The Royal Society for the Prevention of Accidents

Danger on the job:

How global inequality shapes workplace harm

In partnership with

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Forewords

Every worker, everywhere in the world, should be able to return home safely at the end of the day. Yet this basic right is far from reality for millions of people.

I would like to thank the Lloyd's Register Foundation for funding this research and for its continued commitment to improving safety around the world. By supporting projects such as this, the Foundation is helping to build the evidence needed to prevent harm and save lives.

For too long, workplace injuries have been viewed primarily through the lens of individual behaviour. This report tells a different story. It shows that the strongest predictor of workplace harm is not who you are, but where you are.

The findings present both a challenge and an opportunity. Governments, businesses and international organisations all have a role to play in strengthening occupational safety and health systems, improving standards throughout global supply chains and ensuring that no worker is put in increased danger simply because of where they were born.

Together, we can build a future where safe work is not a privilege enjoyed by some, but a fact of life for everyone.

Becky Hickman,
Chief Executive Officer, RoSPA

RoSPA
accidents don't have to happen

Since 2019, the Lloyd's Register Foundation World Risk Poll has tracked global worry about, and experience of, workplace harm. Despite a slight but encouraging fall in reported harm in the latest Poll – published in June 2026 – numbers remain unacceptably high.

Since its inception, the World Risk Poll has explored a broad range of risks to people's safety – from waste management to climate change – but workplace harm has been a recurring focus. In 2024, we published an in-depth report using the 2023 data, which explored not just the prevalence of harm, but also the frequency of reporting and occupational safety and health (OSH) training, and the relationships between these factors, across different sectors, geographies and demographics.

Crucially, the uniquely representative global coverage of the Poll dataset enabled us to conduct analysis that is inclusive of the experiences of many of the most vulnerable workers, who are unlikely to be represented in official reported OSH data – if this exists at all.

This data provided crucial insights – such as the importance of OSH training in driving up incident reporting – that have directly informed the development of our Safe Work evidence programme at the Global Safety Evidence Centre.

But to turn this data into action that actually improves safety for workers around the world, we need to work closely with and through other organisations – such as RoSPA – that share our mission to engineer a safer world.

Our World Risk Poll into Action funding programme has provided a vehicle for us to do just this, and we are pleased to have provided funding to RoSPA to conduct further analysis of the data that illuminates the relationship between workplace harm and socio-economic factors. This report is an important output of that work.

The finding that it is national wealth – rather than any individual circumstances or behaviours – that currently presents the hardest ceiling to improved workplace safety, is a compelling and important one. In lower income countries, demographic factors that might otherwise be protective hold little sway. This reinforces the importance of fundamental systemic, structural and regulatory improvements, as well as established safety leadership and governance, in reducing the global burden of workplace harm.

We hope this report helps signpost the way forwards for change, to a world where the likelihood of workers coming safely home to their families is not pre-determined by the lottery of the country in which they live.

Nancy Hey OBE
Director of Evidence and Insight, Lloyd's Register Foundation Global Safety Evidence Centre

Executive summary

Every year, 395 million people are injured at work.[1] That is more than the entire population of the United States. Nearly 400 million lives disrupted annually: families changed forever, livelihoods lost, their communities shaken. Accidents are now the sixth leading cause of death worldwide, yet they very rarely receive the urgency, funding, and global attention directed at other major health concerns.

395 million
people injured annually
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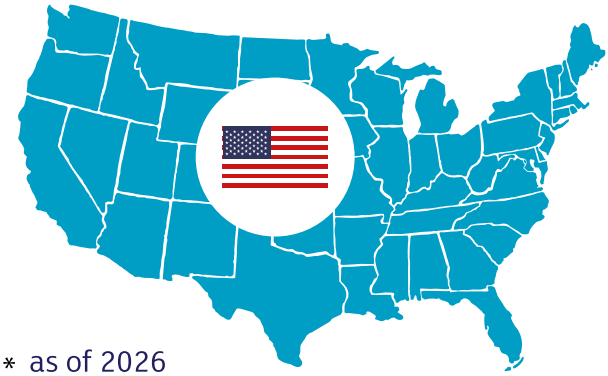
The entire United States of America population around

349 million*



* as of 2026

The economic consequences are equally severe. Work-related injuries and illnesses wiped out 6 per cent of global GDP in 2019 - a loss larger than the entire economic output of countries like Singapore or the UAE. [1] If rates in lower-income countries were reduced to match those in wealthier nations, an estimated 2 million lives could be saved - and over 750 billion dollars in economic losses prevented every year.[1]

But even these figures likely underestimate the true scale of harm. Only an estimated 51 per cent of global workers who experience a serious injury ever report it. A large proportion of the global workforce operates in informal and precarious workplaces, where the fear of job loss silences workers, and safety infrastructure simply does not exist. This makes it incredibly difficult to pinpoint the areas with the greatest need for intervention.

[1](GBD 2019 Injuries Collaborators, 2024)

We have a broad sense of where the burden is felt most heavily. According to the International Labour Organization (ILO), low- and middle-income countries currently shoulder most of the burden of accidents at work - with 88 per cent of the total global occupational injuries concentrated in these countries.[2] Now, by using the Lloyd's Register Foundation's World Risk Poll, our research strengthens this with statistical evidence.

This research investigates two key dimensions of workplace injury: not only is experienced harm important, but also the perceived risk and fear of potential harm. Worry about potential injury is not a trivial response. Chronic anxiety about workplace harm carries real costs - to concentration, to decision-making, to physical and mental health. A worker who fears they may be seriously hurt is carrying a cognitive burden while at work. Multiplying this across every worker in a dangerous job shows an enormous and largely invisible drain on human well-being and economic productivity. The mental burden of unsafe work is not confined to the moment of injury - it is present every working day, and it falls hardest on people in lower-income countries, who have the least power to change the conditions causing it.

Workers in Africa and the Western Pacific face the highest rates of harm.

In the Western Pacific, more than one in three workers have personally experienced a serious workplace injury, or knew someone who had, in the past two years. In Europe, that figure is closer to one in five. These results show that the whole world has more to do when it comes to occupational safety; however, there is clearly a gap - and this is not accidental. Globally, 62 per cent of workers have never received any occupational safety and health (OSH) training, and as of 2023, fewer than half of ILO member states had an up-to-date national occupational safety and health policy, with lower-income countries being significantly less likely to have one compared to high-income countries.[3] [4] This places people in weaker regulatory frameworks, with no preventative measures and inadequate access to protective equipment and training.

Despite progress in many areas, significant numbers of workers continue to experience workplace harm, with some groups facing disproportionately higher levels of risk than others.

The findings of this report suggest that this is not because of individual carelessness, but because of the structural systems that perpetuate inequality. Workplace injury is not randomly distributed; it is a patterned outcome of how labour markets allocate hazards and protections.

Using data from the Lloyd's Register Foundation World Risk Poll - a survey of approximately 147,000 people across 142 countries - we examined the global trends and how worldwide inequalities shape a worker's risk by evaluating multiple key demographic characteristics. These being: the national income level of the country in which a worker is employed, household income, gender, and education. Critically, this dataset captures what official statistics routinely miss; through face-to-face and phone-call surveying techniques, this poll includes the direct voices of some of the most vulnerable workers in the world who are left out of traditional national statistics.

[2](Lloyd's Register Foundation & Gallup, 2024)

[3](ILO, 2023)

[4](ILO, 2023)

The country in which a person is born is the single strongest predictor of workplace injury. Workers in lower-income nations face substantially higher risks.

Personal income, education, and gender do shape an individual's likelihood of harm, but their protective effect is almost entirely determined by national context. In high-income countries, earning more or holding a degree provides meaningful protection by lowering the odds of injury. In low-income countries, however, those same advantages offer far less security, as they barely reduce a worker's risk.

National wealth acts as a ceiling: no matter how much an individual improves their own circumstances, they cannot rise above the systems around them.

National wealth can be transformative when it is invested in strong regulations, training, and enforcement; some higher income countries have shown that deliberate use of resources can meaningfully reduce harm. Their progress demonstrates that structural change is possible.

