

Does moving help?

Differences in happiness outcomes of job displacement for movers and stayers

G.H. Westra s2748878

Supervisor: Dr. V.A. Venhorst

Wordcount (references excluded): 8858 words

Wordcount (references included): 10.357 words

20 July 2019

Abstract:

In most research, the outcome of migration in reaction to unemployment is assessed in terms of wages. This research measures the outcomes in happiness using sequence analysis and fixed effects regression. The former shows that there is a selection of unhealthy and unmarried persons into unemployed and unhappy groups. It is found that migrants feel the negative long-term effects of unemployment sooner, but that there are no further differences. Conclusively, there is little difference between the selection into migration and migrating does not seem to negate the long-term effects of unemployment on happiness.

Keywords: Sequence analysis – longitudinal analysis – migration – happiness - unemployment

Introduction:

Job displacement is consistently reported to be one of the most detrimental life events in terms of happiness (Ballas, 2013; Frey & Stutzer, 2002; Van der Meer, 2014). Hence, unemployment is a life event which should be avoided and if it happens, the duration of it should be as short as possible. A possible strategy to shorten the length of the spell of migration and mitigate its negative effects is migration.

Traditionally, migration and its outcomes are studied from an economic paradigm (Nowok et al., 2013). For outcomes of the unemployed then, studies are made about the effects of migration on the duration of the job search and the differences in wage levels between movers and stayers. However, less is known about the effects of migrating on subjective well-being or happiness. In fact, Nowok et al. (2013) stress that the success of a person's migration is often measured in possible increases or decreases in income, while this is only one dimension of happiness. On top of that, the correlation between income and happiness remains unclear (Ballas, 2013). Additionally, Hendriks & Bartram (2018) argue that happiness should be the fundament in which outcomes of migration are assessed in order to understand the outcomes of the migration better but also the determinants of these outcomes. Furthermore, it can be argued that happiness is the highest achievable goal in life (Frey & Stutzer, 2002). Similarly, there is an increased awareness that policy outcomes should be measured by their effects on wellbeing (Nowok et al., 2013; Stiglitz et al., 2009; Stratton, 2010).

However, there are indications that migrating in response to unemployment has adverse effects on happiness. For example, it takes several years before wages are on the levels of that of the stayer (Boman, 2011a; Fackler & Rippe, 2017). Furthermore, Dernier (2017) finds that most long-distance movers move into a more deprived neighbourhood. These findings suggest that material well-being decreases, which suggests aversive effects on happiness.

Therefore, this paper uses longitudinal data to explore the happiness outcomes of unemployed individuals who move to find a job and those that do not change their search area from a life-course approach. To explore this the following question will be used: "How do levels of happiness differ between individuals who move upon unemployment and those who remain immobile?". Some secondary questions can be posed to aid in answering the research question. Firstly, it can be questioned whether there are differences in life-courses between those who migrate and those who do not, and between those who become unemployed and those who do not. Secondly, the effect of migration on happiness needs to be explored. Thirdly, there is the question of whether there are gender differences in outcomes. Lastly, the effect of local ties must be explored.

Theoretical background

Towards a life-course approach:

The dominant conceptual framework to study migration has been the life-course approach according to Coulter et al. (2016). The goal of the life-course approach is to “describe the structure and sequences of events and transitions through an individual’s life” (Bailey, 2009, p. 407). To achieve this, the life-course approach conceptualizes an individual’s life as a trajectory with “careers” through different domains, such as housing, employment, and partnership (Coulter et al., 2016). The life events and its sequence can be collected in “biographies” which describe the order in which life events happen in order to link careers to transitions. An important aspect of mobility biographies is that they cover several domains such as social life and the labour career (Bailey, 2009). By considering biographies in the life-course analysis, how long-term life goals affect life events can be interpreted (Coulter & Van Ham, 2013). For example, if one has the life ambition to start a family, they will strive to move into a family house at one point.

A key element of the life-course approach is the key concept of relationability: according to Bailey (2009) life-courses are relational though time, as the impact of events differs depending on timing and space, as a life-course can only be understood in its social and institutional context. In other words, the life-course can only be understood through its relationship with others and institutional structures (Coulter et al., 2015). Secondly, for mobility, this means that migration cannot be perceived as a discrete event but as an active practice which influences other life-courses (Bailey, 2009; Coulter et al. 2016; Findlay et al., 2015).

One implication of relationability is that lives are entrenched in networks which are spread over space and time. On a micro level, this is expressed through the concept of linked lives (Bailey, 2009): the phenomenon of some parts of life-courses and certain life-course events of several persons being linked; for example, through family ties. Furthermore, linked lives imply that one person’s life-course events can influence another’s life course, for example how the job displacement of one person affects everybody in his or her household (Thomas et al., 2017). Moreover, linked lives can be a source of support (Coulter et al., 2016), something which is important in the context of unemployment (Mulder, 2018).

There is supporting evidence of the suitability of the life-course approach for migration contexts. Firstly, Fischer & Malmberg (2001) have found that the more lives are linked locally, the bigger the propensity of individuals to stay. Similarly, they find that events which delink

lives such as divorce do increase moving propensity. In addition, these effects have been reproduced by a wide variety of researches in a vast amount of contexts (Boman, 2011a; Dernier, 2017; Fackler & Rippe, 2017; Fendel, 2014; Yang, 2000). Secondly, the importance of timing is illustrated by Fisscher & Malmberg (2001). For example, they show how unemployment does not affect mobility when a respondent is still studying, while it does in later stages. Other examples include the time since the last move (Fisscher & Malmberg, 2001) and the age of the respondent (Fisscher & Malmberg, 2001; Nowok et al., 2013). Thirdly, there is evidence of how labour career events influence mobility careers. Long distance moves are more likely to be explained from events in the labour career of an individual (Mulder & Hooijmeijer, 1999).

Indeed, there are several previous studies that detail the relationship between location and labour careers. Firstly, there are several findings that people are more mobile upon job displacement (Boman, 2011a; Denier, 2017; Fackler & Rippe, 2017). However, certain groups are more mobile upon job displacement than others. For instance, men are generally found to be more prone to migrate than women when becoming unemployed (Arntz, 2005; Bähr & Abraham, 2016; Denier, 2017; Fackler & Rippe, 2017; Fendel, 2014). Furthermore, higher educated persons are reported to be more mobile when losing their employment (Arntz, 2005; Denier, 2017; Kley, 2013). Lastly, being a homeowner is generally found to be negatively correlated with migration upon job displacement (Arntz, 2005; Bähr & Abraham, 2016; Denier, 2017; Fendel, 2014; Kley, 2013; Yankow, 2004).

In conclusion, the strengths of the life-course approach include allowing for dynamism and diversity, given its great attention for contingency in which events happen in terms of location, sequence, and timing. Furthermore, it allows putting the context in which (im)mobility happens to be put centre-stage (Coulter et al., 2016). In the case of mobility, the life-course approach makes it possible to explain different behaviour based on timing, relations, and previous events. For this research, the life-course approach is suitable to understand which events led to the observed unemployment, to the decision whether to migrate, and to the observed initial happiness. Furthermore, as detailed in the next paragraph, happiness is a multi-sourced feeling. Therefore, the multiple career aspect of the life-course approach is able to model all sources of happiness properly.

Life-course and happiness

Several life-course trajectories have their influence on reported happiness. Firstly, the place where one is in the life-course matters: a concave trajectory is found in most European

countries, with people being unhappiest at middle age (Ballas, 2008; Blanchflower & Oswald, 2008; Nowok et al., 2013). While happiness is reported to increase with older age, Diener et al. (2018) state that it decreases again and especially steeply when approaching death.

Secondly, marriage consistently found to be a positive factor for wellbeing (Ballas, 2013; Diener et al. (2018); Frey & Stutzer; 2002). However, Diener et al. (2018) state that the impact is marginal. Furthermore, they report that the longitudinal effect is smaller. Other marriage-related life events are influential too: widowhood is generally found to have a strong negative effect (Diener et al., 2018; Frey & Stutzer, 2002). On the contrary, divorce is reported to have a positive effect, although not restoring previous levels of happiness (Diener et al., 2018). Furthermore, the level of education is not associated with increased happiness on an individual level (Diener et al., 2018; Frey & Stutzer, 2002).

A last impactful life-course trajectory is health. Health that limits mobility is, in particular, having a negative effect on report life satisfaction (Diener et al., 2018). In general, common ill-health is also reported to have a tremendous impact (Ballas, 2012; Frey & Stutzer, 2002). However, the exact direction of the causality of health and happiness is somewhat unclear. Indeed, Diener et al. (2018) report that healthier people engage in healthier behaviour.

Happiness

Happiness is a relatively new subject in geography (Ballas, 2012). Notwithstanding, it is a long-studied subject in psychology and philosophy. Since the cultural turn, there is an increased interest in themes as happiness and subjective well-being (Ballas, 2012). One reason for this conceptual confusion is that the definition of what constitutes a good life has differed over time and place (Ballas, 2013; Oishi et al., 2013). Indeed, the idea that happiness is a phenomenon that can be measured and fostered has only occurred since the 17th century (Ballas, 2013; Oishi et al., 2013).

Furthermore, conceptualizations of happiness and the importance connected to happiness by an individual can be different depending on geography. For example, western cultures' notions of happiness are based around the individual and personal liberty, Asian cultures base their definitions of happiness around participating and accomplishment of role obligations. Indeed, there is empirical evidence that Chinese nationals find happiness less important and conceptualize happiness more around ideas of happiness whereas American nationals have more individualistic approaches. Nevertheless, both groups agreed that happiness was a positive state of mind (Lu & Gilmour, 2004). Similarly, scholars have defined happiness as a tendency to feel positive emotions (Hendriks & Bartram, 2016; 2018;

Veenhoven, 2000). In a similar sense, Nowok et al. (2013) define happiness as a tendency to evaluate life positively. Conclusively, while what makes one happy differs over geography, most individuals agree that it is a positive state of mind for an extended period.

Measuring happiness

There are several ways to measure happiness. Indeed, there are distinctions between so-called “objective” measures and subjective measures of happiness. Objective measures often consist of indices measuring performance in certain domains, such as housing, income, and health, in which an individual has to do well in order to be able to have a good life (Diener et al., 2018).

A problem with such measures is that they often do not weigh their dimensions according to their importance to the respondent or do not cover all the relevant dimensions for the respondent. This is further complicated by the previous notion that persons from different cultures have different conceptions of what constitutes a good life. As a result, a person who scores well in such domains does not necessarily feel happy. Indeed, the opportunity to live a good life is measured, rather than whether one actually has a good life (Hendriks & Bartram, 2018; Veenhoven, 2000).

Subjective measures of well-being circumvent such issues by measuring happiness in the eyes of the respondent (Veenhoven, 2018), often via questions such as “How satisfied are you with your life?”. Given the subjective nature, this type of measurement is often referred to as subjective well-being (or SWB) (Diener et al., 2018; Nowok et al., 2013), while names as life satisfaction or life appreciation are also prevalent (Veenhoven, 2000). While subjective well-being is not the same as well-being covered by objective measures (Diener et al., 2018), it does provide some information about the performance of the respondent in these domains, if it was poor subjective well-being would be lower (Veenhoven, 2000).

As mentioned above, subjective well-being is often measured through simple self-report questions (Diener et al., 2018). While globally accepted, there are concerns about dissonance within the respondent. Indeed, it is feared that respondents are not willing to answer truthfully when they are unhappy because of social stigma, or do not admit to themselves that they are in fact unhappy (Diener et al., 2018; Hendriks & Bartram, 2018). Furthermore, there are concerns about whether respondents fully consider the long-term aspect of life satisfaction. There have been studies who have found that self-reported happiness is biased by a plethora of factors, e.g. weather at the day of the interview, the success of local sports teams, and researcher induced mood boosts (Schwarz & Clore, 1983; Schwarz et al., 1987). Despite these issues, self-

reported measures do show relatively high reliability (Diener et al., 2018; Hendriks & Bartram, 2018; Lucas & Donnellan, 2012).

A framework to analyse happiness in relation to the life-course approach is using set-point theory. The set-point theory posits that there is a baseline in happiness, which is affected short-term by life-events (Nowok et al., 2013). The baseline is determined by personal traits such as character (Diener et al., 2018). However, there is some shift from this theory. Firstly, some life-events, such as job displacement, seem to change the baseline more permanently, suggesting that happiness is not fully grounded in personal character (Nowok et al, 2013). Furthermore, contrasts in happiness between nations seem to disprove the baseline theory. In fact, the largest differences in happiness are between countries, making explanation by personal character implausible (Diener et al, 2018). In conclusion, while life satisfaction is often to be found quite robust, it is unlikely that the baseline is fully determined by personal character.

Conclusively, happiness is a concept that fluctuates over space and time. However, modern definitions acknowledge that happiness is a long-term state of affective feelings. Nonetheless, what exactly makes a person happy differs over cultures. Because of these difference in causes of happiness, it is more appropriate to use self-reported measures of life satisfaction to frame a judgement of life in the “eyes of the beholder” (Veenhoven, 2000, p5).

Happiness and unemployment

Unemployment is consistently found to be a factor which has one of the worst effects on well-being (Ballas, 2013; Brand, 2015; Clark, 2003; Frey & Stutzer, 2002). Indeed, being unemployed has averse effects on health, lifetime wages, and happiness. The decrease in well-being is beyond the influence of the loss of income that is paired with job displacement (Bardasi & Franconi, 2004; Winkelmann, 2014). The long-term losses in happiness can be explained by loss in confidence (Winkelmann, 2014), social network (Brand, 2015), and the fall in social status (Frey & Stutzer, 2002). While there are indications that the unhappy lose their job more often, stronger negative effects are found post job displacement (Frey & Stutzer, 2002; Winkelmann, 2014).

Furthermore, unemployment appears to have a more negative effect in the middle of the life course (Frey & Stutzer, 2002). Moreover, education plays a role once more: Clark and Oswald (1994) report that higher educated individuals are more affected by unemployed than those who are lower educated. Lastly, some gender differences can be reported, as some authors report that women experience a smaller impact of unemployment on their happiness levels (Frey & Stutzer, 2002; Van der Meer, 2014). According to Van der Meer (2014), this can be

explained by the fact that traditional gender roles expect men to be employed and breadwinner more often, and the fact that women tend to profit from their partner's job, whereas men tend not to.

Happiness and migration

Migration outcomes are traditionally measured in terms of change in economic conditions. However, there is a small body of literature on migration and happiness. Firstly, Nowok et al. (2013) have done a longitudinal analysis on the BHPS on the effect of all migrations on happiness. They find that migrants are unhappier than stayers, especially in the last three years up to migration. The year after the move, the negative effects accumulated before the move are negated, but migrating does yield additional happiness. Conversely, long-term movers have bigger and more persistent returns on happiness. Moreover, it is found that having a long-term desire to move results in large increases of post-move happiness. Similarly, Fuchs-Schündeln & Schündeln (2009) have found that German permanent migrants that move from the former DDR to Western Germany have significantly higher levels of life satisfaction after migrating, while those who return migrate have no significantly higher differences pre and post move.

In addition, the effect of migration on satisfaction in several life domains differs. Nowok et al. (2018) find that satisfaction with housing increases the most and the longest in Britain. In fact, housing satisfaction is found to be the lowest pre-move and the highest post-move. This fits the theory of a "housing disequilibrium", the situation in which the current housing does not fit the desires of its resident anymore, resulting in accumulated stress until a threshold is reached, and he or she migrates (Coulter & Van Ham, 2013).

There are some findings on international migration as well. It is found that migrants have lower happiness levels than natives (Bartram, 2011) and stayers (Bartram, 2013; 2015). Furthermore, migrants seem to gain more happiness from income increase than natives (Bartram, 2011). Nonetheless, social factors and discrepancies between expectations and outcomes are discovered to be equally important (Bartram 2011; Hendriks & Bartram, 2016).

These findings study migration in general, however. A key difference between this and migration upon unemployed is that the latter can to some extent be seen as forced migrations (Hendriks & Bartram, 2018). Indeed, it could be that one has not experienced a depression in happiness levels or a housing disequilibrium as found by Nowok et al. (2013; 2018) but still has to move as a result of unemployment. This can make a subsequent peak in happiness unlikely as well. However, it could also lead to selection effects: unemployment acts as a trigger

for those who had a desire to move and some dissatisfaction with their housing before unemployment.

Synthesis happiness, migration, and unemployment

In conclusion, life satisfaction is a multi-sourced state of mind. While life satisfaction fluctuates over the life-course, several life-event are reported to be of larger impact. Indeed, social relations, a good health status, and most marriage events such as divorce and start of a union are generally reported to have a positive effect. Conversely, widowhoods, bad health, and unemployment are found to have negative effects. Especially, unemployment leaves latent and long-lasting negative effects on happiness, that surpass the effects caused by income. The effect of migration is a not very well-research phenomenon. It appears that for internal migration movers experience reduced happiness before they move, after which their happiness increases again.

Data

As mentioned before, the data used in this research will be the British Household Panel Survey 1996-2008, henceforth referred to as BHPS. This is a longitudinal dataset gathered in the UK. 1996 is the year that data on life satisfaction was gathered for the first time and 2008 was the last time that the data was collected with these respondents (Nowok et al., 2013). The life satisfaction is measured with the question “How satisfied are you with life overall?” and has seven possible responses ranging from not “satisfied at all” to “completely satisfied”.

While the data is generally of high quality in terms of information and questions, the data does have some shortcomings. Firstly, the data is unbalanced: not all respondents participate for the duration of the whole survey, leading to different lengths of respondent information. Furthermore, some respondents have not participated for a couple of years but rejoin the survey again later, leading to gaps in the respondent’s data. Lastly, in the sixth wave in 2001, the BHPS did not include the question concerning life satisfaction, meaning that there is a total lack of data on happiness for every participant in 2001. The wave in 2001 has the biggest response, with many respondents only participating in that wave only. This leads to a relatively large contingent of sequences in the data that have a missing value for life satisfaction that only last for one entry.

Methodology

Treating the data

The data has undergone some transformation to prepare it for analysis. Firstly, the individuals who have been unemployed for at least one entry in there have been selected. This selection leads to 2675 individuals who are tracked for different spells of time, ranging from one observation to thirteen. Within this group, another selection is made to distinguish the movers from the stayers. The movers are selected by those who became migrants in the year of their unemployment or the year after. The reasoning behind this selection is that this research is concerned with those who relocate in direct response to their job displacement. One disadvantage of this selection is that some of those who are assigned as migrant upon unemployment may have lost their job because they moved, suggesting a reverse order of decision making. Unfortunately, it is not possible to make a distinction between those two. Of all the sequences, 584 sequences are those of movers upon job displacement. Additionally, individuals who move more than once are censored at the year of their second move.

Lastly, a control group is created consisting of those in the dataset who have never been unemployed and also have been employed in their sequence, creating a control group of about 15000 sequences of those respondents. The sequence analysis is performed on the group that experiences unemployment, both the movers and the stayers; for the regression, all groups are included.

Sequence analysis

In order to explore the data for a priori differences in life courses and happiness trajectories, a sequences analysis is done using the SQ-Ados by Brzensky-Fay et al. (2006) and SADI extension by Halpin (2010) in Stata. Sequence analysis is a group of methods used to analyse the differences between time series based on algorithms (Barban & Billari, 2012). Sequence analysis primarily used to discover patterns in life-course data (Aisenbrey & Fasang, 2010).

