



WE ARE PRODUCTS OF
OUR ENVIRONMENT

11 Unemployment

The insupportable labour of doing nothing.

Sir Richard Steele

Introduction

In the next two chapters, we turn to the issue of work: do people have it and do they like it? **Unemployment** is another major cause of low wellbeing (see Chapter 8). It damages the individual and it often damages their family. And a high unemployment rate causes anxiety throughout the population. It also reduces the aggregate income of the community. So in this chapter, we ask four main questions:

- How does unemployment affect the unemployed individual?
- Why is unemployment so painful?
- How does high unemployment affect the rest of the community?
- What policies can reduce equilibrium unemployment?

How Important Is Work?

To begin answering this question, we can look at average differences in wellbeing between people according to their employment status. In Figure 11.1, these differences are plotted for six large countries using data from the Gallup World Poll. Here, we consider differences in life satisfaction between adults employed full-time, part-time, self-employed, underemployed, unemployed, and out of the labour force. In this case, ‘underemployed’ means working part-time but wanting to work full-time, and ‘out of the labour force’ means not having a job and not actively looking for one. This last category is mainly composed of homemakers, early retirees, students and those unable to work due to disability.

As Figure 11.1, shows, unemployed people are less happy on average than employed people in every country. The crude difference is over 1 point (out of 10) in the United States and the UK and rather less in poorer countries. This is partly because employment

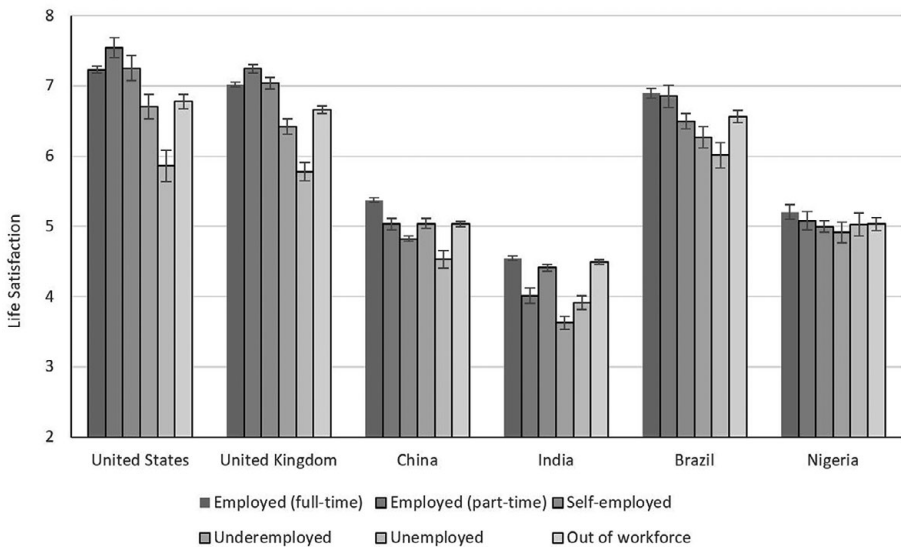


Figure 11.1 Average life satisfaction (0–10) by employment status
 Source: Gallup World Poll 2005–2019, Cantril ladder, adults 18–65.
 Note: 95% confidence intervals displayed.

classifications become less meaningful in lower-income countries. In Africa, 85% of all employment is informal. In Asia, this figure is roughly 70%.¹ In countries without welfare states or labour protections, the concept of unemployment itself becomes much harder to define. Yet even in these regions, wellbeing differences between working and non-working adults tend to remain statistically significant.

However, looking at raw differences alone can be misleading. Averages can tell us about the distribution of happiness in a population but much less about its underlying causes. There may be any number of **confounding variables** that complicate the story. Relative to those who work full-time, the unemployed are, for example, more likely to be young, female and without a college education.² All of these other differences can independently affect wellbeing. If we fail to account for them, we risk misattributing differences in happiness to differences in employment status rather than to other personal characteristics.

