

Green, Francis

Article

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Health effects of job insecurity

Job insecurity adversely affects health, but employability policies and otherwise better job quality can mitigate the effects

Keywords: job insecurity, employability, unemployment

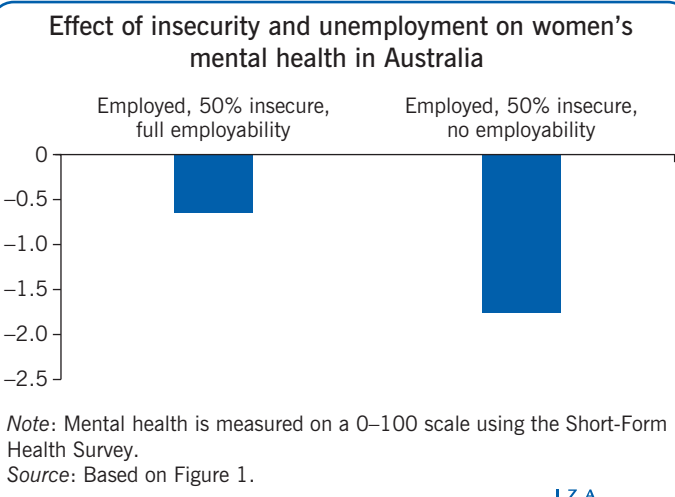
ELEVATOR PITCH

The fear of unemployment has increased around the world in the wake of Covid-19. Research has shown that job insecurity affects both mental and physical health, though the effects are lower when employees are easily re-employable. The detrimental effects of job insecurity could be partly mitigated if employers improved other aspects of job quality that support better health. But as job insecurity is felt by many more people than just the unemployed, the negative health effects during recessions are multiplied and extend through the majority of the population. This reinforces the need for effective, stabilising macroeconomic policies, most especially at this time of pandemic.

KEY FINDINGS

Pros

- + Many cross-sectional studies in epidemiology, psychology, and economics show a strong connection between job insecurity and poor physical or mental health.
- + Some studies confirm that the effects of job insecurity on health are causal, particularly in relation to mental health, headaches, eyestrains, and skin problems.
- + The size of the effect of job insecurity on health can be as large as the effect of unemployment.



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Cons

- Many cross-sectional and longitudinal studies do not prove causation, and there are a few countries in which no association is found.
- Longitudinal studies confirm that the harmful effects of job insecurity on health are mitigated when employees are re-employable.
- Social support is associated with higher well-being, and may help in situations of high insecurity; more organizational participation, higher pay, lower work intensity, safer working conditions and greater autonomy can all mitigate the detrimental health effects of job insecurity.
- Little is known about how people may or may not adapt to job insecurity over time or how they may compensate for the associated uncertainty.

AUTHOR'S MAIN MESSAGE

Job insecurity has become an increasing problem since the great recession and as labor markets have become more flexible. It is well established that job insecurity, like unemployment, has causal detrimental effects on mental and physical health. Workers' health is not just a matter for employees and employers, but also for public policy. Governments should count the health cost of restrictive policies that generate unemployment and insecurity, while promoting employability through skills training. Health policy should also encourage social support, employee participation, and improved working conditions.

MOTIVATION

The average unemployment rate across OECD countries had drifted down to just 5.2% as 2019 drew to a close but, in the midst of the first wave of the Covid-19 virus, it rose abruptly to 8.6%. Few expect the immediate post-pandemic years to return to low unemployment. Being unemployed is potentially detrimental to health. Yet the impact of increased unemployment extends far beyond just those who are unemployed and their families. When unemployment rises, those who remain in work tend to experience an increase in job insecurity. Major recessions, such as those following the financial crisis or the Covid-19 pandemic, are therefore far-reaching in their effects across society.