In this case, the time series are the trajectories in life satisfaction. An example of such a trajectory would be then:

7-7-7-7-6-Missing-6-6-5-6-6-6-6

Which can also be shortened to:

(4, 7) - (1,6) – (1, missing) – (2, 6) – (1, 5) – (4, 6)

They both symbolize the sequences of the responses to the life satisfaction question of a respondent from the first observation to the last. The algorithm mostly used in social sciences to quantify life courses is Optimal Matching. In principle, optimal matching compares all

sequences and calculates the minimum effort that is required to make two sequences identical. The output of the optimal matching process is a distance matrix containing the distance in terms of costs between all sequences. This matrix in term can be used to cluster sequences using a hierarchical cluster method, namely Ward's clustering method, which is also used in Aisenbrey & Fasang (2010) and Barban & Billari (2012).

Regression

In order to investigate the effect of migration and unemployment on wellbeing, a linear regression is done. In order to track wellbeing over time and correct for individual differences, a fixed effects model will be adopted¹. The regression equation takes the following form:

$$1. LS_{it} = \alpha_i + \beta X_{it} + \sum_{k=T_1}^{T_2} \theta_k U_{it}^k \delta_k M_{it} + \epsilon_{it}$$

In this model, LS_{it} denotes the life satisfaction of individual i at time t . α_i is the individual fixed effect, which controls for unobserved heterogeneity. βX_{it} is a vector of time-varying independent variables which controls for causes of happiness or unhappiness from other life-course trajectories. The vector contains, among others, variables concerning health, marital status, household composition, education history, and age. ϵ_{it} is the independent error term. U_{it}^k represents a set of dummy variables that refer to whether a person becomes unemployed in period $t-k$, where k refers to the variables beginning with T_1 years before job displacement and the variables ending at T_2 years after the event. Hence, θ_k will measure the long-term effect before and after the moves. M_{it} is a dummy variable similar signifying if the respondent is a migrant upon job displacement somewhere in his or her sequence. δ_k then is the effect of being a migrant.

The modelling approach taken is similar to the models presented in Nowok et al. (2013) and Nowok et al. (2018) which study the long-term outcomes of life satisfaction and migration. Furthermore, similar modelling approaches have been taken by other studies which study life satisfaction in response to life-events (Clarke et al., 2008; Frijters et al., 2011) and studies taking a more traditional earnings losses after job displacement approach (Couch, 2001; Couch & Placzek, 2010; Fackler et al., 2017; White, 2010).

As the data is an ordered ordinal variable, the most appropriate regression type would be ordered response regression. Nevertheless, in terms of results, there are few differences between ordered and linear models (Clark et al., 2008; Ferrer-i-Carbonell & Frijters, 2004).

¹ Random effects models have also been tried, but a Hausman test indicated that fixed effects models fit the data better

Furthermore, linear models lend themselves for a more straightforward interpretation (Nowok et al., 2013). Therefore, a linear model is chosen for this research. A similar choice is made in by Nowok et al. (2013) and Nowok et al. (2018).

Results:

In this section the results of the descriptive analysis, sequence analysis, and the regression will be presented. This will be done in the following order: firstly, a comparison will be made between the life-courses of those who experience job displacement and those who do not. Subsequently, the life-courses of movers and stayers will be compared in a similar manner. Thirdly, the results obtained from the optimal matching and cluster analysis will be compared. In the next section, the regression result will be presented. First, the general effects of job displacement and moving upon job displacement will be presented, then some interesting results from the control variables. Lastly, the effects of local ties and gender differences will be discussed.

Descriptive evidence: unemployed vs. employed

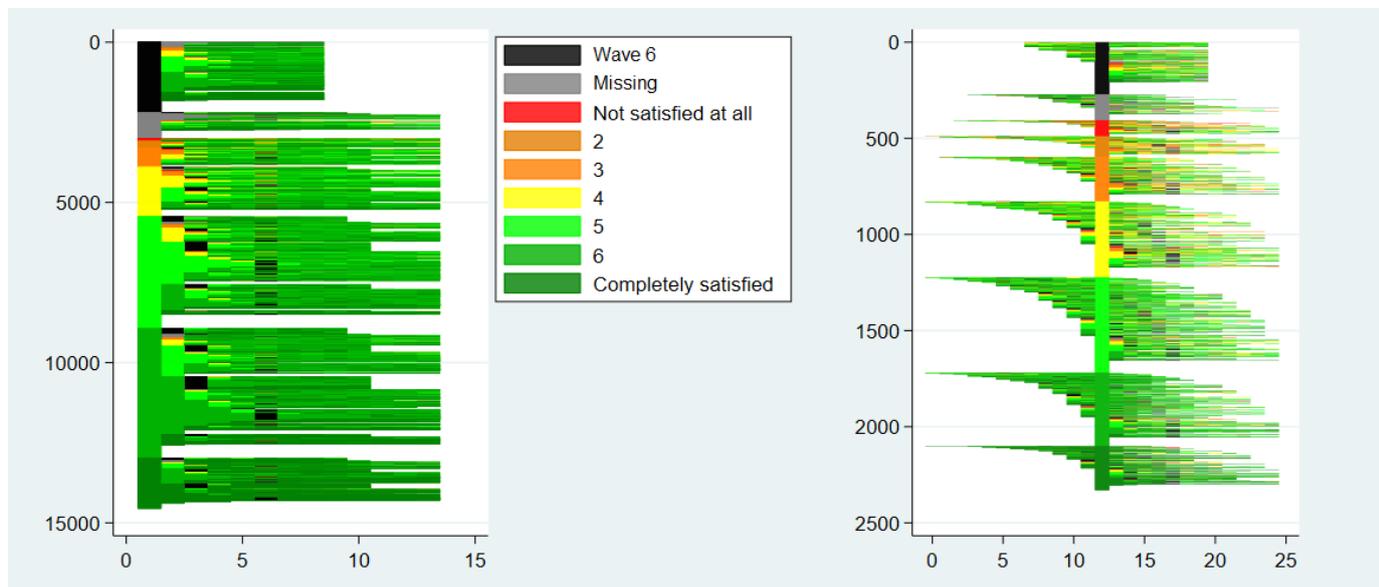


Figure 1: Sequences of Life Satisfaction of employed persons (L) and unemployed persons (R)

In figure 1 the sequences of employed and unemployed individuals are shown in an index plot of the sequences. Index plots will be used to illustrate several groups' sequences. Each horizontal bar is a sequence over time of an individual, with the x-axis showing the time in which the sequence happens. For every time the employment group is presented, the time-ordering variable is the number of the observation. The unemployed groups have a different

timescale, namely the time relative to the job displacement event. However, as Stata cannot make index plots with negative time variables, the time to unemployment has been transformed. In order to get a functioning index plot, the time has been transformed as time relative to job displacement plus twelve to make all the time values positive. The twelve-point is also the central point of the plot. For the plot, this means that every respondent loses their job at the twelve-point on the x-axis. As not all participants have participated for the full survey, the sequences are of different lengths. Larger images of all the index plots can be found in Appendix 1.

Compared to respondents who are not displaced from their job, it can be argued that the unemployed group has a larger unsatisfied proportion. Indeed, the index plot in figure 1 shows bigger representations of answers in the satisfied categories for the employed control group. As can be seen in figure 2, the neutral category is answered more often by those who experience unemployment, while the 5 and 6 “more satisfied” categories of happiness are answered less. Furthermore, while about 6,09 per cent of the observations of the employed group is negative responses, the unemployed group 14,51 per cent of responses had these values. Similarly, the control group of employed individuals show higher health ratings than the unemployed group.

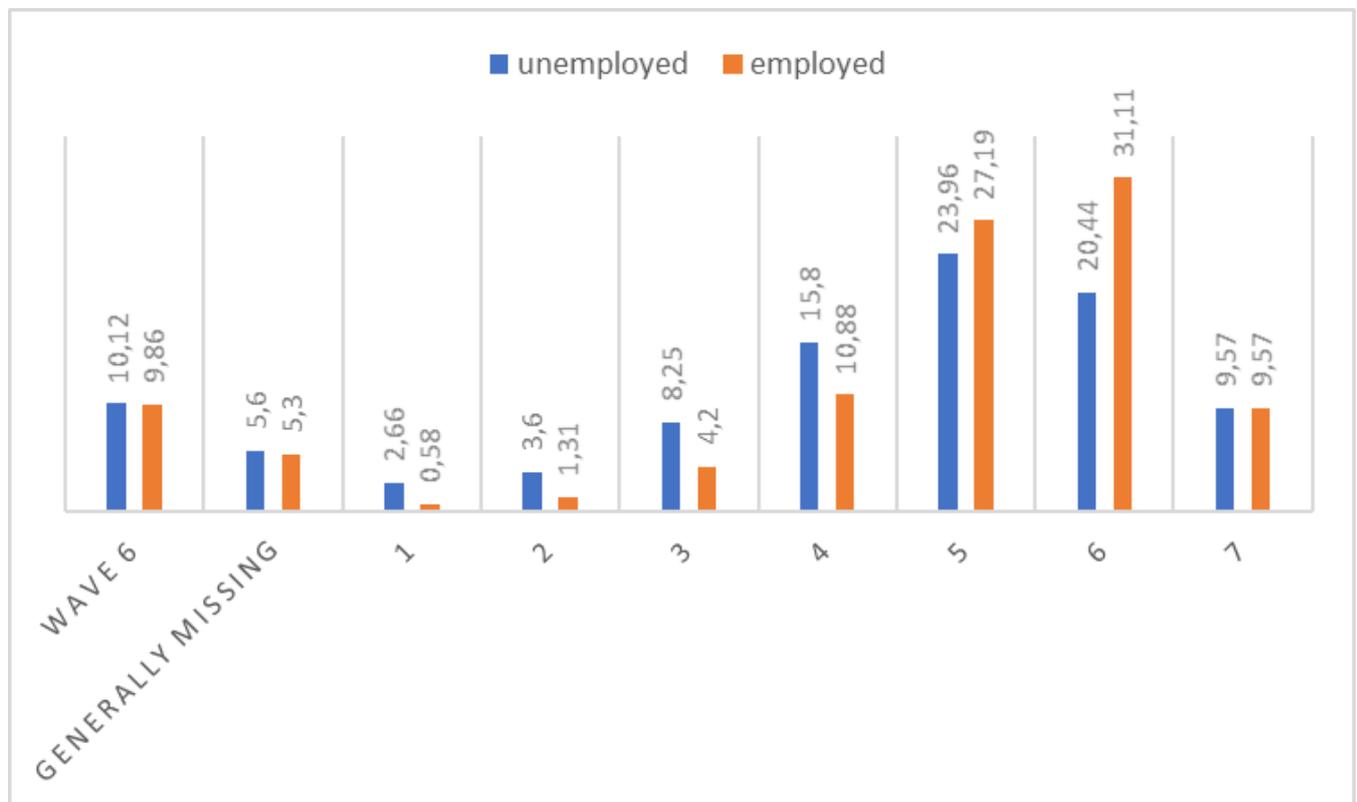


figure 2: responses to the life satisfaction question by the employed and unemployed groups

Another characteristic is that the sequences are relatively stable. Indeed, very few lines show large fluctuations between being satisfied and dissatisfied with life in general. The

unemployed group does show a decrease in happiness at job displacement, but previous levels are achieved within two or one waves. This appears to be a strong argument for set point theory of happiness mentioned by Nowok et al. (2013).

There are some differences between employed and unemployed persons in different domains of the life course as well. Firstly, the median age (at the first observation) of unemployed respondents is lower than the employed group, 30 years versus 37 years respectively. Secondly, the unemployed respondents are more often divorced or never married, whereas the employed control group are more often married. In terms of the number of children, both groups are very similar. In the health domain, the unemployed group reported less that they were in excellent or good health. Moreover, the groups seem to be quite comparable in terms of region as shown in figure 3. Unemployed persons are observed more often in Wales while employed individuals live in the “Rest of South East” region more frequently.

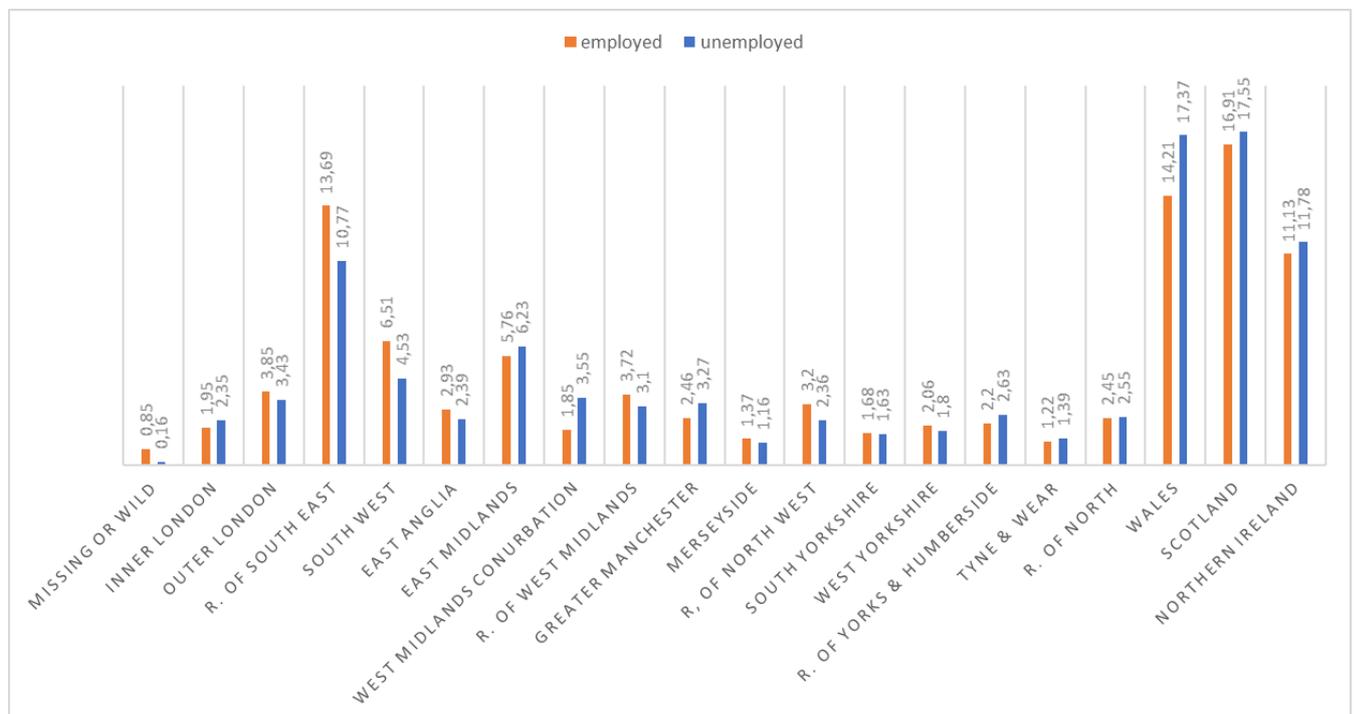


Figure 3: the percentage of observations per region

Lastly, the proportion of movers is bigger in the employed control group. About a quarter of all sequences are migrants, while more than a third of the sequences of the control group had migrated. However, it should be noted that the control group has a broader definition of migrating, namely that it can happen at any moment, which could explain the discovered differences.

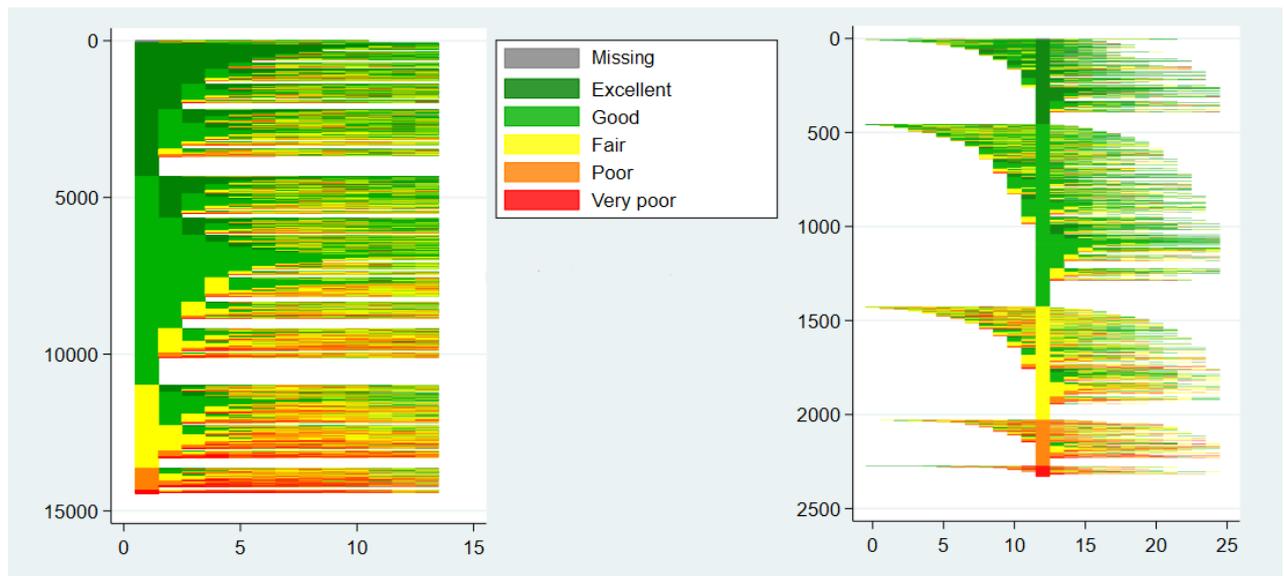


figure 4: index plot of health status by employed (l) and unemployed individuals (r)

Unemployed stayers vs. unemployed movers

Some differences and commonalities can be discovered between movers and stayers as well. Firstly, the group of movers is younger than the stayers: the median age of movers is 30 as opposed to the median age of 42 of stayers. This is in accordance with previous findings in migration literature (Artanz, 2005; Fackler & Rippe, 2017; Fendel, 2014; Yankow, 2004).

Furthermore, stayers are more often married, whereas movers are more often unmarried or living as a couple, which could be attributed to the age difference in some part as well. Lastly, there are more stayers in Northern Ireland and Scotland, while there are more movers in East Midlands. Nevertheless, there are considerable similarities as well. Firstly, both groups have similar gender makeups. Secondly, both groups report similar levels of health. Lastly and most importantly, there is no discernible difference in life satisfaction between unemployed stayers and movers as illustrated in figure 5, safe for that stayers have more missing cases.

