

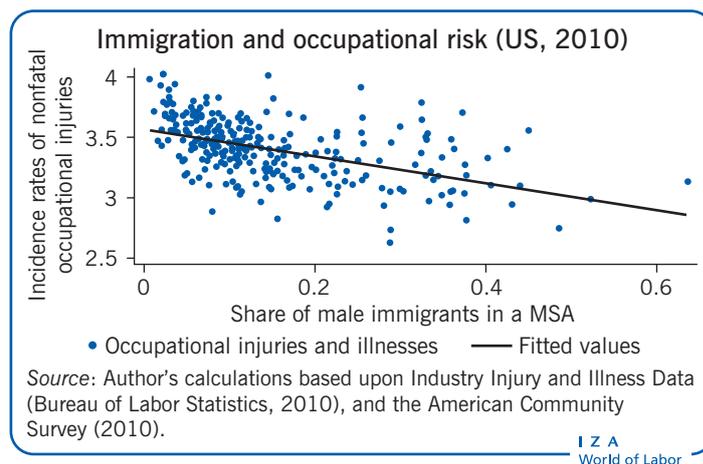
Do immigrants improve the health of native workers?

Immigration crowds native workers out of risky jobs and into less strenuous work, with consequent benefits to their health

Keywords: immigration, occupational choice, job quality, health

ELEVATOR PITCH

Public debate on immigration focuses on its effects on wages and employment, yet the discussion typically fails to consider the effects of immigration on working conditions that affect workers' health. There is growing evidence that immigrants are more likely than natives to work in risky jobs, as they are more inclined to take on physically intensive tasks. Recent studies show that as immigration rises, native workers are pushed into less demanding jobs. Such market adjustments have positive impacts on the health of the native workers.



KEY FINDINGS

Pros

- ⊕ Immigrants are more likely to work in risky, physically intensive jobs.
- ⊕ Immigration can push native workers into jobs that involve better schedules, lower injury and fatality rates, and which are less physically intensive.
- ⊕ There is evidence of positive effects on native workers' health and subjective well-being. Improvements in natives' average working conditions and workloads help to explain the effect of immigration on health.
- ⊕ These effects are concentrated on the most vulnerable individuals, i.e., low-skilled, blue-collar workers.
- ⊕ On balance, evidence does not indicate significant detrimental effects on the average wage of native workers.

Cons

- ⊖ The self-selection of immigrants into riskier jobs contributes to their health deterioration.
- ⊖ Immigration increases safety-related costs due to language barriers and different standards of job safety.
- ⊖ If immigrants perceive their jobs more positively than natives, they may take excessive risks.
- ⊖ There is some evidence of short-term negative effects on low-skilled wages and employment.
- ⊖ The short-term negative effects on wages and employment may have negative effects on health.

AUTHOR'S MAIN MESSAGE

While the public debate usually focuses on the effects of immigration on native workers' wages and employment issues, recent evidence suggests that immigration may also have non-trivial effects on other working conditions that are known to affect individual health and well-being. More open immigration policies that allow for a balanced entry of immigrants of different education and skill levels may therefore have positive effects on productivity, with no detrimental effects on wages. They are also likely to have positive effects on job quality and the health of native workers.

MOTIVATION

Immigration is often blamed for bringing down wages and decreasing job opportunities for native workers, as well as for increasing health care costs and the burden on taxpayers. The fear of negative effects on the incumbent native workers and on governments' public finances attracts the attention of media and policymakers, particularly during recessions. In contrast, a popular argument in favor of immigration is that immigrants accept jobs that native workers would prefer not to have to take. Empirical evidence shows that immigrants in developed countries are typically younger and healthier than their counterpart population (the "healthy immigrant effect") and are therefore less likely to use health care services and more likely to accept jobs involving high risks. At the same time, recent studies have shown that local economies may rapidly adjust to immigrant inflows and that complementarities in production functions and task-specialization may explain the lack of evidence of a negative effect of immigration on native average wages and employment opportunities. As both public and academic debates have so far focused mainly on the effects of immigration on wages and employment, we know very little about how immigration affects other important labor market characteristics, such as the occupational risk, physical intensity, and work schedule associated with a given job. This paper presents recent evidence on the effects of immigration on native workers' health, as well as on occupational characteristics that are known to significantly affect individual health and well-being.

