



Measuring Wellbeing for the City of Liverpool:

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Part I. Purpose of the Study

Social Exclusion Approach

Poverty in post-industrial societies is caused by the interplay of a multitude of ‘social factors’, such as unstable and insecure employment, and weakening solidarity within families and communities. “Social exclusion” is a new way of looking at the contemporary incidence of poverty as a multidimensional and dynamic process which forms “negative spirals” of deprivation. In contrast to the traditional concept of poverty, which focuses on low income levels, the social exclusion approach places more emphasis on the social, psychological and cultural factors which cause poverty. This approach helps to identify more concrete risk factors and make it easier to identify policy measures that will help to combat poverty.

Purpose of the Community Carte Survey

“Community Carte Survey” aims to investigate dynamic processes of “Social Exclusion,” asking questions about whether people feel deprived in relation to their own sense of wellbeing or their social relationships. In total, 40 “risk factors” are investigated to analyze the dynamic process of deprivation on multiple levels. These risk factors cover different stages of personal development, such as infancy, school age, youth, middle-age and old-age, as well as different wellbeing areas, including health, mental health, education, family, employment, housing and neighbourhood.

In order that we can better understand the sequences and dynamics involved in social exclusion processes, we also asked participants for a brief history of the problems they identified: when such deprivation started; whether they have been resolved; and if resolved, when.

The survey also asked about any “resilience factors” which helped participants to alleviate risks. We investigated 40 resilience factors covering the same areas as in those for the risk factors

The survey was conducted in three cities: **Tokyo**, in Shinjuku Special Ward; **London**, in Camden Borough; and **Liverpool**, in the Everton and Kensington areas. It was undertaken with the cooperation of the respective City Councils and local community organizations. (Characteristics of the sample for the three cities, see Appendix I & II)

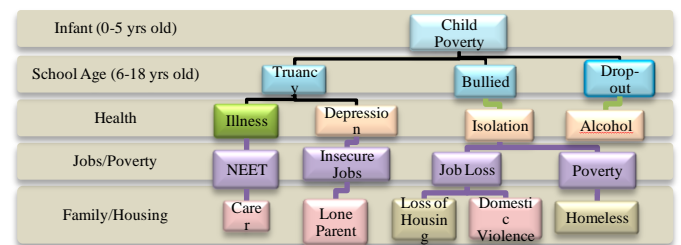
The information was collected from 200-300 people in each city. The research team analyzed the likelihood of one problem in a given life stage linking to other problems in succeeding life stages.

What is the Community Carte System (CCS)?

Community Carte System is a Web-based system for collecting, analyzing and disseminating information for CCS surveys. It not

only supports the survey, but analyses the results and provides a ‘personalized information’ report which is made available to the citizens involved.

Figure 1. ‘Negative Spiral’ of Deprivation



Self-Diagnostic Tool for Citizens: People can use the web-based self-diagnostic questionnaire to better understand their strengths and risks in the areas of eight wellbeing fields, such as employment, education, housing, health, and child-care. Participants are requested to anonymously answer 10 simple questions covering each area.

Dissemination to Participants of Personalized Information: The CCS provides individual survey participants with a secure personalized web page known as “Your Wellbeing Card”, which includes the summary of their self-diagnosis and, with a click on the “Next Steps” button, information on locally available social service programmes that will help the participants to work towards solving their problems.

Measuring Social Impact of Risk/Resilience Factors: Data collected anonymously is used to analyze the negative impact of the various risk factors, and the risk mitigating effects of the resilience factors on the relevant deprivations. Analyses are made using ‘social epidemiologic methods’, such as case-control method, and multivariate logit panel regression.

Dissemination of Results of the Analysis to the Local Authorities and partner organizations: The CCS collects data in cooperation with community organizations. The results of analysing the social impact will be clawed back to the partner organizations so as to strengthen their capacity for responding to various clients’ needs.

The CCS can be incorporated in the websites of local authorities or service providers to enhance the capability of these sites to help diagnose their clients’ needs and provide tailored information to them.



Part II. Methodologies

Two Methods to Measure Transmission of Risks

If a person suffers at one life stage from a given problem, such as ‘**child poverty**’, he/she is more likely to suffer from additional problems (or risk factors), such as ‘**truancy**’ or ‘**school drop-out**’ at their next life-stage, sometimes with a probability that is several-fold higher than the average. In this way, people go into a spiral of the so-called ‘**multiple deprivation process**.’

In this study, the risk of a problem occurring is measured in terms of “**odds**”, which represents the probability of the problem happening, divided by the probability of the problem not happening. Here, odds is a measure to describe the risk of ‘one’ problem occurring. In the analysis of the transmission of risks, often we need to calculate the ‘**conditional**’ risks, which mean the risk of a problem occurring in the event that people are/were exposed to another given ‘**risk**’ or ‘**resilience**’ factor. In order to calculate the conditional risks of a problem (such as ‘**truancy**’) where people were exposed to another risk/resilience factors (such as ‘**child poverty**’ or ‘**loving family relation**’), the CCS study uses the ‘**odds ratio**’, which shows how many times the odds of the problem increases when a person were exposed to another risk/resilience factor 5 year ago. As the odds ratios show the strength of the risks linkages between the two factors, if we have knowledge of the odds ratios between major risk/resilience factors, we can much better understand the **dynamics of the whole social exclusion process**.

The Community Carte System calculates the odds ratios using the ‘**case-control method**’ and the ‘**multi-variable logit regression method**’. Both are commonly used in epidemiologic studies.