In the first wave of empirical wellbeing research, many researchers attempted to address this problem using **cross-sectional regressions**. These models typically take the form:

$$W_i = \alpha_0 + \alpha_1 \text{Employment}_i + \alpha_2 X'_i + e_i. \quad (1)$$

Here, wellbeing is treated as a continuous variable and modelled as a function of employment status and a vector of controls. The coefficients α_2 represent average

¹ International Labour Organization (2018). ² Authors' estimations using Gallup World Poll data.

differences in wellbeing attributable to varying demographic characteristics including income, education, marital status, age and so on. The coefficient α_1 then estimates the extent to which any remaining variation in wellbeing can be explained by differences in employment status. In other words, α_1 measures the psychic impact of unemployment.

Using this approach, Helliwell analysed global data from the World Values Survey. In this case, jobless adults were found to be 0.6 points less satisfied with their lives than full-time employees on a 10-point scale, other things equal.³ By contrast, a halving of income (which unemployed people might also experience) would have a smaller effect (see Chapter 13).

But cross-sectional estimates produced by OLS are still only capable of telling us about average between-person differences. Even with the addition of control variables, there are still two important potential sources of bias to consider:

- **Omitted variables:** For example, happiness can be influenced by unmeasured genetic or personality traits:⁴ those who become unemployed may simply be predisposed to be unhappy.
- **Reverse causality:** Happiness itself affects labour market outcomes.⁵ If unhappiness precedes unemployment, it would be a mistake to conclude that the latter causes the former.

To counter these biases, researchers look at changes in happiness experienced by workers before, during and after becoming unemployed using **fixed-effects regressions**. Instead of comparing adults with jobs to adults without them, fixed-effects regressions estimate the effect of unemployment by comparing people who become unemployed to their former selves. Running these types of analyses requires **panel data** in which the same people are surveyed multiple times over a given period of time. These models typically take the form:

$$W_{it} = \alpha_0 + \alpha_1 \text{Employment}_{it} + \alpha_2 X'_{it} + f_i + e_{it}. \quad (2)$$

Here, the wellbeing of an individual i at time t is modelled as a function of employment status and control variables. However, in this case, f_i is introduced to capture unobserved time-invariant individual effects, like genetic or personality traits. As a result, we are no longer considering between-person differences but rather **within-person changes**. The coefficients for all variables included on the right-hand side of the equation then represent the effect of transitioning from one state to another – for example, employed to unemployed, childless to parent, single to married. In this way, we can estimate the wellbeing impact of changes in life circumstances from one period to the next.

Early versions of this approach were presented by the economists Liliana and Rainer Winkelmann, using large-scale representative data from the **German**

³ Helliwell (2003).

⁴ For evidence, see Lykken and Tellegen (1996); Diener and Lucas (1999); Bartels and Boomsma (2009).

⁵ For evidence, see Frijters et al. (2011); De Neve et al. (2012); Oswald et al. (2015).

