Economic Hard Times and Life Satisfaction in the U.K. and the U.S.

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Executive Summary

Both in Britain and the U.S., the Great Recession lead to a drop in life satisfaction. The drop was significantly larger (again in both countries) among the unemployed than among those in employment, but it was present even for those in employment. The drops in life satisfaction were, however, fairly short-lived and life satisfaction in both countries quickly returned to the pre-recession level, even long before the recession was over. This suggests that the national level of life satisfaction is more likely to be influenced by the salience of bad economic news in the public consciousness rather than by structural economic conditions per se.

At the individual level, the unemployed reported a lower level of life satisfaction, compared not only to the employed, but also to their own life satisfaction before unemployment. Life satisfaction was also affected negatively when a household member became unemployed.

At least in the U.S. we find that the effect of unemployment lingered on even after the unemployed found a new job. This, however, was not the case in the U.K., as Britons who had experienced unemployment returned to the pre-unemployment level of life satisfaction once they regained employment. The timing of the surveys in the two countries might explain the discrepancy in our findings about the "scarring effect" of unemployment. Britain's more extensive welfare state and more generous access to unemployment benefits might also explain this discrepancy, but previous studies in Germany also found a similar "scarring effect," casting doubt on this proposition.

This chapter examines how economic hardship affects individuals' subjective well-being, especially during a severe economic recession. In particular, we focus on the impacts of unemployment on life satisfaction, as joblessness is one of the most common sources of misery during a recession. While the link between unemployment and subjective well-being is well documented in the literature (e.g. Darity and Goldsmith 1996), few studies have examined the relationship in the context of a severe economic recession.

Economic recession provides a unique context to study the relationship between unemployment and life satisfaction. In a recession, a large number of people experiences job loss, including those who typically have more secure employment. An even larger number of people experience hardship indirectly, as they are likely to have family members, friends, or neighbors who are unemployed. Unemployment also tends to get much more media attention in a recessionary period and thus is likely to be salient in the public consciousness. As a result, recession offers an ideal context to study both direct and indirect effects of unemployment on subjective well-being.

Using multiple datasets in the UK and the US, we attempt to address several questions on the relationship between economic hardship and life satisfaction.

- Is there a 'recession effect' on life satisfaction? Does the overall level of life satisfaction decline in a recession, even for the people who do not directly experience hardship?
- 2) Does being unemployed negatively affect life satisfaction?
- 3) How much of the negative effects of unemployment can be attributed to financial hardship and economic anxiety, and how much are due to psychological or other 'non-pecuniary' effects of unemployment?

- 4) Does the effect of being unemployed linger even after people find new jobs? In other words, is there a 'scarring effect' of unemployment?
- 5) Does unemployment among people's social contacts such as family members and friends affect their life satisfaction even though they are not unemployed themselves?

The layout of the chapter is as follows. The next section briefly reviews what previous studies have found on the relationship between unemployment and wellbeing. After introducing our data and key measures, we examine the national trends of subjective well-being in recent years in two countries. In particular, we show the trends for the employed and the unemployed separately to see whether people who did not lose their jobs also experienced any change in their level of life satisfaction during the Great Recession. After looking at the trends at the national level, we zoom into the individual level and use panel data to examine whether experiencing unemployment during the Great Recession, either directly or indirectly, had a negative impact on individual's life satisfaction and also whether the impact lingered on even after the unemployed regained employment. Next we explore the factors that might mediate the relationship between unemployment and life satisfaction. We conclude with the summary of the key findings and discussion of their implications.

Economic hard times and subjective well-being

The relationship between economic hardship—especially unemployment—and wellbeing is well documented in the literature on subjective wellbeing (see Darity and Goldsmith 1996 for a review). A number of studies have shown that the unemployed tend to report a lower level of wellbeing, including life satisfaction (e.g., Blanchflower and Oswald 2004), mental distress (Clark and Oswald 1994), and depression (Korpi 1997). Several studies have used the panel data to provide stronger evidence that being unemployed causally affects subjective wellbeing (Winkelmann and Winkelmann 1998; Clark 2003; Andersen 2009). Most of these panel studies are based on European data, especially the German Socio-Economic Panel Survey and the British Household Panel Survey. However, a few recent studies have used the US data to find similar negative effects of unemployment on wellbeing (Dooley, Prause, and Ham-Rowbottom 2000; Young 2012).

The negative association between unemployment and wellbeing is often attributed to social and psychological impacts of unemployment rather than its financial consequences (Winkelmann and Winkelmann 1998; Clark 2003; Young 2012). This line of argument dates back to the studies from the Great Depression era, which emphasizes the 'latent functions' of employment, such as time structure, collective purpose, social contacts, and status (Jahoda 1982). Unemployment deprives people not only of their income, but also of these latent functions associated with employment, and the deprivation of those functions, not just financial loss, leads to psychological distress among the unemployed. Clark (2003) suggests that the negative effect of unemployment on psychological wellbeing is partly attributable to the "reputation" effect. Unemployment is often interpreted as a signal of an individual's moral character (Goffman 1961) and the unemployed internalize others' negative judgments about them and thus feel unworthy (Young 2012). Surprisingly, few studies have examined economic anxiety and financial insecurity as a possible mediator between unemployment and wellbeing.

A few studies have suggested that the negative effect of unemployment lasts even after the unemployed find a new job (e.g. Clark, Georgellis, and Sanfey 2001; Lucas et al. 2004; Knabe and Ratzel 2011). For example, Lucas et al. (2004) have analyzed the German Socio-

Economic Panel Survey and found that the level of life satisfaction among the unemployed failed to return to the pre-unemployment level even a few years after they regained employment. Young (2012) found that the negative impact of 'losing a job' was larger than the positive impact of 'regaining employment,' inferring from this a similar 'scar effect' of unemployment on mental health in the U.S. These findings contradict the set-point theory of subjective wellbeing, which posits that individual's subjective wellbeing is relatively stable over time and major life events, either good or bad, affect one's subjective wellbeing only temporarily (Brickman and Campbell 1971; Diener, Lucas, and Scollon 2006). Even after major life events such as the death of a spouse, studies have found that people quickly adapt to new circumstances and as a result, the level of wellbeing tends to rebound to their pre-event set-points (Bonanno et al. 2002; Lucas et al. 2003). However, a few recent studies have found that certain negative life events, including unemployment, might leave a lasting mark on subjective wellbeing and thus permanently alter the set point (Lucas 2005a and 2005b; Diener et al. 2006).

