LIVING TO 100 SYMPOSIUM*

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Session 2A: Demographic Implications of Aging Populations Internationally Q&A

Presenters: John W. Paddon, Discussant
N.V. Subramanyan
Roberto Ham-Chande
Robert L. Brown
Steven G. Prus

ARNOLD DICKEY: I don't know much about this subject, so it was very fascinating to watch this, but one of the things I hope you will do, in the last paper, is to follow this over time. It struck me, there's so many factors that are different between countries, but if you could follow, certainly within the United States, we've had periods of different levels of income inequality. Another thing that would be very interesting to see, within the United States, I think we have quite a bit of data by types of population, usually based on ethnicity of some sort. And to make that distinction, it would also be very interesting to see, to see how these particular things hold up. But it looks like a very well thought out study, so I appreciate the work. Any thoughts about those?

STEVEN G. PRUS: Thanks. Indeed, exactly what we had mentioned. These are some of the limitations we had mentioned in our analyses. We couldn't break it down further and control for various factors within countries such as you mentioned, the ethnic and racial dimensions in the United States, which are extremely important. We just put the whole population together and looked at it. So absolutely. We had mentioned that as a further avenue of research. And your question about the time component is a very interesting one. We tried to mimic it in the sense that we used the same data as Wilkinson, except his data was based on early 1980s and the Lynch study, we used the exact same data, but based on 1990 data and our data now, 2000. So we tried to have that time component, but it would be important to look at this, even further back, because you're right, inequality has gone up significantly over the past few decades, and it would be interesting to see how this would play into it. So we need data that would go much further back in time. But both interesting points. Thank you for them.

JAY SIEGEL: I'm Jay Siegel, a private consultant. Are you familiar with a study by PAHO, the Pan American Health Organization, which confirmed the fact that in Latin America income inequality is inversely related to the level of life expectancy?

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STEVEN PRUS: I know the study and I know the author. But I can't remember all the details right now.

JAY SIEGEL: Nor I. I just want to make some general background comments. So if you don't mind, it will just take a minute. This group, that is, this actuarial group, is primarily concerned, with the subject of mortality of course, but the primary factor that explains the shape of the age distribution is fertility. Mortality, in general, in the general picture, is a secondary factor and migration is a tertiary factor of usually minor importance, even in the United States. Next, you may not be aware that that list that Roberto put on the board about the problems with Mexico, are the same ones here, i.e., in the United States. That is, we've got a demographic window right now. The United States is not aging right now. That is, between 1990 and 2010, the percent of elderly (65 and over) is about constant, or slightly falling. So that we too have this demographic opportunity. Switching to another aspect of the problem, often reference is made to the fact that the world is aging. Not so. The less developed countries of the world were not aging until after 2000. They were having increasing numbers of elderly, but they were not aging. So they, too, in general, have the demographic window that you're talking about, that is emerging now and into the near future, provided these happy conditions that Roberto mentioned for Mexico eventuate. That's it.

TIMOTHY F. HARRIS (MOD): Thank you.

FROM THE FLOOR: I was just wondering, how did you get income inequality at year zero?

ROBERT L. BROWN: It was just the entire population.

FROM THE FLOOR: So the income inequality doesn't change over age. It's the life expectancy, it changes? You're looking at the income inequality against life expectancy? The income inequality is same for all ages and it's just the life expectancy which is changing?

STEVEN G. PRUS: Yeah, it's a good point. That's what made our study unique is that we actually measured income inequality at the same time, or at the same point we measured life expectancy. So life expectancy at age 65, we also measured the amount of income inequality only among the 65+ population or seniors. It was important for us to do that, and we argued in our paper, it was important and no one has ever looked at it. It's important to look at changes in inequality over the life course, because it changes drastically and thus, the relationship would probably change and that's what we were trying to capture. So it's a good point. When we talked about income inequality at age zero plus, that means for the whole population. When we looked at income inequality at 65+, it was just for seniors. When we looked at it at 85+, it was just for the 85+ population and we correlated it against life expectancy at 85 for that particular relationship.