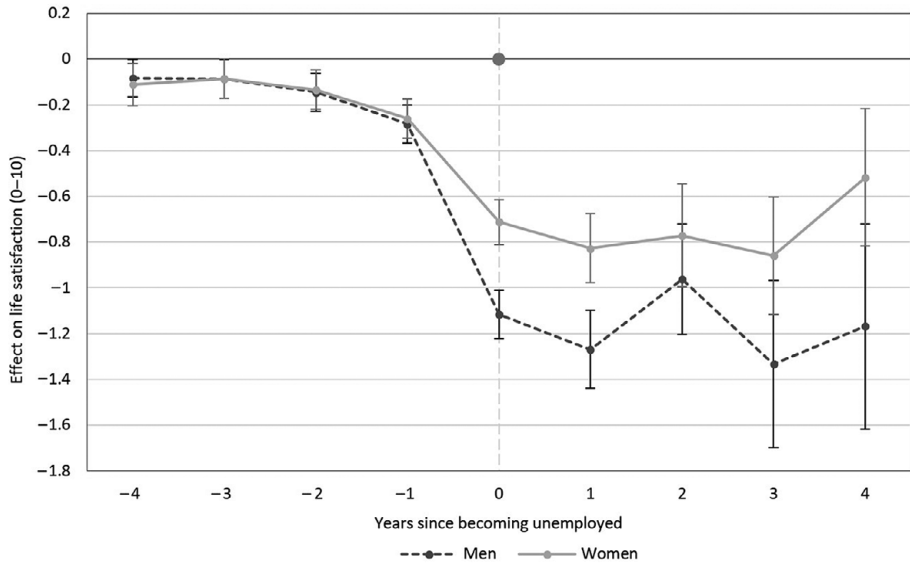


Figure 11.2 Effect of unemployment on life satisfaction (0–10) over time (Germany)

Source: De Neve and Ward (2017); SOEP data

Note: Estimated using fixed-effects (within-person) regressions. Controls included for age, nationality, education, income, number of children, health and marital status. Levels are normalised relative to the baseline happiness level recorded five years before becoming unemployed; 95% confidence intervals displayed.

Socio-Economic Panel (SOEP).⁶ The authors found that unemployment lowered life satisfaction by roughly 1-point on a scale from 0 to 10. To put this effect into context, it is roughly analogous to the drop in happiness associated with becoming widowed.⁷

To see how this works over time, the effect of unemployment on life satisfaction is plotted for German workers using SOEP data in Figure 11.2.⁸ These effects are estimated using fixed-effects regressions controlling for age, nationality, level of education, income, number of children, health and marital status. Measures of life satisfaction are then normalised relative to a baseline level recorded five years prior to workers losing their jobs. For both men and women, unemployment substantially reduces life satisfaction on top of the effect through lost income. The negative effect of unemployment is roughly 30% larger for men than women, a trend generally reflected

⁶ Winkelmann and Winkelmann (1995, 1998).

⁷ The effects of unemployment were generally stronger for men than for women. Frijters et al. (2004) replicated these results and showed that unemployment was found to have worse effects for East German women than West German women.

⁸ The regression is performed for people who had at least one spell of unemployment. It estimates the effect of becoming unemployed and of continuing to be unemployed 1, 2, 3 and 4 years later.

in the literature.⁹ Importantly, workers who remain unemployed for longer periods of time struggle to improve their happiness. Even after four years, men and women who lose their jobs are still as unhappy as when they first became unemployed.

Broadly similar results have been found in Britain, the United States and Australia¹⁰ – as well as Russia,¹¹ South Korea¹² and Switzerland.¹³ The **psychic** effect of unemployment is large and there is little adaptation. Given the high degree of adaptation observed in response to many other life events, the lack of adaptation to losing a job is notable.¹⁴ In fact, when the passage of time is taken into account, the cumulative negative effect of long-term unemployment is greater than the long-term impact of becoming married, divorced, widowed or having children.¹⁵

But does the impact of unemployment differ between workers who choose to leave their jobs and those who become unemployed for reasons outside their control? While quitting is an **endogenous** driver of unemployment, redundancy is **exogenous**. So it is interesting to look at the two groups separately. An analysis of this type in Germany found that workers who lost their jobs due to company closures experienced declines in wellbeing (0.8 points) that were larger than those who resigned from their jobs (0.6 points), although the effect for both groups was statistically significant.¹⁶ At the same time, self-employed workers who had to shut down their business experienced the largest declines overall (1.5 points).

Given this weight of evidence, the substantial negative impact of unemployment on wellbeing is widely regarded to be one of the largest and most robust findings to emerge from empirical happiness research.