Although training is important, we cannot simply train our way out of a systemic problem. Safety programmes focused solely on changing individual behaviour may fall short because they do not directly address the economic and structural environment in which those individuals operate. A combined approach is needed - focusing both on training and education and on the wider infrastructure and systems people work within. The World Health Organization (WHO) affirms that where we are born, live, and work shapes our health outcomes more than almost any other factor.[5] Because of this, WHO is enacting programmes that promote healthy, safe and resilient workplaces for all. The ILO shares the same sentiment, stating that addressing workplace inequality is not optional. It is a requirement for a fairer or more just world. Safe work is a fundamental human right, and it must be treated as a core component of national infrastructure, as essential as clean water or reliable electricity.[6]

International donors, governments, and multinational corporations must direct investment toward building the regulatory systems and enforceable safety standards that protect workers at a structural level. That means closing the gap in OSH policy coverage, extending protections into the informal economy, and creating reporting systems that workers can genuinely trust and access.

Behind every number is a person who went to work and never came home, or had their future irrevocably changed, because their job put them in harm's way.

[5](WHO, 2025)

[6](ILO, 1998, amended 2022)

Methodology and framework

Lloyd's Register Foundation - The World Risk Poll

Lloyd's Register Foundation Global Safety Evidence Centre released the 2023 World Risk Poll data on 19 June 2024. Lloyd's Register Foundation is a global charity whose mission is to protect life and property by "engineering a safer world". [2] It funds research and international projects addressing some of the world's most pressing safety challenges. The Global Safety Evidence Centre collates, creates and communicates the best available safety evidence from the Foundation, on both the nature and scale of global safety challenges, and what works to address them.

The World Risk Poll is the first and only global study of people's perceptions and lived experiences of risks to their safety. Lloyd's Register Foundation identified a significant gap between objective risk, the statistical likelihood of an event occurring, and subjective risk, how much people fear that event. By publishing this data, the Foundation aims to support more targeted and culturally relevant safety interventions.

The 2023 wave is the third of the study, following surveys taken in 2019 and 2021. It is based on approximately 147,000 interviews with working-age adults across 142 countries, conducted in partnership with the Gallup World Poll. The poll's methodology uses a combination of face-to-face and telephone interviews to ensure the inclusion of populations often missed by administrative data, including those in remote or low-income regions.

The poll covers many risk categories and gathers granular demographic data about each interviewee. For this study, we focused on the occupational safety and health section:

World Risk Poll Questions WP22448 and WP22214

1. Experienced Harm: "Have you or someone you personally know experienced serious harm from work in the past two years?"
2. Perceived Risk (Worry): "In general, how worried are you that work could cause you serious harm?"

This survey's unique ability to capture the experiences of people in remote and economically disadvantaged communities means it can reach workers who would not normally appear in official statistics. By giving a voice to those in informal or precarious employment, it allows us to see more clearly how global inequality shapes workplace injury.

Data preparation and cleaning

RoSPA filtered and cleaned the 2023 World Risk Poll dataset to focus on these two questions, alongside the demographic characteristics relevant to our analysis of inequality: country name, gender, country national income level, personal income quintile, and education level. In this research, these characteristics serve as indicators of a worker's social and economic standing.

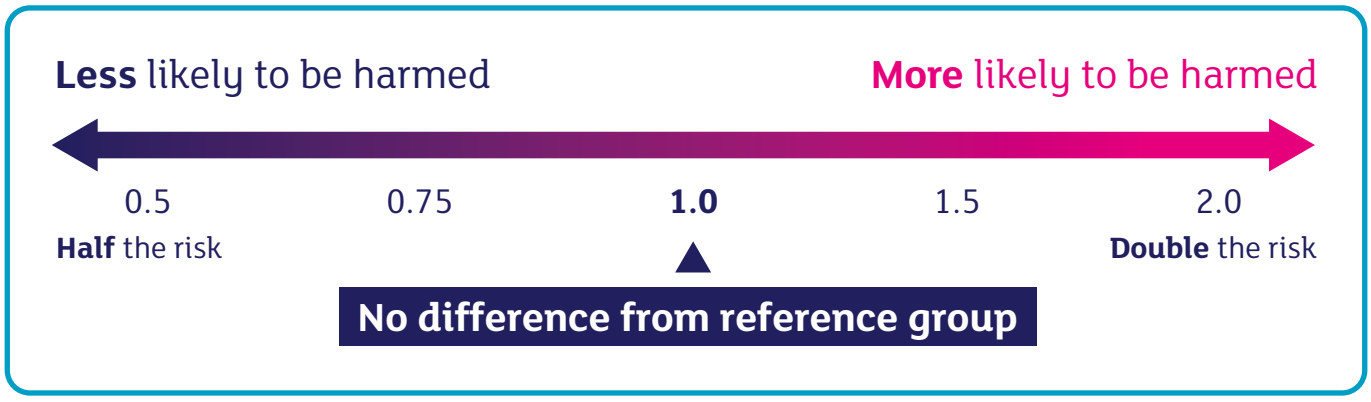
To prepare for statistical analysis, the raw survey responses were standardised into two datasets. For "Experienced Harm", responses of "yes, personally," "yes, I know someone," and "both" were combined into a single value, indicating that harm had occurred, while "no" was recorded as no harm. For "Perceived Worry", the original three-point scale - "very worried", "somewhat worried", "not worried" - was retained in full. In both cases, responses of "don't know" or "refused" were removed. This standardisation made it possible to apply the regression models described below.

What is regression analysis?

Regression analysis is a statistical method that measures the relationship between one outcome we want to explain - such as whether a worker experienced serious harm - and a set of factors that might be driving it, such as the wealth of their country or their level of education. This study used two forms of regression analysis. Logistic regression was used to analyse experienced harm, as that outcome is binary: either harm occurred or no harm. Ordinal regression was used to analyse perceived worry as that outcome has an ordered scale running from "very worried" to "not worried."

These statistical techniques allow us to isolate the effect of a single factor while accounting for the influence of all others simultaneously. In the real world, these factors are tangled together. A worker in a low-income country is likely to have a lower personal income and less formal education than a worker in a high-income country. So, when we observe that workers in poor countries get hurt more often, how do we know it is the country's income driving that, rather than the individual circumstances of its workers? Regression analysis holds all the other factors constant and asks: if two workers were identical in every other way, but lived in countries of different wealth, how much would their risk differ? This separation is what allows us to make confident claims about which factors matter most.

The results are expressed as odds ratios. These ratios tell us how much more or less likely one group is to experience harm compared to a base reference group. An odds ratio of 1.0 means no difference, whereas an odds ratio of 2.0 means twice as likely, and an odds ratio of 0.5 means the group is half as likely as the base reference. The below figure illustrates this scale. Thus, when we make claims about certain groups of workers having lower or higher odds of harm, these statements come directly from the odds ratios produced by the regression models.



Finally, we ran five separate models, each testing a different combination of factors. Using these models, we were able to estimate marginal probabilities for certain events, such as the probability that a worker has experienced, or knows someone who has experienced, a serious injury in the past two years, solely based on their nation's wealth. One of the models we examined looked at how these factors affected each other; this is called an interaction effect. This helped us ask questions like: does personal income protect a worker equally regardless of where they live, or does it only offer meaningful protection in certain countries? These interaction models are where the most important findings emerge, and they form the basis of the ceiling effect discussed later in the report.

Limitations

Every dataset has boundaries, and being aware of them is best practice for rigorous research. Four limitations are worth addressing directly.

Firstly, the World Risk Poll relies on respondents describing their own experiences and perceptions, which may be affected by recall errors or cultural differences. A worker may misremember, particularly for less severe incidents, causing variation; also, cultural variation in how harm is defined and how comfortable people feel reporting. In some contexts, a workplace injury may be considered an ordinary part of the job, rather than something to report.

However, self-reporting is also a strength of this dataset, as it reports on workers' own definitions of injury and worry. Traditional administrative statistics depend entirely on formal reporting mechanisms. In countries where informal employment dominates, where workers fear job loss, and where no reporting infrastructure exists, official statistics capture only a small amount of the true harm. The World Risk Poll bypasses these systems entirely. It asks workers directly, in their own terms, whether they have been hurt. This makes it uniquely capable of capturing the experiences of the workers who are most at risk and least likely to be documented elsewhere.

Second, while regression analysis can identify strong relationships between workplace injury and inequality, it cannot establish causation; the findings show patterns, not proof of direct cause and effect. We can say with confidence that a relationship is real and shows a correlation, however we cannot say that a certain characteristic is the mechanism directly causing the harm.

Thirdly, while this survey goes further than most official methods to capture real workplace harm and to include those whose experiences are often excluded from data collection, there will remain a group of people out of reach even of this poll. This means that people in the most extreme of living and working conditions, those who are possibly experiencing homelessness or who have an undocumented migration status, may often be missing from this dataset. As a result, the true scale of workplace injury and unsafe working conditions among those experiencing extreme vulnerability is likely to be hidden.