In addition to the direct effect of unemployment, several studies have suggested that other people's unemployment could also affect one's subjective well-being because of fear of unemployment. A few of these studies have examined whether unemployment of partner or other household members affect people's subjective well-being. Using the British Household Panel Survey, Clark (2003) found that employed respondents with unemployed partner or household members report a lower level of mental well-being than those without. Other studies have focused on how national or local unemployment rates predict a lower level of wellbeing for the employed as well as for the unemployed (Clark 2003; Di Tella, MacCulloch, and Oswald 2003; Pittau, Zelli, and Gelman 2010; Helliwell and Huang 2011). For example, Di Tella et al. (2003) used the Euro-Barometer surveys to find that national unemployment rate between 1975 and

1992 predicts a lower level of happiness and life satisfaction for both the employed and the unemployed among eleven Western European countries. Using the same data, Pittau et al. (2010) found that regional unemployment rate also predicts a lower level of life satisfaction. Helliwell and Huang (2011) report similar findings, based on their analyses of two large datasets in the US.

Some of these studies of indirect effects of unemployment have also suggested that the direct effect of unemployment might be attenuated by a high level of unemployment in one's environment, because unemployment "hurts less when there are more unemployed people around" (Clark 2003: p.346). In a high unemployment environment, these studies argue, unemployment becomes a social norm and thus the unemployed are less likely to experience the "reputation effect." Other studies, however, failed to replicate this moderation effect, suggesting that the negative effect of unemployment is similar regardless of national or local unemployment rates (Pittau et al. 2010; Oesch and Lipps 2011; but see Helliwell and Huang 2011).

In short, previous studies have consistently found that unemployment negatively affects various aspects of an individual's wellbeing. A few studies even suggest that unemployment leaves a 'scar' on wellbeing that outlasts joblessness. In addition, other people's unemployment might also have negative effects on an individual' well-being. In this chapter, we attempt to replicate some of the key findings of the previous studies in the context of the Great Recession and contribute to the unresolved issues in the literature, including the 'scar effect' of unemployment and the mechanisms underlying the relationship between unemployment and wellbeing.

Data and Measurements

To track the national trends of subjective wellbeing before and after the onset of the Great Recession in two countries, we use the Gallup Daily Poll in the U.S. and the Euro-

Barometer survey in the U.K. Since 2008, Gallup has interviewed about 1,000 randomly sampled American adults (aged 18 or older) every day except for major holidays. The survey has daily repeated a number of questions on health and wellbeing, including several questions on subjective wellbeing. In this section, we use the Cantril's Self-Anchoring Ladder of life satisfaction, which asks respondents to rate their life on a scale from 0 to 10.¹ In the U.K., we could not find a survey that tracks subjective wellbeing of Britons as frequently as the Gallup Daily Poll does. Instead, we use the Euro-Barometer survey, which has been conducted about twice a year since the early 1970s. The sample size for each survey is around 1,000. The survey repeats the life satisfaction question regularly and thus allows us to track the long-term trend of life satisfaction among Britons. Unlike the 11-point scale question in the Gallup Daily Poll, Euro-Barometer uses a 4-point scale, ranging from 'very satisfied' to 'not at all satisfied.' Figure 2 shows the percentage of respondents in each survey whose responses were either 'very satisfied' or 'fairly satisfied.'²

These data will allow us to track the national trend in life satisfaction over time, both before and after the beginning of the Great Recession, and thus to identify any change in life satisfaction due to the Great Recession. To examine how an individual's experience of unemployment affects her or his subjective wellbeing, however, we need to follow a same group of individuals over time and observe their employment status and subjective wellbeing multiple

¹ The actual question the Gallup survey asked is the following: "Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time, assuming that the higher the step the better you feel about your life, and the lower the step the worse you feel about it? Which step comes closest to the way you feel?"

² The actual question was: "On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the life you lead?"

times, both before and after the recession. Fortunately, there are high quality datasets in both countries that interviewed a relatively large number of the same individuals repeatedly before and after the onset of the Great Recession. In the U.S., we use the Faith Matters Survey (FM), which interviewed a representative sample of American adults (N = 3,108) in 2006. About two thirds of the original respondents (N=1,905) were re-interviewed a year later, and 54% of the original respondents (N=1,685) were re-contacted the third interview in 2011. Because the FM interviewed the same respondents twice before the recession and once after the recession, it provides a kind of before-and-after design that allows us to examine the impact of economic hardship during the Great Recession on subjective wellbeing. To measure subjective wellbeing, we use the question on life satisfaction, which asked respondents to rate their level of life satisfaction on a scale, ranging from 1 to 10, 10 being "extremely satisfied." Life satisfaction was measured in all three waves of the FM survey, but employment status was asked only in 2006 and 2011. In 2011, however, respondents were asked whether they had experienced unemployment in the past five years. In addition, the 2011 FM survey also asked whether any member of household, relatives, or close friends had experienced unemployment in the same period. These questions allow us to examine both direct and indirect effects of unemployment in the period of the Great Recession.