Case Control Method

The Case Control Method measures the impact of ‘**exposure**’ to a given risk factor (such as ‘**child poverty**’) on the risk of an ‘**outcome**’ (such as ‘**truancy**’) within 5 years. All the observations are

Box 1 Case-Control Method and Multivariate Regression

Case-Control Method

It can measure **the integrated impact** of a Risk Factor, including the indirect effects

As it measures the outcome for an actual group of people living with the risk factor concerned, the results are **observable by ordinary people**.

The results are often **consistent with a common-sense view point**, as ordinary people recognize a vulnerable group in an integrated way with all its associated vulnerabilities rather than just one

Odds ratios are usually small (near to one), as many positive and negative indirect effects cancel each other out

In the CCS survey, we used **only two-year data** (2010 and 2005)

The results are more **stable with a small sample**

Sometimes the results are **affected by “confounding factors”**

cross-tabulated according to the two factors chosen, i.e. the exposure and the outcome, and the odds ratio between the two factors is calculated by taking (a) the odds of the outcome (e.g. ‘**truancy**’) using only observations with respect to the exposure (e.g. ‘**child poverty**’), and dividing these odds by (b) the odds of the outcome (e.g. ‘**truancy**’) using all the observations. In the CCS study, we calculated that the odds ratio of ‘**truancy**’ and ‘**child poverty**’ was 2.8; that means that **for those persons who were exposed to ‘child poverty’ 5 years ago, the risk of ‘truancy’ increased by 2.8 times higher relative to the average risk of ‘truancy’ for all participants**.

However, the observations for those exposed to ‘**child poverty**’ may include higher-than-average percentage of persons who were ‘**raised by a single parent**’ and/or higher-than-average proportion of people suffering from ‘**depression**’. The impact of ‘**child poverty**’ calculated by the Case-Control method is a representation of the ‘**integrated effect**’ of all the characteristics of those exposed to “**child poverty**” instead of the direct impact of ‘**being poor in childhood**’.

Multivariate Logit Panel Regression:

This method is used to calculate the odds ratios of several risk/resilience factors at once, putting multiple risk/resilience factors into one regression equation. The odds ratios calculated by this method represent the independent impact of each individual risk/resilience factor. Using the previous example, the impact of ‘**child poverty**’ on ‘**truancy**’ as calculated by the multivariate method is only the direct impact of ‘**child poverty**’ since the impact of being ‘**raised by a single parent**’ or of ‘**depression**’ is separated out as are the odds ratios of other variables in the same regression equation. (please see APPENDIX III for more detailed explanation for the two methodologies)

Multivariate Regression

- ▶ It can measure **the direct impact** of a Risk Factor, separated from the indirect effects caused by other explanatory variables
- ▶ As it measures a theoretical estimates of impact of a given exposure, with all other factors remain the average level, **ordinary people cannot observe**.
- ▶ It is sometimes **inconsistent with a common view**, as it separates out only one risks out of many associated risks
- ▶ Sometimes the **odds ratios become very large**
- ▶ The CCS survey uses **20-year reflexive panel data**, which contain larger data samples
- ▶ Sometimes the results are volatile when the sample is small
- ▶ We can **identify “confounding factors”** and also measure the “**confidence level**” of the estimates



Which Method is Better?

The two methods produce two different sets of odds ratios. Thus, a question arises as to which of the two is the correct odds ratio to adopt? The answer is that neither of them are wrong. Both are correct, but representing the different ways to capture the risk mitigation or expansion effect: One represents the **integrated effect, when including indirect effects** and the other represents **only the direct impacts of individual factors and** excludes the indirect impact of other variables involved in the same equation.

Merit of Odds Ratio

One important advantage of using odds ratios is that **it does not require 'random samples' to draw statistically unbiased results.**

It is often very difficult to apply 'random sampling' to a survey including deprived people, as we need to cooperate with community organizations in collecting responses and they are dealing with a group of clients which includes people with more wellbeing challenges than the general population. In this report, the average 'child poverty' ratio in one city does not provide an unbiased estimate of real average applicable to the general population, but simply the average drawn from the observations sampled. However, the odds ratios calculated by the two methods represent 'unbiased estimates' if the samples satisfy two conditions; (i) that there are no 'confounding factors', and (ii) that the samples of case and controls are chosen from a population with common characteristics.



Part III. Negative Spiral of Social Exclusion:

Chapter 1. Infancy to School Age

Risk Factors in Infancy

In recent years, progress in so-called 'Brain Science' has highlighted the importance of the infancy period in terms of the development of a child's intellect and personality. As a result, the importance of intellectual, emotional and social development programmes during infancy has been widely recognized. For example, in the UK and the US, regionally integrated programmes have been implemented for certain periods to holistically address the problems experienced by vulnerable children that are influenced by various "risk factors" during infancy, and the outcome of such programmes are the subject of great public interest. The CCS takes up these issues by investigating three risk factors common among infants; "child poverty", "not good at playing with other children" and "raised by a single parent".

Child Poverty

"Child poverty" is the most frequent prelude to the social exclusion in Liverpool and London. In the CCS study in 2011, the ratio of survey participants who answered that they suffered from "child poverty" was 11.8% of the total in Tokyo, Shinjuku Special Ward, 11.3% in Liverpool, and 11.3% in London, Camden Borough.

