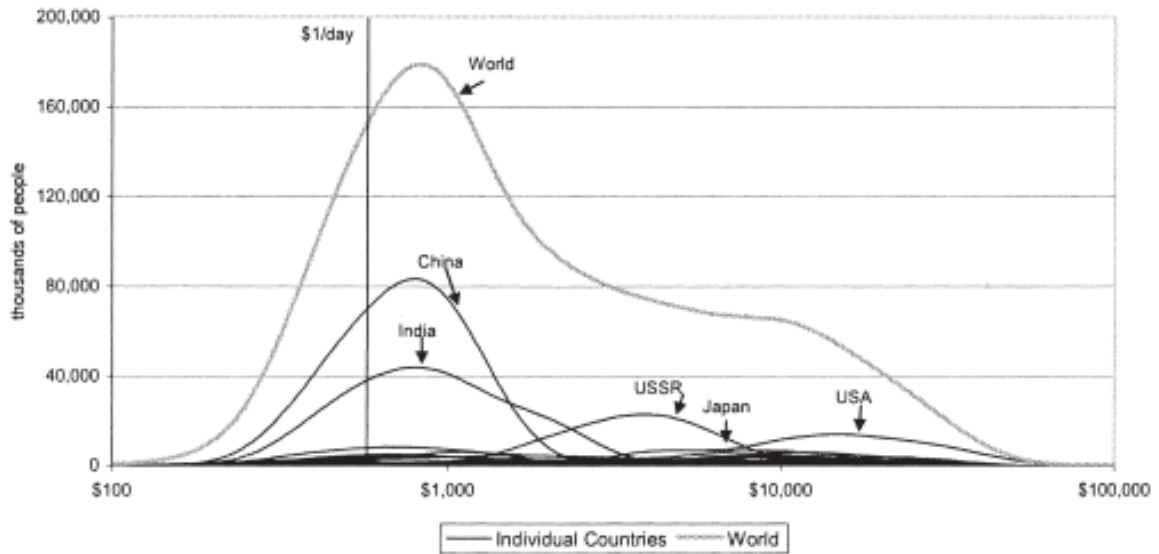


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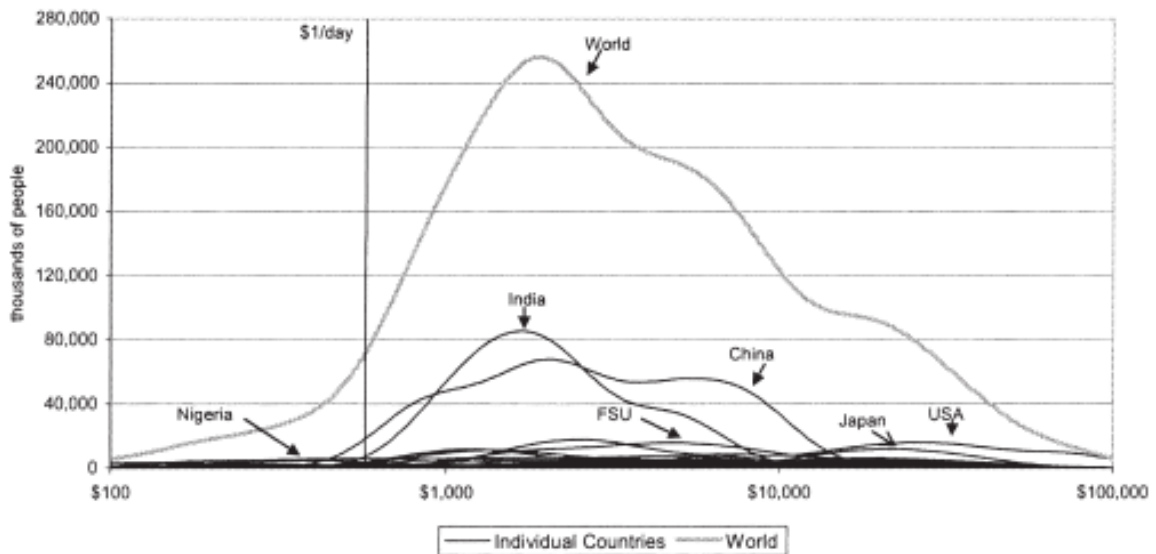
## **Weeks 5-6: Immigration and Wealth Distribution**