In the UK we use the British Household Panel Survey (BHPS), which interviewed a representative sample of 5,050 English households containing 9,092 interviewed adults in 1991 (n=3,000 households each for Scotland and Wales were added into the survey in 1999 and a Northern Ireland extension from 2001 (n=1900 households) and has been carried out every year until 2008/09. To produce a comparable dataset to the FM survey were limited ourselves to using the 2002/03, 2003/04 and 2008/09 surveys i.e. with the latest survey as close to the recession as

possible and with a gap of 5 years before the first two surveys. However, unlike the FM survey, conducted in 2011 (2/3 years after the recession had occurred), the final survey available using the BHPS is 2008/09 (covering the period the recession was beginning). The sample size in 2002-03 was n=16,597, of which n=14,954 remained in 2003-04 and n=10,879 remained in 2008-09 (that had also participated in the 2004-05, 2005-06, 2006-07, and 2007-08 surveys). To measure subjective wellbeing, we use the question on life satisfaction, which asked respondents to rate their level of life satisfaction on a scale, ranging from 1 to 7, 7 being "completely satisfied." Life satisfaction was measured in all three waves of the using-BHPS survey. As the BHPS is a household survey we can also explore the 'indirect-effects' of unemployment by capturing whether an individual who personally did not experience unemployment, ever lived in a household with someone who did.

The Great Recession and the national trends of subjective well-being

<Insert Figure 1 approximately here>

In this section, we examine the national trends of subjective well-being in two countries to see whether there is any visible change that is attributable to the Great Recession. Figure 1 shows the trends in life satisfaction in the Gallup Daily Poll between 2008 and 2011, for working (i.e. employed or self-employed) and unemployed respondents separately. The figure is based on monthly aggregated data to remove some of the random daily fluctuations due to sampling errors. Figure 1 also shows the trend of the monthly national unemployment in the U.S. in the same period. Both for the employed and the unemployed, there is a sharp decline in life satisfaction in the second half of 2008, especially between September 2008 and the first few months of 2009. This coincides with the onset of the financial crisis in the US. The average level of life

satisfaction, however, quickly bounced back, beginning in early 2009, even though national unemployment rate kept rising. Since late 2009, it even appears to have passed the pre-recession level since late 2009, at least among the employed.

The decline in life satisfaction during the financial crisis is observed for both the employed and the unemployed, but the decline is significantly steeper among the unemployed. In six months between June and December of 2008, life satisfaction among the unemployed declined by more than 0.9 compared to less than 0.4 among the employed. The fact that the decline in life satisfaction was steeper among the unemployed than among the employed, indicates that the former felt the sting of the recession deeper than the rest of the population. It is also notable that life satisfaction among the unemployed is always lower than that among the employed and that the gap is not narrower during the Great Recession. In fact, the gap is larger at the bottom of the recession. This is inconsistent with the studies that have argued that the effect of unemployment on subjective wellbeing is smaller when unemployment in environment is higher. This prediction does not seem to hold at least at the national level.

<Insert Figure 2 approximately here>

Figure 2 shows the trends in life satisfaction in the UK Euro-Barometer survey. Because the Euro-Barometer survey uses a 4-point scale to measure life satisfaction, we show the percentage of respondents in each survey whose responses were either 'very satisfied' or 'fairly satisfied.' The survey was conducted only once or twice a year, so the trends are choppier compared to those in the US. To help to see the trends more clearly, we added the lines that smooth out some of the fluctuations.

Similar to the U.S., we see a decline in life satisfaction in 2008 and 2009. While we see a small decline among the employed, life satisfaction declined much more sharply among the

unemployed. Between the survey in October 2007 and November in 2008, the unemployed who were 'fairly' or 'very' satisfied with their lives dropped by 10% or more. However, life satisfaction quickly bounced back to the pre-recession level, even among the unemployed, so the level of life satisfaction in the surveys conducted in 2009 and 2010 is comparable to the pre-recession level.

In short, despite the differences in sample size, frequency of survey, and the procedure that measured life satisfaction, the data from two countries show highly consistent results. Life satisfaction declined among all respondents in both countries at around the beginning of the Great Recession, but the decline was much steeper among the unemployed than among the employed. However, in both countries, the depressed mood due to the recession did not last long as the changes in the level of life satisfaction suggests, even though the economic woe caused by the recession continued in both countries (as demonstrated by the rising national unemployment rates). In fact, the decline was so short that we would have not observed it with typical annual or bi-annual social surveys. This finding is consistent with the 'set-point' theory we discussed earlier (Brickman and Campbell 1971), which posits that the impacts of life or social events on subjective wellbeing do not last and people quickly adjust to new environments. Another notable finding is that contrary to what some studies have suggested about the contextual effect of unemployment (Clark 2003), the gap between the employed and the unemployed in life satisfaction either remained constant or even increased in the Great Recession, despite the high level of unemployment.

Economic hardship and subjective well-being: Direct and indirect effects

The findings in the previous section show that life satisfaction declined during the Great Recession in both countries. The impact of the recession was felt even among the people who were able to keep their jobs, but the pain was clearly more acute among the unemployed. Moreover, the results show that the unemployed have a lower level of life satisfaction than the employed even when economy is not in a recession. In this section, we take a closer look at both direct and indirect impacts of economic hardship by focusing on the effect of personal experience of unemployment on life satisfaction. Because it is plausible that people who experience unemployment have a lower level of wellbeing even before they lose a job and also that unhappy people might be more likely to be unemployed, we use panel data that interview a same group of respondents multiple times, both before and after the Great Recession.

We start by looking at the life satisfaction by employment status among the FM respondents who participated in all three waves of the survey. The comparison of our key interest is between the people who experienced unemployment in this period and those who were at risk of unemployment but did not experience it. Therefore we focus on the respondents who were employed in the first wave of the survey in 2006. The reference group is the respondents who were employed at the time of survey in both 2006 and 2011 and had no unemployment experience in between these years, either directly or indirectly through their family or friends. While it is possible that these people also felt the impact of the Great Recession in other ways, they did not experience it through job loss, either directly or indirectly. There are three different groups we compare to this reference group: 1) people who were employed at the time of survey in 2006, but unemployed in 2011 and may or may not have experienced unemployment in the past five years; 2) people who were employed at the time of survey in 2006 and 2011, but who did experience unemployment in the past five years; 3) people who were employed in 2006 but experienced unemployment in the past five years and were out of labor force (OLF) at the time of survey in 2011. With the first comparison group, we can see whether going through

unemployment has a negative effect on life satisfaction. With the second group, we examine whether the negative impact of unemployment lingers on even after the unemployed find a new job. And finally, the third group will provide a test as to whether unemployment has a lasting effect when the unemployed drop out of labor market either by retiring, being a homemaker, or simply not looking for a job anymore.