Scarring

But is that all, or do unemployed people continue to have reduced wellbeing even after finding new jobs? In some studies, unemployment has been shown to have lingering effects on wellbeing after returning to work. In a seminal analysis, a team of researchers examined the effect of the fraction of the previous five years that had been spent in unemployment. For every year that a person had been unemployed in the previous five years, people were on average 0.1 points (out of 10) less happy.¹⁷ Taking a longer-term perspective, two studies of British workers in the United Kingdom find that spells of youth unemployment predict lower levels of life satisfaction well into adulthood.¹⁸ These results again remain significant after controlling for a host of personal, parental and childhood characteristics. Along similar lines, young people who come of age

⁹ For example, Theodossiou (1998); A. E. Clark (2003); A. E. Clark and Georgellis (2013). Also see Figure 11.2. In contrast to these results, Frijters et al. (2006); and N. Carroll (2007) find similar effects of unemployment for men and women in Russia and Australia, respectively.

¹⁰ See A. E. Clark et al. (2018) p. 43. ¹¹ Frijters et al. (2006). ¹² Rudolf and Kang (2015).

¹³ Anusic et al. (2014). ¹⁴ A. E. Clark and Georgellis (2013).

¹⁵ A. E. Clark and Georgellis (2013). ¹⁶ Hetschko (2016).

¹⁷ A. E. Clark et al. (2018). The results were similar in Britain, Germany and Australia.

¹⁸ Bell and Blanchflower (2011); and Clark and Lepinteur (2019).

during a recession (rather than a boom) care more highly in later life about their financial security.¹⁹

What are we to make of these effects? One possible interpretation is that workers who spend longer periods of time unemployed become more insecure about losing their jobs in the future. By this account, it would be job insecurity itself that drives down wellbeing. Some authors have noted that once feelings of job insecurity are accounted for, the effect of past unemployment on wellbeing does become much weaker.²⁰ However, in a more recent test, a team of researchers have studied retired people, for whom job insecurity is not an issue. They found that people who retired from a position of involuntary unemployment are more dissatisfied with their lives than those who retired straight from work.²¹ This effect goes beyond what may be expected from losses in retirement income and looks like a direct effect on mood and outlook.

Why Is It So Painful To Be Unemployed?

But why is unemployment so painful? One obvious answer might be the loss of income. But we have already taken this into account. And in fact we can easily compare the size of the non-pecuniary effects with those of the pecuniary effects.²² These comparisons have been done by a number of authors, all of whom found the non-pecuniary effects to be more than the pecuniary effects. For example, one widely cited analysis found them to be twice as large, and this is a typical estimate.²³ So the costs of unemployment go far beyond the income loss.

The seeds of this realisation were planted in the academic literature as far back as 1933. That year, a team of sociologists led by the husband-and-wife team of Paul Felix Lazarsfeld and Marie Jahoda published the findings of an extensive field experiment in the Austrian town of Marienthal, following a plant closure that left most of town unemployed. At the time, Austria offered generous unemployment insurance, providing workers who lost their jobs with considerable financial benefits. Yet rather than experiencing gains in wellbeing as a result of more leisure time, affected workers became increasingly despondent. Social and community life in the town quickly disintegrated. The researchers concluded that employment is not simply a pathway to income but rather something that ‘imposes a time structure on the waking day, implies regularly shared experiences and contacts with people outside the nuclear family, links individuals to goals and purposes that transcend their own, enforces activity, and defines aspects of personal status and identity’.²⁴

¹⁹ Cotofan et al. (2021a). ²⁰ Knabe and Rätzel (2011). ²¹ Hetschko et al. (2019).

²² Suppose we have a regression, $W = a_1 + a_2 \text{ UNEMP} + a_3 \log \text{ Income}$; we just compare a_2 with $a_3 \Delta \log \text{ Income}$.

²³ Knabe and Rätzel (2011). The implications are remarkable. Suppose that, typically, unemployed people lose one half their income. Then the psychic cost is equivalent to being reduced to $\frac{1}{4}$ of your original income. It could only be compensated by a 4-fold increase in income.