According to the OECD survey, child poverty in the UK was around 20% in 1995 as compared to 15% in Japan. The Blair administration, which came to power in 1997, declared the eradication of child poverty as being one of their top policy priorities, and set a target of halving the child poverty by 2010. Since then, the rate of child poverty has been steadily declining. There are numerous studies analyzing the impact of child poverty on educational achievement. Jo Branden, et al (2006) concluded that despite the shortage of evidence, there are two emerging facts: One is that educational disadvantage starts from a very young age; and secondly, that the test score and attainment gap tends to widen as children age. As for the transmission channel for child poverty leading to poor academic achievement, Blanden and Gregg (2005) indicated that lack of income was not the sole cause of poor performance. However, there are no specific quantitative analyses of any other channels. On the question of whether the academic achievement gap is narrowing or widening, the DfES's recent figures showed little improvement has occurred since New Labour took office (Blanden, Jo and Sandra McNally. 2006).

In Japan, Aya Abe (2008) made an analysis of child poverty issues in Japan and other industrial countries, in which she indicated that child poverty affects every aspect of the child's development, such as cognitive achievement, health, abuse, anti-social behaviours, and isolation. Kariya (2001) and Yamada (2004) showed that in recent decades, the gap between those raised in the poor households and those raised in rich households is becoming larger in many aspects of personal development. They analysed the processes by which children in poor households are obliged to abandon higher education.

According to these studies, children in the poor households suffer a significant gap before they become senior high-school student in terms of learning achievement, levels of effort (measured by the hours of self-study at home), interest in new knowledge, and aspiration. It is too late, according to these authors, to cope with such issues at that stage, emphasizing the importance of **early and comprehensive intervention at infancy**. The CCS survey aims to substantiate these assertions.

Not good at playing with other children

"Not good at playing with other children" was taken up as a risk factor during infancy and school days (It was included in the questionnaire only in Liverpool and London). In Liverpool, 4.4% of the survey participants stated that they were "not good at playing with other children", while in London, 6.5% of the participants answered in the same way.

"Not good at playing" often results in a slight delay in the development of social functioning capacity, though, in most cases, it disappears with the passage of time. In some cases, however, it might be an early symptom of AD/HD, autism, conduct disorder or pervasive development disorder (PDD), all of which conditions should be treated as soon as possible. The CCS analyzed the impact of "not good at playing with other children" to investigate whether it has a large impact on the children's personality development process, and what type of problems it might cause when insufficient care is paid to it.

Raised by a Single Parent

"Raised by a single Parent" during infancy and school age is thought to have a significant impact on child development. Single parent households face a higher risk of falling into poverty, and may also suffer from fewer parenting opportunities than children may need (This is of course a generalization; it is not always the case).

In the UK, about 21% of the total number of households with dependent children were single-parent families in 2009, according to the General Life Style Survey, National Statistics (2009). Actually this ratio has declined since 2005 when it peaked at 25%. There is an intensive debate on whether the children raised by a single parent have any disadvantages with respect to their academic achievement, income or other social relationships. But I could not find much in the way of quantitative studies in the UK.

In Japan, according to the National Survey of Single Mother Household in 2006, (Abe, 2008), participation of single mothers in the labour market in Japan was 84% in 2006, as compared to less than 60% in the UK (source: OECD in 2005). Despite such high labour market participation, the poverty ratio of Japanese single parent household was the second highest, next to Turkey, among the OECD countries in 2005, while the UK was 7th highest (Abe 2008).



In the CCS Survey, the ratio of participants who answered “I was raised by a single parent” was 11.2% in Liverpool, 24.3%

in London, and 4.9% in Shinjuku.

Table 1. The integrated impact of Risk Factors in Infancy on those during the School Days (Case-Control Method)

Problems During School Age	Liverpool		
	Bullied	Truancy	Drop-Out
Prob. of Yes	0.04	0.08	0.09
Prob. of No	0.96	0.92	0.91
Odds	0.04	0.09	0.09
Child Poverty	4.91	2.82	3.05
Not good at playing	11.46	16.37	14.95
Raised by Lone Parent	6.97	4.78	4.37
Bullied		16.37	21.36
Truancy			10.68
Lifestyle Diseases	2.86	1.71	1.87
Fatigue	3.62	1.75	1.60
Illness	2.46	1.85	1.91
Disability	2.29	2.34	1.72
Need Care	7.64	3.90	3.56
Carer	2.86	2.46	1.92
Depression	4.72	3.10	4.63
Alcohol Dependent	5.73	3.65	4.27
No Trusted Friends	7.16	5.46	7.39
Isolated	8.59	4.82	12.62
Life Meaningless	5.73	5.32	5.59

Table 2. The direct impact of Risk Factors in Infancy on those during the School Days (Multi-variant Regression)

Problems During School Age	Liverpool		
	Bullied	Truancy	Drop out
Prob. of Yes	0.04	0.08	0.09
Prob. of No	0.96	0.92	0.91
Odds	0.04	0.09	0.09
Child Poverty	2.2*	3.9****	1.1
Not Good at playing	16.5****	3.3**	8.1****
Raised by Lone Parent	4.5****	3.3***	2.8**
Bullied		0.9	2.5**
Truancy			5.2****
Fatigue	1.1	1.3	0.0
Illness	1.9	0.5	2.4**
Depression	0.2***	1.1	0.3
Alcohol	24.4****	3.2*	0.8
No Trusted Friends	0.2	0.1	1.6
Isolated	0.7	0.9	8.3****
Life Meaningless	6.9***	67.3****	3.7*
Domestic Violence	19.1****	7.0***	3.8*
Male	1.0	1.7	2.3*

Risk Factors during School Days

In this sections, the author tries to analyze to what extent the risk factors experienced during infancy may increase the major risks that may occur during school age, namely, “Being Bullied”, “Truancy”, and “Dropped out of School”.