There is, as a result, considerable interest in understanding whether, and to what extent, job insecurity is in itself a significant cause of poor physical or mental health. Such health costs should be a potential concern for macroeconomic policymakers who control economic stability, and for health and employment policymakers and other social partners who might be able to alleviate the harmful effects of insecurity. During the pandemic, policymakers must face the challenge of balancing the health consequences of the pandemic with the health and other consequences of economic recession.

The phrase “job insecurity” refers mainly to the fear of losing one’s job. For some, however, the expression is broader and refers to the possibility of a degradation of status without actually being made redundant, such as being transferred to a less interesting or less challenging post with the same employer. Such “job status” insecurity has been increasing in the UK since at least 2000, but there is relatively little scientific evidence about its effects on health and well-being. This contribution therefore focuses mainly on the form of job insecurity that is related to the fear of losing one’s job.

Understanding the effect of job insecurity is not a simple matter, as high perceptions of insecurity may be held by workers who already have particular health characteristics, or who are undertaking jobs in which there are other detrimental aspects in terms of job quality. Only some of these other factors can be easily observed and controlled for in a scientific study.

The consequences of insecurity may also depend on factors that moderate the detrimental effects—at both organizational and societal levels. If employers and policymakers are to better understand and alleviate the effects of insecurity in organizations and in society, some knowledge of the practical significance of these moderating factors is needed.

DISCUSSION OF PROS AND CONS

A British politician once dismissed fears of unemployment as being “all in the mind,” because this insecurity existed at a time of growing employment. However, even in good economic times there are some who fear job loss. Moreover, while there is some tendency for overall pessimism, it has been shown that those people who report a high probability of job loss in the coming year are much more likely than others to actually lose their jobs in that time [1]. In the aggregate, insecurity tends to be higher in countries with high unemployment, and to increase in each country when unemployment increases, exactly as would be expected [2].

Job insecurity and choice

In an uncertain world there are few jobs that do not carry with them some degree of insecurity. Indeed, insecurity can be thought of as a disamenity, or an unpleasant disadvantage of a job, in much the same way as having to work in harsh physical conditions. If workers could choose the level of insecurity they are prepared to accept, those who greatly dislike risk would shun insecure jobs, while risk-lovers would opt for the insecure jobs. With the risk-averse in the large majority, insecure jobs would acquire a premium that compensates for the disamenity of the insecurity. Although the insecurity may pose a health risk for the risk-lovers in the insecure jobs, their higher pay could compensate for this. As an illustration, few people would suggest that the insecurity faced by modern football managers should be a matter for public policy measures, given their relatively very high salary levels.

While trade-offs between pay and risk are widespread, the choice typically facing those in insecure jobs is not between more-secure or less-secure jobs, but between insecure or no jobs. Constraints on choice arise because people's circumstances change, for example through their employers' fortunes, or more generally through varying macroeconomic circumstances. The phenomenon of employees finding themselves in jobs with far less security than they would choose can become especially widespread in times of recession.

It is mainly the workers themselves whose mental and/or physical health may be affected when their insecurity is raised. But the effects of insecurity go beyond the individual. Of particular interest are the "survivors" of company downsizing. If the health and, consequentially, the effectiveness of these workers are impaired, their organizations also lose out. In addition, the families of insecure workers experience the effects of potential income loss and stress, and so do societies more broadly, in that they must provide care through health and unemployment security systems. Job insecurity is therefore a wider issue than simply a matter for individual choice.

How job insecurity can affect mental and physical health

Whether or not employees' fears of losing their jobs are justified, their feeling of job insecurity may nevertheless have detrimental effects on their health, for a number of reasons. The economic reason is that a high probability of job loss indicates a likely period of unemployment and lower income in the future. A person's expected long-term income, averaged out over a period of years, is thus lowered as a result of the insecurity. In addition, those with few savings to fall back on may be seriously compromised by the loss of income following job loss. Since income is related to health, the loss of expected income that derives from insecurity could therefore be expected to lead to impaired health.