Finally, the survey provides a snapshot in time and cannot demonstrate how workplace conditions change across years. A country that has recently strengthened its OSH legislation, or one that has experienced economic collapse, may look different in a future survey wave. The 2023 wave is the most recent of the study, and the consistency of findings across the 2019, 2021, and 2023 waves also provides reassurance that the structural patterns identified here reflect the current situation.

Despite these limitations, the World Risk Poll remains one of the most comprehensive sources of global data on workplace safety and is uniquely suited to this research.

The dominance of national income

We tend to think of safety as something almost entirely shaped by individual behaviour, whether someone follows the rules, wears the right equipment, or works for a responsible employer. This research suggests that this is not always the case. The problem is not individual. It is systemic. And it starts with where you live and work.

Workers in the world's poorest countries were found to have more than twice the odds of serious harm than those in wealthier countries, even after accounting for other factors included in the model. The results were statistically significant, meaning these patterns reflect genuine global trends, rather than random events.

Workers in the world's poorest countries were found to have more than twice the odds of serious harm as those in the wealthiest nations.

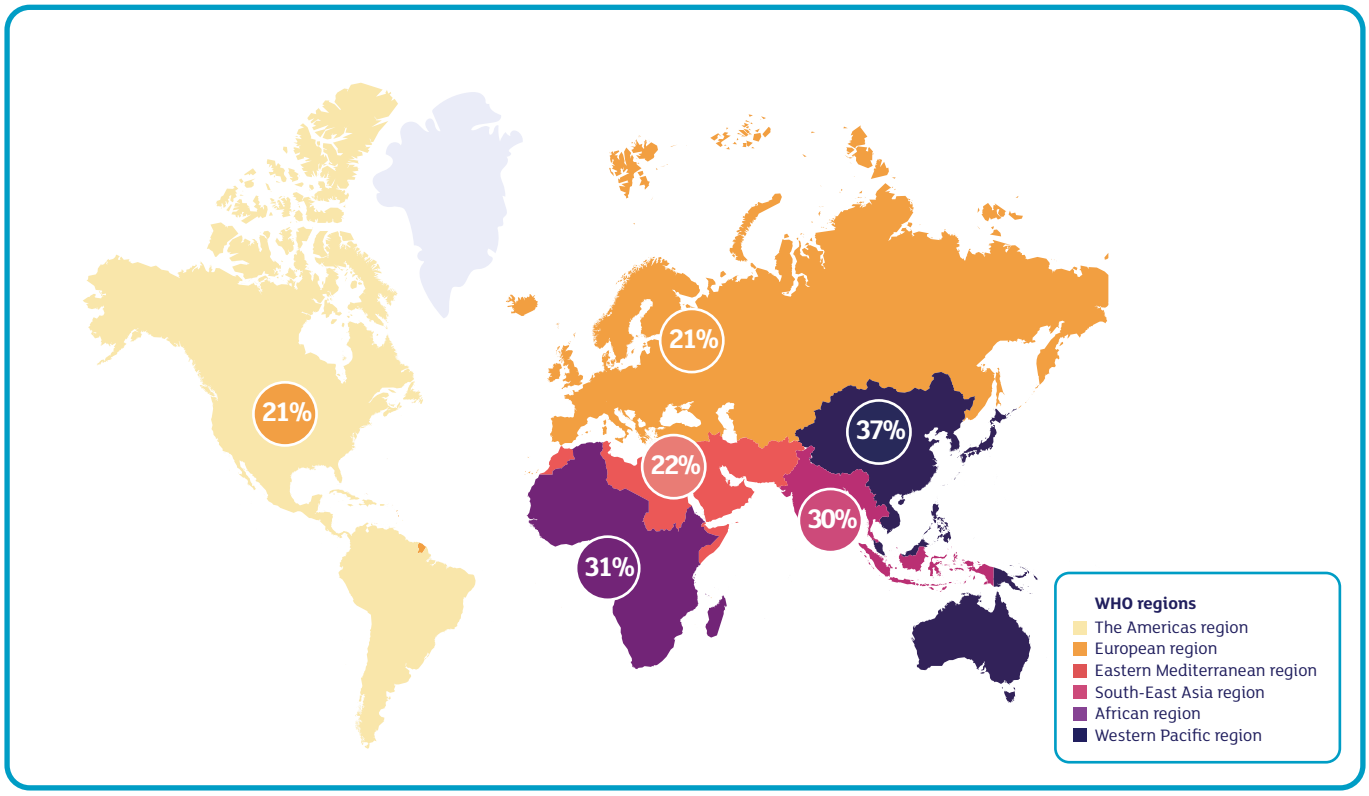
The regions with the highest rates of workplace harm, Africa, South-East Asia, and the Western Pacific, are also home to the greatest concentration of low- and middle-income countries. However, when we adjusted for wealth inequality, much of this difference disappears. This suggests that the higher rates of workplace harm are driven primarily by national income levels, rather than by anything inherent to the regions or the people who live there.

WHO regions

The WHO has categorised the globe into six regions, each supported by its own Regional Office to manage global health and tailor public interventions more effectively. When we look at workplace harm across these regions, two groups emerge clearly.

Europe, the Americas, and the Eastern Mediterranean Regions report the lowest rates of experienced harm, all sitting between 21 per cent and 22 per cent. Africa, the Western Pacific, and South-East Asia Regions sit considerably higher, with rates ranging from 30 per cent to 37 per cent.

This divide exists before we consider anything about the individual workers themselves, their income, education, or gender. Thus, geography alone is already a powerful predictor. This regional pattern closely mirrors the global distribution of national wealth. Regions with the lowest risk are home to many of the world's richest countries, while those with the highest risk contain many of the poorest.



High-risk regions

The Western Pacific region is the highest risk region, with an estimated 37 per cent of workers reporting having experienced harm themselves or knowing someone who has experienced harm in the last two years.

The informal sector is central to the reality of work across Asia and the Pacific, employing more than 68 per cent of the region's workforce. Therefore, over two-thirds of workers in this region lack protections from official and enforced safety regulations.[7]

China, the Philippines, and Vietnam stand out as major contributors, with their dense populations and extensive workforces in dangerous industries such as agriculture, manufacturing and mining. China alone employs over 164 million people in secondary-sector jobs, such as manufacturing, construction and mining.[8] Construction workers are 3–4 times more likely than workers in other sectors to die from workplace accidents, while mining, despite employing only around 1 per cent of the global workforce, accounts for approximately 8 per cent of all fatal occupational accidents.[9] While China's role in becoming the "world's workshop" [10] has contributed to substantial economic growth, questions remain about whether workplace protections have kept pace with this rapid industrialisation.

The Africa region sits closely behind the Western Pacific region with an estimated 31 per cent of its workers experiencing workplace harm or knowing someone who has experienced workplace harm in the last two years, but this figure is likely understated.

[7](International Labour Office, ILO, 2018)

[8](China, 2024)

[9](ILO, 2015), (ILO, 2015)

[10](Gao, 2012)

The World Risk Poll methodology notes that reporting is lowest where fear of job loss is highest and where informal work is most prevalent. According to the ILO, 85.8 per cent of all African employment is informal.[11] For the vast majority of African workers, this means operating outside the protections that formal employment provides: no legal requirement on employers to record injuries, no sick pay, no protection against wrongful dismissal, and no meaningful power over working conditions. The legal frameworks that do exist are largely designed to regulate factories and formal employers, leaving the bulk of the workforce with very little coverage.

This is compounded by the industries that dominate African economies. Mining, forestry, construction, and agriculture are among the continent's largest employers, and among the most physically dangerous.[12] Yet only 39 per cent of African ILO member states have a national occupational safety and health policy in place, which is the lowest proportion of any region in the world.[4] The result is a workforce concentrated in high-risk industries, with almost no institutional infrastructure to protect it.[13]

The South-East Asia region records an estimated 30 per cent of workers experiencing harm, or knowing someone who has, and faces similar structural problems. This region includes India, the world's most populous country, with hundreds of millions of workers in informal and unregulated employment. Here too, the data almost certainly captures only a fraction of the true harm.