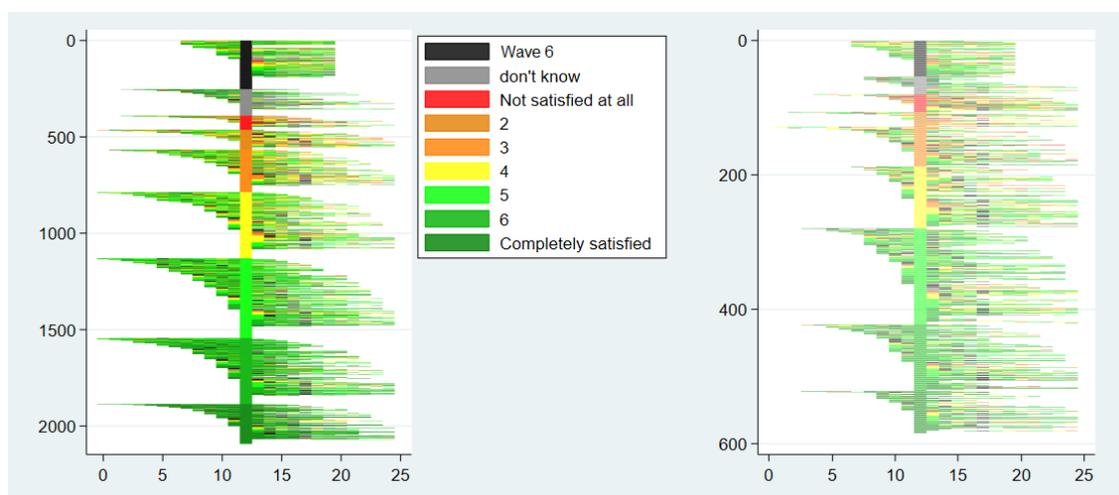


Figure 5: index plot life satisfaction of movers and stayers

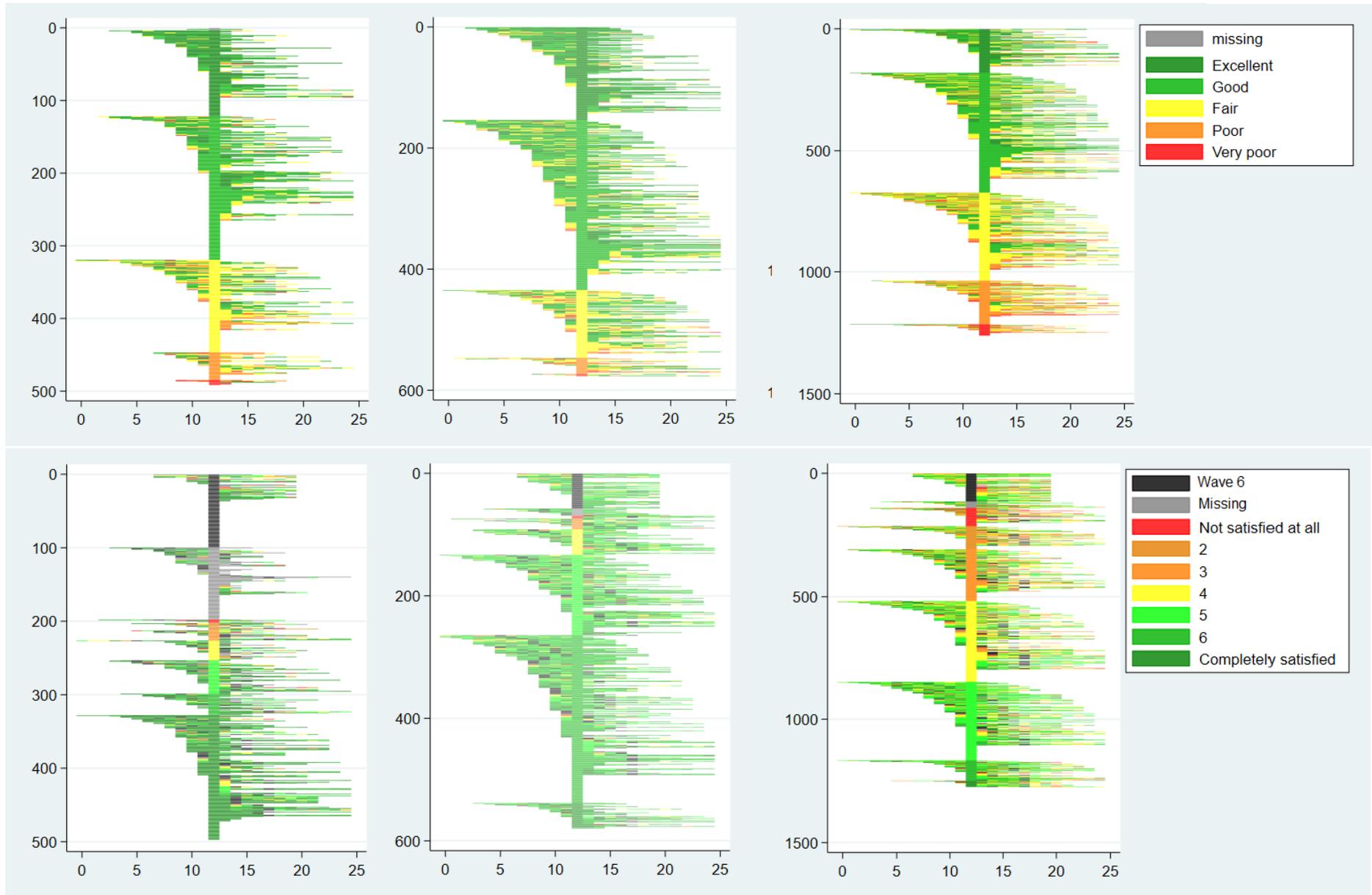


Figure 6: index plots of experiences health (U) and life satisfaction (D) by cluster

Descriptive evidence of the sequence analysis

After the optimal matching, Calinski's pseudo F statistic, a statistic usually used to determine the optimal number of clusters (Halpin, 2016), indicated that three clusters obtained with Ward's method of linkage clustering fitted the data best. The sequences of the life satisfaction of each cluster are shown in figure 6. The cluster 1 is the smallest with 497 sequences, cluster 2 is marginally larger and contains 579 sequences. The third cluster is the largest and contains approximately 1272 sequences.

Cluster 1 is typified by shorter sequences and sequences dominated by the highest category of life satisfaction. In addition, sequences with several missing observations are sorted into this cluster. The second cluster contains longer sequences and the observations are in the 5 and 6 categories of the life satisfaction variable. The third cluster is the largest cluster and features multiple spells of the neutral and dissatisfied answers. Interestingly, the third cluster contains the majority of the cases, while containing the majority of the lower life satisfaction.

Synchronous to the unemployed – employed dichotomy, there are discernible differences in life-course trajectories between members of the three clusters. Firstly, as illustrated in figure 7, respondents in cluster 3 tend to report a poorer health status, similar to the observed difference between employed and unemployed groups overall. Secondly, a higher percentage of respondents are divorced or separated in cluster 3, a pattern akin to the observed differences between employed and unemployed sequences.

Conversely, in terms of stayers and movers no relevant differences can be detected. 26,83 per cent and 24,68 per cent of the observations in Cluster 2 and 3 were those of a mover. Cluster 1 has only 17,39 per cent, but that could be because most of the single observation sequences are in that category, or the large number of missing answers. This seems rather contrary to the findings of Nowok et al. (2013), who found that movers are unhappier in general, which would make one expect that the third cluster would have an overrepresentation of movers.

Additionally, no large differences were found in median ages at job loss; 30 years, 32 years; and 32 years for cluster one to three respectively. Similarly, no difference in the number of children is found. Similarly, the clusters are relatively evenly represented in every region as shown in figure 6. Only cluster 1 has a larger share of observations in Northern Ireland, while the cluster is overrepresented in the South East. Finally, the clusters had similar gender distribution of slightly more male than female members.

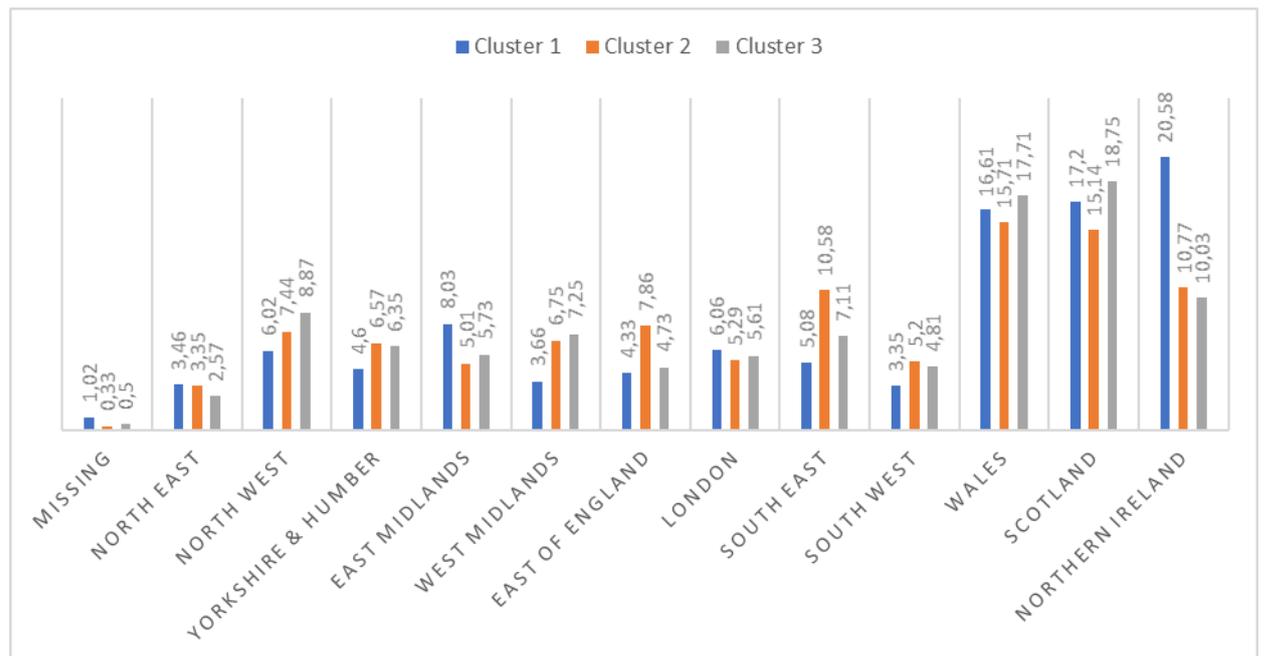


Figure 7: percentage of observations per region

In conclusion, the descriptive evidence points towards arguments for set point theory of happiness: most of the respondents appear to have a baseline level of life satisfaction, which appears to be negatively influenced by the life event of job displacement but returns to previous levels in most cases. This baseline appears to be mostly influenced by health and marital status. Indeed, within the unemployed control group, there is a larger group of individuals whose sequences are typified by neutral or lower health and divorced marital status than within the employed group. Similarly, the cluster within the unemployed group with the lowest life satisfaction shows poorer health and reports divorce more often. The life-course approach is a useful tool to explain these results. As a matter of facts, it seems that job displacement is not necessarily a cause for long term unhappiness. Rather, the life events and the trajectories of other life course domains influence the baseline of happiness. In addition, while the unemployed group reports lower life satisfaction, they also report higher rates of divorced respondents and unhealthy respondents. This can be interpreted in two ways: either there is a selection bias, meaning that unhealthy and divorced individuals lose their job more often; or that as a result of job displacement a large group experiences deteriorating health and marital hardship. However, giving that many respondents are already reporting lower health and are already divorced before job displacement, the latter explanation is more plausible. A last observation can be made. Namely, that while the unemployed group and within that group cluster 3 reports on average lower life satisfaction, it is mainly the neutral responses that are

answered the most. Thus, it can be stated that those with lower life satisfaction are not as much unhappy, as they are happy nor unhappy.

Regression outcomes

Unemployed stayers versus unemployed movers

This section covers the outcome of the regression. However, as there is a wide plethora of control variables, the relevant variables will be displayed in separate tables. The outcomes of the regressions as a whole can be found in Appendix 2.

The time effects are measured over fourteen waves, starting four years before the job displacement event, and ending ten years after. Figure 8 depicts the effect of being an unemployed stayer and being an unemployed mover over time. The coefficient of being employed in this model is zero. Interestingly, the unemployed group has a negative coefficient even before the job displacement. Furthermore, the movers generally have an added negative effect. Nevertheless, not every time effect is found to be of significant impact as shown in table 1. On top of that, most of the coefficients of those who move upon job displacement are found to be insignificant.

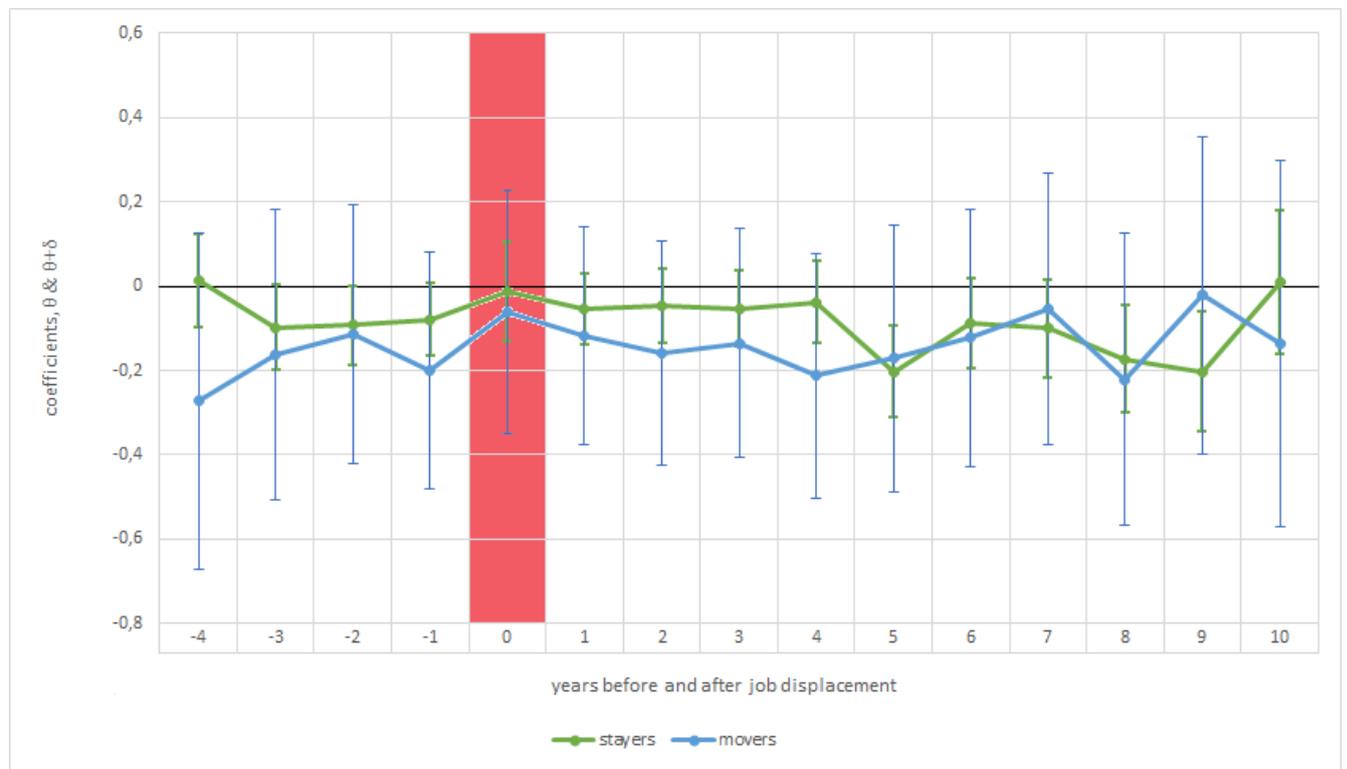


Figure 6: dynamic effect of job displacement and migration. Error bars depict 95% CI, year of job displacement in red.

Surprisingly, the year of unemployment and the first three years afterwards are not significant. On the contrary, after the fourth year after job displacement, significant negative

effects can be reported, with the exception of the sixth year after job displacement. As figure 8 shows, the period before unemployment and the phase starting at five years after have the biggest impact on happiness. Contrary to expectations, the years of unemployment and directly after have no significant impact on happiness. An explanation for this could be that employment status is included separately into the regression as well. Indeed, being unemployed can be reported as having a significant negative effect on life satisfaction as opposed to being employed. The significant time effects at later stages then can be interpreted as the long-term negative effects as reported by Winkelmann (2014). The significance of five years can be interpreted into the realisation by the individual that they are encountering long-term negative consequences.

The only instances that significant effects of moving after job loss can be reported are when no significant effect of unemployment itself can be discovered: four years before unemployment and the fourth year after. The general effect of migration is marginally significant, the effects of being an unemployed mover and being unemployed negate the positive effect completely. This is rather contrary to findings by Nowok et al. (2013) who reported declining happiness before migration and increasing levels shortly after the migration. The increased and persistent unhappiness, however, are similar to previous findings on wellbeing and job displacement (Brand, 2015; Frey & Stutzer, 2002). Similar to the findings of Nowok et al. (2013) and Winkelmann (2014), no significant effect of being a long-distance mover can be reported.

The duration of the spell of unemployment has no significant effect, similar to findings of Winkelmann (2014). Explanations for this finding can be discovered in habituation to the situation. In combinations with the long-term negative effects found of job displacement in general, it can be stated that the life event of job displacement has wider repercussions than the duration of the spell in terms of happiness.

	Coefficient	Standard error
K		
-4	0,012075	0,056679
-3	-0,09727*	0,051054
-2	-0,09299**	0,04725
-1	-0,08007*	0,044048
-0	-0,01233	0,060407
1	-0,05475	0,043528
2	-0,04509	0,044951
3	-0,05234	0,046664

4	-0,03741	0,050117
5	-0,20246***	0,054941
6	-0,08717	0,054499
7	-0,10058*	0,059168
8	-0,17292***	0,064623
9	-0,20331***	0,072356
10	0,010013	0,086934
Unemployed mover		
<i>mover *-4</i>	-0,28447*	0,146389
<i>mover* -3</i>	-0,06551	0,1238
<i>mover *-2</i>	-0,02016	0,109294
<i>movers*-1</i>	-0,12168	0,099048
<i>mover* 0</i>	-0,04923	0,086915
<i>mover* 1</i>	-0,06395	0,088582
<i>mover *2</i>	-0,11433	0,090561
<i>mover *3</i>	-0,08259	0,092254
<i>mover *4</i>	-0,17523*	0,09723
<i>mover *5</i>	0,030567	0,106052
<i>mover *6</i>	-0,03523	0,100883
<i>mover *7</i>	0,047096	0,105278
<i>mover *8</i>	-0,04817	0,111915
<i>mover *9</i>	0,181522	0,119188
<i>mover *10</i>	-0,14673	0,134642
migration	0,016899*	0,010244
duration of unemployment	-0,00822	0,01671
Long distance mover	-0,05068	0,077223
current economic activity (ref. employed)		
<i>self employed</i>	-0,00874	0,020415
<i>unemployed</i>	-0,18569***	0,060619
<i>retired</i>	0,079214***	0,020709
<i>maternity leave</i>	0,261367***	0,037371
<i>Family care</i>	-0,01526	0,020754
<i>Student</i>	0,117522***	0,02104
<i>Long-term sick</i>	-0,28956***	0,024854
<i>government training scheme</i>	0,03341	0,064655
<i>Other</i>	0,010199	0,041489

Table 1: labour related coefficients

Other control variables function mostly as previous theory on life satisfaction describe. All control variables can be found in the table in appendix 1. Firstly, age is found to have significant effect when squared, confirming a valley of reduced life satisfaction when middle aged reported in previous findings (Blanchflower & Oswald, 2008; Nowok et al, 2013). Furthermore, being a

homeowner, doing financially well and remaining to do so, and being satisfied with the neighbourhood are found to have a positive impact.

Correspondingly to the findings out of the sequence analysis, being in ill-health is found to have a large negative effect on happiness as opposed to being healthy. However, being divorced appears to have a large positive effect, contrary to previous findings. Similarly, never marrying has a significant positive effect. The explanation for the contradicting evidence can be found in the interaction effect the two have. While health and being married do not interact, all other marital statuses have a negative interaction with poor health. Indeed, being never married and being in poor health has an added effect that completely negates the positive effect of never being wedded that is found. Being divorced and in poor health does not only negate the reported positive effect of just being divorced but has an even bigger negative impact.