In the following paragraphs, marked by A,B,C, and D,

(i) the first figure shows the **integrated impact** of the risk factor that includes both their direct and indirect effects calculated by the **case-control method** (Table 1); and

(ii) the second figure indicates their **direct impact** separate from their indirect impact, and calculated by **multivariate regression**. Asterisks represent the significance level of the odds ratio being larger than one. (Table 2)

Being Bullied :

A. The Three Risk factors during infancy have a great impact on “Being Bullied”:

If a child suffers from ‘Child Poverty’ in his/her infancy, he/she has a 4.9 times (integrated basis) or 2.2 times* (direct impact basis) higher-than-average risk of “being bullied” in his/her school days: A child that has been bullied is more likely to be disadvantaged when entering the job market, because of their greater risks of experiencing mental health problems due to being bullied.

If a child is ‘Not Good at Playing with other children’, he/she has an 11.5 times (integrated basis) or 16.5 times**** (direct impact basis) higher-than-average risk of being



'Bullied',

If a child is 'Raised by a Single Parent', he/she has a 7.0 times (integrated basis) or 4.5 times**** (direct impact basis) higher-than-average risk of "Being Bullied" in his/her school days.

Other risk factors which increase the risk of "Being Bullied" are mental health problems, such as 'Alcohol Dependency' with a 5.3 times (integrated basis) or 24.4 times****(direct impact basis) higher-than-average risk, and 'Life is Meaningless' with a 5.7 times (integrated basis) or 6.9 times*** (direct impact basis) higher-than-average risk.

Furthermore, vulnerabilities in terms of physical health, such as "Illness", "Disability" and "Need Care" contribute to a higher-than-average risk of "Being Bullied"

Main Characteristics of Liverpool: First, there is a very high risk expansion effect in the case of "Not Good at Playing", which is more than 11 times higher than the average risk of "Being Bullied". A more detailed explanation will be given at the end of this Chapter.

Second, there is a very high odds ratios of mental health risk factors, which is almost 2-3 times higher than in London and Shinjuku although the probability of mental health issues occurring in all 3 cities is close to being comparable.

Truancy from School:

In the CCS survey, "Truancy" is identified by the question of "In my school/college days, I sometimes felt it extremely difficult to go to school". The ratio of the participants who answered that they experienced some "Truancy" during their school days were 8% in Liverpool, 13% in London, and 3% in Shinjuku.

The reasons for truancy are explained by studies in the psychology field as being a combination of (a) **personal problems**, such as development disorders, depression, and other minor symptoms of mental disorders, (b) **factors that originated at school**, such as bullying and less than ideal methods of class management, and (c) **factors originated at home**, such as complex family environment (Ichikawa, et.al. 2004).

According to the results of the CCS Survey in Liverpool, the following factors were found to be the major risk expansion effects:

A. Risk factors during infancy have great significance:

If a child suffers from 'Child Poverty', he/she has 2.8 times (integrated basis) or 3.9 times**** (direct impact basis) higher-than-average risk of ending up with a 'Truancy' problem in his/her school days.

A child who is "Not Good at Playing with Other Children" experiences a 16 times (integrated basis) or 3.3 times** (direct impact basis) higher-than-average risk of "Truancy" in his/her school days.

If a child was "raised by a single parent", he/she has a 4.8 times (integrated basis) or 3.3 times*** (direct impact basis) higher-than-average risk of "being bullied".

B. Mental health problems also have a serious impact on "Truancy:

If a person suffers from any type of mental health problems, such as "Alcohol dependency", or "Life is Meaningless", there is, respectively, a 5.7 times (integrated basis) or 3.2 times* (direct impact basis), or a 5.7 times (integrated basis) or 67.3 times**** (direct impact basis) higher-than-average risk of also suffering from "Truancy".

D. "Domestic Violence" is another factor which increases the risks of "Truancy" by 7.3 times (integrated basis) or 7.0 times*** (direct impact basis) compared with the average.

Main Characteristics of Liverpool: (i) Again, the odds ratio of "Not good at Playing" shows a very high figure of more than 16. Also "Raised by a Single Parent" also has a high odds ratio of about 5.

(ii) the impact of various types of **mental health problems** has much higher odds ratio than those in London and Shinjuku.

Dropped out of Senior High School :

"Dropping out of High School" is closely linked to the risks of disadvantaged employment prospects, such as the so-called "NEET", (not in education, employment or training) and "Insecure Employment". Aoto (2009), who is a high school teacher in one of the so-called "Bottom Layer High Schools" in a prefecture north of Tokyo, interviewed more than 100 people who dropped out of High School in the region, and wrote "(In Japan) every year nearly 100 thousand people drop out of High School. Many of them grew up in poor families and were never given serious learning opportunities: They entered high schools which admit without checking eligibility called "Bottom Layer Schools" without any sense of purpose or ambitions. When they drop out of high school they cannot work, and they are obliged to live as the most deprived layer within the community." Since nowadays almost everybody graduates from Senior High Schools, school drop-outs are at a major disadvantage in their career paths, and find themselves at the "entrance to social exclusion".

Among the survey participants in the CCS survey, those who answered that they were a "High-school Drop-Outs" comprised 9% in Liverpool, 13% in London, and 10% in Shinjuku. What are the major risk factors for the "High School Drop-Out"?

A. Risk factors during school days naturally show a very high risk expansion effect:

The largest risk factor for "School Drop-Outs" in Liverpool is having experienced "Being Bullied". If a student suffered from being bullied during school days, he/she is subject to a **21 times** (integrated basis) or 2.5 times** (direct impact basis) higher-than-average risk of becoming a "School Drop-Out".