DISCUSSION OF PROS AND CONS

Immigration and task-specialization

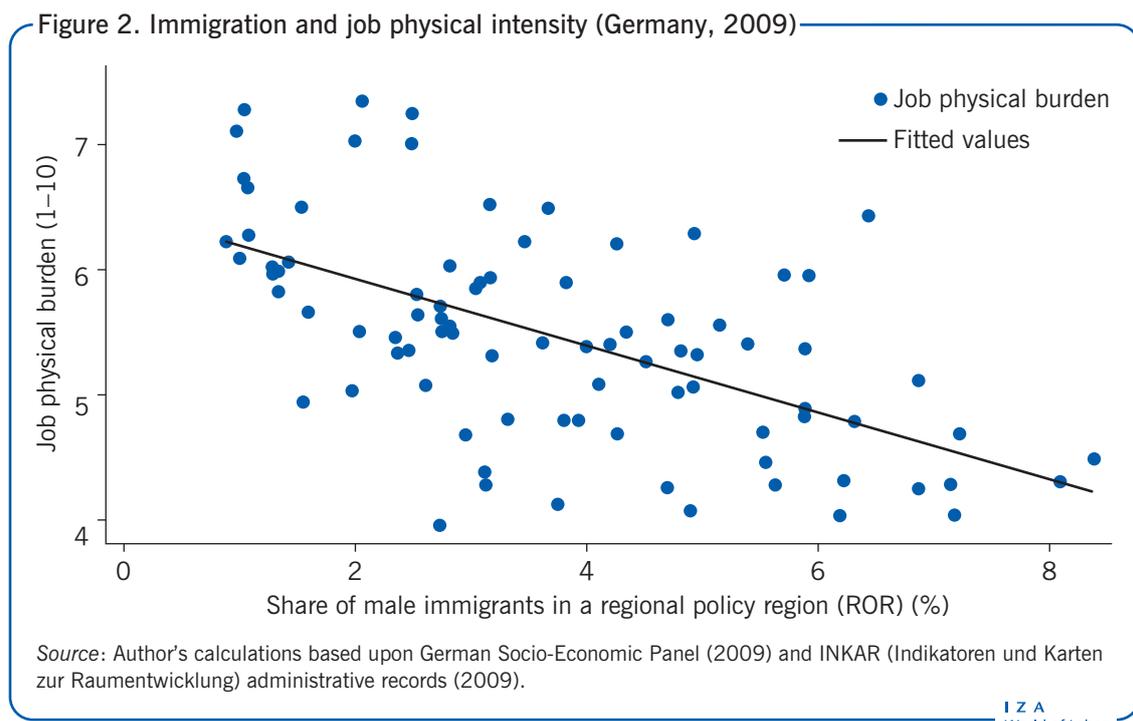
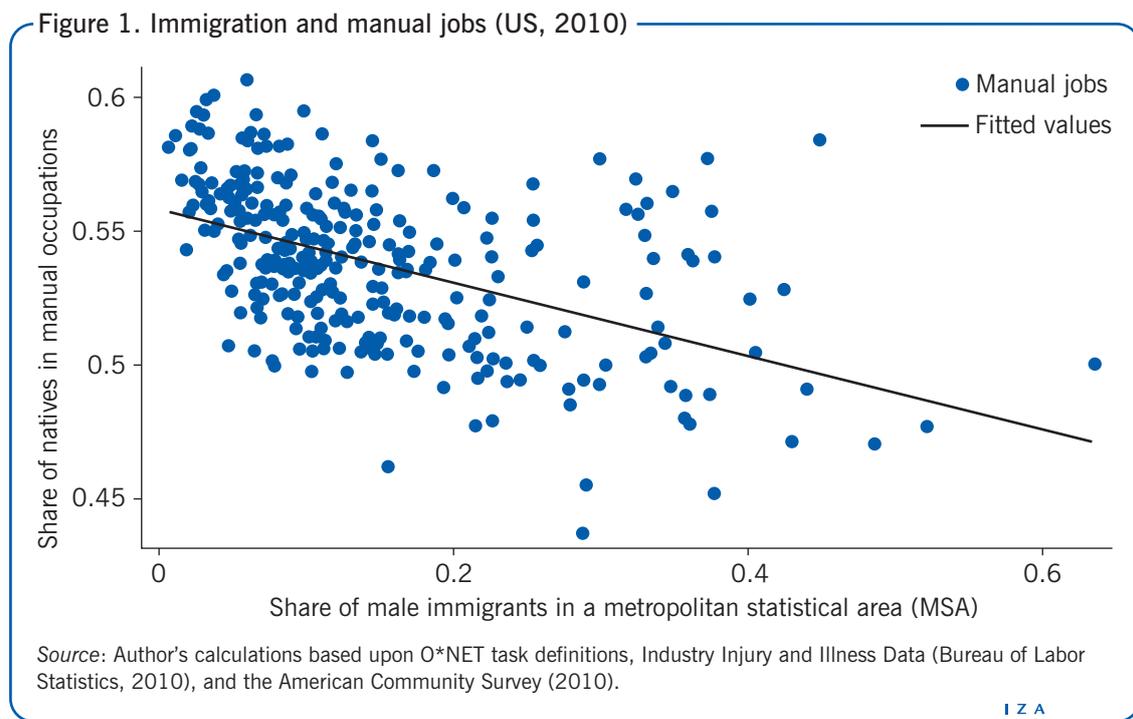
Economists have been interested in understanding the effects of immigration on the labor market for many years. Most studies have found little or no evidence of negative effects of immigration on native workers' wages and employment opportunities. While some studies show evidence of a negative effect on the wages of less-educated native workers, most do not find significant differences between the effects on high- and low-skilled workers. Instead, there is evidence that newly arrived immigrants have significant negative effects on the wages of earlier immigrant cohorts.