In conclusion, being of poor health has a universal negative effect, being divorced or never married only has a significant negative impact when in combination with being unhealthy, as it has a very large negative impact. It seems that for some not marrying or divorcing is a better outcome than marrying, as long as they do well in other domains.

marital status (ref. living as a couple)		Std. error
<i>child under 16</i>	0,209321*	0,1199
<i>Married</i>	0,000209	0,023416
<i>Widowed</i>	-0,01676	0,06346
<i>Divorced</i>	0,199704***	0,060856
<i>Separated</i>	0,044131	0,069061
<i>never married</i>	0,181881***	0,054823
<i>Partnership</i>	-0,00809	0,253182
health over 12 months (ref. excellent)		
<i>Good</i>	-0,08965***	0,020573
<i>Fair</i>	-0,28888***	0,025723
<i>Poor</i>	-0,47246***	0,037876
<i>very poor</i>	-0,7221***	0,071725
marital status * health		
<i>child under 16 * good health</i>	-0,03198	0,133517
<i>child under 16 * fair health</i>	0,062155	0,186099
<i>child under 16 * poor health</i>	0,368247	0,475107
<i>child under 16 * very poor health</i>	1,704267***	0,972303
<i>married * good health</i>	-0,01417	0,02259
<i>married * fair health</i>	0,018372	0,028156
<i>married * poor health</i>	-0,0299	0,041085
<i>married * very poor health</i>	-0,1184	0,076978
<i>widowed * good health</i>	-0,0045	0,037823
<i>widowed * fair health</i>	-0,0037	0,043876
<i>widowed * poor health</i>	-0,09714*	0,056702

<i>widowed * very poor health</i>	-0,22897**	0,091918
<i>divorced * good health</i>	-0,04278	0,039358
<i>divorced * fair health</i>	-0,10461**	0,046457
<i>divorced * poor health</i>	-0,27974***	0,060012
<i>divorced * very poor health</i>	-0,65501***	0,095089
<i>separated * good health</i>	-0,08148	0,057331
<i>separated * fair health</i>	-0,20111***	0,068115
<i>separated * poor health</i>	-0,15399*	0,08656
<i>separated * very poor health</i>	-0,30492**	0,148212
<i>never married * good health</i>	-0,04397*	0,025632
<i>never married * fair health</i>	-0,06246*	0,032446
<i>never married * poor health</i>	-0,14226***	0,048218
<i>never married * very poor health</i>	-0,18041*	0,092098
<i>partnership * good health</i>	-0,01979	0,322758
<i>partnership * fair health</i>	0,203863	0,4504
<i>partnership * poor health</i>	-1,15092*	0,619327

Table 2: marital and health control variables

Little regional difference can be reported. Only East-Midlands and South-Yorkshire have a significant positive effect in comparison with Inner London. Nevertheless, no significant negative effect can be reported for any area compared to inner London. Similarly, education appears to have little impact: only those with GCE A-levels turn out to be significantly happier than those without qualifications, although the effect is small in size.

Conclusively, it appears that the unemployed are significantly unhappier than those who are employed. Additionally, unemployed individuals appear to be less satisfied with life before and after job displacement. Notably, moving upon job displacement is rarely reported to have an effect and when it does it the outcome is negative. The migrant group feels the long-term effect sooner than the stayers but does not feel additional positive or negative effects. Similar to the sequence analysis and descriptive evidence, being unhealthy has a negative effect.

Local ties & gender differences

In addition to the general effects of unemployment and migration, local ties can play an important role in happiness. As mentioned, family ties can provide additional support in several life domains (Mulder, 2018). For the regression, family ties are modelled as the presence of close parents or spouses in the region. Interestingly, only the presence of the mother has been reported as having an effect, which is moderately positive. A reason for the lack of found effects could be that the size of some regions is rather large. Nevertheless, the positive effect fits within explanations of the family as a form of support.

father lives in the same region		
<i>Missing /not applicable</i>	0,018176	0,033128
<i>Yes</i>	0,029216	0,076312
mother lives in the same region		
<i>Missing /not applicable</i>	-0,00015	0,029572
<i>Yes</i>	0,122849*	0,064099
spouse lives in the same region		
<i>Missing /not applicable</i>	-0,26048***	0,056075
<i>Yes</i>	-0,10215	0,073791

Table 3: the effects of local ties

Furthermore, there are some large differences in outcomes between genders. The most notable difference that being unemployed has no significant effect on women, nor does it have an effect over time except for six and nine years after the move as can be read in table 4. On top of that, migrating does not have a significant effect on whether it is in response to unemployment or in general for the female population. Notwithstanding, women do report a significant time effect on the duration of unemployment. Nevertheless, women are affected by the duration of their unemployment, whereas men are not. Contrarily, men report a significant effect before job displacement and at several points after. On top of that, being male and unemployed has a significant effect as opposed to being male and employed. This is similar to Nowok et al. (2013)'s finding that women do not have migration effects for five years after and the general findings that unemployment affects women's happiness less than men (Frey & Stutzer, 2002; Van der Meer, 2014).

K	Women		Men	
-4	0,006921	0,081056	0,021295	0,078429
-3	-0,0762	0,073695	-0,11652*	0,069903
-2	-0,06338	0,068688	-0,12816**	0,064217
-1	-0,06432	0,064187	-0,09626	0,059731
0	-0,01275	0,103212	-0,04504	0,075532
1	-0,08423	0,064609	-0,04335	0,057922
2	-0,04178	0,066243	-0,05451	0,06014
3	-0,00594	0,069324	-0,09501	0,061964
4	-0,03081	0,074291	-0,04733	0,066653
5	-0,12254	0,080517	-0,30439***	0,07351
6	-0,13668*	0,08222	-0,04786	0,07104
7	-0,07846	0,088504	-0,12102	0,077105
8	-0,12975	0,096085	-0,22847***	0,084549
9	-0,26382**	0,112455	-0,15589*	0,091307
10	0,155823	0,139914	-0,09342	0,108086
Unemployed mover				
<i>mover* -4</i>	-0,13215	0,209243	-0,37887*	0,203692
<i>mover* -3</i>	-0,07159	0,177706	-0,00878	0,171937

<i>mover</i> *-2	-0,1305	0,158584	0,150227	0,14958
<i>movers</i> * -1	-0,15782	0,14629	-0,05493	0,132813
<i>mover</i> * 0	-0,05647	0,1327	-0,06582	0,11265
<i>mover</i> * 1	0,111422	0,13347	-0,20967*	0,116195
<i>mover</i> *2	-0,07164	0,136316	-0,14045	0,118591
<i>mover</i> *3	-0,03253	0,137644	-0,12241	0,122137
<i>mover</i> *4	-0,1356	0,146441	-0,19703	0,127172
<i>mover</i> *5	0,024946	0,156606	0,070377	0,141306
<i>mover</i> *6	0,009853	0,153742	-0,0627	0,130314
<i>mover</i> *7	0,086883	0,159345	0,004346	0,136384
<i>mover</i> *8	-0,07179	0,169488	-0,03118	0,144652
<i>mover</i> *9	0,197699	0,18255	0,168608	0,15298
<i>mover</i> *10	-0,16972	0,209242	-0,13511	0,170096
migration	0,020989	0,014353	0,010919	0,014404
Long distance migrant	0,071477	0,121833	-0,11645	0,097505
Duration of unemployment	-0,06716*	0,038154	0,005199	0,01816
current economic activity (ref. employed)				
<i>self employed</i>	-0,00772	0,032477	0,001063	0,026188
<i>Unemployed</i>	-0,08122	0,118127	-0,21277***	0,071544
<i>Retired</i>	0,066132**	0,028381	0,092752***	0,030132
<i>Maternity leave</i>	0,262351***	0,039288	0,279694	0,236934
<i>Family care</i>	-0,01935	0,025868	-0,13532**	0,068081
<i>Student</i>	0,116891***	0,028647	0,109871***	0,030813
<i>Long-term sick</i>	-0,24524***	0,034058	-0,34432***	0,03609
<i>Government training scheme</i>	0,108285	0,097187	-0,04574	0,085027
<i>Other</i>	0,048794	0,054842	-0,04832	0,063419

Table 4: gender differences in labour related variables

In terms of control variables, different effects can be reported as well. Firstly, whereas men have simple negative linear effect of age, women report a positive effect with diminishing severity. Furthermore, for men no significant effect for divorce can be reported.

	Coefficient	Standard err.	Coefficient	Standard err.
Age	0,013286***	0,003707	-0,0132***	0,003979
Age squared	-0,00025***	0,000035	-0,0000042	3,77E-05
Marital status				
<i>child under 16</i>	0,099623	0,185781	0,271237	0,157106
<i>married</i>	0,017356	0,033328	-0,01189	0,03261
<i>widowed</i>	-0,05615	0,081831	0,106635	0,101593
<i>divorced</i>	0,262168***	0,079011	0,114489	0,095687
<i>separated</i>	0,165946*	0,091933	-0,09027	0,104365
<i>never married</i>	0,180517**	0,073295	0,193966**	0,08271
<i>partnership</i>	0,107881	0,370689	-0,11689	0,341206

Table 5: gender differences in marital status

On top of differences in unemployment effects, local ties have different effects by gender, as shown in table 6. Paradoxically, women have a positive outcome when their mother lives in the same region, whereas there is a negative effect reported for their father. Contrarily, men report no effect for having their mother in the same region and a positive effect for their father. Interestingly, men also report a significant negative effect of having their spouse in the same region, suggesting that they are happier have a LAT-relationship.

	Coefficient	Standard err.	Coefficient	Standard err.
Father in same region				
<i>Missing</i>	-0,04061	0,048125	0,063276	0,045194
<i>yes</i>	-0,2344*	0,125175	0,22956**	0,093755
Mother in same region				
<i>missing</i>	0,060525	0,041913	-0,07198*	0,042422
<i>Yes</i>	0,317751***	0,099765	-0,02321	0,082211
Spouse in same region				
<i>Missing</i>	-0,24852***	0,074334	-0,31554***	0,086518
<i>Yes</i>	-0,00524	0,092024	-0,28569**	0,127183

Table 6: gender differences in local ties

Conclusions

This research has embarked to discover the differences in happiness outcomes between unemployed movers and stayers. The evidence from the descriptive analysis shows little evidence to assume a difference between stayers and movers. The only dissimilarities that can be reported are that movers are often younger and unmarried, which is in line with previous findings (Dernier, 2017; Fackler & Rippe, 2017; Fendel, 2014; Yang, 2000). However, the regression shows that movers feel the long-term negative effects of unemployment a year sooner than stayers. A possible explanation for this could be that migrants feel the negative long-term effects of job displacement, such as reduced pay (Eliason & Storrie, 2004; Fackler & Rippe, 2017), lower social status, and loss of social network (Brand, 2015) sooner than those who stay. For example, Fackler & Rippe (2017) find that wages of movers are lower initially than those of stayers. Another explanation could be that they notice that the migration has not solved the long-term problems.

While the movers and stayers are found to be quite similar, big differences have been found between the unemployed and employed groups, regardless of whether they move or stay. Indeed, the unemployed group tends to be unhealthier and more often unwed or divorced. As this distinction is not discovered between movers and stayers, another explanation for the lack of difference in migration outcomes arises. In fact, it could be argued that because the groups are similar, the outcomes do not differ. Combined with the finding that the duration the spell does not have an effect on happiness, just the occurrence of the event. It can be stated that the groups have similar underlying problems. Furthermore, the explanations generally given for long-term effects of unemployment are unlikely to disappear with migrating.

The aforementioned selection in job displacement is an interesting finding. While there is some evidence that unhappier individuals are displacement more often (Frey & Stutzer, 2002), the selection found in this study is quite strong. Additionally, while migration is reported to be a selective process (Pekkala & Tervo, 2002), there appears only to be a selection of younger adults into migration in this study.

In conclusion, while a group of unhappier individuals is selected into unemployment, as a result of their performance in other life-course domains, there is little difference in selection into movers and stayers. Furthermore, the long-term consequences of job displacement are not processes that are likely to be resolved with migrating. As a result, there is little difference between movers and stayers in terms of happiness outcomes of job displacement.

Discussion

There are some limitations to this study. Firstly, if a respondent moved several times their sequence was censored at the year before their second move. This could have deleted some interesting data. Moreover, the effect of local ties is only explored at a high scale level. Indeed, more detailed data about local ties could have added some more understanding of their influences.

This research shows the validity of using a life-course approach to research happiness. Indeed, the combination of studying trajectories unveils the selection of unhappy individuals into unemployment. Indeed, especially when studying a multi-sourced attitude as happiness, the life-course approach proves its' suitability. Furthermore, the sequence analysis has shown its usefulness in happiness research. Indeed, the sequence analysis has been able to provide necessary insights in the selection into unhappiness and unemployment. Furthermore, it has provided innovative ways to illustrate life-course trajectories.

For future research, the selection into job displacement in relation to performance in different life trajectories is a topic that could be further explored. Additionally, more studies into the different functionings of migration around unemployment and happiness remain necessary. In addition, the gender differences in happiness outcomes of labour market events can be further explored. The link between local ties and happiness also provides interesting avenues for future research.

In conclusion, this study is one of the first to measure the success of internal migrations in a happiness domain. The study has shown that a combination of an integral life-course approach in combination with innovative methods such as sequence analysis can provide new findings to the job displacement – migration nexus. The title of this paper questions whether moving helps in the case of job displacement. The results from this paper suggest not only that movers and stayers have very similar happiness trajectories, but that movers are significantly unhappier for two years. Therefore, policy makers and researchers concerned with labour market performance and wellbeing in the United Kingdom may need to reconsider the role of migration as a suitable response to job displacement.

References:

Ainge Roy, E. (2019). New Zealand 'wellbeing' budget promises billions to care for most vulnerable. *The Guardian*. May 30th. Assessed on June 24th. Retrieved via:

<https://www.theguardian.com/world/2019/may/30/new-zealand-wellbeing-budget-jacinda-ardern-unveils-billions-to-care-for-most-vulnerable>

Aisenbrey, S., Fasang, A.E. (2010). New life for old ideas: the “second wave” of sequence analysis. Bringing the “course” back into life course. *Sociological Methods & Research*. 38(3). Pp. 420-462.

Arntz, M. (2005). *The geographical mobility of unemployed workers. Evidence from West Germany*. ZEW discussion paper. 5(34).

Bähr, S., Abraham, M. (2016). The role of social capital in the job-related regional mobility decisions of unemployed individuals. *Social Networks*. 46. Pp. 44-59.

Bailey, A.J. (2009). Population Geography: lifecourse matters. *Progress in Human Geography*. 33(3). Pp. 407-418

Ballas, D., 2013. What Makes a Happy City? *Cities*. 32. Pp. 39-50.

Ballas, D. Dorling, D. (2013). The Geography of Happiness. in Boniwell, I., David, S.A., Ayers, A.C. (ed.). *The Oxford Handbook of Happiness*. (Pp. 465-481). Oxford: Oxford University Press.

Barban, N., Billari, F.C. (2012). Classifying life course trajectories: a comparison of latent class and sequence analysis. *Journal of the Royal Statistical Society. Series C (Applied Statistics)*. 61(5). Pp. 765-784.

Bardasi, E. & Francesconi, M. (2004). The impact of atypical employment on individual wellbeing: evidence from a panel of British workers. *Social Science & Medicine*. 58, pp. 1671 – 1688.

Bartram, D. (2011). Economic migration and happiness: comparing immigrants and natives happiness gains from income. *Social Indicators Research*. 103(1). Pp. 57-76.

Bartram, D. (2013). Happiness and 'economic migration': a comparison of Eastern European migrants and stayers. *Migration Studies*. 1(2). Pp. 156-175.

Bartram, D. (2015). Inverting the logic of economic migration: happiness among migrants from wealthier to poorer countries in Europe. *Journal of Happiness*. 16(50). Pp. 1211-1230.

Bell, D. A., Mo, Y. (2015). Appendix 1: Harmony in the World 2013: The Ideal and the Reality. In: D. A. Bell, ed. *The China Model: Political Meritocracy and the Limits of Democracy*. (Pp. 1-24). Princeton: Princeton University Press.

Blanchflower, D.G., Oswald, A.J. (2008). Is well-being U-shaped over the life cycle? *Social Science and Medicine*. 66. Pp. 1733-1749.

Boman, A. (2011a) The Mobility of Immigrants and Natives: Evidence from Internal Migration Following Job Displacement. *Regional Studies*. 45(3). Pp. 283 – 297

Boman, A. (2011b). Does migration pay? Earnings effects of geographic mobility following job displacement. *Journal of Population Economics*. 24. Pp. 1369 – 1384

Boman, A. (2012). Employment Effects of Extended Geographic Scope in Job Search. *Labour Economics*. 19. Pp. 643 – 652.

Brand, J.E. (2015). The Far-Reaching Impact of Job Loss and Unemployment. *The Annual Review of Sociology*. 41. Pp. 359-375.

Brzinsky-Fay, C., Kohler, U., Luniak, M. (2006). Sequence analysis with Stata. *The Stata Journal*. 6(4). Pp. 435-460.

Clark, A.E. (2003). Unemployment as social norm: psychological evidence from panel data. *Journal of Labor Economics*. 21. Pp. 324-351.

Clark, A.E., Oswald, A.J. (1994). Unhappiness and unemployment. *Economic Journal*. 104(424). Pp. 648-659.

Clark, A.E., Diener, E., Georgellis, Y., Lucas, R.E. (2008). Lags and leads in life satisfaction: a test of the baseline hypothesis. *Economic Journal*. 118.. F222-F243.

- Couch, K.A. (2001). Earnings losses and unemployment of displaced workers in Germany. *Industrial and Labour Relations Review*. 54. Pp. 559-572
- Couch, K.A., Placzek, D.W. (2010). Earnings losses of displaced workers revisited. *American Economic Review*. 100. Pp. 572-589.
- Coulter, R., Van Ham, M. (2013). Following people through time: an analysis of individual residential mobility biographies. *Housing Studies*. 28(7). Pp. 1037-1055.
- Coulter, R., Van Ham, M., Findlay, A.M. (2016). Re-thinking residential mobility: Linking lives through time and space. *Progress in Human Geography*. 40(3). Pp. 352-374.
- Denier, N. (2017). Leaving Work, Leaving Home: Job Loss and Socio-Geographic Mobility in Canada. *Canadian Public Policy*. 43(1). Pp. 17-35.
- Diener, E., Lucas, R.E., Oishi, S. (2018). Advances and Open Questions in the Science of Subjective Well-Being. *Collabra: Psychology*. 4(1). Pp.1-49.
- Drinkwater, S., Ingram, P. (2009). How Different are the British in their Willingness to Move? Evidence from International Social Survey Data. *Regional Studies*. 43 (2). Pp. 287 – 303
- Eliason, M. Storrie, D. (2006). Lasting or Latent Scars? Swedish Evidence on the Long-Term Effects of Job Displacement. *Journal of Labor Economics*. 24(4). Pp. 831 – 856.
- Fackler, D., Rippe, L. (2017). Losing work, moving away? Regional mobility after job loss. *Labour*. 31(4). Pp. 457-479.
- Fendel, T. (2014). Work-related Migration and Unemployment. *Journal of Labour Market Research*. 47(233). Pp. 223-243
- Ferrer-i-Carbonell, A., Frijters, P. (2004). How important is methodology for the estimates of the determinants of happiness? *The economic journal*. 144(497). Pp. 641-659.
- Findlay, A., McCollum, D., Coulter, R., Gayle, V. (2015). New mobilities across the life course: a framework for analysing demographically linked drivers of migration. *Population, Space and Place*. 21(4). Pp 390-402.
- Fisscher, P.A., Malmberg, G. (2001). Settled People Don't Move: On Life Course and (Im) Mobility in Sweden. *International Journal of Population Geography*. 7(5). Pp.357 – 371.
- Frey, B. S., Stutzer, A. (2002). What Can Economists Learn from Happiness Research? *Journal of Economic Literature*. 40(2). Pp. 402-435.

