

**Remarks of Patricia Cortes on May 26, 2009 in Washington, DC at the conference  
*Beyond the Fence: Research Lessons on How Immigration and Remittances Shape Global  
Development***

So hello and thanks for inviting me. So I'm going to talk about low-skill immigration, prices and the labor supply of highly-skilled women. This is based on two papers, one of which is co-authored with Jose Tessada that's now in Brookings Institution. Okay. So let me start.

So in part we're having this conference because low-skill immigration has – as a share of the labor force – has increased a lot in the U.S. in the last three decades. And any labor economist will tell you that there has been lots and lots of research about the effect that this low-skill immigration has had on natives. But the research has focused mainly on the effect that this low-skill immigrant have on the wages of competing natives. But very little has been researched on the effects that low-skill immigration have on prices. Okay?

Why is it interesting to look at prices? I'll give you at least two reasons. One is that if we care about welfare or the well-being of people, we care about purchasing power, not only wages. And purchasing power will depend both on wage levels and price levels. So only looking at wage levels does not tell you the whole story. If wages go down, right, prices go down; it's not as bad as if wages go down and prices go up, for example. That's one point.

The second point is that, as with wages, the effects that immigration has on natives through prices might have distributional consequences. And the reason is that differing groups of the population consume different baskets of goods. And if some groups consume disproportionately more of the goods that the immigrants produce, than they're going to be disproportionately benefitted. So think about – we usually think about low-skill immigrants and we're talking about – we're going to talk a lot about this – working on babysitting, housekeeping, gardening and we usually think that they're high-skilled people, the ones that are consuming the services. And those are going to be the ones that are going to be benefitted the most. Okay?

Related to this point is that, in a table that I will show you, it's low-skill immigrants tend to concentrate in working in occupations that are going to be close substitutes for household production. And Michael is going to talk more about this. So again, I'm talking about housekeeping, babysitting, gardening, et cetera. If this is true, and if low-skill immigrants have reduced the prices of these goods that are close substitutes for household production, a very simple model of time use will show that for women that have very high opportunity cost of their time, that are very educated, that can make lots of money out in the market, their cost of doing their own household production is very high. They're going to be willing to outsource part of the household production if the prices of the household goods go down. Okay?

So we also want – and this the work joined with Jose – we want to see if actually this reduction in price is of household goods that have been produced by low-skill immigrants has actually increased the labor supply of highly-skilled women. So we usually think of – I mean,

lawyers working more because now they have a nanny which they can hire, or even professors, et cetera. So we will research that question.

Okay. So this is a table in which I just want to show which are the occupations in which the low-skill immigrants concentrate. So in the – let's just focus on the first column. So we have – the first line just tells us that 5 percent of the labor force in the U.S. – let me correct – in the 30 largest cities, 5 percent of the labor force are low-skill immigrants. And low-skill mean high school dropouts. Okay? Six percent of labor force are low-skill natives. So around half of the low-skill population in the U.S. are immigrants. And although they represent only 5 percent of the labor force, they represent about 30 percent of the workers in housekeeping occupations and gardening. Okay? Much more than natives, also; that lowest-skill natives. Okay?

So I'm just – I have just shaded the occupations that are non-traded in which low-skill immigrants concentrate, and it's the ones that I'm going to focus of what happened with the prices of the services. Okay. So just to make it very clear what I'm going to talk about, first I want to see what is the causal effect of low-skill immigrants on prices of non-traded goods; and second, if it – given that I showed that it has reduced the prices of services that are close substitutes to household production, if indeed these have increased the labor supply of very highly-skilled women.

Okay. So how are we going to do on answering this question? So the empirical strategy is to explore the variation in immigrant concentration across U.S. cities. So we know, for example, from – sorry – this table that not U.S. cities – not all U.S. cities have the same number of immigrants or the same share of immigrants. There's lots of variation in immigrant concentration in U.S. cities. So you can see – if you can see? I don't know. From this table, you know that there are some cities, most of them – some of them in California, some of them in the South; others like Miami and New York and other parts – in which there are many, many low-skill immigrants in the population. Whereas for example, in Los Angeles, now 15 percent of the labor force are low-skill immigrants. There are other cities that have almost no low-skill immigrants.

Okay. There's this variation across cities. There has also been some variation across time. And what is interesting – I had explored some research on what is the cause of this, is that if you look at the table, you will notice that some of the biggest immigrant cities didn't attract that many immigrants from 1990 to 2000. So for example, if you look at Los Angeles, from 1990 to 2000, their share of low-skill immigrants stayed more or less the same. And it's not because there were not low-skill immigrants – (inaudible) – because there were many. They were going to other places. So you look at Phoenix or you look at Dallas, et cetera, you will see that they are choosing new locations.