<Insert Figure 3 approximately here>

Figure 3 shows that the level of life satisfaction stayed remarkably stable among the people who never experienced unemployment either directly or indirectly. They are, on average, highly satisfied with their lives as their life satisfaction approaches 8.5 on a scale ranging from 1 to 10. Not surprisingly, people who were unemployed at the time of survey in 2011 reported a significantly lower level of life satisfaction than those who never experienced unemployment. The gap between the two groups in 2011 is almost 2 on a ten-point scale, which is substantial. For comparison, the difference between people with 'poor' health and 'excellent' health in self-reported health on a five-point scale in the FM survey is about 1.6, smaller than the gap between the people with no experience of unemployment and those who were unemployed in 2011. More importantly, the level of life satisfaction among the unemployed in 2011 declined substantially even from their level of satisfaction in 2006. To be sure, other events that might have happened in this period could be responsible for the decline and might even have led to unemployment. Still, the fact that most of the decline occurred between 2007 and 2011, rather than between 2006 and 2007, implies that unemployment could be a main reason for their unhappy feeling in 2011.

The pattern for the people who experienced unemployment but were working at the time of the 2011 survey suggests that the negative impact of unemployment may not go away as soon as the unemployed find a new job. Even though the decline in life satisfaction for this group appears less steep compared to the unemployed in 2011, their life satisfaction in 2011 is substantially lower than that of the people with no unemployment experience and also much lower than their own life satisfaction in 2006 or 2007. In other words, unemployment does seem to leave a scar that outlasts the experience of joblessness. We find a similar pattern among the people who had experienced unemployment and were out of labor force in 2011.

Figure 4 shows a similar analysis in the U.K. with the British Household Panel Survey. To make the data comparable to the FM, we focus on three waves of the survey: 2002/03, 2003/04, and 2008/09. Note that the last survey was conducted a couple of years earlier than the last wave of the FM survey. Again, we only focus on the respondents who were employed at the time of the first survey (i.e. in 2002/03).

<Insert Figure 4 approximately here>

Similar to what we have found in Figure 3, we see little change in life satisfaction among the people with no experience of unemployment during the period. People, who were unemployed at the time of the last survey (2008/09), show a significantly lower level of life satisfaction in 2008/09, compared to both the reference group and their own level of life satisfaction in earlier waves. The pattern for the people who dropped out from labor force after experiencing unemployment is also similar to that in the U.S., although it is notable that this group has the lowest level of life satisfaction than other groups in the first wave when they were working. The result for the final group—who had experienced unemployment between 2002/03 and 2008/09 but was working in 2008/09—however, is somewhat different from what we find in Figure 3. This group shows a similar or even slightly higher level of life satisfaction in 2008/2009 than they were in 2002/03 when they were also working. In other words, we do not find that the effect of unemployment lingers on after people regain employment. The finding on

no 'scar effect' of unemployment in the U.K. is inconsistent, not only with the finding from the FM data in Figure 3, but also with other studies in the U.S. and German that found a similar lingering effect of unemployment (e.g. Lucas et al. 2004; Young 2012). We will return to this discrepancy later in the chapter.

In summary, our analyses show that unemployment could have a substantial effect on life satisfaction in both countries. The results in the U.S also suggest that the unemployment effect on life satisfaction could linger on even after the unemployed find a new job. However, we do not find a similar scar effect in the U.K. Another notable finding in Figure 3 and 4 is that the level of life satisfaction among those who experienced unemployment is significantly lower even before they experienced unemployment. This is true in both countries, even though we only focused on the respondents who were employed in the first wave of the survey. Later we adjust for individual characteristics that might be responsible for this initial gap in life satisfaction between groups to ensure that the observed unemployment effect is not mostly due to other differences between them.

Earlier in the chapter (see Figure 1 and 2), we have found that even people who did not lose their jobs experienced some decline in life satisfaction in both countries. In Figure 3 and 4, however, we see that people with no experience of unemployment show a remarkable stability in life satisfaction. In the U.S., the third wave of the FM survey was conducted in 2011, when the national trend in life satisfaction among the employed had already recovered from the dip due to the Great Recession. In the UK, the last wave of the survey was collected in 2008/09 when we still see a lower level of life satisfaction in Figure 2. One possibility is that the recession does not affect all employed individuals equally; rather the effect may be concentrated among people who experience the impact of the recession indirectly through the unemployment of their household members or friends. Figures 5 and 6 examine this possibility.

<Insert Figure 5 and 6 approximately here>

The FM asked respondents whether in the past five years, any of their household members or relatives and friends had experienced unemployment. In Figure 5, we compare life satisfaction among the people who experienced unemployment only indirectly through family members or friends to that among people who did not have any experience of unemployment, direct or indirect. The results suggest that having an unemployed household member could also damage life satisfaction, although the magnitude of the effect appears smaller than that of the direct experience of unemployment. We also see a small decline among the people whose relative or friends experienced unemployment.

The BHPS did not ask the same question, but because it is a survey of all household members, we do know whether any of a respondent's household members experienced unemployment. Among the people who were never unemployed during the period and had no unemployed household member in 2002-03, people who had at least one unemployed member in 2008-09 show some decline in life satisfaction (Figure 6). The decline, however, is also observed in 2003-04. This might be because people whose household members were unemployed in 2008-09 were also more likely to have an unemployed member back in 2003-04 as well. Among the people who had no unemployed household member either in 2002-03 or 2008-09 but had one in between, we see no decline in life satisfaction. Moreover, their level of life satisfaction in 2008-09 is almost identical to that among the people with no unemployment experience. So, again, we find no evidence for a 'scar effect' of indirect experiences of unemployment. Findings in Figure 5 and 6 do suggest that there could be a 'spillover' effect of unemployment, especially when one's household member experiences unemployment. Given that unemployment of household members could lead to similar financial hardships as that of respondents experiencing unemployment themselves, it may not be surprising to see this spillover effect. However, the fact that the size of the indirect effect is smaller than that of the direct effect seems to suggest that unemployment's effect on well-being might not be all about the financial hardship it causes. Furthermore, at least in the U.S., we also observe that unemployment of non-household members could have a small negative impact on respondent's life satisfaction, which probably cannot be explained by financial hardship alone.