Frijters, P., Johnston, D.W., Shields, M.A. (2011). Life satisfaction dynamics with quarterly life event data, *Scandinavian Journal of Economics*. 113. Pp. 190-211.

Fuchs-Schündeln, N. Schündeln, M. (2009). Who stays, who goes, who returns? East-West migration within Germany since reunification. *Economics of Transition*. 17(4). Pp. 703-738.

Halpin, B. (2010). Optimal matching analysis and life course data: the importance of duration. *Sociological Methods and Research*. 38(3). Pp. 365–388.

Halpin, B. (2016). *Cluster analysis stopping rules in Stata*. Working Paper WP2016-0. Assessed on June 24th, 2019. Retrieved via:
https://193.1.102.136/bitstream/handle/10344/5492/Halpin_2016_cluster.pdf?sequence=2

Hendriks, M., Bartram, D. (2016). Macro-conditions and immigrants' happiness: Is moving to a wealthy country all that matters? *Social Science Research*. 90-107

Hendriks, M., Bartram, D. (2018). Brining happiness into the study of migration and its consequences: what, why, and how? *Journal of Immigrant & Refugee studies*.

Jolly, N.A. (2015). Geographic Mobility and the Costs of Job Loss. *Journal of Economic Analysis and Policy*. 15(4). Pp. 1793-1829.

Kley, S.A. (2013). Migration in the Face of Unemployment and Unemployment Risk: A Case Study of Temporal and Regional Effect. *Comparative population studies*. 38(1). Pp. 109-136.

Lu, L., Gilmour, R. (2004). Culture and conceptions of happiness: Individual oriented and social oriented SWB. *Journal of Happiness Studies*. 5. Pp. 269-291.

Lucas, R.E., Donellan, M.B. (2012). Estimating the Reliability of Single-Item Life Satisfaction Measures: Results from Four National Panel Studies. *Social Indicator Research*. 105. Pp. 323-331.

- Lunde, A., Timmermann, A., Blake, D. (1999). The hazards of mutual fund underperformance: A Cox regression analysis. *Journal of Empirical Finance*. 6. 121-152.
- McCann, P., (2013). *Modern Urban and Regional Economics*. 2nd ed. Oxford: Oxford University Press.
- Mulder, C. H. (2018). Putting family centre stage: ties to nonresident family, internal migration, and immobility. *Demographic Research*. 39(43). Pp. 1151- 1180.
- Mulder, C.H., Hooimeijer, P. (1999). Residential Relocations in the life course. In: Van Wissen, L.J.G., Dykstra, P.J. (Eds.). *Population studies: an interdisciplinary focus*. (Pp. 159-186) . New York: Plenum Press.
- Nowok, B., Van Ham, M., Findlay, A.M., Gayle, V. (2013). Does migration make you happy? A longitudinal study of internal migration and well-being. *Environment and Planning A*. 45. Pp. 986-1002.
- Nowok, B., Findlay, A., McCollum, D. (2018). Linking residential relocation desires and behavior with life domain satisfaction. *Urban Studies*. 55(4). Pp. 870-890
- Oishi, S., Graham, J., Kesebir, S., Galinha, I.C. (2013). Concepts of happiness across time and cultures. *Personality and Social Psychology Bulletin*. 39(5). Pp. 559-577.
- Pekkala, S., Tervo, H. (2002) Unemployment and migration: does moving help? The *Scandinavian Journal of Economics*. 104(4). Pp. 621-639.
- Schwarz, N., Clore, G.L. (1983). Mood, misattribution, and judgements of well-being: informative and directive functions of affective states. *Journal of Personality and Social Psychology*. 45. Pp. 513-523
- Schwarz, N., Strack, F., Kommer, D., Wagner, D. (1987). Soccer, Rooms, and the quality of your life: mood effects on judgements of satisfaction with life in general and with specific domains. *European Journal of Social Psychology*. 17. Pp. 69-79.

Stiglitz, J., Sen, A., Fitoussi, J. (2009), *Report by the commission on the measurement of economic performance and social progress*. Assessed on June 7th. Retrieved via: <http://www.stiglitz-sen-fitoussi.fr/>

Stratton, A. (2010). David Cameron aims to make happiness the new GDP. *The Guardian*. November 14th. Assessed on June 24th. Retrieved via: <https://www.theguardian.com/politics/2010/nov/14/david-cameron-wellbeing-inquiry>

Thomas, M.J., Mulder, C.H., Cooke, T.J. (2017). Linked lives and constrained spatial mobility: the case of moves related to separation among families with children. *Transactions of the Institute of British Geographers*. 42(4). Pp. 597-611.

Van der Meer, P.H. (2014). Gender, Unemployment and Subjective Well-Being: Why Being Unemployed Is Worse for Men than for Women. *Social Indicators Research*. 115(1). Pp. 23-44

Veenhoven, R. (2000). The Four Qualities of Life: Ordering concepts and measures of the good life. *Journal of Happiness Studies*. 1(1). Pp. 1-39.

Veenhoven, R. (2015). Social Conditions for Human Happiness: A Review of Research. *International Journal of Psychology*. 50(5). Pp. 379-391.

White, R. (2010). Long-run wage and earnings losses of displaced workers. *Applied Economics*. 42. Pp. 1845-1856

Winkelmann, R. (2014). Unemployment and happiness. *IZA World of Labor*. 94

Yang, X. (2000). Determinants of migration intentions in Hubei province, China: individual versus family migration. *Environmental Planning A*. 31. Pp. 769-787.

Yankow, J.J. (2004). The Geographic Mobility of Displaced Workers: Do Local Employment Conditions Matter? *The Review of Regional Studies*. 34(2). Pp. 120-136.

