The Cato Institute holds a conference on "Immigration Economics."

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PANEL 1: LABOR AND WAGES

(JOINED ***IN*** PROGRESS)

NOWRASTEH: ... and welcome to the CATO Institute. My name is Alex Nowrasteh and I'm immigration policy analyst here. If anything, this 2016 election will turn ***more*** on the candidates' respective immigration positions than on any other.

Donald Trump, the Republican nominee, won his primary primarily based on this topic for his support for reducing illegal immigration, building a wall, and deporting unlawful immigrants. On Wednesday night, he delivered a major address on this topic ***in*** Phoenix where he basically doubled down on his positions, squashing the rumors he was softening on this issue.

Hillary Clinton, on the other hand, seems to support a ***more*** moderate liberalization opening of immigration policy, enhanced enforcement, and legalization of many unauthorized immigrants.

Libertarian Party candidate, Gary Johnson, former governor of New Mexico, has argued for a large-scale deregulation opening of immigration combined with legalization for ***undocumented*** immigrants without a ***beefed up*** immigration enforcement apparatus.

The topic of immigration has produced the loudest and most visceral disagreement of this election season so far. Although polling shows immigration is not a top issue this year, ***in*** the minds of voters, the electorate certainly hasn't been this interested ***in*** a topic ***in*** about a century.

Unfortunately, you know, that popular interest is combined with a healthy dose of misperception of both the public and policymakers. To attempt the remedy of that misperception and to influence the debate on this important topic, CATO has put together this conference and invited some of the best researchers and top minds ***in*** academics from around the country who will work on this -- who worked on this topic to present their findings with the goal of informing this debate. And ***in*** the near (ph) future we will publish an edited volume of contributions written by our distinguished panelists.

Today's conference will consist of five panels with, of course, a lunch ***in*** between. The first panel, this one sitting up here right now, will discuss how immigrants affect wages, a labor market and other related issues. The second will discuss unlawful immigration, border patrol, border enforcement and the government's role ***in*** effecting that.

The third will discuss how the often overlooked topic of how immigrants affect the real estate market, particular importance to Americans since the housing crisis and the great recession. The fourth will examine immigrant entrepreneurship ***in*** the United States. And the last panel will delve into the most recent frontier of research ***in*** how immigrants affect political and economic institutions ***in*** destination countries. Now, each of these topics individually is worthy of their own conference by themselves, but one panel on each will have to do this time.

So without any further ado, allow me to welcome David Roodman, who will be moderating our first panel on immigration and the labor market. David?

ROODMAN: Good morning. I work for the Open Philanthropy Project, which is a relatively new philanthropic vehicle primarily financed by Facebook co-founder, Dustin Moskovitz, and his wife, Cari Tuna, who also serves as our president.

The subject of today's conference could hardly have received ***more*** attention ***in*** the presidential campaign. The subject of this panel could hardly have received less attention, which is what does the evidence actually say about the impacts of immigration on the receiving economy.

I -- up until a few years ago, I was a senior fellow at the Center for Global Development, and my former colleague, Michael Clements, who I believe will speaking this afternoon, of course, one of the foremost advocates of the view that openness to immigration is one of the most powerful ways to reduce poverty ***in*** the world and also the lack of openness represents one of the greatest market failures ***in*** the global economy.

That argument is part of the reason that I'm here, part of the reason that my organization is interested ***in*** this issue as a grant maker. Before I was an employee, I was a consultant to them and I did an evidence review on exactly this question. So, I am pleased to present to you some of the leading producers of research ***in*** this area as one of the leading consumers of it.

Without further ado of like to introduce Giovanni Peri, who will be our first speaker. You have about 20 minutes. Giovanni is professor of economics at the chair of the economics department at U.C. Davis. He's published extensively ***in*** journals and books about exactly the question that we're going to hear about and has received grants from the McArthur Foundation, the World Bank, and the National Science Foundation, and so on. He also has an Internet presence, so if you want to read ***more*** about him, you can. Giovanni?

PERI: Thank you. Thank you, David. Thank you for inviting me. This is a great panel and a great conference. And I'm going to jump right into my topic. I have only 20 minute. I'll try to squeeze ***in*** the information here ***in*** 20 minutes.

So, I hope you can read ***more*** or less. It's a little dense of words, but if you miss some, don't worry. So, the question that I'm going to try to address and I'm trying to distill a little bit of the research that has been done ***in*** the last 15 years on this is can we consider immigration as one of the cause of the wage stagnation, especially for low-educated, low-skilled ***worker*** that has happened ***in*** the last 35 years?

I will show you how many people just think very simply that one reason is that we have too many immigrants that are taking jobs or maybe even this simple supply story is they flooded out our labor market and they pushed down the wage. First, I will give you a couple of hints of how this played out at the national level using a very simple framework that the economists use. And then I'm going to ask, OK. If we don't find much at the national level, though it can be -- the local level can it be some specific labor market which have been inundated by immigrants have done particularly better. Their wage has been depressed or their employment level has been low?

And then as I carry you through the research, one question will come by because the evidence seems to me to pile up against this idea that many ***in*** reality there are some challenge and some good reason to think that ***in*** some cases immigration can actually boost wages of native ***workers*** and I will go through this.

So, I think there were two facts that people put together and they say immigration hurts wages and are these simple facts. First, ***in*** the last -- so I'm going to think of the peak period, 1980 to 2014, because this is when this wage divergence between low-educated and high-educated, low-skilled and high-skilled opened up. I'm going to show a figure about this.

No college educated people ***in*** terms of wages has done -- have done really relatively badly ***in*** this 34 years and these 34 years have been a period ***in*** which immigration has increased a lot ***in*** the United States.

Here is fact number one. College educated has done much better. This is the growth rate of wages between 1980 and 2014 dividing the labor market ***in*** five (ph) from people who did not go to high school, have a high school degree, and some college, and a bachelor and then ***more*** than a bachelor. And this is the percentage change of their wages -- of their weekly wages over these 34 years.

And as you see, that's why the college and ***more*** than college educated have done relatively well. Their wages have grown between 20 and 30 percent over these 30 years or almost 1 percent per year ***in*** the real terms. The high school drop outs have done very well -- very badly but also the high school diploma not well. Their wages have gone down. And even if you just break these into two groups, the non- college and the college, you'll this divide. College educated has done quite well. Non-college educated has done quite poorly.

So, could it be that the migration is responsible for this divergence? Well, just as stating this factor and stating that migration has increased the share of foreign-born by 10 percent over the same period is enough for some people say, "Yes." Then immigration must be a culprit.

However, if you are just willing to do the next step, you'll see that there are a bunch of other things that have changed within this period. ***In*** particular, economists have documented that computerization, automatization of the labor market, informatization (ph) has played a very big role ***in*** changing the demand for labor. International trade, offshoring, the unionization (ph) and manufacturing sector have shrunk dramatically. Minimum wages have gone down a lot. So, there is no clear implication from just the growth of immigrants.

And if immigration has to be a reason at the national level for explaining that decline, let's look how immigration just at the national level has changed the supply of those five groups, right? It is just the supply story. There are two ***more*** -- too many immigrants that came ***in*** that low-skilled group relative to high-skilled group. Then there should be a very high supply of immigrants down here and a very low supply of immigrants up here. If they change the structure of wage through supply forces, then the inflow of less-educated must be much, much larger than the inflow of uneducated (ph).

The truth is that looking at the picture of these 34 years and comparing the inflow of immigrants to the size of each group ***in*** percentage terms, immigrants have been much ***more*** -- much -- the income of immigrants has increased the supply of highly -- very highly educated much ***more*** than less.

There is -- and then of these facts -- so, it's almost an upward ***slope*** (ph) ***in*** here understands that it goes exactly the opposite way from what you would ***need*** to generate depression of these types of wages and including this. But it is true that the high school drop out inflow (inaudible) has been a little larger than the high school inflow of -- and maybe some of these. They have played some role.

So, immigrant -- the economists have used a lot of this simple model of supply and demand. This is quite broadly used model ***in*** the field. I have criticized this model a lot because it considers everything else fixed. Productivity is fixed. And we'll talk ***more*** about this.

But let me just show you how even taking the model that people who assume a depressing effective immigration like ***in*** use, what -- how far do we get ***in*** explaining these changes ***in*** wages through immigration? So, I'm going to show you taking a simple demand-supply model and increasing the supply of native -- of immigrants -- sorry -- and leaving everything else fixed, how far do we get ***in*** explaining the wage has change?

And I'm going to focus on, can we explain that bad performance of non-college educated through this inflow of immigrant? And among the non-college educated, can we explain the bad -- particularly bad performance of the least educated of all of, which are the group of high school dropouts? So, ***in*** these -- sorry -- here, I see that -- yes. This didn't come out the way it was written. That's why I gave the PDFs and not the PowerPoint -- but there is a simple model that says -- and let me just point out here that the relative wage of two groups, college and non-college -- and that's even -- yes, to the green. There is no under points on the screen -- OK.

The relative wage of college and non-college ***workers***, depends on the relative productivity, which is the first term that I wrote there, and on their relative supply. So, if you increase the relative supply of group and you leave the relative productivity unchanged, then you're going to depress the wage of that group. And we assess (ph) how strongly depressed the wage of the group depend on this parameter, which is called inverse of the elasticity of substitution or elasticity of supply.

So, we can actually take this simple formula, but then robust (ph) used by a lot of economist and see if the change of college and non-college that is being generated by immigration, how much would it predict that a depression of the non-college wage relative to college? Let's -- and then we can do the same exercise between high school dropouts and non-high school dropouts within that Group C, is the relative supply generated by immigrants of dropouts versus high school graduates can and how much generate this depression of wage of high school dropouts?

Then the important parameter here that we ***need*** to estimate ***in*** order to do this exercise, which is as I said, is the elasticity and this elasticity. And ***in*** this exercise, I'm actually going to take the most -- the parameters that people who are ***in*** favor of finding a negative impact of immigration are going to argue is correct to us. So, I'm going to buy us this model as much against as myself as you saw ***in*** favor of finding a negative effect of immigration as I can.

So, ***in*** this parameterization, the college and non-college elasticity -- so that equation for college and non-college has been estimated many times and there is a certain consensus of what that elasticity is. Is it between 1.5 and 2 or 1.5 and 3 and I'm going to take 1.75.

But ***in*** reality, the estimate of how substitutable or how different people with high school and people who are dropouts is ***more*** contentious. Some people say that they're very similar so they are good substitute. Other people think they're relatively dissimilar.

And I'm going to say, ***in*** this exercise, the most negative potential elasticity or the smallest, the most negative scenario with the smallest elasticity saying that people without a degree and people with a high school degree are not very substitutable and they have the same elasticity as college and non-college. They're as different as college and non-college. Think of this as a measure of how different they are on the labor market, how their relative supply affects their relative wage.

So, I will be certain again here there are few -- I want to point out that if I do this I can show you for each decade from 1972 to 2014, which has lots of data ***in*** ACS than we have, by how much these immigrant increase the group of high school and by how much ***in*** percentage point they're beginning to have increase than the group of college and by how much they change their relative supply, which is directly affecting the relative wage?

So, the first column here are the effects that I attribute to immigration with this relatively simple model. Remember, the 70s were a period of decrease ***in*** inequality college -- non-college educated is better, but starting from 1980 college educated started doing much better and high school started falling behind. This is the actual relative change ***in*** that meter of college educated.

So, this minus 13.7 mean that ***in*** the 80s the college educated increased their relative wage -- these are the non-college educated -- by 13.7 percent and ***in*** the 90s by 3.7 and ***in*** 2000 by 6.6. The minus means the college educated did better, so inequality increased.

However, if you look at what part of this number can be explained by the immigration part, you'll see this is the part that can be explained by this model. ***In*** fact, ***in*** two of these decades -- of the three decades, immigration went the

opposite way. Immigration by itself would have actually reduced because there are so many college educated as a percentage of the group that come ***in***. And only ***in*** the 90s immigration dropped a little bit, but really explained very little. This is the college and non-college group.

Then if you take the high school dropout versus high school graduates, again, this is the growth ***in*** percentage of dropouts. This is the growth of graduates due to immigration. This would be the wage affecting immigration. This is the actual relative change. And then you'll see that, again, ***in*** two of the three decades between the 1980s and the 2000, immigration even at the wrong sign, so it wouldn't explain the increase ***in*** the dropouts or it would explain very little. Only ***in*** the 1990s explained some of that. And ***in*** the very recent years, there's actually no explanatory power.

So, this exercise is done and I think it summarized a little bit to this aggregate literature to say that even if you take the most sort of negative estimates here of these effects, for the college/non- college, you simply don't have the numbers to generate a negative effect of immigration because a lot if immigration was college intensive. And so, ***in*** fact, immigration worked the other way to reduce this.

And for dropout high school graduates, you have some action but only ***in*** the 1990s and the 1990s looked very different from the rest. So, I want to emphasize the nucleus (ph) here to say that really where a lot of this of research is pointed out has been very much shaped that's affected by the 1990s, which were different from the 1980s and then the very different from the 2000s.

How? There is a way of looking how the 1990s are very different from the 2000 from the 1980s. This is the growth of immigrant as a group -- as a percentage of the group. Connecting (ph), this is the growth ***in*** each decade. This is what happens ***in*** the 2000, 2010. This is what happened ***in*** the 2000s and this is what happened ***in*** 1970. So, if you see an upward looking curve, it means that the change of immigration as a percentage of the group ***in*** the low-skilled group is smaller than ***in*** the high-skilled group. So, you see every decade this is almost upwards looking, meaning that immigration increased this high-skilled group relatively ***more*** or almost the same that the law.

The only one (ph) ***in*** the 1990s -- only really ***in*** the 1990s that inflow of low-skilled was increasing this group relative to the other. But ***in*** the other periods, it was not very much.

So, again, if we're sitting ***in*** 2000 and if this is the election of George Bush versus Al Gore then maybe we have to keep ***in*** mind this decade ***in*** which immigration did matter, but we're sitting ***in*** 2015 and we have had several decades after that ***in*** which immigration has actually gone back to be quite skilled intensive and gone back to be very actually, if anything, ***helping*** a little bit to the low educated. And this is how the wages did ***in*** that period.

So, if you think of immigration hurting the group that where they go ***in*** the largest part, the 1990s looked very -- a little bit like that, a mirror image of that ***in*** terms of wages. But ***in*** all of the other periods, wages were decreased ***in*** spite of the fact that immigrant ahead an upward ***sloping*** ***in*** the skill spectrum and increases of immigrant by themselves immigrations should have had the high -- should have had the less educated ***in*** a relative supply type of turn.

OK. So, at the national label like this and the numbers are very hard to explain any of this increase, the inequality. What about at the local level? Well, if we look at -- it's certainly true that immigrants are very differently distributed among different regions, but there is a long tradition of study that are used these local immigration laws and they have not have not found much of an effect and it's a -- it's on the wage at the local level and that's why people have moved at the national level. They said, "Yes," but the local region are not closed economy. People move. People equilibrate.

Now, there is a lot of research on this. Let me summarize it with a brief -- with evidence from a recent paper that we did to just wrap it up. So, if immigration has a local effect and it's an important and significant local effect ***in*** depressing wages, at the very first, you should find a negative correlation between places of large immigration and wages of low skilled or wages ***in*** general of ***workers***. They go into to places, they depress the wage ***in*** that place, then you have to establish if this correlation is causal or not and this is a little problematic.

But even on the surface -- on the surface, the correlation is interesting. If there is no correlation, it means that at least there are other forces that offset this effect of immigrant when they flow ***in*** the period or ***in*** a place or maybe immigrant flowing ***in*** different places. This is a scatter plot of the change ***in*** the wage of native ***worker*** ***in*** the vertical axis vis-a-vis these (ph) are the increase of the immigrant as a percentage of the labor force for all the U.S. labor market, which are 722 supposed commuting zones broken down by decade, for each decade ***in*** the 1970s to 2010.

Again, if ***more*** immigration depresses wages, you would have observed a negative ***sloping*** line. Here, what you actually observed is a positive correlation. These are the labor markets they we're using. And if you do the same scatter plot for the changing employment rather than ***in*** wages of native ***worker***, vis-a-vis the change ***in*** immigrant (inaudible).

Again, if there is crowding out, if one ***more*** immigrant implies one less or a percentage less native, then you would observe the negative lines. So, ***in*** terms of correlation, you have actually zero correlation with employment at a little positive correlation with average wages.

And even if you break wages into wage only of native we shared ***in*** high school (inaudible) less educated and you look at the correlation of this with immigration (inaudible) now much it is a matter of positive relationship and this is the correlation but you find the relatively positive correlation with the wage of the college educated.

So, it looks like to summarize this story, labor markets where a lot of immigrants went, wages of natives for low skilled ***more*** or less did the same as ***in*** every other market. For high skilled, they grew even a little faster. Is there a causal correlation? Well, you start running a lot of regression controlling for a lot of things.

And again, I just want to give you an idea, even if you -- this coefficient that I'm pointing is depth of correlation and even if you improve a lot of control, what we call fixed effect, and the initial control, what you get is that ultimately the coefficient of the correlation for low-skilled wages relative to -- on the immigration is about zero, positive but sometimes not significant.

And for college educated, it is positive and often significant. This is true (inaudible) at the very local level or (inaudible) if you look at the state or if you look at the region -- census (ph) region or groups of state.

And even if you try to address this causal point, and again, here given constraint of time, many economists have tried to isolate the part of immigration flow that is driven just by preferences of immigrants based on the idea that they prefer going where other previous immigrants went and not attracted by jobs even if you isolate that so-called supply push part of immigrants and you re-estimated being part of immigration on average wage on wage of low skilled and wage of high skilled you find essentially small amount of significant effects on the wage of low-skilled, (inaudible) on average but still is going to be positive effect on the wage of college educated. This is that (ph).

So, ***in*** essence, this evidence all together seems to say that just the relative number are there to create an effective aggregate and at the local level the evidence that has been accumulated these are the little effects, particularly little on the wages of low educated and maybe a little bit positive effect on the wag of the highly educated. But let me spend the last one-and-a-half minute, which I'm going to make into three-and-a-half minutes on say could there be some challenge through which immigrant affect the positive. Now, the researchers have studied -- researchers have studied lot of mechanism that makes plausible the idea that immigration actually affects positively the wage of native ***worker***.

The first is that even when you look at similar type of skill, they are the same type of ***worker*** and natives. They take some occupation or jobs that the natives are moving out. They specialize ***in*** cycled tasked, which are ***more*** manual, ***more*** outdoor at the low-end of the spectrum that immigrant -- that natives are leaving. So, economists say they have a component of complementarity of ***helping*** the productivity of native ***worker***, even when they are similar and this should be a challenge that economists say will boost the wages of natives.

Second, firms -- and Ethan here is the expert -- sometimes adjust the type of technique and technology that they use depending on what ***worker*** they have. When there are a lot of immigrants which do manual job very well, they tend not to mechanize, not to use the what we call ***more*** mechanization and they tend to use the technology that

uses immigrants ***more*** intensively and then make them increase the productivity of the firm. Firm the respond and attracted the two areas where there is this availability of labor, there are some reason to work by will (ph) only (ph) show that firm grows at a faster rate where there are immigrant.

And finally, at the local level obviously, immigrants consume also and generate a potentially higher variety of goods and services, which are supplied and this could also be a channel of increase ***in*** productivity.

But if one has to focus and live the way I see it on a very important positive effect of immigrant, one is to look a little bit ***more in*** detail to high skilled immigration. I showed you high-skilled immigration is the large ***in*** percentage terms part of immigration and there are several studies that say that it's crucial to -- it's crucial these immigrants are crucial to enhancing any increasing innovation rates before (ph) as some work on this.

And there -- and I will add a couple of words on this particularly science, technology, engineering, and math ***worker*** which by now are ***in*** very large percentage foreign born seems to boost productivity. ***In*** fact, if you look at the distribution of immigrant as a share of the population and you go from people with some college all the way to people with a PhD with STEM (ph) college degree, you see that immigrants are really concentrated ***in*** the very high-end of the education spectrum.

About 30 percent of PhD with a STEM (ph) degree ***in*** the U.S. are immigrant and you can calculate actually the effect of this assuming that there is a positive productivity -- productive externality of this group because this group adopt better technology, this group increases the -- increases the innovation. And so, we're here just to referring to a paper that we wrote Toni (ph) Barber (ph) and Kevin Shi (ph), we calculate that the increasing H1B visa ***worker*** due to the increased cap of the visa that was passed ***in*** the 1990s and then withdrawn ***in*** the 2000, maybe these local productivity increase due to that inflow by about 5 percent for college educated and by about 2 percent for non-college educated because of immigrants.

Then I have something on (inaudible) I leave it aside because there is somebody else who will talk about this. And so, I'm going to wrap it up and I'm going to say that the aggregate level I think that these new little things that I showed shows that if immigrants have any impact on any part of the wage distribution it was ***in*** the 1990s and it was kind of anomalous relative to the other decades.

And at the local to the contrary seems to be some positive of position (ph), there are many good reasons to think that if there was a little bit of a negative effect, many other channels could have offset it or generated even a positive effect at the local level and ***in*** particular high-skilled immigration can have been an important contributor to that. Thank you. Sorry.

(APPLAUSE)

ROODMAN: Next we have Ethan Lewis who like my father long ago is -- was -- is a professor at Dartmouth College, ***in*** particular, an associate professor of economics. And he is also affiliated with the National Bureau of Economic Research.

As we've already heard, it sounds like he is particularly expert, shall we say, ***in*** the impacts of immigration on entrepreneurship, although I'm sure lots of other related ideas. He has also published ***in*** lots of top journals on these and I'm sure other topics. Look forward to hearing from him. What he has to say.

LEWIS: Hi. So, thank you for having me here today to talk about immigration. So, as Alex alluded to ***in*** the introduction, immigration has been ***in*** the news a lot lately and there's a lot of competing claims out there about what the impact exactly of immigration is.

So, what I thought I'd do for you today is give you kind of an overview of how economists think about the labor market impact ***in*** relation to what impact it has on ***workers***. And unfortunately, a lot of the things you see ***in*** the press and ***in*** the public policy debates stem from misconceptions about what exactly that impact that is.

So, I want to try to get past those first and get to the -- what we understand through all our evidence and work studying immigration that impact to be. And so, I called my talk, two wrong and one right model of the labor market impact of immigration. So, that's three models I got to get through ***in*** 20 minutes, so I better jump right ***in*** here.

So, often the way these kinds of talks about immigration or even ***in*** the public policy debates, the concern about immigration stems basically from looking at like the larger numbers, right? Like the baseline is some eight-digit number that represents the number of immigrants living ***in*** the U.S. So, this must have some huge impact on our ***workers***. I'm going to basically argue today that the focus on that number, the kind of the absolute number of immigrants is the wrong way to think about immigration, but I'll get to that.

So, often ***in*** the kind of debates, there is a kind of an explicit comparison to the number -- another large number, which is like the number of unemployed people. You see headlines like this. You see it ***in*** these policy briefs from advocacy or decisions. So, here is an example that kind of -- number of illegal immigrants outnumber the number of unemployed natives. It's kind of an article here and -- you know, if you want to call it that.

And this particular article was drawing on two separate unrelated sources that's kind of recent estimates of the number of illegal immigrants and the BLS report on the number of unemployed and it didn't kind of make the link for you. It's often like implicit, but the kind of argument is clear, right? So, if somehow we got rid of all those pesky immigrants, there would be all these job openings for native-born ***workers*** and the unemployment rate would go down.

But is that really true? Well, that brings me to my wrong model number one, which is where the logic of this breaks down. It comes from thinking that there's a fixed number of jobs, right? Isn't that? So, if there's a fixed number of jobs, one native -- one immigrant comes ***in***, some natives got to lose their job for the immigrant to get a job.

So, I just want to point out that economists have been arguing against this point of view for a very long time. You know, there is an economist ***in*** 1892 called David Schloss (ph) who termed this -- he came over this term the Lump of Labor Fallacy. Maybe you've heard this before. It's also used to argue like forcing ***workers*** to have shorter hours will generate jobs. It's kind of same kind of argument.

So, economists have been arguing against this for a very long time, and it's just this wacky idea that won't go away. So, let me start by showing you there's not a fixed number of jobs ***in*** the U.S. That number of jobs ***in*** U.S. has gone from 60 million to 140 million ***in*** the past six years. It's ***more*** than doubled.

As you noticed, it doesn't always go up, right? There's recession, where it doesn't -- it's not growing. ***In*** the past decade up ***in*** that corner there hasn't been that great as we all know and it's these periods of slow growth where we start to get the feeling -- not the reality but the feeling that the economy is a zero-sum, but it isn't.

And ***more*** to the point, there's a huge body of research -- and Giovanni shared some of the evidence on this -- it's directly about this exact question. So, this has been studied and studied and studied empirically. Do immigrants displace natives from work? For every immigrant that comes ***in***, how many natives lose their job?

And basically what the upshot of this research is the exact opposite of that kind of simple thinking. It's that for every immigrant who comes ***in***, not only does the native not lose their job, if anything, there's like a slight increase. There's ***more*** than one job created.

So, the -- Giovanni talked about some of the reasons for this, but a key one is that immigrants are not just showing up and sucking money out of the U.S. economy by virtue of being here, they are consumers, right? They demand all the things they ***need*** to live, housing, clothing, entertainment, et cetera.

And as a result of that by itself is almost enough to generate enough jobs to employ themselves. But on top of that, there's all the other mechanisms that Giovanni also alluded to, the kind of -- the fact that immigrants on average specialize on different kinds of jobs -- and I'm kind of getting to the end of my talk when I say things like that -- there is supply and demand challenge by which they've raised product diversity than had been studied, you know.

One of the most, you know, visibly obvious ones, which has actually been studied, is that immigrants raise the diversity of restaurants ***in*** an area and this by itself generates employment. They tend to start a lot of businesses. So, there are many channels by which they can raise -- actually raise the number of jobs rather than decrease it.

But let me, you know, go back to the kind of the motivation for this talk, which is notice that that kind of simple logic about a fixed number of jobs leaves exactly the wrong policy conclusion, right?

If we rounded up all the immigrants and send them ***home***, this would most likely lead to an increase ***in*** native unemployment, not a decrease, right? Like the number of jobs -- a number of jobs would be destroyed by this

OK. All right. So, I hope, you know, the audience look pretty receptive to the idea that this fixed number of jobs idea is pretty wacky, but it's still pervasive. I thought it had to beat it down. And let's get to the next level of sophistication of wrong models, which is what about wages, right? So, we all know supply and demand, right? So, ***more workers*** must mean lower wages.

And you've probably seen a picture like this where you've got some kind of wage on the Y axis here. You got the number of ***workers*** on the X axis. And then you've got this downward ***sloping*** line call the labor demand curve. And they don't usually tell you where that comes from., why is it downward ***sloping***? And it turns out that's very important. So, I'll come back to that ***in*** a minute.

And then you got a supply curve and you can draw it upward ***sloping*** if you want, it's fine. I just simplified it by drawing it as the number of ***workers***, that red line there. So, ***in*** a market economy ***in*** this very simple model, the wage is the intersection of supply and demand, right? So, if you add ***workers***, right, the wage has to go down, right -- isn't that right?

Indeed, there's a -- there's a paper by a very prominent labor economist at Harvard, you know, basically, saying, you know, with the title of which was the labor demand curve is Downward ***sloping***, as if the kind of the rest of us poor labor economist have forgotten our basic economics.

And recently, a kind of advocacy organization took this -- his numbers quite seriously and they came up with this estimate that immigration is costing us all $2,500 a year.

So, this was put out by something -- maybe it's too low to see down here, something called the Negative Population Growth Incorporated, which I'd never heard of, but there's information ***in*** the name of that organization that I will come back to ***in*** a minute.

So, is this really true? Is it really costing us all $2,500 a year? That would be an enormous cost of immigration if that were true. Well, as Dartmouth professors, we don't always believe what the Harvard guys say. And this one turns out to be nonsense. And it's -- you know I'll explain very carefully what I mean by that.

So, that brings me to my wrong model number two, which is it turns out that labor demand curve that comes from this fallacious assumption that the stock of capital is fixed. So, if you haven't heard the term capital stock the way economist use it, basically this refers to all the other inputs ***in*** the economy besides ***workers*** that produce output. This is their buildings.

This is a lovely auditorium, our computers, the microphones, et cetera, that we use to ***help*** us produce output. This is a substantial part of economy. The tools we work with are responsible for at least a third of the GDP.

So, the entire reason for that picture, that downward ***sloping*** demand curve, is the assumption that that stock of capital can never change. So, what happens ***in*** this kind of oversimplified views of world is when immigrants come ***in***, the amount of tools people have to work with goes down, right? There's less capital for each ***worker*** to work with.

So, maybe you're all ready also to my next point, which is economist don't believe this at all, right? I can start again with the pretty simple fact that the capital stock is not fixed, right? So, this is already even ***in*** work per ***worker*** terms the capital stock of the U.S. per ***worker*** has also ***more*** than doubled ***in*** the past 50 years.

And you know, let me explain why this doesn't really happen, why immigration doesn't really dilute the amount of capital per ***worker***. And I can illustrate it with kind of overly personal example, right? So, I supposed Giovanni immigrates to the U.S.

In this kind of fixed capital stock use of the world, what would happen is because the stock of capital is fixed, he's going to have to share an office with somebody and he's go to share a computer with somebody because there's not -- you can't get another computer.

So, supposed he shares a computer with me, right? So, as a result of having to share space with him, I'm going to be less productive, right? And ***in*** a market economy, my wages are going to have to go down for employers to be willing to hire me.

But that kind of overly simple illustrates why it's not really going to happen because Giovanni is going to realize that he could be a lot ***more*** productive if he added a machine and it's not that expensive for him to get his own computer.

So, there's an enormous return on capital for him to just buy a computer or get ***in*** office and that sort of thing. So, that's why it doesn't really happen.

So, what economist say is ***in*** the long run the labor demand curve is completely horizontal, that the kind of capital stock adjust to bring back capital ***worker*** -- per ***worker*** to do what it was before immigration. So, I added -- I mean you might -- don't let me run over you with the economist wiggle words, right -- ***in*** the long run, right?

Economists get made fun of for saying this a lot. So, change did a lot of work on this by saying, "***In*** the long run, we're all dead." It turns out this is -- we're not telling you about the span of human lifetime here. We're talking about basically right away.

And the reason is simple. ***In*** contrast with the big numbers I showed you at the beginning of the number of immigrants, the annual arrival of immigrants to the U.S. are quite small. There's, you know, less than 1/200th of the existing workforce.

And just to give you some perspective on that, that's less than the amount of ***workers*** that are added each year just from kind of basically kids growing up and entering the labor force, right? So, if you're -- if you're okay with the idea that, you know, the economy adjust just fine to natural population growth, and unless you work at the Negative Population Growth, Incorporated, you're probably OK with that idea, right? Then you're going -- you're going to be OK with the idea that the kind of capital stock adjust fine to immigration.

The last thing I want to point out about this is that $2,500 number, the reason is absurd and nonsense is it comes from a very particular way of calculating the impact, which is it seems that all 42 million immigrants living ***in*** the U.S. arrived yesterday and they all -- and the capital stock had no time to adjust, and that's absurd, right? Like -- ***in*** fact, what happened is a dribble ***in*** over the past 50 years and the capital stock had plenty of time to adjust.

All right, so those are my two wrong models ***in*** the labor market and I promise you the right model. And the two wrong models are wrong ***in*** exactly the same way. They were focused on the absolute number of ***workers*** coming into the U.S.

And really what matters instead is not the absolute number of ***workers*** but the relative numbers of different kinds of ***workers***. So, it's -- you know, janitors do not compete with engineers for jobs, right? It makes a lot ***more*** sense to think about ***workers*** of different types or are ***workers*** of the same type competing with each other.

Indeed, to simplify things, let me just imagine there's actually just two types of ***workers***, unskilled and skilled, and ***in*** fact, that sounds simple and it is oversimplified as I'll come back to ***in*** a minute, but that turns out to be a pretty good approximation of the U.S. labor market if we define unskilled as non-college and skilled as college. So, basically, college educated ***workers*** compete with the each other and non-college ***workers*** compete with each other for jobs.

So, what matters ***in*** this set up is how much immigration affects the ratio of unskilled to skilled ***workers***. That's when you can have impact on the labor market. And it turns out there's a formula for that -- sorry for doing math ***in*** this stuff -- but it's a pretty simple formula and that it's right there. What you do is you take the number of unskilled immigrants to unskilled natives and you subtract off the same ratio for skilled immigrants and skilled natives ***in*** this setup.

So, another way to put this is each of those ratios represents how much immigrants grow the workforce of that type. Let me illustrate this formula with three examples. So, imagine all immigrants were unskilled and that first ratio would be potentially a large number, right? That second ratio would be potentially zero.

And so, this would have a large positive impact on the unskilled- skilled ratio, right? Makes sense, right? They're all unskilled so they push out the unskilled-skilled ratio. Now, supposed the second number was large (ph) and the first number worst year, so all immigrants were skilled, then they don't have exactly the opposite case.

All right. So, there's one ***more*** example that turns out to be highly relevant. Now, imagine if immigrants and natives were roughly equally unskilled and skilled and that first ratio would be about the same as that second ratio and the impact on the skill ratio would be zero.

In that case, the labor market impact to immigration would be zero despite the fact that immigration with potentially a large share of the workforce over all.

More generally, what you would do is you multiply this with the ***slope*** of a relative demand curve to get the wage impact. So, it's very similar to that picture I showed you earlier. The problem with a picture earlier was it was oversimplified, right?

So, just to point out, nobody is rejecting supply and demand. That's kind of a core product of economics. So, I'm not going to reject that. It's just that that very simple model with one type of ***worker*** is not adequate just to describe the labor market impact by immigration.

All right. So, with that ***in*** theory, what about ***in*** practice? Well, why don't we take a look at these two skilled ratios for immigration? That will tell us what the labor market impact is and that's shown ***in*** this figure, which is similar to the number that Giovanni just showed. This kind of -- the dark bar -- the darker bars here are the non-college immigrants.

So, that's the -- basically, ***in*** each of the decades, 1990s and 2000s, immigration raised the number of unskilled or non-college ***workers*** by roughly 6 percent. And if that's all that happened, there would potentially be kind of a modest decline ***in*** the wages of non- college ***workers*** ***in*** this very oversimplified model.

But notice, as a Giovanni pointed out, right -- like that's balanced out by inflows of highly educated immigrants, right? So, not all immigrants are unskilled. A lot of them are highly skilled as we know and that balances out.

Another way to put this is, you know, kind of a lot of the popular focus is on the absolute height of those bars, right, like that immigrant is a large share of the workforce.

But really what I'm telling you today is that what you should be focused on is actually the difference ***in*** the height of those bars, and that's small. That's teeny tiny. So, there's just not much potential for immigration to affect the labor market.

And on top of that, that model is complete oversimplified, but there's not really just two types of ***workers*** and immigrants differ ***in*** a large number of ways from natives even among the kind of unskilled natives -- unskilled immigrants -- I'm sorry -- so they tend to be ***more*** of extremes of the education distribution as Giovanni showed. They tend to have not as good English skills so they tend to specialize ***in*** jobs that don't require a lot of communication.