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- I. Production vs. Distribution
  - A. Harsh reality: In the real world, not even the greatest instances of progress literally benefit *everyone*.
    1. A plague is great for morticians.
  - B. Happy reality: In the real world, almost everyone is a net beneficiary of the *totality* of progress.
  - C. Slogan: “The secret of mass consumption is mass production.”
  - D. Alternate slogan, from Robert Lucas: “Of the tendencies that are harmful to sound economics, the most seductive, and in my opinion the most poisonous, is to focus on questions of distribution.”
  - E. Key point: Living standards are high in countries that produce a lot, and low in countries that produce little. The rest is details.
  - F. Furthermore: Almost all other good things correlate with living standards: health, safety, leisure, culture, etc.
  - G. So while critics often complain that economists don’t pay enough attention to distribution, you could also argue that even economists pay too *much* attention to distribution.
    1. Complainers focus on specific downsides of progress. The problem is that progress is great overall, but easy to criticize each time it happens.
  - H. Bigger point: *Large* increases in production are almost always broadly beneficial. Who today is worse off because of...?
    1. The Industrial Revolution
    2. Vaccines
    3. The internet
  - I. The upshot: While immigration clearly has distributional effects, these are minor compared to its effects on global production.
  - J. Still, almost everyone who analyzes immigration wonders about distributional effects, so let’s explore them.
- II. Global Inequality and the Arithmetic Fallacy
  - A. People often object to low-skilled immigration because it “increases inequality.” Are they right to do so?
  - B. Almost all inequality data comes from national governments. When you measure inequality at the national level, low-skilled migration almost automatically raises measures of inequality.
  - C. When you measure inequality globally, however, low-skilled migration normally *reduces* inequality. Why? Because people with very low wages get a large raise.
  - D. Related: As national inequality rose in almost every country, global inequality fell. Sala-i-Martin’s graphs:



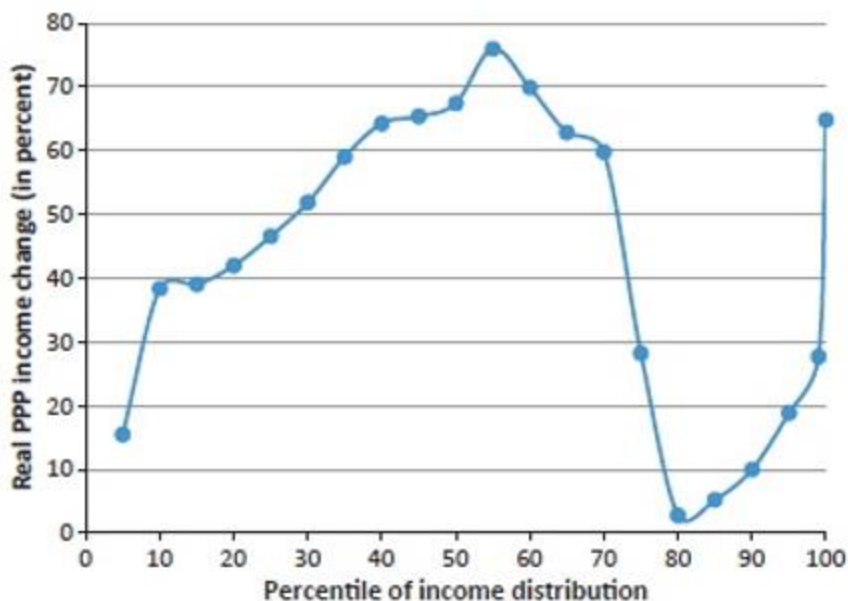
**FIGURE IIIa**  
The WDI and Individual Country Distributions in 1970



**FIGURE IIIb**  
The WDI and Individual Country Distributions in 2000

E. Milanovic's "elephant" graph:

Figure 4. Change in real income between 1988 and 2008 at various percentiles of global income distribution (calculated in 2005 international dollars).