Appendix 1: Enlarged sequence plots

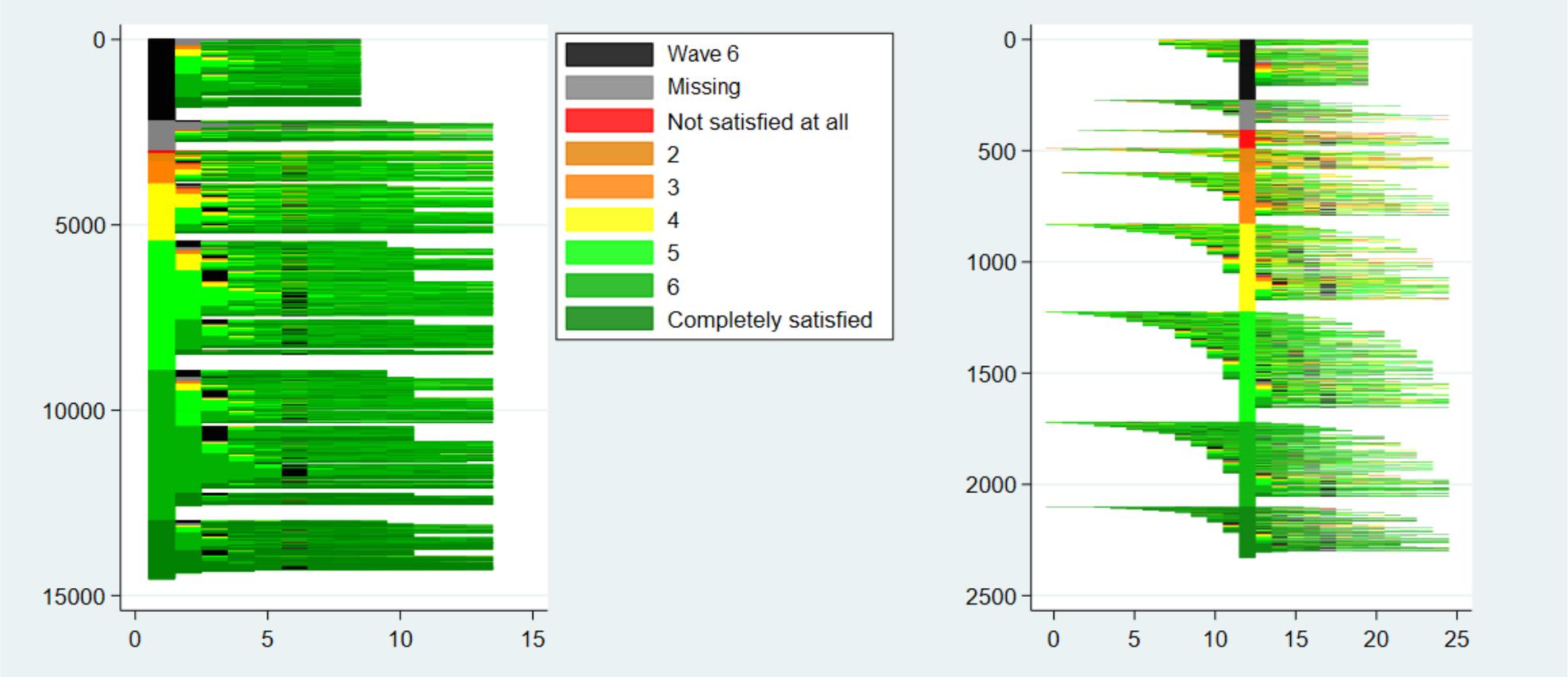


Figure 1

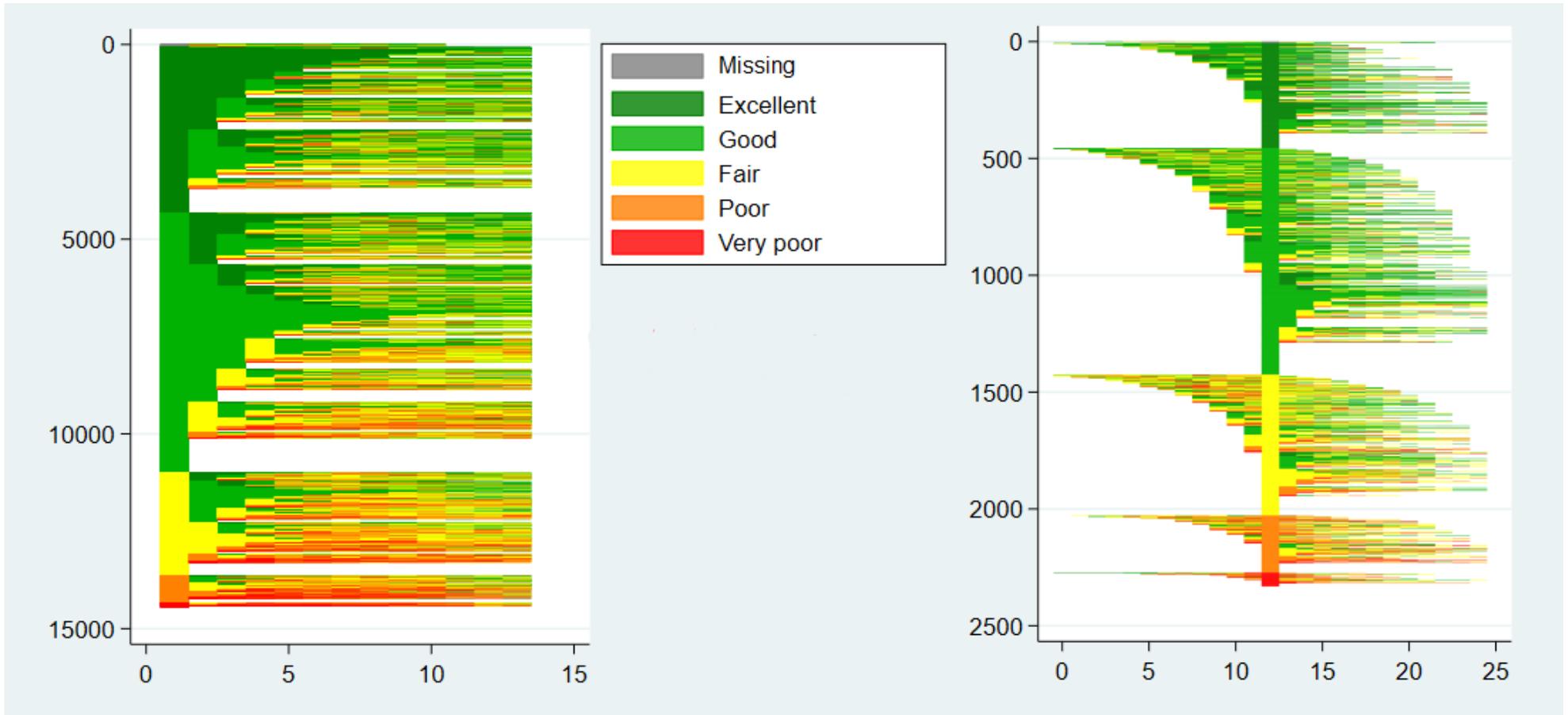


Figure 4

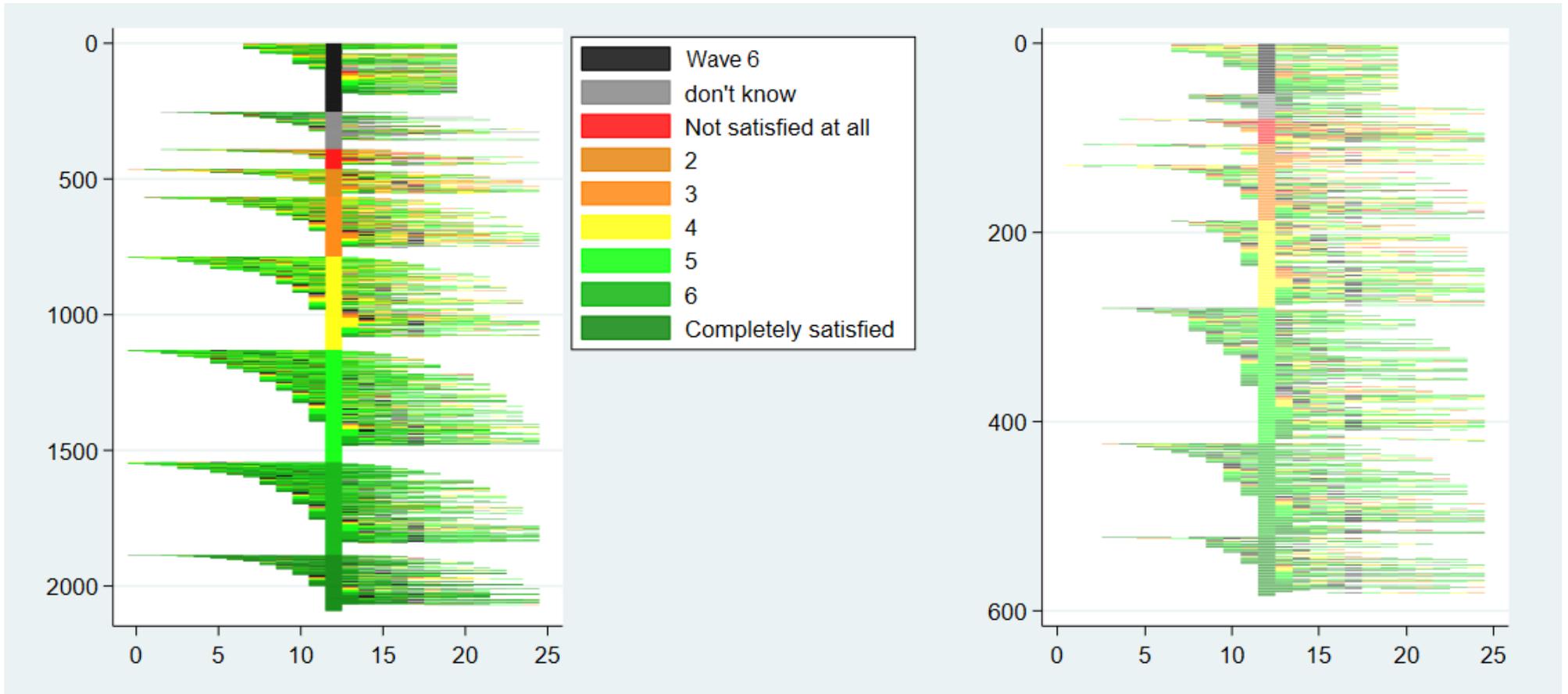


Figure 5

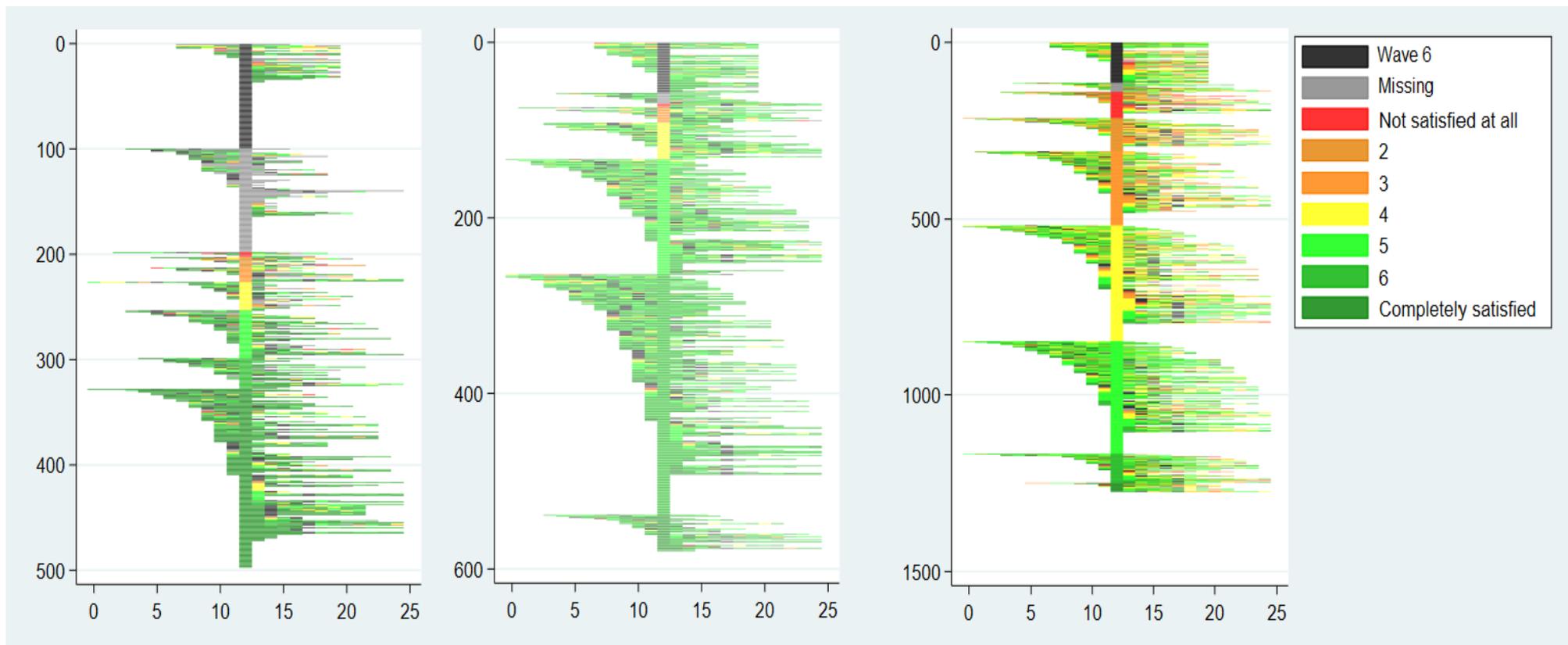


Figure 7.1: life satisfaction by cluster

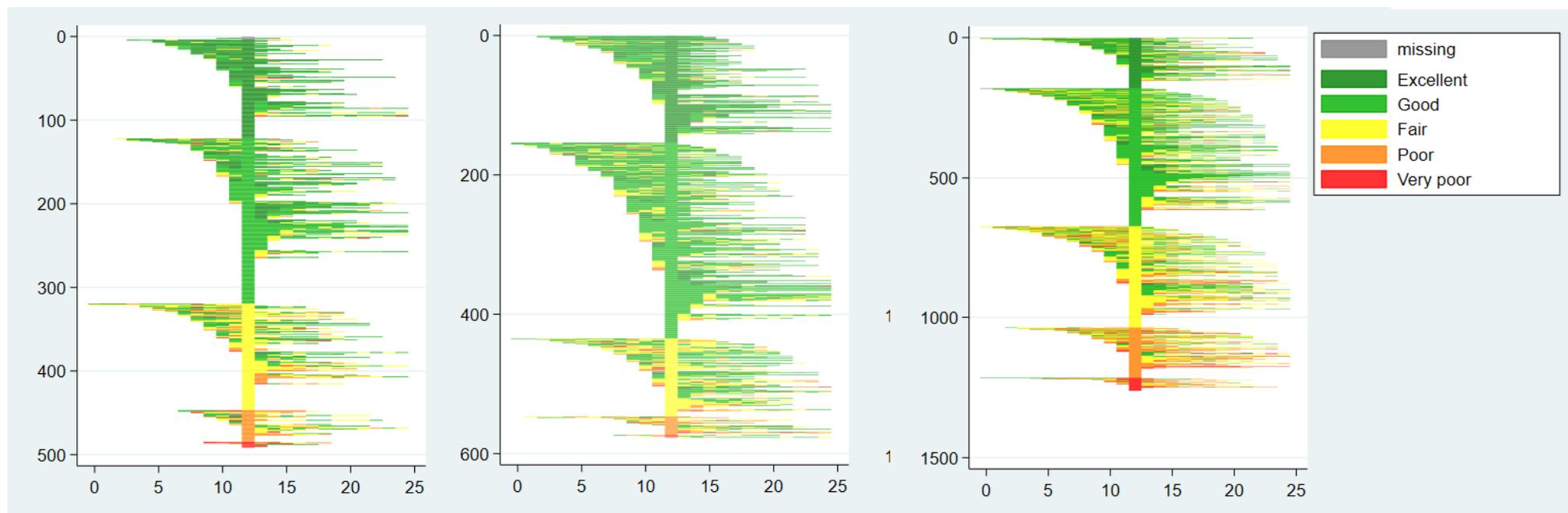


Figure 7.2: health status by cluster

Appendix 2: regression output

	Coef.	Std. Err.	Coef.	Std. Err.	Coef.	Std. Err.
Overall			Women		Men	
K & mover*k						
-4	0,012075	0,056679	0,006921	0,081056	0,021295	0,078429
<i>mover</i> * -4	-0,28447*	0,146389	-0,13215	0,209243	-0,37887*	0,203692
-3	-0,09727*	0,051054	-0,0762	0,073695	-0,11652*	0,069903
<i>mover</i> * -3	-0,06551	0,1238	-0,07159	0,177706	-0,00878	0,171937
-2	-0,09299**	0,04725	-0,06338	0,068688	-0,12816**	0,064217
<i>mover</i> *-2	-0,02016	0,109294	-0,1305	0,158584	0,150227	0,14958
-1	-0,08007*	0,044048	-0,06432	0,064187	-0,09626	0,059731
<i>movers</i> * -1	-0,12168	0,099048	-0,15782	0,14629	-0,05493	0,132813
-1	-0,01233	0,060407	-0,01275	0,103212	-0,04504	0,075532
<i>mover</i> * 0	-0,04923	0,086915	-0,05647	0,1327	-0,06582	0,11265
1	-0,05475	0,043528	-0,08423	0,064609	-0,04335	0,057922
<i>mover</i> * 1	-0,06395	0,088582	0,111422	0,13347	-0,20967*	0,116195
2	-0,04509	0,044951	-0,04178	0,066243	-0,05451	0,06014
<i>mover</i> *2	-0,11433	0,090561	-0,07164	0,136316	-0,14045	0,118591
3	-0,05234	0,046664	-0,00594	0,069324	-0,09501	0,061964
<i>mover</i> *3	-0,08259	0,092254	-0,03253	0,137644	-0,12241	0,122137
4	-0,03741	0,050117	-0,03081	0,074291	-0,04733	0,066653
<i>mover</i> *4	-0,17523*	0,09723	-0,1356	0,146441	-0,19703	0,127172
5	-0,20246***	0,054941	-0,12254	0,080517	-0,30439***	0,07351
<i>mover</i> *5	0,030567	0,106052	0,024946	0,156606	0,070377	0,141306
6	-0,08717	0,054499	-0,13668*	0,08222	-0,04786	0,07104
<i>mover</i> *6	-0,03523	0,100883	0,009853	0,153742	-0,0627	0,130314
7	-0,10058*	0,059168	-0,07846	0,088504	-0,12102	0,077105
<i>mover</i> *7	0,047096	0,105278	0,086883	0,159345	0,004346	0,136384
8	-0,17292***	0,064623	-0,12975	0,096085	-0,22847***	0,084549
<i>mover</i> *8	-0,04817	0,111915	-0,07179	0,169488	-0,03118	0,144652
9	-0,20331***	0,072356	-0,26382**	0,112455	-0,15589*	0,091307
<i>mover</i> *9	0,181522	0,119188	0,197699	0,18255	0,168608	0,15298
10	0,010013	0,086934	0,155823	0,139914	-0,09342	0,108086
<i>mover</i> *10	-0,14673	0,134642	-0,16972	0,209242	-0,13511	0,170096
migration	0,016899*	0,010244	0,020989	0,014353	0,010919	0,014404
duration of unemployment	-0,00822	0,01671	-0,06716*	0,038154	0,005199	0,01816
current economic activity (ref. employed)						
<i>self employed</i>	-0,00874	0,020415	-0,00772	0,032477	0,001063	0,026188
<i>unemployed</i>	-0,18569***	0,060619	-0,08122	0,118127	-0,21277***	0,071544
<i>retired</i>	0,079214***	0,020709	0,066132**	0,028381	0,092752***	0,030132
<i>maternity leave</i>	0,261367***	0,037371	0,262351***	0,039288	0,279694	0,236934
<i>family care</i>	-0,01526	0,020754	-0,01935	0,025868	-0,13532**	0,068081

<i>student</i>	0,117522***	0,02104	0,116891***	0,028647	0,109871***	0,030813
<i>long-term sick</i>	-0,28956***	0,024854	-0,24524***	0,034058	-0,34432***	0,03609
<i>government training scheme</i>	0,03341	0,064655	0,108285	0,097187	-0,04574	0,085027
<i>other</i>	0,010199	0,041489	0,048794	0,054842	-0,04832	0,063419
health over 12 months (ref. excellent)						
<i>good</i>	-0,08965***	0,020573	-0,08217***	0,029302	-0,10317***	0,028334
<i>fair</i>	-0,28888***	0,025723	-0,28691***	0,036563	-0,29388***	0,035624
<i>poor</i>	-0,47246***	0,037876	-0,49018***	0,051204	-0,45146***	0,056302
<i>very poor</i>	-0,7221***	0,071725	-0,59524***	0,096818	-0,90888***	0,106672
marital status (ref. living as a couple)						
<i>child under 16</i>	0,209321*	0,1199	0,099623	0,185781	0,271237	0,157106
<i>married</i>	0,000209	0,023416	0,017356	0,033328	-0,01189	0,03261
<i>widowed</i>	-0,01676	0,06346	-0,05615	0,081831	0,106635	0,101593
<i>divorced</i>	0,199704***	0,060856	0,262168***	0,079011	0,114489	0,095687
<i>separated</i>	0,044131	0,069061	0,165946*	0,091933	-0,09027	0,104365
<i>never married</i>	0,181881***	0,054823	0,180517**	0,073295	0,193966**	0,08271
<i>partnership</i>	-0,00809	0,253182	0,107881	0,370689	-0,11689	0,341206
<i>age</i>	0,00166	0,002715	0,013286***	0,003707	-0,0132***	0,003979
<i>age squared</i>	-0,00014***	2,57E-05	-0,00025***	0,000035	-0,0000042	3,77E-05
likes neighbourhood (ref. yes)						
<i>Missing</i>	-0,05176	0,035006	-0,0319	0,049406	-0,07262	0,048921
<i>No</i>	-0,15288***	0,013146	-0,17018***	0,017848	-0,12925***	0,019259
highest finished education (ref. no qf)						
<i>missing</i>	0,250323***	0,03301	0,255359***	0,044792	0,241658***	0,048795
<i>Higher Degree</i>	0,046035	0,060154	0,01325	0,08615	0,08442	0,083524
<i>First Degree</i>	0,008818	0,038914	0,007622	0,052793	-0,01326	0,057696
<i>Teaching QF</i>	0,097173	0,098371	0,132805	0,117371	-0,02867	0,194961
<i>Other Higher QF</i>	0,017229	0,029874	-0,00811	0,041214	0,047511	0,043277
<i>Nursing QF</i>	-0,0369	0,073139	-0,04572	0,081063	-0,11256	0,352848
<i>GCE A Levels</i>	0,076829**	0,0327	0,073462	0,044814	0,08057*	0,047713
<i>GCE O Levels or..</i>	0,021207	0,03222	-0,01531	0,043583	0,071841	0,047856
<i>Commercial QF, ..</i>	-0,10708	0,069128	-0,10512	0,077943	-0,28636	0,236245
<i>CSE Grade 2-5,S..</i>	0,011703	0,050376	-0,05688	0,072268	0,077015	0,069823
<i>Apprenticeship</i>	0,028698	0,096117	0,012746	0,215651	0,071528	0,106215
<i>Other QF</i>	0,156568	0,108354	0,004529	0,153226	0,334652**	0,151608
<i>Still At School..</i>	-0,0584	0,062608	-0,02586	0,087793	-0,0833	0,088929
number of children (ref. no children)						
<i>1</i>	-0,00038	0,017522	-0,00568	0,02379	0,009661	0,026007

2	-0,02048	0,019211	-0,03076	0,026382	-0,00619	0,028164
3	-0,02432	0,025293	-0,02374	0,034711	-0,02897	0,036996
4	-0,07131	0,044315	-0,09698	0,059833	-0,03818	0,065988
5	0,149332*	0,085582	0,165478	0,114704	0,111442	0,128673
6	0,28725*	0,148575	0,145779	0,199395	0,47911**	0,222687
7	-0,20521	0,294923	-0,21115	0,387239	-0,14924	0,456604
8	-1,76351*	0,902845	-1,76332*	0,937013	Empty	
region (ref. inner London)						
<i>Missing</i>	0,040464	0,06425	-0,05883	0,093993	0,148684	0,086908
<i>Outer London</i>	0,015605	0,057447	-0,05402	0,086823	0,080362	0,074954
<i>R. of South East</i>	0,038961	0,055708	-0,01281	0,083115	0,089579	0,073638
<i>South West</i>	0,06488	0,065109	-0,01819	0,094151	0,172289*	0,089683
<i>East Anglia</i>	0,062813	0,073327	-0,06821	0,110061	0,165642*	0,096662
<i>East Midlands</i>	0,124541*	0,068295	0,102666	0,099589	0,141718	0,092729
<i>West Midlands C..</i>	-0,01101	0,088887	-0,04439	0,123053	0,009076	0,129518
<i>R. of West Midl..</i>	0,038869	0,074618	-0,07093	0,107399	0,146597	0,102269
<i>Greater Manches..</i>	0,038345	0,085519	-0,03388	0,122143	0,120482	0,118836
<i>Merseyside</i>	0,135854	0,099344	0,081275	0,145789	0,195725	0,133033
<i>R. of North West</i>	0,132119	0,080226	0,032641	0,115593	0,254545**	0,110525
<i>South Yorkshire</i>	0,20794**	0,094695	0,018168	0,137696	0,419831***	0,128578
<i>West Yorkshire</i>	0,107554	0,08415	0,088407	0,12237	0,144242	0,115293
<i>R. of Yorks & H..</i>	0,068589	0,08561	-0,01008	0,125684	0,159633	0,11582
<i>Tyne & Wear</i>	0,052587	0,110625	-0,05036	0,165557	0,174637	0,146461
<i>R. of North</i>	0,045021	0,097488	-0,06803	0,135075	0,230256	0,144725
<i>Wales</i>	0,074037	0,071467	-0,03144	0,103963	0,178111*	0,097078
<i>Scotland</i>	0,055354	0,071382	-0,08575	0,104712	0,221041**	0,096102
<i>Northern Ireland</i>	0,189337	0,166403	0,052913	0,220412	0,354305	0,256912
household type (ref. single non-elderly)						
Single Elderly	0,041577	0,02815	0,068049*	0,036492	-0,01977	0,046253
<i>Couple No Child..</i>	0,078386**	0,032795	0,111384**	0,046038	0,012866	0,048315
<i>Couple: dep chi..</i>	0,018615	0,034069	0,055161	0,047698	-0,05898	0,049906
<i>Couple: non-dep..</i>	0,014921	0,032765	0,032223	0,046219	-0,03739	0,048032
<i>Lone par: dep c..</i>	-0,01849	0,027462	-0,03661	0,036653	-0,04041	0,050289
<i>Lone par: non-d..</i>	-0,04521*	0,026856	-0,01054	0,03642	-0,13279***	0,042376
<i>2+ Unrelated ad..</i>	0,024562	0,032709	0,106179**	0,048727	-0,05502	0,043522
<i>Other Households</i>	-0,01007	0,040158	0,029517	0,057852	-0,08164	0,056341

tenure owned outright) (ref.						
<i>missing</i>	-0,07674**	0,038461	-0,10698**	0,052627	-0,02779	0,054967
<i>Owned with Mort..</i>	-0,06013***	0,011632	-0,06579***	0,016424	-0,04997***	0,016258
<i>Local Authority..</i>	-0,04333***	0,016256	-0,04315*	0,022766	-0,04193**	0,022956
marital status * health						
<i>child under 16 * good health</i>	-0,03198	0,133517	-0,26566	0,205525	0,304046*	0,173873
<i>child under 16 * fair health</i>	0,062155	0,186099	0,276596	0,270764	-0,13028	0,257648
<i>child under 16 * poor health</i>	0,368247	0,475107	-0,5815	0,70464	1,275928**	0,633057
<i>child under 16 * very poor health</i>	1,704267***	0,972303	(empty)		1,88205**	0,932373
<i>married * good health</i>	-0,01417	0,02259	-0,03909	0,032333	0,018526	0,030949
<i>married * fair health</i>	0,018372	0,028156	-0,00239	0,04011	0,049162	0,038885
<i>married * poor health</i>	-0,0299	0,041085	-0,02468	0,055854	-0,03499	0,060608
<i>married * very poor health</i>	-0,1184	0,076978	-0,2299**	0,104138	0,050922	0,114095
<i>widowed * good health</i>	-0,0045	0,037823	0,004642	0,048506	-0,0185	0,063271
<i>widowed * fair health</i>	-0,0037	0,043876	0,006232	0,056669	0,003718	0,072951
<i>widowed * poor health</i>	-0,09714*	0,056702	-0,0412	0,072029	-0,19104*	0,097753
<i>widowed * very poor health</i>	-0,22897**	0,091918	-0,25874**	0,118027	-0,37892**	0,158881
<i>divorced * good health</i>	-0,04278	0,039358	-0,06454	0,051079	0,00716	0,063266
<i>divorced * fair health</i>	-0,10461**	0,046457	-0,12074**	0,06058	-0,06272	0,074307
<i>divorced * poor health</i>	-0,27974***	0,060012	-0,27209***	0,076803	-0,30627***	0,098575
<i>divorced * very poor health</i>	-0,65501***	0,095089	-0,76014***	0,123378	-0,52929***	0,153278
<i>separated * good health</i>	-0,08148	0,057331	-0,11391	0,076286	-0,05907	0,086885
<i>separated * fair health</i>	-0,20111***	0,068115	-0,29358***	0,089185	-0,07113	0,107822
<i>separated * poor health</i>	-0,15399*	0,08656	-0,18347*	0,111251	-0,15863	0,141602
<i>separated * very poor health</i>	-0,30492**	0,148212	-0,55874***	0,191417	0,073582	0,239814

<i>never married * good health</i>	-0,04397*	0,025632	-0,04236	0,037153	-0,03775	0,034742
<i>never married * fair health</i>	-0,06246*	0,032446	-0,04042	0,046695	-0,0737*	0,044413
<i>never married * poor health</i>	-0,14226***	0,048218	-0,14424**	0,06645	-0,14367**	0,070006
<i>never married * very poor health</i>	-0,18041*	0,092098	-0,32791**	0,126782	0,031954	0,1336
<i>partnership * good health</i>	-0,01979	0,322758	0,051813	0,504913	0,033021	0,416703
<i>partnership * fair health</i>	0,203863	0,4504	(empty)		0,337749	0,485942
<i>partnership * poor health</i>	-1,15092*	0,619327	-2,88514***	1,035062	-0,12279	0,758227
<i>partnership * very poor health</i>	(empty)		(empty)		(empty)	
longdistance mover	-0,05068	0,077223	0,071477	0,121833	-0,11645	0,097505
head of household						
<i>Not head</i>	0,011014	0,012146	-0,00157	0,018148	0,030483	0,018533
would like to move (ref. stay here)						
<i>missing</i>	-0,09727***	0,025899	-0,09915***	0,036195	-0,09109**	0,036553
<i>Prefer to move</i>	-0,07348***	0,007256	-0,0772***	0,010182	-0,06965***	0,010179
<i>don't know</i>	-0,03631	0,066465	0,083311	0,106287	-0,11742	0,083199
satisfaction with job (ref. neutral)						
<i>Doesn't apply</i>	0,192587***	0,020279	0,182302***	0,0297	0,20143***	0,027463
<i>Not satisfied at all</i>	-0,21108***	0,033123	-0,15805***	0,048803	-0,26967***	0,04422
<i>2</i>	-0,18424***	0,024935	-0,1368***	0,037716	-0,229***	0,032478
<i>3</i>	-0,13891***	0,018648	-0,1258***	0,02861	-0,15888***	0,023968
<i>5</i>	0,128074***	0,014707	0,099763***	0,022828	0,155614***	0,018637
<i>6</i>	0,256728***	0,014417	0,223078***	0,022119	0,293489***	0,01856
<i>Completely satisfied</i>	0,395703***	0,017512	0,338751***	0,025452	0,471772***	0,024392
financial situation (ref. living comfortably)						
<i>missing</i>	-0,33103***	0,074966	-0,37645***	0,10446	-0,28972***	0,10702
<i>Doing alright</i>	-0,09518***	0,007206	-0,10204***	0,010101	-0,08561***	0,010108
<i>Just abt gettin..</i>	-0,22945***	0,009279	-0,23622***	0,013016	-0,22033***	0,013011
<i>Finding it quit..</i>	-0,4475***	0,015193	-0,44346***	0,020795	-0,45741***	0,022003
<i>Finding it very..</i>	-0,71185***	0,022565	-0,70881***	0,030524	-0,71755***	0,033411
change in financial situation (ref. about the same)						
<i>Missing</i>	-0,03006	0,044013	-0,04707	0,056488	0,004024	0,070894
<i>Better off</i>	0,052803***	0,006775	0,060531***	0,009566	0,042291***	0,009443
<i>Worse off</i>	-0,07672***	0,007217	-0,07233***	0,009984	-0,08074***	0,010278

change in marital status						
<i>Missing</i>	0,061963	0,011123	0,088792***	0,015329	0,028939*	0,016001
<i>Yes</i>	0,034519**	0,016578	0,059383***	0,022439	-0,00119	0,024461
Life satisfaction of spouse (ref. neutral)						
<i>Missing</i>	-0,03492	0,075884	0,101438	0,100395	-0,25118**	0,123234
<i>Not satisfied a..</i>	-0,35881***	0,096749	-0,44334***	0,154166	-0,30255**	0,121357
2	-0,19107**	0,082893	-0,26196**	0,128586	-0,13599	0,105837
3	-0,06715	0,05056	-0,1594*	0,082752	0,007056	0,062118
5	0,175238***	0,037333	0,218086***	0,058106	0,144194***	0,04765
6	0,260179***	0,04145	0,261984***	0,064524	0,265294***	0,052966
<i>Completely sati..</i>	0,403164***	0,05547	0,340762***	0,088863	0,463506***	0,069172
father lives in the same region						
<i>Missing</i>	0,018176	0,033128	-0,04061	0,048125	0,063276	0,045194
<i>Yes</i>	0,029216	0,076312	-0,2344*	0,125175	0,22956**	0,093755
mother lives in the same region						
<i>Missing</i>	-0,00015	0,029572	0,060525	0,041913	-0,07198*	0,042422
<i>Yes</i>	0,122849*	0,064099	0,317751***	0,099765	-0,02321	0,082211
spouse lives in the same region						
<i>Missing</i>	-0,26048***	0,056075	-0,24852***	0,074334	-0,31554***	0,086518
<i>Yes</i>	-0,10215	0,073791	-0,00524	0,092024	-0,28569**	0,127183
Constant	5,621729***	0,135981	5,333169***	0,18737	6,120127***	0,204183
R2	12,66%		11,26%		14,23%	

Appendix 3: Reflection

In the process of this thesis, several deliberations have been made in regards to theme, theory methodology, and presentation of the results. In this addendum, the reasoning behind these decisions will be presented. Firstly, the reasoning behind this theme is given.