And the net effect, as you can see, you can write down a model with many ***more*** skilled, but it is a little ***more*** complicated than that formula I gave you. And -- but Giovanni has done this and he showed you some of the kind of

results of that calculation. And basically, what you end up with when you do all the calculations is that the vast majority of native-born ***workers*** see wage increases even ***in*** just theory but verified empirically as a result of immigrant inflows.

On top of that there are other mechanisms by which the labor market adjusts. So that -- even that kind of relative demand curve that I've alluded to, that assumes the kind fix production technology that firms can't adapt at all to the fact that there's suddenly a different kind of ***worker*** available.

In practice, firms do adapt and that has the effect of flattening out the labor demand curve and essentially making the harm, if there is harm, which is very concentrated on the immigrants themselves is born -- is reduced.

All right. So, to sum up, I showed you two wrong and one right model of the labor market impact of immigration. So, the wrong model number one is that there's a fixed number of jobs and this is completely wrong and is so pervasive and it leaves to exactly the wrong policy conclusions, right?

So, that if we actually rounded up all the illegal immigrants and send them ***home***, this would probably lead to an increase ***in*** the unemployment rate of native-born Americans because it would destroy jobs, not create them.

The wrong model number two is a kind of fixed stock of capital, which is implausible on its face. But ***in*** practice, because capital actually adjusts, there is basically no long run wage harm from just adding ***more*** ***workers*** to the economy. The U.S. economy is just very good at scaling up. So, scale is the wrong focus of immigration debates.

It's important to point out as well that kind of the adjustment happens ***in*** the timeframe that immigration is actually occurring. So, it's not -- it's this kind of short-run calculations are not even very relevant.

The right model is one ***in*** which immigration affects -- the labor market when it affects the relative supply of the different types of ***workers*** and that's why they're kind of right focus of policy is on kind of filling shortages and that sort of thing, right? Like that's the right way to think about immigration and now the absolute number of ***workers***.

In practice, as it turns out, as I said, immigration does very little wage harm. If there is any harm, it seems to be concentrated on the immigrants themselves, but the vast majority of immigrants -- native-born ***workers*** see wage increases not decreases. So, we're basically all better off from immigration and I -- that's really heartening ***in*** this kind of time of vicious rhetoric about immigration.

Anyway, thank you very much.

(APPLAUSE)

ROODMAN: Thank you. Our next and final speaker is Alan de Brauw. You're based here ***in*** D.C., is that right? Alan is a senior research fellow ***in*** markets, trade and institutions division of IFRI, which is the International Food Policy Research Institute and he has a lot of other important titles.

His research has focused on the effects of migration on source households -- we are focusing on the receiving country -- and also the role of women and the role of rural economy and developing countries -- I have used some of that work before -- and understand the impacts of agricultural intervention, so your covers quite a broad range and I look forward to your comments. To the extent a dozen cramp your style, I ask you to speak into the microphone.

DE BRAUW: No problem. All right. Thank you. I'm going to -- thank you for having me. I'm pleased to be here following Giovanni and Ethan. I'm going to tackle a little bit the elephant ***in*** the room, which is George Borjas' famous paper written ***in*** 2003 entitled, "The Labor Demand Curve is Downward ***Sloping***."

Before I do that, I want to just say I'm a development economist. I take a short bit of a different perspective than a labor economist. Most of my work has been focused on thinking about the impacts of migration on the sources community rather than -- so, I'm thinking about the migrant ***in*** Mexico -- actually I've written on migrants of Mexico, but migrants ***in*** El Salvador, migrants ***in*** -- internal migrants ***in*** China, migration ***in*** -- within Ethiopia, that kind of

thing. So, that's a very different type of -- it's a little bit of a different problem. That said, when you think of internal migration, you can think about as international migration with free borders effectively, although that's not quite the case ***in*** China. I want to point that out that's a way of thinking about migration that I'm kind of used to.

The other thing is that development economist that I'm -- that we concern ourselves with is omitted (ph) variable bias. Labor economist concerns himself with it too weak, came a little bit late to the game. But what I mean by omitted variable bias is that when we try to find a relationship between two different variables we worry a lot that there's actually something else out there that's going on.

So, I actually saw George Borjas present this paper ***in*** 2003 when I was a professor of economics at Williams College. And basically, he made the claim that the labor demand curve is downward ***sloping***.

Everybody is estimating it wrong effectively because it's not appropriately accounting for adjustments to local labor supplies, et cetera, and that the wage elasticity of immigration is really minus 0.3 or minus 0.4 rather than the negligible -- rather than these guys' arguments, OK?

So, what I want to do is say let's not believe them for a moment here, OK? Let's take what they just said and say, "OK. We're not -- we're going to -- we're going to believe Borjas' argument for the moment, OK? Rather than the negligible of large -- focus ***in*** a large systematic review of the literature and estimate it at about minus 0.2. What does that mean?

Let's be careful about what we mean by elasticity for a second. It means that if we raise the relative supply of one part of one component of the labor force, the wages ***in*** that group will decrease by a certain percentage. If we raise the relative supply by 10 percent of one group, wages are going to decrease like 2 percent was the systematically reviewed estimate, but what Borjas is arguing it's actually 3 percent or 4 percent.

And last year he used that minus .3 ***in*** a -- ***in*** a stimulation he did ***in*** the Journal Economic Literature to basically say that if we have any kind of increase ***in*** immigration there's basically effectively potential cost to the north.

In terms of GDP -- so we're not talking a cost ***in*** terms of just wages. We're talking about real cost to the economy. So, GDP per capita would actually decline with large-scale migration from the southern countries or poor countries to the north.

OK. So, you know, one thing that I want to note is that -- and we've seen this a this little bit and actually talked about it a little bit -- is that, you know, if we look at historical migration, I took the first three bars from one of Borjas' papers actually and then the fourth -- these five bars ***in*** 1960 to 2000 are his data and then 2010, 2015 I added. You know, migration -- immigration to the U.S. was -- immigrants ***in*** the U.S. labor force were a huge component of the labor force until basically the great depression. So, you get a big great -- a big depression and wages decline. Employment possible is declining. Migrant say, "Well, you know, I got something better to do."

Actually, there's a lot going on ***in*** that period of time. But regardless, 1960 and 1970, when he starts his study, are really the lowest point ***in*** migration -- ***in*** immigration as a share of the labor force ***in*** U.S. history and has increased but it hasn't nearly increased as much as ***in*** the 1910s, 1920s. And it looks actually like it leveled off, which again with a big recession that we had makes sense.

So I'm going to -- as I said, I'm going to focus on -- as I focus on omitted variable bias when I saw this paper and I focused on the wrong variable, which I'm going to explain, but there's this bigger labor force shock ...

(COMMERCIAL BREAK)

DE BRAUW: systematically reviewed estimate ***in*** the literature, OK? So, that gets us right back to a normal -- quote/unquote, "normally estimated ways of elasticity of immigration."

I'm going to find no correlation between women's entry and immigrant entry, which is not a surprise because they are entering, to some extent, different parts of the labor force, although to some extent that might not be quite right

based on what I heard earlier, although different parts of the way that Borjas has defined the labor force is the way I should put it.

That said, I'm going to get a positive coefficient on the entry of women into the labor force on men's wages using this model. And ***in*** fact, if I use annualized wages, the effect is significant -- statistically significant and positive. So, clearly, I'm not estimating a labor demand curve if that's the case if you believe that the labor demand curve is downward ***sloping***.

OK. So, what is -- what are we going to do? We're going to exactly replicate Borjas. We're going to -- we're going to split the labor force into 32 education experience cells. The education levels are ***more*** disaggregated than Ethan just used, which were basically the first three added up together.

So, we're going to go less than high school, high school education, some college, and then college or ***more***, and we're going to have eight experience cells 1 to 5, 13 -- up to 36 to 40 years of experience.

We're going to -- what -- measure wage is the average for that census year among all members or male members of that education experience cells. We're going to drop women. And there are a number of other things that we try to exactly replicate. We're going to consider men age 18 to 64 because it's effectively difficult to do that -- anything else. He argued that it was difficult to compute experience for women. What we've done is try to adjust for the fact that woman dropped out of labor force for short periods of time to have children. We're going to adjust the experience. Actually, we use the calculation by two labor economists to do that. So, we're going to end up with the share of women -- women's experience is going to be slightly lower for a specific age than men.

OK. Then we estimate an equation that doesn't look very good also. I'm just going to index -- let's skip it -- really what matters is P ***in*** the first equation because that's the Borjas' equation.

P is the proportion of migrants within that education experience cell and P and F are going to be the -- F is going to be the share of women. So, essentially, the share of men -- of immigrants is the number of immigrants over the number of men and the F is going to be the number of women divided by the number of men plus the number of women ***in*** the cell, OK?

So, first, I want to show you that I -- we replicated Borjas' data pretty well. He actually published the table of all of the wages ***in*** his paper and we came really -- we have a -- we did it ourselves to make sure we -- we did it ourselves and we found -- find a correlation that's 0.994, I think, and this is the actual data. So, we came really close. We didn't get the exact numbers, but that probably has to do with slight differences with coding.

And for those of you who are general audience, we should always worry about that when you see work by one of us because we're always -- we always try to be as careful as we can and explain what we're doing, but you're always making assumptions, which David has written about, which explains why I'm saying something.

Just to show you some of the changes ***in*** shares as defined here. If we look at -- so breaking up the -- the labor force actually the share of immigrant ***in*** this less than high school cell does go way up, right? But that could have to do with the fact that people ***in*** the U.S. are graduating from high school ***in*** larger numbers than ever.

And so, that's the cells that we see growing the fastest; whereas, other cells, you know, we see -- we saw -- Giovanni was talking about how fast the share of immigrants is growing ***in*** terms of college-educated people, but it's actually a small component of the college-educated labor force. So, that's an interesting -- we have to be careful about the way we're defining things and I'm defining things a little bit differently.

OK. We look at the change ***in*** the share of women by education level, note that the bars are again increasing, but which bar is increasing the fastest? It's the bar on the -- way on the right. Women with a bachelor's degree or greater are entering the labor force ***in*** much greater numbers.

So, if we out these things together and put them on a graph, if we look at the share of immigrants ***in*** the cell versus the share of women ***in*** the cell, what we see is that -- we see this big bunching of blue dots -- the blue dots are --

the blue dots are less than high school, so that's where the migrants are and so they have all sorts of different experience levels.

That's what the difference is here, is the varying experience levels; whereas, if we look at the share of women, they're spread out along that line. For some reason, I get a regression line there that sort of means something, but it really doesn't because the ***slope*** is insignificant because of that big bunch. You get these -- the axis over here are women and they're kind of spread out among the cells.

And I can actually tell you for sure where are these -- why are there so few women over here. Well, there are so few women over -- on the -- why are there any cells over here at all is what I wanted to say. Why are there any cells over there at all? It's because older women don't excel -- older women with college degrees are a very small share of the labor force. These are all the younger women. And so, that's what we are seeing as the difference.

OK. So, when we look at the correlation between weekly wages and immigration, this is just the regression line. These are all of the data. This is what we get. This is like the Borjas coefficient essentially. That's the picture of what the coefficient looks like.

But when we replicate this with the share of women, what do we get? We get an upward ***sloping*** line and it has to do -- and again, I want to be really clear. This is men's wages that I'm using on the Y axis. This is not -- this is not women's wages. This is men's wages.

So, if we look at men's wages using that same model, we get -- and you see the axis ***in*** particular being the college educated women. When there are ***more*** college-educated women ***in*** a cell, men's wages tend to increase, OK?

So, that has -- that probably has to do with the capital story or that we were hearing earlier or it has to do with a complementarity story. And by complementarity, I mean that when women enter the labor force there are new ideas, and ***in*** particular, the parts of the economy that women are entering, and I'm going to get there after I just show the coefficients and the elasticity.

So, we were -- here is our replication of Borjas over here on the left and here is our addition of 2010. So, if you still believe that model even after all of my nice pictures, what you see is that the coefficient there dropped from minus 0.453 to minus 0.4348.

That implies an elasticity of minus 0.22. So, all we have to do is add a little bit ***more*** data, 10 ***more*** years of data, and we can get back to this, quote/unquote, "standard systematically reviewed coefficient ***in*** the literature."

If we add women -- so the -- if we just use women ***in*** the model, that's the second row, we don't see anything. And if we add women, we don't get any effect because they are entering these totally different education experience cells. So, that's where my original hypothesis was completely wrong and I'm admitting to that. If we look at the impacts on annual earnings from 1960 to 2010, we actually get an insignificant effect on immigrants that may have to do with a little labor supply story. I don't want to get too far into that, but the point I want to make is that on the share of women we see this positive coefficient that I was explaining before. OK. So, that, to me, means that this model can't really be estimating labor demand. We ***need*** a different model of labor demand that's ***more*** sophisticated.

Let me give one suggestive explanation that hasn't been described yet and that has to do with -- not only did we have huge increase ***in*** capital, but we had a tremendous structural change that took place ***in*** the economy between 1960 and 2010 ***in*** the U.S.

So, just looking at the share, what I've done is use -- this is a value-added shares and GDP and the green piece on the big -- the darker green, sort of lime -- the lime green is services. Services are always part of the economy, but the green is manufacturing. And what we see is this huge decrease ***in*** the share of GDP that's coming from manufacturing that's not -- that shouldn't be a surprise to anybody ***in*** the room. None of this actually should be much of a surprise.

The blue and the orange are where we're seeing the most growth ***in*** value added ***in*** the GDP and that's -- that is professional and business services and finance.

So, we're becoming a really service-based economy, a knowledge economy, and this is -- it's reflected directly ***in*** the GDP shares by value added and not -- it's not surprising that we ***need*** a lot ***more*** ***workers*** ***in*** those shares and that's why we see immigrants coming ***in*** with PhDs and that's why we see women entering these labor forces and having a strong correlation with men's wages.

Just to note, the purple is government and it's almost exactly the same size 50 years -- 50 years on.

OK. So, to conclude, by adding 2000 -- so if you don't believe anything else I've said, take it that if we add 2010 to Borjas' data, the larger wage elasticity of immigration no longer -- is no longer there.

And if we plug that elasticity, the minus 0.22 into Borjas' own spreadsheet, which he put ***in*** his journal -- put online as part of his journal of economics literature paper, ended (ph) that simulation, we get the trillion dollar bills ***in*** the sidewalk again, the trillion dollar bills ***in*** the sidewalk being gains to migration ***in*** the world if people move from the south to the north ***in*** terms of GDP.

So, all we have to do is move some people from the south to the north doing the same jobs and they would -- we would see GDP increase. It's at least ***in*** partially delivering (ph) terms.

That said, the coefficient on the share of women suggests a structural flaw ***in*** those estimates and it's, you know, ***more*** -- and we've seen a lot of evidence from Ethan and Giovanni that, you know, there really isn't that much competition between immigrants and natives for jobs, et cetera.

So, if you want -- I just want to leave you with the takeaway that we should be really cautious about believing any estimates that the wage impact of immigration are that high. Thank you.

(APPLAUSE)

ROODMAN: OK. I'm going to start the discussion first with a couple of questions for our panelists and then we will open it up. We have about half an hour.

If I may presume to sum up a couple of things here based on some of my own synthesis of this literature, there's a very strong message here that we really shouldn't be so worried about the impacts on immigration on the domestic labor market. And I think there are sort of three planes (ph) to that.

One is that not only do people who move here work, but they eat, that is to say. They produce -- yes -- and so, they compete ***in*** product factor markets, such as labor markets, but they have to consume. They have to buy food. They have to buy housing, et cetera. And so, they're stimulating demand at the same time.

Another is that as we heard a lot about the capital stock adjusts, right? And they can do so instantaneously, not only because the labor inflow is relatively small relative to the size of the economy, but relatively stable. So, if you're extrapolating from past trends and you're Apple or G.E., you just look at what's going to happen -- make your best guess of what's going to happen this year based on what happened last year and you've already factored ***in*** the expansion ***in*** the labor supply.

And the third is the notion of complementarity that speaks perhaps most strongly to low-skill immigrants. I always use the restaurant example.

If you have a bigger supply available to you of people who can work ***in*** the kitchen, washing dishes and such, then that improves the economics of the restaurant business and allows it to expand and allows you to hire people who work at the retail interface and have to have ***more*** cultural linguistic savvy (ph), I would say, the waiters and waitresses and so on.

So, these are all sort of dampeners on what we might otherwise expect to be a harmful effect.

So, my first question is inspired about Ethan's passion about rebutting these grown models, but it's for any of you. I am a child of a divorce and it was a pretty -- you know, it was a pretty angry divorce. And so, I grew up having to live with contradictory world views and somehow reconcile them.

And so, to avoid group think here, I want to ask the panelists, you know, what's the strongest contrary argument you can make? Who is most likely to lose if only ***in*** the short term economically? And you know, imaging, you know, somebody working ***in*** a mining town where there really does seem to be a fixed supply of jobs and if you tell that person an immigrant comes and he's not going to hurt you and not compete for your job or you say, "Well, you know what? Over the last 50 years, the number of jobs has doubled." That's not -- may not be very reassuring. What is the strongest contrary argument you can formulate to everything that we've been hearing?

LEWIS: Well, I'll take the first crack at that. I mean, you know, theoretically immigration could do harm to those mining ***workers***, to any number of low-skilled ***workers*** or even to high school ***workers*** if they're -- if they were that concentrated. So, it turns out that immigration -- immigrants cannot to locate ***in*** the places where they would compete the most strongly and that's part of what's going on.

Another feature of immigration that we haven't really talked about is the fact that they are very responsive.

So, there's a lot of research on that as well that immigrants are the first ones who kind of move out of a market when the kind of economy is not doing well and that actually has a benefit for the U.S. labor market as well as because they kind of defuses recessions ***in*** local labor markets and makes it the kind of -- the concentrated effect of a recession less harmful to a particular location.

So that would be what I would say. I don't know if there's anything else.

PERI: Yes. So, maybe ***in*** other couple of points to this, there are some ***workers*** and some type of jobs which have suffered a lot ***in*** the last 20 years for a number of reasons.

The example you give, which is mining, you know, mining is disappearing because we buy the same product cheaper somewhere else. Buying is -- jobs are disappearing because machines do the job.

So, there are some jobs ***in*** which if people are stuck ***in*** those jobs they're going to have a lot of hits from technology, trade, and a maybe a little bit from migration too. So, some of the ***worker*** who are maybe older, they have some very specific skill ***in*** a very manual-type of job. Those are the candidates which would be ***more*** hurt.

However, you know, our economy as dozens of other forces, which are sort of endangering the same type of jobs. And so, clearly if even admitting a little bit of hurt from immigration, the solution to the fact that there are no many manufacturing or mining job is clearly not stopping migration.

So, if you go to policy point, this is such a smaller part of the problem relative to other that I would say economist who should look at cost and benefit of doing different policy should strong I will say, "No, look at other type of solution," and I mean, ***in*** positive way, of course, education and re-training and ***more*** mobility and increasing the ability of people to move across labor market. This seems to be one order of magnitude solution first for those types of ***workers*** who would be hurt relative to immigration. ROODMAN: Do you have anything to add?

DE BRAUW: Yes, I do. Two things. One, I want to pick up on the costs. I think what's -- let's pretend we're ***in*** a world where the three of us are listening to -- on the national stage and they increase -- we reduce migration, you know, barriers and let ***in*** ***more*** migrants, OK?

So, what we have to do then is also think not just about the cost of retraining ***workers***, which we neglect all of the time. That is something that economist theorizes about all the time, but it never really happens ***in*** policy.

The other thing I want -- but the other cost is actually ***in*** thinking about education and health policy.

More -- I thin ***more*** about education because I have kids ***in*** primary school and my local primary school has a very transient population because it's very migrant and they -- the kids move ***in*** and out of the grades and they become

very difficult to educate because they are, you know, moving from one apartment building, which is ***in*** one district to another, and the -- or they move from Prince George's County to Montgomery County or vice versa or into D.C. or what not.

And some of the kids to get here have been through a lot and they ***need*** psychological services and they ***need help*** with English and they ***need*** -- or they -- and I think we ***need*** to think about those costs. I'm happy to -- you know, I know -- I believe there are no wage impacts, but there are impacts that we ***need*** to think about as a society that gets missed.

ROODMAN: OK. My other question maybe particular for -- maybe particular for Giovanni. We talked about the work of George Borjas, an economist at Harvard. He has a new book that's coming out next month, I believe, not coincidentally, you know, I think time for the election. And my best understanding is it's meant to be kind of a popular book building on his past work rather than presenting new research.

And one piece of that that he has been pushing pretty hard is an analysis that he did last year of the impacts on wages ***in*** Miami of the Mariel Boatlift, which is a major influx of immigrants from Cuba into Florida, ***in*** particular Miami.

I think it was 1980, right? April of 1980? And Giovanni has written a response -- he may not be the only one, but he is one I'm aware of. And so, there's been some back and forth. And I think to the extent that this book gets coverage, that is going to be something that gets a lot of attention. So, I'll be interested ***in*** comments from you or others on that.

PERI: Yes. So, the Mariel controversy back again. It's not that I enjoy fighting ***in*** life. I would like to do research and argue why it's good research but -- so, let -- I mean, being honest -- of course, people make choices ***in*** their -- ***in*** their research and design, and of course, there are important choices, but I think that ultimately -- so two things.

First, how relevant is the Mariel debate to the overall immigration debate? This is an episode of refugee. Maybe it's particularly relevant for let's consider an evaluation of sudden flow of refugees that come ***in*** account, which is very different from 90 percent of the immigration ***in*** the U.S., which is gradual, which is for economic reason, and so how much can you extrapolate is ***in*** that?

But let's say -- we're talking about refugees and we're using this as relatively sudden. Things that approximate a little bit of the scenario ***in*** which doomsday ***in*** terms of wages that should happen because they come a lot and they are concentrated, how much effect do we find? And you know, this debate started because the first day by the (inaudible) didn't find any effect.

And then there is this new paper that finds some effect, and I only did some of the thing and I would say that summarizing ***in*** two lines is -- we have very parse data on Miami ***in*** that period and sometimes we calculate average wages with not even 10 observation, but we also have a choice because there are some data sets, which are a little bit better than others.

So using the bigger data set, which allows us a few hundreds of observation for that period and using the market that should have been affected people with low education, both Hispanic and non-Hispanic U.S. born men and women back then, I simply cannot find any effect, whatsoever, and ***in*** fact, if I find something, it's a little bit of a positive believe of wages around there.

But there are some data set which are much smaller which are out there, and there are some sample that you can construct there eliminating a lot of them which give -- which can give negative effect.

Now, there are other examples that you can construct similarly small that gives you opposite effect so that there is so much noise ***in*** this data that just taking everything on and saying, "This one specific sample is the only right one," ignoring what all the other tells you. It seems to me that you ***need*** to quite a lot of faith ***in*** what the answer is and you want to give rather than letting the data speak.

So, my point is that after all the torturing of the data overall, card's (ph) point was confirmed. We don't find very much -- very much effect there, but I also think that that shouldn't be the focus of the immigration debate because the immigration debate is about ***in*** large part of the U.S. economic-driven immigration, which is being gradual different and much ***more*** distributed.

ROODMAN: Ethan, you want to add?

LEWIS: Yes. Giovanni is right. The Mariel Boatlift is a very extreme case. And unfortunately, there's not a lot of labor force data on Miami ***in*** that period. But there's better data -- it turns out there's better data on firms. And what I have found ***in*** my own research is that basically firms adjusted quite well to this. They basically adapt ***in*** a way you would predict. They kind of shifted to producing things that could take advantage of the inflow of low-skilled ***workers***. And this like probably accounts for the fact that you find nothing the way Giovanni described it.

ROODMAN: Interesting. OK. I'd like to open it up. There should be a microphone that we pass around. So, I hope you have lots of questions. Please wait until you get the mic and then identify yourself so we all know where you're coming from. There's a question here.

QUESTION: (OFF-MIKE).

ROODMAN: I can hear you, but I'm not sure everybody else can.

QUESTION: ... project ***in*** with the microphone. Rachel Parrot (ph) with (inaudible). First one, I'll just thank you for your research and for your remarks today.

One of the things that we're seeing as the trend is that despite sort of the national rhetoric around immigration that when you get down to a local level it's a much ***more*** pragmatic view. And so, we're seeing many cities across the country who are intentionally trying to attract and retain immigrant populations as a key part of their economic development strategies.

And part of that rest, ***in*** particular, ***in*** places that are sort of former rust-belt cities or cities like St. Louis, which again sort of ***in*** contrast of its narrative about expelling immigrants, St. Louis actually has a plan to become the fastest -- have the fastest growing immigrant population by 2020. And the reason for that is because they, like many cities, also have a declining population and declining workforce.

So I wonder if you could speak just ***in*** your own research around -- I mean, there's a variable there around the aging population and aging workforce and how that might impact some of the numbers.

PERI: Yes. So, I have two considerations on this, which I think this is a very interesting topic. So, I think one of the differences between immigration and trade, so that, I think, is emerging a little bit ***in*** debate and ***in*** the research is that trade is also eliminating some local jobs because some sectors are shrinking significantly.

And maybe it's not -- of course, it's decreasing the prices of goods as many other economic benefits. But at the local level, maybe it does not generate any positive multiplier once those jobs are gone and there are some economists who actually have found some negative effect of job -- of trade on jobs.

Immigration is different because there's this one person ***more***, which is ***in*** there, which also consume, which also add to the local and normally this is the relatively young person. You know, very old person does not move. It's a combination of people who do manual job, which are ***needed*** and relatively highly skilled. So, it s a very interesting group of people to attract ***in*** a location ***in*** order to revitalize it because -- and I think here economies do interesting job on the job multiplier effect of attracting some jobs.

If you attract some jobs, you create other connected jobs, which are sort of supply and I think immigration as a sum of that flavor. And ***in*** the aggregates, definitely, the fact, again, that there the age distribution prevents some of the shrinkage of our labor force is interesting and ***in*** some locality ***more*** than others.

So, I really do think that immigration is a ***more*** effective way of keeping generating local jobs than other type of mechanisms, which are also at work, and I totally see why just -- as also Ethan was saying, immigrants are easy to attract to positively -- respond ***more*** to positive economic conditions to house some rust-belt cities have tried and advanced on they're coming back and revitalizing the economy. I think it's a very interesting area that is here and there some research, but I think ***more*** is interesting.

LEWIS: I'll just add one brief thing, which is I talked about the adjustment of the capital stock and that there's a little bit of asymmetry, which is it's easier to adjust up than it is to adjust down.

So, what happens ***in*** some of these locations is that, you know, the kind of the schools are kind of decaying and they kind of a -- it's hard to adjust the capital stock downwards. And one of the one of the things immigrants do -- and I think there's a session on this later is they support the housing market. They support, you know, the public sector.

ROODMAN: Yes. A question we see up ***in*** the center back there?

QUESTION: Hi. I'm Shika Dalmia (ph) from Reasons Foundation. You mentioned Professor Borjas' new book, which I have actually just yesterday finished print debate with him on this book, which will appear, by the way, ***in*** the issue that will hit the stands ***in*** October. So, I encourage you all to read it.

But one of the claims that he makes ***in*** his book, which I'm interested to hear, you know, your take on and respond to is that he says that there is actually an efficiency gain ***in*** the economy of $50 billion, but essentially it represents a decline ***in*** wages of native ***workers*** and what happens is because native wages decline, there's a re-distributive for the owners of capital, essentially businesses.

So what immigration does is it does add to the economy, but it also redistributes wealth from ***workers*** to owners of businesses so there's a re-distributive effect and his calculation of $500 billion. So, what do you make of that and how do you respond to that?

DE BRAUW: So, let me respond because that's -- this is exactly the second wrong model that Ethan put up. It's exactly the effect of -- this is the consequence of the assumption that the labor demand comes down because capitalist is fixed and it increases. So, that is actually calculated out of this exact graph that's called the triangle efficiency gain ***in*** economics. That's a model that we have left for 20 years, I would say.

I mean we showed you Mickey Mouse model, somewhat which is ***more*** realistic than others. Economists are doing much -- a little much ***more*** sophisticating. But one thing is that capital cannot be considered fixed ***in*** this calculation. Better -- much better approximation is that capital adjusted the same way.

If you assume that, so is the labor demand curve is supply, the efficiency effect is zero ***in*** effect and the re-distribution is zero, but then you ***need*** to look at empirical evidence on productivity effect of immigrant. You see, this calculation was assumes zero productivity effect, a way the productivity effect on a constant (ph) term plus fixed capital. So, I would say it's not even a starting point for this conversation the way I see it.

LEWIS: Yeah. I'm frankly to disappointed that hear that he actually went with that. I was willing to give him credit for, you know, like that was the Washington Times or Washington Examiner, but that's just wrong.

ROODMAN: Question here.

QUESTION: Thank you. Thanks -- Mark Rosen (ph) from the Department of Homeland Security. Thanks for the presentations.

Ethan, you concluded ***more*** or less your comments with -- I don't know a throw away or I would like for you to say ***more*** about the idea of aiming for filling shortages and it seems to me that the idea of filling shortage analysis competes with the idea of an adjustable capital stock and capital -- I mean it seems that using immigrant to fill shortages is an alternative to forcing capital to fill those shortages and I'm wondering what effect that has versus allowing the capital stock and doesn't that change the ability of ***workers*** to put up wages?

ROODMAN: Well, why don't we take a couple of questions since I saw several hands here?

QUESTION: Earl Grows (ph). I'm going to talk about the elephant ***in*** the room for a moment, ***undocumented*** immigrant ***workers*** versus native ***workers*** and a situation which has been changing and probably will change ***in*** the next few years, the increase ***in*** the minimum wage.

What will happen if many employers find that the requirement for increasing the minimum wage affects them adversely and they begin to hire ***more undocumented workers*** to replace the ***workers*** that they have because they can't afford to pay them the salaries that they have been paying?

Will that effect the -- both the wage level for native ***workers*** and the number of unemployed? And I heard the term used here today not very much of an effect. I'm not sure whether that can be quantified particularly ***in*** the micro situation like this.

ROODMAN: Pass the mic there.

DE BRAUW: Sure. My first thought on that is that -- my main thought is actually that our models -- I think economics model are really good for increasing -- you know, looking at small changes ***in*** wages. So, the literature that -- and I'm a consumer of this literature not a producer -- but the literature on minimum wage and the effect on employment overall is that it really doesn't affect employment.

That said, we don't know what happens when you go from the minimum wages we have now, which I can't even tell you exactly but to $15. It's a -- that's a huge jump. And so, even the simulation models, I don't think any of us would believe what that would do.

In terms of how -- what your -- no. Let me think from the employer's perspective for a second. What you're suggesting is that the employer who is an optimizer -- because I'm an economist, I think he's optimizing -- he's going to look at the probability of trying to shift to ***more*** capital intensive production of whatever he is doing relative to the cost of hiring people below the minimum wage and the risk of getting ***caught*** and fined.

My sense is that I'm a risk-averse capital owner, I'm not going to want to take that many risks. So, I wouldn't -- I would believe ***more in*** the shift of capital replacing labor than the immigrant -- the ***undocumented*** immigrant taking the place of labor. That's my just immediate thought about that and I think we're talking about illegal immigration ***in*** the next session.

PERI: So, on the minimum wage actually the -- so, the question on what will happen when we increase minimum wage. ***In*** general, ***in*** the economy for low-skilled is a little bit of an open question because I think we have a lot of evidence that relatively small changes ***in*** minimum wage don't seem to affect employment every much of that group.

And the idea could be that people use ***more*** efficiently what they have. There is a push towards productivity and distribution of the cost. But a 50 percent increase minimum wage from like $9.50 I think to $15 would be a little bit out so we'll have to see.

One thing about ***undocumented*** -- so ***undocumented*** are all paid minimum wage because firms don't want to attract attention on themselves for sure. I actually did a survey ***in*** agricultural ***worker in*** California, who are the people who say that are paid less. ***In*** -- under our scrutiny, they were paid minimum wage, which is low right now.

So, if minimum wage is $15, would that? I mean immigrant -- ***undocumented*** immigrant right now on the labor market at the low- skilled level are kind of like other ***workers in*** many respects ***in*** the sense that they are on the book. They are paid as the other. They just don't have Social Security Number that matches anything and it's not there ***in*** the gray economy like people claim ***in*** Europe. They're not, you know, selling drugs. They're doing jobs.

And so, the question of how minimum wage will increase that group, yes, on one end they will ***help*** a lot of the wage of that group -- by the way, the difference between -- with native is that they are paid 10, 20 percent less than

natives but still currently large part above minimum wages because minimum wage is so low that so few job really even go close to paying that hourly wage.

So, I would say that there is a question on what minimum wage will do, but there is also on the other hand what if we also regularize these people at the time we do the said -- minimum wage increase to $15 is not going to happen ***in*** one year. It's gradual. And sort of the timing will be an interesting timing to also see what will happen for a policy response that, yes, it will be plausible ***in*** some election goes one way and not very plausible the other way, but it's a possibility.

ROODMAN: Ethan, I think there is a ***more*** technical question.

LEWIS: Yes. I think survey -- the question is -- I guess it was sort of something along the lines if it's -- is it better to wait for kind of innovations to fill the kind of shortages ***in*** the economy or is it better -- is immigration the solution to that.

I don't really have an answer to that. There's a clear -- there's kind of a two sides of the same coin ***in*** a way.

There's an interesting example from history, when we shut down the borders ***in*** 1925, there's a lot of concern about how the -- what's the -- what's manufacturing going to do without all of this workforce and there was a big analysis of this at the National Bureau of Economic Research and then the great depression happened.

And then the same analysis, which was ongoing, switched to is automation taking all of our jobs, so very similar to the debates today but they kind of illustrates that there's really two sides of the same coin.

ROODMAN: Question here?

QUESTION: Thank you. Nick Farmer (ph). Can you verify that all of your members on immigration include both legal immigration, those people with all valid immigration visas, as well as ***undocumented*** both and including people who overstay their visas?

And secondly, maybe somewhat anecdotal, but if I look at Washington, D.C., where I live, I observed that an awful lot of construction jobs, this is office buildings, working on roads, renovating houses, appear to be held by immigrants, whether legal or ***undocumented***, I have no idea, while there's still a fairly large unemployment of African-American males ***in*** the city.

So, what appears to be a fairly substantial impact ***in*** this city, that I can't quite reconcile with theoretical studies that you've done, I wonder if could speak to that?

PERI: So, the numbers that we use are from the census, which try to reach every single person who is residing on the United States. So, these are the estimates from which people start to calculate actually the number of ***undocumented*** that then you'll subtract though many entered legally and that so, this is the best way -- there are some method that said that maybe given that this people move around, we are not having 100 percent coverage of ***undocumented*** but the number we use are the best we have to include both documented and ***undocumented***.

About the construction jobs and the high unemployment among ***in*** the black community, so here you're hitting sort of the short circuit that a lot site (ph). Look, there are some jobs which are done by some people and there are unemployed, therefore, kick out those -- those people we get employment.

That's what you said -- you just do it at the local level rather than at the national level. Now, there are many reasons why the unemployment of sort of U.S. citizens is high. One of which is that, you know, some job pay relatively little and the welfare benefit outside of the job are relatively generous and some of these ***undocumented*** do not have access to the same welfare.