²⁴ Jahoda (1981) p. 188. Quoted from Hetschko et al. (2021).

Many decades later, modern theoretical understandings of employment continue to focus on three related channels through which work relates to wellbeing: (1) identity, (2) social network and (3) routine.²⁵ We will dive into the empirical evidence for these channels in greater detail later in Chapter 12.

Spillovers on the Community

The family

If unemployment changes the unemployed individual, it also damages the rest of the family and the wider community. **Partners of workers** who lose their jobs suffer declines in wellbeing. One early study observed significant declines in female partner's life satisfaction following their spouse's job loss – of the order of 0.5 points (out of 10) – although similar effects were not observed for male partners.²⁶ More recently, a study looking at unemployment following plant closures in Germany again found that cohabitating partners of unemployed workers experienced significant declines in wellbeing. On average, the spillover effect of unemployment for partners was roughly one fourth of the direct effect on the worker. These negative impacts were largely similar for men and women – roughly 0.3 points on a 0 to 10-point scale.²⁷ Related studies in the United Kingdom,²⁸ Australia²⁹ and Germany³⁰ have found analogous declines in the mental health of spouses following partners' entry into unemployment

Spells of parental unemployment can also have negative effects on the **children's wellbeing**. These effects are generally small but tend to be particularly significant when parental unemployment is experienced when you are in your teens. In one of the first studies conducted along these lines in the United Kingdom, the authors found mostly insignificant effects of parental unemployment on happiness for children under 12 years of age. But the effects turn significant for older children – among 15-year-olds, father's unemployment produces a decline in happiness of 0.4 points (out of 7), while mother's unemployment produces a decline of 1 point.³¹

What about the longer-term effects of parental unemployment? Only a few studies have investigated this. One noted that 18- to 31-year-olds who experienced spells of parental unemployment as a result of plant closures as young children (0–5) or in adolescence (11–15) reported lower levels of life satisfaction than counterparts whose parents remained employed, controlling for other factors. The magnitude of this effect was about 0.6 points (out of 10).³² Similarly, another study found that adult wellbeing

²⁵ For a short summary of the relevant theoretical models in psychology and organisational behaviour, see Suppa (2021).

²⁶ Winkelmann and Winkelmann (1995). ²⁷ Nikolova and Ayhan (2019).

²⁸ A. E. Clark (2003); Mendolia (2014). ²⁹ Bubonya et al. (2014). ³⁰ Marcus (2013).

³¹ Powdthavee and Vernoit (2013). See also Kind and Haisken-DeNew (2012). A. E. Clark et al. (2018) find similar effects of father's unemployment (but lack data on mother's unemployment).

³² Nikolova and Nikolaev (2021).

Table 11.1 How life satisfaction (0–10) is affected by your own unemployment and by the regional unemployment rate (Household data, cross-section)

	Own unemployment rate (1 or 0)	Regional unemployment rate (0–1)
Britain	−0.71 (.09)	−1.38 (.56)
Germany	−0.96 (.07)	−1.58 (.36)
Australia	−0.35 (.11)	−0.37 (.42)
USA	−0.45 (.06)	−1.44 (.47)

Source: A. E. Clark et al. (2018) Table 4.4; slightly adapted; Understanding Society (Britain), SOEP (Germany), HILDA (Australia) and BRFSS (United States); data for many years pooled with year dummies and usual controls

is lower for people whose parents were unemployed, especially if those parents were from more privileged backgrounds (where the shock is greater).³³

The community

The final – and most important spillover from unemployment – is on the population at large. High unemployment makes everyone feel less secure, even if they have a job. For, if unemployment is high and you lose your job, you will find it more difficult to get another one. Table 11.1 reports the results of a cross-sectional analysis of data from four countries. Life satisfaction of person i is regressed on:

- first, whether the individual person i is unemployed, and
- second, the regional unemployment rate (expressed as a proportion).