"Truancy" also has a big impact. If a student suffered from being a "truant" during their school days, they are subject to a **10.7 times** (integrated basis) or 5.2 times**** (direct impact basis) higher-than-average risk of becoming a "School Drop-Out".



B. Risk factors during infancy also have a strong impacts:

A student who was “not good at playing with other children” during infancy, has a **15 times** (integrated basis) or 8.1 times**** (direct impact basis) higher-than-average risk of “Dropping Out-of School”.

A student who was “raised by a single parent” has a **4.4 times** (integrated basis) or 2.8 times** (direct impact basis) higher-than-average risk of “Dropping Out-of School”.

C. Mental health problems also have significant impact:

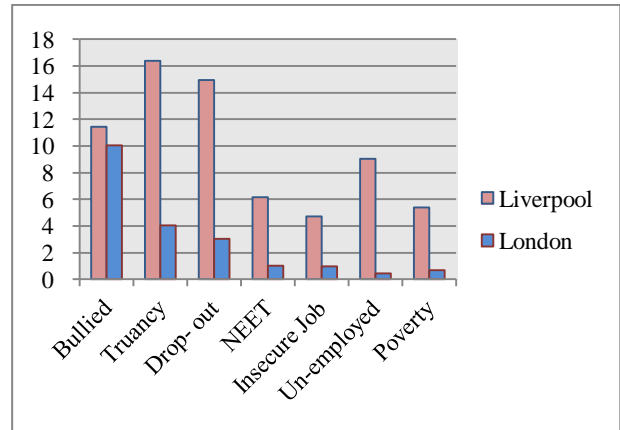
A student who suffered from “being isolated” is subject to a **12.6 times** (integrated basis) or 8.3 times**** (direct impact basis) higher-than-average risk of “Dropping Out-of School”.

A student who felt “Life is meaningless” is subject to a **5.6 times** (integrated basis) or 3.7 times* (direct impact basis) higher-than-average risk of “Dropping Out-of School”.

Main Characteristics of Liverpool: Extremely high odds ratio of “Not good at Playing”: In comparison with London, Camden, odds ratios in Liverpool are not only higher but do not show any reduction as the participant’s age increases. In

another words, the traits of infancy continue to dominate throughout his/her life.

Figure 2. Impact of “Not Good at Playing” in Liverpool and London (Odds ratios)



Chapter 2. School Ages to Employment

In this Chapter, we are going to analyse the transmission of risks from school ages to issues surrounding employment. In most of the recent studies on poverty and social exclusion in the “post-industrial” society, changes in labour market conditions, especially the rapid increase in youth unemployment and casual or insecure forms of employment, intolerable level of unemployment are considered to be the primary culprits. We noticed three risk factors in particular that occur during a person’s employment period: the so-called ‘NEET’ status, ‘Insecure Job’, and ‘Unemployment’. As we will see in Chapter 3, these risk factors during the employment period play very important roles in regard to people’s well-being and determine whether people are likely to fall into poverty. It is, therefore very important to identify the determinants of employment-related risks in order to address poverty alleviation measures as early as possible.

NEET

The term “NEET” is often used to identify young people who are “Not in Education, Employment and Training”. The definitions of NEET are somewhat different between the UK and Japan: In the UK, the term NEET is used to define either unemployed people (who are assumed to be seeking work) or ‘workless’ people, i.e. those who are not actively seeking work, in both cases, limited to 16 to 18 year old. In Japan, however, NEET is defined as ‘workless’ young people who are not seeking jobs, and the age is between 15 and 34. It is often difficult to distinguish between “unemployed” and “workless” people, as an increasing proportion of young people who actually want to be employed, are discouraged from seeking work by very tight labour market conditions. Also in Japan, the period of the “NEET” cohort has become prolonged with their upper age become older than previously.

In the CCS Survey, NEET is defined as a person who answered ‘Yes’ to the question, “Unable to find a full-time job after I left school, I stay/ed home or work/ed part-time”. This does not distinguish between people who are seeking a job, and those who

are not, nor between their ages.

‘NEET’ is a major cause for entrance to the social exclusion process. The recent rapid increase in “NEET” is attributed to structural change that have impacted on the demand for unskilled workers in post-industrial countries, which makes it difficult for young and unskilled people to find a job.

These structural changes not only cause the decline in the total demand for labour, but also lead to changes in the composition of the workforce. The demands for workers is now more polarized into those who are employed in the knowledge-intensive, innovation-oriented service jobs and those who are engaged in low-paid, routine manual service jobs without promotion prospects. The skilled and semi-skilled manufacturing workers who used to constitute a ‘middle class’ have been rapidly disappearing in Japan and have almost disappeared in the UK.

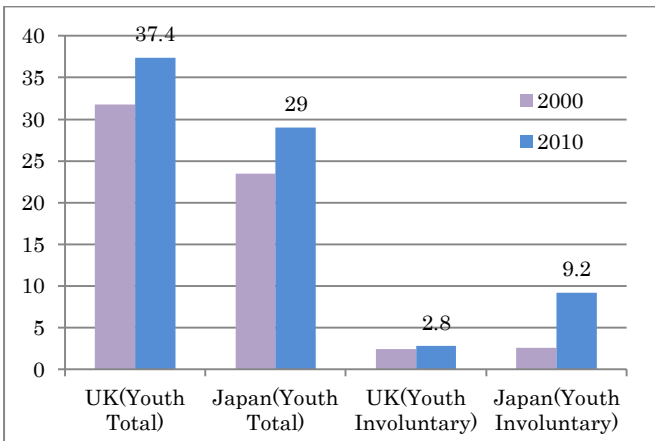
Young people are most affected by these structural changes in the labour market. They are more and more likely to be employed as part-timers. According to OECD statistics, number of part-time workers is increasing across Europe, but there are considerable



variations in the levels prevailing among countries. The UK has a moderately high part-time ratio of 24.6% (in 2010). But if we take the part-time ratio for youth (age 15-24), it was 37.4% in 2010, a significant increase from 31.8% in 2000.