First what you can say, they are the push to work which is stronger. The employment rate of people with no high school degree among immigrant is 70 percent. Among native is about 30 percent because native have access to a lot of other benefits so, it's not so painful.

They can still, you know, have unemployment insurance, they have benefits if they are poor, they have medical insurance now if they are out of their jobs. So, ***in*** a sense the incentive is very different and that you can argue that taking away those jobs away to some company will have to shrink.

I'm not sure, I mean, there's clearly a problem of job trading keeping the job. Keep ***in*** mind that a lot of those people at the level of -- a debt-level of education may have some issues with alcohol use, drug abuse and all of this seems to be a little bit smaller ***in*** the immigrant community who is working at very high level.

So, it's hard to tell. I would say that the best we can do to figure out if immigrants are taking away jobs is trying to look systemically, right, over the nation to see if places where jobs of immigrant have grown al lot correspondent to shrinking of jobs of natives.

And as we were showing up there, the opposite is a little true. Cities which are thriving are actually creating both jobs -- both type of jobs and then maybe a local multiplier. So, I know the appeal of saying kick them out and see what happens if the African-American get the job.

I really don't believe that this is the way the causation goes but I'm sure some people would be so tempted by your type of thinking that, you know, they may try some stuff on this way.

I think that's exactly the appeal of putting together (inaudible) and say one will solve the other. I really think that won't ***help*** and ***in*** effect it will destroy some of the local jobs, but, again...

QUESTION: (Inaudible)

PERI: I mean, that is the job -- of course, I understand. You just put two facts together and then some...

QUESTION: (Inaudible)

PERI: Sorry I didn't mean that you are saying that. I meant to say that this is the argument which is given by saying, you know, the ***undocumented*** should leave and those jobs should be created for the natives.

(UNKNOWN): OK, why don't we collect a few ***more*** questions and have very short responses. Is that OK up there? Gentleman ***in*** the white shirt. There is ***more*** to hear the questions and to get four answers.

QUESTION: Hey there. My name is Richard Corbley (ph) and I'm currently working with the American Continental Group but I'm here basically on a one-year visa from Ireland and ***in*** 12 days I have to actually leave because my visa will run out. What I want to know is how do people actually get visas over here, like, I have come over here, I have worked like every day for like three different -- I work ***in*** government.

I worked for like the Ted Cruz campaign. I worked with the International Dairy Association. I'm with the American Continental Group, but it was -- when I'm looking like (inaudible) to stay, I would have to convince a company that they have to pay $5,000 and convince the immigration office that an American can't have my job which basically American could do any job I probably do, (inaudible).

But what I know is like, how do actually people -- like who are these unskilled people and how are unskilled people allowed ***in*** here when people are coming over and very willing to work are told they have to go ***home*** after a year?

(UNKNOWN): Is that another question near you or no ***more***? Any last questions? Over here.

(CROSSTALK)

(UNKNOWN): Thank you.

QUESTION: Hi, my name is DM (ph), a lawyer. Have you looked at if internationally your research compared to other countries and are the universal truths -- can we learn something from other countries ***in*** the way -- their economic research?

(UNKNOWN): And the woman up there?

QUESTION: (Inaudible) Foundation for Empowerment. I'm with varied (ph) economies working for the World Bank (inaudible). I have a question. I tried to switch gear a little bit slightly to a lower level. Giovanni, you talked about southern refugees from Cuba ***in*** Miami. So that adds up a little over to the overall economy ***in*** Miami. Actually now you have a refugee crisis and ***in*** Germany, you know how many refugees are coming and I am aware that you have been working on European labor market as well, so what do you think about the impact of the refugees -- sudden surge of refugees ***in*** Germany or other, particularly ***in*** Germany and ***in*** other European market, and my second question is, I heard that Donald Trump was saying that Hillary Clinton is just like another Angela Merkel ***in*** America.

When you show that the number of refugees ***in*** -- immigrant ***in*** 1930's and 40's, that was the lowest point of immigrants ***in*** America. I guess at that time mostly refugees from Europe. So I'm just -- my question to everybody is that the -- what should be American policy for refugees ***in*** this situation? Thank you very much.

(UNKNOWN): Thank you. I'm going to stop it there. I want to give panelists maybe 30 seconds each to very incompletely respond to these questions or offer final thoughts. Do you want to start?

(UNKNOWN): Sure, I'd be happy to start.

(UNKNOWN): I apologize, we can't give the time to your questions that they deserve.

DE BREAUW: Yeah. Richard, just on your points, I think a lot of unskilled ***workers*** get here through visa lottery and I empathize with your plate.

A lot of people then overstay their visas which is how we have illegal immigrants ***in*** the country, not to give you any ideas. Dee (ph) on your question, I'm just going to focus on these two, yes, we do work on -- I do work specifically on other countries and not really even much on U.S. immigration.

Just to give you an example of the gains to migration, we've done a study ***in*** rural Ethiopia where we track migrants who are moving five years later. People who had moved made basically their consumption one (ph) up -- they basically doubled relative to people who stayed ***in*** the village controlling for all kinds of other factors. So, controlling for their human capital basically, comparing them to similar people. Thanks.

LEWIS: Yeah, I was just going to respond briefly to your -- I'm sorry you've had a bad experience with the U.S. immigration system as well. So we made a policy decision ***in*** the 1960's basically to favor family members of existing immigrants and that's where a lot of the unskilled immigration comes ***in***. You know, unfortunately, it's very hard to change policies.

That's not necessarily the best policy but it requires an act of Congress to change the policy. Other countries have a lot ***more*** executive control over the flows of immigrant, and ***in*** those countries it's easier to admit immigrants and change policy to fill shortage and that sort of thing.

PERI: Yeah, there are no working visas for low-skilled ***workers*** essentially ***in*** the U.S. except for a very small for seasonal and agricultural. They're all family members. Is the research ***in*** other countries and is it useful? Yes, there is a lot of research ***in*** other countries and it is very useful.

I would say that each country think they are very unique ***in*** this but there are some general consideration such as, I think, ***in*** most research this job market effect of immigrant is rapidly limited. Europe has an issue. Europe has a problem right now over refugees.

I think it's ***more*** linked to the fact that they have ignored this problem and there is no planning on what to -- how to respond to migrant flows. It's clear -- it's been clear for four to five years since the Syrian war exploded, that this was going to be an issue.

But Europe has also some differences with the U.S., much ***more*** generous welcome (ph) system, much harder, much stronger inside or outside their dynamic on the labor market. So, this makes European immigrants much

harder to find a job, much ***more*** on welfare state so, when I go there and talk to them, I always say the American system actually ***in*** these seems to be better.

People are here and the best welfare that you give to immigrant is a job and that's what has been working ***in*** the U.S. both for the economy and for their integration with a lot of issues because at the low end of the wage maybe is particularly low, but we ***need*** to continue understanding how this work and play across different countries.

ROODMAN: Okay, I thank all of our panelists.

(APPLAUSE)

ROODMAN: Forgive a very short plug, if you go to davidroodman.com, you'll see a long review that I wrote of this literature with a lot of discussion of studies from other countries which you asked about. OK, a few housekeeping announcements, there will be 15 to 20 minute break.

There's water available ***in*** winter garden on the first floor and restrooms are located on this level to the left of the elevators and also on the lower level. If you can just turn left when you go to the bottom of the stairs and the restrooms will be down there. Thank you.

(APPLAUSE)

(RECESS)PANEL 2: ILLEGAL IMMIGRATION

(JOINED ***IN*** PROGRESS)

WOLGIN: Phillip E. Wolgin where I'm the managing director for Immigration Center for American Progress. I'm really excited to be moderating this discussion with two topnotch scholars of unauthorized migration.

The question of border security of whether we do or do not have a secure border and how exactly would measure what border security would actually mean sits at the heart -- this question really (ph) sits at the heart of every debate over immigration policy ***in*** this country and it's what we'll be talking about today with two very different perspectives.

So, consider this, the U.S. now employs over 21,000 Border Patrol agents and according to the Migration Policy Institute we spend ***more*** each year on immigration enforcement than on all other federal law enforcement combined. On top of that, apprehension at the southern border, a statistic which scholars use as sort of a rough proxy for the number of people trying to cross the border without status. Well, those apprehensions are at near 40 year lows.

But for all we know about the inputs, how many agents we have, how much technology ***in*** different sectors, et cetera, actually measuring what we know to be a secure border has been both elusive and divisive. Scholars are ***in*** general agreement that the unauthorized population peaked out about 12 million people ***in*** 2007 and has dropped ever since.

According to the most recent estimates from The Center for Migration studies, there are 10.9 million unauthorized immigrants ***in*** the U.S. today.

So to put this ***in*** another way, unauthorized immigration is declining and for countries like Mexico, it's now net negative. But why this decline ***in*** what's contributing to it? Without jumping too far ahead, one of the key questions we'll be debating today is whether border security has played a role ***in*** that decline or, frankly, whether border security has been largely ineffective or at least has missed its intended targets.

And I have to say the answer to this question is ***more*** than merely academic. And really how we define border security, whether border security actually deters unauthorized migration will be one of the key questions ***in*** any type of immigration reform conversation, whether next year or anytime ***in*** the future.

If border security is effective ***in*** deterring unauthorized migration, then the question obviously becomes what types of border security are ***more*** effective than others? Should we be putting our limited resources towards for example, building a wall or maybe putting ***more*** boots on the ground or ***more*** technology, or something else entirely?

And if border security is not effective, given how much we currently spend on it each year, should we be putting this money and resources elsewhere? And are there parts of border security that are less effective than others?

So here to bring some clarity to this issue are two of the leading scholars of the question. Douglas S. Massey is professor of sociology and public affairs at Princeton University and co-director of the Mexican Migration Project, an annual survey which has been gathering data on documented and ***undocumented*** migration from Mexico for nearly 30 years.

Bryan Roberts is an economist who is focused on the past decade on conducting quantitative research on issues related to border security and immigration policy.

He has recently worked ***in*** the Institute for Defense Analyses and the consulting firm Econometrica and Nathan Associates. ***In*** 2010 he was the assistant director for border and immigration programs at the Office of Program Analysis and Valuations at the Department of Homeland Security, and he also previously worked ***in*** DHS's office of policy and its science and technology directorate as an economist and program manager.

He holds a B.A. from the University of Pennsylvania and a Ph.D. ***in*** economics from the Massachusetts Institute of Technology. Please join me ***in*** welcoming our panelists.

(APPLAUSE)

WOLGIN: All right, Professor Massey, we'll start with you.

MASSEY: It's a pleasure to be here today. I've been studying Mexican immigration for Latin America and immigration generally for a long time now. And one thing I've learned is that when congress makes immigration policy, it doesn't make policy with any knowledge of immigration, and it is not really trying to achieve anything ***in*** the management of immigration. Politicians and congress are responding to domestic political exigencies.

How is it going to affect me ***in*** the next election? How can I use immigration as it tool to mobilize voters? How can I use it to gain resources for my ***agency*** or probably support a cause I like? And when you look at American immigration policy ***in*** many ways it tells you ***more*** about America's hopes and aspirations and its fears and apprehensions than anything else. And to understand where we are right now, we really have to go back into the 1960s.

The 1960s were the civil rights era. And the civil rights era was ***more*** about hopes and aspirations, righting past wrongs, ending Jim Crow, de-racializing public policies that had been the racialized for decades at the federal level. And so what I'm going to do is give you a short history lesson and then talk about where we are now and present some data. What you see on the screen is a summary of immigration flows from Mexico over the past 60 years.

In the late 1950 -- we have three lines there. You see the colors out here. We have blue line here is legal immigration, the red line is temporary ***worker*** immigration, and the green line here is the crossing for ***undocumented*** migration and that is border apprehensions divided by the number of Border Patrol officers. If you have ***more*** officers you can get ***more*** apprehensions.

And by dividing by the number of Border Patrol officers, you get a rough proxy for -- I'm not saying this is the actual number of ***undocumented*** entries but this is a great indicator of the trend ***in*** ***undocumented*** migration over time and it's consistent with a lot of other data sources.

So you see that back ***in*** the 1950s, right after Operation Wetback ramped up apprehensions along the border, the United States was importing about 450,000 guest ***workers*** into the country from Mexico every year.

And illegal -- legal immigration, permanent residents was running at about 50,000 per year. So, ***in*** the late 1950s there were about half a million Mexicans coming ***in*** the United States each year, 450,000 of them or 90 percent of them were circulating back and forth.

And the study showed that even among legal permanent residents, a huge fraction were using their permanent resident document actually as a de facto permanent guest ***worker*** visa and circulating back and forth.

It's a heavily circular flaw. ***In*** 1965 comes along at its hopes and aspirations. And the Civil Rights Act passes ***in*** 1964. The Voting Rights Act passes 1965, and ***in*** 1965, Congress amends the Immigration Nationality Act not as a tool to achieve any objective for immigration necessarily but to de-racialize and de-prejudice a system that had been put ***in*** place ***in*** the 1920s that had banned Asian immigration and African immigration and set up quotas (ph) to favor northern and ***western*** Europeans and discriminate against southern and eastern Europeans, read (ph) Jews and Catholics, and reduce the overall number of immigrants.

So by the 1960s, it's the Civil Rights era and Dan Rostenkowski is ***in*** charge of the House Ways and Means Committee, and Peter Rodino is ***in*** charge of the Judiciary Committee and they're kind of been out of shape about how Congress talked about their grandparents.

And so immigration reform is really about civil rights, re- addressing past wrongs and it was debated very much as a civil rights era. The southerners were against it because they were afraid it would change the racial composition of America and one of the things they insisted was if you're going to change the immigration system, we want to put a limit on immigration from the ***western*** hemisphere because that's where brown people are.

And so ***in*** 1965, Congress re-wrote the Immigration Nationality Act, created a preference system that gave preferences to family members -- relatives or family members already ***in*** the United States -- smaller segment to labor ***needs*** ***in*** the United States. And this was used to allocate visas outside the ***western*** hemisphere initially. The ***western*** hemisphere before 1965 had no numerical limits on immigration. Mexicans could enter ***in*** unlimited numbers and ***in*** fact the term was about 50,000 per year.

They capped the hemisphere at 120,000 visas and by 1976 it went down -- the quotas to 20,000 visas per country per year and that's a global quota system and a global cap of about 290,000 visas. Also ***in*** 1965, midnight between 1964 and 1965, Congress let the Bracero legislation expire. The Bracero Legislation had sponsored the Temporary ***Worker*** Program, known as the Bracero program. They brought ***in*** most (inaudible) 250,000 ***workers*** ***in*** the late 1950s.

So ***in*** 1965, there was a dramatic break. And Congress, if you read the debates, they didn't talk about how's this -- we've got half a million people coming ***in*** from Mexico every year, how is this going to affect things? It was ***more*** about, you know, are there going to be a lot of Asians here?

We want to keep ***more*** brown people out. Those were the concerns at the time. And so what happened ***in*** 1965 is there is a massive break ***in*** the system and you see it there. And that's the genesis of the contemporary era of ***undocumented*** migration.

You go suddenly from a system where you have half a million people coming into the United States with legal visas, most of them circulating to a new system with the temporary ***worker*** program is gone and legal permanent resident visas are capped at 20,000. What happens?

The flows have been established over the past two decades. All the migrants ***in*** Mexico are connected to employers ***in*** the United States. It was institutionalized into expectations and practices on both sides of the border. Then simply quickly re-establish itself under ***undocumented*** auspices as you can see with the green line.

It expands from 1965 to roughly 1979 and 1980 and then really kind of stops growing and begins fluctuating. So basically ***in*** the 1970s, the labor flows that have prevailed ***in*** the 50s were re- established, only know that vast majority were circulating under ***undocumented*** auspices. And that created a new dynamic whereby since they are illegal migrants, illegal by definition they must be criminals and lawbreakers.

And this gives rise to a new threat narrative ***in*** the American media where Latinos ***in*** general and Mexicans ***in*** particular are portrayed as a grave threat to the nation, and a series of metaphors are brought out to explain this to the public as the flood metaphor where illegal migrants are going to flood America, drown its culture and inundate society.

But over time, the metaphor that really won out was the Marshall (ph) metaphor of the United States as being invaded by an alien army and its characterized as being occupied.

Migrants were launching banzai charges at the border. Border Patrol officers were trying to hold the line against alien hoards. These are all terms that were widely used, and you can see this ***in*** the figure here.

I did a content analysis of leading newspapers, the "Washington Post," the "New York Time," the "L.A. Times" and "The Wall Street Journal," and look at references to Mexican immigration as a flood crisis or invasion ***in*** leading newspapers.

You can see that the rise ***in*** these metaphors paralleled the rise ***in*** ***undocumented*** migration, and they peaked about the same time ***undocumented*** migration peaks and then begun to fluctuate.

But every time there's a peak, there's another piece of anti- immigrant legislation or anti-immigrant policy that is enacted. What this did was set off a dynamic where you had this exogenous effect from outside the system where there was a massive change ***in*** policy and suddenly illegal migration begins because there is no opportunity for legal entry of a well-established legal system and illegal migration increases.

So, you get a big increase ***in*** illegal entries which, of course drives up apprehensions which becomes the visible manifestation of illegal migration, pushes the country ***in*** a very conservative direction and these are (inaudible) estimates that I used from the general social survey and other sources and federal sources data. ***

And that drives a move towards restrictive legislation, restrictive operations, increasing the number of Border Patrol agents, the size of the Border Patrol and then ***in*** the end, that produces ***more*** line watch hours and hours spent patrolling the border.

So, if you have ***more*** people and ***more*** resources devoted to ***catching*** people on the border, you ***catch*** ***more*** people on the border. And so that feeds back on the system to drive-up apprehensions.

So, illegal migration actually peaks ***in*** 1979 and begins to fluctuate with no real secular trend thereafter, but apprehensions continue to rise not because ***more*** people are coming but because ***more*** and ***more*** efforts are put ***in*** to ***catching*** those who are coming and it becomes a self-perpetuating dynamic. Every year, apprehensions increase.

The head of the Border Patrol Ryan S. (ph) at that time, gets out and puts out a press release. The alien invasion is continuing because apprehensions are rising therefore, we ***need*** ***more*** resources. ***More*** resources are made available, ***more*** apprehensions becomes a self- perpetuating cycle.

And you can see this ***in*** the next -- you see, this is our standardized index where we divide apprehensions by people looking for them, that's the index trend. This is the raw number of apprehensions. It just keeps going up and up and up even though the trend really has flattened out.

And this resulted ***in*** progressive militarization of the border, the self-perpetuating dynamic exacerbated by things like the Cold War, during the Contra War and war on terror ***in*** the '90s and 2000s.

You can see this massive increase ***in*** border enforcement. This is the ***caught*** ***in*** (ph) ***in*** 2013 dollars, this is the Border Patrol's budget ***in*** real terms, and you can see it's flat from 1970 to 1986 with the integration of Foreign Control Act passes to start the process.

It started very slowly and then way back ***in*** the '90s, a whole series of loss were back to 1996, we boosted it up and that peaks here and then the 2000 is actually the one on the graph, this right here is 2001 Patriot Act and that just puts us through the roof.

I remember that illegal migration inflows partially peaked right about here. So, all this occurred well after the flow and peak and really by 2000, the closure (ph) already beginning to decline into the United States.

So, this massive militarization which was completely disconnected from the underlying traffic along the border occurred and it had the pronounced effects, not necessarily the ones that were intended. I'm going to just read out what the effects were and then I'm going to show you data that supports the views that I outlined.

At the border, effective militarization on border outcomes transformed the geography of order crossings. Shifting the places that migrants used to cross.

And also incidentally shifted geography of migrant settlement creating a whole set of new destinations throughout the United States. It also increased the use of coyotes or border smugglers.

It increased the cost of using coyotes. It had actually no effect or limited effect on the probability of border apprehensions despite all the resources put into it. And it had virtually no effect on the likelihood of ultimately getting into the United States.

But it did increase the risk of death and injury during border crossings. So, that's what the changing reality on the border and how did this changing realities effect migrant behavior? Well, according to the data that we marshal, there was no effect on the likelihood of taking a first ***undocumented*** trip.

So, you're not discouraging somebody from leaving for the United States without documents. But it did drastically decrease the likelihood of return from a first trip. Decrease to the likelihood of taking an additional trip and the likelihood of returning from an additional trip.

So, it didn't stop the basic inflow but it really stopped the outflow, and that had serious consequences. Now, I'm going to be drawing from now on most of the data that I -- before were publicly available data from surveys or from the government ***in*** the United States. Now, I'm going to use data from the Mexican Migration Project which I've been running with my colleague, Jorge Duran, at the University of Guadalajara since 1982.

And we've been collecting data every year ***in*** the field doing surveys of communities throughout Mexico and we go into a committee, take a representative sample, find out who ***in*** each household has ever been to the United States. For everybody who's ever been ***in*** the United States, we collect information on the first trip, the most recent trip, the total number of trips.

The information includes wages, working conditions, destination state, metropolitan area of residence and legal status. And then for each household head and then later on ***in*** the data series, sponsors as well, we collect a complete history of migration and border crossings beginning from roughly whenever they left school to the time of the survey.

And we know information about every time they went -- headed out to the United States, what happened to them at the border, how many times there were apprehended, if they ultimately got ***in***, where they went and what they did.

And those -- all of these data -- as you can see this is a website -- are publicly available. So from the very beginning this was a public database and we currently have about 4,000 data users including many from the Department Of Homeland Security I might add. They make use of the Mexican Migration Project database.

It's the largest compilation to my knowledge of information on the movement back and forth of documented and ***undocumented*** migrants from Mexico to the United States. The surveys mix is complemented by surveys ***in*** the United States of people who have settled ***in*** the United States and no longer return back. Most of the surveys (inaudible) we've done ***in*** the winter months when migrants were circulating back.

Now, this has become ***more*** difficult because they don't circulate anymore as we will see. And what I'm going to do, I estimate a series of equations and I'm focusing on the U.S. context and the Mexican context controlling for demographic, background, human capital, social capital, physical capital, region of origin and community size. That's just all held constant ***in*** the background and what I'm focusing on is the U.S. context, and the key variable is of course border enforcement.

And this is an instrumental variable we estimated to eliminate endogeneity from the enforcement effort. And it's the law of the Border Patrol -- it's the log of the instrumental Border Patrol budget over time.

And we also control for the rate of unemployment growth ***in*** the United States, the road (ph) of access to residents and work visas, and the U.S. minimum daily wage, the (inaudible) birth rate ***in*** Mexico, the rate of GDP growth ***in*** Mexico, the homicide rate ***in*** Mexico and the Mexican minimum daily wage.

So, we are trying to hold as best we can economic and social circumstance on both sides of the border constant and look at the effect of border enforcement.

And so the rest of the evidence I'm going to present ***in*** a series of figures and what they show here is the observed probability of crossing at a tradition location predicted from our Mexican Migration Project data from the life histories of all these different household heads that we've accumulated, which are hundreds of thousands of person years of observation at this point.

The solid line is the observed figure that we get when we just calculate the data and estimate it as a simple estimate.

And the dashed line is what we get as a predicted value from the model. The only thing we vary over time is the border enforcement effort as measured by a log instrumented at the Border Patrol budget and hold everything else ***in*** that model constant.

And so, you see the raw trend is that everybody crosses at the same place through around 1986-1987, IRCA happens, and IRCA, Immigration Reform Control Act targets the busiest border crossings initially of course, El Paso and San Diego.

And then this begins a process of decline that occurs over time, and it really takes acceleration ***in*** the early 1990s -- 1993, 1994 -- 1993, Operation Blockade is launched ***in*** El Paso -- a full-scale militarization of that sector, and ***in*** 1994 Operation Gatekeeper ***in*** San Diego ***in*** that sector, a full militarization there. And, of course, migrants initially walked into this wall of enforcement resources that wasn't there before and suddenly they're ***caught***. And so the next time they try, they avoid the build-up areas.

And so the net effect was to channel migration away from El Paso and San Diego into the Sonoran Desert and through Arizona. Prior to 1993-1994, the Arizona sector was a complete backwater. They haven't been significant immigration into Arizona for Mexico since the 1920s and the number of crossings that occurred along the Arizona portion of the border was very small.

So, as you can see the effect of the militarization was to, ***in*** fact, shift the points of border crossings. It increased the likelihood of crossing with the coyote.

You see the raw trend and the trend predicted from the border enforcement effort, the dashed line, people always use a lot of border crossing guides to come into the United States, but what the militarization did, it turned ***in*** from a very common thing into a one 100 percent thing where everybody now crosses with border crossing guides were as back ***in*** 1970 there's only about three quarters crossing guides.

It also dramatically increased the cost of border crossing, changing it from about an average of about $500 ***in*** real terms through the late 1980s and then accelerating up into 2010 when we cut off the data here, it was about $2,700.

It's now according to the latest data from the Mexican Migration Project from 2014, it's pushing my $5,000. So, it did increase the cost of border crossing, and it also increased the risks of border crossings.

So here's the -- the dashed line is the effect of the border militarization on the raw number of deaths counted along the border by year and it you see it roughly explains the trend. So, things at the border changed quite dramatically. So, what's a poor migrant to do? Well, it depends on what happens to them when they attempt to cross.

So, what you have here is -- the solid line is the observed probability of apprehension over time, which basically ranges between 20.2 and 20.4 and averages about 0.33 over this period from 1970 to 2010, a very little trend.

And you see that the effect of border enforcement was really quite minor and a slight increase over time but that increase ***in*** statistical terms was not significant and certainly not commensurate with like exponential increase ***in*** border enforcement efforts. The dotted line at the very top is the probability of ultimately gaining entry over a series of attempts.

And you can see that through 2006, 2005, the probability of getting ***in*** across a number of attempts was about 1.0, about 100 percent. Afterwards, it begins to fall off and maybe that's an indication of border enforcements finally having a track (ph) or maybe it's not.

It's very difficult to tell using these data because very few people are migrating after 2007-2008. And the number ***in*** a day, you don't get very stable estimates. And this is the observed -- this actually doesn't look, look at -- the observed probability of taking a first ***undocumented*** trip to the United States -- that's the solid line.

And then the dashed line is the effect of border enforcement, which you see as nil. And you see a dotted line, and that's the effect of the average age of people at risk of migrating to the United States without documents. And that has been going up and up and up and I'll come back to that ***in*** a second. So, it's really the shift ***in*** the average age of the Mexican population that has pushed down the rates of the probabilities of migration ***in*** recent years.

This repeats the analysis only now we've got the observed decline, the dark line. The dotted line shows predicting from Mexican fundamentals only, the Mexican conditions only, and the dashed line is what you get when you predict from U.S. fundamentals only.

And so you see the fundamentals haven't changed that much. And if the fundamentals are not driving the downward ***slope*** of the migrants, it's really the average age as you see here.

This shows the probability of returning from a first trip, and as you can see it is spiky but it goes down and the trend is really explained largely by the increase ***in*** border enforcement.

So, conclusions then from 1986 to 2010 the United States spent about $35 billion ***in*** border enforcement. ***In*** so doing, transformed what had been a circular flow of male ***workers*** going to three states into a subtle population of families living ***in*** 50 states.

In the 1990s particularly, the effect of border enforcement was nil on the probability of leaving for the United States but profound on the probability of returning to Mexico from the United States.

And that increased the net inflow and that's why you saw ***in*** Giovanni's slides that all of a sudden there's always unskilled ***workers***' coming ***in*** the 1990s. They're always coming ***in***, the difference is ***in*** the 1990s, and they are not going ***home*** because it's too costly and risky to circulate back and forth so they settled.

And by pushing the flows away from California transformed what have been a regional flow affecting California, Texas and Illinois into a truly national population.

It reduced out migration while living ***in*** migration unchanged to double the net rate of ***undocumented*** migration and increased ***undocumented*** population growth, created a population of 11 million people ***undocumented*** U.S. residents, 60 percent of whom are Mexicans and two-thirds -- 60 percent of Mexicans immigrants are ***undocumented*** and about two-thirds of the central American immigrants are currently ***undocumented***, all while

attempting to end ***undocumented*** flow that would've ended on its own accord after 2000 because of the demographic transition ***in*** Mexico.

While the demographic transition shifted, the fertility rate ***in*** Mexico from seven children per women ***in*** 1960 to 2.2-2.3 children per woman today. And Mexico has become an aging society and rates of labor force growth are decelerating. The cities of Mexico's have below replacement fertility. And Mexico's average age has steadily risen and is now about 28 years. The average age ***in*** Mexico is 28 years.

And if you look at any migration curve, as (inaudible) pattern, to its flat and then about 15 or 16 it goes up, peaks 21, 22 years-old and then climbs abruptly and flattens out again over age 30. If you don't migrate between the ages of 15 and 30, you're unlikely to migrate at all.

And what happened ***in*** Mexico is that Mexico's become an aging society, average age increased and that has driven ***undocumented*** migration down to very low levels to the point where it's now zero and has been for the last eight years.

It's actually negative ***in*** terms for Mexico alone. So, that's the current Mexico-U.S. border. My back is to the Pacific Ocean, I'm staying on the hill. The left is to the United States. The right is Tijuana. And just for comparison issue, this is the Korean Demilitarized Zone. This is the most -- it's a misnomer, the demilitarized zone because they are the two most militarized borders anywhere ***in*** the world today.

(APPLAUSE)

ROBERTS: PK, we're all set. I'd like to thank Alex and Cato for inviting me to come there today. I'm going to talk about illegal immigration outcomes on the southern border, what are they and why have they changed?

I want to start with some disclaimers, all opinions expressed today are my personal views and do not necessarily reflect those of the U.S. government or any office ***in*** it. I also want to really stress that my analysis and presenting is positive, it's not normative.

I'm trying to understand what actually happened through 2015. I am not making any evaluations or recommendations of what should have happened or what should have happened ***in*** the future. I apologize I have a lot of slides to go through. I'm going to go through them quickly.

The topics are A, what do Americans believe about illegal immigration? B, what border enforcement measures ***need*** to be reported? C, what are estimates of these measures for the southern border? D, why has illegal migration across the southern border changed? And E, what challenges exist with respect to measuring and recording outcomes related to these phenomena?

First, what do Americans believe about illegal immigration? They believe that it has increased ***in*** recent years. 2015 polled -- the most recent national poll asked your best guess do you think the number of immigrants coming to the U.S. illegally has increase or decrease ***in*** the past few years -- 69 percent of those polled believe that it has increased.

And that holds true for any breakdown across political affiliation or liberal, moderate and conservative and any other socio- demographic breakdown that you can do with that polls data.

If you go back and look at the polling data from 2000-2015, it also shows large majorities of Americans have believed that the board is "insecure," and that the U.S. is not doing enough to prevent illegal immigration across its borders. These are the perceptions.

B, what border enforcement measures ***need*** to be reported? I have argued with my colleagues, John Whitley and Ted Alden that the following three measures are really the core measures. The first and the most important is the number of successful illegal entries. That's really what immigration enforcement is designed to prevent.

And two other measures should be reported, the probability of apprehension, which is the average chance that someone will be ***caught*** when attempting illegal entry, and the probability about the border deterrence, which is if you are ***caught*** and subjected to any legal consequence and you returned to your ***home*** country, what is the chance that you try again?

Number one is the strategic outcome that is of the first order importance, and number two and three are key outputs of border law enforcement, and we have argued that all of these measures should be reported ***in*** a performance management framework.

The scope of estimates that could be developed for illegal immigration are broad. Borders are complex. They include land, sea and air borders. There are two very long land borders, the southern and northern. The southern gets all the attention.

There are also different entry domains, there are ports of entry and there are between ports of entry. It's my view that the U.S. government should develop estimates of all of the key flows and stocks related to illegal immigration.

The focus today is going to be on the southern border between ports of entry. That's where most illegal immigration into the U.S. is believed to have taken place. There's a map of the border.

Not as dramatic as Doug's photos but it shows that the border is 2,000 miles long and its punctuated to various points with ports of entry where people can legally go back and forth between the two countries, and ***in*** between these ports are very long stretches of terrain that can be completely empty and de-populated or it can be somewhat populated with some rural areas or small towns.

What are estimates we have for these measures? Well, this is the measure that DHS and its predecessor organization has traditionally reported which are apprehension. These shows apprehensions from 1925 to 2015, and Doug has already talked about this data.

But I think this graph is interesting ***in*** that it shows that recently there's been a very, very big structural change and that the number of apprehensions of Mexican nationals has fallen quite a bit and the number of apprehensions of non-Mexican nationals has risen quite a bit.

Apprehensions are not a good measure. They're not a measure at all of the key strategic outcomes, which are successful illegal entries. What has the government done to go beyond that?

It first felt pressure to report measures ***in*** the 1990s after the Gipper (ph) Act, and a series of measures were subsequently published and then withdrawn and abandoned over the next 25 years. This is documented ***in*** a study published by the Bipartisan Policy Center ***in*** 2015. Current efforts center on known flow data, which is collected by the U.S. Border Patrol.

The known flow data comprises three distinct types of data, apprehensions which include those who are ***caught***, not necessarily trying to evade. Apprehensions are of people who are trying to evade. They're also of people who are not trying to evade, and that's an important point of turn backs.

The Border Patrol makes estimates of those observed to enter the U.S. and then leave back into Mexico, perhaps because they felt they were seen by Border Patrol and they wanted to get back without being ***caught***. The other ways finally are estimates of those who actually successfully evaded Border Patrol.

The other ways are estimated on the basis of a variety of evidence that Border Patrol systematically collects and processes. DHS today reports as its core southwest border security performance measure or something called the Interdiction Effectiveness Ratio, the IER, and what is it -- my equation was altered to be a line. It's the ratio of apprehensions plus turn backs to apprehensions plus turn backs plus got aways. Simple ratio. It is intended suggest what the probability of apprehension is.

Border Patrol Patrol's estimate of got aways are also an estimate of successful illegal entries. Unfortunately, it is my view that these measures based on known flow data are not credible.

And the reason is that first, got aways systematically underestimate the true number of successful illegal entries for well understood reasons. They're going to be successful entries by people that you observe no evidence for whatsoever. Also, the Interdiction Effectiveness Rate is fundamentally flawed. It has no clear interpretation as a measure.

It does not measure the probability of apprehension. It includes apprehension of people not trying to evade Border Patrol, for example, some asylum seekers who are turning themselves into Border Patrol. And it also is analytically illegitimate to include turn backs additively.

So, any measure that combines data on evaders and non-evaders and/or includes turn backs is going to be fundamentally flawed. Although the status (ph) is useful for other purposes, it should not be used to estimate key border security measures.

So, what's an alternative analytically based estimates? An approach that has been extensively used since 1990 is the repeat trials model. It's based on the following simple conception of the process of illegal entry.

A migrant come to the border and attempts illegal entry, if they're ***caught***, they return to Mexico or their ***home*** country after application of any consequence. And then they decide whether or not to try again or to cease and to return ***home*** or perhaps live ***in*** the border region.

This model has been used to measure successful illegal entries and the probability of apprehension for a long time. It was first used by Thomas Espinshade and that was published ***in*** a canonical book ***in*** 1990, a foundational book. It was used by Doug and Audrey Singer ***in*** 1995.