High-income regions

The Eastern Mediterranean region (21.7 per cent), Europe region (21.3 per cent), and the Americas region (21.0 per cent) all recorded very similar rates of workplace harm. However, these regional averages mask substantial differences between countries. Each region includes nations with widely varying income levels, labour markets and workplace protections, meaning that a single regional figure can hide significant inequalities. For example, the average for the Americas combines countries such as the United States and Canada with Haiti and Bolivia, obscuring the very different risks faced by workers across the region.

Additionally, a 21 per cent harm rate remains a significant concern. It means that roughly one in five workers in these regions have personally experienced, or know someone who has experienced, a serious workplace injury in the last two years. Europe has some of the most developed workplace safety systems in the world, yet a rate of one in five shows that even the best safety infrastructure does not protect everyone. At the same time, several countries demonstrate what is possible when national income is used deliberately to strengthen occupational safety and health. Their progress reflects sustained investment in training, regulation, enforcement, and prevention - the kinds of measures that only become feasible when governments have the monetary resources and institutional capacity to implement them. These examples show that economic privilege does not automatically translate into safer workplaces, but when countries choose to use their wealth to build robust OSH systems, meaningful reductions in harm follow.

Continued efforts are needed to ensure that workplace safety improvements reach all workers, particularly those in sectors that continue to experience high levels of injury and fatality, such as construction, agriculture and logistics, in Europe and across the world.

[11](International Labour Office, ILO, 2018)

[12](AUC/OECD, 2024)

[13](ILO, 2023)

Adjusting for inequality

Geography and income are closely linked, making it difficult to know which has the greater influence on workplace harm. To untangle the two, we ask the question: what would workplace harm rates look like if every region had the same average level of income? Adjusting for income allows us to compare regions on a more equal footing and identify those performing better or worse than expected.

Africa's regional harm rate falls from 31 per cent to 27 per cent, and South-East Asia's regional rate also declines. In other words, much of the higher workplace harm seen in these regions is explained by the fact that more workers live in lower-income countries. If these regions had the same economic conditions as those in wealthier parts of the world, the likelihood of workers experiencing, or knowing someone who has experienced, a serious workplace injury would be substantially lower.

The opposite is true for Europe and the Americas regions. Once differences in national income are taken into account, the Europe region's workplace harm rate rises from 21 per cent to 24 per cent, while the Americas region experiences an increase from 21 per cent to 23 per cent. This suggests that these regions are not performing as well as their economic resources would predict. Put simply, wealth alone does not guarantee safer workplaces. Even in high-income regions, improvements are still needed to ensure that the benefits of strong economies, regulation and workplace safety systems reach all workers.

The Eastern Mediterranean region changes very little after adjusting for income, suggesting its harm rate broadly reflects its economic circumstances. The Western Pacific region also shifts only marginally but notably rises rather than falls - suggesting that even accounting for its income levels, workplace harm in this region remains higher than expected.

Closing the economic gap would protect workers in the world's poorest regions.

Table 1: Adjusted probabilities,

Rounded to one decimal place

WHO Region	Predicted Harm Rates	Adjusted for wealth Inequality Predicted Harm Rates	Absolute Change
Western Pacific	36.7 %	37.2 %	↑ 0.6
Africa	30.9 %	27.2 %	↓ 3.7
South-East Asia	29.7 %	28.6 %	↓ 1.1
Eastern Mediterranean	21.7 %	20.4 %	↓ 1.3
European	21.3 %	24.1 %	↑ 2.8
The Americas	21.0 %	23.0 %	↑ 2.0

National income

When we examine respondents grouped by the World Bank's four national income classifications, a clear pattern emerges. As a worker moves from a low-income country to a higher-income one, their likelihood of experiencing serious harm falls substantially. Workers in high-income countries are around half as likely to experience, or know someone who has experienced, a serious workplace injury in the past two years. This is not because their personal income or other circumstances change. It is because the country they live and work in is wealthier.

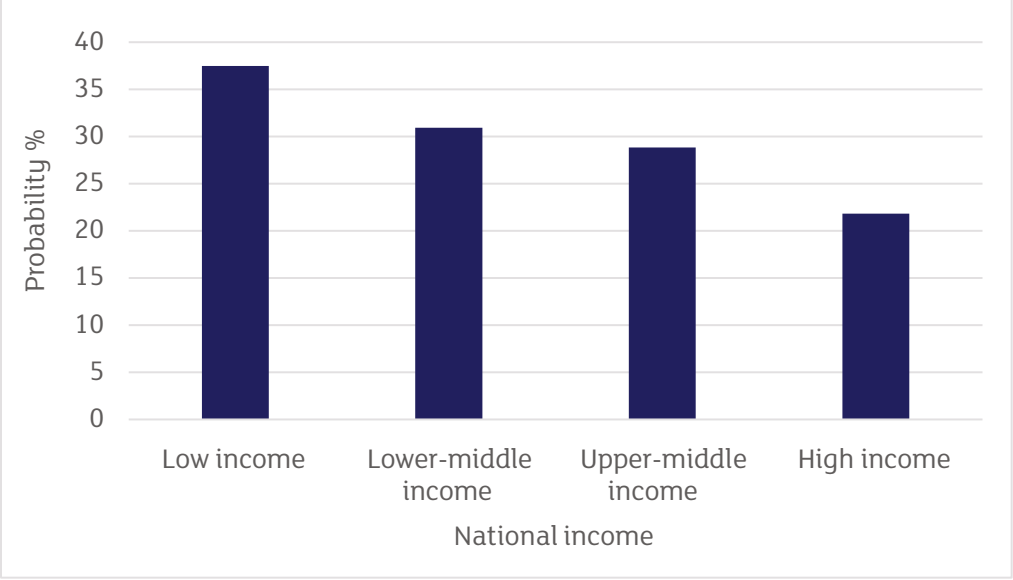
This result suggests that workplace injury is a systemic problem. Dangerous work exists everywhere, but the capacity to make it safe is concentrated in rich countries. High-income nations have occupational health regulators with enforcement powers, workers' compensation systems, legal liability frameworks that hold employers accountable, and the capital to invest in health and safety protections. Low-income nations frequently lack these regulations and interventions.

Wealthy countries that offshore their most hazardous production to lower-income settings are also offshoring the injury risk that comes with it. Cheaper labour costs in low-income countries are cheaper in part because those countries lack the regulatory frameworks and legal systems that make safe work more expensive. Rather than being eliminated, the burden of injury appears to fall disproportionately on more vulnerable groups.

A person's income also affects the choices that they have available to them in their lives and in their work. Where unemployment is high and social safety nets are weak, workers have little practical ability to refuse dangerous conditions, report injuries, or leave harmful jobs. This means the relationship between national wealth and workplace harm is not just about where a worker lives, but it is about whether they have the economic security to demand safer working conditions and infrastructure.

This relationship holds across every analytical approach we used. Stratifying the data by personal income, by education, or by gender makes no difference - national income remains the dominant predictor of harm in every model. No individual characteristic comes close to matching its influence. If workplace injuries were driven primarily by individual behaviour or bad luck, national income would not predict them so consistently and so powerfully.