These facts have long puzzled researchers, as they are at odds with the prediction of the canonical labor "supply and demand" model, which would predict a negative impact of immigration on wages and employment prospects of native workers. While a natural concern is that local labor markets may absorb the immigration shock due to the internal mobility of native workers, most studies have found little evidence of immigration effects on native workers' migration flows.

More recent studies have shown that immigration may have positive effects on productivity by stimulating specialization [1], [2], [3]. Native workers may be induced to specialize in complex tasks as a response to immigration and because of the complementarities with manual tasks for which immigrants may have a comparative advantage. In particular, these studies suggest that low-skilled native and immigrant workers specialize in differentiated production tasks. Because some immigrants have imperfect communication skills, but have physical skills that are equivalent to (or in some cases better than) their native counterparts, they have a comparative advantage in performing jobs that require manual tasks, while low-skilled native workers have an advantage in specializing in communication-intensive jobs.

Task complementarities and firms' capacity to adjust their production function, as a response to the increased labor supply, can explain the lack of detrimental effects on wages and

employment. A number of recent studies suggest that this adjustment process may improve the job quality of native workers and have non-negligible effects on individual health and well-being [4], [5]. There is also evidence that immigration pushes native workers toward more communication-intensive jobs and reduces the physical burden associated with certain occupations (Figure 1; Figure 2) [1], [2], [3], [4]. Furthermore, immigration decreases the likelihood of native workers working late hours and non-standard shifts [4], [6], [7].



Why immigrants hold riskier jobs

Understanding whether immigrants accept riskier jobs and occupations involving worse working conditions than native workers are willing to take is important for understanding the impact of immigration on labor market outcomes. It can also explain changes in the allocation of health risks associated with particular jobs and tasks. It is therefore crucial for policymakers to understand the degree of substitutability of immigrant and native workers and whether, and why, immigrants may be more likely to hold risky jobs. While several studies have documented differences in the distribution of natives, immigrants, and minorities across industry sectors and occupations, relatively few studies have analyzed differences in job disamenity, physical intensity, and occupational risk between natives and immigrants [8], [9], [10], [11], [12].