Okay. So back to my – so this empirical strategy is to use this variation across time and across cities in immigrants to see if this variation can explain variation in the prices of services. Okay? There are two concerns – okay. Let me just first say that given the nature of the empirical strategy, that is, to use city concentration, I can only look – explore the effect on the

purchase of non-traded goods. Now, there – in other words, on the prices that are determined by local supply or local demand. Okay? So I cannot look at the prices of traded goods – which doesn't mean that they're not going to affect it, but my empirical strategy does not allow me to do that.

There are two concerns with the empirical strategy. One is that maybe they are displacement effects, which means that immigrants come to a city, they displace native or other immigrants, and they go to other cities. So actually, the relevant market is not the city market. There have been several studies that have been trying to see if there is actually a displacement effect. There's not that much evidence. And in any case, we'll just capture lower bound. The other concern with this strategy is that immigrants do not locate randomly. Okay? So when immigrants are deciding if they're going to New York or they're going to Miami or they're going to L.A., right, they don't just throw a coin. They are attracted by characteristics of the city that might also affect the labor supply of highly-skilled women, that might also affect the prices of low-skill services. Okay?

So what we're going to do to tackle this issue is we're going to use an instrument. And what the instrument wants to do is to find an exogenous variation in immigration concentration that is not related to recent changes or economic opportunities in the city. And we're going to use that historical distribution of immigrants. I'll refer you to the papers on a much, like, detailed discussion of the conditions for the validity of the instrument. It has quite a few of them, but you can look at them in the paper.

So basically what the instrument says is when immigrants make decisions where to go, they of course consider economic opportunities that that city offers. But another consideration that matters for the decision is going to be networks. Okay? So we see a lot of same – Mexicans going to L.A. and Dominicans going to New York and Colombians going to Queens and Brazilians going to Boston. And so we believe there's something there that where networks matter. So what the instrument is going to do is simply saying if 30 percent of Mexicans were in L.A. in 1970, I'll assume that 30 percent of Mexicans that came 1990 to 2000 went to L.A. Okay? So I'm just going to project the distribution today, using the distribution in 1970. Okay.

So that is it. Okay. The data that I'm using – price data comes from a confidential agreement with the BLS – Bureau of Labor Statistics. They allow me to use the microdata they use for the CPI. So I have price indexes for services and goods for cities. I'm restricted to work only with 30 cities, unfortunately, because that's the only – for only those cities I have enough data to make it a (representable ?) index. Immigration concentration, you have the census. That's the only reliable – kind of reliable source for number of immigrants per city. For the study of how this has affected highly-skilled women, I'm going to use the census for labor supply. That will give me labor force participation, hours worked. For household work, I'm going to use newly-released – very nice but very recently, unfortunately – (inaudible) – American Family Survey, which is by the BLS, and a much older and not-so-good but available, at least, National Human Activity – (inaudible) – Survey. And I'm also going to look at

consumption and expenditures on housekeeping, and for that I'm going to use the Consumer Expenditures Survey for '80, '90 and 2000.

Okay. So let's look at prices first. So the main specification that I'm going to run is going to be the – (inaudible) – of the price of – (inaudible) – in CTI in (period T ?) – I don't have an immigration variable. That only varies at the city and year level. So my thesis is the more immigrants are in a city, the lower the price of certain services in which they work a lot. I'm going to have industry – (inaudible) – I'm going to have city – (inaudible) – and I'm going to have region – (inaudible). Okay? What the region – (inaudible) – buys me is that at the end, I'm not comparing growth between New York and Miami, but growth between two cities in the same region, which are usually more comparable.

And I'm going to run that regression for different groups of industries. The first one – that is the one that I think is the relevant one – is going to be to look at the prices of services in which immigrants concentrate, or that depend a lot of immigrant work. Okay? So I'm going to look at non-traded services that are intensively lowest in immigrant labor. And this will include gardening, housekeeping, babysitting, dry cleaning, et cetera. Okay? This is the group of services that I expect the immigrants to affect their prices, at least from the supply side. Okay? I'm also going to run the regression for other groups of industries. And the idea here is some kind of specification check. I shouldn't find big effects on – also non-traded goods that are not intensive in immigrant labor. Okay? Such as legal services, medical services, financial services. I might find a little bit because there can be demand effects, but not as large as this one. And then the theory will tell me that I shouldn't – with my strategy – find any effect of immigrants on traded goods and services because they are not determined by local conditions. Okay?

Q: (Off mike.)

MS. CORTES: This is between cities. Okay.

So this is the regression of the specification that is showing you – first let me just say a couple of words about the comparison between the – (inaudible). So if we expect immigrants to go to cities that are growing, that are economically attractive, these are the cities that are likely to have higher prices. Okay? So we should expect an upward bias, which we find.