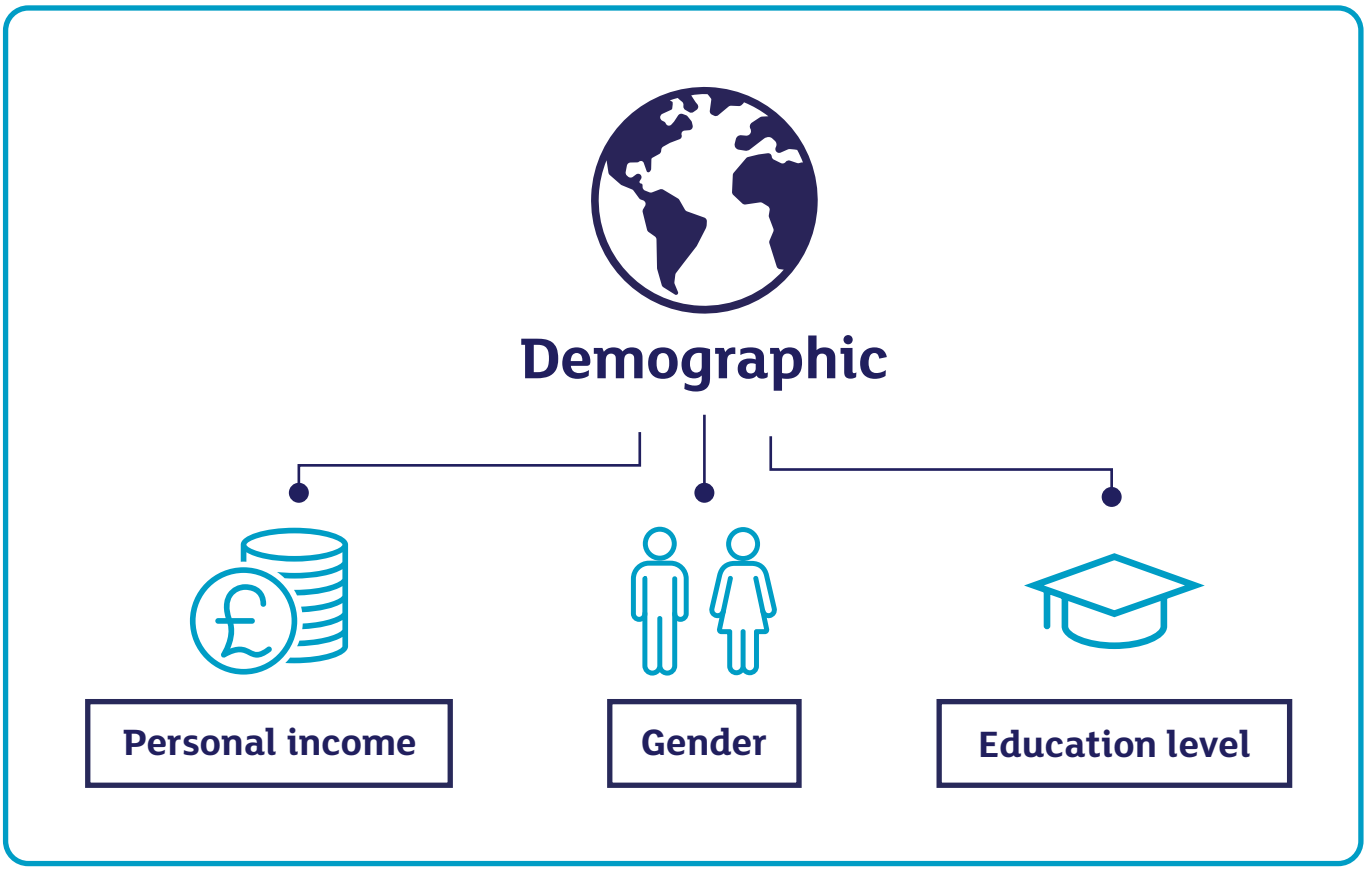
Figure 1. Probability of experienced harm by national income



The protective buffer: When personal advantages fail

So far in this report, we have discussed how national income is the strongest predictor for understanding the distribution of workplace injury. However, within this geographical inequality, each worker has their own circumstances, which influence their level of risk and how much they worry about it. Thus, when examining the risks an individual may face at work, it is also important to analyse the worker's personal demographic characteristics. In this study, we examined personal income, education level and gender.

National income inequality is something a worker is born into and strongly influences the overarching economic climate a worker must operate in. However, personal income, education and gender inequality operate slightly differently. These characteristics shape how society positions an individual within the system. For example, education is often treated as a substitute for class, connections, and power. Personal income can depend on education, but also on who you know, where you live and your gender. Gender, meanwhile, is an assigned category, which often influences a wide variety of a person's experiences, including which jobs are available to them and their treatment as a worker. These personal features matter, but as this research shows, largely only within the context of the wealth of the nation you live in.



Personal income

Personal income in this study is measured in quintiles. Workers are organised into five ordered, equal-sized groups, based on their income relative to others in their country. This means that comparing someone in the highest income quintile in Uganda to someone from the UK in the highest income quintile doesn't necessarily mean their income is the same, as the UK is generally a wealthier nation than Uganda.

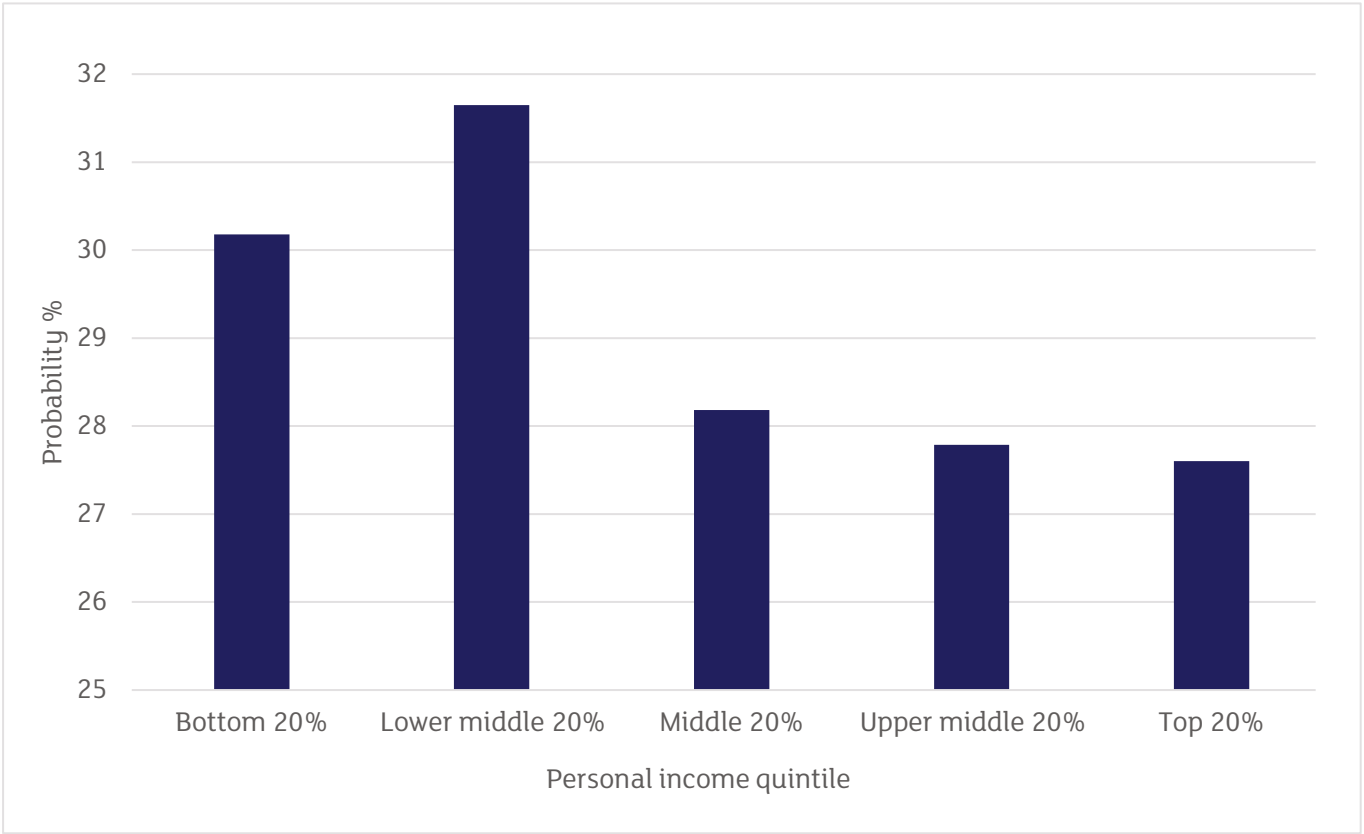
This distinction is important because it means the analysis is comparing people's relative position within their own economies, rather than assuming that workers in different countries have the same level of financial security or access to resources.

Overall personal income:
Firstly, if we solely consider personal income and its relationship to workplace injury, we can see that as personal income rises, the likelihood of workplace harm generally falls.

Workers in the second quintile show a slight increase in risk compared to the lowest earners. One possible explanation is that this group may include more people moving into formal employment where workplace injuries are more likely to be recognised and reported, but hazardous work remains common. The uncertainty around this estimate means it should be interpreted cautiously.

Beyond this, a clear pattern emerges: as income increases, the likelihood of experiencing workplace harm falls. Workers in the highest income groups are significantly less likely to experience injury than those on the lowest incomes, suggesting that higher personal income is generally associated with greater protection from workplace harm.

Figure 2. Personal income



Personal income acting as protection:
In high-income countries, being a top earner is highly protective, as workers in the highest personal income bracket see their odds of harm fall by around 38 per cent compared to the lowest earners. Higher personal income in wealthy nations tends to mean access to safer sectors, better legal protections, and the financial security to leave a dangerous job.