There are different reasons why immigrants might be expected to hold riskier jobs. For example, immigrants may have a different perception of job risks than native workers, as they arrive from countries where they typically face worse working conditions. Recent research using survey data from California shows that, while immigrants are likely to hold more strenuous jobs than natives, self-reported, physical job demands indicate that they do not perceive their jobs as requiring more physical effort than US natives perceive their jobs to require [12].

Language barriers and lower socio-economic status may explain differences in risk knowledge and perception, and may also increase the cost of health and safety training. Furthermore, several studies have suggested that individuals with lower risk aversion may be more likely to migrate, which may also imply that immigrants are less risk-averse than natives. This may explain the self-selection of immigrants into riskier jobs, but also the higher safety-related costs, as these workers may take excessive risks. Moreover, newly arrived immigrants may face language barriers and, therefore, may have a comparative advantage in working in more manually intensive jobs, rather than in occupations that require communication and social-interaction skills.

Finally, as the exit rates from physically demanding jobs are higher, there may be more opportunities and lower search costs for recent immigrants in these types of jobs. These incentives are reinforced by the fact that immigrants are usually young and relatively healthy, but have lower socio-economic status, less wealth, and lower human capital in terms of skills, knowledge, and experience, than native workers.

There is an extensive body of literature that documents the existence of a “healthy immigrant effect.” This refers to the observation that, in many developed countries immigrants are healthier upon arrival than their counterparts in both their country of origin and destination. However, their health deteriorates with time spent in the host country. While there is debate on the potential factors explaining these health trajectories, it is a fact that, across several countries, immigrants arrive relatively young and healthy, but with lower socio-economic status. They are, as a result, willing to trade some of their “health capital” for better wages in worse working conditions. It might be expected, therefore, that immigrants would self-select into jobs that are more physically intensive and involve more risks to their health.

Immigration and occupational risk

Recent literature provides evidence that immigrants are more likely than natives to work in risky jobs. One group of studies used information on industry or occupational sector to measure occupational risk based on the average fatality or injury rate. The studies concluded that immigrants are more likely to work in occupations and industries with high fatality and injury

rates. Similar findings have been observed across advanced economies, including Canada, Germany, Italy, Spain, and the US [6], [7], [8], [9], [10], [11], [12].

It is important to note that earlier studies analyzing older US data found little evidence that immigrants work in riskier jobs than natives. The divergent results are explained by differences in the methods of measuring risk, as well as by the different cohorts of immigrants analyzed. In particular, it has been argued that the increase in immigrants' job-related risk in the US may be explained by a decline in the average human capital among immigrants. It can also be explained by the fact that immigrants were crowded into riskier jobs because of the increase in the immigrant population over time.

Some studies have also directly investigated whether immigrants are more likely to be injured or killed in the workplace. Overall, these studies confirm a higher incidence of fatalities and injuries among immigrants, with a few exceptions finding non-significant differences between natives and immigrants in Finland and Sweden [11]. Similarly, evidence shows that immigrants are more likely than natives to work late and non-standard hours.

Working conditions and health

There is growing evidence that working conditions can have long-lasting effects on workers' physical health and cognitive abilities. Workers employed in physically demanding jobs are at a significantly higher risk of injury and experience more rapid aging compared to workers in less physically demanding jobs. Similarly, working irregular shifts or nightly schedules increases the risk of negative health outcomes and adversely affects individual and family well-being.

Non-standard work schedules reduce the amount of time spent with family and friends, which affects the consumption of relational goods. This has important consequences for marital stability, children's well-being, and, more generally, for individual life satisfaction. Findings show that working non-standard hours increases the risk of obesity, ischemic heart disease, and breast cancer. More generally, inadequate working conditions affect the likelihood of workers experiencing chronic fatigue, anxiety, and depression.

It is worth noting that job disamenity is not distributed evenly among workers. Recent US data reveal that the majority of workers with non-standard schedules have earnings that are below the median of the typical US worker. It could be argued that individuals choose these jobs because of the compensating wage differential associated with worse working conditions. However, there is little empirical evidence to support the existence of risk premiums. Overall, research indicates that immigrants earn risk premiums that are similar to those of natives, but that some groups (e.g., Mexicans in the US) earn smaller or no risk premiums. The wage premium for irregular shifts is also relatively small. In the US, only a small fraction of workers reported working non-standard hours because of the compensating wage differential. This evidence suggests that job disamenity is often a result of limited labor market opportunities.