In Japan, the total part-time ratio is slightly lower than that for the UK, 20.3% in 2010, an increase from 17.7% in 2000. What is most striking about the recent development in Japan is the very rapid increase of “involuntary part-timers among Japanese youth: 9.2% in 2010, up from 2.6% in 2000. In the UK the figure for involuntary part-timers was 2.8% in 2010, against 2.4% in 2000 (source: OECD statistics)

Figure 3. Part-time youth (Age 15-24) workers (total and involuntary)



(Source: OECD Statistics)

There are also changes in the underlying culture and value system of new generations. Hiroshi Igami (2008) pointed out that young people, who were not successful in “discipline- oriented education/training system” no longer have the ‘work ethics’ of the older generation. Instead they have converted to the perspective of ‘consumer ethics’. These young people tend to evaluate jobs by considering whether they are ‘interesting’ or ‘dull’, and they feel increasingly forced to choose between ‘dull jobs’ and continuation of their ‘NEET’ status.

In the CCS Survey undertaken in 2011, the percentage of participants who answered that they were “NEET” were 9.7% in Liverpool, 24.7% in London, and 8.7% in Shinjuku.

The next chapter reveals that being a “NEET” in Liverpool when entering the labour market is closely associated with the risk of these people ending up with “insecure jobs”.

In the following paragraphs,

(i) The first “odds ratio” figure shows the **integrated impact** of the risk factor which includes both their direct and indirect effects, and is calculated by the **case-control method** (Table 3); and

(ii) The second “odds ratio” figure indicates their **direct impact** separate from their indirect impact, and is calculated by **multivariate regression**. Asterisks represent the significance level of the odds ratio being larger than one. (Table 4)

A. Effects of risk factors during Infancy on becoming a “NEET”:

A person who was “**not good at playing with other children**” in his/her childhood has a **6.2 times** (integrated basis) or 3.4 times** (direct impact basis) higher-than-average risk of becoming a “NEET” at employment ages.

A person who experienced “**child poverty**” has a 2.5 times (integrated basis) or 1.7 times (direct impact basis) higher-than-average risks of becoming a “NEET”.

A person who was “**raised by a single parent**” also has a **2.4 time** (integrated basis) or 3.1 times*** (direct impact basis) higher-than-average risks of becoming a “NEET”.

B. Risk factors during School Day have the highest impact:

A person who was “**bullied**” at school has an **11.1 times** (integrated basis) or 3.1 times*** (direct impact basis) higher-than-average risk of becoming a “NEET”.

Also a person who “**dropped out of school**” has a 4.6 times (integrated basis) or 3.2 times*** (direct impact basis) higher-than-average risk of becoming a “NEET”.

A person who used to be a “**truant**” has a 3.3 times (integrated basis) or 1.1 times (direct impact basis) higher-than-average risk of becoming a “NEET”.

C. Mental health problems have a high impact on the risk of becoming a “NEET”:

All types of mental health issue have a high impact on the risk of becoming a “NEET”. In particular, those who felt “**isolated**” and/or that “**life is meaningless**” had high odds ratios of 4.3 time (integrated basis) or 1.5 times (direct impact basis), and, **3.2 times** (integrated basis) or 5.2 times**** (direct impact basis), respectively, for the risk of becoming a “NEET”.

Main Characteristics of Liverpool: (i) Extremely high odds ratio of school-day risk factors, such as “**being bullied**” and “**school drop-out**”, on becoming a “NEET”, compared with those in London and Shinjuku, (ii) high odds ratios of **mental health problems** for becoming a “NEET”, which are similar to those in Shinjuku, but much higher than those in London.



Table 3. Impact of Risk Factors during School Days on Employment-related Risks (Case-Control Method)

Employment	Liverpool		
	NEET	Insecure Job	Unemployed
Prob. of Yes	0.10	0.21	0.13
Prob. of No	0.90	0.79	0.87
Odds	0.11	0.27	0.15
Child Poverty	2.49	1.37	1.08
Not Good at playing	6.17	4.70	9.03
Raised by Lone Parent	2.42	3.22	0.92
Bullied	11.11	3.76	2.26
Truancy	3.31	3.76	1.56
Drop out	4.63	5.17	3.95
Lifestyle Diseases	1.71	0.97	1.32
Fatigue	2.18	2.02	3.39
Illness	1.16	0.81	1.02
Disability	1.19	0.36	0.93
Need Care	3.27	1.25	4.17
Carer	2.12	0.91	1.64
Depression	2.55	2.29	2.86
Alcohol	3.31	3.38	3.95
No Trusted Friends	5.29	2.02	1.69
Isolated	4.32	2.31	3.65
Life Meaningless	3.22	3.51	2.71
NEET		1.88	3.13
Insecure Emp			2.46

Table 4. Impact of Risk Factors during School Days on Employment-related Risks (Multivariate Regression)