However, economic deterioration may be less important than the psychological loss of identity and meaning attached to jobs. Studies of unemployment have found that its impact on health is much greater than could be explained simply by the loss of income resulting from unemployment. An important psychological aspect of job insecurity is the stress associated with the uncertainty. High or prolonged stress has detrimental effects on both physical and mental health. Job insecurity also helps to explain why bullying is a significant cause of work-related ill-health.

In addition, other side effects have been hypothesized: for example, that high levels of job insecurity prompt low motivation and compliance with safety efforts, hence a higher number of workplace injuries.

Empirical evidence linking insecurity to types of ill-health

There is a considerable amount of evidence to show that, on average, employees in jobs perceived to be insecure tend to have worse health. One recent study combines several smaller studies from Denmark, Finland, the US, Sweden, Germany, the UK, and Belgium [3]. The study finds a link between the perception of job insecurity and the subsequent experience of coronary heart disease: on average, those with high job insecurity have a 32% greater risk of heart disease than those in highly secure jobs. However, the authors of the study also find that the people who were more insecure were, in any case, disproportionately drawn from groups with a high risk of heart disease. For example, people with high job insecurity were found to take less physical exercise and to have a higher prevalence of hypertension. Once these and other confounding factors were taken into account, the average elevated risk was reduced to 19%. Because insecurity is often measured rather imprecisely, this association may be an underestimate. However, the constituent studies are all cross-sections, and it is not claimed that this estimate shows a causal impact of insecurity on heart disease.

Another recent study shows that across 16 European countries there is a robust statistical association between insecurity and poor health among older employees [4]. The study finds that employees who reported that their “job security was poor” were 39% less likely to report that their health was good or very good (as opposed to fair, poor, or very poor). Looking at how the effects vary across individual countries, the study finds significant detrimental effects of insecurity on health in the Czech Republic, Denmark, Germany, Greece, Hungary, Israel, the Netherlands, Poland, and Russia. In two countries, Belgium and Sweden, no effect was found.

Despite the wide scope of this study and its application to quite large representative samples in each country, in keeping with other cross-sectional studies it does not claim that the association was causal. The problem is that the insecurity may be “endogenous,” that is, affected by some other relevant factor(s), so that associations cannot be interpreted as causal. It might be the case that for some reason it is the less healthy individuals who are channelled into the less secure jobs (“reverse causality”). Hence, there is an association between health and insecurity but the direction of causality is not clear cut. Or it could be that there is some unknown factor surrounding workplaces and employees that simultaneously makes them both less healthy and less secure.

Nevertheless, the breadth and strength of such cross-sectional findings should not be ignored. Many other cross-sectional studies, with varying indicators of poor health or low well-being, present the same picture, often taking into account several confounding factors. Meta-analyses which combine the results of multiple independent studies confirm the negative effect of insecurity on mental health.

In the relatively few studies in which researchers have been able to investigate causal effects more adequately, the negative implications for health reported by the cross-sectional studies are not always found to be robust, but generally they are.

A striking recent study finds one way around the problem of insecurity being endogenous [5]. In a multi-country European study the researchers find that job insecurity is associated with some specified ill-health conditions—namely backache, muscular pain, headaches or eyestrain, stomach ache, depression or anxiety, overall fatigue, and insomnia. However, they are rightly concerned that these cross-sectional associations might not be due to a causal process. To address this, they take advantage of the fact that countries have different laws about employment protection. The authors argue that perceptions of job insecurity increase in countries or regions where employment protection is at a low level, and that this especially matters in industries known (from external evidence) to have high dismissal rates. Their study examines the effects on health of the insecurity that arises from low employment protection. Their approach depends on the assumption that individual employees cannot alter the regulations pertaining to them.

Remarkably, the study finds that job insecurity has substantial causal effects on headaches, eyestrains, and skin problems. Moreover, it does not find that, for these outcomes, the cross-sectional associations are underestimating the causal effects. It also finds that job insecurity stimulates a low level of overall (self-reported) health, though the authors are less confident of this finding because it carries an especially wide margin for error, including the possibility of a zero effect.