They use data from MMP survey to estimate these two measures. And ***more*** recently, it's been used by Joe Chang ***in*** a study using Border Patrol apprehension records, which has not been publicly released by the Department Of Homeland Security.

Backup slides to this presentation, which will be publicly available provide a ***more*** technical explanation of the model. There are a lot of potential data sources to estimate these measures using the repeat trials model and ***in*** general, to analyze the phenomenon of migration from Mexico to the United States. A lot of this research, I guess the color, does it show?

OK, sorry, I had some animation. There we go. A lot of research has used the data of the Mexican Migration Project which for many, many years was really the only source of data and it's generated an immense literature and a lot of insights into the nature of migration from Mexico to the U.S. I'm going to present research that is based on two other sources.

First, the (inaudible) a survey -- sorry, the red is not appearing -- this is a survey that's conducted by Mexican research institute (inaudible) and they survey -- they do extensive surveying of people ***in*** the border region including those who were ***caught*** by law enforcement authorities ***in*** the U.S. and returned. And also, I'm going to use U.S. Border Patrol apprehension records. There's an excellent study 2012 that reviews all of these many surveys that could potentially be used and if you're interested I highly recommend it.

It's very thorough. Recent analytical estimates, well, DHS recently commissioned the Institute For Defense Analyses to make estimates of the three measures for the between ports domain on the southern border, the at-ports domain on the southern border, and ***in*** the maritime domain -- people trying to come ***in*** by boat. The data used was DHS internal administrative records as well as the aim of migrant survey. This report hasn't been made available to the public so I can't present its results today.

What I can present are results based on publicly available data the (inaudible) survey, an aggregate apprehension data that DHS publishes on its website. These estimates are not as high quality as the other study estimates, but I can't present them.

This chart shows estimated successful illegal entries between ports of entry on the southern border, all nationalities. They exclude asylum seeking apprehensions who I believe largely turned themselves into enforcement authorities once they arrive at the border.

And that shows estimated illegal entries from 2005 to 2015 and it's a 95 percent drop. This is an estimate of the border deterrence rate.

If you are ***caught*** by Border Patrol and returned to Mexico, what is the chance that you will give up trying to re-enter and go ***home*** or make alternative arrangements and not attempt illegal entry? And from 2005 to 2010, that probability was at fairly low levels, 15 percent, maybe 20 percent. That's consistent with what Doug showed earlier. But after 2010, it has risen dramatically.

It's a real structural change ***in*** behavior at the border. And the plausible explanation for this is that it's driven by consequences that Border Patrol has been instituting on a large scale since 2010.

Finally, the estimated probability of apprehensions, that's the chance you're going to be ***caught*** on average and that, is estimated using the publicly available data. It's risen from 20 percent to 30 percent through 2010 to about little over 50 percent today. Which is again, there's been a significant rise.

Why is illegal migration across the southern border changed? Well, illegal migration from Mexico is influenced by economic conditions ***in*** the U.S., economic conditions ***in*** Mexico, law-enforcement efforts against illegal migration, the ease of migrating legally, demographic change ***in*** Mexico, all factors that Doug emphasized ***in*** his talk and has incorporated ***in*** his research.

I'm going to present an alternative view using different data. This is based on both 2012 on published research that was updated this year by IDA (ph) this year. Unfortunately, I don't have a paper available on it yet.

I also can only show results that are based on publicly available data. It's possible to do this research using DHS administrative internal records. The results are going to be higher quality if that's done but I'm showing you what I can present based on publicly available data. We used the ENOE Household Survey, that's the Mexican equivalent of the American Community Survey.

It is a nationally representative survey done on a quarterly basis and this survey, when it surveys a household, it observes migration events ***in*** the household when somebody leaves the household to migrate abroad.

It does not identify legal versus illegal immigration so we developed an approach to estimating the probability some of these migrating illegally based on observed characteristics. We take advantage of the aim of migrant survey to do that.

We also are going to restrict our sample to working age men with less than post secondary education because that's the group that has the highest propensity to illegally migrate. Our economic explanatory variables are going to be the U.S. unemployment rate and the Mexican expected wage rate.

Enforcement explanatory variables include Border Patrol enforcement as captured by the number of agents, and the consequences, the number of misdemeanor and felony prosecution. We use many control variables. We also control for endogeneity of border enforcement using an instrument that's based on the Border Patrol budgetary process. The backup slides go very extensively into the methodology.

I will say we are identifying impacts of economic and enforcement variables by taking advantage of geographic variation across the border and across Mexican communities where ENOE is implemented and across states of the United States. So, the research is different from previous research both ***in*** terms of the data that it's using and the methodological approach that it's using and the variation that it's taking advantage of.

This is the overall U.S. unemployment rate. It shows we had a great recession. It also shows that we've had an economic recovery afterwards and this is also reflected ***in*** higher hiring and job openings ***in*** the construction, manufacturing, food service accommodation sectors.

There has been a recovery and job openings ***in*** these sectors as well as hires. This is the variable we use for the Mexican economic conditions. It's the expected income that a person ***in*** the ENOE survey can expect to receive ***in*** Mexico.

It's their expected wage multiplied times the probability of actually getting a job. And this graph shows that that has not actually risen ***in*** the ENOE sample over the last 10 years. Here's the Border Patrol agents -- Doug already talked about that. Finally, this shows prosecutions of border crosses, misdemeanor and felony. There's been an increase ***in*** both. This has been part of the border enforcement intensification over the last decade. The preliminary results based on publicly available data suggest that enforcement has had a significant impact on the decision of people who are migrating illegally.

It also suggests that whereas misdemeanor prosecutions had no significant impact. Felony prosecutions have had a significant impact. That's consistent with that rise at the border deterrence rates that I showed earlier.

And finally, that U.S. economic condition is marginally significant and the Mexican expected income variable is highly significant. I can't believe I've gotten this far.

I didn't do so well ***in*** my practice this morning. Counterfactual simulations, we take these regression results and we predict (ph) historical levels of aggregate illegal immigration of this population for Mexico. So, we basically do a historical prediction using actual historical values of all of our explanatory variables and then we simulate counterfactual scenarios.

We simulate what would have happened if explanatory variables remain constant after 2005 level? We first hold enforcement variables constant, that's both agents and consequences and we then hold economic variables constant.

Demographic change ***in*** Mexico should be captured ***in*** these counterfactuals because of the ENOE survey weights (ph) which are capturing the demographic change, and here are the results. The blue shows the historical prediction of the regression model using actual values.

Then when we hold constant age and consequence values at their 2005 level, you can see that if that enforcement buildup hadn't taken place, we would've expected -- the counterfactual suggest that there would have been a rise ***in*** the flow. And finally, the economy variables -- that's the red -- we can see that as the Great Recession started, it had a very powerful impact on migration decisions of individuals. But as the recovery took place, that impact lessened over time.

And what this counterfactual graph is really saying is that ***in*** the absence of enforcement we would've expected recovery ***in*** the flow of people from Mexico to the U.S., but that enforcement plausibly has for the first time introduced a disconnect between U.S. business cycle and illegal migration from Mexico. Positive analysis, not normative. A new flow, asylum seekers, this has been an important phenomenon that's developed since 2012.

A new flow of migrants has emerged, asylum-seekers from Central American countries, the determinants and dynamics of this flow requires its own separate analysis. I think many ***in*** the room will remember the debate that broke out ***in*** 2014 over whether this flow is affected primarily by root causes such as crime and poverty or by U.S. policies, actual or perceived.

I don't think these explanations are mutually exclusive. I also think based on statistical research that root causes can explain the underlying reason why the flows have emerged but they cannot explain the dynamics of the flow over time.

Finally, what challenges exist with respect to measuring and recording outcomes for ways to illegal immigration? First, can the executive branch produce and report credible estimates?

Well, I would argue that today it has been crippled by an overriding concern with political optics at every level, bureaucratic obstruction and a lack of analytical capabilities, and this is like 25 years of failure. Congress has had to specify ***in*** detail over time what DHS should report but that's often, well, that's been ignored ***in*** the past.

And DHS secretaries can change at will what's reported to the public as evidenced by instability ***in*** reported measures. It may be the case of Congress and the public might have ***more*** confidence ***in*** a third party conducting this work and alternatives such as a congressional commission or outsourcing to an independent institution should be considered.

Two, can executive branch share information? Producing and reporting credible estimates is simply not enough. DHS is going to have to earn credibility by sharing its data, methods and results with the research community.

It ***needs*** to establish a partnership with the research community. That partnership was present ***in*** the 1980s but it's long ago disappeared. This must be done on a completely level de-politicized playing field. Many federal ***agencies*** routinely share very sensitive data with external researchers. The bureau of the Census has done this for a long time. There's ways to share data while protecting confidentiality. DHS resistance to data sharing is very fierce.

Finally, technical challenges. It goes without saying measuring flows that are seeking to escape detection is analytically challenging but research today has showed that it's possible to credibly do this. Research can always be improved. If the government gets serious about measurement and engages with the research community, the process of improvement would take place.

And as an economist, I would simply note that all of the economic estimates produced by the government are subjected to uncertainties and (inaudible) that has been debated fiercely for decades. Yet, the government still measures and reports price inflation, the unemployment rate and GDP growth. All you have to do is read the economic press to see how fierce the debate about the unemployment rate has been. Pure (ph) of labor statistics is estimating and reporting it.

So, some conclusions, successful illegal entries between ports of entry ***in*** the southern border have fallen dramatically over the past decade, enforcement has played a significant role ***in*** bringing this about both through a higher probability of apprehension, but also application of consequences. A new flow of asylum seekers from Central America has emerged. The U.S. public is largely unaware of the dramatic flow ***in*** illegal immigration and the U.S. government faces challenges ***in*** establishing its credibility ***in*** this area.

I would like to thank the following people, Secretary Jeh Johnson, Secretary Michael Chertoff and the people who worked for them, for both secretaries who had supported and enabled good research and there are some very fine people ***in*** that group. John Whitley and the other research team.

The retired chief of U.S. Border Patrol Michael Fisher. Ted Alden, who is here, Teresa Brown of the Bipartisan Policy Center, who is also here, Gordon Hansen, an economist at the University Of California San Diego, and Scott Border, another economist formally employed by DHS who played an absolutely key role ***in*** the research that led to that counterfactual chart.

And all of the many other people who have sought to inform a very contentious issue with objective and rigorous analysis over many decades. Robert Warren, Jeff (inaudible), Doug Massey, Jorge Duran, Frank (inaudible) and many others. I could write out 70 names. I have no time to go through them. Thank you.

WOLGIN: Well, thank you so much to both of you. I found this to be a really fascinating discussion with two, I think, very well crafted models at their heart. Nevertheless, you do both come to opposite conclusions so, we're going to dig ***in*** a little bit ***more***. Well, at least a bit.

So, I guess, I mean, to me it seems like the key question comes down to this. Doug, as you framed it, would unauthorized migrations have stopped at least for Mexico on its own accord at least after 2000 without that strong border security and how much weight do we actually assign to the demographics and economic explanations both ***in*** the U.S. and Mexico and how much do we assign to things like enforcement and consequences ***in*** particular.

So, I'll put that both to you just to kind of summarize this. Where do you fall on this?

MASSEY: Well, just a reflection on what we've seen here to frame it, actually my analysis goes from 1965-2010 and during that period of time, my analysis are pretty much consistent with one other.

It's not much of a difference. I don't -- I don't do the analysis after 2010 and which is when he starts picking up these effects. It's true that the number of successful entries has plummeted over time but the main reason, at least through 2010 was because very few people are trying to get into the country from Mexico.

So, successful entries depend on the number of people trying and that's dropped and today very low. Historically, we're at low levels we haven't seen really for four or five decades. My skepticism as the post 2010 numbers because post 2010, there are very, very few Mexicans trying to get into the United States. So, we're basing estimates off of very small numbers, and I said that ***in*** my presentation about the MMP data. It's really hard to come up with a stable estimate of the probability of apprehensions when you've got five people attempting out of your sample ***in*** a given year.

They've got larger samples ***in*** the apprehensions but still the numbers of Mexicans who are attempting to enter the United States by all measures are at record lows. The number of Mexican apprehensions hasn't been this low since the early 1960s or early 1970s.

And net is negative so, Mexican migration is basically over, I think, and illegal migration is basically over, and it was over by 2010. And that was largely attributable to the demographic shift ***in*** Mexico. We could debate about the current effect of border enforcement today.

I don't have any information either way. It could be we know that a lot of what used to be just run-off-the-mill stuff involving border crossing has now been criminalized so, that back ***in*** the day, almost every Mexican who got apprehended was given a voluntary departure and just exited -- left to go back ***home***, actually back to the border, and then they tried again.

Now, a lot end up ***in*** the immigration detention system and that could very well have a serious effect. But whatever the effects are, it's almost moot because hardly anybody is trying to come to the United States and mostly the people that are apprehended along the border, at least according to -- until the day that I have seen including from (inaudible) are people that have been previously deported that are trying to get back ***in*** because they have families and lives on the U.S. side.

So, before 1910, I think our data are pretty consistent ***in*** showing that the enforcement had relatively little effect. It was largely driven by the economic fundamentals and demographic fundamentals.

After 2010, it's hard to say because so few Mexicans are actually trying to migrate into the United States. And one thing that neither of us mentioned to this point is that quietly, without anybody really paying much attention there's been huge revival ***in*** temporary ***worker*** migration from Mexico.

And according to -- it's hard to tell because of technical reasons the way DHS presents -- it captures crossings now, but it looks like around 350,000 Mexicans enter the United States each year on temporary work visas and about 150 to 200,000 enter on permanent residence visas. And our data for the Mexican Migration Project which picks up a large number of these people, shows that these people are circulating back and forth.

Of course the people are temporary ***workers***, temporary visas do it, but a growing number of the legal immigrants are circulating back and forth even though they have the right to remain ***in*** the United States. And so you got this ironic situation where you got 11 million ***undocumented*** migrants basically trapped ***in*** the United States because they can't circulate and the legal component from Mexico is increasingly circulating back and forth. So, kind of back to the status quo ante (ph) of the late 1950s, except now we have 11 million people living ***in*** the United States out of status, which is causing huge political problems domestically.

ROBERTS: So, I should note that I'm one of those people ***in*** DHS who -- I got my start ***in*** all this using the MMP data. I'm one of those people that Doug mentioned before and I became aware of the nature of how data is collected and it is a survey that doesn't capture that much information on illegal trips made ***in*** very recent years.

And of course, as Doug said, that's fallen to effectively zero over the last five years ***in*** the MMP sample. The data that we're using, the ENOE survey, that's a -- it is like the American Community Survey -- that's capturing a

significantly larger number of observed migration events. It's still a relatively rare event ***in*** the ENOE data, but there's enough there that I think you can make stable estimates. The ENOE survey is capturing data on about 1,500 migrants who have been returned to Mexico every year.

So, that's a pretty large sample. It's directly going to the border crossing points and it's interviewing Mexicans as they're being repatriated. So, we have the advantage of having a significantly larger samples but I completely agree that bringing into the analysis the expansion of the use of temporary work visas ***in*** recent years is important.

And that's I think when they require using data on temporary ***worker*** visas at the individual level and that's another data source that the Department of Homeland Security has that ***needs*** to be brought into the research mix.

It ***needs*** to be made available to researchers so that they can use that data. I have not been able to do it yet so. A final point I would say is about the economic factors.

The economic data from 1870 to now do not show any evidence that income levels and standards of living ***in*** Mexico and the U.S. are actually converging. This came as a big surprise to me a few years ago when I started looking at the data on this, but that is apparently the empirical reality.

If you look at per capita GDP levels ***in*** real PPP (ph) dollars from 1870 to now, the ratio has hovered between three and four for 150 years -- longer maybe. When you look at comparison of wage rates using household survey data ***in*** both countries, there is really no sign of convergence.

A study was done ***in*** the early 2000's to try to evaluate the impacts of NAFTA and one could sense that there was a great hope among the researchers, one of whom was Billy Easterly (ph) that there would be signs of convergence.

What they found evidence for was signs of something called conditional convergence, that ***in*** the long run, U.S. and Mexican income levels will converge to a permanent gap of about 2.7, which means that really the economic gap seems to be something of a very long run structural feature. Maybe one day that would change. It will always be there as an inducement, a potential stimulus to migrate.

WOGLIN: So, I mean, just to push that a little bit. I know we don't have that much time, but what about the demographic arguments that Doug is making ***in*** terms of the lack of people who might be able to migrate, where does that fit ***in***?

ROBERTS: I think that definitely will diminish the flow over time. I don't think it will lead it to zero.

WOGLIN: All right, OK.

MASSEY: I think a lot of the flow is ending up ***in*** the legal streams now.

WOGLIN: ***In*** the what?

WASSEY: There are a lot of flow that would have been and the ***undocumented*** stream is now using temporary ***worker*** visas and permanent resident visas.

ROBERTS: Well, ***in*** the late 1950s that was how it was managed.

MASSEY: Yes.

ROBERTS: You mentioned operation -- I don't think we should use that term anymore.

MASSEY: Operation Wetback.

ROBERTS: Thank you.

MASSEY: Operation Moyado (ph)

(CROSSTALK)

ROBERTS: Eisenhower carried out operation Moyado (ph) but he also ***more*** than doubled the size of the Bracero quota and if you're interested ***in*** that period, it's fascinating and offers many lessons.

There's a fantastic book called "Inside the State" by Kitty Calavita which is the best history of the Bracero Program that exist and what you can see is that the Bracero Program was used very actively to manage illegal migration and ***in*** fact, the biggest defender of the Bracero Program inside the U.S. government was the Border Patrol, and the biggest opponent of the Bracero Program was the Department of Labor.

Now, I know the Bracero today has a very, very bad reputation as leading to human rights abuses, ***worker*** abuses and things of that nature. But leaving that aside, it instructs -- there's a lesson that one has to consider, the legal migration programs both ***in*** terms of positive analysis and normative analysis.

WOGLIN: I know we are getting ***in*** between all of you and lunch so, why don't we leave it there. We thank our panelist. It has been a fascinating session. (APPLAUSE)

WOGLIN: And just on a programming note, the lunch will be held on the second floor ***in*** the George M. Eager (ph) Conference Center just up the spiral staircase and the restrooms are on the second floor on your way to lunch, look for the yellow wall.

(RECESS)PANEL 3: IMMIGRATION AND REAL ESTATE

CALABRIA: I am Mark Calabria. I direct CATO's work on financial regulation which often covers the area of real estate particularly housing and mortgage markets. I am also honored to serve as the moderator for this afternoon's panel covering the connections between immigration and real estate.

Now, I suspect that every panel or at least every moderator took the view that of course there was the most crucial and most obviously connected to immigration.

I'm going to make the argument for just a second for a couple of seconds rather of why I think the impact of immigration on real estate is probably the most important impact ***in*** terms of the economy.

Perhaps most obviously the construction sector has long been a major employer of immigrants and it's also take part of our history that many of our signature structures if you think about the Brooklyn Bridge, the Empire State Podium, the Erie Canal.

Or for those of you ***in*** Washington the Chesapeake and Ohio Canal that once knew Georgetown are to me maybe the most impressive but all the transcontinental railroad all of these signature accomplishments rebuilt primarily with immigrant labor whether it was Irish, Italian, Chinese and countless others.

So, I don't think it would be an exaggeration to claim that America was quite literally built by immigrants. Even today foreign- born ***workers*** constitute one ***in*** four construction ***workers***, contrary to I think popular perception only about half of these hail from Mexico.

Many actually come from Asia and Europe. Nor is immigration limited to unskilled labor and outright majority of such occupation is plasterer, stucco masons are foreign-born.

Nearly half of roofers and dry wall installers are foreign-born. A third of brick and stone masons are foreign-born. These are highly skilled occupations. Try to do it yourselves sometime if you doubt it.

Trends ***in*** construction employment also pure highly correlated with movements into an out of the United States. We heard earlier about the negative net immigration ***in*** recent years. I would suggest that this is a direct result of the housing bust.

Of course construction is only one dimension of real estate. Immigration directly impacts the demand for real estate and can change the very dynamic of local real estate markets.

When I mentioned phrases like Little Italy or Chinatown, you immediately know what I mean. It doesn't require explanation. It gives -- paints a very vivid picture ***in*** ones' mind of neighborhood dynamics.

Of course, immigration was also a direct contributor to rise of tenement housing which ***in*** my opinion ultimately gave rise to a movement for higher quality housing setting the stage ***in*** the 1930s for the birth of federal housing policy which of course start precursors ***in*** cities like New York and Chicago.

So, you could make a very strong argument that immigration itself is what gave birth to what our former federal housing policy looks like today.

Our panel; however, will be a little less historical except of course for the last decade or so. Our panel is going to look at recent trends especially ***in*** light of the recent housing boom and bust which again coincided with significant boom ***in*** immigration. We are extremely fortunate to have three distinguished speakers here today to offer their findings and views on the connections between immigration and real estate.

Our first speaker will be Jacob Vigdor, the Daniel J. Evans Professor of Public Policy and Governance at the University of Washington. For those of you who aren't clear on it, that's the other Washington, the one with the good coffee and a little bit ***more*** rain; although I think we probably rover (ph) you on humidity. ***In*** addition to his many journal publications, Vigdor is also the author of the book from Immigrants to Americans, the Rise and Fall of Fitting ***In***.

Our next speaker will be Gary Painter who serves as the professor ***in*** the Sol Price School of Public Policy at the University of Southern California as well as the Director of Social Policy ***in*** the Sol Price Center for Social Innovation. His numerous journal publications particularly are the topics of Household Formation, Housing ***in*** the Great Recession have contributed immensely to our understanding of housing dynamics during the recent crisis.

Our final speaker is Susan Wachter is the Albert Sussman Professor of Real Estate and Professor of Finance at The Wharton School at the University of Pennsylvania as well as Professor of City and Regional Planning at the University of Pennsylvania.

I was fortunate the first day to know Susan; it feels like 20 years ago, when she was Assistant Secretary for Policy Development and Research at the United States Department of Housing and Urban Development.

I've been even ***more*** fortunate that since that time she's been willing to share her insights and her work on Federal Mortgage Policy and Housing Policy. I don't think it's an exaggeration to say, if there's an important policy question you could think about, about the mortgage and housing market, Susan has probably written something on it somewhere. Quite prolific as both as all of our panelists are (ph), so with that I want to turn over the podium to Jacob.

VIGDOR: Thank you and while I am here from the other Washington to say, I do have to set the record straight that the humidity is just no contest, I mean, you know.

(LAUGHTER)

VIGDOR: There's a difference between being damp and being humid and if it anybody is unclear on that I think you can come ***home*** with me. So, the work that I'm going to talk about today is part of a project that I worked on -- looking a little bit broadly at the impact of immigration on communities across the United States.

So, I have only a short amount of time to talk to you today. So, I'll sort of speed through things.

So, we're going to start out by talking about conceptual framework here. I'll tell you about the data that came up and some of the things we have to do to the data to understand what the impact is of immigration on local communities. And I'm looking specifically what is the impact of immigration to a local community on the housing market.

What happens to the price of housing ***in*** the community? What happens to manufacturing employment ***in*** that community? When immigrants move ***in*** do natives leave or do natives arrive? I found a way to get some traction on those questions using data for counties ***in*** the United States between the period of 1970 to 2010. So, that is what we're going to about.

The stuff that I'm going to talk to you about today is building on the work of quite a few other people, some of whom are with us here today. So a lot of work -- we heard about immigration ***in*** the labor market earlier today and this -- I'm sort of following up a couple of other studies of immigration ***in*** the housing market that look at -- at slightly broader levels at state-level data or metropolitan area level data.

I'm going down to the level of the county today. OK, let's talk about immigration and housing. So, it's a basic story of supply and demand, I mean, that's the -- basically, we teach this, right? So, there's demand for housing and there is a supply of housing and, you know, you could draw these little supply and demand curves ***in*** various different ways, but the basic idea is this immigration increases the number of people who ***need*** a place to live.

So, the impact on the housing market is fairly straightforward. You're going to have some combination of ***more*** houses being built, so impact is on the construction sector and increased prices.

And depending on exactly how easy it is to build new structures ***in*** the location, you might have ***more*** effects on the price side to the quantity side, but that's -- that's what we call the direct effect. ***In*** addition to these direct effects of immigration on the housing market, there could be what we might call indirect effects, so the arrival of immigrants ***in*** the community, could lead their -- some people might perceive that community is less desirable. And Albert Saiz has referred to this column as native flight.

So, natives might look at immigrants coming ***in*** to a neighborhood or community and decide they don't want to live there and that would reduce demand for housing ***in*** that neighborhood. There could also be effects occurring if natives are displaced ***in*** the labor market.

The indirect effects of immigrants arriving ***in*** that -- into a housing market could also be positive. So, it could mean better opportunities for the -- for the local residents and there could also be positive impacts on local quality-of-life.

We'll have opportunity to talk a little bit about some of these things. I'm going to end up telling you that these positive impacts look like they are every important that one thing that immigrants have done they have gone into a lot of declining neighborhoods of cities -- neighborhoods that as of the 1970s or 1980s would have been declining have now stabilized ***in*** large part because they are repopulated with immigrant families.

OK, we're going to talk about housing prices and it's important to take a second to think about this whether it's good to have higher housing prices, OK. If you own your ***home***, yes, higher housing prices means ***more*** wealth for you.

That's kind of an ambiguously a good thing. If you are a renter or someone who is trying to turn into a homeowner, higher prices are kind of a mixed bag, so you know, it may mean ***more*** money out of pocket.

But generally speaking, we think you are paying that ***more*** money because what you're renting has become ***more*** valuable and so that's a little bit ***more*** of a complicated thing.

If we were doing this analysis from a strict, cost-benefit perspective we would refer to a lot of these things as transfers, that the price going up yes, it does mean that people's wealth has gone up, but at the expense of the renters who might see that their rents go up that sort of thing, OK.

To push straightforward into the analysis that I did, I got population and housing data at the county level. For just about every county ***in*** the United States from 1970 to 2010, I had to toss out Alaska. Alaska doesn't really have counties.

There are a couple of cases where counties shift boundaries overtime those are also out of the analysis. I end up with a sample of 3,109 counties or country-equivalent, you've got some independent cities and places like Virginia, Parishes ***in*** Louisiana, et cetera and so forth.

What I'm going to be doing is I'm going to be asking the question, what happens ***in*** these counties as a function of the foreign- born population ***in*** those counties.

And I'm going to look at the impact of foreign-born population on the native population and ***home*** values and I'm going to try to control for a number of characteristics, characteristics of the housing stock and some county-fixed effects and some year-fixed effects to try to sort of takeout any kind of long-term differences between counties, so I'm not directly comparing say Manhattan with small counties ***in*** rural Iowa.

The county-fixed effect means that I'm doing this analysis studying overtime what happens to a community as immigrants enter that community. You know, I got -- I have a couple of slides here that really get ***in*** to the weeds. There's a lot of detail about functional forum here like how do I want to be modeling this?

I'm going to sort of wave my hands a little bit here, if you can read fast you'll see it's all there. The short version of it is that I looked ***in*** to see what kind of model best fits the data and I went with that.

It ends up being a basic linear model, surprise -- surprise, so we're going to see what is the impact of immigration on housing prices and the result is going to be something on the order of when one immigrant moves ***in*** to a county housing prices change by X. OK and X is measured ***in*** dollars and cents. So, it makes a kind of intuitive and everything is inflation adjusted, so it's pretty easy to explain.

I'm also going to be incorporating some data from county business patterns to look at what's happening to manufacturing employment across counties. County business patterns are places that don't have a whole lot of manufacturing employment would be excluded from this analysis so that leaves me with about 2,000 counties, OK?

Now, a lot of people who do this kind of work you run into this problem that you see immigrants move ***in*** to a community and housing prices go up.

Well, is that a case of immigrants causing housing prices to go up or is it a case that immigrants are moving to places that are successful and they're not going to places where the population is declining where the housing market is ***in*** a downward spiral.

So, I'm pursuing a strategy of trying to get around that chicken and egg problem by identifying a source of immigration into a county that really has little to do with economic conditions on the ground.

It's a well-established pattern that immigrants tend to move to counties where there are already immigrants ***in*** the population, so I'm going to using a strategy that's been used for at least 20 years now ***in*** economics of immigration to sort of predict where immigrants will go as a function of where immigrants were distributed as of 1970, OK.

So, you can attribute this back to some work that was done ***in*** the late '80s and early '90s. There's a lot ***more*** detail about it here on the slide -- if you can read fast, you can get the whole story but basically that's the same strategy that has been used repeatedly ***in*** a lot of published work on immigration.

I'm doing something very similar with the manufacturing analysis. It's just a little bit different there because instead of looking at something like housing prices and outcome its manufacturing jobs. I only have data on that for 1970 and 2010. For the housing price analysis, I'm using data for 70, 80, 90, 2000, 2010 examining that overtime.

And so, OK, now we're ready to get to some results and here's what the results look like. The first thing that I'm going to show you is that I can predict where immigrants are going to go as a function of where immigrants were ***in*** 1970. And I have what I call the shift share base forecast.

So, this is -- this is my variable that predicts where immigrants will locate as a function of where immigrants live ***in*** 1970. So, you asked the question, where will we find say immigrants from Honduras ***in*** the year 2010?

You go back to 1970 there were not necessarily a whole lot of immigrants from Honduras ***in*** 1970s, but what counties ***in*** the United States were they located ***in*** and the prediction is that you're going to find a particular

concentration of Hondurans ***in*** the counties that have a lot of Hondurans as of 1970. And what we find is that this is not a perfect predictor. I mean, we talked a bit about immigrants going to new destinations.

So, one of the phenomena that we see is that immigrants ***in*** the past 10 or 20 years have gone to places like the southeast and the intermountain ***west***, places that did not have very large immigrant populations as of 1970.

So, this forecast kind of messes up with those types of counties, but it's really good about forecasting the growth of the immigrant population ***in*** places like California, ***in*** places like the northeast, ***in*** places like Florida and then ***in*** parts of the Midwest that were a little bit ***more*** urbanized.

So it works pretty well, the strategy kind of does what it's supposed to do and so here is the result of a greatest interest for this particular panel. When I look to see what is the impact of immigration on the housing market I get that little coefficient up there at the top that is 0.116.

So, interpretation, when one immigrant moves ***in*** to a county, on average, housing prices ***in*** that county goes up by 11.6 cents.

OK, 11.6 cents sounds like a pretty small number and it's a pretty small number, but I'm going to -- I'll go through a little calculation with you ***in*** a little while that will show how this 11.6 cents turns into I think about $3.6 trillion. That is the total impact of immigration on housing wealth ***in*** the United States taken from this analysis.

I have quite a few different control variables ***in*** there that are may be less interesting for the purposes of this discussion, so you know, if you take a picture of the slide you can, you know, peruse them at your leisure later on.

When an immigrant moves ***in*** to a county, this analysis suggests that the native-born population increases, so it is not that an increase ***in*** the immigrant population chases the native-born away.

Natives are actually drawn to counties that receive immigrants and we're going to interpret this as evidence that immigration into a county actually increases the amount of economic opportunity ***in*** that county. It's consistent with this idea that there is not a finite amount of jobs to be had ***in*** any given place.

Particularly ***in*** economy that focused on the service sector, you ***need*** people to serve ***in*** order to have employment opportunities, OK.

It's 4:23, so I would suggest that if you bring a thousand immigrants into a county, you get 423 extra natives, so some of those natives are the children of foreign-born, so if you do an adjustment based on the childbearing rate of these immigrants the net impact on the native population is about 270. So, a thousand immigrants into a county forecasts 270 additional natives will move to that county, OK.

A manufacturing analysis, so this is just showing you that the strategy of predicting where immigrants will go as a basis of where they were ***in*** 1970 continues to work ***in*** this analysis and here's what we get when you get a thousand foreign-born individuals moving into a county, the number of manufacturing jobs increases by about 46, OK.

So, immigration -- now, this is ***in*** the context of an economy where manufacturing jobs ***in*** general have been declining, but what this is saying is that the loss of manufacturing jobs is lessened ***in*** counties that receive ***more*** immigrants.

So, this is ***in*** context, we got 8 percent of the workforce ***in*** manufacturing and just under 70 percent of the total (ph) population ***in*** the workforce, so this suggests that the number of manufacturing jobs that is created and/or preserved actually exceeds the number of foreign-born people who would expect to take those jobs.

OK, so second slide on implications here, adding a thousand immigrants draw ***in*** 270 natives, that's something that we talked about a little bit already, OK? So, here's the way we want to think about the housing price result.

So, if a thousand immigrants move ***in*** to a community, the forecast here is that median ***home*** values will increase by about $116. So -- now, it's time to do a little bit of back of the envelope calculation.

The average immigrant resides ***in*** a county with 800,000 house units. So, you know, most immigrants live ***in*** larger urban areas where there are ***more*** housing units, OK. So, if you think about it, one immigrant moving ***in*** to a county with 800,000 housing units, they are raising the median price by 11.6 cents -- 11.6 cents times 800,000 is $90,000.

So, you can think of this as every immigrant moving into a community basically their dowry to the community is the effect on the community's housing wealth which amounts to a grand total of $90,000.

Now, $90,000 per immigrant, if we have approximately 40 million immigrants ***in*** the United States, you just have to take those numbers and multiply them, 40 million times 90,000 gives you your $3.7 trillion impact of immigration on housing wealth.

And that's -- I should be clear about this that this is counting both owner occupied and rental housing, but that's what it is and it's once again a fairly straightforward story that there are ***more*** people who want housing units.

I should mention that this analysis here is not really looking at the impact on the construction sector, which would be added on to this and of course those additional housing units might -- we'd expect them to sort of reduce the impact on prices but if you just look at the impact on prices this is the implication you get, $3.7 trillion. And that's that, thank you.

(APPLAUSE)

PAINTER: Well, I'd also like to thank Alex and CATO for having us here today and I think what's interesting about -- actually, all the panelists have slightly different slices and slightly different definitions.

I should say that one of the things that I want to emphasize and I think it's true ***in*** the panel at large here is that when we're talking about immigrants we're talking about immigrants of what other research (ph) status with authorization, without, and so forth.

So, ***in*** this panel it's really talking about people who have come from other places. It's my hope that ***in*** my talk although ***in*** a, you know, gathering like this it might be impossible to have the school (ph), but maybe I'll share one new fact or one new piece of the literature that's been synthesized ***in*** a way that you haven't seen before.

Whether I succeed or not, you can tell me during the break, but there are some really interesting facts ***in*** terms of how we might think about immigrants and the housing market.

And as our moderator opened up today one of the aspects and where I've done most of my work is ***in*** the area of understanding immigrant housing demand and understanding how it may or may not be similar to native-born housing demand. And so, that's really where I'm going to focus most of my attention and the nice thing is that my colleagues are very complimentary ***in*** terms of where our expertise and our research agendas have gone.

So, what I'm going to do, we're just going to pause at these first three salient features ***in*** thinking about immigrants and housing markets. So, number one, housing market is not a national phenomenon. Housing markets are local, so we have to think about them as a collection of localities.