People living in low-income countries are rarely afforded the same options and protections. Top earners in the poorest nations experience only an 18 per cent reduction in odds. This is half the protection that an increased income provides in a wealthy country. In higher-income countries, a clear and consistent gradient is visible: more income means progressively lower risk. But in lower-income countries, the relationship is weaker and less predictable.

In low-income countries, even the highest earners often work in informal sectors or environments where occupational safety and health laws do not apply. A relatively higher income does not bring with it as many protections as it does in high-income countries. The ceiling is set nationally, and in the poorest countries, that ceiling is lower for everyone.

Reduction in workplace risk for top earners in low- vs high-income countries

Education

Workers with university-level education are 38 per cent more likely to have experienced or know someone who has experienced workplace harm than those with only a primary education. This does not necessarily mean that higher levels of education lead to greater workplace risk. Instead, it may reflect differences in the types of work people enter, their awareness of workplace harms, and their likelihood of recognising and reporting injuries or unsafe conditions.

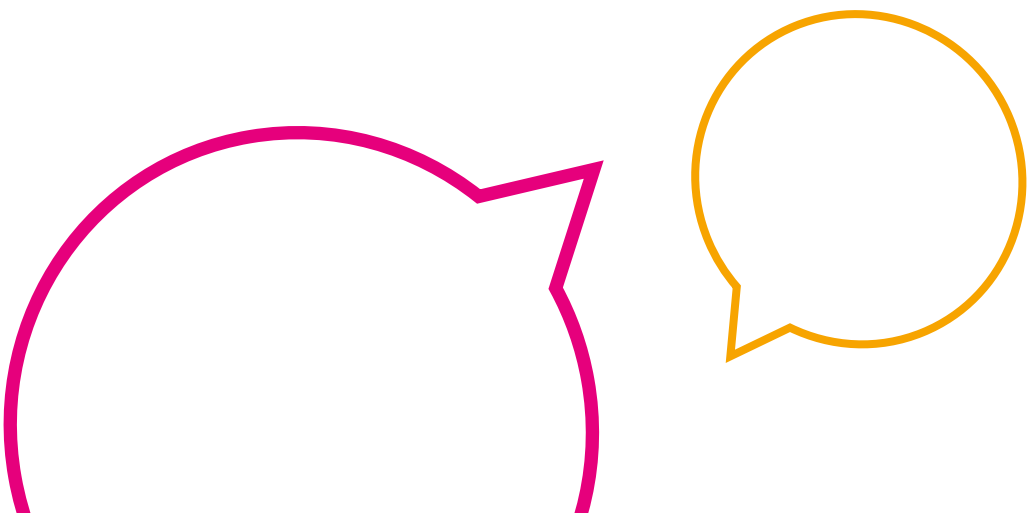
One possible explanation is that more educated workers may be better positioned to identify, describe and report workplace harm. They may have greater awareness of workplace rights, stronger confidence in formal reporting processes, and better access to mechanisms for raising concerns. Education is also often linked to employment patterns: workers with higher levels of education are more likely to enter formal employment, where injuries may be more visible, recorded and reported. As a result, the higher rate observed among university-educated workers may reflect a combination of differences in exposure, awareness and reporting practices.

The relationship is further complicated by global inequalities in education and employment. A proportion of highly educated workers from low- and middle-income countries migrate to wealthier countries in search of higher wages and improved working conditions. This movement shapes the composition of the workforce remaining in lower-income settings and helps explain some of the variation in how education relates to workplace harm across different national contexts.

However, education does appear to protect in certain circumstances. The combination of higher education and higher personal income is associated with lower levels of workplace harm, although this protective effect is concentrated among the highest income groups. For workers on lower incomes, education alone does not appear to provide the same level of protection, highlighting the importance of wider economic and workplace conditions.

Education has one consistent finding: higher education reduces worry about workplace harm across all contexts. University-educated workers are 27 per cent less likely to report worry of being hurt than primary-educated workers. This may reflect greater awareness of their rights, better access to information, and more confidence in navigating formal systems.

Overall, these findings suggest that education influences workplace safety in multiple ways. It may shape the types of work people enter, their ability to recognise and report harm, and their confidence in workplace systems. However, education alone is not enough to guarantee safer work; its protective benefits are strongest when combined with wider economic security and effective safety protections.



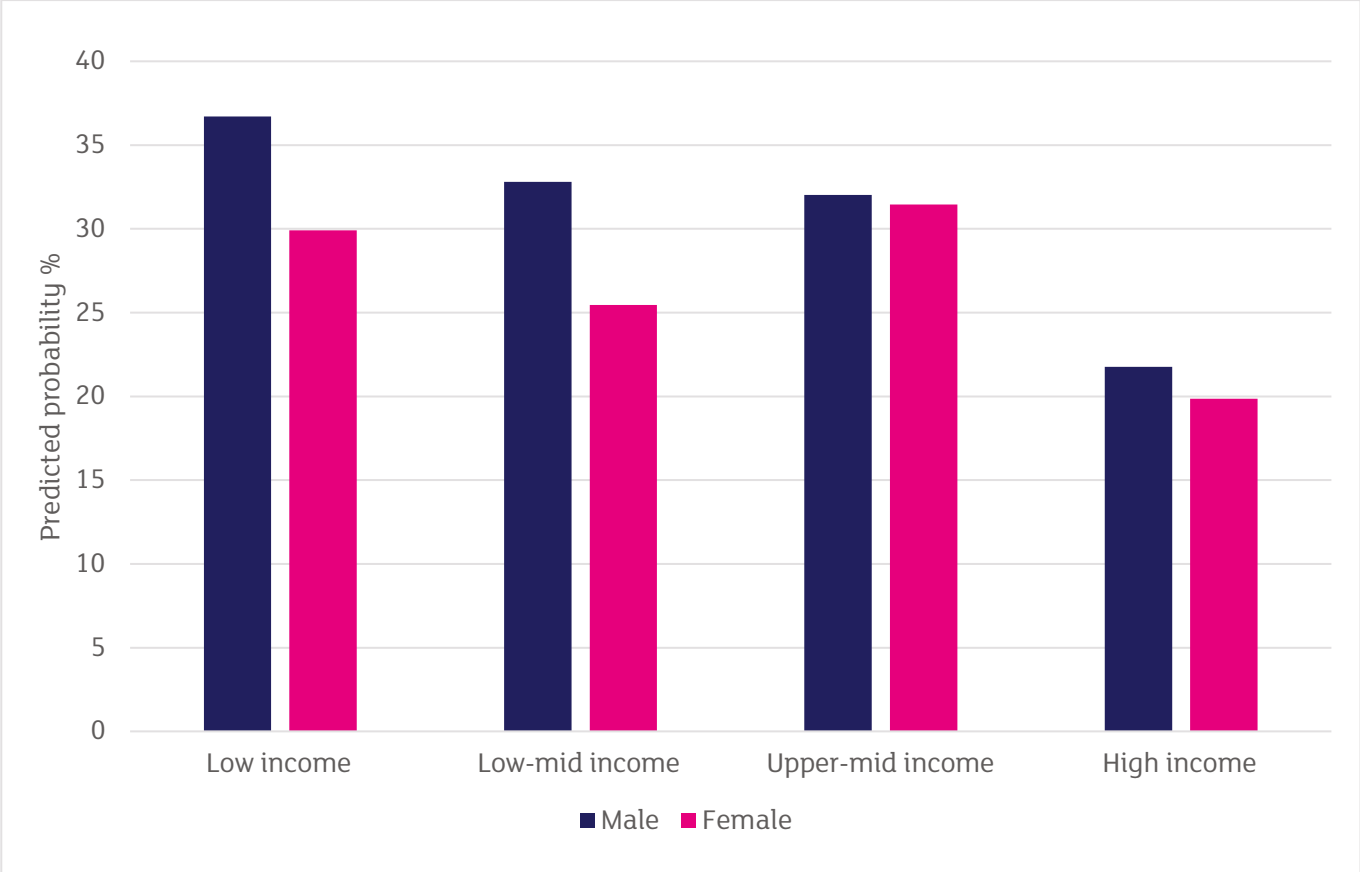
Gender

Men are more likely to experience workplace harm than women. Across the full dataset, female workers report around 18 per cent lower odds of being injured than their male counterparts. This gap is most pronounced in lower-income countries and narrows in wealthy countries.

