Lies, Damned Lies, and Immigration Statistics

Immigration is perhaps *the* issue of the 2016 election campaign, a campaign that increasingly shows the abyss between the political and media establishment on the one hand and the American people on the other. Polls consistently show that many Americans are skeptical about immigration, and particularly about low-skill immigration, and that few want to increase it. But the political establishment in both parties persistently pushes for more.

The narrative that immigration supporters use to justify freer borders is that "immigrants do jobs that natives don't want to do" and so have little impact on job opportunities for the native-born. David Card's study of the Mariel supply shock, published in 1990, stands as a landmark contribution to that narrative. Within a span of just a few weeks, over 100,000 Marielitos arrived in Miami in the spring of 1980. Card compared labor-market conditions in Miami with those in other cities before and after Mariel. He could not detect any impact on the average wage of Miami's workers, leading to the perception that natives have little to worry about from expanded immigration.

Last spring, as I was writing a book that will be published later this year (more on that below), I decided to revisit the Mariel episode to see for myself what the data actually show. To my shock, within an hour of looking at the publicly available data, my computer was showing that Card was simply wrong — the Marielitos had indeed depressed the average wage of *comparable* workers. The trick to unlocking the puzzle was to account for the fact that nearly two-thirds of the Marielitos were high-school dropouts, increasing the number of low-skill workers in Miami by 20 percent within a matter of weeks. It seems that if Mariel were going to have an impact, it would have an impact on the low-skill labor market. Remarkably, Card did not look at that market and neither did anyone else in the past 25 years.

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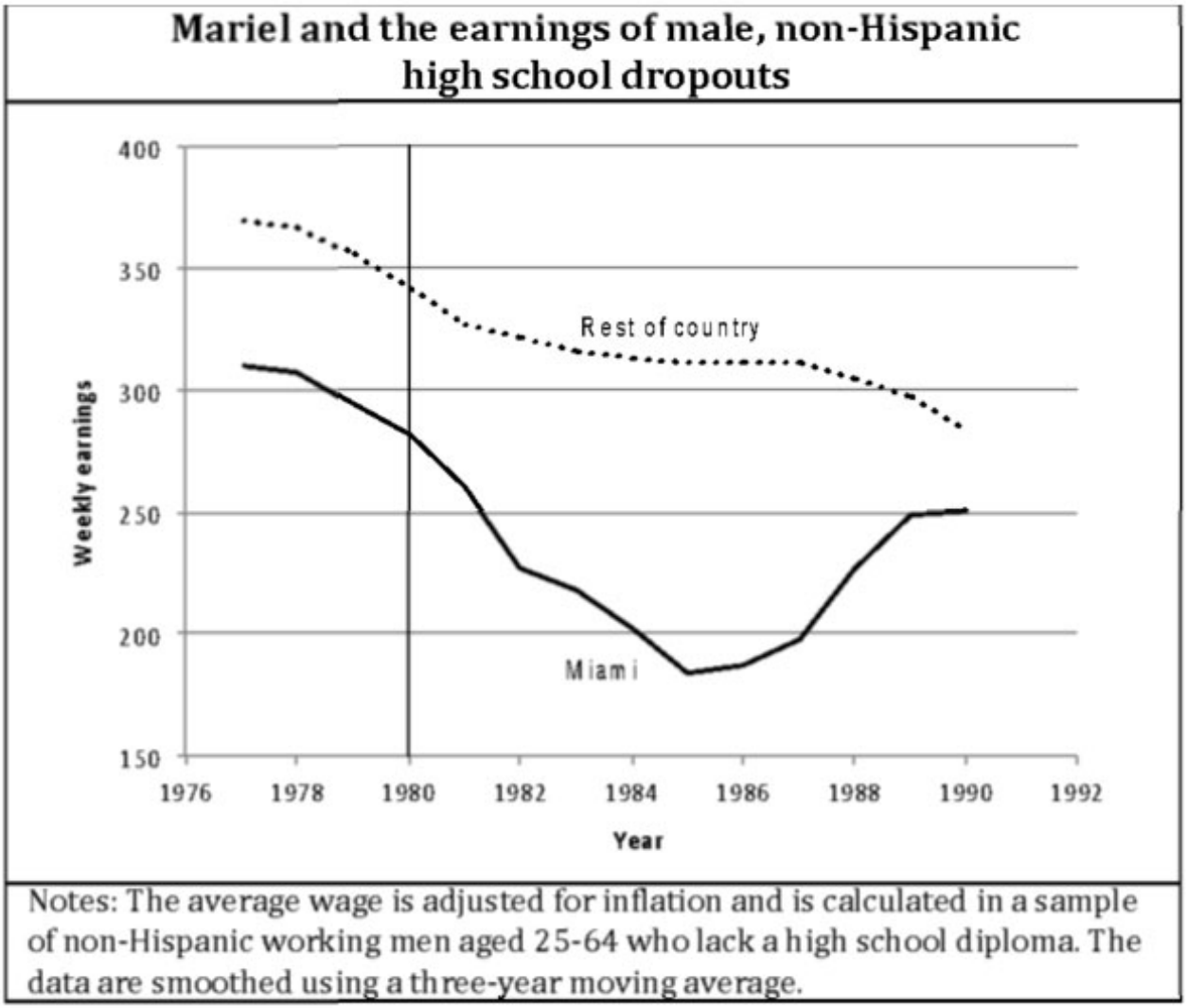
It is easy to show that something did happen in post-Mariel Miami in a very convincing way. I looked at wages in a sample of prime-age (25–64 years old), non-Hispanic men who lacked a high-school diploma. The graph below shows the trend