While the analyses so far suggest that both the direct and indirect experiences of unemployment could have negative effects on life satisfaction in both countries, it also should be noted that people who experienced unemployment, either directly or indirectly, tend to have a lower level of unemployment to begin with. In addition, it is also plausible that other changes that might have occurred in the same period are responsible for the decline in life satisfaction, not their experience of unemployment. For example, some people might have become sick during the period, resulting in both unemployment and lower subjective wellbeing. The findings so far also do not address why unemployment makes people less satisfied with their lives. The rest of the chapter attempts to address these issues.

<Insert Table 1 about here>

Table 1 shows four regression models that predict the change in life satisfaction between 2006 and 2011 among the same FM respondents with various individual characteristics in 2006

and 2011.³ Again, we focus on the FM respondents who were employed in the first wave of the survey in 2006. The change in life satisfaction was calculated simply by subtracting life satisfaction in 2006 from that in 2011 for each panel respondent. Model 1 adjusts for various individual characteristics in 2006, including: age, sex, race, education, income, financial satisfaction, the level of socializing, number of close friends, family status, and subjective health. To keep the presentation simpler, the results for these control variables are not shown in Table 1.

The results suggest that the direct experience of unemployment significantly lowers life satisfaction even after adjusting for various individual characteristics in 2006. The negative coefficient for being unemployment in 2011 suggests that people who were working in 2006 but unemployed in 2011 experienced a sharp decline in life satisfaction. People who experienced a decline in life satisfaction, although the size of the decline is about a half of that for the people who were unemployed at the time of survey in 2011. A smaller but still statistically significant decline is found among the people whose household members experienced unemployment in the past five years. People whose family members not living in the same household or friends experienced unemployment also experienced a small decline, although it was not large enough to be statistically significant. These results are largely consistent with what we observed in Figure 1 and 3.

In Model 2, we added the change in income between 2006 and 2011 to see whether it can account at least a part of the decline in life satisfaction among the unemployed. The result suggests that the change income explains only a very small slice of the unemployment effects.

³ We focus on the 2006 and 2011 surveys because using all three waves of the FM survey will make the sample size for some categories of unemployment experience too small for a reliable estimation.

The results in Model 3, however, suggest that respondent's subjective evaluation of financial situation and anxiety on job security explains a significant portion of the unemployment effect. Adding respondent's financial satisfaction and their prospect of experiencing unemployment reduces the size of the coefficients of direct experiences of unemployment by 30 to 50%. Even after taking these factors into account, however, people who were unemployed at the time of survey in 2011 and those who had experienced unemployment but were working in 2011, were still significantly less satisfied in 2011 than in 2006.

Finally in Model 4, we add the change in self-rated health between 2006 and 2011. One possibility is that deteriorating health among some respondents during the same period lead to both unemployment and lower life satisfaction. The results in Model 4 suggest that deteriorating health condition does significantly predict the change in life satisfaction, but has little effect on the relationship between unemployment and life satisfaction.

<Insert Table 2 about here>

Table 2 shows the results from similar analyses in the U.K. Because some of the personal characteristics we adjusted for in the FM are not available in the BHPS, the models in Table 2 are somewhat different from those in Table 1. Model 1 in Table 2 estimates the direct and indirect effects of unemployment on life satisfaction after adjusting for personal traits measured in 2002-03. The variables we adjusted for are: age, sex, race, education, family status, region, and income. Net of these factors, the results suggest that among the people who were working in the first wave of the survey in 2002-03, those who were unemployed in 2008-09 experienced a significant decline in life satisfaction. In addition, people who had experienced unemployment and were out of labor force in 2008-09 also experienced a significant decline in life satisfaction. However, we find no evidence that experiencing unemployment has any lingering effect among

the people who experienced unemployment between the first (2002/03) and the third wave (2008-09) of the survey but regained employment at the time of survey in 2008-09. In other words, we find no scar effect in the U.K. Finally, we find that having an unemployed household member in 2008-09 has a significant negative effect on life satisfaction, but again, the effect does not seem to linger on when the household member finds a new job.

In Model 2, we added the change in income to see whether financial change explains some of the negative effects of unemployment. Consistent with what we have found in the U.S., the change in income explains only a small portion of the unemployment effects. However, Model 3 shows that subjective assessment of financial situation significantly reduces the unemployment effects, indicating that the sense of financial insecurity has to do with the negative impact of unemployment on well-being. Still, even after controlling for the assessment of financial situation, experiencing unemployment has a significant effect on life satisfaction. The effect of having an unemployed household member is not significant anymore in Model 3, suggesting that the effect of having an unemployed household member is largely mediated by financial insecurity.

In summary, the results in Tables 1 and 2 provide strong evidence for the negative effects of unemployment on life satisfaction. In both countries, people who were currently unemployed at the time of survey experienced a significant decline in life satisfaction, even after taking into account various individual factors that might make people more prone to both unemployment and a lower level of life satisfaction. We find that a significant part of the unemployment effect (both direct and indirect) can be attributed to the sense of financial insecurity rather than the change in income, although we still observe significant unemployment effects even after taking financial insecurity into account. We also find some evidence for indirect effects of unemployment on life satisfaction, as life satisfaction declined among the people whose household members experienced unemployment even if they did not experienced joblessness themselves. We find no statistically significant evidence that unemployment of family members outside the household or close friends negatively affects an individual's life satisfaction, though.