Employment	Liverpool		
	NEET	Insecure Jobs	Unemployed
Prob. of Yes	0.10	0.21	0.13
Prob. of No	0.90	0.79	0.87
Odds	0.11	0.27	0.15
Child Poverty	1.69	0.86	5.30****
Not Good at playing	3.40**	2.34*	0.44
Raised by Lone Parent	3.08***	2.38***	0.54
Bullied	3.06***	9.69****	4.40***
Truancy	1.09	1.45	1.54
Drop out	3.18***	20.36****	0.64
Illness	3.02****	1.07	0.73
Depression	0.96	0.79	1.14
Alcohol	0.68	0.99	6.09****
No Trusted Friends	0.38	0.45	0.47
Isolated	1.54	0.51	0.97
Life Meaningless	5.21****	1.91	2.59*
NEET		1.13	2.85**
Insecure Jobs			4.05****
Male	0.26***	1.07	1.14
Age26-49	4.54****	6.73****	5.67****
Age50-64	5.24****	11.71****	12.23****
Age65+	10.02****	44.77****	15.90****

Insecure Jobs

“Insecure jobs” are often cited as a major source of “social exclusion”. They are closely associated with “irregular forms employment” such as part-timers, temporary workers, agency workers, and self-employed contractors, who are treated differently from, so called, “regular workers” who are employed with a typical employment contract on a full-time basis with an indefinite length of contract. In Japan, there is a wide gap in working conditions

between regular and irregular employment in regard to job security, salary and promotion opportunities. In the UK, this gap is less prominent, but substantial differences still exist. In the CCS Survey, we use the term “Insecure Job” as some people prefer to be employed on an irregular contract, but may still feel safe in their position, and consider it their life-style choice. In the Survey, therefore, we define “Insecure Jobs” as being a combination of “irregularity” in the form of employment, and how “insecure” they feel about keeping their job. People are considered to have an “Insecure Job” if they answered ‘Yes’ to the question, “My job



is/was insecure as it is temporary, part-time or on an agency contract”.

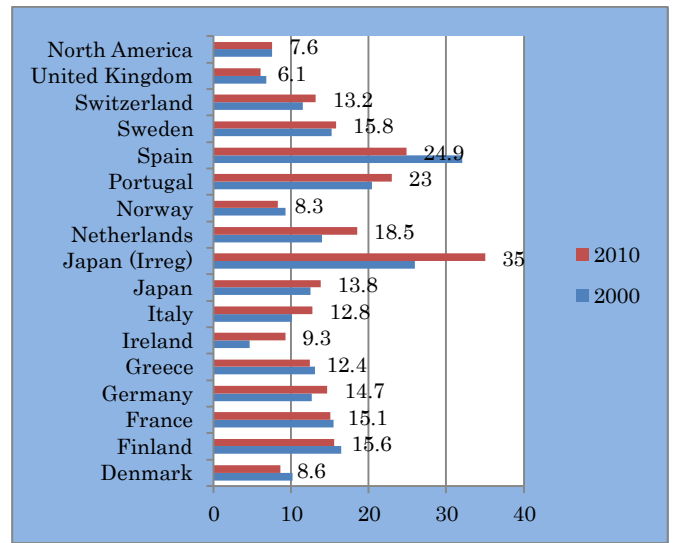
Before explaining the outcome of the CCS survey, let us look at the job market situation from a broad perspective. Across Europe, the percentage of people who are employed part-time or on a temporary basis has been increasing in recent years. (In the EU15 countries, 15.6% of workers were part-timers out of the total labour force in 2000, and this increased to 20.4% in 2010 (EuroStat). In the UK there was a moderate increase in part-timers from 23.0% in 2000 to 24.6% in 2010, while in Japan, the increase was more rapid, from 17.7% in 2000 to 20.3% in 2010, though the percentage remain lower than the UK. Particularly worrisome is the very high ratios of part-timers among young people (ages 15-24) as we saw in the previous section; in the UK 37.4% and in Japan 29%. These figures are increasing rapidly in both countries. Also, the percentage of “involuntary part-timers” is increasing very rapidly in Japan; 1.7% in 2000 to 5.7% in 2010. Among young people, involuntary part-timers increased from 2.6% of the total in 2000 to 9.2% in 2010. In contrast, the percentage of involuntary part-timers’ in the UK in the 2000s was relatively low and stable. (OECD Stat. 2012)

In Japan, there has been a rapid increase in “irregular employment”, which includes part-timers, temporary workers, agency workers and self-employed contractors. This type of irregular employment, which was a little over 20% in 1990, started to increase rapidly from the latter half of the 1990s due to the prolonged economic slump in Japan. A recent labour survey by the Ministry of Welfare and Labour showed that irregular employment had reached 35.4% of the total labour force in the period Jul.- Sep. 2011.

The OECD provides statistics for “temporary employment”. Most European countries use a common definition for “temporary employment, which is similar to Japan’s so-called “Irregular Employment”, namely, “A job may be regarded as temporary if it is understood by both employer and the employee that the termination of the job is determined by objective conditions, which includes fixed-term contract, seasonal contract, daily contract, agency workers and self-employed contractors for specific tasks. ” (OECD Stat). According to this definition, the UK’s total “temporary employment” relative to its labour force was 6.8% in 2000 and 6.1% in 2010, remaining at relatively low level.

In the same statistics, Japan uses a different definition of “temporary employment”; “Workers whose main job is a fixed-term contract lasting not more than one year, occasional, casual or seasonal work, daily workers, or work lasting less than 12 months” which is a narrower definition than that of the UK. Based on this definition Japan’s “temporary employment” was 12.5% in 2000 and 13.8% in 2010, which were much lower than the figures published as “irregular employment”. This difference is mainly due to the exclusion of part-time workers, who are mostly subject to similar insecure conditions as temporary workers.