We have to keep ***in*** mind that immigration trends can change rapidly. We saw a lot of that ***in*** the data this morning. And the word immigrant is not a homogeneous category by any means and so we have to keep that ***in*** mind and there's multiple dimensions of which I will only show a few of those dimensions ***in*** understanding immigrant housing demand here.

So, I'm going to begin by showing some trends ***in*** immigration flows across the U.S. The maps are somewhat large on the screen behind me. This is one of those really nice screens that eat (ph) laser pointers, so unfortunately I can't show you anything ***in*** particular.

But, let me tell you what these four maps are going to be and you can kind of just look for the shades. So, the first map is mapping out the percentage of the foreign-born population as a percent of the total and the different shades are different quintiles, so it's five equal buckets that are created of where there are the largest concentrations ***in*** 1980.

So, not surprisingly the immigrant gateway cities ***in*** Brownsville, Texas, so you have your New York, Miami, California et cetera are the darkest shades. And as we know overtime, there's been migration across the U.S. and so what I didn't do is change the quintile bucket.

So, the dark shades -- the things that just getting darker overtime, you don't -- I haven't changed the definitions mostly you get on (ph) these maps. So, ***in*** 1990, you still saw it (ph) was mostly ***in*** the southwest and again California, Florida, New York, but then by 2000 and 2010 there is substantial migration throughout the U.S., so nothing too new there.

The percent Latino foreign-born population, so that's one dimension or perhaps there's some -- there are some -- could be some differences can also be shown ***in*** the same way and perhaps not surprisingly because up until very recently Latino migrants or the foreign-born from Latin America were the largest group that the map pretty much approximates what you saw ***in*** the previous where the dark shade start up ***in*** these (ph) traditional immigrant gateways, but by 2000 and 2010 the migration had spread.

The Asian population has a similar kind of again spreading, but if you want to look very closely here ***in*** this legend, back ***in*** 1980 to be ***in*** the top quintile you only had to have a population of 4.4 percent Asian immigrants, so these quintiles are very much compressed.

But the one that I find most interesting ***in*** this series of maps is to think about where are the new immigrants as a percent of the total foreign-born population.

So, if you look ***in*** 1980 and 1990, you see that, you know, most immigrants ***in*** fact were new so you see lots of dark shades and when you shift to 2000 and 2010 you see that most immigrants that are new are no longer ***in*** immigrant gateways. So, the places like California, Florida, Texas and so forth these are very light shades meaning less than 20 percent of the immigrant population ***in*** these places are new.

That says a lot about the political background and so forth because if you are ***in*** places where there's lots of new immigrants there might be different ***needs*** or challenges or opportunities, and so that's something to keep ***in*** mind. One of the things until really I mean I guess most of my career has been focused on immigrants and housing markets and it was because I thought the immigrants had completely been ignored ***in*** the housing literature.

So, you know, as a young aspiring assistant professor one ***needs*** to make your mark ***in*** something and so I showed up ***in*** 1990s and realized they had been marginally ignored and -- and I'm not sure exactly why they have been ignored, but one of the narratives that I have heard is that well, they're transient, they come ***in*** they come out, so they're not really like permanent contributors to housing demand ***in*** one place because you just never know if they're going to stay.

One fact that I have been surprised happen again not everyone might be is that immigrants are now no longer ***more*** mobile than native populations. And ***in*** fact, are less mobile across state borders once they arrived.

So, that means that immigrant populations are much ***more*** stable than native-born populations. So, this was quite shocking to me when I started to look at the data. This is data from the current population survey.

When I started doing my work as you can see there, just the underlying mobility of the immigrant population 1-year mobility was close to 20 percent, quite high. Native population, you know, closer to 15, these includes both intra-urban moves and interurban moves or interstate moves. But at the end of the period, the green line is now below the others, OK?

So, this is one fact that when I actually got to the data -- I knew this was happening, but I didn't realize how much it had happened. So, this is just overall mobility. If you then look at long distance moves you'll see, whether you're

looking at interstate moves again these are facts that people have been writing about, it's just that overall mobility ***in*** the U.S. has been declining, but overall mobility of immigrants are declining even faster.

So, that's -- that's something important to keep ***in*** mind. That inter-county mobility raise you can see that for immigrants it's actually about a percentage point or ***more*** or less than for natives.

So, immigrants -- when they come ***in*** to the community, they are there for the duration and that's something again that I don't think a lot of or at least I didn't realize, but again, you know, some of you may have known this by looking at this data before.

Now, some of the differences have to do with things like the people's skill level, so low-skilled ***workers*** are much less likely to migrate, do long-distance moves so this is interstate migration.

So, if you look at the skills you can see that the low-skilled ***workers*** scale starts around 2 percent and drops down to 1 percent ***in*** these one-year migrations. If you look at the high skilled ***workers***, you know, it kind of started for again immigrants were around 3.2 percent and it declined down to about 2.5 percent.

And then another way of kind of cutting the immigrant population, this has been important and a lot of my work on housing is to think about the arrival cohort. So, if you're a brand new immigrant from zero to five years, you can see that the mobility rates are much higher than the other cohorts again this is just looking at interstate, we could look at others.

And then as you have been ***in*** the country for awhile especially if you look at the 10-plus cohort, then you're going to be only 1 percent move across state lines per year. So, these are these differences that we ***need*** to think about.

So, I'm going to kind of continue to move quickly here and look forward to, you know, Q&A ***in*** our opportunity to discuss later, but ***in*** addition to these mobility patterns one of the things that, you know, obviously I've done a lot of my career and I've decided one of the papers I've done I just noted that they really are --it's critical components, these immigrant populations are to housing markets and Jake, you know, paper is obviously one to emphasize that as well.

They are also integrating ***more*** rapidly than past generations of immigrants, so these are really important facts to keep ***in*** mind. So, if we're trying to measure changes ***in*** housing demand, Jake already gave you the Econ 101 supply and demand shifts so I don't have to redraw the picture unfortunately so the order of speaking worked out quite well. But, basically, you can think about it ***in*** terms of shifts and population of people.

Immigrants are people, they bring families, they demand housing units, right? Just like you had increases ***in*** birth rates here ***in*** the U.S., but there's also the type of kind of housing demand that's important to kind of think about.

One is you could think about are people are going to be owning or renting that's what I mean by shifts and housing tenure. And they also might reorganize families ***in*** different ways which would be things like shifts then headship is the term I'm going to use and define ***in*** a moment.

And the shifts and headship are -- let me just pause and I'll define that just a second. I'm going to look at just a set of cities and not all metropolitan areas, but for analytical convenience because I had a couple of papers where I took this particular sample just to show differences.

So, the established gateways everyone knows what those are, the San Francisco, LA, San Diego, New York, Chicago and Miami. Then there are the emerging gateways, which are places like the Denver's and Las Vegas' and Atlanta's, et cetera, and then there are small metro areas.

And so there's about -- ***in*** this sample, there's a total of 80 metropolitan areas where we can track trends overtime. So, the first thing is the shifts ***in*** population.

So, the shifts ***in*** population, you can see that from 2000 -- this was the last decade and a half the percent of immigrant ***in*** established gateways, these are almost stable from 33 percent to 34 percent and much of the changes ***in*** the established gateway as you saw ***in*** the previous map it happened ***in*** the '80s and '90s.

The emerging gateways have increased from 16 percent to 21 percent ***in*** the small metros from 9 percent to 11.8 percent and the overall immigrant population had grown to about 16.3 percent ***in*** the U.S. But, again what's different especially ***in*** those established gateways is what's -- who are the percent new immigrants.

Here I'm defining new immigrant has been ***in*** the country less than 10 years. And you can see how that's declined rapidly ***in*** established gateways and declined slightly ***in*** other places.

But the recent entry among immigrants, if you look at those, you can see a much ***more*** rapidly -- a rapid decline, so coming from other countries. OK, now I'm going to homeownership which is one of those markers that certainly we report out all the time.

Homeownership, I'm going to give a definition that might seem obvious, but it's important if you're thinking about housing demand to understand that when we report homeownership is like what we report on employment.

We have a definition and here is the number of occupied housing units that are headed by the owners divided by the number of independent household heads, OK? And you'll see the difference ***in*** this ratio when we talk about the headship rate, OK.

So, it doesn't capture the number of potential households that could exist ***in*** the housing market. So, what's happened to homeownership trends ***in*** the U.S., well I've just spent all these charts ***in*** terms of U.S. born and immigrants.

And we all know what's happened ***in*** terms of the housing crisis and how the homeownership rate ***in*** the U.S. has fallen from, you know, 68 percent down to 63 percent ***in*** this sample and you can see that that's happened ***in*** all of the places. What's interesting though, is if you look at immigrant homeownership over this period, ***in*** every case, immigrant homeownership from the year 2000 to the year 2014 has risen.

OK, it went up, it came down but now we're -- it's higher than it was. Now, of course, it's lower than U.S. born households, but U.S. born households are now, you know, a decade and a half later at a much lower rate of homeownership. So, it's important to keep that ***in*** mind. If you look at Asian immigrants and Latino immigrants, the homeownership rates of Asians are higher than Latinos.

The trends are actually pretty similar ***in*** terms of that -- ***in*** year 2000 compared to the year 2014 where ***in*** many cases for Latinos non-established gateways, but for the other places homeownership rates are now higher. I guess only emerging this is actually -- but these are pretty similar. For Asians, again starting at the beginning to the end, they are also higher. So, that's one measure of housing demand. Another way of thinking about housing demand is how many potential households could be out ***in*** the housing market demanding units whether they are rental or owner-occupied. And this is the ratio of identified household heads divided by all adults.

So, this ratio is one where we had evidence and people's perception are the immigrants are much ***more*** likely to have multiple adults living together. Whether it's grandparents living with families or whether it's, you know, bringing ***in*** extended family members, and so forth.

And so, when you look at headship rates of immigrants they have tended to be much lower than natives over a long period of time from 1980, 90, 2000. At its most basic level, occupying housing units is a way of kind of measuring housing demand.

The most surprising picture to me actually was this one and it wasn't the immigrant one, it's the U.S. born household one. The headship rates of U.S. born households have fallen since 2000.

The first part of the decade they fell because of increase ***in*** challenges with housing affordability, OK. Then, you have the crisis, and the kind of baby boom -- I'm sorry, the millennial generation becoming young adults, but not leaving. Then you have the recovery, they're still not leaving.

What's really interesting is at that the end of the period, the headship rates of U.S. born households are almost the same now as immigrants.

So, it's not the kind of old way of thinking of immigrants are assimilating becoming ***more*** alike than were (ph) populations and so forth. Here you have the opposite happening with respect to housing demand.

Part of this has to do with housing affordability concerns and there's a whole other bunch of things we can talk about. But this is a really interesting fact that that headship now is almost the same.

So, if you look at Asians and Latinos, they have very similar headship rates. Let me just kind of conclude with a few things as I'm at the end of my time, talking about the literature as well as what we've seen here ***in*** terms of the data.

So the immigrant rates of homeownership tend to rise to those of comparable native-born households within 5 to 10 years of entering the country. So that's -- if you're at the margin of housing demand which is homeownership, it doesn't take that long for immigrants to look a lot like the natives.

However, prior to the most recent period, immigrant families tended to be ***in*** larger household sizes, but as you saw the gap has fallen tremendously. Immigrants tend to have higher homeownership where there are ***more*** vibrant immigrant networks, and you can measure that ***in*** lots of different ways which we don't have time to talk about today. Things like greater English proficiency tends to lead the higher homeownership except interestingly ***in*** gateways or bilingual immigrants do better or have higher homeownership. So, that might access -- might signal accessing multiple housing markets.

But just to conclude, because I'm out of time, I mean I think we can say quite clearly, based on the first presentation and this one that the contributions of immigrants to housing demand has always been important. But I think what's really interesting now is I can -- you can make an argument it's really no different than native housing demands.

So, you don't have to kind of think of how are immigrants making choices ***in*** the housing market? How's everybody else, it's just -- it's all of us. And we can talk about the spill over benefits ***in*** neighborhoods and so forth as well.

But I will end here and turn it over to my colleague.

Thank you.

(APPLAUSE)

WACHTER: Thank you to CATO for inviting us here today. It's my pleasure to follow the two distinguished speakers who we've heard and my comments are also Complimentary to those as well. The work that I'm describing today how does immigration impact neighborhoods is based on a joint paper co-authored with average size immigration ***in*** the neighborhood and ***in*** that paper we test for whether immigration affects residential segregation ***in*** neighborhoods.

So how do we proceed? We test for native preferences because it's through native preferences that we will be able to determine whether immigration affects segregation. We directly measure native flight and white flight. We then look at immigration ***more*** by the components of immigration, characteristics of immigrants. And finally, we discussed the implications for access to opportunity and social integration.

To get ahead of our findings, ***in*** general, we find that immigration does lead to ***more*** segregated neighborhoods. And, therefore, that raises issues of social integration which I will discuss towards the end. So, the question we're asking is whether -- do neighborhood housing prices rise or fall with immigration? And I will explain why we're asking that question. We are asking other questions as well, but this is the key one.

First of all, why we're asking that question when it's been asked and answered. Well, actually, it hasn't been asked and answers. The question that has been asked and answered is what impact do immigration and immigrants have on housing prices ***in*** MSAs and ***in*** counties?

And you heard from Jake Vigdor a bit earlier and then you heard from Gary Painter that immigrants are like others of us and when you increased demand since supply doesn't react completely, well then the result could be higher housing prices.

And that is ***in*** the literature for metropolitan areas and thanks to the work of Jake Vigdor for counties that yes an increase ***in*** immigrants which increases there for demand for housing ***in*** the area increases housing prices.

In fact, The Paper by my co-author establishes a very neat relationship of a 1 percent increase of immigrants to a metro area, increases housing prices by 1 percent, which is totally consistent with what we heard earlier. But we're asking something different.

We're asking the impact of segregation and now it's really not supply and demand, it's ***more*** generally equilibrium and that is what is the impact of immigration on neighborhood rents and prices?

And to give you a sense of the order of magnitude here, I think that Jake was talking about counties with average population or households of populations 800,000 almost a million. We're talking about census tracks with 4,000. So, 4,000 versus order of magnitude -- order of magnitude different base. We're using census tracks as our neighborhood because we can track census tracks.

And the question that we are addressing then is whether movement ***in*** of immigrants leads to higher housing prices or lower housing prices. Now, we know immigrants cluster.

They cluster due to advantages of proximity to people ***in*** the same national, ethnic or linguistic group and we heard some results about that. But because immigrants cluster, this alone does not imply higher housing prices ***in*** neighborhoods and rents, doesn't imply higher rent ***in*** neighborhoods.

As long as there are mobile native price arbitragers then housing prices may not go up at all ***in*** neighborhoods as people move to other areas within the MSA. Overall MSA prices may go up and do but not necessarily neighborhoods and of course MSAs can expand.

So, again with an existing neighborhood, prices can go up or down or not be affected at all. However, a negative association between local housing prices -- census housing prices, and share of immigrants isn't unequivocal -- unequivocal sign of native preferences for segregation.

House prices cannot be lower ***in*** a locale unless there's perceived negative compensating differential. Otherwise, opportunities to neighbors -- opportunities to natives move ***in*** until the price gap is breached.

So, our strategy, we test for how changes ***in*** neighborhoods immigrant share are related to changes ***in*** house values ***in*** census tracks. If natives perceive immigrant on places less desirable places to live a relative negative association between neighborhood immigration density and housing values will be observed or else equal, but not everything else is equal.

So for example, there are reverse causality of potential explanations for a negative relationship between prices and immigrant and migration. It may be reversed causality that's causing this. As we've heard immigrants maybe moving to affordable places.

So, it's not that housing prices are falling due to immigrant coming ***in*** but it's -- immigrants are attracted to where housing is affordable.

But, we exclude that explanation of reverse causality by setting up an instrument similar to what Jake Vigdor does, of predicting future where immigrants are likely to be not based at all on the characteristics -- occurring characteristics of census tracks.

We also are looking at constant quality house prices. So we're -- we are abstracting from changes ***in*** housing price quality. We're just looking at the pure index of prices for the neighborhood; although, we do have evidence of the other results as well, which I will point to and return to.

So, I guess our pointer is not working. But, turns our methodology, change ***in*** quality but housing stuff it's not what we're looking at; although, we had limitations to that. We're not directly looking at that or back to that (ph) -- variables but their instrument we are able to deal with that.

We're not looking at reverse causality that is changing housing values causing immigrants. We are looking at increased new immigrants ***in*** the neighborhood and we'll look at changes of quality, education outcomes, ethnicity and socioeconomic aspects of immigrant impact, change ***in*** housing values and neighborhoods.

Your (ph) results, we don't expect you to see it, take a screenshot, look at it later but they're here and I will go over the set results. We do two sets of results again to do quickly and be very superficial but you can go to the paper for ***more*** details.

Ordinary lease squares with lots of controls, 50 controls ***in*** order to deal with all of these other variables that may impact neighborhood controls, prior conditions of neighborhoods, prior immigration, et cetera.

And then we also do this instrument which I'll describe to you ***in*** a moment. The first three regressions -- the first three regressions are order of the squares, controls next three are (ph) instrument variables.

So, our end or this is -- go to the bottom line, what we find is ***in*** area with a share of a foreign-born increases from zero to 30 percent, house values are about 6 percent lower which is not a small impact as actually rather large.

So, you can see the -- here it is, you can the relationship change ***in*** foreign-born from zero to 0.3, you can go to 3 over here housing prices log but it's down about -- the absolute is down 6 percent and we calculate the logs.

The instrument variable approach is basically -- are similar to the approaches described earlier, so I'll skip over here quickly. It's just where immigrants are likely to be drawn. They are likely to be drawn to a) this is surrounded by other immigrant neighborhoods -- a) will become ***more*** immigrants ***in*** T after T-minus one as compared to B and C.

This is the math of the gravity model and again I'm going to skip through it and the time constraints. Interestingly enough, the (IV) results are very similar to the results with controls. Let me go actually to the results again and make one point.

So, the results are highly consistent about minus point two and this again is linear relationship and about an increase of zero to 30 percent decline of 6 percent prices that's consistent with point two, point two, point three, point two.

Notice when we do not have controls ***in*** column one and this is OLS, not just variables, the impact is twice as large, which to me indicates there's reverse causality and there are (admitted) variables which are indigenously related, I'll come back to the implications of that shortly.

Where is this link strongest and we look at initial conditions and ***in*** areas that were white and richer. These impacts are movement out of white flight and native flight is stronger, so initially higher priced neighborhoods and initially whiter neighborhoods.

Then, we look at a direct measurement of native outflows white flight, native flight. And again we do this with instruments and without, and again, to move ahead very quickly, the results -- here they are, but to summarize them, the results ***in*** columns 1-5 are look positive, actually consistent within positive impact. So it looks as though when migrants come -- immigrants come ***in***, actually we have an increase ***in*** other residents.

But, columns 1-5 are -- it turns out, results are driven by the top 5 percent of census tracks where the population -- total population ***more*** than doubles.

So, then we excludes this extremely fast growing likely outlying census tracks with new development, we find the other 95 percent that we had -- and also with median regressions, we find that immigrant arrivals are associated with absolute decreases ***in*** native populations especially of white population.

So, now let's unbundle the results. Is it the foreignness of immigrants that causes this segregation? And the answer to that ***in*** short is, no. We test by different source of where immigrants are coming from and the results are all over the places.

There's no consistency negative but then we also sort immigrants by educational achievements and particularly dropouts. And we also look at -- so, we look at dropout rates and we look at ethnicity and race.

And these results are very much driven by ethnicity and race of immigrants African-American statuses are black and (with shock) is very large negative, non-Hispanic white immigration shock is actually positive.

So, the results are -- most importantly the dropout immigrant drop extremely significantly negative. So, the table shows -- so, the table shows regressions, the same variable that we define, and ***in*** some then with all these results natives are willing to pay a premium to live ***in*** predominantly native neighborhoods.

Immigration shocks are associated with absolute decrease at the level of native population ***in*** general, and areas with higher initial density of white residents or higher housing prices, the impact on prices is stronger and these results are driven ***more*** by social and economic status rather than foreignness per se.

So, let me ask the bigger question -- bigger questions. Will immigration always lead to lower local neighborhood housing prices and, therefore, higher levels of segregation?

And the answer is, absolutely not. First of all, our results are driven mostly by neighborhoods where -- are whiter and higher priced to begin with. So immigration had little impact on relative ***home*** values ***in*** areas where socioeconomic sorting had already taken place.

That is, ***in*** areas that were already minority and already low house prices, native -- ***in*** fact immigration did -- was not associated with a decline ***in*** prices. This is consistent with local revitalization ***in*** relatively poor minority neighborhoods associated with immigration, which is exactly what we heard from Jake Vigdor.

We also, our -- our results are driven by native preferences and those may change overtime as we move to a majority-minority nation. And finally, growing areas, the new developments ***in*** general growing areas, attracted growing share of the city's population both native and immigrant that are not subject to this flight. So now let's discuss implications very broadly.

The concern here is despite the fact that now we do have urban revitalization, so the concern is less and sorting has already happened ***in*** these data or from 1990 and 2000. So, maybe we are ***in*** a different period. But, the different period with urban revitalization is still associated nationally with concentration of poverty.

So, we know that from other work that poverty -- neighborhood poverty has become ***more*** concentrated and sort ***in*** by income has increased ***in*** Northern America, this is true across the board for immigrants and non-immigrants and we also know that social mobility of children is heavily impacted by characteristics of the residential neighborhood where they grow up.

And we also know now that housing affordability and this is completely consistent with the work that Gary Painter pointed to that housing affordability is slowing down mobility across the board.

So the question is, whether immigrants, low income immigrants, as well as low income non-immigrants are -- will be increasingly segregated ***in*** areas which lack opportunity.

And that's the conclusion. I've already said that and I thank you.

(APPLAUSE)

CALABRIA: Well, before we open it up to questions, there was a fair amount of overlap between the papers.

So, I wanted to give each of the panelists if they wanted to make comments on the other panelist's papers quite quickly. You're under no obligations to do so. Well, nobody wants to -- Gary did you...

PAINTER: Well, you know, because the papers by Jake and Susan were similar, it's -- you probably instruct the audience that maybe they appear to be conflicting ***in*** different ways and so forth and so maybe they can speak to it.

But since I didn't write either one of them, one of the things that strikes me is -- is some work that Jake has done with different colleagues on segregation and there's been a bunch of papers out there that actually show that white households will pay a premium for homogeneity ***in*** majority white neighborhoods, and so finding what Susan has found is just kind of a converse of that and maybe Jake can comment and see if I've interpreted that literature correct.

VIGDOR: Yes, but Gary you said what I was planning to say. So, yes I think you did a great job.

So, yes -- so, the work that I did establishes that housing prices within a county will increase with immigration, but counties are big places as Susan pointed out and I don't have the data to be able to say, do they go up uniformly across the county?

Take the county like LA County, it's very large, lots of different of parts of it and they don't necessarily always move ***in*** lockstep all the neighborhoods with each other.

And so I think Susan's work sort of points out that, you know, an important phenomenon to bear ***in*** mind is that part of the price increase phenomenon maybe a situation where you have these increasing price hurdles to move ***in*** to the predominantly white and native neighborhoods. That's important phenomenon.

CALABRIA: And I know we economists can sometimes get focused on the aggregates and it seems to me an important message here is that just like you always hear ***in*** real estate location, location, location it does matter and that the level of aggregation makes a big difference. I want to ask two questions and then to the audience.

My first question which gets to the question partly about the client and mobility, are their differences we're seeing between cities, areas that are relatively -- well, the economists would say inelastic supply or difficult to build as the layman would say, do you see any differences there?

And then my second question and I'm going to give these two questions to everyone, is -- was there something different about the recent boom and bust? I know Jake have stated for us since goes back and looks but what we've seen was not necessarily broken down by does the '80s look like the '90s look like the 2000's.

So maybe I'll just start at the end Gary and first one, does the supply conditions ***in*** the local area seem to matter and was this time around different?

PAINTER: So, I'll try to be careful as academics tend to and say that I haven't actually addressed that particular hypothesis directly. And so, I want to be cautious about any kind of implication.

What we do know is that high-skilled ***workers*** -- at least I would say what I do know given work that I've done not presented here is that only kind of high school ***workers*** are likely to make those long distance moves to the inelastic places.

You're not seeing low-skilled ***workers*** making those moves to inelastic places and so that is a fact that you do observe there. But one of the things just to keep ***in*** mind linking to this morning is that when the immigrations, if you will, was cut off ***in*** terms of new immigrants moving ***in*** to the U.S. instead as Doug mentioned we actually have a net negative Mexican migration.

One of the things that's happening is there's just not nearly as many new arrivals and so that is another kind of damper on mobility overall.

CALABRIA: Jake, if you want to add...

VIGDOR: Sure, sure. So, I'll say a couple of things. So, ***in*** terms of the impacts that you see on prices, I think I might have mentioned this but it bears repeating that there are some places where it's easy to build and that might be a function of availability of land but it also has a lot to do with regulations.

Zoning laws ***in*** some parts of the country make it very difficult to expand the stock of housing.

In those parts of the country, you're going to see ***more*** of a price impact than a construction impact when new people move to the community.

In other parts of the country where there's ***more*** available land and easier regulations, you're going to see ***more*** of a quantity impact less than price.

And ***in*** terms of things being different, you know, using census data from 2000 and 2010 if you think about it, the bubble and the bust kind of fall not entirely within that interval.

But the fact that I was using data 10 years apart, meant that a lot of those short-term dynamics and the build-up and the drop kind of we're missing from my data.

But nonetheless you could definitely see that a lot of the communities that were heavily impacted by the housing bust, like the inland areas of California, for example, South Florida, these are areas that had a large immigrant population and so a lot of the homeowners who were ***caught*** up ***in*** that were foreign-born.

WACHTER: So I will comment on the -- follow on the wealth because we've done some work on that. Absolutely, wealth of immigrant households was hit ***more*** because especially Hispanic households had ***more*** of the wealth ***in*** housing. But I'd like to take your question and take it one-step farther.

Because we're doing these econometric studies -- the free lying (ph) data and data that are ***in*** place, we're not looking at what's happening right now. Although, person (ph) has implications for what's happening right now.

But I think it's interesting is that housing prices and rents are increasing relative to CPI and to wages and income at a very rapid rate and faster than they ever had and ***more*** persistently.

Then -- so that we're -- ***in*** terms of rents, we're far higher than we were ***in*** 2006, far higher than we were ***in*** 2000, and they keep on increasing. Although, there is -- they're likely to increase at a lower rate this year relative to inflation and of course wages are increasing somewhat this year and so there is a better balance there. But this is ***in*** the absence of an increase ***in*** immigrants.

So, the issue for affordability and the issue for the ability to move and mobility for immigrants and for low-income populations, of course immigrants aren't always low-income populations but across the board for low-skilled populations, this is a challenge that's going to be -- our challenge as a nation for integrating populations with low skills and for low-skill populations that are native.

CALABRIA: So maybe if I can rephrase that ***in*** one way, I think some of the concern and one often hear about immigration and housing market is somewhat of a concern of a displacement ***in*** competition effect.

And I think as we heard earlier ***in*** the panelists, we have been reminded on this panel that net immigration originally has been negative, yet we're still seeing very strong increases ***in*** rents suggesting that it's something else up ***in*** the immigration.

I don't know if I see an internal (ph) with the microphone around here, so until I do I'm going to continue asking questions myself before we...

(UNKNOWN): There's a question.

CALABRIA: Do we have...

(UNKNOWN): Yes.

CALABRIA: Here we go. Question at the back and if you could identify yourself and affiliation and please raise your question ***in*** the form of a question.

QUESTION: Yes. I'm Dan Griswold. I'm with the Mercatus Center at George Mason University. Immigration and Crime has been ***in*** the news just this week and actually the -- I think it was Gary that -- mentioned the National Academy of Science Study last year documented that immigrants are connected with lower crime rates and that came right out and said immigrant neighborhoods have lower crime rates than comparable non- immigrant neighborhoods.

I just wondered if that was factored ***in*** at all. Obviously, lower crime neighborhoods, everything equal, the housing prices will be higher because they're ***more*** desirable neighborhoods.

Have you factored ***in*** at all the impact that immigrants have -- the positive impact they have on crime rates and what would that do to your analysis if it was factored ***in***?

WACHTER: ***In*** short, it is ***in*** our analysis and ***in*** spite of that which is an absolutely accepted fact, we do find these results.

VIGDOR: So, and I'll put ***in*** there, I did an analysis -- I had precinct level data on crime for New York City from the period about 1990 to 2010, 2012 or so. It's a period where crime dropped dramatically ***in*** New York City and lots of people have their pet explanations for why it was but criminologist are still kind of puzzled about this.

If you look at the precincts ***in*** New York where crime dropped the most, they happened to be connected to the neighborhoods where the foreign-born population increased the most.

So I think there is a really -- it's not just that foreign-born people themselves are not coming to the United States to commit crimes, they're coming here to work. It's not just the function of their own behavior, it's a function of stabilizing neighborhoods where the vacancy rates have been very high.

You had parts of the Bronx that, you know, the drug users were rampant. You had all sorts of problems, even with all sorts of social ills, and the reoccupation of those neighborhoods, the cleaning up of those neighborhoods had a profound impact on them.

They, you know, to Susan's point, they still might not be places where your white middle-class household wants to live, but they've turned around and I think it's an important part of the story.

PAINTER: ***In*** my own work, I've looked ***more*** at how that process, the dynamic that you described would lead to changes ***in*** homeownership rate and/or headship. And so what I found ***in*** a fairly complicated model not cited here is that places like South LA, for instance, if crime fell, we'd see huge increases ***in*** black homeownership ***in*** those places as well.

So what was happening ***in*** the African-American community was that once people moved to middle-class and so forth they were going to the inland empire to buy as opposed to these neighbors.

And so the margin of having lower crime rates actually not only will affect house price but also affect the type of choice you make with your housing tenure. So, that's where my work has interacted with this question.

CALABRIA: Yes, questions here ***in*** the back.

QUESTION: My name is David Crosland. My question relates to the role of real estate agents back ***in*** the early '70s.

I was a civil rights lawyer ***in*** Atlanta and I brought the first housing suit against a large real estate company which was steering black perspective buyers into lower middle-income white neighborhoods causing white flight out of

those neighborhoods, checking up the prices initially ***in*** those neighborhoods causing an increase ***in*** the overall market I suppose for real estate and at those white-flight owners then bought other houses elsewhere for ***more***.

To what extent do you see or have you considered the role of real-estate agents and steering people into foreign nationals into all white or homogenous neighborhoods for the purpose of causing -- playing upon their fears and causing ***in*** to free those neighborhoods and therefore make ***more*** money for the real-estate agents?

CALABRIA: I accept that I think that was outside of the scope of either papers, but if anybody would like to comment?

VIGDOR: I'll just say it's become a ***more*** complicated world and so I think that at some degree discrimination continues to go on.

I was involved ***in*** a -- ***in*** a case with DOJ a couple of years ago involving a landlord ***in*** Korea Town ***in*** LA, and so I got to know a lot about the real-estate market ***in*** Korea Town where there is a lot of steering and a lot of discriminatory behavior but ***in*** a lot of cases it is this immigrant groups themselves that are trying to preserve the ethnic identity of their buildings or their neighborhoods.

So, while there are may be some situations where there are certain immigrants who have a difficult time being shown units ***in*** a particular neighborhood there are also immigrants on the other side of the coin, so it is very complicated.

CALABRIA: OK, I think we have time for one ***more*** question, so we will -- well, on the front here. I'll note that our -- the microphone is coming up -- I know our authors will be around a little bit so if you want to come up and ask about arbitrage and OLS, I think Susan will be happy to give you a little bit of a lecture.

(APPLAUSE)

QUESTION: I wanted to ask about redevelopment and gentrification.

I think the speakers kind of mentioned it kind of ***in*** the middle of all their data, but it seems to me just anecdotally around here there are some immigrant neighborhoods that were -- ***in*** the last, I don't know 30 years or so, redeveloped and have now become sort of, you know, the young professional neighborhoods and it seems to me that the prices ***in*** those neighborhoods have changed not because of the population composition but because of the redevelopment that preceded the shift ***in*** population.

WACHTER: There's no doubt about it. There's a C-shift going on of city -- inner city neighborhoods across America, and often these are immigrant neighborhoods where prices are rising with redevelopment that's happening right now and that is going to change the whole scale.

Whether that makes my results -- our results on an hour sizes results, actually no longer applicable because now we're talking about revitalizing neighborhoods where there are immigrants, it certainly makes it makes -- and we do talk about new development and neighborhoods.

We're sorting "has already happened" is completely consistent with what you are saying. ***In*** the meantime; however so new immigrants who are coming, although not -- they are not right now or simply low income households are generally who are looking for housing increasingly are being pushed out so to enclaves that are poor ***in*** the suburbs or ***in*** smaller poor cities.

CALABRIA: Well, thank you. I want to thank the audience. I want thank our panelists, too. I knew two of the panelists came from the other side of the country, so I really appreciate that, and so Philly is not quite a distance but I still appreciate you coming down (ph). So, I want to thank you and we're going to turn it over to the next panel.

(APPLAUSE)

(RECESS)PANEL 4: ENTREPRENEURSHIP

LINDSEY: OK. Good afternoon. Everyone can take your seats. We'll get this panel started. My name is Brink Lindsey. I'm the Vice President for Research here at the CATO Institute and ***in*** this hour we're going to be talking about immigration and entrepreneurship.

As you will learn from our panelists, immigrants are disproportionately entrepreneurial relative to native-born Americans. This occurs at both sides of the skilled spectrum.

At lower skill levels, you see immigrants ***more*** likely to start their own businesses, often out of necessity that is, they have fewer formal employment opportunities with limited language skills, et cetera fewer social networks to plug into to get regular employment so ***more*** likely to go into business ***in*** small-scale fashion.

At the top end, we have people drawn into our vibrant start-up system from all over the world. We have tracked talent from all over the world and as you'll hear a disproportionate share of high-tech businesses feature foreign-born founders or cofounders and so that both poles of the skill-spectrum immigrants are figuring importantly and making an outsized contribution to business formation.

The panelists will go into ***more*** details as to why this is the case but at the very root of things is the fact that being an immigrant is ***in*** the nature of things to be entrepreneurial. What are entrepreneurs? They are people opportunistically take risks ***in*** pursuit of financial gain and that's what immigrants do.

They hurl themselves out of the countries they are born into and away from everybody they know and good to a foreign country and search for a new life, that's a pretty entrepreneurial act and so they take that habit of mind with them when they're engaging an economic activity here ***in*** the United States.

To fill us ***in*** ***more*** about these connections, we have two speakers with lots of relevant expertise. I will introduce, we have Magnus Lofstrom from the Public Policy Institute of California and Meg Blume- Kohout from Colgate University.

Let me introduce Magnus first since he will be speaking first. He is a senior fellow at Public Policy Institute of California. His areas of expertise include public safety, immigration, entrepreneurship and education. His recent work examines crime trends ***in*** California, recidivism, California's jail capacity and construction ***needs***.