With respect to the 'scar effect' of unemployment, our findings are mixed. In the U.S. we have found that the effect of unemployment ligers on even after people regain their employment. The size of the 'scar effect,' however, is only about a half of the concurrent effect of unemployment, suggesting that life satisfaction rebounds to some extent once the unemployed find a new job. In the U.K., however, we find no evidence of the scar effect: once people regain employment, life satisfaction returns to their pre-unemployment level. We do find that the effect of unemployment lingers on among the Britons who experienced unemployment and then moved out of labor force. Some of these people are likely to be 'discouraged workers' who gave up on their job search after a period of unemployment.

Both in the U.S. and U.K., the change in family income does not appear to be a main reason for the negative effects of unemployment on volunteering. Rather, it has more to do with the sense of financial dissatisfaction and economic insecurity resulting from unemployment. Even after taking into account the measures of financial satisfaction and employment security, however, we still find a substantial decline in life satisfaction among the unemployed.

Discussion

In this chapter, we have attempted to assess the impacts of economic hardship on subjective wellbeing by examining the effects of unemployment in the context of the Great Recession. Some of the findings reported in this chapter confirm what previous studies have

found, but others challenge the conventional wisdom and pose new questions on the relationship between economic hard times and subjective wellbeing.

Similar to previous studies on macro economic factors and subjective wellbeing, we have found a significant decline in life satisfaction during the Great Recession in the U.K. and the U.S. The decline is found both for the employed and the unemployed, but the unemployed experienced a much sharper decline in life satisfaction than the employed. The latter finding is inconsistent with some studies that have suggested that unemployment may have a smaller effect on wellbeing as unemployment would carry less of a stigma when a larger number of people unemployed. We have also found that the "recession effect" on life satisfaction did not last long. In the U.S., where we were able to track life satisfaction weekly or even daily, the decline mostly concentrated in the beginning of the recession, especially when the global financial crisis was at its height. Despite the fact that the unemployment rate in the U.S. continued to rise even in late 2009, average life satisfaction in the U.S. quickly bounced back to the pre-recession level by early 2009. In fact, we found that the weekly trend in life satisfaction was more or less decoupled from macro economic indicators since 2009 and remained stable, even for the unemployed.

These findings suggest that the national trend in life satisfaction in a recession might not be a direct result of economic hardship caused by the recession. Instead, the trend seems to be driven largely by the salience of bad economic news in the public's consciousness. Kahaneman (2012) points out that even though the question on life satisfaction is meant to measure the longterm evaluation of life, the answer to the question is often influenced by "a small sample of highly available ideas, not by a careful weighting of the domains of" life (p. 399). In late 2008 and early 2009, stories on the global financial meltdown and the prospect of a long-term economic recession were dominating news media and thus the issue of economic insecurity was probably weighted heavily when the respondents were evaluating their lives in this period, especially if you were personally experiencing the consequences of the recession. As people became accustomed to this new reality and news media moved on to other issues, the salience of economic issues would have faded away, thus assigned less weight when people were asked to evaluate their life.

Our findings from both national and individual levels confirm that unemployment negatively impacts life satisfaction. In both countries, people who were unemployed at the time of the last survey were significantly less satisfied with life, not only compared to the people who were employed, but also compared to their earlier levels of life satisfaction when they were still employed. We have also found that the effect of unemployment could indeed "spill over" to other people around the unemployed, but mostly to the people who live in a same household. In other words, the scope of spillover effect through social networks seems to be rather limited.

Consistent with previous studies, our findings suggest that the loss of income due to unemployment is not a main reason of the decline in life satisfaction of the unemployed. Instead, our findings indicate that financial discontent and the sense of economic insecurity explain a large part of the unemployment effect on life satisfaction. Even after taking these factors into account, however, we still find significant negative effects—both direct and indirect—of unemployment on life satisfaction. These remaining effects might be due to the loss of nonpecuniary benefits of employment, such as time structure, opportunities for social contact, and especially the sense of purpose and meaning in life. The evaluation of life cannot be divorced from the goals people set for themselves. Occupation is often an important part of the goals in people's lives and thus the loss of job could lead to the loss of purpose and meaning of life for the unemployed. Still, it is also possible that our measures of economic insecurity are less than perfect and the remaining effects might be due to financial anxiety and economic insecurity that are not properly captured in our data.

Finally, we have found some evidence for the "scar effect" of unemployment, but only in the U.S. In the FM data, our analyses suggest that the negative effect of unemployment on life satisfaction remains even after the unemployed find a new job. However, we failed to find any evidence for the scar effect in the U.K. In the BHPS, life satisfaction among the unemployed returned to their pre-unemployment level once they regained employment. This finding in the U.K. contradicts not only our findings from the US data, but also the findings reported in previous studies based on German and US data. How do we account for these discrepancies?

The discrepancy between our findings in the BHPS and those in previous studies might be due to the differences in analytic approach. For example, Clark et al. (2003) estimate the scar effect by comparing life satisfaction of people who experienced unemployment with that of individuals who did not. Moreover, they do not seem to control for the pre-unemployment level of life satisfaction (and as we know, individuals who experience unemployment already tend to evince lower life satisfaction). Another frequently cited study with respect to the scarring effect (Luas et al. 2002) estimates the scar effect by comparing life satisfaction before and after the experience of unemployment, but they standardize the measure of life satisfaction within each wave, which might have affected their finding. It is also notable that these studies are all based on a single dataset (the German Socio-Economic Panel survey). In fact, a study based on an Australian dataset (Carroll 2007) failed to find a significant scar effect of unemployment. Therefore, it is also possible that the scar effect applies to some countries but not others.