Finally, by contrast, the authors find that job insecurity, when stimulated by low employment protection, is not the cause of the other possible outcomes (including cardiovascular disease, depression, muscular pain, and insomnia) with which it is associated in the cross-section. Of course, job insecurity can arise for reasons other than low employment protection, so the authors caution that their study does not rule out the potential impacts of job insecurity on these other health outcomes.

The value of longitudinal studies in determining causality

Another way of partially accounting for hidden factors that make job insecurity endogenous is by using longitudinal data, that is, data gathered over long time periods, which look at how the health of a particular group of individuals changes when their job insecurity changes. This method sidesteps those hidden characteristics of individuals that do not change over time, such as personality traits that lead them to give unduly optimistic or pessimistic reports about their health and working conditions.

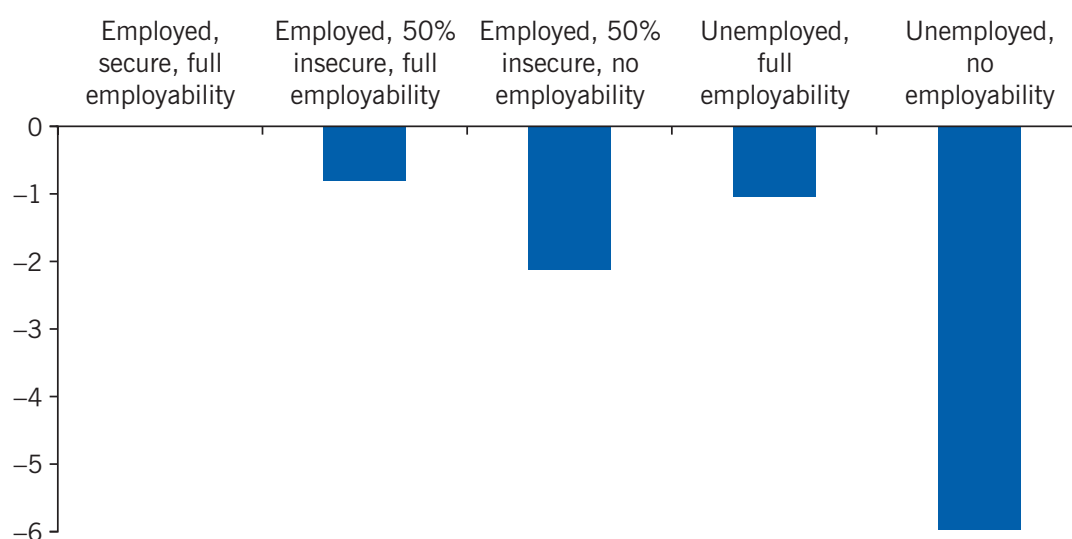
One longitudinal study examines the effect of job transitions on mental health in four countries: Australia, Canada, Switzerland, and the UK [6]. In every country it was found that moving from a secure to an insecure job results in a substantial increase in mental distress. This was the case whether the job was a standard one (full-time and with a permanent contract) or a non-standard one. Similarly, when individuals moved from a state of non-employment into employment the effects on their mental health depended greatly on whether the new job was perceived to be secure. Where the job was thought to be very secure, it led to a significant reduction in mental distress. At the opposite extreme, if the new job was perceived to be very insecure, its positive effects on mental health were much reduced or even zero. In the case of unemployed men in Australia, the new job that was very insecure even increased mental distress—in other words, Australian men were better off, from the perspective of their mental health, not being employed than being employed in a very insecure job.

To a considerable extent, the perception of insecurity is associated with the type of contract, with those on temporary contracts inevitably feeling more insecure. Moving from non-employment into a job with a temporary contract was found to be beneficial for mental health in Australia and the UK, but not at all beneficial in Switzerland.

