importance is the increase of education and training, changes in unions.

Now, this leads to a sub comment, which is I'm often asked, “What is it like to be a person studying gender, studying women in the labor force?” My answer is, and Orley will know this very well, all labor economists studied women. And the reason that they did, the reason that we have a Clarence Long and a Jacob Mincer and the list goes on and on, is that economists want to study the group that has variance and women have variance, and men generally do not. So, studying a group of individuals that have a labor supply function that is discernibly upward sloping is extremely important.

So those factors I think are, those are sort of two very basic parts of this. The third part is, which is of importance in thinking about the US as well as today thinking about Korea and Japan, China, is that sometimes, in fact, often, there are changes in the labor force, particularly when the labor force changes because of injections of education that happened much faster than traditions and what we often call social norms. And so sometimes as a clash between them. In the US, the changes in the labor force for women happened over an incredibly long period, certainly from the late 19th century, at least, to some part of the 20th century. And because they happen over such a long period of time, traditions and what's happening in the labor force clash a lot less than they do in places like Korea where young women would like to be in the labor force and have careers, and there are pulls in the other direction by often their husbands and their families to conform more to the more traditional ways of being as a woman.
Orley Ashenfelter:
I noticed you didn't mention Iran.

Claudia Goldin:
No, I did not mention Iran. No.

Orley Ashenfelter:
Certainly, an example where you'd be welcomed by one part of that operation, but maybe not the rest. That is interesting. I have to ask you a couple more questions that are related to this. One, there's always Rosie the Riveter, and that is often considered as a kind of major disruption that had some effect on women in the workforce. I know you've put a lot of energy into thinking about that. What's your take on Rosie the Riveter?

Claudia Goldin:
It's interesting that we think about Rosie the Riveter as an individual. Many people know this, I think was in the labor force for about two weeks as a person, but that's okay because she stands for some larger group of women who worked in war industries. The big effect to the extent that that period had a real effect was on the women who worked in a much larger area, which was clerical work, the ones who were the more educated women and who were older. So, Rosie was many different things. She was relatively young, and she was working in a war industry. That group was relatively small, of course, but in addition, it was a group that was eventually going to have kids and re-enter the labor force at a later time.

But the group that was most affected contemporaneously was an older group. So, if we think about cohorts, so there's a large group of women graduating from high school, which was a big deal in the 1920s, and they are in their 40s in the 1940s when their kids have already grown, and they're pulled into the labor force by high wages and a very welcoming environment. And they have jobs more in administrative roles, they're generally not the wartime workers. And from what we can tell from the data, they're the ones, to the extent that there was a treatment effect of the war, they're the ones that had the largest treatment effect. By and large, the treatment effect on most women wasn't as large as when we look back at this period, we might think it was.

Orley Ashenfelter:
Now the related issue of course, for some people would be very interested, I'm sure, is women in the workforce in the COVID period. Do you think the pandemic has had a different effect on... Of course, families are very critical, and women still play an overwhelmingly large role in the family. Do you think that the COVID pandemic has had an influence or more on women than it otherwise would be the case?

Claudia Goldin:
I think that, so the data, it doesn't really matter what I think. It depends upon what the data say. So, we went into the pandemic in March of 2020, and it was pretty clear that women were going to be disproportionately affected relative to any other recession. And the reason is that most recessions hit industries that are cyclical industries, and this recession was going to hit all industries, but even those that used to be very protected service industries, the industries, the sectors, the occupations, the jobs in which you had to be there. We thought that jobs like haircutting could not be offshored, right? But
suddenly we realized that jobs that you were the closest to your clients were the ones that were the most affected by the health consequences.

So, the first thing is that women were disproportionately affected relative to other recessions by the fact that the occupations that they had traditionally been in that seemed to be more protected were the ones that were the most vulnerable. The second thing is that schools closed. Never before in US history since the 1940s is the care sector and the work sector so intertwined. During World War II, we realized that to mobilize women, we had to find care for their children. Well, here we have a case in which we don’t have care for the children and women disproportionately are going to be taking care of them. Same thing for elderly. Our nursing homes became toxic.