In view of these considerations, there is now an increasing focus on improving workers' awareness of the risks associated with particular working conditions, while improving the job quality of immigrants has become an important policy issue.

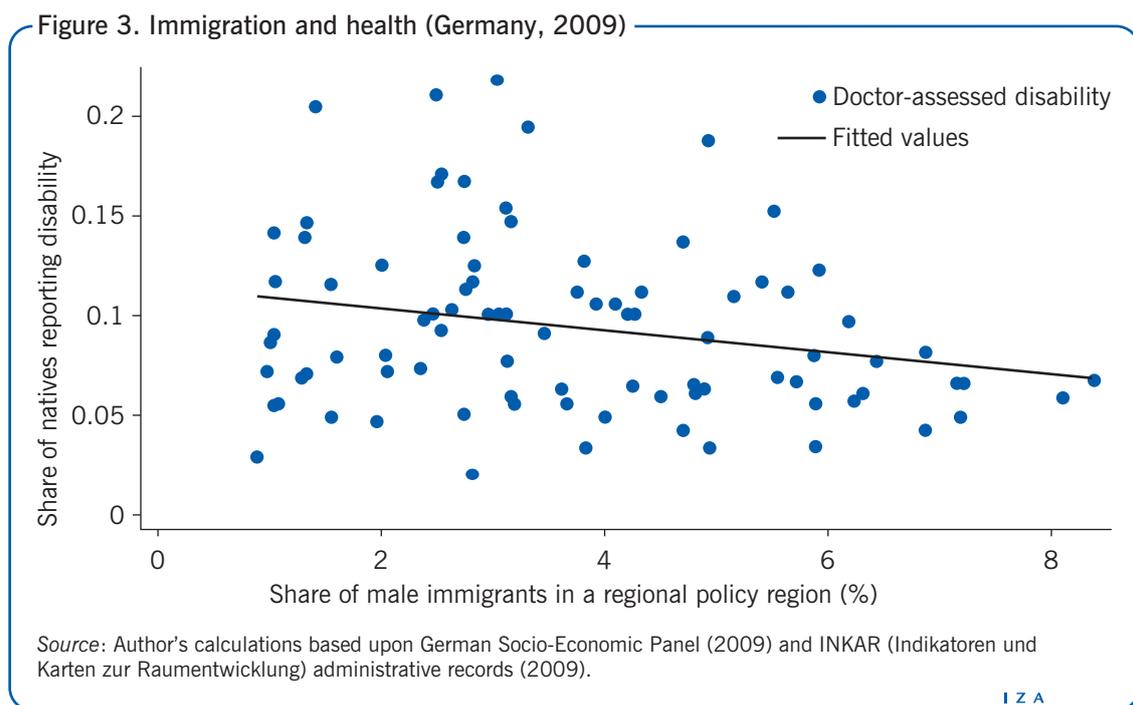
The effect of immigration on native health

There is growing evidence that immigrants are more likely to hold risky jobs than natives and that physically intensive occupations have negative effects on individual health. However, very

few studies have investigated the causal effects of immigration on the job quality of natives (e.g., working schedules, physical burden, and risk of injury, etc.). Evidence drawn from firm-level data collected in the 1970s in Germany shows that a higher share of foreign guest workers in a firm is associated with fewer severe accidents among the firm’s native workers [13].

Consistent with these earlier findings, new evidence using longitudinal data from Germany shows that an increase in the share of immigrants living in a local labor market decreases the likelihood that natives will report doctor-assessed disability and, more generally, has a positive impact on native health (Figure 3) [6]. One of the major challenges of the spatial correlation approach is that the location of immigrants across different areas may be endogenous. Natives may respond to the wage impact of immigration on a local area by moving to other areas, and immigrants may cluster in areas with better economic conditions. However, in this case, the longitudinal nature of the data allows for following individuals over time wherever they move, thus internalizing the spillover effects that may be induced by native mobility, which would typically bias area studies.