In another longitudinal study from Italy there is further evidence that temporary contracts are a source of ill-health [7]. Nevertheless, the association between contract status and security differs across countries, depending on employment regulations and whether temporary contracts are regularly renewed. Temporary jobs may also differ in other ways from jobs with permanent contracts, usually for the worse—for example, they tend to have lower degrees of autonomy. Thus, unless these other facets of job quality can be taken into account, the relationship between temporary contracts per se and health cannot be considered as decisive evidence for the effect of insecurity on mental health.

A further, large-scale longitudinal study examines the effects of job insecurity on mental health and life satisfaction in Australia [8]. The indicator of insecurity used in this study is the probability of job loss as estimated by workers themselves, which is a measure other studies have validated. The advantage of this measure is that it provides confidence that the probability of job loss is not being mixed up with any wider sense of insecurity concerning a person's status at work. The study finds that an increase in the probability of job loss stimulates a notable fall in both the mental health scale and in life satisfaction. Mental health, in this study, is measured on a 0–100 scale derived using a subset of items from the Short-Form Health Survey (SF-36). Those responding with low values on this scale are more likely to be experiencing depression. The illustration on p. 1 and Figure 1 show the values on this scale of various states, relative to being in a secure job and being fully employable. Accordingly, the loss of mental health from being partially insecure

Figure 1. Effect of insecurity and unemployment on women's mental health in Australia



Note: Mental health is measured here on a 0–100 scale derived using a subset of items from the Short-Form Health Survey (SF-36).

Source: Green, F. "Unpacking the misery multiplier: How employability modifies the impacts of unemployment and job insecurity on life satisfaction and mental health." *Journal of Health Economics* 30:2 (2011): 265–276 [8].

(i.e. having a 50% chance of job loss within a year), while remaining fully employable (i.e. being sure of getting an equally good job), was close to the loss incurred through actually being unemployed. The effect is around an eighth of a standard deviation of the mental health scale, indicating a significant effect on the numbers suffering mental depression. A similar effect of insecurity is found for German workers, again using longitudinal data [9].

A recent study on insecurity in Denmark combines the advantages of longitudinal data with data from administrative sources of known objective sources of insecurity, namely firm downsizing [10]. The study looks at the effects of insecurity arising from such downsizing, which (similar to [5]) goes a long way to avoiding the problem of insecurity being endogenous. But it also allows, through the longitudinal approach, for any hidden but stable individual characteristics that might be affecting their perceived health. Strikingly, the results strongly confirm the detrimental health effects of job insecurity, and also show negative effects of job status insecurity.

While studies using longitudinal data are generally the most convincing ones for understanding causal processes, studies of successive cross-sections are also useful if one is aiming to understand changes in the health and well-being of a population over time. Such studies are rare owing to data shortages, but have come more into the spotlight following the great recession in 2008, with consequent concerns that job loss would be accompanied by deteriorating health. One study has shown that job-related well-being fell in the UK either side of the great recession (between 2006 and 2012), and that this is attributable, in part, directly to rising job insecurity, an increase in the pace of workplace change, and to changing work effort and workplace participation [11].

How the effects of insecurity might be reduced or counterbalanced

Policymakers at this time of pandemic can make a contribution to the health of populations by limiting the extent of job insecurity through proactive macroeconomic stabilization policies. Accepting, however, the reality of macroeconomic failures and the likelihood that even with good macroeconomic policies an increased level of unemployment and insecurity resulting from the pandemic is almost inevitable, what can health policymakers, employment policymakers, or other social partners do to mitigate the health effects of insecurity?

Notwithstanding the evidence that, overall, job insecurity has substantive effects on health, not everyone is likely to be affected to the same extent. One study shows, for example, that workers whose personalities are high on “introversion” or “neuroticism”—two of the so-called “big five” personality factors—are more vulnerable to adverse mental health effects following job insecurity [12]. While personality is hardly amenable to intervention, the support of the health services, including awareness of job-security-induced stress and ill-health, and strategies for dealing with these, should be an evident concern of health ministers. In addition, however, there are policies and approaches that other actors can consider. Three broad evidence-supported areas are promising.