Globally, men are disproportionately represented in some of the highest-risk industries, including construction, mining, manufacturing and agriculture. This is reflected in the fact that men account for approximately 93 per cent of all fatal occupational injuries worldwide.[14]

As socioeconomic status rises, this gap narrows. Among university-educated workers at higher income levels, the difference in harm rates between men and women largely disappears. This may reflect a convergence in the types of roles men and women occupy at higher skill levels, alongside greater similarity in reporting behaviours. More highly educated workers, regardless of gender, may be more likely to recognise workplace harm and feel confident reporting injuries.

Figure 3 Gender Vs National income



[14](ILO, 2019)

The psychology of risk: Experience vs. worry

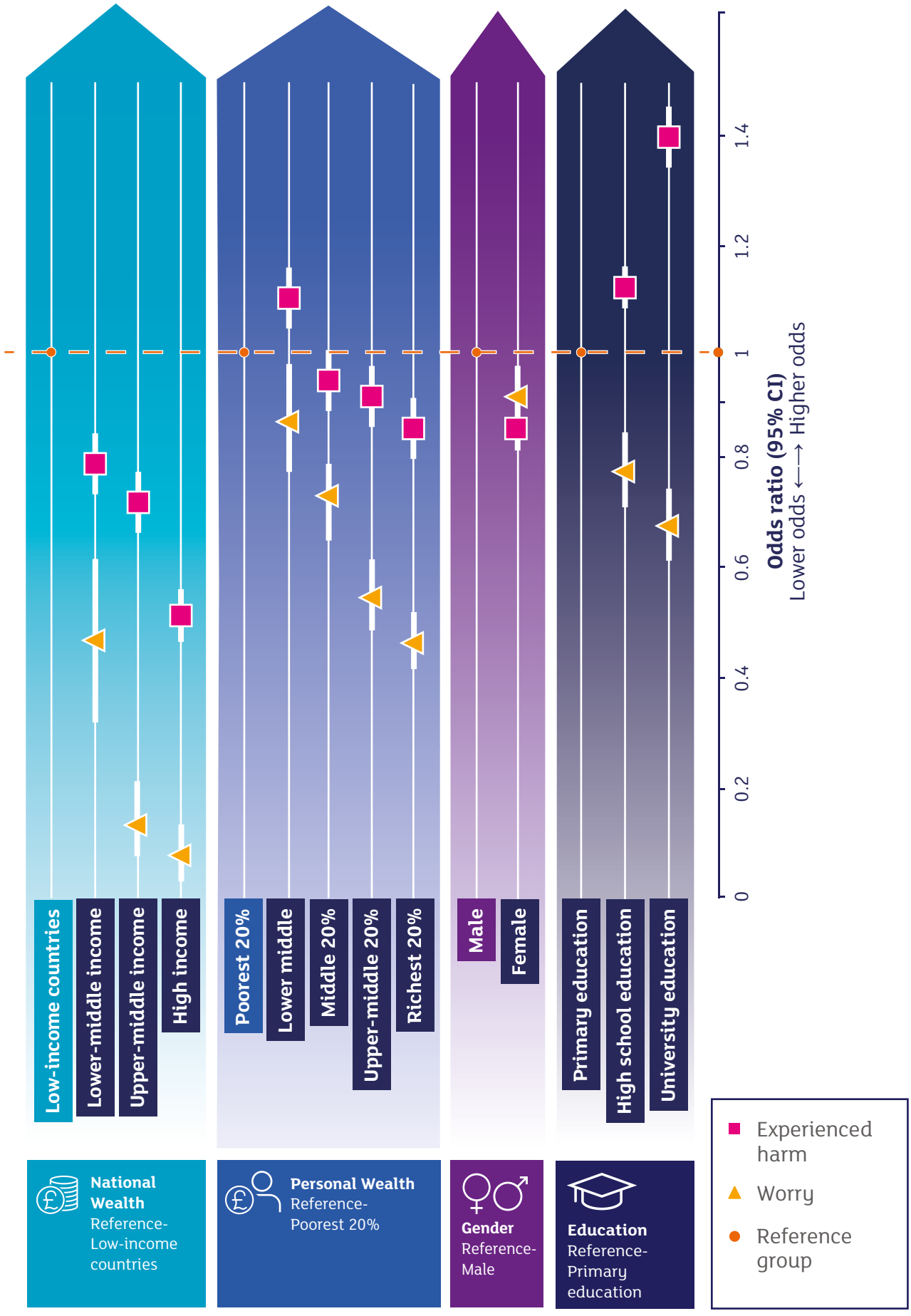
The pattern for worry maps closely with experienced harm. Workers in high-income countries report around 67 per cent lower odds of high worry about workplace harm compared to workers in the poorest nations. As with experienced harm, each step up the national income ladder brings a significant reduction in perceived risk.

Personal income is also associated with workers' perceptions of risk. Each step up the quintile scale is linked to around a six or seven per cent reduction in the odds of reporting high levels of worry. Like experienced harm, lower national wealth appears to be an important factor shaping worry levels. Together, these findings suggest that economic circumstances influence not only the risks workers face, but also how safe and secure they feel in their working lives.

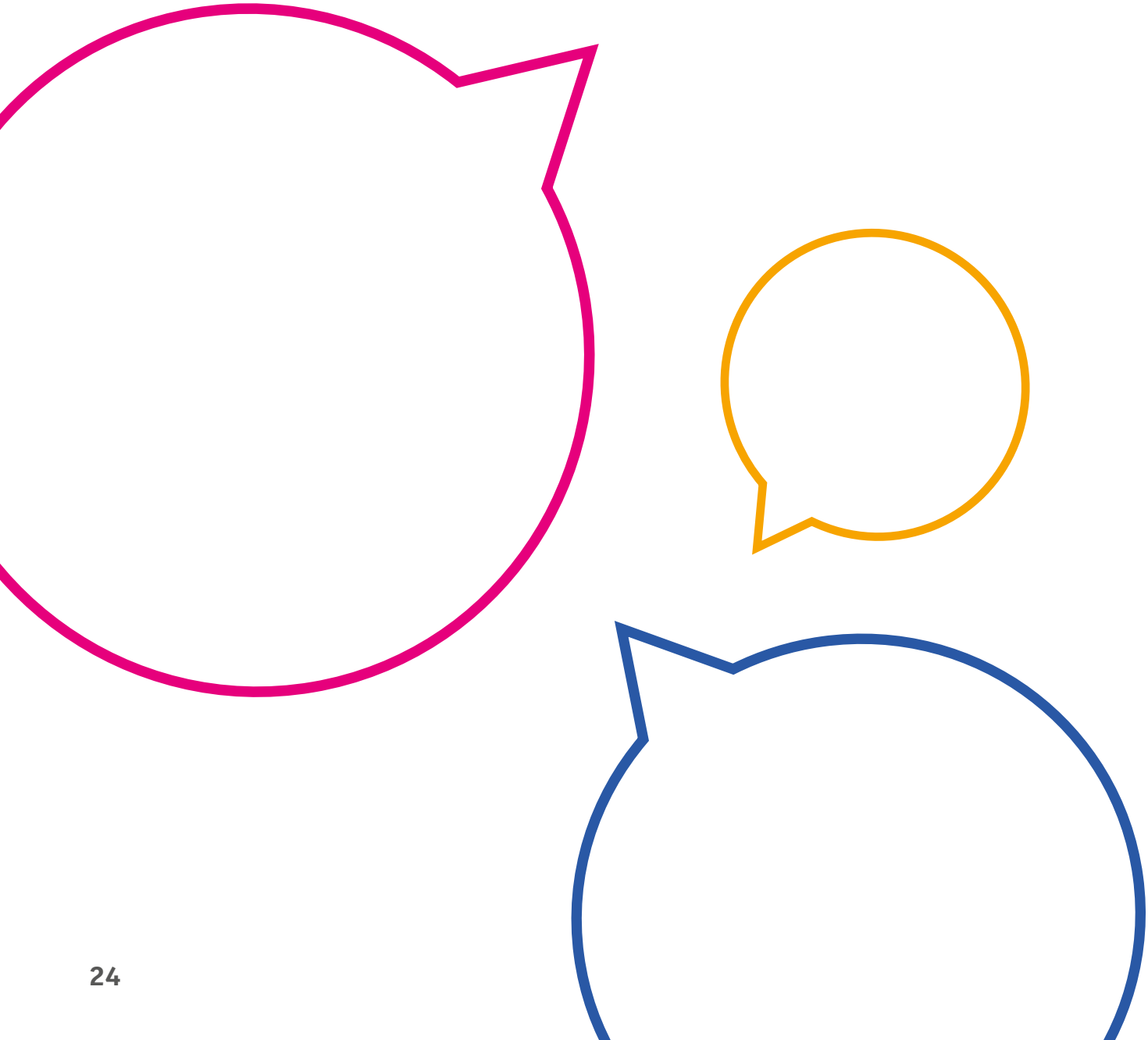
Education, however, breaks away from experienced harm. While higher education is associated with greater reported experiences of harm, it moves strongly in the opposite direction for worry. University-educated workers have around 27 per cent lower odds of reporting high worry about workplace harm, and secondary-educated workers around 14 per cent lower, compared to those with only primary education.