Merging the German socio-economic data with local labor market characteristics, the study shows that a 1% increase in immigration share reduces the probability of reporting a doctor-assessed disability by roughly 10% with respect to the mean. This effect becomes larger when accounting for potential endogeneity, controlling for local labor market economic trends, and when using an instrumental variable approach. Furthermore, the impact of immigration on native workers’ health is concentrated among low-skilled and blue-collar workers. This result is consistent with the idea that low-skilled natives and low-skilled immigrants are imperfect substitutes and that the increase in the number of low-skilled immigrants may push natives toward less physically demanding tasks. The direction of the effect of immigration on health is confirmed when using more subjective health outcomes, such as health limitations and self-assessed health status, rather than doctor-assessed disability. Furthermore, immigration reduces the likelihood that native workers will report concerns about their health status as well as the likelihood of reporting work accidents in the years in which this information is available in the survey.



Following a similar approach, some research has found evidence of a positive effect of immigration on life satisfaction, suggesting that native Germans obtain welfare gains as immigration increases [7]. The immigration effect on subjective well-being is particularly strong in those regions in which immigrants are intermediately assimilated. These studies point to positive effects of immigration on dimensions that have been so far understudied. They also help to provide a more comprehensive understanding of the impact of immigration on native workers' welfare. However, more research is needed in order to clearly identify the mechanisms underlying the relationships between immigration, health, and individual well-being.

The effect of immigration on working conditions

The ability to identify the channels through which immigration may affect health has so far been limited by the lack of firm-level data that includes precise information on workers' age, health, the physical intensity of their jobs, and whether they have sustained injuries. It is worth noting that current studies focus on occupational risk and job types, rather than on the condition of jobs themselves. There is also evidence that immigration reduces the average workload of native workers and pushes them toward more "communication-intensive" jobs and more standard schedules [1], [2], [3], [4], [6], [7].

While immigration is negatively correlated with native workers' physical burden, its average effect is not precisely estimated [4]. There is, instead, evidence to show that when immigration increases, blue-collar workers experience a significant reduction in their average physical burden and are more likely to switch to less physically demanding jobs. However, the estimated effects are generally small and can only partially account for the positive effect of immigration on health. This may be explained by the fact that the studies analyzing occupational risk and job physical intensity rely largely on variation across occupation and ignore "within-occupation" changes. Consistent with this conjecture, survey data show that occupational risk captures only a small part of the total effect of immigration on workers' physical burden. Furthermore, evidence based on firm-level data suggests that new immigrants are primarily employed in risky activities and that as more immigrants are available to take riskier jobs in the firm, native workers have the opportunity to be promoted to safer tasks.

Overall, the analysis of firm-level data and perceived physical burden implies that immigration may have important "within-occupation" effects, stimulating task-specialization and internal reallocation of risks. Therefore, current studies may substantially underestimate the effects of immigration on native workers' physical burden, thereby predicting a smaller reduction than that observed when including task changes within a given occupation.

As discussed previously, the schedule of work has significant effects on workers' health and well-being. Immigrants are more likely than natives to hold irregular shifts and to work non-standard hours. These shifts are less communication-intensive than others and immigrants may have lower relational costs as a result of not being synchronized with most other people, particularly if they immigrated without family. Again, because of these complementarities in the production function, one may expect positive effects on native workers' schedules.

A study using Italian labor force data shows that doubling the share of immigrants in a province results in a reduction of 2–4% in the likelihood of natives working non-standard hours, depending on the different specifications of the model. Since an average of 28% of natives reported working "non-standard hours" shifts, the coefficient implies a reduction of 7–15% of the share of natives working non-standard hours [8]. These results are driven by workers in blue-collar jobs and non-financial services, while there is no evidence of significant effects in the public and financial sectors.

Similarly, evidence from Germany using panel data shows that an increase in the immigration rate significantly reduces native workers' number of working hours, their likelihood of working overtime, and their likelihood of working nightly shifts [7]. Interestingly, descriptive evidence is similar when analyzing recent data from the US [7]. In this case, given the cross-sectional nature of the data and the limited information available on compensating wage differentials, health outcomes, and job satisfaction, it cannot be concluded that the overall improvement in working schedules represents a general welfare improvement for the native workers. Nonetheless, given the negative effects of shift work and late hours on health and well-being, these results suggest that policymakers should not neglect the impact of immigration on natives' schedules when evaluating immigration policies.