Reflection on the topic

The research can be typified by three themes: the interest group, unemployed individuals; the treatment, migrating or not; and the outcome domain, happiness. There are several reasons to pick happiness as an outcome domain. Firstly, happiness is often seen as one of the main goals in an individual's life Frey & Stutzer, (2002). In that sense, it can be argued that the successfulness of a society can be measured by the happiness of its citizens.

Secondly, wellbeing and happiness are increasingly important in policy in several nations (Stiglitz et al., 2009; Stratton, 2010). For example, New Zealand has introduced a new budget to increase wellbeing in the nation (Ainge Roy, 2019).

This merits a happiness approach into traditionally economic question, such as unemployment. The choice to study unemployment is directly related to the choice to study happiness. As aforementioned, unemployment is a life event found to be the cause of unhappiness in almost all researches exploring happiness. Therefore, it is relevant a possible response to job displacement to discover its effects. The link between internal migration and happiness is not researched thoroughly as well. In fact, multiple scholars stress that happiness outcomes of migration remain unknown (Henriks & Bartram, 2018; Nowok et al., 2013)).

Reflection upon the chosen literature and theory

Life-course approach

In this research, a life-course approach is chosen and focused on. Alternatively, a more labour market-oriented approach would have been an optional approach as well, explaining job displacement in more economic terms.

A narrower approach to migration could have been chosen. Indeed, there are several models concerning the decision-making process of household migration. The traditional theory to explain a migration is the human capital approach. This approach conceptualizes a migration as a decision which is made when a return in human capital is expected. In the framework of the well-being investment, a move would only be made if an individual expects an increase in happiness after the move (Nowok et al., 2013). Another perspective is the gender role perspective on migration. This theory, that is more grounded in a Feminist paradigm, poses that

family migrations are made based on gender roles (Cooke, 2003). In this model then, the happiness and the well-being of men would be more important than that of women in the decision making of the household, regardless of income.

Other outcome domains

As mentioned, job displacement and migration are typically studied from a labour market perspective. The reason to choose happiness, instead of economic domains, is that because of the prementioned increased importance of wellbeing in policy and the existing research gap. Furthermore, a focus on happiness in the literature section is more appropriate as it is the main outcome domain.

In economic domains, moves are framed as an investment on which return is expected (Boman, 2012). Migration can also provide an opportunity to go to a region with a lower labour supply. This could increase the chance on reemployment and wages might be higher as a result of the lower supply (McCann, 2013).

It is also found that job displacement leaves latent scars in economic domains. In fact, several studies report a lasting reduced income (Brand, 2015; Eliason & Storrie, 2006; Fackler & Rippe, 2017). Moreover, there are some differences in the outcomes of job displacement between stayers and movers. Most researches find that after an initial loss in terms of wage, the decision proves to be as profitable as finding a job locally or more profitable (Pekkala & Tervo, 2002; Boman, 2011b; Jolly, 2015; Fackler & Rippe, 2017). This can be explained by the loss of local knowledge and capital; over time, these are built up again and wages rise accordingly. The time that is found to be necessary to build up these localized forms of capital differs per research. Boman (2011b), finds that it takes 7 years on average to lose negative effects from a move. Similarly, Jolly (2015) finds that wages start to rise 2 years after the move and keep doing that until 7 years after the move. Fackler & Rippe (2017) find that losses in wages for unemployed movers are significantly larger until 5 years after moving as opposed to unemployed stayers. These differences could be national differences as described by Drinkwater & Ingram (2009), as all datasets are from different countries.

However, there are some necessary additions to these findings. Firstly, Boman (2012) finds that most women who migrate never see positive returns on their migration. He interprets this as a sign that women are more often tied movers. Similarly, younger movers have greater returns on migration than older movers according to Pekkala & Tervo (2002). Furthermore, Denier (2017) finds that most households that move over a long distance after job displacement settle in neighbourhoods that are less well off than their previous neighbourhood of residence.

Lastly, Pekkala & Tervo (2002) find that, once the results are controlled for education, moved individuals are not better off moving. Indeed, most likely they would have been better off finding a job locally. The positive results are a result of selection bias, as highly educated workers are movers more often, and they have a higher income than the stayers. Boman (2012) reports the same selection bias on the chances of finding a job when one is willing to migrate.

In conclusion, moving has a positive effect on employment chances. Furthermore, while it seems that after while the loss in insider effects is compensated for, it is not clear how long this will take, and this could differ between countries. Lastly, the positive returns on migration are not equally distributed over groups with a potential of biasing the difference between movers and stayers. Given that the duration of unemployment was found to be insignificant, the positive effects of a migration might not have their effect on happiness.

Happiness as life satisfaction

In terms of happiness, more attention could have been given to different ways to conceptualize happiness. While this research presents a dichotomy between objective measures and subjective measures, there are different ways to conceptualize happiness.

For example, Veenhoven (2000; 2015) present a four-tiered matrix of aspects of happiness, based on a combination of two dimensions. First, there are the inner qualities of life, those who stem from the individual self, and outer qualities of life, those who stem from the environment of the individual. Secondly, there are life chances and life results, creating a dichotomy of what a person can do and he or she achieves. A combination of this matrix creates four qualities of life depicted in table 1, which are the livability (of the environment), the life-ability (of the person), the utility of life, and the appreciation of life. Livability is a concept that stems from ecology and was used to describe the suitability of a habitat for a certain species, in this case, the extent to which a neighbourhood corresponds with a person's needs. Most measures in this domain are close to the discussed objective measures of happiness that were discussed on page five.

Life-ability is about the ability of a person to cope with problems and opportunities over the life course. According to Veenhoven (2000; 2015), life-ability is what is described as capability by Sen. The utility of life gives space to the notion that a good life is good for more than just the individual living it: life needs to be meaningful on a higher level as well. Finally, the life appreciation gives a limited notion of satisfaction with a person's life, this dimension is also known as subjective wellbeing or life satisfaction.

The reason to not include this literature in the main text is that the other dimensions are not necessary to understand the happiness measure as chosen in this research. While livability measures provide an alternative to life satisfaction, the problem with such measures is already explained in the main text. Life utility and life-ability are neigh impossible to quantify and hence not the best measures for this research.

Reflection on data selection and data treatment

There are different alternatives to the used BHPS dataset. The closest alternative is the German Socio-Economic Panel (henceforth referred to as GSOEP). GSOEP measures life satisfaction in a similar way to the BHPS, but on a ten-point scale. GSOEP has been collected for a longer time than the BHPS, namely from 1987 until 2018 (Lucas & Donellan, 2012). There are several reasons why the BHPS has been chosen. Other alternatives could be the Swiss Household Panel Study and the Household, Income, and Labour Dynamics in Australia dataset. However. These datasets are shorter than both GSOEP and the BHPS (Diener et al., 2018; Lucas & Donellan, 2012).

Firstly, while the GSOEP has been collected for a longer time, the format has not remained the same, nor the sample. Indeed, much of the questioning has changed since the inclusion of the former GDR to the sample. While this can be solved by excluding the former GDR from the data (Lucas & Donellan, 2012), this will lead to serious bias in the data.

In effect, the dataset reaches the same level of detail provided by the BHPS from 2001 on.

Secondly, the GSOEP general data file did not include information about migration. Indeed, the only information about a possible move is when a respondent moves to a different federal state, as that is the detail of residential information given by the dataset. Conclusively, the BHPS has been chosen over GSOEP as it provides more detailed information on migration and its formatting of the questions has remained more equal over time.

Treatment of the data

In treating the data, several choices have been made. Firstly, to censor individuals who move several times. An alternative approach to this would be to count a respondent who moves several times x in the data. However, the process to this is complicated, hence, for convenience, the respondents were censored. While convenient, some information was lost in this process. For instance, the effect of a second move after job displacement could have provided useful insights.

Furthermore, missing data entries were completely deleted. Initially, the missing entries were coded as negative values, with different values for every cause to be missing. However, these negative values heavily biased the coefficients. The biasing of the coefficient due to this was strengthened due to the fact that almost every sequence contained a missing value due to the sixth wave. Hence, by leaving missing entries empty, this problem was avoided. The drawback, however, is that the number of observations has decreased to 150.777 from 179.541.

Reflection on the methods

There are different methods to approach this research question. The most basic distinction is whether to take a qualitative approach or use quantitative methods. As the research question is concerned in structural differences between unemployed movers and stayers and is not necessarily concerned with understanding the meaning of migrating, a quantitative methodology is adopted.

Sequence analysis

There are several advantages of using sequence analysis with optimal matching in this research. Firstly, as it is a form of data mining (Barban & Billari, 2012), it is able to discover patterns in the data that would have otherwise remained undiscovered without bias induced by the researcher. An example of sequence analysis without optimal matching can be found in Coulter & Van Ham (2013), instead of using optimal matching they base their groups on previous literature.

An alternative to sequence analysis would be latent class analysis. Latent class analysis is a probabilistic model which calculates the probability that estimates that probability that a sequence is in a certain class. Latent class analysis is more suited for random mutations. Notwithstanding, these are rather rare in life-course data (Barban & Billari, 2012). Consequentially, optimal matching was chosen over latent class analysis.

Sequence analysis is especially well-suited for classifying life-courses. However, the method is not without issues. Firstly, the pairwise comparison makes it hard to compute distances in large datasets (Barban & Billari, 2012). For this research, it meant that optimal matching was not possible for the entire dataset. Instead, the optimal matching procedure has only been performed on the unemployed dataset. Secondly, sequence analysis is not well-suited to recognise missing variables (Aisenbrey, 2010; Barban & Billari, 2012). This also becomes apparent in this paper, as the sequences with multiple missing have been largely sorted into the same cluster.

Fixed effects regression

The obvious counterpart to fixed effects regression is a random-effects regression. However, after trying such an approach, a Hausmann test indicated that fixed effects models fit the data better. Hence, fixed effects modelling is the most appropriate method. As mentioned in the methodology section, an ordered response logit would have been technically more appropriate than the chosen linear model. But given that the results of such a method would be similar to the chosen regression and that the current results are easier to interpret, linear regression remains a suitable alternative.

Instead of a linear regression, other models are also a possibility. For example, Aisenbreg & Fasang (2010) argue that for studying transitions in the life-course, event history analysis had been the dominant choice. In event history analysis, the dependent variable is the time it takes for a life-event event to happen to an individual (Lunde et al., 1999). Therefore, event history analysis is well-suited to study life-course transitions. According to Aisenbreg & Fasang (2010), panel regression models, such as the chosen fixed-effects model, are not typically used to study life-course outcomes, but rather to correct for unmeasured heterogeneity. Nevertheless, event history analysis would not be the ideal method of analysis for this research question for several reasons.

Firstly, this research is concerned with the changes of a variable over time, not necessarily with the transition in a certain life-course trajectory. As event history analysis studies the time it takes before a discrete event happens, it would be appropriate to apply when studying what influences the transition from being employed to unemployed, or from stayer to mover. However, it is not able to analyse how happiness fluctuates over time. It would be able to study the time it takes to reach old happiness levels; however, it would not be able to measure the impact of an event on happiness levels. In conclusion, while event history analysis is a popular method in panel studies, the research question and the dependent variable lead to fixed effects regression being more suitable.

Alternatives for the dependent variable

Another alternative would have been using an index of the General Happiness Questions (henceforth referred to as GHQs). The GHQs are eleven questions concerning several factors of happiness and mental health: the questions are shown in table 7. For every answer 1 or 2 answer, a point would be added to an eleven-point index. This measure would have some advantages, firstly, the score does not have any gaps and has started to be measured earlier than

the life satisfaction variable. Furthermore, as the questions concern more domains than just satisfaction, the answers are more robust for coping strategies or socially fashionable answers. However, there are some serious drawbacks to this method. First and foremost, the answers of the question concern deviations from the normal trend. For instance, a respondent can have been severely unhappy for several years and as result will respond with same as usual, which will be counted as a positive answer regardless of how the respondent feels in reality. Indeed, it can be argued that the GHQs do not measure happiness but the trend in happiness.

A second reason to not use GHQ is that missing variables become highly problematic in those cases. Indeed, if an index is used of combined GHQs, a missing value in one or more of the questions would become problematic: either it is not counted, and individuals with many missing answers are possibly consistently measured to be unhappier than they really are, or when a missing is counted as a “not more than usual” the opposite happens.

Question	Responses
Have you recently been able to concentrate on whatever you're doing?	1. More so than usual
Have you recently lost much sleep over worry?	2. Same as usual
Have you recently felt that you were playing a useful part in things?	3. Less so than usual
Have you recently felt capable of making decisions about things?	4. Much less than usual
Have you recently felt constantly under strain?	
Have you recently felt you couldn't overcome your difficulties?	
Have you recently been able to enjoy your normal day-to-day activities?	
Have you recently been able to face up to problems?	
Have you recently been feeling unhappy or depressed?	
Have you recently been losing confidence in yourself?	
Have you recently been thinking of yourself as a worthless person?	
Have you recently been feeling reasonably happy, all things considered?	

Table 7: GHQs

Reflections on the presentation, exclusion of results, and presentation of excluded results

There are several choices made regarding the presentation of the results. Most of the choices on what to include have been made based on what is already found in literature and how the results related to the research question. As the result are presented in a two-tiered way, the reflections will be presented accordingly.

Descriptives and sequence analysis.

One of the key decisions is the groups that are juxtaposed to each other: employed and unemployed; mover and stayers; and lastly, the clusters. The reason to include employed individuals in the descriptives is to determine to what extent unemployed movers and stayers are different to those that never lose their job, to see if there is a selection into unemployment, and to explore whether stayers (or movers) are more similar to the employed group. The reason to compare movers and stayers is because they are interest groups in the research question. The reason to compare the clusters is to see whether unhappy groups within the unemployed group have common life-course characteristics.

One dichotomy that is not included as a specific juxtaposition is a comparison between the genders. The main reason for this is that no a priori gender differences have been found. Therefore, it has been decided to include the comparisons of gender performance at the other major dichotomies.

Another key decision made in the presentation is the use of index plots to present life satisfaction and health status over time. An alternative for this is actually also included: a graph showing the relative distribution of the answers. An advantage of the latter, and the reason why these have been added, is that it provides a more quantitative image. The disadvantage, however, is that it provides no insight into how these observations are distributed over time and for individuals. Another disadvantage is that Stata is not a great tool to draw graphs. As a result, sometimes the index plots were drawn in a slightly lighter colour than the others. However frustrating, I have not been able to fix this problem, nor have I found other software to draw it on.

Conversely, while the index plots do not provide much information in hard numbers, they do provide a great overview of what the actual sequences look like over time. A second alternative is simply presenting the medians of most of the variables. However, this makes it harder to show details. Indeed, by visualizing the relative distributions of answers and index plots, it is possible to see how lesser answered options differ.

Some variables have not been included in the presentation of the results. The reason behind this is that they were theoretically not relevant, or the variable had gaps. For example, the financial situation is not included in the descriptive evidence. As shown, in figure 7, unemployed individuals tend to be in a less comfortable financial situation more often. Additionally, their median income is much lower than that of employed individuals: £6726,376 as opposed to £13631,41. This is not very surprising given that job displacement comes with a

loss of income, and that life-time wages lag behind when employment has been found again (Eliason & Storrie, 2006; Fackler & Rippe, 2017).

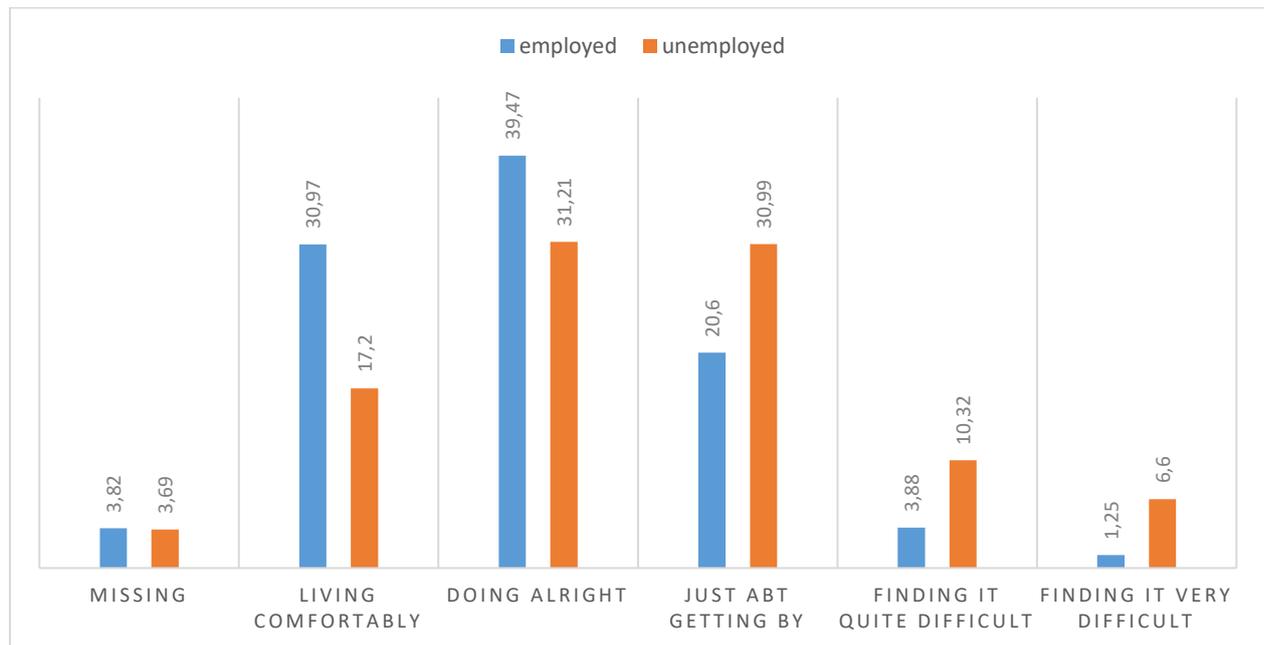


Figure 7: financial situation of employed and unemployed individuals

Between the clusters, there are some differences in financial situations as well. Indeed, members of cluster 3 reply that their financial situation is difficult more often. Cluster 1 has more missing replies, which once again can be explained by the larger proportion of incomplete surveys in that cluster. These results correspond well with the results of the regression, that show that the financial situation has a significant effect on the life satisfaction. Lastly, the median yearly income differs between the clusters. Cluster 1 has the lowest median income, namely £5048,363, which can be explained by the many missing answers, which are coded as 0 in the data. The second cluster reports the highest median income: £7924,071. Cluster 3's median income is lower, namely £7025,893. These last two findings correspond with the difference between employed and unemployed individuals. The influence of income on happiness is somewhat disputed, while many studies find a significant effect of income, these effects are often weak (Ballas, 2013). On top of that, the income variable from which the median yearly incomes are derived from are imputed variables which are further distorted by missing variables. The assessment of the financial situation, therefore, is included in the regression as the measure of the financial situation, with the variable shown in figures 7 and 8. This variable, however, does not give indications of the height of income, but rather the appropriateness of this income for the goals of that individual. In that sense, it is not surprising that unhappy groups have higher proportions of those who find their financial situation difficult to manage.