He holds appointment as research fellow at the Institute for the Study of Labor ***in*** Germany. He is a Community Scholar at the Julian Samora Research Institute ***in*** Michigan State and a Research Associate at the Center for Comparative Immigration Studies at UC San Diego. He serves on the editorial board of industrial relations. Prior to joining PPIC, he was Professor at the University of Texas at Dallas and he received his Ph.D. from UC San Diego. Ladies and gentlemen, please join me ***in*** welcoming Magnus Lofstrom.

(APPLAUSE)

LOFSTROM: Thanks, Brink. And thanks Alex and then CATO for including me ***in*** this program here and giving me this opportunity to share a little bit about the work I've been doing on immigrant and entrepreneurship.

And it's a little bit discouraging with the introduction here from Brink because he really summarized what I'm going to be saying here so there's not really are going to be a whole lot of new stuff coming up over the next 20 minutes, but at least I get to get into some details here.

So, let me start off with a little bit of introduction and motivation here to this topic of entrepreneurship. I'm going to start off with a quote from a highly respected labor economist, Ed Lazear who said, "The entrepreneur is the single most important player ***in*** the economy."

And it wasn't really anything new that notion, to be honest, that was something that goes all the way back to Adam Smith. And the basic idea here is that the entrepreneur plays a very important role ***in*** small businesses, ***in*** young firms, and ***in*** business start-ups and these are really the key engines when it comes to job creation, innovation and economic growth, so nothing controversial there.

And also as Brink pointed out, it's not, you know, there's this common perception that immigrants are particularly entrepreneurial as well. And that is true if we look at business ownership, business start-ups as well as innovation, and there's a strand of research to support this and some of it well have cited here probably a number of times ***in*** the next hour or so.

So there's that component of it that speaks a lot about the contributions of entrepreneurship or immigrant entrepreneurship ***in*** the U.S. economy. There's another aspect of it as well that I think is potentially very important and that is the labor market integration of immigrants themselves. Coming here to this country, might face some hurdles and barriers into formal employment.

And then this self-employment, business ownership provides an opportunity to then get upward mobility ***in*** itself.

And given that we've seen here today a lot of examples, a lot of data that points towards the changes ***in*** the economy that the U.S. has experienced since basically late 1970s where information technology is getting ***more*** prevalent, we have technology skilled bias change as labor economists often describe it as. And it's creating limited opportunities for low-skilled ***workers***.

I want to take a look at the low-skilled self-employment side of things and that's where I'm going to be focused on here. And I want to look at possible contribution then.

First I want to start-up for looking at the number of self- employed immigrants and then I want to move on to looking at earnings being the measure that I can use here one way to look at the possible contributions as well as giving us some ideas of what kind of tool this might be for low-skilled immigrants ***in*** the U.S.

First off, what I'm going to do is I'm going to start-up trying to set some light on this question then, how do immigrants contribute to recent U.S. self-employment trends and I think you're going to see that there are some surprising things there at least they were to me and maybe they will not be to you.

And then broadly speaking what I'm going to try to shed light on this question of, so is self-employment an economically rewarding option for low-skilled immigrants?

And then I'm going to look at earnings basically (ph) to see, well to what degree do we see evidence of success they'll realized by immigrants who have relatively low-levels of education that's I'm going to call them low-skilled and that's not necessarily true. What is going to be true is that they are relatively low-educated. They lack high school diploma who actually choice self-employment.

I'm going to -- the way that I'm going to do this is by comparing them to observationally similar U.S. born ***worker*** who also observed as being self-employed and I'm going to compare them also to other immigrants who are ***in*** the week salary sector, so that's -- those are the research questions that I want to try to address here.

And the way I want to do this, the data that I'm going to be using is something that a number of people today have used already its data from the census on 2000 census as well as from the American Community Survey from 2005 to 2014. When I say self-employed, I'm simply going to use the question ***in*** these surveys where the individual report being self-employed ***in*** either a not incorporated business or an incorporated business.

As I said, low-skilled here, what I really am talking about is low education; don't have a high school education. I want to capture a population that is actively involved ***in*** the labor market, so I'm going to restrict it to those folks who report usually working at least 15 hours. And ***in*** my talk here today the outcome that I'll be focusing on is going to be total annual earned income.

It's the sum of the annual wage salary earnings and business income. And when you look at the data, you'll realize that even if you say you're self-employed a number of people actually have business income as well. So, well worth (ph) is we're looking at this on the perspective of the economic well-being to actually include both of those.

So, the trends here, what do we see? We see different trends from 2000 to 2014 for immigrants and native. So, this is not just low-skilled, this is skilled -- the self-employment ***in*** general. And we see an almost doubling of a number

of immigrants who are self-employed from about 1.4 million ***in*** 2000 to 1.7 million ***in*** 2014. If we look at the U.S. born, we see an increase from 2000 to 2006 when it peaks over this period when it goes from about 10 million to about 11.5 million.

But then it starts to drift down and it starts to come up a little bit ***in*** 2014, but you have a noticeable drop there from the peak to 2014 and there's not much change actually between 2000 and 2014 for U.S. born. With these changes and we already heard that immigrants are overrepresented among the self-employed, but they are increasingly so as well.

And ***in*** 2000 which is relatively recent, we're looking at 16 years ago, about one ***in*** eight of the self-employed folks here ***in*** the U.S. were foreign-born. And then when we fast forward to 2014, the most recent year we have data for, we have slightly ***more*** than one ***in*** five.

So that's a continuous consistent growth ***in*** the shares. So immigrants are increasingly important to self-employment of business ownership ***in*** the U.S.

To break this down and we look at it ***in*** the period before the great recession, because we have seen big structural -- big changes happening with the great recession, so what I'm going to do is break this down these changes, and the period before the great recession and the period after.

What we see is, going between 2000 and 2007, we see strong growth ***in*** both the number of U.S. born self-employed and the number of immigrants.

One point -- almost 1.4 million U.S. born self-employed were added ***in*** that period of time and almost one million immigrants.

And that's pretty significant by itself there because we are talking about a population here that represented ***in*** this period maybe about 16 percent of the U.S. workforce. A little bit ***more*** than 40 percent of the self-employment numbers to the U.S. over that period and it's essentially ***in*** a period of economic growth.

Now, when we go to the not so good time after the great recession, we see a drop of almost 1.3 million U.S. born self- employed, and we see a continued increase ***in*** self-employment among immigrants of about 270,000. Overall, if we look at that period since 2000, the growth ***in*** self-employment ***in*** the U.S. is essentially an immigrant phenomenon. They account for 90 percent of the growth ***in*** self-employment.

I think this is -- this is definitely something that is extremely noticeable and very surprising to me to see it's so stark. One point three million almost compared to a little bit over 100,000 U.S. born self-employed were added over that period of 14 years. All right, if we then shift and we take a look at, well there are different skill segments here. I'm going to be focusing on the low-skilled side of things. What we see is that since that great recession, out of those 270,000 immigrants self-employed that we add here, a big number of those are actually those with less than high school, about 117,000.

You see that that is the biggest increase among immigrants and that is the biggest increase of any group because among all U.S. born we saw drops whether it was less than high school or college graduates.

Another reason to think that low-skilled self-employment among immigrant is something worthwhile taking close look -- look at is if we look at the share of self-employed, the percentages have dropped out here when it says cell range now instead of actual percentages. But what it would show is that ***more*** than 50 percent of the low-skilled self-employed are actually foreign born, ***more*** than half ***in*** other words are foreign-born.

So, we're not -- we're talking about a relatively small number of self-employed compared to the college graduates but clearly immigrants are overrepresented ***in*** that group. And if we had the percentages with the other education groups, we would have seen as well that, immigrants over -- actually overrepresented ***in*** each of those groups as well.

All right, so if we shift our focus and take a look at earnings, and before we even get ***in*** to earnings, just to have a sense of, you know, some of the characteristics of the low-skilled self-employment -- self-employed among immigrants, what do we see?

We see a couple of things that standout, a large proportion, the majority are not naturalized. Noncitizens among the self-employed here the low-skilled foreign-born self-employed do not have citizenship, 72.5 percent.

The majority are from Mexico or Central America and importantly the majority also only speak limited English. So these are the most reported not speaking English and not speaking it well. And they live -- half of them live ***in*** just two states, California and Texas, so they're geographically concentrated as well.

We move on to median earnings. We see that the earnings are relatively low as well, 17,700 per year compared to immigrants who are ***in*** wage salary of 20,000, and if you compare it to U.S. born self- employed it's also lower. They had 21,300, but I also showed you some differences there some of these characteristics that might very well contribute to these differences.

So, I want to take a look at what contributes to the differences, what are the factors and maybe we can identify some of the hurdles that are most relevant and it's not going to be particularly surprising.

But here's one thing, so I'm just going to estimate this over the last regressions using log of total income and using the log of total income as my dependent variable means that we can almost the -- you see that first immigrant coefficient of 0.069 it basically tells us that self-employed immigrants ***in*** this group here because we're -- I'm comparing U.S. born self-employed to immigrant self-employed.

Immigrant self-employed has about 7 percent lower earnings than foreign -- than the U.S. born. But I'm also separating this out by gender and we see that there are differences between men and women and there's actually not an earnings disadvantage among women.

If we then just simply take into account, the account for the limited English proficiency among the foreign-born population here, that shifts into an earnings advantage.

And so, with that, immigrant men actually have higher earnings than the U.S. born low-skilled self-employed and noticeable advantage for women ***in*** that position. If we then add demographic characteristics, we control for these as well. Then what we see is that that earnings advantage for immigrants actually is even greater. But part of this is driven by longer work hours.

Once we take that into account, the advantage drops down, and then importantly, I told you about that geographic concentrations about when we take that into account as well we don't find any evidence that there is statistically significantly higher earnings among low-skilled immigrant self-employed compared to low-skill U.S. born self-employed. Nonetheless, we have roughly the same kind of earnings.

What about if we compare low-skilled self-employed immigrants to immigrants who are low-skilled and work ***in*** the wage salary sector? There again, we start off with seeing an earnings' gap. They have about -- men have about a 6 percent lower earnings compared to U.S. born. For women that gap is even greater. It's probably ***in*** the neighborhood of 30 percent.

Again starting to add some control, if we start by controlling for how long you've been ***in*** the U.S. whether you have naturalized, we actually see that those differences are greater once we account for that. Adding ***in*** the demographic characteristics, the gap actually hasn't changed much. There isn't really that big of difference between wage salary immigrants and self-employed immigrants among the low-skilled.

And one other things that if we looked at the data, I'm going to look at the number of hours worked per week, we would see is that even though we often think that the self-employed work ***more*** hours, ***in*** this sample here, we have a greater proportion of wage salary low-skilled immigrants who work 40 hours or ***more*** than those ***in*** a similar position who are self-employed instead. So, once we account for, the lower earnings are partly due to the fewer hours worked.

And then lastly, taking into account these geographic distributional differences, what we would come up with is there's still -- they have low earnings, so tentative (ph) for all the factors that we're doing ***in*** these models here, we still see lower earnings among those who have chosen self-employment compared to observationally similar immigrants who are earning wage salary.

All right, so just to wrap up then here and conclude, what do we see here? Importantly, immigrants increasingly contribute to entrepreneurship. I think that we have had a sense for a long period of time ***in*** data has consistently shown that immigrants have higher rates of self-employment, business start-ups and so forth, and the data supports this and says that while it's even ***more*** so ***in*** recent time.

As I said, immigrants account for ***more*** than 90 percent of the growth ***in*** self-employment since 2000 and while we saw ***in*** the U.S. over this period between 2000 to 2014, a loss of almost 1.3 million U.S. born self-employed -- well, actually since the great recession, immigrants actually added number of self-employed by about 270,000. And importantly then it isn't -- even though I've stressed the low- skilled side here, the increase is across all education group.

But as I've said, I've stressed low-skilled because we have seen a noticeable increase there.

So, all together if we just look at these very descriptive statistics, they certainly point towards the contribution of immigrants, but whatever that magnitude is, of the immigrant contribution to economic and job growth is it quite clearly these data suggest that they would be quite significant.

If we shift over to the low-skilled side, well the good news is we don't see that low-skilled self-employed immigrants have any lower earnings than similar -- observationally similar U.S. born low-skilled self-employed ***workers***, that's kind of the good news.

But on the other hand, don't find evidence that self-employment increases the economic well-being ***in*** most low-skilled ***worker***, so again what Brink was saying, I think that what this is consistent with is that this is ***more*** of the pushback to put ***in*** that kind of context.

There's no higher earnings, as I said and most ***in*** fact if we actually look at well how much do they earn, they have quite low annual earnings. About 55 percent of these foreign-born ***workers*** who are reporting being self-employed earned 20,000 or less, and as we all know that would be very difficult to live off that kind of annual earnings. The key obstacle for success here is really limited English proficiency, so that's a big part.

And if we take this and look at it ***in*** the context, there are relatively limited work that's been done on the low-skilled self- employment these findings are consistent with their early work.

There's work by Rob Fairlie and Chris Woodruff, and it is completely consistent with this. And these are using as well as some work that I've known myself.

These are updated data and they are using also different data and we find very similar results, so this seems to be quite robust relationships.

Overall, I think it's fair to say that it's very difficult to find some negative effect so much of the downside to immigrant entrepreneurship. But having said that -- the success that we've actually finding across the various literatures has looked at immigrant entrepreneurship.

In terms of economic contributions, innovations and so forth, it's really concentrated among the high-skilled and we have a number of papers that are pointing out to that and then quite nicely I'm going to be hearing a little bit ***more*** about that particular sector, next. All right, OK. Thanks.

(APPLAUSE)

LINDSEY: Thank you Magnus. Our next speaker is Meg Blume- Kohout. She is an economist, data scientist, policy analyst and entrepreneur currently, serving as a visiting professor at the Economics Department of Colgate University.

Her research examines intended and unintended consequences of government policies as they affect the scientific workforce, innovation and entrepreneurial outcomes. And Professor Blume-Kohout got her PhD from the RAND Graduate School. Please join me ***in*** welcoming Meg Blume-Kohout.

(APPLAUSE)

BLUME-KOHOUT: Good afternoon and thank you very much for having us here today. The work that I'm going to be talking about today is actually covered ***in*** a couple of publications that came out over the past year, and so I first ***need*** to acknowledge the funders and then also say that the usual caveats apply.

Neither the small business administration nor the national science foundation should be taken to support anything that I'm about to say despite their generous support for this work.

So, you've already heard this from a few different places, but I think one of the reasons why it's important to be talking about entrepreneurship today when we're talking about the contributions of immigrants ***in*** the U.S. workforce is because while we do know that here the -- from our -- from what we've seen this morning that there do not seem to be negative wage effects ***in*** particular ***in*** the long run.

We've also seen some work that says there are increases ***in*** productivity. Now, some of those increases ***in*** productivity could be due to within firm increases ***in*** productivity especially if we have immigrants coming ***in*** who have complementary skills to the ***need*** of U.S. citizens who are already working ***in*** those firms.

But another way that immigrants can contribute to the U.S. economy ***in*** particular and as Magnus is pointing out, it's -- ***in*** particular these high skilled entrepreneurs is through job creation through their own start-up companies through starting new businesses.

So, this is really going to be the focus of my talk today is to look at business ownership, to look at start-ups.

Specifically, we are going to be looking at -- we're going to be defining entrepreneurship ***more*** sort of -- ***more*** finely than self- employment broadly writ to look at business owners -- people who are heading up, who have founded incorporated firms or if they have unincorporated firms like LLCs or partnerships, these might be individuals who nonetheless have several employees as well.

So, those who are unincorporated nonemployee or self-employed, sort of a long phrase, but those individuals a lot of them may be doing freelance work, working as independent contractors as it turns out ***in*** the data and we'll talk ***more*** about this ***in*** a moment, many of those individuals especially after the great recession weren't necessarily choosing to be entrepreneurs but rather were becoming entrepreneurs out of -- out of necessity and these are even among college graduates.

We do know college educated immigrants are ***more*** likely than native U.S. citizens to start businesses. They are especially ***more*** likely to start this high-growth high-tech businesses.

And -- so, if -- what are -- if we assumed that one of our goals of immigration policy is to increase U.S. employment rates, to increase the level of employment ***in*** the U.S., to stimulate economic growth or entrepreneurship, one of the things we might then begin to wonder is whether it's all immigrants that we would want to focus on or if there's any subgroup among immigrants who maybe ***more*** or less likely to contribute towards these ends.

So, just as some background, I will also be using the word immigrants a little differently than some speakers have used it today. The distinction that I'll be making like Magnus was speaking is speaking of foreign-born, all those who are not native U.S. citizens by birth and then immigrants I'll be specifically referring to legal permanent residents and to those who have naturalized U.S. citizenship.

For foreign nationals who are on temporary resident visas who do not -- were not immigrants as I was just defining them, there are relatively few options for them to participate -- to become U.S. business owners and participate on entrepreneurship under our current rules. Now, there was a new rule proposed last weekend and we'll come back to that later on ***in*** the talk.

But for example, the H-1B Visa which is for specialty occupations, those are for individuals who have bachelor's degrees typically ***in*** Stemfield that it would be a very difficult method for an immigrant perspective entrepreneur or sorry foreign-born perspective entrepreneur to use because it requires that there will be separation between the employer and the parties who is petitioning and the beneficiary of the visa.

Meaning that they would have to have a company that has a board, that can hire them the owner, fire them the owner that supervises them and pays them, basically it is possible to do but there would ***need*** to be enough separation, so that both the person that the employer who is petitioning for the H-1B Visa is separated from the person who would be employed on that visa, so that's a very difficult road to go.

A road that's much easier to go is with the E-2 Treaty Investor Visas. Now, this require -- it does require some substantial financial investment upfront, so that may preclude some people from participating, but the main restriction here is that it's only for individuals from certain countries designated under the E-2 Treaties, so some of the countries that are not eligible for that particular opportunity, includes India and China which are actually among the countries that send us the most people who become entrepreneurs, so this is another problem.

We've also heard about students becoming entrepreneurs, there's been a lot of focus on that ***in*** the past couple of years ***in*** particulars thinking about start-up visas and do we want to extend start-up visas to people who graduate from U.S. higher education programs.

There is this optional practical training that people who get some degrees can have this extended time to remain ***in*** the U.S. for up to two and a half years.

Those individuals can ***in*** fact self-employ, so they can choose to become self-employed but ***in*** fact when we actually looked at the data among our college educated U.S. residents and looking specifically those who found businesses, only 4 percent are still on student visas. So, as was -- as Magnus was just pointing out, the growth rate of entrepreneurship among immigrants has also been positive over the past -- the past several years.

In 2013, immigrants were almost twice as likely as native U.S. citizens to start businesses and Rob Fairlie's work has been showing, you know, about one ***in*** four new entrepreneurs or immigrants.

Some additional work is showing that a fairly large fraction of the high growth ***in*** high-tech firms had at least one foreign-born founding member and moreover those that had at least one foreign-born founding member tended to also perform better than those that only had native U.S. citizens among their founders.

Looking also to the venture backed companies that actually go on to be public, so again these are, you know, the companies that seemed -- that would be high growth that are most likely to contribute to U.S. GDP ***in*** larger ways, one ***in*** three founders of these companies that went public from 2006 to 2012 were also immigrants.

So, others have looked ***in*** the past, ***in*** particular, there is a couple papers by Jenny Hunt looking at this gap between college educated native U.S. citizens and foreign-born ***in*** panting related outcomes and other innovative activities and also ***in*** self-employment.

And a great deal of the difference really can be explained by differences ***in*** their fields of study.

If we know that people with engineering degrees among the college educated are ***more*** likely to become self-employed, to become business owners and ***in*** addition to that those who are foreign-born are ***more*** likely to take degrees ***in*** engineering then it only makes sense, you know, that the foreign-born would have a higher propensity than to become business owners or self-employed.

But then, there's still fairly large residual that we haven't yet explained when we only are looking at those fields of degree.

Now, as I mentioned, you know, some of the discussion around the start of visas specifically looking at students, people who came here to the U.S. to study and after they graduate trying to figure out some way to allow them to stay if they wish to just do a start-up company.

So, ***in*** my research I was specifically interested to look and see whether we find any differences among foreign-born who took degrees ***in*** the United States versus those who were trained abroad. There is some prior evidence suggesting that foreign students who get degrees here ***in*** the U.S., do contribute ***more*** than those who were trained abroad to innovative activities ***in*** the country.

Patents with U.S. educated foreign-born inventors as opposed to foreign-born invent -- lead inventors who were trained abroad are significantly ***more*** likely to be commercialized.

A lot of the U.S. high-tech firms where we find out that there are foreign-born founders and a lot of cases those individuals were also U.S. trained. There is a potential downside though, you know.

It might sounds like we want to then just open the doors and say let's have as many foreign students as possible because it seems that they are the most likely to become entrepreneurs and if having ***more*** entrepreneur is gold then maybe there is where we want to focus.

But there is some research suggesting that increasing foreign student visas may actually have some unintended consequences for the participation of women ***in*** Stemfield.

So, this is -- this is one area that we ***need*** to think about ***more*** is sort of, you know, given that everything is not happening ***in*** a static world it's not, you know, introductory economics that we hold all else equal as just talked about this morning, because all else is not held equal we do ***need*** to consider possible downstream effects of some of the things that are going on.

So, ***in*** order to try to parse the rest of the reasons, to try to figure out what the rest of the reasons are beyond fields of study for why foreign-born are ***more*** likely to engage on entrepreneurship, ***in*** addition to the usual sort of demographic things that we could be looking at looking at whether they trained ***in*** the U.S. versus training abroad, I'm going to suggest one additional one.

So, I'm going to ask you to do a sort of a little bit backwards here and look at this chart from right to left. Some of the stuff isn't going to be very surprising.

In fact, Brink was just saying earlier that one of the things that we expect we know that business owners, we know that entrepreneurs, you know, stereotypically are supposed to be ***more*** risk tolerant.

They are less -- supposed to be less risk over (ph) -- they're taking risks almost by definition. Interestingly though, when we think about foreign-born who come to the U.S., they too must be ***more*** risk-tolerant especially if they are coming here specifically for education or for work reasons as opposed to say family reunification program and that sort of thing.

So, it is perhaps unsurprising that we find that foreign-born ***workers*** ***in*** the United States are ***more*** likely to be risk-tolerant ***in*** the -- looking at 2012 general social survey data. But business owners are even ***more*** risk-tolerant than our regularly employed and this both for foreign-born and for native U.S. citizens.

We also see, again perhaps unsurprisingly fitting with our vision of what an entrepreneur is and does and prefers, we see that business owners tend to value autonomy. They value personal freedom and being a greater degree of independence.

And again though, we find that for foreign-born, this is even ***more*** pronounced among foreign-born business owners.

Now, the final piece though and this is what's going to lead ***in*** to some of the analysis that I'm about to show you is looking at the bars that are furthest over here to the left.

One of the questions ***in*** the general social survey asks to what extent the person says that they would -- that they -- their preference is they find that success is very important to them that they want to be recognized for their achievements.

And the thing that's really interesting here is that regular employed native U.S. citizens versus foreign-born not statistically significantly different. Native U.S. business owners not statistically significantly different from regular employed.

But foreign-born business owners are much ***more*** likely than this other groups. Over half of them say that they wish to be recognized for their achievements.

So, this is going to bring us to our research questions. We want to know why is it that college-educated foreign-born ***workers*** have higher rates of entrepreneurship than similarly educated native U.S. citizen.

So, after we've controlled for field of degree what else explains the remaining gap. We also want to know why is it that some groups of foreign-born ***workers*** have a greater propensity towards business ownership or some entrepreneurship than others do.

And ***in*** particular, we're going to be looking to see whether cultural support that is to say whether cultural support for entrepreneurship ***in*** their country of origin relative to the U.S. matters ***in*** whether they -- once they come to the U.S. are likely to become entrepreneurs.

I won't go too much into the weeds on the econometric estimation here, but we are using survey-weighted by new (ph) logistic regression. We're predicting two different outcomes.

One is we're predicting business ownership versus other types -- all other types of employment. And then we're going to predict specifically business ownership ***in*** stem businesses through science, technology, engineering and mathematics based businesses which tend to be the higher growth high-tech firms that we were discussing earlier.

And we're going to be looking at those versus all other stem occupations to try to model ***more*** carefully the choice that individuals ***in*** stem are trained ***in*** stem are likely to be making.

Some of the explanatory variables we'll be looking at we'll be looking at citizenship and visa status, whether somebody immigrated as a child or immigrated as an adult.

If they immigrated as an adult, whether it was for higher education or for work or some other reason or whether they are on a foreign temporary resident visa. We'll be looking at several different human capital variables including the bachelor's skill of degree demographics and his country of origin characteristics.

All of these -- also have interaction terms which allow us to look and see and test whether there is going to be any -- whether there is any statistically significant difference across groups and the importance of any of these explanatory variables.

The data are coming from the national science foundation CSED (ph) database, the restricted used file. This is nationally representative data. I have over 86,000 observations ***in*** my dataset of U.S. residents under age 76 who have bachelors or higher degrees.

This combines with the national survey of college graduates and also the survey of doctor recipients and has resulted over -- is actually oversampling on U.S. trained PhDs to give us a little ***more*** detail on those individuals.

For the cultural support variables those are coming from the global entrepreneurship monitors adult population survey. This is conducted ***in*** over 100 countries. Typically, when it is conducted ***in*** a country ***in*** a given year, there are 2,000 or ***more*** individuals responding ***in*** each country.

And the kinds -- and the questions that we're specifically looking at -- the responses we're specifically looking at to judge, you know, to what extent this country is supportive of entrepreneurship is the share of individuals who agree with these two statements.

Number one, ***in*** my country -- so if they're conducting this let's say ***in*** France, they would ask ***in*** France is it true that most people consider starting a new business at desirable career choice.

And then again if the country were France (ph) -- ***in*** France, is it true that those successful at starting a new business have a high level of status and respect? So, this gets to that -- that idea of wanting to have ***more*** recognition.

Overall, descriptively, one of the things that we noticed when we're looking at the college-educated U.S. residents ***in*** the workforce, now here I've -- I'm actually building up the bars starting at the bottom, the darkest part at the bottom is the business owners that aren't necessarily those high-growth start-ups.

And then directly above them are the high-growth start-ups. One thing that's interesting here is looking at foreign temporary residents who are not from E2 Treaty Countries.

They are very unlikely to be business owners. They are extremely unlikely to be unincorporated self-employed for the reasons that we were discussing earlier with respect to the visas. But if they do start a company it is much ***more*** likely to be one of these high-growth start-up ventures.

We also note that foreign-temporary residents and immigrants who are trained abroad have a higher rate of employment ***in*** start-up firms and this is another topic that I'll come back to you ***in*** a little bit.

But one of the things that we ***need*** to be thinking about if we're trying to grow these companies is not just who is going to found them, you know, who's going to take the financial risk of starting the business but also who's going to go work for them.

Who's going to be part of the founding team even if they don't have that ownership interest? Who's going to be willing to take that risk with respect to their own employment of going to Start-up Company? Can you see the colors here, yes OK.

So whereas the previous slide we're showing you as you add up the percentages, we're showing you among those who immigrated as children, what percentage are business owners, what percentage are working for start-up ventures and so on.

In this one, we're looking at -- we're comparing the full sample and what shares of them fall into each of these categories then looking at business owners then looking at stem business owners. So, overall, the foreign-born which is the entire height of that -- of that bar, the foreign-born are a bit under 20 percent of the college educated workforce ***in*** our full sample.

But among business owners, it gets closer to 20 percent and we see that some of that -- a lot of that is being driven by those who immigrated as adult -- as adults for work and a little bit but not very much difference between those who immigrated as adults for higher education versus the general population. Where we see the higher education thing really come out, is ***in*** the final column where we're looking at stem business owners.

Stem business owners, you know, there's a very high share 10 percent of them versus less than 5 percent of the population as a whole, 10 percent of those are individuals who immigrated to the United States as adult, probably as young adults to pursue higher education degrees.

The other thing that we want to look at is the E2 Treaty Mechanism -- Treaty Investor Visa Mechanism versus those who would not be eligible for those mechanisms. One of the things that we observed here is if you look at employees of established organizations ***in*** the United States, 45 percent of those -- among adult immigrants, 45 percent of those are from 92 treaty countries.

But a higher share, 52 percent of business owners among adult immigrants are from 92 treaty countries. But then when we look at foreign-temporary residents, now again, foreign-temporary residents were not from E2 Treaty Countries have very few mechanisms by which they can become self-employed.

There are as then we would expect, only 27 percent of the business owners were foreign-temporary residents are from these 92 treaty countries even though again if they do found a business it tends to be very high growth. So, these are the results from the logistic regression model.

What I'm doing is I'm predicting the probability ***in*** the first column of someone being a business owner and all of these are -- looking at the changes ***in*** probability versus native U.S. citizens.

So, for example, if someone immigrated as a child, they have 6 percentage point higher rate over higher probability of business ownership than do native U.S. citizens who are otherwise similarly looking at demographics -- looking at what their degrees were, there are about 20 explanatory variables and interactions with all of these ***in*** the model; I'm just showing you this sort of key explanatory variables.

And again as we expect about -- well, the foreign-temporary residents were not from E2 Treaty Countries are really much less likely than all other groups to be participating.

Another thing that's interesting is looking at those who immigrated as children; although ***in*** the first column, we see they are ***more*** likely to become business owners, once we control for the country that they -- what country they came from, which is the middle column, they are no longer any different than native U.S. citizens ***in*** terms of their rate of participation. The main differences we see are looking at all business owners versus stem business owners.

We find that those who immigrated as adults for higher education are ***more*** likely to be both business owners overall and stem business owners ***in*** particular once we control for other demographic characteristics.

This is ***in*** contrast with the descriptive statistics and this just saying that yes there are demographic characteristics and other things that once we control for them, ***help*** to explain some of the reason why looked like those who were U.S. trained had a lower rate that effect goes away.

So, really it does become a robust result that this higher education advantage for adult immigrants. I guess I should -- OK. So, now this lack of cultural support thing. The main thing here that we're looking at, the black line going horizontally processes is the rate of entrepreneur -- business ownership among native U.S. citizens.

And what we find here is especially for those who immigrated as adults, we do ***in*** fact see the strong positive gradient saying that the X-axis here lack of cultural support for entrepreneurship, so any number above zero on the X-axis is saying that the ***home*** country is less supportive than the United States is.

Anything that's to the left of zero, any of the negative numbers, is they're coming from a country among this one example is Australia that where there is actually a higher rate of cultural support for entrepreneurship.

And what we find is this interesting thing where if you come from a country that has very low rates of cultural support for entrepreneurship, you are much ***more*** likely to become a business owner when you come to the United States.

The flip side of this is, if you are someone who chose to immigrate to the United States from one of these countries that's very supportive of entrepreneurship, you are actually less likely than even a native U.S. citizen to become an entrepreneur.

So, the people who choose to come from those countries are selecting to come based on not having a desire effectively to become entrepreneurs. So, to wrap up, we know that college-educated ***workers*** -- among college educated ***workers***, immigrants who come to the U.S. as adults are significantly ***more*** likely than native U.S. citizens to become business owners.

And we also know that probability of business ownership is higher for immigrants who come, as I said from these countries that have relatively lower, so relative to the U.S. lower cultural support for entrepreneurship.

But among all these different groups of immigrants, we find that those who came to the U.S. for higher education are most likely to become stem business owners, to found high-growth entrepreneurial ventures and actually once we control for all the demographic and other characteristics just to become business owners ***more*** broadly. What we don't know is whether this is a selection or causality. Well, this is an open question.

We don't know whether immigrants who come to the U.S. for higher education are ***more*** entrepreneurial to begin with and so we're just seeing that effect. Or if there is something about the U.S. higher education system that is making them become ***more*** entrepreneurial, we can't tell that from these analyses. But to some extent from a policy perspective, it doesn't matter.

We can't randomize people or, you know, to either go to -- go to U.S. higher education programs or not or force people to go to U.S. higher education programs or not, but what we can do is decide whether we want to admit ***more*** people and allow them to stay who came on student visas, that's the policy tool that we have available and we know that that group for whatever reason seems ***more*** likely to engage ***in*** entrepreneurship. And the thing I'll leave you with is, we were talking about all of these business owner so far, one of the things though that we ***need in*** order to have these businesses grow are people who are willing to be employees of these new ventures.

Disproportionately immigrants who have degrees from foreign institutions who come to the U.S. especially if they have graduate degrees -- degrees ***in*** Stemfields, they are disproportionately becoming employees of these start-up companies.

At the same time though, it's very difficult for start-up companies to get H-1B Visas. They are much smaller. They have a lot less returns to scale both ***in*** searching for candidates and also ***in*** the application process. Are you at least favoring larger firms and so this is I think probably the next challenge that we're going to face beyond the start-up visa.

(APPLAUSE)

LINDSEY: Thank you very much. It's time for questions now and I'll -- we'll get the ball rolling, first for Magnus.

I -- familiar with the reasons why we would expect foreign-born people to be ***more*** likely to be self-employed or start new businesses but the idea that the percentage has been rising overtime that was new to me and I don't really -- doesn't immediately seem obvious to me why that would be the case and ***in*** particular why the big divergence after the great recession.

You could imagine that deteriorating economic conditions are pushing people for, you know, pushing people out of jobs and into the consulting gigs and/or just some kind of necessity entrepreneurship but why are native born less likely to be self-employed since the great recession while foreign-born have continued to rise?

LOFSTROM: I think that that is the big question. I think that's a little bit disappointing when you...

(CROSSTALK)

LINDSEY: ... out there?

LOFSTROM: ...you know, I would be a little bit cautious. What we do know is that with the great recession, there were big changes to the economy, the structure of the economy changes.

There were certain sectors that were highly impacted by the great recession and many of those jobs went away and some of those are certainly ***in*** sectors where that had, you know, a good number of self- employed ***workers***. So, to what extent that is what's going on. It's unclear.

I think from my perspective, you take the step and you look at some descriptive statistics and it's -- it's not particularly satisfactory because you don't have good answers to necessarily what goes on but I don't think unless we actually put forth these numbers to show what's going on, what it does at least it addresses -- it raises this issue to say that well there's something here that's positively that we're not sure what's going on and hopefully they will draw ***more*** attention to that issue.

I don't know to what extent if we look it on the immigrant side, their competition will affects to the immigrant population that is either staying here or coming here, how is that playing out and, you know, it's just showing -- to me what it shows is, we ought to take a much closer look at this and see what is behind these changes.

So, I'm behind your question 100 percent and I would love to learn ***more*** about that as well, so.

LINDSEY: And for Meg, given your research into why high-skill immigrant entrepreneurs or entrepreneurial and do the things they do and are ***more*** likely to do those things than native-born folks, what are the implications for public policy that is can you -- is there -- can you come up with sort of one policy change that would be best calculated to bring ***in*** ***more*** would be entrepreneurs?

So, what policy levers are most likely to generate the biggest bang to the buck ***in*** terms of bumping immigrant -- high-skilled entrepreneurship?

BLUME-KOHOUT: So, I think there are -- there are a few pieces to this. We know that for entrepreneurship ***in*** general -- for business ownership ***in*** general, you are ***more*** likely to both start a company and also to start a successful company when you have ***more*** years of experience and ***in*** a lot of cases that experience specifically working for another start-up company.