As can be seen, the coefficient on own employment is less than the coefficient on the regional unemployment rate.

So how does average wellbeing in a region change when average unemployment in the region changes? The wellbeing of individual i in region r is given by

$$W_{ir} = a_0 + a_1 U_{ir} + a_2 \bar{U}_r + \text{etc} \quad (3)$$

and the average wellbeing in region r is therefore given by

$$\bar{W}_r = a_0 + (a_1 + a_2) \bar{U}_r + \text{etc}. \quad (4)$$

In all our countries $a_1 < a_2$. This means that, when unemployment rises, the **total** loss of wellbeing is higher among employed people than among those who are newly unemployed.³⁴

³³ A. E. Clark and Lepinteur (2019).

³⁴ In a study of world unemployment using the Gallup World Poll, De Neve and Ward (2017) also find that $a_1 < a_2$. They also find evidence that the pain of being unemployed is slightly reduced if more others are unemployed. But the effect is tiny. If the local unemployment rate is 10% (rather than 0) – a huge difference – the pain caused by unemployment is reduced by only 6%.

Policy Implications

Clearly, we would like to reduce unemployment to the lowest level compatible with stable inflation.³⁵ There are two main practical issues.

- The approach to redundancy.
- Active labour market policy to stimulate employment.

Redundancy

As we have seen, a high unemployment rate reduces the wellbeing of the unemployed and of workers.³⁶ Moreover, worker wellbeing (and hence productivity) is increased by a sense of **job security**. This creates a presumption in favour of adjusting to shocks through reduced hours or furlough (where workers do not lose their jobs) rather than through redundancy. A test case of this choice arose in the COVID-19 pandemic.

Broadly speaking, high-income countries opted for one of two approaches to the downturn – either job retention or income replacement. Job retention policies aim to maintain employment contracts by subsidising firms to keep workers on the staff, while income replacement policies generally focus on providing financial relief for workers who lost their jobs.³⁷ Taking a wellbeing perspective, we may expect the former approach to be preferable to the latter. Unlike income replacement schemes, policies aimed at keeping workers in their jobs are better poised to keep the non-pecuniary benefits of work intact. While empirical research on the topic is still emerging, countries favouring job retention policies did in fact see both lower levels of unemployment and less severe declines in wellbeing in the first year of the crisis.³⁸

A parallel issue arises even in terms of economic stability. Some countries have stricter laws to discourage redundancy than others. Clearly, such laws reduce the number of workers who get fired, but they also reduce the number of new hires that employers are willing to take on. On balance these effects probably cancel out, and employment protection has little effect on aggregate unemployment.³⁹

Active labour market policies

But some people inevitably lose their jobs. What then becomes crucial is whether or not they drift into long-term unemployment, where their chances of re-employment deteriorate sharply. For a key issue of equity and efficiency is how to prevent long-term unemployment. It may thus be important to shorten spells of unemployment.

³⁵ Layard et al. (2005).

³⁶ An underestimated issue is how far worker wellbeing is affected by the flow into unemployment as opposed to the stock of unemployed.

³⁷ OECD (2020). ³⁸ OECD (2020); and Cotofan et al. (2021).

³⁹ Layard et al. (1991). With higher employment protection there is less short-term unemployment and more long-term unemployment.