in the average weekly wage of this group between 1977 and 1990 and contrasts that to the trend in the average wage of similar workers in the rest of the country. This is the graph that was jumping out of my monitor when I began to look at the data, and it does not take a Ph.D. in statistics to *see* that something did happen in Miami beginning around 1980, with the low-skill market bottoming out in 1985 and recovering by 1990.

The public release of my Mariel study in September 2015 created a disturbance in the force among those who push the view that immigration benefits everyone. Three months later, Giovanni Peri (at the University of California, Davis) and a graduate student, Vasil Yasenov, released a paper (followed recently by a piece in the *Wall Street Journal*) claiming that I had gotten it all wrong: The Marielitos did not have a wage impact on Miami's low-skill workforce. Peri and Yasenov did not find any statistical or coding errors in my analysis — *the wage trends in the figure are correct*. Instead, they argued that the sample of workers I had used to measure the wage effect was not the right one to use.



One major problem that any researcher will encounter is that the Miami samples collected by the Census Bureau at the time have relatively few observations. There are only around 20 or so workers per year in my sample, which is why the figure shows a three-year moving average of the data, so that each data point is based on a sample of around 60 observations. (I also used an alternative Census Bureau data set where the sample is three times larger, but the earnings measure is not as comprehensive. These data also show that something happened in post-Mariel Miami).

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Overlooking the fact that I pooled three years of data, Peri and Yasenov instead argue that the small sample size in my study makes it impossible to achieve statistical significance. This is inaccurate, as my paper reports many statistical tests, showing that what happened in Miami was extremely unusual. For instance, the wage drop in Miami between 1979 and 1985 was larger than the wage drop experienced by 98 percent of all cities over an equivalent time span over the entire period 1977–2001. Peri and Yasenov instead propose that a correct analysis should use a larger sample of workers — and they construct a larger sample by looking at what happened to the wage of all non-Cubans aged 16–61. But larger is not necessarily better, as this larger sample includes Hispanics, women, and teenagers.

To see why the composition of the sample makes such a big difference, think about what we would do if we had ideal data. We would locate Joe Average, a high-school dropout in Miami who competes with the Marielitos, and find out how much Joe made each year before and after Mariel. We would also locate Jack Average, a high-school dropout living in some other city, and track his wage before and after 1980 as well. By contrasting what happened to Joe with happened to Jack, we could establish whether Mariel had an impact.