FROM THE FLOOR: Okay so, don't you think that the fact that you are using at time zero the income inequality for a whole population might be affecting the results at time zero and say at age 25? Because at that point in time, if you consider the population of age zero to 25, they don't have any income inequality. So what life expectancy difference you see due to those first 25 years of mortality is being explained by an income inequality which relates to much later in the life of that individual?

STEVEN G. PRUS: What you're mentioning is exactly right. I actually didn't mention it as a restriction in our analysis, but you're exactly right. There's no doubt about it. There wasn't any other way to approach it, we didn't have the data to be able to control for what you mentioned, but other than just to group all of those people, even when inequality as you mentioned is extremely low between the ages of zero and 25, to just throw all these people together.

ROBERT L. BROWN: The Gini coefficient may not have changed much, between zero and 25, but you wanted to do at age zero, because that's what the previous studies had done, and only had done age zero. And also, the mortality will be different amongst those countries. I mean relative to places like Sweden, the United States also has higher infant mortality.

FROM THE FLOOR: But if you look at the median ages in all these countries, then that will give you an idea of say the income inequality as well. That if you have a bigger population of people living longer, and then you consider the average income over a longer duration, that will impact the average income that you are considering. So in a country where people live until 80 years of age, and they work only from age 25 to 60, you're just dividing it by a greater number, when you look at the average income. Whereas, somewhere where people live until age 65 and they work from 25 to 65. Their average incomes will be higher.

STEVEN G. PRUS: And we, to some extent, did by controlling for standard living or average income, and that's directly related to age. So by doing that, we did by proxy, control for it. Not directly. I mean your point is still a good one. There might be some limitations in our comparing the different countries, and they have different age distributions. We didn't control for age, other than to look at it within various age groups. Again, important considerations and these should be looked at when looking at our results. Thank you for those excellent questions.

ROBERTO HAM-CHANDE: Just a comment on Jay's comments. That thing about the demographic windows was one of things that I wanted to stress. The United States is having a wider demographic window. You're having a wider demographic window and part of that comes from sending people to the United States, especially Mexico. We are having a narrower demographic window in favor of yours. And about the fertility, the migrants are also having higher fertility in the United States.

ROBERT L. BROWN: Roberto, how many states in Mexico?

ROBERTO HAM-CHANDE: States?

ROBERT L. BROWN: Yes, subdivisions.

ROBERTO HAM-CHANDE: 31, plus the DF which is equivalent to DC.

ROBERT L. BROWN: If you do those trends long enough, you should be able to declare the Unites States the 33rd state of Mexico.

ROBERTO HAM-CHANDE: Okay, we'll try to do that.

BILL DREHER. My question relates to the splendid demonstration of information from Mexico because one of your charts does combine the reference to inadequate employment opportunities and the remittances coming back from Mexicans many of whom are in the United States. That could be interpreted as a happy consequence of individual decisions, or as the product of a state-sponsored policy that was encouraging that outcome to a sense export, reduce the intensity of the unemployment problem and create a source of capital coming back to assist the national economy. Could you comment on the, whether there is a correlation between federal and national policy and that outcome?

ROBERTO HAM-CHANDE: Well, there is not a specific policy from Mexico on this. But in this regard, they look into that migration as good. And we don't like that. We see that Mexico's economy depends on four things that are really not good. One is oil exportation and we're just drilling oil and that's it. The other is tourism. The other is remittances and we have a new one, which is drug dealers. So we've done nothing really to be proud of it. We need to do something else.

FROM THE FLOOR: I have a question for Mr. Subramanyan. I read the pre-reading material that you prepared and distributed before the meeting. I couldn't help noticing that there seems like there was a gender imbalance in the Indian population. Like the male vs. female ratio have always been that the male is like more than female until very late in their lifetime. I'm wondering whether it's really like a manmade issue or is it something unique going on behind it? Thank you.