First, it has been shown that re-employability can go a long way toward mitigating the effects of insecurity. While the prospect of a new equally good job might not be quite as desirable as keeping one’s current job, it can prevent the loss of income and go a long

way to ameliorating the psychological loss. A study using Australian data has shown, for example, that the mental health cost of job insecurity for a woman who is sure of finding a new equally good job is lower by as much as two-thirds, compared with a woman who has no hope of finding a new job (see the illustration on p. 1) [8]. In Germany it is found that, while low job security has substantial negative effects on mental health, this is especially exacerbated in the case of women who have poor job prospects [9]. Re-employability is also a factor effecting mental health in Denmark [10]. Thus, macroeconomic and microeconomic policies to stimulate individuals' chances of re-employment would be beneficial. Welfare policies that reduce the income loss from unemployment also reduce the economic risks. Combined with active labor market policies and skills policies that enhance employability this ensemble has been termed "flexicurity" policy.

Second, social support, either from within the workplace or from outside, has a beneficial impact on well-being and workers' mental health. Moreover, it can be of particular importance at times of insecurity. Support can be psychological, thus diminishing the threats to workers' sense of identity when faced with insecurity; it might also be economic or industrial relations support. Studies have identified both unions and families as potential sources of social support at times of insecurity. A good social network enables workers to develop better coping strategies for the stresses of insecurity.

Third, the ill-health effects of negative shocks and job insecurity can be mitigated within organizations by making jobs better for workers' health in other ways. One recent study showing negative effects of low job security on workers' well-being also confirms at the same time that granting workers more discretion over carrying out tasks, higher pay, safer working conditions, or less highly intensive work could each counterbalance the effects of job insecurity. Forms of participation that allow full two-way communication with affected workers also facilitate a sense of fairness and procedural justice, which have been shown to be related to well-being, especially where companies are downsizing.

LIMITATIONS AND GAPS

A limitation to knowledge of the health effects of job security is the insufficient breadth of coverage of longitudinal studies. It is likely that the stress effects of insecurity are the source of mental health distress, including depression, but the latter is often also associated with physical health consequences. It is not yet possible to specify with confidence which forms of physical health risk are attributable to job insecurity. Nor have researchers analyzed in sufficient detail how the health effects of insecurity might extend to households.

Especially important for policy purposes, enough good evidence for the potential role of different forms of employee participation and of social support is still lacking. While their effects on well-being have been studied, it is not known how effective they are in specifically lessening the negative effects of insecurity.

Longitudinal studies could also be used to examine the dynamics of insecurity and health. While several smaller-scale longitudinal studies, focusing on particular occupations or groups of workers, paint the same picture as the large-scale studies described above, little is known about how people may or may not adapt to insecurity over time. Are the ill-effects of job insecurity chronic, in the sense that they build up over time, as with the

effects of a prolonged state of stress? Or do people get used to insecurity after a while? Do people find ways of compensating for the uncertainty?

It is very welcome to see that the study of insecurity is a lively area of scientific investigation in at least three fields—that is, epidemiology, psychology, and economics. Yet there needs to be more communication between these fields: policymakers are not served well by discipline-based researchers who do not acknowledge valuable contributions on the same issue by those situated in other domains.

SUMMARY AND POLICY ADVICE

It is known from an abundance of research studies that people whose jobs are less secure experience worse health, and in a number of ways—both physical and mental—than those in secure jobs.

A small number of large-scale studies using representative data from across countries, and some smaller-scale longitudinal studies, have confirmed that some aspects of the insecurity–health association are indeed causal. In other words, when circumstances lead jobs to become insecure, employees' health is impaired in some dimensions.

Research also shows that re-employability—that is, the probability of being able to find another equally good job in the event of job loss—makes a substantial difference and mitigates some of the negative effects of job insecurity.

Furthermore, there is reason to expect that by facilitating social support for employees wherever possible, by instituting fair procedures for participation in organizations, and by improving job quality generally, the detrimental effects of insecurity on health may be partly mitigated and partly countered by opposing factors that are beneficial for health.