- F. Which measure of inequality is better?
  1. If you dislike *seeing* inequality, national data is better.
  2. If you dislike inequality itself, global data is better.
- G. Aside: CPI bias!
- III. The Arithmetic Fallacy
  - A. People often argue that immigration should only be allowed if it raises per-capita GDP.
  - B. On reflection, however, this principle bars win-win immigration.
  - C. Here's how. Suppose that initially, natives' earn \$50,000 per year and foreigners earn \$5,000 per year. Immigration raises natives' earnings to \$60,000 and foreigners to \$10,000.
  - D. What does immigration do to per-capita GDP? If half the post-immigration population is foreign-born, per-capita GDP in the receiving country *falls* to \$35,000 even though both natives and foreigners are richer.
  - E. How is this possible? Because averages are misleading measures when the numerator and the denominator both change.
    1. The basketball/height example.
  - F. Since most would-be immigrants are low-skilled by First World standards, scenarios where win-win immigration lowers per-capita GDP are the norm.
- IV. Distributional Effects on Receiving vs. Sending Countries
  - A. Migration is good for increasing the size of the pie – but how does the extra pie get sliced?
  - B. If all labor is identical, immigration simply raises Aggregate Labor Supply in the receiving country. Results:
    1. Wages fall.

2. Capital rental prices rise.
  3. Innovation goes up.
- C. The results in the sending country are the mirror image:
1. Wages rise.
  2. Capital rental prices fall.
  3. Innovation falls.
- D. Note: All three kinds of changes affect almost everyone to some extent.
1. Anyone with a retirement plan or home is, to some degree, a capitalist.
  2. Anyone who consumes new products benefits from innovation.
- E. Complications:
1. Remittances: Migrants often send money home, so movers gain less and stayers gain more than you'd think.
  2. Innovation is usually international, so the *fruits* of innovation can rise in a sending country even though domestic innovation falls.
- F. If labor is heterogeneous, immigration raises Aggregate Labor Supply *and* Aggregate Labor Demand in the receiving country. Results:
1. Wages may rise or fall.
  2. Capital rental prices rise.
  3. Innovation goes up.
- G. Once again, the results in the sending country are exactly the opposite:
1. Wages may rise or fall.
  2. Capital rental prices fall.
  3. Innovation falls.
- H. Complications:
1. Remittances: Even if wages fall in the sending country, remittances from the receiving country may more than offset the loss.
  2. Innovation: Innovators are especially likely to move to centers of innovation, increasing global innovation.
- V. Distributional Effects Within Countries
- A. Since workers aren't identical, some natives can lose even if most gain, and some natives can gain even if most lose.
- B. Natives tend to lose when they're *selling* the same skills that immigrants are selling. Natives tend to gain when they're *buying* the same skills that immigrants are selling.
1. People often claim that economics professors favor immigration because we don't have to worry about foreign economists coming here to "take our jobs." True or false?
- C. More generally: Elasticity of labor supply and labor demand both matter greatly.
1. Influx of mathematicians matters much more if mathematicians can't easily switch to other STEM-type jobs, or if demand for mathematicians is inelastic.
- D. Further complication: Traded vs. non-traded goods. Non-traded goods benefit people near immigrants. Traded goods might primarily benefit the global market rather than inhabitants of the receiving country.

1. Restaurants vs. cars
- E. Main lesson: Distributional effects are exceedingly complicated. Ex: What happens if you admit more nannies?
  1. High-skilled moms benefit from cheaper childcare.
  2. Existing childcare workers suffer from increased supply of childcare.
  3. Workers who compete with high-skilled moms suffer from increased labor supply.
  4. Consumers of their products benefit from increased product supply.
- VI. Immigration and Native Wages
  - A. Non-economists usually focus on employment: Do immigrants “take our jobs”?
  - B. Economists usually think that in the medium-run, wages will adjust, so the interesting question is really: Do immigrants “cut out wages”?
  - C. So what happens to wages when the supply of immigrants rises? In a simple model, everything depends on labor demand elasticity.
    1. High labor demand elasticity → small wage effects.
  - D. What do researchers find? As always, there’s a range. But a typical estimate of wage-elasticity is that when immigrants raise labor supply by 1%, wages fall by .1%.
    1. Upshot: Cumulative immigration would have to be massive to noticeably depress wages. Adding 10% to the whole workforce cuts wages by just 1%.
  - E. Summary of research from 2011: see Table 6, next page.
  - F. What about the effect of immigration on unemployment?
  - G. Estimates are also low. Summary of research from 2011: see Table 7, next page.
  - H. The “infinite contradiction”: minimum wage literature finds low labor demand elasticity; immigration literature finds high labor demand elasticity.
    1. So who do you believe?