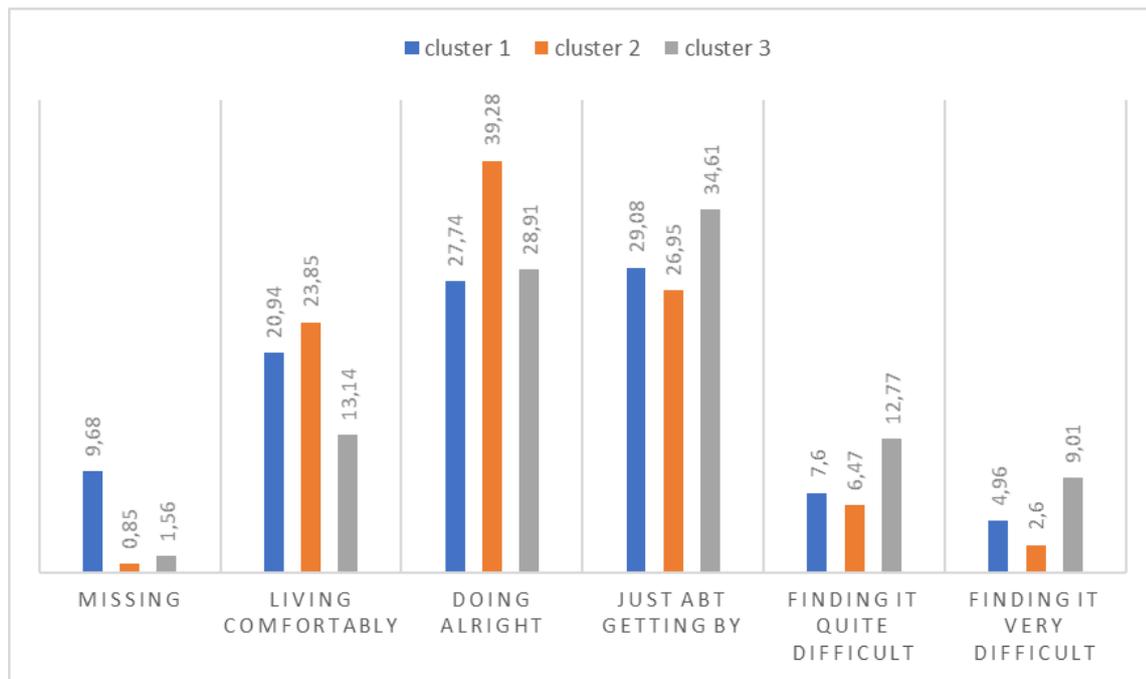


Figure 8: financial situation by cluster

Another statistic that has not been included is the representation by cohort. The reason that this statistic has not been included is that it led to very similar results as age, but less straightforward. Indeed, as seen in figure 5, the differences between the employed and unemployed are few, except that a larger share of the unemployed group has been born in the 80s, resulting in their younger median age. Similarly, the movers are born in later cohorts as well. The clusters are very similar in cohort distribution. Nevertheless, cluster 3 has a larger representation of people born in the 70s.

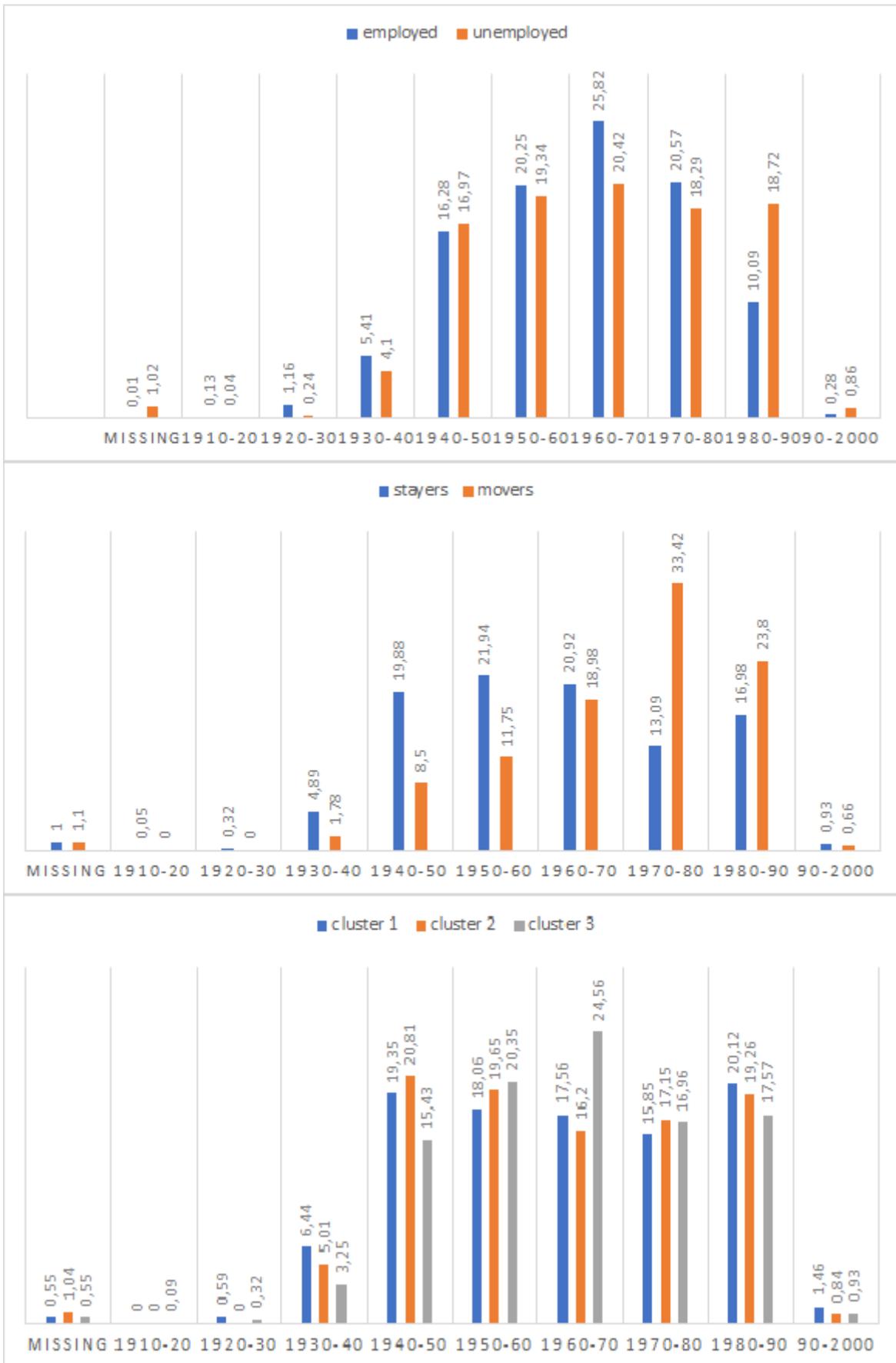


Figure 9: distribution of respondent over cohorts

Regression analysis

The regression model had quite a lot of control variables. For brevity's sake, only a few relevant variables were discussed. The choice on which variable to include has been made on what theoretically relevant and on what came forward from the descriptive analysis. Nevertheless, some interesting results remain undiscussed.

Presentation of the time effects

For the presentation of the time effects of migration and job loss, several formats have been made to present the results before the current format was chosen. The current format shows the size of the coefficients θ and $\theta+\delta$, which are the effects of being an unemployed stayer and an unemployed mover respectively. It is not possible to plot employed individuals

Firstly, the graph in figure 10 was created. This graph was created by keeping all categorical variables constant and all ratio variables at the mean (except for age, which only has the median value at the -4 point and progresses normally henceforth). The reason that this graph was not chosen is that it is somewhat misleading. Indeed, all variables are included regardless of be significant or not. Furthermore, there is no visible confidence interval to show which points are significant. Hence, it appears that there are more differences between movers and stayers than there have actually been found. Notwithstanding, the graph has the advantage that it depicts changes on the actual life satisfaction scale, whereas the graph in figure 6 only plots the size of the coefficients.



Figure 10: possible visualisation of time-effects of job displacement

Another alternative is to obtain predicted values based on the model using the margins command in Stata, which will provide the predictive margins of the regression model. In such graphs, the confidence interval is given as well. However, as the migrant status is constant with the ID variable, the margins command sees these as collinear. Hence, the software is not able to give predictive margins for the time-effects of being migrant, only the time-effects of becoming unemployed as shown in figure 11. The graph shown in figure 6 is chosen over the graph in figure 11, as this thesis is primarily about the difference between movers and stayers and not about unemployed and employed individuals.

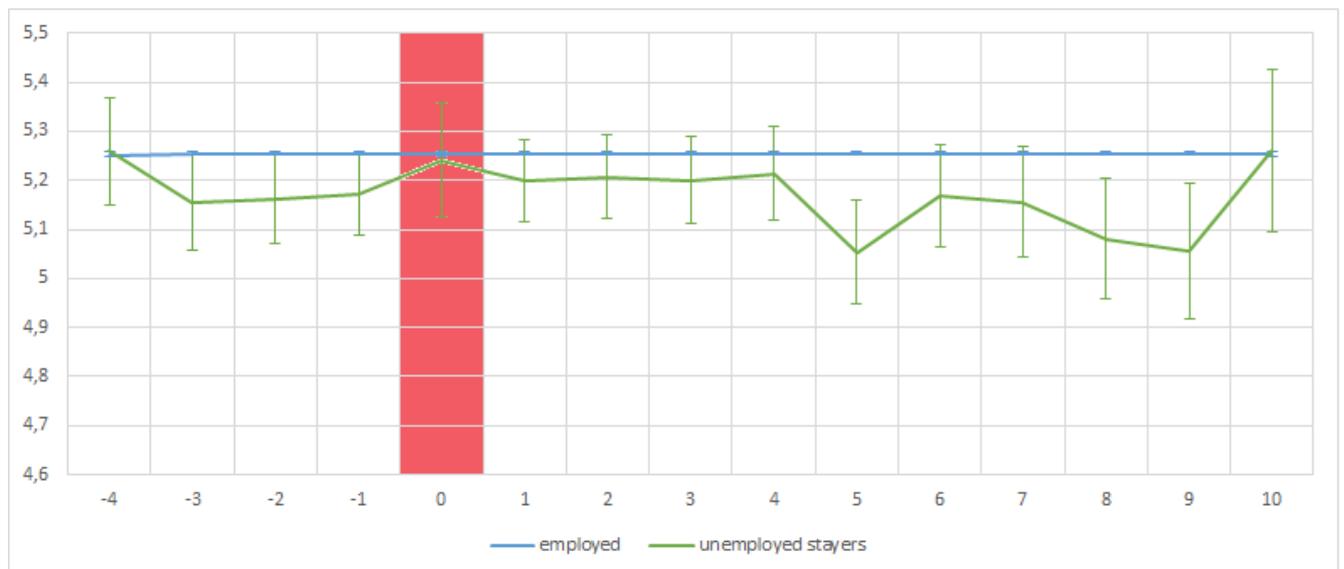


Figure 11: predictive margins of employed individuals and unemployed stayers

Undiscussed variables

Firstly, there is the effect of spousal life satisfaction, which is listed in table 8. Having a happy partner has a relatively big impact on life satisfaction, similar to findings by Diener et al (2018). Interestingly, women appear to be more affected by life satisfaction of their spouse compared to men. As shown in table 8, men are affected positively when their spouse feels satisfied as opposed to neutral but are influenced negatively when their spouse is very unhappy. Contrarily, all categories of spousal life satisfaction have a significant effect on women. On top of that, women report a bigger negative impact of an unsatisfied spouse than men as opposed to having a spouse with neutral happiness levels.

	Overall	Std. error	Women		Men	
Life satisfaction of spouse						
<i>Missing</i>	-0,03492	0,075884	0,101438	0,100395	-0,25118**	0,123234
<i>Not satisfied at all</i>	-0,35881***	0,096749	-0,44334***	0,154166	-0,30255**	0,121357
2	-0,19107**	0,082893	-0,26196**	0,128586	-0,13599	0,105837
3	-0,06715	0,05056	-0,1594*	0,082752	0,007056	0,062118
5	0,175238***	0,037333	0,218086***	0,058106	0,144194***	0,04765
6	0,260179***	0,04145	0,261984***	0,064524	0,265294***	0,052966
<i>Completely satisfied</i>	0,403164***	0,05547	0,340762***	0,088863	0,463506***	0,069172

Table 8: regression output of spousal

Furthermore, some family and household variables have not been discussed, they are presented in table 9. In fact, the number of children was reported to have a significant effect in some instances as shown in table 9. While only marginally significant, having five or six children is reported to have a positive effect as opposed to having none. Having eight children is reported to have a negative effect, however, that result is not reliable by the low number of respondents with eight kids. Additionally, the household type one lives in is also found to have a significant impact on happiness: if fact couples with no children are found to be slightly happier than singles. Additionally, single parents with older children are found to be unhappy. The effects of this, however, are only marginal. One last interesting observation is that change in marital had a significant positive effect, albeit marginal. This is on the contrary to what Nowok et al. (2013) report with their research based on the same data. On top of that, for men, it is not found to be significant.

	Overall	Std. error	Women		Men	
number of children (ref. no children)						
1	-0,00038	0,017522	-0,00568	0,02379	0,009661	0,026007
2	-0,02048	0,019211	-0,03076	0,026382	-0,00619	0,028164
3	-0,02432	0,025293	-0,02374	0,034711	-0,02897	0,036996
4	-0,07131	0,044315	-0,09698	0,059833	-0,03818	0,065988
5	0,149332*	0,085582	0,165478	0,114704	0,111442	0,128673
6	0,28725*	0,148575	0,145779	0,199395	0,47911**	0,222687
7	-0,20521	0,294923	-0,21115	0,387239	-0,14924	0,456604
8	-1,76351*	0,902845	-1,76332*	0,937013	Empty	
household type (ref. single non-elderly)						
<i>Single Elderly</i>	0,041577	0,02815	0,068049*	0,036492	-0,01977	0,046253

<i>Couple No Child..</i>	0,078386**	0,032795	0,111384**	0,046038	0,012866	0,048315
<i>Couple: dep chi..</i>	0,018615	0,034069	0,055161	0,047698	-0,05898	0,049906
<i>Couple: non-dep..</i>	0,014921	0,032765	0,032223	0,046219	-0,03739	0,048032
<i>Lone par: dep c..</i>	-0,01849	0,027462	-0,03661	0,036653	-0,04041	0,050289
<i>Lone par: non-d..</i>	-0,04521*	0,026856	-0,01054	0,03642	-0,13279***	0,042376
<i>2+ Unrelated ad..</i>	0,024562	0,032709	0,106179**	0,048727	-0,05502	0,043522
<i>Other Households</i>	-0,01007	0,040158	0,029517	0,057852	-0,08164	0,056341

Table 9: household variables outcomes of the regression

Ethical considerations

Ethical considerations have not been discussed in the main text. Most of the ethical considerations concern the management of data. Indeed, the BHPS contains highly personal information. To prevent data leaks, all the data remained on one computer which was protected with a password. Furthermore, the folder in which the data was stored was protected with an additional different password. After the grading process, all data will be removed from this computer in order to protect the privacy of the respondents. Furthermore, single cases will not be presented in the thesis, only aggregated data.

Reflection on the research process

The idea for the thesis was established through a research proposal during the course Research Process and Proposal writing, which was presented to Dr Venhorst. He, in turn, proposed using the life-course approach in a broader way to explore selection into migration and job displacement more thoroughly and brought my attention to sequence analysis.

In addition to meetings with Dr Venhorst, I attended three meetings with fellow Research Master students and Dr Sijtsma, coordinator of the Research Master's thesis course, and a separate meeting with Dr Sijtsma. During these meetings, I presented my progress, ideas, and results, in return they would provide ideas, suggestions, and comments. During these meetings, additional data sources and additional ways to present my results were mostly discussed. Lastly, I participated in a peer review process with fellow Research Master students in which theses were exchanged and feedback was provided. This provided some changes in the text that provided more clarity.

During the first months, I tried to get the sequence analysis to work and worked on a regression model while regularly visiting Dr Venhorst, who would give advice on bottlenecks

in Stata. Some key pieces of advice included how to create the k variable, the use of the number of observations as order variable, and additional specification to get the regression model to be more exact. In the writing process, the majority of the literature was collected by myself, while Dr Venhorst would sometimes provide additional avenues to find literature in. Dr Venhorst gave feedback after the first version and second version, with proposed adjustments in language, figures, and a slightly broader approach in literature.

Some parts of the thesis went slower than initially planned. For example, I spend a long time preparing the data and working with sequence analysis. In this process I was in need for a lot of advice by Dr Venhorst and progress was slow. In the end, I feel that I received most advice in tips on how to do things in Stata and advice on how to model things. Nevertheless, the exploration of the results and their place in the existing theory was a process in which I was more independent.

The selected journal journal

The journal that this working paper ideally would be sent to is the Journal of Happiness Studies. This journal publishes papers which reflect on the nature of happiness and studies on what factors influencing subjective wellbeing, this paper falling in the latter category.

Appendix 4: timeline and logbook

WEEK	Activity/ decision
Period 1B	Proposal writing and research process: in this course I decided my topic, research question, and that I would use fixed effects regression.
8	First meeting Viktor
9	Work on theoretical framework
10	Discuss framework, decision to try sequence analysis, data preparation
11	Data preparation, meeting with Frans, sequence analysis
12	Meeting Viktor, decision to try GSOEP data,
13	Sequence analysis, decision to only do it on the unemployed group
14	Cluster analysis on sequence results, explore GSOEP data
15	Cluster analysis, explore GSOEP data
16	Regression analysis
17	Regression analysis, meeting ReMa about thesis
18	Meeting with Viktor, revision of regression model
19	Typing methodology session, new regression
20	Decision to drop GSOEP, type up results of sequence analysis
21	Type up regression results, write up conclusions
22	Writing results and conclusion
23	Finish up first version
24	Hand in first version
25	Start reflections, make presentation GRD
26	Feedback first version, GRD
27	Write Reflections, Deal with feedback. On holiday
28	On Holiday, meeting Viktor. Peer review
29	Finishing thesis, decision to keep coefficient graph in favour of predictive margins. Hand in thesis