Job insecurity can become especially widespread in times of recession. Although the effects are initially felt by the workers, the health consequences of each individual also extend to organizations, workers' families and, hence, to societies, which must provide care through health systems and unemployment security systems.

Workers' health is therefore not just a private matter for employees and employers, but also a matter for public policy. Governments should take into consideration the health cost of restrictive policies that generate unemployment and insecurity, while promoting employability through, for example, skills training. Policy should also encourage forms of employee participation and social support in workplaces to mitigate and moderate the negative health effects arising from insecurity.

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Melbourne Institute of Applied Economic and Social Research. For his research on job quality, including insecurity, the author received financial support from the Economic and Social Research Council and from the UK Commission for Employment and Skills. Version 2 of the article situates the available research within the global Covid-19 pandemic and adds new “Key references” [9], [10], [12].

Competing interests

The IZA World of Labor project is committed to the IZA Code of Conduct. The author declares to have observed the principles outlined in the code.

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REFERENCES

Further reading

Ferrie, J. “Is job insecurity harmful to health?” *Journal of the Royal Society of Medicine* 94:2 (2001): 71–76.

Landsbergis, P. A., J. G. Grzywacz, and A. D. LaMontagne. “Work organization, job insecurity, and occupational health disparities.” *American Journal of Industrial Medicine* 57:5 (2014): 495–515.

Sverke, M., J. Hellgren, and K. Näswall. “Job insecurity: A literature review.” *National Institute for Working Life* 1 (2006): 32.

Key references

- [1] Dickerson, A., and F. Green. “Fears and realisations of employment insecurity.” *Labour Economics* 19:2 (2012): 198–210.
- [2] Green, F. “Subjective employment insecurity around the world.” *Cambridge Journal of Regions, Economy and Society* 2:3 (2009): 343–363.
- [3] Virtanen, P., U. Janlert, and A. Hammarström. “Exposure to temporary employment and job insecurity: A longitudinal study of the health effects.” *Occupational and Environmental Medicine* 68:8 (2011): 570–574.
- [4] Lászlo, K. D., H. Pikhart, and M. S. Kopp, M. Bobak, A. Pajak, S. Malyutina, G. Salavec, and M. Marmot. “Job insecurity and health: A study of 16 European countries.” *Social Science & Medicine* 70:6 (2010): 867–874.
- [5] Caroli, E., and M. Godard. “Does job insecurity deteriorate health?” *Health Economics* 25:2 (2016): 131–147.
- [6] Llana-Nozal, A. “The effect of work status and working conditions on mental health in four OECD countries.” *National Institute Economic Review* 209:1 (2009): 72–87.
- [7] Pirani, E., and S. Salvini. “Is temporary employment damaging to health? A longitudinal study on Italian workers.” *Social Science & Medicine* 124 (2015): 121–131.
- [8] Green, F. “Unpacking the misery multiplier: How employability modifies the impacts of unemployment and job insecurity on life satisfaction and mental health.” *Journal of Health Economics* 30:2 (2011): 265–276.
- [9] Otterbach, S., and A. Sousa-Poza. “Job insecurity, employability, and health: An analysis for Germany across generations.” *Applied Economics* 48:14 (2016): 1303–1316.
- [10] Cottini, E., and P. Ghinetti. “Employment insecurity and employees’ health in Denmark.” *Health Economics* 27 (2018): 426–439.
- [11] Green, F., A. Felstead, D. Gallie, and H. Inanc. “Job-related well-being through the great recession.” *Journal of Happiness Studies* 17:1 (2016): 389–411.
- [12] Iliescu, D., I. Macsinga, C. Sulea, G. Fischmann, T. Vander Elst, and H. De Witte. “The five-factor traits as moderators between job insecurity and health: A vulnerability-stress perspective.” *Career Development International* 22:4 (2017): 399–418.

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