Table 6: Survey of Immigration's Wage Effect for Natives

Study	Country	Year	Percentage of Wage Elasticity
<i>A. European Studies</i>			
DeNew & Zimmermann (1994a)	Germany	1984-89	-0.16
DeNew & Zimmermann (1994b)	Germany	1984-89	-0.35 (-0.54 to +0.12)
Bauer (1997)	Germany	1994	+0.082
Bauer (1998)	Germany	1994	-0.021 to +0.035
Pischke & Velling (1994)	Germany	1985-89	$\pm 0$ (+0.033)
Hatzius (1994)	Germany	1984-91	-0.058 to $\pm 0$
Brucker & Jahn (2010)	Germany	1975-2004	-0.1
Winter-Ebmer & Zweimüller (1996)	Austria	1988-91	regional +0.037 industry +0.01
Winter-Ebmer & Zimmermann (1998)	Germany Austria		$\pm 0$ to +0.01 -0.16 to $\pm 0$
Gang & Rivera-Batiz (1994)	Netherlands Great Britain France Germany	1986-89	-0.09 to + 0.02 -0.08 to +0.02 -0.11 to -0.01 -0.05 to +0.11
Zorlu & Hartog (2005)	Netherlands Great Britain Norway	1998 1997-98 1996	-0.04 to +0.02 -0.036 to +0.056 -0.063 to +0.180
Hunt (1992)	France	1968	-0.08 to -0.14
Dolado et al. (1996)	Spain		+0.02 to +0.04
<i>B. North American and Other Studies</i>			
Grossman (1982)	USA	1970	-0.1
Card (2001)	USA	1989	-0.04 to -0.01
Goldin (1994)	USA	1890-1921	-1.6 to -1.0
LaLonde & Topel (1991)	USA	1970, -80	-0.6 to -0.1
Borjas, Freeman, & Katz (1992)	USA	1967-1987	-1.2
Altonji & Card (1991)	USA	1970, -80	-0.86, -1.2
Borjas (2003)	USA	1960-2001	-0.4 to -0.3
Pope & Withers (1993)	Australia	1881-1981	$\pm 0$
Friedberg (2001)	Israel	1994	+0.03

Sources: Bauer and Zimmermann (1999), Friedberg and Hunt (1995), reported studies. Table shows elasticity of wages with respect to a one percent increase in the share of immigrants in labor force (or population).

Table 7: Survey of Immigration's Employment Effect for Natives

Study	Country	Year	Employment Effect
<i>A. European Studies</i>			
Winkelmann & Zimmermann (1993)	Germany	1974-84	Small negative employment effect
Mühleisen & Zimmermann (1994)	Germany	1982-89	None
Pischke & Velling (1997)	Germany	1986-89	Employment +2% Unemployment ±0%
Hatzius (1994)	Germany		None
Brucker & Jahn (2010)	Germany	1975-2004	Unemployment +0.1%
Velling (1995)	Germany	1988-93	Employment rate +0.24%
Gang & Rivera-Batiz (1994)	Germany	1988	None
Winter-Ebmer & Zweimüller (1997)	Austria	1988-91	None
Winter-Ebmer & Zimmermann (1998)	Austria Germany		Employment -0.1% Small negative employment effect
Dolado et al. (1996)	Spain		Negative employment effect
Hunt (1992)	France	1968	Unemployment +0.2%
Gross (2002)	France	1975-95	Unemployment rate -0.16%
Angrist & Kugler (2003)	EEA	1983-99	Employment -0.07% to -0.02%
<i>B. North American and Other Studies</i>			
Card (2001)	USA	1989	Employment -0.12%
Altonji & Card (1991)	USA	1980	Employment rate -0.23%
Friedberg (2001)	Israel	1994	Employment -0.16%

Sources: Bauer and Zimmermann (1999), Friedberg and Hunt (1995), reported studies. Table shows change in native employment or unemployment due to a one percent increase in immigrants' share of population or labor force unless otherwise stated.