The discrepancy between the BHPS and the FM data seems harder to explain, as we have used a similar methodological approach in both analyses. It could be that unemployment has a scarring effect in the U.S. but not in the U.K. due to some institutional or cultural differences in two countries. It is also possible that the difference in the survey procedure is responsible for the discrepancy. In the FM, the experience of unemployment was measured by asking retrospective questions on unemployment and economic hardship in the past five years. Being asked about past experiences of economic hardship might have made such experiences more salient in the minds of the people who indeed had experienced unemployment in recent years. Such priming effects are quite common in surveys, but in the 2011 FM survey, the question on life satisfaction preceded the questions on unemployment and economic hardship and thus it seems unlikely that the observed scar effect of unemployment is mostly due to the effect of priming.

The difference in the timing of the last survey (2008/09 in the BHPS and 2011 in the FM survey) is another potential source of discrepancy. People might be more likely to recall their past experiences of unemployment or economic hardship when economic issues are salient in public consciousness. However, our analyses of the national trends of life satisfaction in two countries suggest that economy was probably a more salient issue in 2008-09 than it was in 2011, thus contradicting the finding that the scar effect is observed in the U.S. and not in the U.K. Another possibility, also related to the timing of the survey, is that the FM respondents were more likely to experience unemployment after the recession began, whereas many of the unemployed in the BHPS experienced unemployment before the recession. As a result, it is plausible that unemployment lasted longer among the unemployed respondents in the FM compared to those in the BHPS. Clark et al. (2001) have found that individuals who spent greater proportions of their time unemployed in the past three years reported a lower level of life satisfaction, even if they were working at the time of the last survey. This finding suggests that a longer spell of unemployment may be more likely to leave a 'scar' than a brief experience of

unemployment. In addition, having been more likely to experience unemployment *during the recession*, then even after they regained employment, the unemployed in the FM probably felt less secure than those in the BHPS as the US unemployment rate was still hovering near 9% in 2011. As a result, the 2011 FM respondents who experienced unemployment could be experiencing a higher level of economic anxiety than the 2008/09 BHPS respondents who had experienced unemployment, in all likelihood *prior to the recession*, but were working at the time of the survey.

While we cannot directly test these speculations, our findings in the U.S. and the U.K. suggest that the research on the scarring effect of unemployment on wellbeing is far from conclusive. The findings seem to be sensitive to analytic approaches employed by studies. There also might be significant variations across countries and even over time. Future research needs to pay more attention to this potential cross-country variation to and to examine the conditions under which unemployment is more likely to leave lasting effects on wellbeing.

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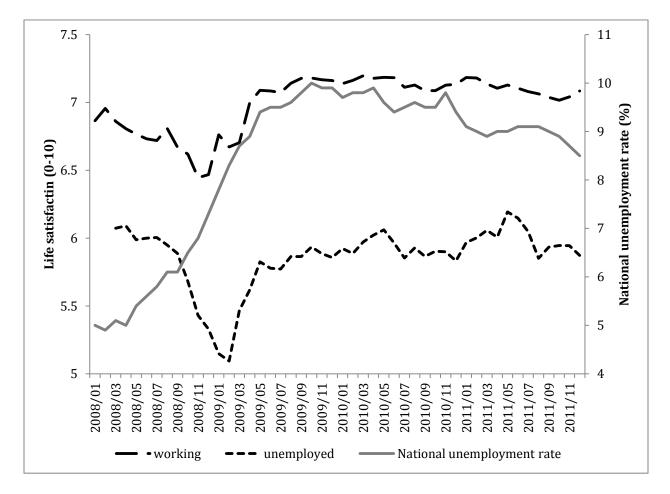


Figure 1 Trends in life satisfaction in the U.S. (Source: the Gallup Daily Poll)

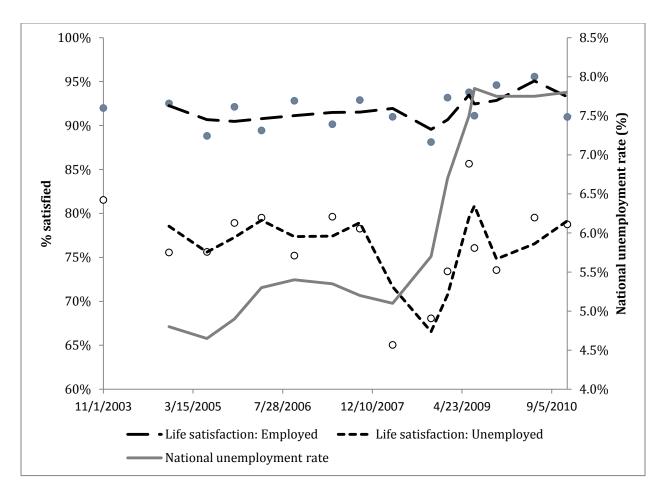


Figure 2 Trends in life satisfaction in the UK (Source: Eurobarometer)

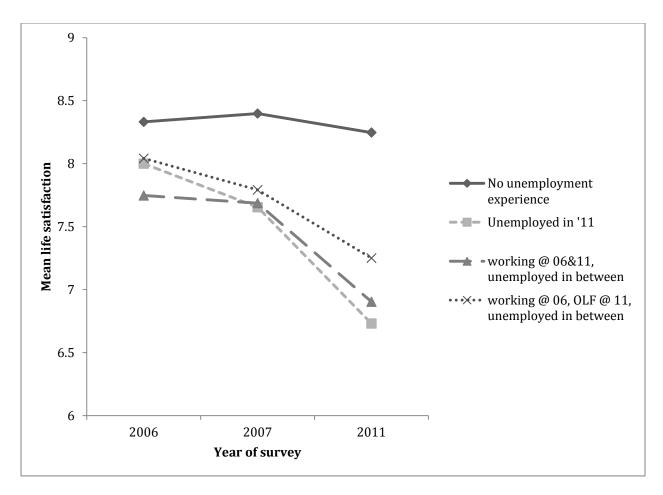


Figure 3 Life satisfaction by experience of unemployment in the US (Source: The Faith Matters survey)