Now, these other specifications are just – (inaudible) – with the fact that we might consider immigrants either perfect substitutes or not perfect substitutes with low-skilled natives. I'm not going to discuss much of this, but what you see is that the coefficient is – (inaudible) – and negative. It tells – (inaudible) – California, so it's not only driven by California. Okay.

Now, I'll look at the other groups of goods and services. The first one is just the one I show you that is non-tradeable, intensive and in the lowest-skilled foreign labor. The second one is going to be moderating lowest-skill foreign labor. And you see a negative but much smaller statistically significant effect on the concentration of low-skill immigrants. The third

one is, as I mentioned, law services, et cetera, that are not at all intensively low-skill immigrants. We don't see – (inaudible) – effect. For non-traded ones, we see actually the opposite and none of them is significant.

Okay. Now let me – for – to just put some idea of what these numbers mean; how big, how small are these coefficients. I'm just going to do a simulation of what was the impact of the immigration flow from 1980 to 2000 on the prices of these immigrant-intensive services. And I'm going to do that per city, and I just took the average for all cities – the 30 cities in the U.S., and I find that this flow should have reduced by about nine to 11 percent the price of these immigrant-intensive services. Okay?

This is – let me skip this. Okay.

Okay. So they reduced the prices of housekeeping, et cetera. And they reduce it by a lot of percentage. Not a small number, but we also need to put another – think another issue is that how much of the total expenditures of natives does that group of services represent. If they represent a lot, then it's a big effect. If it doesn't represent a lot, then it's a small effect. Okay?

So I'm going to construct a – (inaudible) – index and see how much of the total like prices of the relevant basket; does it change the lowest-skill immigrants? And it's also going to be interesting because I will be able, using the (CX ?), to show the different groups of the population consume different shares of their expenditures in these goods and how some groups would be more or less affected by these lower prices.

So here I have the education – (inaudible) – household, less than high school, and then I have this distinction. I'm not going to talk about this because it's related to the (weight side ?) – high school graduates, some college, college graduate, graduate education. And the first column is the share of total expenditures of these household that go to these services that I'm studying. Okay? It's not very large, as you can see. You don't spend that amount of money in housekeeping and gardening. Maybe babysitting for some families, but I mean, there are not that many families with small children.

So what you see here is that it's small and that it grows significantly with the education of the household. Okay? So that's that high-skilled households are the ones that are being disproportionately benefit by this reduce in price.

Let me now go to the second paper – that is the one with Pepe – and it's looking at – okay, we – I found that the prices of these services have go down – have this affected how women make decisions of their time. Okay? We – (inaudible) – in women in which we are more likely to see an effect. These are going to be women that have a very high opportunity cost of their time to do some household work, and that also work in occupations that use very long hours. Okay? Because we know that some of the services actually provide a lot of flexibility for the women to work.

So we're going to focus on women with a professional degree or Ph.D.; namely, lawyers, doctors, professors, et cetera. Okay? We're going to look at labor outcomes, labor force participation, hours worked per week, probability of working full-time, long hours, et cetera. And our specification is similar to the one before. We have here the labor supply of women in CTI in (period T ?) will depend on the price of the services in CTI in period T. Some characteristics of the women; if she's married, if she had children, et cetera. (Inaudible.)

And these are the results here. So what we see – you look at the second column and let's focus for now on the signs that higher prices of housekeeping reduce the usual hours worked per week have no big effect on labor force participation; reduce the usual hours work – condition of working; working full-time decreases; and decreases the probability that these women work very long hours. Okay? So remember, more high – more low-skill immigrants will reduce the prices, will therefore increase the labor supply of these women.

How big are these effects? When again I do the exercise of making the – of applying the actual immigration flow of 1980 to 2000, this will say that it increased by around one hour a week. The usual hour is that one of these very, very high-skilled women work in the market. And if you take into account that about 30 percent of them consume the services, it's going to be, per affected women, about three hours a week that she's working more because of this price drop. It will also increase the probability of working full-time, and it will also increase the probability of working more than 50 hours or working more than 60 hours. We don't see an effect on labor force participation. These women have very high labor force participation, anyway.

So I'm just going to skip the – these. Just to say that we also find, using the other data sets, that we also find a negative effect on time devoted to household chores. So these highly-skilled women are working less at home. And they're also more likely to consume housekeeping services, and spending more money on housekeeping services.

And as a conclusion, I just want to say that though lower prices, they benefit the economy; but they're benefitting disproportionately the better-off already. And that for further study, I think it would be interesting to look at this reduction in the price of – household production has some effect opportunity or career choice effects. Thank you.