N.V. SUBRAMANYAN: What I can say about that particular observation made by you, as regards to gender inequality is a reality. And what we have noticed is that, that goes with the average literacy of the state that we are talking about. There are some states in India where the average literacy is high of which Goa and Kerala are prime examples. These states invariably have a better gender ratio too. In these states, we find that the female gender issue is very much favorable, but as in many of the other states, it is indeed unfavorable and there is a very peculiar (not speculative) situation in India & actually and that is a fact.

PS: India has one of the lowest female to male gender ratio in the world at 0.97. That is, there are only 970 women alive for every 1000 men, well below the 1050 women in

North America and Europe. But these aggregate numbers hide the inequality within India. For example, the southern state of Kerala (which has a literacy rate of 89.90 percent) has a gender ratio of 1.04. The less literate northern states have extremely low gender ratios: Uttar Pradesh (literacy rate of 57.36 percent) has 0.89 and Punjab's (literacy rate of 69.95 percent) is 0.87.

FERNANDO SOUZA: I wanted to know more about the social security schemes in India and about any minimal level of benefits for extremely poor people in India and if the administration is only by government or companies?

N.V. SUBRAMANYAN: So far, most of the social security schemes are actually done by the government only. The OASIS report that I was speaking about in the presentation is a proposal actually. It is likely to be implemented in due course. Some of the parts have been implemented, and many of them are still to be implemented, which might be happening in a couple of years to come basically. But yeah, most of it is actually government sponsored right now.

TIA SAWHNEY: A technical suggestion: if you believe that the income inequality is affecting, which of course it does, the mean, the average income, then maybe you should be adjusting by the median or some other percentile level of the income and see how your results stand then.

STEVEN G. PRUS: Again, we just used the common approach. We just tried to make the comparisons as equal as was possible, but that would indeed be interesting.

ROBERT L. BROWN: It's also a good way to produce nine publications from one idea.

TOM SHELBY: Narayan, I was just sitting here thinking as I heard your presentation and you said that you're 50 years behind some other countries like this one. We have come across a fact that 50 years ago, well it's a little more than that, about 70 years ago, we came up with this slick idea called Social Security and we have had a very great difficulty keeping it adjusted and right now we got a lot of discussion, recently we've gotten a lot of discussion about how to adjust it, going forward. Given that history, do you have any thought in India of how you would make it dynamic as opposed to running into problems occasionally?

N.V. SUBRAMANYAN: That is a tough one to answer. The proposals mentioned in Oasis are based upon international experience and have been taken from across the globe. After having seen the problems across, one of the major things that we have been noticing has been the shift away from the government to the individuals and institutions towards addressing this. The move away from defined benefit to a defined contribution that is being contemplated to address the issues.

PRAKASH BHATTACHARYA: So actually in India, the problem is as my friend Mr. N. V. Subramanyan has presented, that the Project OASIS report, was presented in

the year 2000 and government is also on the way to implement the same. But in the Indian political system, that we are having one leftist group and a rightist group. The rightist group is very much interested for reform to be carried out in the Indian pension sector. They don't have any objection even in relation to the investment of the pension funds in the equity market. However, the leftist group is strongly opposing. Anyway, so let us hope that there will be a political consensus by the earliest possible, so that we can get a satisfactory return and we can have an enjoyable retired life.

ALEXANDER IRION: I have a question to the last presentation. When I look at the graphs, I have a feeling that they are two graphical sub sample clusters for Scandinavia and Central European countries. Did you see that as well for other ages for example? And is there any paper discussing the question whether maybe the answer to your question is there a correlation or not, depends on the geographical region?

STEVEN G. PRUS: Thanks for that question. That's a great observation. One we observed as well. We actually produced graphs for every one of those coefficients for the five age categories for males and for females. We only showed two of the 10 graphs, but very observant that you noticed that. And we noticed it too. The only problem then if we were to start to sub sample is that we'd run into the problem that Wilkinson ran into with very small samples, and misleading results. But you're indeed right. We didn't really expand upon it. It wasn't a question we had, but we did observe it. I think Rob had mentioned it in the data, that there's more in the data than we actually just observe or that we just talk about. We just talk about it in the general or the aggregate, but there's no doubt, if you look at the economies with a more free market vs. those with the more social market, there are clusters.