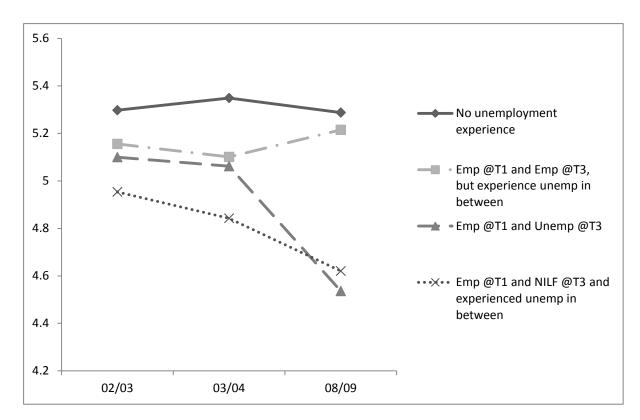


Figure 4 Life satisfaction by experience of unemployment in the UK (Source: The BHPS)

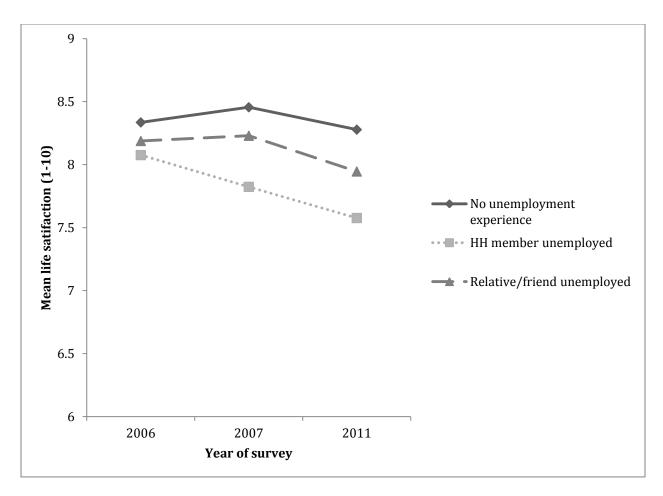


Figure 5 Life satisfaction and indirect experience of unemployment in the US (Data: the FM survey)

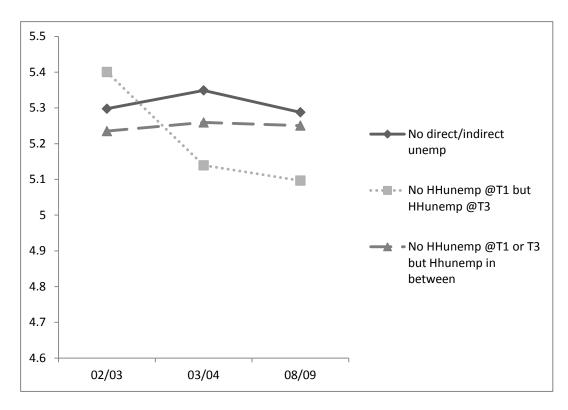


Figure 6 Life satisfaction and indirect experience of unemployment in the UK (data: the BHPS)

	Change in life satisfaction (2011-2006)			
VARIABLES	Model 1	Model 2	Model 3	Model 4
Change in employment status between 2006 and 2011				
(Reference: No unemployment experience)				
Working in 2006, unemployed in 2011	-1.433***	-1.379***	-0.932**	-0.913**
	(0.335)	(0.336)	(0.345)	(0.342)
Working in 2006 and 2011, unemployed in between	-0.721**	-0.692**	-0.474*	-0.445*
	(0.226)	(0.226)	(0.228)	(0.226)
Working in 2006, OLF in 2011, unemployed in between	-0.444	-0.342	-0.080	-0.032
	(0.379)	(0.383)	(0.382)	(0.379)
Household member unemployed in the past five years	-0.431*	-0.423*	-0.225	-0.246
	(0.209)	(0.209)	(0.211)	(0.209)
Other family member or friends unemployed in the past five years	-0.248	-0.259	-0.214	-0.226
	(0.166)	(0.166)	(0.164)	(0.163)
Change in income (2011-2006)		0.273+	0.140	0.108
		(0.149)	(0.150)	(0.149)
Change in financial satisfaction (2011-2006)			0.374**	0.332**
			(0.123)	(0.123)
Fear of unemployment in 2011			-0.258**	-0.257**
			(0.094)	(0.093)
Change in health (2011-2006)				0.305***
				(0.077)
Constant	-0.224	-1.179	-0.410	-0.332
	(1.270)	(1.372)	(1.372)	(1.360)
Observations	893	893	893	893
R-squared	0.034	0.038	0.062	0.079

Table 1 Predicting change in life satisfaction with experience of unemployment in the US (Data: the FM survey)

	Change in life satisfaction (2008/09-2002/03)		
	Model 1	Model 2	Model 3
Change in employment status between 2002/3 and 2008/9			
Working in 2002/3 but unemployed in 2008/9	-0.464****	-0.394***	-0.238**
	(0.120)	(0.122)	(0.121)
Working in 2002/3 and 2008/9, but unemployed in between	0.060	0.065	0.078
	(0.0576)	(0.0575)	(0.0563)
Working in 2002/3 and OLF in 2008/9, unemployed in between	-0.324***	-0.291**	-0.233**
	(0.114)	(0.114)	(0.112)
Household member unemployed in 2008/09, but not in 2002/3	-0.256*	-0.208	-0.151
	(0.133)	(0.133)	(0.131)
No household member unemployed in 2002/3 or 2008/9, but unemployed in between	0.0284	0.0210	0.00359
	(0.0575)	(0.0575)	(0.0563)
Change in income (2008/9-2002/3)		0.0750***	0.0263
		(0.0247)	(0.0246)
Financial situation in 2008/9			0.0276
			(0.0213)
Change in financial situation (2008/9-2002/3)			0.263****
			(0.0182)
Constrant	-0.215	-0.619**	-0.470**
	(0.205)	(0.244)	(0.239)
R-Squared	0.0131	0.0143	0.0566
Adjusted R-Squared	0.0095	0.0105	0.0526
N	5952	5943	5943

Table 2 Predicting change in life satisfaction with experience of unemployment in the UK (data: the BHPS)