Education therefore appears to be associated with a greater sense of control over the workplace. This may reflect factors such as greater awareness of workers' rights, increased confidence in navigating safety systems, and improved access to information about managing risks. Higher-educated workers may not always operate in objectively safer environments, but they may feel better equipped to understand, assess and respond to workplace hazards. Education, in other words, appears to improve a worker's sense of agency, even when it does not reliably reduce their risk of exposure.

Worry vs Experience



The gap between worry and experience also points to structural inequality. In high-income countries, lower levels of worry may partly reflect the strength of the systems surrounding workers: established occupational safety and health (OSH) frameworks, more accessible reporting mechanisms, and greater confidence that support and compensation will be available if harm occurs. In lower-income countries, where these protections may be more limited or less accessible, workers may face greater uncertainty about whether risks will be prevented, reported or addressed. In these contexts, worry should not be viewed as irrational or disproportionate; it may reflect a realistic assessment of the risks workers face and the consequences of experiencing harm.



Concentration index: Population-level analysis

The regression models discussed so far tell us which factors -national income, personal income, education, gender - are associated with higher or lower odds of workplace harm. But they do not tell us how evenly that harm is distributed across the population as a whole. For that, we use the Concentration Index (CI).

The CI measures how far a health outcome deviates from being equally distributed across a group. A value of zero means harm is spread evenly, meaning every worker, regardless of their income, education, or nationality, faces the same risk. A negative value means harm is concentrated at the worse-off end of the scale: poorer workers, less-educated workers, or workers in lower-income countries. A positive value means harm falls more heavily on those at the better-off end. Applied to workplace injury, the CI answers a different question from the regression analysis: not simply who faces higher risk, but whether particular groups disproportionately experience that risk.

The results provide an important additional perspective. Country income shows a CI of –4.1 per cent, indicating a small but definitive concentration of workplace harm in lower-income countries. Personal income has a CI of –2 per cent, which again is a mild concentration towards poorer workers. Gender shows –3 per cent. Here the negative value indicates that harm is concentrated among men, who face greater occupational exposure and weaker protection in this context. Education, at +0.5 per cent, is essentially neutral, therefore suggesting harm is distributed almost evenly across educational levels.

These relatively small CI values are important to interpret alongside the regression findings. A CI of -4.1 per cent for national income, when combined with our regression finding that workers in low-income countries face roughly twice the odds of harm, tells us that in a low-income country, workplace risk is not concentrated among the poorest workers within that country. Instead, workplace harm appears to be more broadly distributed across income groups. In other words, the challenge is not simply one of protecting the most disadvantaged individuals; it reflects wider differences in the environments, systems and protections surrounding workers.

This finding has a direct policy implication. Where workplace harm is widespread across a population, interventions focused only on the most vulnerable individuals may not be enough. The risk is structural and widespread, which means that it requires a structural and widespread response.

Recommendations

The findings of this report suggest that reducing global workplace harm requires investment in the systems that shape workers' safety.

Governments and the wider international community should make strengthening OSH systems a global development priority. Our findings show that workplace harm is not simply the result of individual circumstances; it is shaped by wider economic conditions, regulatory capacity and the strength of protections available to workers. This is particularly evident in lower-income countries, where elevated levels of workplace harm appear to reflect broader system-level challenges rather than risk only being concentrated among the poorest workers.

Make inequality a core focus of workplace safety practice. This report shows that workplace harm is not evenly distributed. National governments, OSH professionals and international companies should place inequality at the centre of occupational safety and health practice, ensuring that prevention approaches consider differences in income, employment status, sector, geography and access to protections. This means moving beyond a one-size-fits-all approach and developing interventions that reach workers who are most likely to be excluded from traditional safety systems.

Improve data collection on workplace harm. Health and safety professionals, employers and government bodies with OSH responsibilities should work collectively to strengthen how workplace harm is measured and understood. Current reporting systems often fail to capture informal workers, unreported injuries and those outside formal employment. Improving data collection methods, sharing best practice internationally, and incorporating worker experiences alongside official injury statistics would provide a more complete picture of global workplace safety.

Create global standards for responsible supply chains. The safety sector should work with multinational businesses, governments and international organisations to establish clearer expectations for workplace safety across global supply chains. This should include guidance on assessing safety risks beyond direct suppliers, engaging workers in monitoring conditions, and ensuring that safety standards are applied consistently regardless of location.

With fewer than half of ILO member states having an up-to-date national OSH policy as of 2023, there remains a significant global gap in the systems needed to prevent workplace harm. Closing this gap would support safer, more equitable economies and ensure that economic growth is matched by meaningful protections for the workers who underpin it.

Governments in low-income settings should strengthen and enforce workplace safety systems, particularly in the highest-risk sectors. National governments should prioritise the implementation and enforcement of building codes, equipment standards and sector-specific OSH regulations in industries with the highest rates of injury.

Extend workplace protections to the informal economy. In many low-income countries, the majority of workers are employed outside the formal economy and are therefore less likely to be covered by workplace safety legislation, inspections or reporting systems. Expanding the reach of OSH protections will be essential if reductions in workplace harm are to benefit the workforce as a whole, rather than only those in formal employment.

International institutions should take greater responsibility for workplace safety across global supply chains. This report shows that workers in lower-income countries face substantially higher levels of workplace harm, highlighting the need for stronger protections throughout global production networks. Global institutions should implement robust occupational safety and health (OSH) standards across their supply chains - not only among direct (Tier 1) suppliers, but throughout all tiers where risks may be greatest.

Conclusion

We initiated this research intending to understand how global inequality affects workplace harm, as we wanted to know why some workers are so much more likely to be injured than others. After detailed analysis of the data and our model's results, it's clear to see that workers with disproportionately higher risk are operating in systems which place them in harm's way, rather than due to individual carelessness or cultural attitudes.

The national wealth of the country where you work determines your risk of workplace injury more reliably than any other personal characteristic examined in this research. A worker in a low-income country faces more than twice the odds of harm as a worker in a wealthy one, regardless of how much they earn or how educated they are. National income is the ceiling for safety, and for the world's poorest nations, that ceiling is especially low.

Personal resources can make a difference, but only where the surrounding system allows. Higher earnings offer protection in countries with enforceable regulations. Education reduces worry and opens doors to safer environments, but only where those environments exist. In countries without effective OSH infrastructure, those same individual advantages barely register. Safe work needs collective infrastructure and systems to support its workers, but where that infrastructure is inadequate, personal resources will fail to substitute for it.

The findings of this research suggest that structural factors play a key role in shaping the inequality around workplace harm. Closing this gap requires treating safe work as a foundational component of national infrastructure. Wealth alone does not guarantee safety; money must be deliberately invested in regulation, enforcement, training, and the extension of protections into informal economies.

The future requires governments in low-income settings to prioritise building codes, machinery standards, and enforceable OSH frameworks as core national infrastructure. Funding must go to improving regulatory capacity and enforcement, and also to awareness campaigns. International institutions and corporations must apply equal safety standards to every tier of their supply chains, not just the sections that are most visible.

If injury rates in lower-income countries were reduced to match those in wealthy nations, an estimated two million lives would be saved and over 750 billion dollars in economic losses prevented every year.

Behind every figure in this report is someone who went to work and should have come home safely. Whether they did relies heavily on the national wealth of the country they work in.

A world free of workplace accidents is possible. By putting safety and equalities at the core of work - through investment in infrastructure, supply chain monitoring, training and education - we can make this world a reality.

"If injury rates in lower-income countries were reduced to match those in wealthy nations, an estimated two million lives would be saved and over **750 billion dollars** in economic losses prevented every year."

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RoSPA Headquarters
28 Calthorpe Road,
Birmingham,
B15 1RP
Telephone: +44 (0)121 248 2000

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