



How Would an Immigration Surge Affect Your Pay Cheque?

Workers whose product or output is not easily sold elsewhere are more likely to lose out amid an inflow of immigrants.

What's the difference between a noodle seller and a fruit grower, apart from the obvious? Or a housekeeper and a machine operator? A firefighter and a technical support worker? A good deal, in terms of how they might be affected by an influx of immigrants.

Immigration, long a simmering issue in open economies from the United States to New Zealand, has become political fodder again in a coronavirus-ravaged world of furloughs and layoffs. US President Donald Trump, seeking re-election in November, has **tightened the criteria** of the country's visa for high-skilled workers. **Singapore** has raised the salary floor for foreign job-seekers, effectively making them less attractive to employers. **Malaysia** and **Kuwait** have simply imposed or proposed limits on the number of foreigners. And last month, **Switzerland** held a referendum to decide if it would end immigration from the European Union (the Swiss said nay).

Foreigners are feeling the chill in many countries as competition for work heats up. Yet how does immigration affect labour markets exactly? Much has been studied about factors such as the extent of immigration, workers' skill level as well as the nature of jobs. We now know that the impact of immigration on native workers' employment and wages vary by skill, region, sector and occupation,

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but we know little about how these dimensions interact.

In addition, one dimension of occupations or sectors has not been studied – tradability, or the ease with which the product or output can be sold to regions beyond which the worker is located. Examples of tradable jobs include many in manufacturing as well as offshorable occupations like computer scientists. Non-tradable sectors are heavily represented by services and include jobs such as therapists and waiters.

In a new **paper**, my co-authors* and I studied how tradability interacts with geographical and occupational exposure to immigration to shape native workers' employment and wages. Using data on hundreds of local labour markets in the US between 1980 and 2012, we found that an influx of immigrants crowds out locals in non-tradable jobs favoured by immigrants (e.g. housekeepers), has less impact on non-tradable jobs largely done by locals (e.g. firefighters) and virtually no effect on tradable occupations (e.g. machine operators). In other words, tradability is a key factor in the ability of occupations or industries to absorb immigrants without affecting the employment or wages of locals.

Crowding out, crowding in

Our study assessed changes in labour-market outcomes based on **IPUMS USA**, a database of US census microdata. Our sample includes individuals who were aged between 16 and 64 in the year preceding the survey. Local labour markets are defined as **commuting zones** (CZs), each comprising a cluster of counties. There are 722 CZs in the mainland US.

Immigrants' aggregate share of hours worked in our sample rose from 6.6 percent in 1980 to 16.8 percent in 2012. Our baseline data include 50 occupations – 25 tradable and 25 non-tradable. The most tradable occupations – also defined by how easily they can be offshored – include fabricators, financial-record processors, mathematicians, computer scientists and textile-machine operators. The least tradable comprise firefighters, health assessors, therapists and vehicle mechanics, among others.

Our analysis shows that an influx of immigrant workers doesn't crowd native-born workers out of (nor into) tradable jobs, either in high-immigration Los Angeles or elsewhere. In non-tradable occupations, by contrast, immigrant workers crowd out native-born ones.

Take for example two non-tradable occupations: housekeeping (popular among immigrants) and firefighting (not so much) in Los Angeles. Relative to firefighting, immigrant inflow between 1980 and 2012 saw employment for natives fall by up to 24 percent more in the housekeeping industry.

We also found that immigration leads to higher output and lower nominal wages in both tradable and non-tradable, immigrant-intensive industries. The difference is that in tradables, the labour supply shock triggers disproportionately larger output changes than wage changes. Consequently, revenue, proxied by wage bills, of immigrant-intensive, tradable occupations increases more than in non-tradable ones.

Textile factories and fruit growers, it turns out, can absorb the inflow of foreign workers by increasing production and exporting their output in a way that housekeepers and noodle sellers cannot. Cleaning services and cooked food simply don't travel well. Factories and orchards can therefore hire immigrant workers without compromising the jobs or income of native-born ones, whereas native-born housekeepers and noodle sellers have to contend with foreign labour if they live in a place with high immigration.

Thus, contrary to conventional wisdom, workers in tradable (i.e. offshorable) jobs may actually have wage protections that their peers in locality-dependent occupations do not, if their local area is experiencing an influx of new immigrants.

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“Hillary” and “Trump” experiments

After completing the baseline analysis, we ran what we nicknamed the “Hillary experiment” and the “Trump experiment” (this study was started before the 2016 US election). In the former, we doubled the number of college-educated immigrants in the US; in the latter, we slashed the number of Latin American immigrants – who tend to be less educated and settle in certain CZs more than others – by half. Our model turned up interesting outcomes for local labour markets when analysed in aggregate and by occupation.

First, in response to an inflow of college-educated immigrants, average real wages of low-educated natives rise in all locations, from as little as 0.5 percentage points in the CZs least exposed to immigration to as much as 5.2 percentage points in San Jose, dubbed the capital of Silicon Valley. Conversely, in the “Trump experiment” of an outflow of Latin American immigrants, average real wages of low-educated natives fall in all locations, from close to zero in the least exposed CZs, to 1.3 percentage points in Los Angeles and to 3.1 percentage points in Miami.

That native workers' wages rise *on average* when there are more immigrants and fall when there are fewer has been observed in **previous research**. These outcomes emerge because native and immigrant workers are imperfect substitutes in labour markets as a whole. They often have different skillsets and largely specialise in different types of tasks. Immigrants may thus boost the productivity of natives.

Our more novel results are for wage changes at the occupation level. Take Los Angeles as an example. In the Hillary experiment, while most occupations experience an increase in real wages, occupations that are most exposed to the labour inflow see real wages decline. The fall in the most exposed non-tradable occupation (health assessment) is 7.5 percentage points more than for the least exposed one (extractive mining). In tradables, the difference between the most and least exposed occupations (natural sciences and fabricators, respectively) is 4.9 percentage points.

In the Trump experiment, even though real wages fall on average across occupations for natives in Los Angeles, halving the number of Latin American immigrants increases Los Angeles natives' real wage in the eight most exposed non-tradable occupations. Wages of housekeeping, the most exposed non-tradable occupation, rise by 8.3 percentage points more than those of firefighting, the least exposed non-tradable occupation.

Shed the big picture mindset

In short, immigration's impact on wage changes among occupations *within* the same market often dwarfs its impact on wage changes *across* markets. Living in a high-immigration region like Los Angeles *and* working in an immigrant-intensive, non-tradable job like housekeeping is probably not great for job security. If moving elsewhere is not an option, swapping that job for one in a factory (though not work that is susceptible to automation) could be wise.

Our analysis also suggests that the tendency of some governments to formulate policies based on the aggregate impact of immigration on citizen employment might be short-sighted. Blanket curbs on foreigner numbers may hurt everyone financially. Instead, governments should recognise that immigration can lead to vastly different outcomes for locals depending on where they live and what kind of jobs they have, and enact more targeted measures.

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