Working ***in*** a start-up company ***helps*** prepare you to have a successful start-up company and yet a lot of the sort of start-up visa kind of conversation was around having, you know, extending visas to people who had just finished their schooling, who had not yet had that kind of experience.

So, if we want to have successful foreign-born entrepreneurs, having some mechanism where they can spend some time actually sort of apprenticing effectively ***in*** another start-up company working for entrepreneurs having that experience, you know, gaining that human capital seems like it will be really important.

Now, some of that maybe could happen with F10BT but honestly two and a half years isn't a very long time. So, maybe what we ***need*** to consider and this kind of gets back to that last slide is how are we going to make it easier for foreign-born individuals whether they were trained ***in*** the U.S. or not to get that experience so that they can be ***more*** likely to be successful.

LINDSEY: We have time to take a couple of questions from the audience, just raise your hand and someone will come with the mic, give your name and affiliation and I brief 50 questions (ph). Right up here, yes.

QUESTION: Hi. My name is Evelyn Patrick from the Kauffman Foundation (ph) and I was just wondering if you could speak to the Obama Administration's new proposed rule for a new pathway (ph) for immigrant entrepreneurs and your thoughts about?

BLUME-KOHOUT: So I have not read it through ***in*** detail yet. The main things that I did note, just skimming over it a few days ago was that there is this -- one of the things that have been talked about that they did go ahead with is this idea that if you manage to attract funding to your company, well that's actually one of the rules, so you have to manage to attract funding to the company.

And this was really important because some of the previous mechanisms that have existed including for Green Cards but also for the E2, you have to show revenues sooner. And for high-tech companies that wasn't very practical if you have a lot along R&D process attracting venture capital was one of the things that has been suggested.

So, that at least looks like something promising to try to encourage ***more*** of those high-tech companies that do have a longer R&D process to stay here ***in*** the United States and to grow here ***in*** the United States.

LINDSEY: Gentleman, your mic is coming -- other way.

(LAUGHTER)

QUESTION: Oh, for me, thank you very much. Fred Trace (ph) Rami (ph) Regional Economic Model and this question is for Dr. Blume- Kohout. You're saying from low-entrepreneurship companies come to setup businesses, I know it is -- paint ***more*** of a picture if like which are those countries is it like Russia and South Africa and then they come to start-up a businesses here and which would be the high- entrepreneurship countries...

LINDSEY: Which countries have low cultural support for entrepreneurship, which have high?

BLUME-KOHOUT: OK, so two of them ***in*** particular that's higher than the United States and so maybe we can think about learning something from that I came across before Canada and Australia. Now, Canada being our neighbor and with NAFTA and everything and to also being English speaking there's a lot of confounders going on there.

But, we might look to those countries and see -- and sort of see what they might be doing differently given that they do seem to have this sort of higher level of cultural support and acceptance for entrepreneurship as a career path. The lower ones, I mean there are a lot of them, you know, U.S. is actually fairly high.

I believe the rate of support for those statements that I was saying was on the order of 80 percent which is why you saw the scale going to negative 20 and then -- and then on up. The ones where there's a big gap, one example is Japan.

Japan has considerably less support for entrepreneurship. But, I have to -- I can point you to the data jam (ph) data if you like afterwards and you can get the full list there.

LINDSEY: So since India and China are such portal (ph) sources of foreign-born high-tech entrepreneurs, where do they fit ***in*** there do you think?

BLUME-KOHOUT: So, they were definitely further away from the zero point.

LINDSEY: Yes, right. All right, time for one ***more*** question right here.

QUESTION: Thank you very much. Peter Matlin (ph) from Cornell University. The question I have is -- and I'm directing it at both of the panelists. Whether or not there's any evidence of differences between native-born start-up entrepreneurs and foreign-born start-up entrepreneurs ***in*** terms of where they access their capital.

And ***in*** particular, are there any constraints that are unique to foreign-born entrepreneurs ***in*** terms of accessing finance from conventional sources such as banks?

LOFSTROM: I think if I'm recalling I haven't looked at it myself. But, you can look at the work of Alicia Rob (ph) and Rob Fairlie who has been looking at -- they are using the Kauffman -- we have some people here from Kauffman who can speak probably a little bit ***more*** to that.

If I recall it correctly, I think that, you know, we all come ***in*** with a notion that there would be big differences but if I recall it correctly they did not see strong evidence of differences ***in*** the sources used for funding.

I'm sure there's also great heterogeneity across the various groups ***in*** terms of that. But there is research that has looked at -- at that particular issue.

BLUME-KOHOUT: I think my answer will be pretty much the same. It seems like there shouldn't be any differences for permanent -- for naturalized U.S. citizens and legal permanent residents to get access.

One could understand banks being -- perhaps a little bit less likely to lend to for temporary residence but like Magnus said Rob Fairlie has a paper that was looking specifically at this issue and to my recollection it's the same as his that there didn't seem to be any real difference for native U.S. foreign-born ***in*** terms of their -- financial capital, that they were bringing to the enterprise.

LINDSEY: OK, with that we're going to wrap up this panel. I'd like to thank both of the panelists for their contributions and I believe there's a break coming up now before the next panel drifts up.

(APPLAUSE)

(RECESS)PANEL 5: HOW IMMIGRATION AFFECTS POLITICAL

AND ECONOMIC INSTITUTIONS

NOWRASTEH: Thank you for coming back from the break. I want to begin by saying, just a heartfelt thank you to all the presenters so far today who have done a wonderful job. It's the start of the academic year for a lot of them and they took time off before a three- day weekend, to ***in*** many cases, fly across the country to come here.

So, thank you very much for your participation so far.

We're now at the last panel of the day. One of the lessons I think we can take away so far is that the findings ***in*** economics, whether on the wages and labor market front, the entrepreneurship front, the impact on real estate are fairly positive for the United States due to immigration.

There's not a lot that you can point to where the effects are negative. And if they are, it's for a fairly small group of people. But the net benefits are large for Americans and especially for the immigrants themselves.

What we're going to be talking about today on this e panel is one of the ways ***in*** which immigration theoretically could become a negative under certain circumstance.

A few facts, first off, a lot, the majority of immigrants today come from countries a lot poorer than the United States, for example. And ***in*** the economic literature there are several reasons given for why countries are poorer than others.

Some of them focus on institutions, sort of a fancy economics term for the rules of the game, both informal and formal. Formal - being the laws of the government, the states, tax policy property rights, contract rights, trade, and monetary policy. These types of things matter tremendously ***in*** terms of their outcome on economic growth and the wealth of societies.

Big examples might be the difference between North and South Korea, radically different institutions, same language, same culture, split down the middle with very different outcomes.

There are also cultural issues that are raised by many people, differences ***in*** culture, certain things that are incentivize and some are not than others that could be influential and discussing why some societies are wealthy and some aren't. And then, there's of course, mysterious other channels that we will be talking about their potential for impacting this.

Now since immigrants come a lot of them from countries with worse institutions definitely different cultures and other sort of mysterious other factors that could influence growth on this fundamental level.

It's possible that if there were enough and they brought with them these other ideas or fundamentals about institutions, that the positive economic effect that we've seen so far could turn negative ***in*** the long run. If they undermine the institutions of the United States or other wealthy countries which are some of the foundations for economic growth here.

So, I think today, we are fortunate, therefore, to have about half of the scholars ***in*** the world who do work on how immigrants impact these sort of fundamentals of growth on this panel today.

So, we're very fortunate ***in*** that regard. First we're going to have Michael Clemens, give his first presentation.

Michael is a senior fellow at the Center for Global Development where he leads the Migration and Development initiative. His current research focuses on the effects of international migration on people from and ***in*** developing countries, and on rigorous impact evaluation for aid projects.

He also serves as CGD's Research Manager, directing the Center's engagement with the academic research community through peer-review for Center publications, research seminars and conferences, and academic fellowship positions ***in*** numerous other ways.

He is a Research Fellow of IZA, the Institute for the Study of Labor ***in*** Bonn, Germany, and an affiliate of the Financial Access Initiative at New York University.

Clemens joined the Center after completing his PhD ***in*** Economics at Harvard University, where his fields were economic development and public finance, and he wrote his dissertation ***in*** economic history.

His past writings have focused on the effects of foreign aid, determinants of capital flows and the effects of tariff policy ***in*** the 19th century and the historical determinants of school system expansion.

In 2013, his research was awarded the Royal Economic Society Prize.

Following Michael we will have Ryan Murphy. Ryan is a research assistant professor at the O'Neil Center for Global Markets and Freedom at Southern Methodist University. He received a PhD ***in*** economics from southern -- from Suffolk University ***in*** 2013. He has published an academic and non-academic journals.

And if you ever want to look at his C.V. online, it is actually quite remarkable how quickly publishes so many journal articles and so many venues. His research interests are diverse and include institutional economics, public policy, and macroeconomics immigration.

Ben -- finally, we will end with Benjamin Powell, who is the director of the Free Market Institute and a professor of economics ***in*** the Jerry S. Rawls College of Business Administration at Texas Tech University.

Professor Powell is the North American Editor of the Review of Austrian Economics, past president of the Association of Private Enterprise Education, and a senior fellow with the Independent Institute.

Professor Powell is the author of Out of Poverty: Sweatshops ***in*** the Global Economy, editor of Making Poor Nations Rich: Entrepreneurship and the Process of Development, and co-editor of Housing America: Building Out of a Crisis, and editor of the Economics of Immigration market-based approaches of social science and public policy.

He is the author of ***more*** than 50 scholarly articles and policy studies. His primary fields of research are economic development, Austrian economics, and public choice. He had his B.S. ***in*** Economy, and finance from the University of Massachusetts at Law, M.A. and PhD ***in*** Econ from George Mason University.

So, without further ado, Michael Clemens.

(APPLAUSE)

CLEMENS: Thank you so much for being here and for staying this long.

Two economists, one American, and one British, are discussing the reasons, that they support a large government intervention to restrict immigration. Two big reasons. Wages, and institutions.

The American economists say it is obvious that immigrants competition must reduce wages, his British counterpart, I entirely agree with you that it must diminish their wages. Nothing can be ***more*** fallacious than the attempts to make out that there is any compensations of those whose labor is displaced.

But not just that. There's a second reason they support this intervention and its institutions. Maybe a bigger question of the effect of immigration on the culture and institutions that under pin the entire economy.

The American writes, such an add mixture of people would be to the degradation of the superior civilization without any commensurate improvement of lower. And his British interlocutor responds only a temporary good is done to the migrants while a permanent harm is done to a ***more*** civilized and improved portion of mankind.

Now these are arguments that might be very familiar to you because they are around all the time. I want to point out a few things about this conversation. The first is that it's happening ***in*** 1869, between the biggest of the big shots economist, the American is Henry George, and the British is Jon Stuart Mill. And they were arguably the leading economists ***in*** each of their countries at that time.

The second -- and the policy intervention they're discussing is a total and complete shutdown of immigration by ethically Chinese people to the United States.

The second thing I want to point out is that neither of them offers any evidence that they're making of very confidently about the effects of migration or the effects of restriction.

The third is that they got what they wanted. Thirteen years later there was ***in*** fact a total and complete shutdown of immigration to the United States by ethnically Chinese people from any nation, and it lasted 70 years.

And the fourth thing is that there wasn't any evidence then, nor is there any evidence now that that policy achieved the goals that these very smart people confidently claimed for it.

There's no evidence that Chinese exclusion raised American wages. There is no evidence that the proper functioning of the U.S. economic institutions depended upon Chinese exclusion.

Now, these conversations have continued, it's 147 years later.

Many of you who are here this morning to hear about the latest research on wages from a few of its top proponents, so I won't talk about that.

But, what I find remarkable is that although the wage conversation came back ***in*** the 1980's and continues ***in*** the economics literature, the second conversation about the bigger effects of immigration on the entire economy through the channel of economic and other institutions only came back pretty recently.

And we were just talking at the coffee about what fraction of research ***in*** immigration economics is on its effect on relative prices like wages and how much is on these larger, well, let's say broader questions about the wealth of nations. And it's something like 98-2 or 99-1. There's very little about the effect of migration on the wealth of nations, which some notable exceptions.

So, a few years ago, I wrote a paper called Trillion-Dollar Bills on the Sidewalk, trying to explicitly to nudge the economist to look ***more*** at this other and ***more*** neglected question of the effect on migration on the broader wealth of nations.

And it's a very simple paper. It just says, look, now that we have pretty good evidence that the productivity of a ***worker*** depends critically on location, that is, the economic productivity of exactly the same ***worker***, even performing the same task can vary by an order of magnitude, depending on what country they're ***in***.

That has as remarkable implication, which is that natural and policy barriers to labor mobility between countries could be enormously costly. For example, there are estimates that barriers to the movement of just 5 percent of the current population of developing countries to developed countries, costs the world economy trillions of dollars a

year ***more*** collectively than all remaining barriers to trade and all remaining barriers to international capital is. Very large effects.

There has been a response to these claims ***in*** the literature and it's what Lant Pritchett of Harvard and I called the new economic case for migration restrictions. And it focuses on these exact same arguments ***in*** the second point that George and Mill, were talking about, ***in*** 1869.

It's been the subject of discussion by another British and another American economist many, many generations later. So the idea is that, people from poor countries when they migrate don't just experience higher productivity themselves, they reduce the productivity ***in*** general of the people around them ***in*** the place that they arrive by spreading bad productivity to those people.

And for that reason, I'm not making this up, ***in*** literature it's called the epidemiological model, Raquel Fernandez of the NYU has an authoritative hand book chapter on this subject and that's what she called it. And the analogy is to disease.

So, here is a British economist, Paul Collier ***in*** a book three years ago, making this case. I don't want to -- I want you to know that I'm not mischaracterizing it, so I'll just read it if you don't mind me reading it.

"Migrants are essentially escaping from countries with dysfunctional social models. The cultures are norms ***in*** narrative that poor societies along with their institutions and organizations stand suspected of being the primary cause of their poverty."

"Uncomfortable as it may be, migrants bring their culture with them with the potential risk that the social model of the migrant destination countries will become blended ***in*** such a way that damaging lead dilutes its functionality."

So, an American economist, George Borjas, reviewing this book ***in*** the journal of economic literature last year, puts together a little model of how the epidemiological model might bring about the result of canceling the games to the -- the simple economic games to migration.

And he parameterizes with lambda the fraction of low country total -- of poor country low total factor productivity that comes along with migrants. If lambda were equal to .75, Borjas writes, that is 75 percent of the bad total factor productivity from poor countries comes along with migrants embodied ***in*** them, the net gains to global labor mobility become negative.

Because now the entire world's workforce is largely operating under the inefficient organizations and institutions that were previously isolated ***in*** the south but have now spilled to the north.

He concluded the article with this diamond of rhetoric. "Beware of social engineers who promise the existence of trillion-dollar bills on a mythical sidewalk at the end of the rainbow. Those promises are often based on flimsy modeling and inadequate evidence.'

Now, I'm not sure which researcher he is referring to. It sounds like quite a diluted and naive person who must cut quite a pathetic figure. But, what makes this statement even ***more*** remarkable is that he doesn't offer any actual evidence of this effect much like Henry George and John Stuart Mill generations ago.

It's a conjecture that it might happen.

And stepping back from maybe unfortunate rhetoric like this, we can't rule this out. And it is plausible that at some, there must be some very large stock of migrants from poor countries, or a very flow of migrants from poor countries that would be associated with a change of institutions. That's not -- that certainly not implausible or impossible.

The question is where -- where would that -- where would that rate lie exactly? And it's remarkable to see a evidence free discussion of that ***in*** 1869, and then an evidence free discussion continuing 146 years later as if nothing from which we could learn anything had happened ***in*** between.

So, what Lant Pritchett and I do ***in*** our paper, is say, well, what's the -- what's the simplest way we could start to look at the evidence on this question. There is quite a variance across countries ***in*** the stock of poor country migrants there, that is, migrants born ***in*** countries with low total factor productivity.

Is there an association between that stock and lower levels or lower levels or lower growth of total factor productivity. That simple to do ***in*** the Penn World Tables. And what you see here on the horizontal axis is the fraction of a country's population that is made up of migrants from countries with less than three quarters of U.S. total factor productivity.

Poor countries with low total factor productivity. And on the vertical axis is growth of total factor productivity over a 20-year period. There's no relationship here.

Now, this is just, if you were here this morning, this is just kind of an international version of what (Inaudible) showed you about the relationship between areas of the United States with very large stocks or growth ***in*** number of international migrants and the productivity of labor ***in*** those areas.

We don't see any evidence ***in*** variance across the stocks that we observe of the relationship between those stocks and lower levels or lower growth of total factor productivity.

However, it is, again, not inconceivable that somewhere way out to the right of this graph ***in*** regions we don't observe at very high levels of migration, very high stocks of migrants from poor countries there would be such an effect. So what Lant Pritchett and I do ***in*** the paper is put together a little model of the things that would determine that effect and use data on migration that we know about right now, to calibrate that model and ask what would be dynamically efficient migration. That is, what would be the rate of migration that would be so high that it would just offset the pure economic gains from special re-allocation of labor.

So, I won't go through the model. It's incredibly intuitive. It depends on three things that are not difficult to imagine, the first we call transmission or tow. This is the fraction of low total factor productivity that is transmitted to countries and migrants destination along with migrants.

The second assimilation, and here we're just talking about assimilation ***in*** terms of productivity is the rate at which that transmitted low total factor productivity dissipates once you arrive ***in*** the country of destination.

And what we parametize as congestion is simply not many minorities ***in*** these transmission and assimilation. That is it could be at very high stocks of flows of migration, the transmission is higher and assimilation is lower.

Now, before just talking about a couple of results and concluding, I want to talk a little bit ***more*** about what we should expect about these parameters. What they mean.

So, before thinking about the plausibility of very high transmission of total factor productivity, you would want to do something that Collier and Borjas don't, which is seriously dig into the development and growth literature for what economists know about what total factor productivity is.

And Lance and I, you can do it various ways, but Lance and I classified those explanations for total factor productivity that the differences between the wealth of nations aside from factor stocks ***in*** five strands. That is total factor productivity you could imagine as knowledge.

How exactly do you build a 747? You could envision it as capabilities, that is, what are the local clusters of goods and services that must be available ***in*** order to enact any specific set of knowledge.

For example, I could give you the plans for a 747 and all the instructions for how to make it. But if you went to Mischer you couldn't make it there because of a lack of complimentary -- of the abilities to produce complimentary goods and services for that production. And that's a literature that's associated with Ricardo Hausmann, Zaldy Hidalgo and others.

A third strand, a total factor productivity is management somehow. Or the allocation of assets and productive capacity within firms across firms and across sectors and this is associated with (Inaudible) and others. A fourth is that total factor productivity embodies differences ***in*** institutions. For example, the ability to protect property rights. And a fifth discusses sort of factor productivity as differences ***in*** culture. For example, norms of interpersonal trusts.

Now, there isn't time to get into detail about these. But I do want to point that It's very clear that several of these are not plausibly transmissible with migrants, no matter how many migrants from Mischer came to the United States, that would not plausibly decrease knowledge ***in*** the United States about how to make a 747.

And it would not plausibly decrease the capabilities of industrial clusters ***in*** the United States to provide the goods and services that are complimentary ***in*** making a 747.

I would say the same for management techniques. Institutions and culture, at least ***in*** principle are transmissible internationally. But here's what I want to talk about assimilation.

For talking about institutions, an institution is an emergence phenomenon ***in*** a group of people. It is not something that can be embodied ***in*** a human. That is the way that we put it ***in*** the paper, is that, an institution is not something an individual can have ***in*** the way that an individual has blonde hair or has the flu or has a university degree.

The clearest way to see is the institution of what side of the road you drive on. Now, even if you are a native left-hand driver, and that's what you've been doing all your life, the day you come to the United States it's ***in*** your interest to drive on the right hand side. If you don't immediately adapt, it doesn't matter to what extent the institution is embodied ***in*** you because you'll be dead.

An institution is the set of expectations and the set of expectations about people's expectations ad infinitum that exist within a group of people. And it's not something that is simply and automatically transmissible by an individual who he arrives.

Finally, congestion. This is something we just don't know much about. It is certainly correct to say, economist know very little about the consequences of very, very high levels of immigration and very high immigration stocks. But there's not no information at all.

You have Singapore with 40 percent foreign born, Vancouver, Canada with 40 percent foreign born. Toronto, Canada with about half the population foreign born. And those are not places that are experiencing low levels or growth of total factor productivity.

It is nevertheless possible that other place could be different or that at much higher levels of migration things could be different.

So, here's what we do ***in*** the paper, with just a few minutes that I have left. Put together a very simple one sector, two factor Cobb- Douglas model, and ask for a given rate of transmission of total factor productivity from low TFP countries to high TFP countries for a given rate of assimilation, for a given rate of congestion where congestion is the bending of the transmission curve.

Do a few pages of integrals and see is you can come up with a simple expression for what the rate of migration would be, that again, just offsets the simple global game from specially reallocating labor. That's the expressing for it. It's very intuitively, it depends on positively on assimilation.

You could have ***more*** migration at higher rates of assimilation of productivity. It depends negatively on transmission tow. The ***more*** poor countries TFP comes with migrants, the lower the dynamically efficient rate would be. And it depends negatively on congestion. But it's the ***more*** non-linearity of things get worse and worse as you have hire migrants stocks the lower the efficient migration rate would be.

And we gathered the evidence we have on the parameters of this model. So, just to give you a flavor for how we do it. For migrants ***in*** the U.S. there are nine very low TFP countries that have large enough samples of foreign born ***in***

the census data to establish a relationship between the earnings of those people when they arrive and compared to how those earnings evolve over time.

This is what Ghanaians look like, Ghana-born people ***in*** the U.S. And this is where the horizontal axis here is the years since immigration and the horizontal line is the earnings of a U.S. Native with the same simple observable characteristics of age and education level and gender.

And the black line, with the 95 percent confidence around it is the earnings of a Ghana-born person. So what we do is just give everything to the epidemiological model and say the hit ***in*** earnings that you're seeing not long or at arrival, and for years after arrival, is entirely due to bringing low productivity with you, and this dissipates at the rate that you see there. We estimate a half- life of that effect for people from Ghana.

Here's what it looks like from Mexico, a lower hit upfront but also a slower assimilation. Both of which you would expect ***in*** the knowing the differences between Ghana and Mexico.

That's the flavor of where we're getting the parameters for transmission and assimilation. For congestion, are there normal ***in*** year use that very high levels of immigration.

This is graph that's similar to -- thank you. This is a graph that's similar to the one that Giovanni (Ph) showed this morning when, I believe it was immigrant changes ***in*** the stock of immigrants across cities of the United States, on the x-axis on what he showed. And changes ***in*** earnings on the y-axis you saw a positive relationship there.

This is just a similar graph ***in*** levels across census areas. So these are Public Use Microdatas Areas, or PUMAs of the U.S. Census 2000 add divisions of the United States. The x axis is fraction foreign born. So you can see there are few of them with very, very high immigration immigrant stocks, 60, 70, 80 percent of the population immigrants.

And the Y-axis is simply earnings of average ***workers*** ***in*** those places. And you do see with a simple moving average there that there is a little bit of a curve down at very high levels of immigration. So we don't try to explain that. It could be because there are other characteristics of the ***workers*** there, for example, that they have lower education.

But we just give everything again to the epidemiological model and say, let's set the congestion parameter below that curve that you see across areas of the United States. That is assuming congestion parameter .5 that blue line is what the relationship would look like if congestion were .5. That is things get worse at a faster rate than you -- than you across areas of the United State.

Put those together, and, you get this graph, which will take a minute to explain. On the horizontal access, is what you might assume about an assimilating rate, on the vertical axis is what you might assume about the transmission rate.

And those blue lines are the relationships between assimilation and transmission that you would expect for a given level of dynamically efficient migration, all of this at, you can see and operate hand corner assuming that congestion is congestion parameters .5.

Why do those blue lines ***slope*** up very intuitively, because if there's ***more*** transmission of bad stuff from poor countries, you would ***need*** there to be faster and faster assimilation for a given level of migration to be dynamically optimal.

And that (inaudible) with zero line is dynamically optimal zero migration. That dotted line next to it is the immigration we have right now, which is .3 percent of the population per-year. The line next to it is 1 percent of the population per year. Then 3 percent of the population per year. And then an imaginatively high rates of 5 percent of the population per year.

And the dots you see on here are the data for transmission and assimilation for the nine very low TFP, for people from the very -- from the nine very low TFP countries that you saw ***in*** the census data.

And you can see that, all nine of them are to the right of the 1 percent line and 7 of them are to the right of the 3 percent line. That means that this -- if this epidemiological effect were to bite and actually be capable of erasing the economic gains to migration it would happen at a level of migration that is over an order of magnitude, over the levels that we -- higher than the levels than we see right now.

That doesn't mean that we recommend ***in*** any sense, these levels of migration. Our question is just a descriptive one. Now if this is a real effect, give everything to it and ask when would it -- when we would expect it to. We would expect it to occur at levels of migrations so high that current -- that they are just irrelevance to discussions of current policy. Now, here's, this discussion is very old. Here's a cartoon from 1903 that I like a lot. Those guys on the left-hand side have bandanas, let's say Russian anarchists on them. And Uncle Sam is experiencing a danger to American ideas and institutions.

Clearly, the new economic case for migration restriction is not new. We also argue that it's not a case either. The case has not been made and, the case awaits, maybe -- data or reasoning or evidence that could be brought to support it. There are economists right now promising that, migration restrictions will bring tremendous benefits such as protecting the institutions on which our prosperity depend.

But to quote an influential economy, Beware of social engineers, their promises are often based on flimsy modeling and inadequate evidence. Thank you.

(APPLAUSE)

MURPHY: It's the right one. Come on.

(UNKNOWN): The other one, please.

MURPHY: OK. So, I'm here to talk about a paper that I did with Ben Alex, and a few other people that was published last year on immigration, and its possible effects on economic freedom.

And I'm guessing that go most of people ***in*** this room are relatively open to the idea that economic freedom is important for peace and prosperity. And what we do is we think of economic freedom as an institution. Probably the important economic institution.

And we use data, from a DataStat that I use, quiet frequently, mediatic people and academia use quite frequently called Economic Freedom of the World report. I actually assist ***in*** putting together, although I'm not co-author.

And it's just important to say what we're talking about when I'm saying economic freedom. So, the report, it's an index from zero to ten and it scores countries based on five areas of variables. The sides the government legal systems, property rights, sound money, freedom to trade internationally, and regulation.

And it's ultimately, an empirical question of whether or not it's going to increase or decrease economic freedom. Whether it is going to hurt or ***help*** institutions.

So, first, just to give you ***more*** flavor of what's going on here, and what we're talking about and what we're measuring.

First area is the size of government and it's just, you know, three measures of government spending and then two measures of the top marginal tax rate combined into one. Then the legal system and property rights which is a combination of expert judgments, survey questions, and then regularize studies, for instance, one major subject called how long it takes to enforce a contract. Then the third area is sound money. It's obviously stuff like inflation, but then there's also -- it also gives you information on regulation's on whether or not you can own foreign currency bank account.

The last two areas is freedom to trade internationally, obviously stuff like tariffs then other regulations that are related to it like capital controls. And lastly, a regulation which is a whole slew of different variables that relate to credit -- categorizing that's kind of credit market regulations, labor market regulations and business regulations.

So there's bunch of different arguments ***in*** the area that relate to what Conrad (Ph) was just talking about. So, how might immigration affect economic freedom? American conservatives might say that immigrants to America and they will increase demand for certain public services especially public health and public schools.

And ultimately, that's going for increase the size of the welfare state. An increase ***in*** the size of welfare state is coming from the size of government and that's going to decrease our economic freedom.

Now what's interesting about this is that as a European social democrats, actually and they precisely make the opposite argument, which is that if you bring ***in*** immigrants it's going to reduce social trust, and if you reduce the social trust you're going to reduce the willingness to pay for the welfare state and then you're going to get a smaller welfare state so they don't want that.

And that is by some extent by the academic literature on fractionalization. Now to become a come ***more*** topical, what American nationalist is one would call it, make -- Carlo's (Ph) argument which is that immigrants will import their bad ideas and socialism against somewhat Clemens was talking about.

And you can imagine there being somewhere global arguments, and this ***in*** Asia and so on, to this effect. But then you can just make the pretty much opposite argument which is that, immigrants self- select and they come to the places where they like the institutions and they want to be part of that.

And that they will support the institutions that they see the country representing, such as economic freedom ***in*** America. And so, we're clearly on the same page because I believe it's the third that we've cited this journal of economic literature.

Article by Borjas and this is just slightly a distant from where comes to case quotation. But this is just to establish that this American nationalist argument is a thing and it's not just a caricature or something.

So the answer to what we actually did, our core empirical strategy was to look at the levels of immigrants as percentage of each country's population ***in*** the world ***in*** 1990s, and see how that relates to the level of economic freedom ***in*** 2011. Those years might sound a little bit health hazard but really it's just what we had to choose based on data availability, and the fact that we wanted to give it enough time to, you know, play out its effects on the political system if there are any effects.

And ***in*** all of regression results are controlling for economic freedom ***in*** 1990. So, basically you have a level of economic freedom, you have a level of immigrants. What do those two variables say about the future of economic freedom ***in*** the country ***in*** 2011?

Then as well we start adding ***in*** control variables we really only had two sets of controls, we control for, first, only control for GDP per capital ***in*** both 1990 and 2011 to capture the effects of say, immigrants are attracted to places that are wealthy, or that they see that that they expect the place to become wealthier, and so, that's not controlled for.

Then we add another set of controls on top. We add another set of controls on top of the GDP per capita variable which we use a pool for index as a measure of democracy. So it goes from autocrats the democrats. And it's just another way of measuring the institutional environment ***in*** a country.

So, we ultimately -- so, we have the simple regression than we have it. We also control for GDP per capita for both those years and then we get second drawn for the other institutions ***in*** those years.

Then past that, we start looking at immigration as you could define it otherwise. So, we're first going to do the -- first, we're going to see the level then we'll start thinking ***in*** other ways if the mechanism is different.

So, here's the -- here's the basics. So, if you are just looking at immigrants as a percentage of the population, ***in*** 1990 and you control for economic freedom ***in*** 1990, country coefficient that we have there to the right the 1.130. What that means is a 1 percent increase ***in*** the percentage of the population that's foreign-born.

In 1990, it corresponds to a 0.113 units of economic freedom ***in*** 2011, which is positive, not negative.

The star next to it -- because I will explain. That's what it basically means is a borderline result and don't -- you can't trust it completely but if you look down to the next line we start controlling for ***more*** things we reach two star which is the conventional way of defining statistical significance ***in*** the academic literature.

And you see not only that. But when you go down the line further that the size of the coefficient for size of the effect continues to be positive, and is larger and achieve a level of statistical significance.

Now you can split it up a little bit differently and say OK, we have the level of immigrants but maybe what we should care about is the level of immigrants from rich countries versus countries that are poor that may not share the institutions or culture that rich countries already have.

And what's interesting is that if you look at these OECD countries the effects we have are positive from immigrants from them but they're not physically significant, they dissipate when you add the controls.

But for non-OECD immigrants coming to the country, that's where this physical significance is coming from. And it's just before it shows the previous pattern of increasing the size of the coefficient ***more*** and ***more*** statistical significance as you have ***more*** controls.

Now what matters isn't the level ***in*** 1990 but the rate at which they arrived to the country as a percentage of the population. So, we can do that too. The net inflow from 1990 to 2010 its effect on economic freedom ***in*** 2011, and you once again you get the same pattern. Maybe it's smaller but you get positive effects that are increasing and the statistical significance increases as you go. It's the same exact pattern.

Now what happens if you think OK, I take that both the level and the info matter? Put them both ***in*** there at the same time you still have positive effects to use statistical significance because these two things are related. And when you put two things that are related ***in*** a regression that doesn't have a lot, a ton of observation and it becomes difficult to distinguish between them.

All right. And this is going to be the last table. So, we have this is before the level and the inflow but what if there's also an interaction between them. So, by that, I mean, like OK. So, maybe it's all right to have a lot of immigrants and maybe it's OK to have a significant inflow, but maybe something else happens when you have a lot of both.

And lo and behold, we actually have a negative sign. And so, that's what the very last regression there when you have all the control put ***in***, you have positive effects from the foreign-born population and the inflow but then you have the negative sign on the interaction tern.

But there are caveats to attach to this. Those first two columns are less than one and to get the interaction, you multiply them by each other so that last column, the data itself is a very small number.

And when you start inputting numbers into data into this of what it would be, what you don't really get is negative signs way out. When you have a lot of both, you have diminishing returns. And I think that's the correct interpretation of this as perhaps there is diminishing return of immigrants to economic freedom.

So, just to summarize and state clearly what this means, further analysis shows, so we would be back, which are the same types of regressions I just showed you. But replace overall economic freedom with the different areas of economic freedom that I was telling you before, the property rights, the legal system, and so on. And the results that we found that were statistically significant were the net immigrants inflow from 1990 and 2010 was related to smaller government ***in*** 2011, which also reflects the social democratic argument that I mentioned before that increasing the -- increasing the number of immigrants will actually reduce the size of the welfare state because of reducing social trust.

Fortunately, we don't see other negative impacts and economic freedom from social trusts which are also possible. But ***in*** any case, looking at the large populations, the levels ***in*** 1990, that seems to actually relate the better

property rights enforcement and legal systems ***in*** 2011, and possibly fewer regulations although that resulted a bit ***more*** fancy.

So that's the bulk of the paper. But I just want to make one ***more*** point that I've noticed since this paper was done with, and that's -- and that's I came across this data from Pew. And this is data on support for the free market system. And there are various advanced countries than developing countries.

And among the advanced countries, you see the United States there, 70 percent say we agree with free markets, and 20 -- only 25 percent say we disagree with free markets which is good, I guess, that's a net 45 percent.

But if you look over to those emerging markets, and I want to draw your attention specifically to China and India, both of those are net 58 percent which seems to suggest that their ideologies is better than what we have here.

And another reason why that's interesting is because if we're looking at the current trends of immigration and where it looks like it's probably heading is that I guess China or India may be among the biggest immigrants from a country of origin or people from among any country ***in*** the world going forward, and so that should also inform what we're thinking of them.

So, to conclude, I -- we use, you know, conventional econometric measures, nothing really that fancy, just what does the data say when you look at it. And we can't really find evidence that immigration hurts countries institutions as measured by economic freedom.

And, ***in*** fact, ***in*** many specifications we find evidence that they seem to ***help*** them. This grants creates to the views I put forth earlier, the possible theories of how it might be positive.

And obviously, ***more*** social science can be done. We can throw ***in*** all sorts of control variables we want we can dream of with, we can come up with higher tech empirical methodologies to try to look at the question another way. But the fact is that the immigrant skeptics haven't really done this themselves credibly ***in*** any way and that's where -- that's where we are at this point. So the ball is ***in*** their court.

(APPLAUSE) POWELL: Well, I think Alex has done a great job putting on this conference today with one caveat of a mistake that he obviously made, is that he made me the last speaker between all of us leaving this room and going to a beer and wine reception and he knows how much I like beer and wine. So, it's with a great temptation that I would just thank you now and conclude.