## VII. Labor Heterogeneity and Distributional Effects

- A. In recent decades, the United States has had two main kinds of immigration:
  1. Legal high-skilled immigration.
  2. Illegal low-skilled immigration.
- B. Economists have estimated the effects of this immigration on native wages. Let's look at two sets of estimates:
  1. Borjas and Katz, for Mexican immigration from 1980-2000.
  2. Ottaviano and Peri, for 1990-2006.
- C. Borjas and Katz break workers into four educational/skill categories. Key assumption: Natives and immigrants with the same education level are identical. Estimates of the *total* effect of immigration on native wages:

Worker Type	Short-Run	Long-Run
High school dropouts	-8.4%	-4.8%
High school graduates	-2.2%	+1.2%
Some college	-2.7%	+0.7%
College graduates	-3.9%	-0.5%
<i>All native workers</i>	-3.4%	0.0%

- D. Borjas is probably the most respected critic of immigration in the world. But his estimates are shockingly positive compared to what normal people think. Even dropouts only lose 4.8% total (not per year).
- E. Ottaviano and Peri assume that native and foreign labor are different, even if they have the same level of education. Natives have a comparative advantage in language skills, foreigners have a comparative advantage in non-language skills. Estimates of the *total* effect of immigration on native wages:

Worker Type	Short-Run	Long-Run
High school dropouts	-0.7%	+0.3%
High school graduates	-0.6%	+0.4%
Some college	0.0%	+0.9%
College graduates	-0.5%	+0.5%
<i>All native workers</i>	-0.4%	+0.6%

- F. Notice: On Ottaviano and Peri's more reasonable assumptions, native workers enjoy long-run gains from immigration. Even native drop-outs slightly gain.
  - 1. The only workers who lose from immigration are earlier immigrants. They suffer quite a bit materially, but don't forget that immigrants are often eager to reunite their families.

VIII. Immigration Restrictions and Their Effects: The Story So Far

- A. Wages are very low in many populous Third World nations. Tens of millions of people would be overjoyed to come to the U.S. and take what Americans see as "bad jobs."
- B. Why don't they come? Because it is:
  - 1. Virtually impossible for low-skilled workers to come here legally (unless they already have close family members in the U.S.).
  - 2. Very expensive for low-skilled workers to come here illegally. Smugglers ("coyotes") charge rural Mexicans two *years* income



(about \$3000) to take them across the border. Fees for more distant countries are vastly higher.

- C. Immigration restrictions probably have more effect on labor markets than *all other government policies combined*. They clearly “work” in the sense that they drastically reduce immigration.
- D. What are the other effects of immigration restrictions?
- E. Effect #1: Drastically reducing world output. Immigration laws prevent workers from moving to the most productive locations in the world to do whatever they do best. Rough estimates say that world output would DOUBLE under open borders.
- F. Effect #2: Drastically increasing world poverty. Merely moving from a Third World country massively increases workers’ income. People from the poorest countries typically gain 1000% or more. One immigrant can keep a large extended family alive back home.
- G. Effect #3: Reducing average American income. Low-skilled Americans who don’t own a home or other assets may gain from immigration restrictions, but only a small minority of Americans are in this category.
- H. Effect #4: Shielding American eyes from the sight of severe poverty. Conditions in many populous Third World countries are awful, so we should expect immigrants to keep coming here even if their living standards seem very low to us. Open borders would drastically reduce global poverty, but make remaining poverty much more visible.
- I. All these results come from simple models. What if we enrich these models to include...
  - 1. Fiscal burden?
  - 2. Culture?
  - 3. Politics?
  - 4. More?
- J. Answer: Stay tuned until after the midterm.