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Unfortunately, these mythical average people do not exist in the real world, so we instead take a group of workers who are roughly similar (in my case, non-Hispanic men aged 25–64) and track their average wage over time. But look at what happens to that tracking as we make the sample larger by including other groups, such as Hispanics. Many of the Hispanics we would add to the sample were immigrants who arrived in the 1980s, such as the large Mexican influx into Southern California. This means that the "average person" is now changing because we are including new people who have very low wages and the average wage in Los Angeles is artificially dragged down, making it seem much more like Miami. Moreover, because practically all of the immigrants in Miami at the time were of Hispanic origin, my study tried to isolate a question of intense interest: What happened to the *native* population as a result of Mariel?

Similar problems arise when Peri and Yasenov add women to the sample. The labor-

force participation of women was rising very rapidly in the 1980s, so the typical person in the sample in 1979 differs from the typical person in the sample in 1989, with a corresponding change in the average wage. But that change has nothing to do with Mariel, and everything to do with the fact that we are breaking the rule that the impact of Mariel should be ideally measured by tracking Joe Average over the decade.

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Finally, and most egregiously, Peri and Yasenov expand the sample to workers aged 16–61, and this particularly weird and deliberate data manipulation is a doozy. Among adult workers, a high-school dropout is someone who lacks a high-school diploma. But that definition, when applied to teenagers, means that your 16-, 17-, or 18-year-old son or daughter who is now a sophomore, junior, or senior in high school is classified as a high-school dropout because he or she does not yet have that diploma. Let me emphasize: Our teenage children, whose earnings consist mainly of what they get in part-time and summer jobs, are part of the low-skill group. There are so many high-school students who are being lumped with the real high-school dropouts that these students alone make up 20 percent of the "new and improved" larger sample that Peri and Yasenov constructed.

The sloppiness could perhaps be forgiven as a simple coding error. But it is the *second* time in Peri's career that this error is made, and "coincidentally" the end result is the same: It helps obfuscate what your eyes can clearly see and leads to a claim that nothing at all happened in post-Mariel Miami.

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Peri and Yasenov also attempt to dismiss the striking wage trends among prime-age men by claiming that the timing of the wage drop does not match up with Mariel. The Marielitos arrived in 1980, and the wage bottomed out in 1985. But there is no reason to believe that the impact of Mariel would be felt the day after the Marielitos got off the boats. We only need to look back a few years and note that it took a while for the repercussions of the 2008 fiscal crisis to reverberate through the labor market and lead us into the Great Recession. And many studies of oil shocks, including the

OPEC shock of the early 1970s, tell a similar story: The market does not bottom out until a few years after the initial event. The presumption that wages are sticky downward — that they do not drop easily when there is an adverse economic shock — appears frequently in studies of the business cycle.

Ironically, immigration supporters should *welcome* the fact that the Marielitos depressed the wage of low-skill workers in Miami. It is well known that the economic benefits from immigration are the flip side of the wage losses suffered by workers. The greater the wage loss, the greater the profits to employers and the greater the benefits to those who consume the services immigrants provide. If the Mariel experience could be generalized to the entire labor market, we are probably understating the economic benefits from immigration by a substantial amount.

David Frum recently reviewed the entire debate and came up with an iconic phrase — a phrase I wish I had thought of — to describe the efforts of those who struggle mightily to overturn the simple story revealed by Miami's wage trends. What Peri and Yasenov have done is far more than just data mining, it is more like "data dredging on an industrial scale."

This kind of data dredging is one of the themes I stress in *We Wanted Workers: Unraveling the Immigration Narrative*, a book that will be published in early fall. I document numerous instances where the political and media narrative that immigration is "good for everyone" is erected and maintained by questionable data manipulations, by the use of conceptual assumptions that sometimes build in the numerical answer to critical questions, and by a tendency to hide inconvenient facts. Before anyone can believe anything that advocates say about immigration, it is crucial to look under the hood and see exactly what goes into making the sausage. Given the frenzied and almost instantaneous reaction to my Mariel reappraisal, I can't wait to see the responses that my deconstruction of the narrative will inspire.

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