To this end, **active labour market policies (ALMPs)** have shown effective macro-economic results.⁴⁰ ALMPs include (a) subsidised hiring of unemployed workers, (b) training programmes (on and off the job) and (c) job-search assistance for the unemployed. Many of these interventions have now been evaluated using properly controlled methods. A meta-analysis of these studies found that on average they raised the probability of being in employment after the end of the programme by 2 percentage points in the short-term, rising to 9 points in the long-run.⁴¹ Subsidised employment was the most effective policy and those who benefitted most from this were those who were already long-term unemployed. But within each type of programme, there was a wide spread of results, depending on the effectiveness of the design. There is also the issue of whether helping unemployed people disadvantages other workers, through displacement or substitution effects. This has been little studied, with mixed results.⁴²

In many cases, unemployed people who are offered subsidised employment are told that they can no longer continue to receive unemployment benefits if they refuse to accept the offer of employment. An alternative is ‘workfare’, which means working for your benefits (whereas most workers on ALMPs receive at least the minimum wage). Under both schemes there is an element of compulsion. So the question naturally arises ‘Are workers on these schemes happier than they would have been if they had remained unemployed?’ Only a handful of studies have addressed this issue. They find that, though workers on these schemes are less happy than workers in normal employment, they are more satisfied than those who remain unemployed.⁴³ This is because work provides important psychological and social benefits as well as income. But we should also remember the importance of not letting people become ‘locked-in’ to subsidised activity, rather than moving on as quickly as possible to regular employment.⁴⁴

Conclusions

- The unemployed are generally significantly and substantially less satisfied with their lives than the employed. This relationship tends to be stronger in high-income countries where there are sharper differences between employment and unemployment.
- In studies that look at within-person changes over time, unemployment typically reduces wellbeing by at least 0.6 points (out of 10).
- Studying plant closures allows researchers to distinguish between endogenous and exogenous effects of unemployment. Workers who lose their jobs due to reasons

⁴⁰ Layard et al. (1991). ⁴¹ Card et al. (2018) Tables 2 and 3.

⁴² Blundell et al. (2004) pp. 569–606; Crepon et al. (2013); Gautier et al. (2018). ⁴³ Knabe et al. (2017).

⁴⁴ In some studies, workfare programs have been found to have minor effectiveness at reducing overall unemployment (see Card et al. [2018]). But such analyses of workfare programmes are also likely to suffer from selection bias, since workers who join these programmes are those least likely to have found work before having to enroll in the programme.

outside of their control are generally more dissatisfied, although the effect of job loss remains negative and statistically significant for both groups.

- Longer periods of unemployment can have scarring effects with long-lasting negative implications for wellbeing even after those affected have returned to work.
- Aggregate unemployment also affects the wellbeing of people in work. This causes greater total losses of wellbeing than the loss of wellbeing on the part of the unemployed.
- The psychosocial effects of unemployment on wellbeing are greater than the effect of lost income. Policy approaches targeting unemployment are therefore likely to be most conducive to wellbeing if they are able to protect and provide for the psychological and social benefits of work, as opposed to simply providing income support.

Questions for discussion

- (1) What are two benefits of using fixed-effects regressions to model the effect of unemployment relative to cross-sectional OLS regressions?
- (2) What do you think explains the lack of adaptation to unemployment?
- (3) Several countries around the world have begun debating proposals to provide citizens with an unconditional basic income. What do the results of this chapter suggest about the potential wellbeing impacts of these policies?
- (4) Some programmes require welfare recipients to accept work in order to receive support. Do you think this is reasonable?

Further Reading

- Clark, A. E. (2003). Unemployment as a social norm: Psychological evidence from panel data. *Journal of Labour Economics*, 21(2), 323–351.
- Clark, A. E., and Georgellis, Y. (2013). Back to baseline in Britain: adaptation in the British household panel survey. *Economica*, 80(319), 496–512.
- Kassenboehmer, S. C., and Haisken-DeNew, J. P. (2009). You're fired! The causal negative effect of entry unemployment on life satisfaction. *The Economic Journal*, 119(536), 448–462.
- Knabe, A., and Rätzl, S. (2011). Quantifying the psychological costs of unemployment: The role of permanent income. *Applied Economics*, 43(21), 2751–2763.
- Winkelmann, L., and Winkelmann, R. (1998). Why are the unemployed so unhappy? *Evidence from panel data*. *Economica*, 65(257), 1–15.