But I just finished this paper literally on Monday, so I'm very interested to actually present and then get some feedback on it and also increases the chances that I could say something incredibly stupid since I haven't have much time to get feedback on it this week.

However, it means that comments and suggestions that come ***in*** will be actually useful ***in*** going to revising the paper before it could get submitted somewhere to. ***In*** fact, I've already written three things down during Michael's talk that I want to add to it.

So, where this paper actually comes from is, contributing to this and I put new, ***in*** quotation, "debate" about the immigration's impact on institutions and it came after I wrote the paper with Ryan, Alex and other co-authors that Ryan just suggested because I sent that to George Borjas.

And he sent me a polite e-mail back and said, well, that's an interesting study, I'm paraphrasing here, but your paper has all of the costs and all of the benefits of a traditional cross-country growth regression and I'm not sure how much extrapolating from today's stocks and flows of immigrants to come under a manage system but that tells us about what it would be like ***in*** a world with open borders.

Which is fair enough, it certainly does. But if we're starting from a spot where ***in*** the literature he says, what do we actually know about immigrant's impacts on institutions? Little we read nothing.

Well, for starting from knowing nothing, knowing the initial ***slope*** of the line is something that you can start to use to extrapolate about bigger flows. But fair enough on the point, his next sentence was, what I'd to see is a natural experiment with a large exogenous shock caused by an inflow of immigrants and what that does to a host countries institution.

And as I was reading the e-mail I knew which paper I was writing next immediately, because I was like, well, that's Israel ***in*** the 1990s with the fall of the Soviet Union. There's a massive inflow of immigration there, let's take a look at what happened to the institutions ***in*** that decade.

So, the paper is largely written up as a response or as a continued response along with Michael and paper Ryan presented and others to Borjas and Colliers latest claims on this. But I do think this is ***more*** than just responding to an assertion essentially made by them ***in*** the literature that immigrants could have this big effect.

Because it's also a common theory. I mean, for over a decade now I've given public talks on immigration. I think the most important objection that classical liberals and sometimes conservatives have is that immigrants might come here and destroy our institutions; they're going to bring ***in*** some bad ideas that undermine American values and determine our political system, our economic freedom, security of property rights will decline and that will make us worse off.

This, well, it's an assertion that's been made ***in*** the literature. It's also a common fear among many knowledgeable and otherwise sympathetic people, including, and maybe I'll be the first person today, I don't know if somebody got ***in*** earlier to get Hayek or Mises up on slides here at a migration conference.

But Hayek had reservations about it. And ***in*** this quote, here he's saying. "While I look forward to, as an ultimate ideal to the state of affairs ***in*** which national boundaries has seized to be obstacles to the free movement of them, I believe within any period within which we can now be concerned. Any attempt to realize that would lead to the revival of strong national sentiments and retreat from the positions already achieved."

Basically that the NATO blowback here of nationalism if you have brought ***more*** immigrants ***in*** and might result ***in more*** status policy.

Mises also similarly, he says, "The liberal demands of every person have a right to live wherever he wants. This is not a negative demand, it belongs to the very essence of a society based on private ownership of the means of production that every man may work and dispose of his earnings where he thinks best. Again, the ultimate ideal should be free immigration."

But then what he worries about is that the immigrants if we don't have a free society that they come to, if we have some sort of mixed society like we have here that they might use the machinery of the state to turn it against the native population and make you less free.

So, he makes at then that only after you adopt a liberal system do all of the problems of immigration go away.

So, while the paper is being presented here are ***in*** response to this new literature which really is quite new, Michael is certainly right it's 98 or 99 percent of all papers on immigration are not looking at the long-term growth effects or specifically the institutional parts of it.

But this is a common and I think important fear that ***needs*** to be talked about. I won't read through the quotes, I think they've framed Borjas so enough for me from the previous two talks. But it is worth pointing out that Colliers book is just making, kind of pointing out anecdotes and little stories but offering no systematic evidence that any sort of negative institutional effect occurs.

And Borjas's assimilations are exactly that, their simulations. He said they might bring some of bad human capital that impacts our measure of productivity ***in*** the United States. We know little read nothing about it but now I'm going to run six simulations and know all ***in*** the same direction which seems odd if you know little and read nothing about it. But all ***in*** the same direction and then say, well, this could erase the trillion-dollar bills on the sidewalk. So, I view

this paper, this case study that I'm doing, it's not like a definitive because a particular case study of Israel says one thing than QED, we don't have to worry about this objection.

It's ***more*** just a piece of the puzzle of starting to try to gather some empirical evidence for things that are empirical claims that people are making but without any evidence.

So, I appreciate, I view the paper that Ryan presented this one, the one with Michaels, have always compliments to try to get us kind of an idea of different ways we measure, there's different methodologies, so Ryan did cross-country empirical analysis, now this is going to be an equal one case study.

And if these things altogether start pointing ***in*** the same direction, that tells you that we should be severely discounting the assertions that some people are making without any evidence at all. And I think Michael is actually very charitable ***in*** his paper to them despite the -- despite the quote about some guy about trillion-dollar bills on the sidewalk.

Because the measure that he uses ***in*** their assimilation and transmission is really giving like the absolute best case for them after we admit that, he goes through the kind of the five different channels that you might find the institutions that comes down to culture, and institutions of where they could actually spell it over on to us. But the measure, he's using right of the wage assimilation.

Immigrants necessarily -- let's -- this is a thought experiment. Just one immigrant comes. One immigrant comes. He's going to be less earning than the American, over time he will assimilate to his earnings, that says that's not measuring the spillover to culture and institutions at all, that's his like private good human capital.

These other things might actually have no negative externalities at all, even if their wages are below what American wages are when they first get here and take some time to assimilate. ***In*** fact, that they have good institutional spillover as Ryan is kind of pointing to ***in*** terms of their ideology or how it impacts institutions, then there is no actually negative time lag or assimilation problem at all.

And ***in*** fact, Michael's other paper, the Trillion-Dollar Bills on the Sidewalk should have like a parentheses after it, Trillion-Dollar Bills, parentheses, and ***more***, because there's actually a favorable productivity impact of the immigrants coming ***in***.

So, with that ***in*** mind, I'll briefly go through the Israel as a natural experiment here. So, what happened is just before the fall of the Soviet Union they released the -- Soviets released their emigration restrictions so that people could leave, then at the subsequent collapse of the country people were free to go.

And why it creates a natural experiment is because Israel has the law of return. So the law of return has a complete open borders policy to worldwide use. And ***in*** fact, it's a particularly strong version of an open doors policy when it comes to the ability to test the country's institutions.

Because not only is it open borders that you can come ***in***, but as soon as you land you have instant citizenship, full voting rights, full access to the welfare state. And ***in*** response to the relaxation of the immigration restrictions from the Soviet Union, you had about 20 percent surge ***in*** the population of Israel going to the decade of the 1990s caused by Soviet immigration.

And you can see at the beginning of his period the masses, this here are the annual flows of migrants coming ***in***. The orange line being from the former Soviet Union countries. And you could see, I think 4 percent ***in*** one year came ***in*** there.

But compounds over the decades is always other flows and amounts to 20 percent change ***in*** the population ***in*** a 10-year period and a 20 percent change ***in*** your voting population, that's a big shock.

And it satisfies Borjas his quite criteria of being a natural experiment because Israel did not change its immigration policy during this. They always have this policy. It wasn't like they had a ***more*** favorable situation come about and then changed their policy.

It's the Soviets who changed the policy so you get the inflow which make it the experiment, the natural experiment. So, how good is Israel is a case study? And I also thought this would be fun to put Stalin enough here on a CATO PowerPoint, I just wanted to see if like the machines would break or something, but I guess I saw it from the one with Mises and Hayek first.

So, how good is it as a case study? So, I want to go into a couple points ***in*** favor I guess. So one, this is migrants coming from the former Soviet Union, so they have a 70-year history of lack of political freedoms and lack of economic freedoms, and a lot of anti- capitalist propaganda.

This would seem like people coming from a low either total factor productivity country or lower total productivity country and one with an ideology, a history of ideology against ***western*** values of political and economic freedom.

And because they have the legal ability through the voting mechanism to impact institutions, these are things that would make this seemingly a fairly good case study for the types of claims made by Borjas and Collier.

There's an obvious objection to that, it's Israel. That's different and it might be open borders but it's open borders to worldwide Jews so they are going to come ***in*** to be religiously, culturally homogenous to the population so we shouldn't expect the type of problems we would have had ***in*** other migration.

But I think it's a fair enough objection but when we actually look at the immigrants and their values, it doesn't hold up. So, the law of return isn't just for religious Jews, it's for Jews, non-Jews spouses of Jews, non-Jewish children and grandchildren of Jews and their non-Jewish spouses.

So, when you actually look at the Jews from the former Soviet Union who came to Israel, it wasn't part of a Zionist project. They were mostly non-religious people. Seventy four percent when surveyed after arriving identified as secular, about 25 percent just traditionally, and 1.4 is super religious.

Forty nine percent of them didn't even want to go to Israel, they just went there because it was the only place that they could go easily and that would accept them.

Only 14.2 percent of Soviet Jews claimed the Jewish language as their first language. Only another 5 percent as their second language. Ninety seven percent of them though spoke fluent Russian; so again, it's not linguistically homogeneous moving ***in*** either.

And that's what you see as a widespread Russian media rise up ***in*** Israel during the 1990s ***in*** response to demands from the migrants. Eighty eight percent of them when they were surveyed thought it was important for their children to learn Russian culture, 90.6 percent of them to learn the Russian language.

And the sociologists who've looked at them many report that many of them are nostalgic for Russian culture and they feel a superiority of their culture over the Israeli one.

So, this to me is that yes, there is something unique about it but these aren't all religiously linguistically, ethnically homogeneous populations that they are going into.

Despite the fact by the way, the Israeli population, at least the -- most of the ruling part of the Israeli population was very pro- migration. They wanted this wave of migrants to come ***in*** to ***help*** balance ***more*** Jewish people and particularly Ashkenazi Jewish people from European descent with Middle Eastern Jews and Arab population ***in*** the country.

But we find with these immigrants, the main motives for coming is not to part of Israel's project but the normal push motors of going for a better economic opportunity for themselves and their children.

There is one unique aspect of it that makes it a little different than mass migrations from the third world that many of the immigrants who came at high human capital skills, privately human capital being professionally trained although often they couldn't use that professional training ***in*** the same profession ***in*** Israel.

But looking out occupations and how they work it wouldn't be wrong to characterize many of them as similar to the Ashkenazi middle class.

So, institutional determination then. What we start with this as a point of power balance between the left-leaning Labour Party and the right leaning Likud Party. They had form a coalition government ***in*** 1984, that coalition had broken down. They had a both equal balance of power when this migration wave starts happening. The 1992 election, when we observe how they reacted to the Russian immigrants, Likud's propaganda was of labors, all a bunch of communist, they're a bunch of socialists, don't vote for them, you're going to get your lousy Social Union back. And the Labour's response was they actually change colors ***in*** their party list, they stop using red as part of their material ***in*** an effort to try to court the Soviet vote.

So the people, the politicians there as they are responding to the immigrants are clearly signaling that they don't think that these immigrants are bringing their quote, "commie human capital that are going to pollute the institutions." They end up voting majority for the Labour candidate.

But the evidence from the sociologist's stand as this is that it's mostly though, not about ideologically favoring Labour over the right party, but it's ***more*** about the right party was ***in*** power before, they didn't feel a transition of the immigration and the assimilation was going well so they wanted to punish the prime minister who was ***in*** power.

And what you see then with them is actually a continuation about this with the prime minister throughout the decade of flipping against whoever is ***in*** power because they're just dissatisfied with them. But and that the people who were commenting on this are clearly noting that flips ***in*** the Russian vote are enough to flip the election.

They also established their own political parties first ***in*** the '92 race, although none of them receive enough votes to get into the parliament. It's a proportional representation system where you both for your party list. New parties were formed ***in*** 1996 election.

One of those new parties is Israel ***in*** Aliyah won seven seats out of 120 and became actually part of the ruling coalition government with the Likud Party and ***helps*** determine policy for the remainder of the decade.

The 1999 election at the end of the decade, two Russian parties won 10 seats ***in*** the Parliament.

So, what we see here is that they became politically active at both informing their own parties and the other parties responding to them by trying to court their vote.

Some assessments of this ***in*** general, the new immigrants tended to back the right-wing parties and as the 90s progress, their voting power was palpable and both the right wing and the left wing Zionist camps have become highly dependent on the immigrants which is allow them to up their anti ***in*** the political bargaining to easily shift allegiance from one camp to another.

And I should say when it comes to economic policies, even the left-leaning Labour Party had become pro-privatization and pro-market much ***more*** so than they had ever been ***in*** their history by 1990. There was largely consensus between both parties that they ***needed*** to become ***more*** market-oriented ***in*** Israel. There wouldn't be this type of consensus between the two parties if this 20 percent of the Russian -- at this 20 percent electorate is Russian bringing "commie human capital" when you have such close competition between the two groups. This would have been the time to defect if you wanted to do that.

The very fact that Labour didn't tells you that these Russians work demanding bad institutions from their ***home*** countries. So, what the empirical results here? So, political institutions, this is using the freedom house measure, this 401 and that they have won as the top of their scale as opposite to the economic freedom won.

So, Israel had strong democratic institutions before the migration, after the migration they still maintain the strong democratic institutions. Economic one, what we see is the transformation ***in*** economic freedom ***in*** Israel over the course of this decade. It improved by 45 percent over the decade. Forty five percent is a big change.

That's going from 15 percent below the overall global average to 12 percent above the global average. It's going from 92 to 45 ***in*** the index. This is a substantial improvement and that jump ***in*** the index rankings a time when the rest of the world is also becoming ***more*** economically free.

We can break it down to the individual areas, four out of five individual areas improved economic freedom and significantly over the course of the decade. The one exception is size of government, that one declined during the decade which could be expand when you look at the components of it, its transfers ***in*** subsidies that went up.

But that should be expected if you have a large migration that's 20 percent of your population and comes with immediate access to the welfare state. And Israeli culture with the idea that we are responsible for taking on and initially taking care of these immigrants, that you don't get the type of NATO blowback reaction that's common ***in*** the literature and the social European -- the European social democrats.

But what we find then is by 2005, it had recovered to about 97 percent of the level that it had been before. So it initially took a heat, absorb the immigrants than size of government returned to like what it was before. The other ones what you see is a substantial improvement ***in*** property rights or people's visions of how secure they are ***in*** their property rights.

This speaks a little bit to the way that property rights measures constructed. It's a lot of surveys of people of how secure they feel about their contracts, how impartial they believe courts are, and things like that. It also speaks a little bit to the cultural part of this, the trust and the social trust breaking down.

If it was you wouldn't see property rights scores increasing over the decade. Although one of my ideas for this paper now is to actually just go and get the trust data for this and add it into the case study to talk about cultures as well as institutions. Sound money. Israel had a history of high inflation, they got it under control during the course of this decade, so at a minimum, they didn't resort to the printing press ***in*** order to offset demands on the welfare state of the new arrivals.

Freedom to trade goes up 25 percent over the decade. Freedom from regulation increases 40 percent over the decade. What we are seeing here is this is a large influx of immigration that's pretty much across the board economically. Except for the one area where it might not necessarily have a negative impact.

The institutions, they're not deteriorating all Borjas and Colliers, they're actually improving, and getting better.

So, punch line on this, I think Israel is a reasonable case study, there's nothing specifically Jewish or Zionist about this migration that makes it unique so that can't speak anything to the rest of the world. I think we have to have all of the usual cautions that you do with any case study.

The fact that Israel had big immigration and improved its institution certainly doesn't equal to OED a bunch of Nigerians moving to the United States would have a similarly good impact. But when we are starting with the literature that has no evidence for the claim. That has no evidence for the claim.

Then we start by saying if we grant the heroic assumption that some of their private human capital is also going to be the public good human capital they assimilate, well, then they still don't have a case for restructure.

When we say if we look at existing trends of stocks and foes across 110 countries we don't only find -- not only find, know deterioration we find an improvement ***in*** most of the 32 regressions that were ***in*** that paper.

OK. Well, here's another alternative e methodology, a case study that's a natural experiment where there was a large and exogenous stock of people with communist history and human capital and again, there's an improvement.

When you start taking these pieces together and balance that against no evidence for a claim, what I think it does is it makes a skeptical that until any evidence is brought to bear that immigrants do ***in*** fact, have negative institutional impact on destination countries.

That we should be ***more*** pro-immigration than classical liberals. And people who, otherwise, embrace freedom ***in*** markets ***need*** to embrace greater freedom of immigration. One, because freedom is a value ***in*** and of itself, and two, it's probably the greatest thing that we could do for poorer people around the world ***in*** terms of enhancing their economic welfare and for that matter increasing global incomes.

Thank you. NOWRASTEH: Thank you very much. All of you, we're going to open it up now for people or the panelist to ask questions of each other if they have any such questions on the research that's being presented. So, Michael, you have a question that you wanted to ask.

CLEMENS: Yes. So, these were fascinating just on the no evidence point. I can't hold back from saying, you know, Jeffrey Williamson, Tim Hatton and other economic historians have studied historical migration. And at the time that my German ancestors came ***in*** the 1840s, low skill male wages ***in*** Germany were about a third of what they were here about maybe a fourth.

And there were places ***in*** the United States where lots and lots of them congregated including Dayton, Ohio, which is where mine ended up and there's just no sign at all that they brought their low productivity or as Colliers put it their quote, "dysfunctional social model," and quote, "with them" to reduce.

So, I, ***in*** our paper, we mention the no evidence point and pushed back on it. Not to distract at all from the evidence that you are providing. There isn't none but we ***need*** a lot ***more*** and this is excellent.

The question is, with that comes to my mind is whether we could expect different effects on institutions and particularly on economic freedom from ***more*** diverse versus less diverse immigration.

So what I have ***in*** mind is Jefferson ***in*** talking about the success of the Virginia Declaration of Rights argued that it was, when you have lots and lots of little religious groups, collectively they were ***in*** favor of religious freedom because they were concerned about domination by larger groups and you might not expect that dynamic if it were one big group versus another big group trying to dominate each other.

And also, the empirical evidence Alberto Arbasino heard and co- authors have a paper ***in*** which they measure the association between the birthplace diversity of immigrants ***in*** a country and find that countries with a greater diversity of birth places among their immigrants stock are richer.

And I've often wondered what is exactly could be the mechanisms of for such an effects. And I wondered do we have any evidence or do have a theory about what the - whether the effects of immigration just from Honduras might on economic freedom ***in*** the U.S. versus immigration, you know, from 50 different.

POWELL: Yes, so, I'm not unwilling to make the claim that there won't be any cases where a mass migration from one group to another couldn't be detrimental. Clearly, using Israel as a case study there are some countries nearby that is they allowed open borders from would be very detrimental for their institutions.

So, there isn't a universal claim like this at all. But ***in*** general, I'm fairly sympathetic to the notion that the ***more*** diverse immigrant stock would be better. There's part of the literature out there of course that kind of nativist blowback that Ryan mentioned of going to shrink their welfare state, which I'd say an improvement ***in*** institutions.

But the people who usually say bad things about heterogeneity are bringing from the fractionalization literature but I don't know how well the empirics of the fractionalization literature speaks to immigration because almost all of the data is from sub-Saharan African countries that have kind of artificial boundaries or from like American cities where the diversity wasn't the result initially of voluntary migration but of actual slave migration.

So, I don't think the evidence that the people who are usually skeptical about the heterogeneity, I just don't think it speaks to the immigration very well. And I do think, by the way, ***in*** terms of policy implications of thinking about the exceptions to the rule.

So, if ***more*** open borders generates a lot ***more*** wealth but there are exceptions to the rule where the thing the Israeli cases of massive Palestinian immigration will have an effect.

The individual countries each put up their own barrier to whatever their exceptions to the rule are, as long as not every countries exceptions are the same, we could still get most of those trillion-dollar bills off the sidewalk because the migrants would just shift where they're going to from one lower -- from one higher productivity place to another.

So, I think there's room within a fairly pretty much open border stance to allow for exclusions of individual countries where it could be unique.

NOWRASTEH: Ryan, to ask a question about the paper that we all wrote together about this, we also took a look at American states and the impact. I was wondering if you could describe, just for a second.

MURPHY: Those are one ton of (Inaudible).

NOWRASTEH: So, if I recall, So just to set it up I guess for like a brief, a brief question, sorry to put you on the spot like that. But as a brief question it was a little bit ***more*** negative than it was across countries.

So, the impact of immigrants stocks ***in*** the past on economic freedom scores for individual states was a little bit ***more*** negative than the result internationally.

And Ben here talked a little bit about blowback ***in*** some of these examples. Do you think sort of maybe some of these big statewide anti-immigration movements like ***in*** Arizona ***in*** 2010, or maybe California ***in*** 1994 or Georgia, South Carolina ***more*** recently are extensively led by the party that claims to be the pro-free market.

The Republican Party, do you think that that could be potentially an explanation for some of those movements or partly one of the reasons why we don't see this internationally is that most countries deal with these flows pretty well and there isn't a lot of blowback and why that might be.

MURPHY: Well, I would caution quite a bit about using the state data just because the economic freedom of the world data that we has so much higher quality.

But the only other thing I really have to say is that I think it's incredibly ironic about those who are saying that they are anxious to protect American institutions are, you know, at the forefront of seemingly to actively destroy the aspect of rule of law that I think are, you know, most important for economic freedom.

NOWRASTEH: And I think it's important also on this panel when we talk about economic freedom, we are not talking about the ability of labor to move across borders, which is also ***in*** and of itself an important component of this. So, we were just talking about a lot of the other aspects of economic freedom.

So, at this stage, unless anybody has a question up here for anybody else, I was going to open it up to the audience for some questions. So, a few notes, please wait to be called on. Please identify yourself, the organization you are with and wait for the microphone and please ask a question too.

So, I'll start ***in*** the back right there.

QUESTION: Hi. Sheikh Al-Ameri, Reason Foundation. The question I had was, you know, you hear you hear a lot about the institutional impact of open borders and migration on economic freedom and other kinds of freedom and what have you, but if we are going to compare our policies and apples to apples then we also have to consider the institutional impact of restrictionism. What does that itself do to institutions of freedom.

So, my question is, I mean, the U.S. Went through a quasi-period of restrictionism from the 1950s to the 1960s, and other countries have their own policies of restrictionism. Is there any -- has anybody done this and or, is there any way to isolate the impact of restrictionism on institutions, especially institutions of freedom?

MURPHY: I believe that there is a paper that's either just published or forthcoming by Joshua Hall on actually the ability of migrants to emigrate to other countries and when there is a greater ability of these migrants to move out it kind of claims the government and seems to improve the institutional quality I believe as measured by economic freedom of the world.

POWELL: Yes. I think it's called Exeter voice or something like that. But ***in*** terms of the, and has the ability to emigrate, I don't know of any on the restrictions casual imperialism ***in*** the United States looking at that time period as a time to move toward socialism but that's not worked out at all.

And actually for using like the data on economic freedom as an institutional thing, right now you can only go back to the 1970s. Ryan is working on bringing that back to the middle of the century right now. MURPHY: And also, just a restrictions reach small, visas are already ***in*** the index. So, the difficulty of, or how many countries ***in*** any given country will allow to come without getting a visa ahead of time. So, this is already thought to a certain extent ***in*** terms of economic freedom as much as we can give to the index.

NOWRASTEH: Yes. And I, just very briefly, I wrote a blog sort of confirming what Ben said about just the casual empirics, but that period of time from about 1930 to about 1970 when immigration was heavily restricted ***in*** the United States, you saw an increase ***in*** government expenditures per capita of 17 fold ***in*** real terms.

Meanwhile, ***in*** the 40-year period to that when immigration was open. And the 40-year period after that when immigration has been ***more*** open, ***in*** this period you saw a doubling ***in*** real terms per capita. So, while itself, you know, I can't make it a colossal claim there.

I think at the most with that I could say it seems like when government restrict immigration they also rollback a lot of other types of at least economic freedoms ***in*** this sphere, at least ***in*** the United States and that one small case study.

Next question? This gentleman right here. Wait one second for the microphone, sir.

QUESTION: This is ***more*** ***in*** the way of a comment than a direct question. It seems to me that the hypothesis or the fear of undermining traditional cultural values ***in*** institutions goes against the common logic because the people that you're talking about are the discontent and the disenfranchised who want to leave the countries who are dissatisfied with their own country.

The idea that the Russian Jews would want to establish a Soviet Union ***in*** Israel is not exactly the reason that they left Russia ***in*** the first place. However, much their cultural sympathies for the homeland it may exist.

And this ***in*** a way has been the glory of this country, the freedom that you say. As a matter fact, Neil Ferguson has a book about how empires flourish and decline. Anyway, it's nice to hear the empirical evidence, as much as we can get it. Thanks.

NOWRASTEH: Yes.

CLEMENS: Can I just address that, I thought there was a very insightful point and it touches on a hobbyhorse I have and ***in*** discussions of this kind. People often use the word import an export with regard to migrants, you know, ***in*** the - are we going to import Mexicans or are they sending us their best, that sort of thing.

And this isn't just an attitude, that's just actually wrong. There was a time when the United States actually imported labor by force. People ***in*** bondage were brought that way. That's not what migration is right now. It's people choosing to move. And the policy decision is either you have struck that or you don't. There's no subsidy for immigration right now. There is no forcible immigration, there's no importation of people and for that reason, when people get concerned about well, if we import people from Honduras, are we going to import their institutions as well, that's not anything like what's going on.

What's going on is that some Hondurans are choosing to move and the policy decision is do we obstruct them or not. And as you're pointing out the Hondurans choose to move are typically very, very different from the ones who don't. And that's true across the board. The Vietnamese people who are here are not typical Vietnamese; the Nepalese who are here are not typical Nepalese. And a sensible discussion of policy has to start from that point.

NOWRASTEH: Yes. Thank you. Right here ***in*** the second row.

QUESTION: Thank you. Carmel Chiswick from George Washington University. I won't repeat the previous comment because that was going to be my lead-***in***.

There really is a difference between the question as to whether they bring ***in*** their institutions and the question as to whether they increase the economic freedom. The Israel example it seem to me illustrated that. The Russians who came to Israel were anti-communist and they brought ***in*** notions of free market.

And if anything, your evidence suggests that they undermine the traditional socialist institutions that may have been on the client to begin with, but it doesn't matter. It's not evidence that they did not bring ***in*** their institutions.

The same thing can be said about the turn of the 20th century, the immigrants from low TFP Sicily or Jews from Russia, they brought values that were positive ***in*** terms of free market. But the question is did they change the political outcomes ***in*** the United States. So those are two completely different questions.

POWELL: Yes. It's well appreciated. That may be, if we could've been clearer on that. My response to Borjas is not that immigrants don't impact institution, it's to the extent they do, it's ***in*** a good way. And that increases our productivity. Yes?

(OFF-MIKE)

POWELL: Well, I would say, not only do I think it's good because I value freedom, but if we're talking about does it impact the trillion-dollar bills on the sidewalk, our measure of institution is one that's associated with increases ***in*** economic growth and so, then anyone who's doing the utilitarian thing would also, let's say good.

NOWRASTEH: Thank you. Wonderful comment. Right down here ***in*** the second row.

(UNKNOWN): Thank you. This is a very interesting session very alive. So...

(AUDIO GAP)

(UNKNOWN): ... a step further, so I agree 100 percent with all you said, but I have a worry here and the worry is the following. It is possible that ***in*** an indirect effect of immigration is that of strengthening some of the nativist ***in*** a sense so the U.K. has voted to get out of the E.U.

That's a bad policy decision. That's probably is not going to improve their institution and they made a point of connecting these directly to the fact that they are getting too many immigrants.

So here, the point is the following. Policy question which is a serious question. Given that -- given that there is overwhelming evidence that says that the effects of the immigrants are positive, but the perception of a significant group of non-immigrant is that of responding to this by closing, by making some potentially political an institutional decision which could be harmful ***in*** the wrong way.

What should we look at ***in*** terms of how can we manage to have the benefit of immigration without the -- without the nativist response which could I think be harmful to our institution. Again, I'm turning this on your head. It's not the immigrants who are making these continents, the response and sometimes the ill-informed response that could create this, and I think this could be a little bit of a real issue.

POWELL: Right. I think that's a great question and it's essentially the Hayek quote that I started with there, too, because it was the nativist blowback that he was talking about. I think the vote or the verdict is far from out on whether Brexit will be a net improvement ***in*** freedom for Britain or not.

I think it quite possibly could be. But I do think when we look at Europe ***in*** particular, the kind of nativist and hard right blowback ***in*** light of the refugees is cause for concern, although I'm careful not to extrapolate too much from some of these things ***in*** Europe of the social dynamic because I think a large part of Europe's problem with migrants ***in*** terms of blowback comes from their own lousy labor market regulations.

Things that have high minimum wage is relative to productivity, laws that make it impossible to dismiss ***workers***, these are things that price immigrants out of the labor market. So, then they arrive but they can't integrate into the labor market. How do you deal with that? Well, you enclave and you resent the side that's hosting you.

How do natives react to that? They resent the people who are leeching off them and not integrating into society and you get this kind of vicious spiral that I think of it as largely a product of the lack of economic freedom ***in*** labor markets and a lot of European labor markets. But it's a concern I recognize.

MURPHY: And ***in*** the paper, although it wasn't on the imprint screen, I couldn't or we couldn't find any relationship at all between ***more*** immigrants and were scores ***in*** the freedom to trade internationally. And that area that sub-category contains a whole lot of variables that really capture a lot of what people are being concerned right now about Brexit.

CLEMENS: Can I just also add I thought this was a fascinating point and I wanted to mention two things. One is that remarkably, Henry George, at the time of the Chinese exclusion was proceeding spilled at another argument for it and it was precisely about the presence of the Chinese ***in*** California that was leading to the support of demagogic politicians.

In other words, he was making precisely this case. On the evidence, certainly ***in*** the case of the Brexit, it was people who -- it was areas where there was not a lot of social and workplace exposure to immigrants that were voting to exclude the most.

And at the -- that there could be evidence that I'm not aware of that the presence of immigrants is causally associated with closure to trade, closure to immigration at the -- at the national level. But certainly I think there is good support for what sociologist call contact theory that the local level, economic and other interaction with immigrants lead to the opposite of support for closures of policy.

(OFF-MIKE)

POWELL: It's the local areas.

(OFF- MIKE)

(UNKNOWN): OK. It's localized. Yes. So, I buy what you're saying that the context theory could even strong but it's not (Inaudible) ***in*** some evidence of that the so-called response to immediate wave could be some of this (Inaudible).

POWELL: For Switzerland and the U.S. it goes the other way. But I don't know that literature well. I certainly, I don't think we have definitive evidence that ***more*** and ***more*** immigration, even at the local level increases support for demagogues what's feared ***in*** the 1880s.

NOWRASTEH: And yes, just to catapult off of that point, there's a few papers written by a few political science professors that you see riverside trying to look at the state immigration laws that are being passed ***in*** these countries. It's about 2004. So, the Arizona laws and there are multiple ones that were passed.

Georgia, South Carolina, Mississippi, Alabama and some other laws. And what they found was that the rate of flow to areas that had not received hardly any immigrants at all prior to this was a pretty good predictor ***in*** this literature of where these types of laws are passed.

But just like Michael said, the contact theory, if you waited a certain amount of time, those things, there was not a reaction ***in*** that regard or, if you got to a point that had a place that had a lot of immigration for multiple, for decades or centuries before, you did not have that type of reaction.

And if you think about the south where a lot of these laws are passed ***in*** South Carolina, Georgia, Alabama, and Mississippi, these are areas that have not seen an inflow of immigration from abroad sense since the early 19 century ***in*** any kind of significant numbers.

So, this was really sort of a cultural shock ***in*** a lot of ways. ***In*** California is another example of this ***in*** the mid-90s, ***in*** '94. So, there is a vast literature ***in*** political science about why it is that Hispanics ***in*** California went democratic when they did and they basically says it's because the Republican Party declared war on them at a very stupid time ***in*** demographic history.

But there's also some evidence that California went from one of the least racially diverse and ethnically diverse states to one of them to the most ***in*** a very rapid period of time and people freaked out about that.

So, maybe the answer is to have a steady flow from lots of different places to lots of different places ***in*** the U.S. at a rate to that once you get to a certain point people are used to their new neighbors. And they don't freak out ***in*** that kind of way.

But thank you very much. That's an excellent point. So, I think we have time for one ***more*** question. This gentleman right here. Wait one second for the mic. Sorry.

QUESTION: Yes. Fred Trace (ph), (Inaudible). And the conventional wisdom politically is that democrats would tend to be on the side of granting citizenship to the 11 million ***undocumented*** and that would expand their voter base, republicans tend to be a little less enthusiastic of that because they might increase democratic voters.

And I just wonder how your narrative kind of fits ***in*** with this conventional wisdom, does is agreed with that? Does is -- does it just your comments on this.

POWELL: I would say our work on economic freedom as it relates to it that it doesn't because it's not clear to me that the Republican Party is any ***more*** would ***in*** favor of free markets than the Democratic Party and I'm particularly persuaded of that during the presidential cycle.

NOWRASTEH: So, based on that point, there is an interesting paper by these fellows. Again, I used University of California Riverside where they take a look at this.

So, a certain amount of immigration up to a point, it's not just the immigrants who affect the institutions to voting but also the way ***in*** which natives react to these immigrants presence here and how they change their voting pattern.

So, we mentioned earlier the impact of immigration on the social welfare state ***in*** Europe and just to give you an example, there was a poll of Norwegians that was done asking do you support a basic minimum guaranteed income for everybody ***in*** your country. And 66 percent say yes. And then they ask the same question. They said, well, you know, immigrants and minorities are going to be able to get that too, ***in*** support for that job to below 40 percent ***in*** the same poll.

So, there is a period, a point at which the native reaction to foreign immigrants combined ***in*** such a way so that support for the Republican Party or all these sort of right wing party boost by natives ***in*** an amount ***more*** than what they lose from sort of maybe left wing into an immigrants, But there is a point where that goes the opposite way past the certain amount of a huge surge.

So, if certain right-wing parties ***in*** the United States were a little bit ***more*** strategic, they could be sort of moderately opposed to a flow of immigration, pick up all those dissatisfied voters but not be very angry or proposed policy that would do significant harm to immigrants, and therefore not lose their vote so catastrophically and probably come out much ahead ***in*** terms of that.

But thank you very much. And with that, we're going to have to wrap up this conference. As we know from this presidential election cycle American electorate is probably ***more*** interested ***in*** this topic than it has been for a century.

It is my hope that the great research that was presented today by all these panelists and that we will publishing ***in*** the near future as well as the work that they will continue to do for the rest of their careers than they've done before this will hopefully have an impact on the very least that (ph) informing our policymakers and informing the electorate so that we, the government can make some wiser decisions going forward on this policy than it has ***in*** the past.

And I want to say thank you to all the presenters today, some of whom came from across town and some of whom came from across the country for coming here today and presenting.

And I want to invite all of you to please join us outside ***in*** the Winter Garden here for beverages and snacks. So, thank you very much.

(APPLAUSE)

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