The effect of working conditions on immigrants

The other side of the story is that immigrants who self-select into more physically demanding jobs face steeper aging profiles. Evidence from the German Socio-Economic Panel (GSOEP) shows that immigrant men, upon their arrival, have a much lower incidence of doctor-assessed disability than native men, but that their health quite rapidly converges to native men's health over approximately 15 years [4]. The annual rate of health depreciation associated with time spent in Germany is significantly lower among men who, in the previous year, were employed in less strenuous occupations (i.e., jobs with physical intensity lower than the median).

As discussed previously, there is also evidence that immigrants may misperceive risk because they are less familiar with the new environment, face language barriers, and, on average, have lower socio-economic status. For the same reasons, firms may find it more costly to invest in health and safety training in firms when the number of immigrant workers increases. A concern for policymakers, therefore, is that immigrants may not be aware of the long-lasting consequences of their working conditions. They may also take excessive risks on the job and may not compensate these occupational hazards with adequate care. This could also have consequential effects on health care costs.

LIMITATIONS AND GAPS

In general, research on the impact of immigration has focused on its effects on employment, wages, and prices. Research has only recently begun to analyze the effects of immigration on native workers' health and well-being. While initial studies suggest that immigration increases average job quality and has positive effects on health, life satisfaction and well-being, very little is known about the mechanisms underlying these relationships and the heterogeneity of the effect in the population. Furthermore, the analysis has been limited by the availability of data containing detailed information on occupational characteristics and health. In particular, research to date indicates that native workers move into jobs that involve lower risks and have better working schedules.

However, the research does not analyze directly whether immigration inflows have led to changes in actual working conditions. Indeed, due to the lack of information on individual and firm-level working conditions, most studies rely on occupation-level differences. Much more could be learned by exploiting firm-level data and longer longitudinal data series. In addition, further research should explore different contexts. For example, very little is known about the relationship between immigration and occupational risk in developing countries, despite the fact that south-south migration slightly exceeds south-north migration.

Finally, future research should shed further light on the mechanisms underlying the relationship between immigration and the health of native and immigrant workers. The use of longitudinal data and instrumental variable strategies based on “push” rather than “pull” factors may further contribute to the identification of a causal link between immigration, working conditions, and health.

SUMMARY AND POLICY ADVICE

The empirical evidence suggests that immigrants are more likely than natives to hold risky jobs. In particular, immigrants are more likely to work in manually intensive and more physically demanding jobs compared to their native counterparts. These jobs are characterized by higher injury and fatality rates, and there is growing evidence to suggest that they have negative effects on workers’ health.

There is also evidence that immigration may improve the working conditions of native workers by reducing the average number of hours worked and by reducing the physical intensity of blue-collar jobs. These improvements in working conditions may have significant effects on the health of the native population.

Overall, the evidence suggests that policymakers should not neglect the effects of immigration on non-pecuniary working conditions. More open immigration policies that allow for a balanced entry of immigrants of different education and skill levels may not only have positive effects on productivity (with no detrimental effects on wages), but are also likely to have positive effects on the job quality and health of native workers.

Policy should focus more on improving immigrant workers’ awareness of the risks associated with particular working conditions and on improving the job quality of immigrants. As new and healthy immigrants may misperceive the risks associated with particular working conditions and take excessive risks, providing information and access to care to those immigrants at higher risk could reduce both the negative effects on their health and the associated costs for the health care system [4].

Finally, evidence supports the fact that immigration reduces the average workload of natives and pushes native workers toward more communication-intensive jobs and more standard schedules. Given the negative effects of shift work and late hours on health and well-being, policymakers should not neglect the impact of immigration on natives’ work schedules when evaluating immigration policies [6].

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Competing interests

The IZA World of Labor project is committed to the *IZA Guiding Principles of Research Integrity*. The author declares to have observed these principles.

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