So now when we look at the data, what we see though is that yes, women are definitely impacted more than they were in previous recessions, but the big difference in the data is between the more educated and the less educated for both men and women. So, in terms of the fraction at work and the fraction in the labor force, the big hits were for the lower educated. The college graduates could isolate themselves. In May of 2020, when we get the first data on that, we can see that more than 60 percent of college graduates are working remotely. About 20 percent of the non-college graduates are working remotely. Their jobs are more vulnerable; their health is more vulnerable.

**Orley Ashenfelter:**

Very interesting. We are coming to the end here, and I do have just one more question I want to ask you. You are, without a doubt, one of the most senior women in the economics profession, former president of the Economic History Association, of the American Economic Association. Probably some other things I don't even know about. But you've been in the profession for such a long time that you've obviously observed how things in the profession itself has changed, and economists are often accused of being very sexist. I'm not quite sure how to put this, but how do you feel about the way you historically were treated in the profession itself as a woman?

**Claudia Goldin:**

It's an interesting question because we could go back ourselves, Orley, to 1973 to 1979. You remember those years, right?

**Orley Ashenfelter:**

I do.

**Claudia Goldin:**

We were in the same department.

**Orley Ashenfelter:**

We were.

**Claudia Goldin:**

So how do you think I was treated?

**Orley Ashenfelter:**

Well, I wanted to ask you, I didn't want to... Remember, this is supposed to be a podcast about you.
Claudia Goldin:
Right, but it is about me, but it’s about that period as well. And did you think of me as a labor economist then?

Orley Ashenfelter:
My impression is that, the hope was that we would have a real area of economic history in the department. I think that Al Rees was probably behind that, and he understood how successful that had been at Chicago, and he wanted to do that at Princeton.

Claudia Goldin:
Right. But I’m going to tell you something and I’m just going to say it, and I’ll let you and the audience make whatever sense you want. I was hired by Princeton, not once, but twice. The first time, I didn’t go, and I went to Wisconsin for two years because Al wanted me to be the economic historian and I felt I didn’t know enough history because I had done IO and labor at Chicago and Wisconsin was a great place for me to learn more history. I spent six years at Princeton, and you’re going to be shocked at this, Orley, not once, not even when I was hired not once, but twice. Not once in the six years that I spent at Princeton was I asked to give a seminar, but I’ll go further. Not once did I ever step foot in the Industrial Relations Section.

Orley Ashenfelter:
Oh, that is surprising. So especially since Ceci was at least eventually there.

Claudia Goldin:
No, no, no. That was many... Ceci was a baby.

Orley Ashenfelter:
That was long after, I realize. Yeah, I realize it was long after.

Claudia Goldin:
Yeah.

Orley Ashenfelter:
Yeah. Well, of course a lot of people didn’t set foot in the Industrial Relations Section in those days because it’s unlike now. It was-

Claudia Goldin:
Yeah, but I taught with John Aboud, and he did step foot in there.

Orley Ashenfelter:
Oh, yeah. Well, he was definitely involved. I’m not-

Claudia Goldin:
John Abowd and I ran a program at the Woodrow Wilson School that was funded by Sloan, which was for journalists.
Orley Ashenfelter:
I do vaguely remember that, the program.

Claudia Goldin:
So, how I was treated is complicated, and it’s also complicated by the fact that I always accepted who I was and accepted what I could get from those around me and took what I could take, but never really pushed very hard. I know that sounds strange, but I think that has to be the way it was for me to have spent all that time there and never given a seminar.

Orley Ashenfelter:
That’s very interesting, very interesting for a lot of people to think about. Of course, most of them are long gone. Claudia, it’s been a pleasure to have you with us.

Claudia Goldin:
It has been an enormous pleasure, Orley. I’ve always enjoyed talking to you and listening to you, and one of the things, and I’m sure that listeners know or should know, is that Orley is a great teacher, and he has a list of students that is not just impressive and long, but something to be enormously proud of.

Orley Ashenfelter:
Well, thank you very much. Our guest today has been Claudia Goldin, the Henry Lee Professor of Economics at Harvard University.

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 Robert McKersie, Professor Emeritus of Management at the MIT Sloan School of Management. I’m your host Orley Ashenfelter. Thanks for listening.

Announcer:
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