Figure 4. Temporary employment



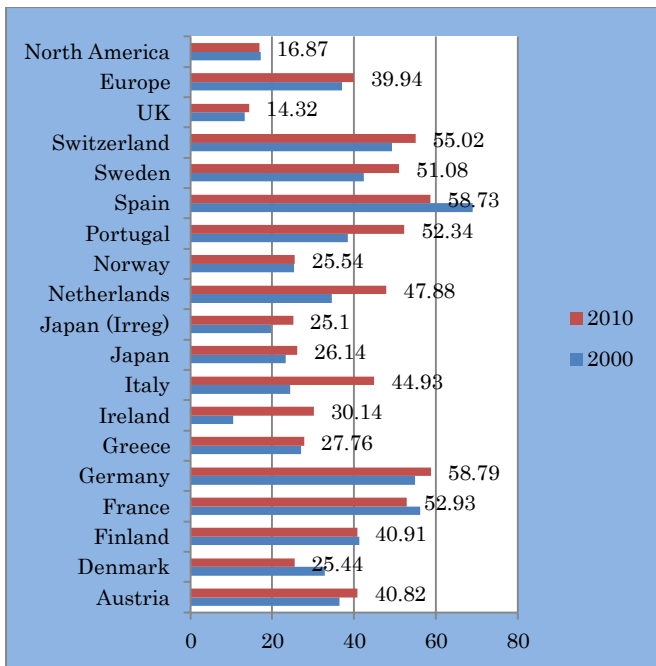
If the OECD statistics for the UK are valid, there are two policy implication: (i) In the UK “temporary employment” was at the relatively low level and not increasing, and hence may not be considered as a major cause of “social exclusion”; (ii) In Japan, however, if we look at “irregular employment” which is closer to the common definition of “temporary employment” used by most EU countries, the percentage of the “irregular employment” in Japan has been significantly higher than major EU countries since 2000, and there has been a notably prominent increase since then. It is therefore natural to examine irregular employment as a candidate for the most important causes of social exclusion in Japan.

The increase in “irregular employment” is one way in which Japanese firms have tried to cope with more volatile fluctuation in market demand and the changes in relative factor prices associated with globalization. It is, therefore, inevitable that these firms will seek more flexibility in adjusting the composition and size of their workers according to changing global market conditions. However, if these irregular forms of employment are associated with unfair discrimination against these workers, particularly against young workers, this will increase the social stratification, and risk causing some to enter a negative spiral of social exclusion simply as a result of misfortune, and therefore demands policy actions. In fact many countries have introduced legislation to requiring employers to treat regular and irregular employees equally.

On the other hand, if we look at “temporary employment” among young workers (age 15-24, male), there is a different picture. There are many countries where temporary workers comprise more than 50% of the young workers and/or the ratios are increasing rapidly. These phenomena occur in many countries, including Germany, France, Italy, Spain, Portugal, Switzerland, Sweden, the Netherlands.



Figure 5. Ratio of Temporary Employment among Young people (Age 15-24, Male)



(Source: OECD Stat, and Cabinet Statistics Office, Japan)

In the CCS Survey, the percentage of respondents who consider themselves to be in an “Insecure Job” is 21% in Liverpool, 25.8% in London, and 34.8% in Shinjuku. In this chapter, we will investigate the risk factors for “Insecure Jobs”, and in the next chapter we analyse the likely outcome of “Insecure Jobs” on poverty. We found the following facts:

It is difficult to exit the “insecure job” status once people become trapped in it:

People with ‘insecure job’ are likely to remain in remain in “insecure work” or “unemployed” 5 years later with a probability of 91% in Liverpool, also 91% in London, and 100% in Shinjuku.

These people with “insecure jobs” may be unemployed 5 years later with a probability of 27% in Liverpool, 30% in London, and 24% in Shinjuku.

People engaged in an “insecure job” may fall into poverty within 5 years with a probability of 30% in Liverpool, 40% in London, and 60% in Shinjuku.

Let us investigate the impact of various risk factors for people ending up with “insecure jobs” in Liverpool.

In the following paragraphs,

(i) the first figure shows the **integrated impact** of the risk factor, which includes both direct and indirect effects using the **case-control method**; and

(ii) the second figure in the bracket indicates the **direct impact** of the risk factor, separating out the indirect impact of the risk factor, calculated by **multivariate regression**. Asterisks represent the confidence levels of the odds ratio being larger than one.

A. Risk factors during infancy have an impact on people to accepting an “insecure job”:

If a person was “not good at playing with other children”, he/she has a 4.7 times (integrated basis) or 2.3 times* (direct impact basis) higher-than-average risk of taking an “insecure job”.

If a person was “raised by a single parent”, he/she has a 3.2 times (integrated basis) or 2.4 times*** (direct impact basis) higher-than-average risk of taking an “insecure job”.

B. Risk factors during school days have even higher associations with “insecure jobs”:

If a person “dropped out of school”, he/she has a 5.2 times (integrated basis) or 20.4 times**** (direct impact basis) higher-than-average risk of taking an “insecure job”.

Someone who was a victim of “bullying” during their school day has a 3.8 times (integrated basis) or 9.7 times**** (direct impact basis) higher-than-average risks of getting insecure job.

Similarly, someone who had an experience of “truancy” during their school day has 3.8 times (integrated basis) or 1.5 times (direct impact basis) higher-than-average risks of getting an “insecure job”.

C. Mental health conditions have a close relationship with having an “insecure job”:

A person who has suffered from mental health problems, has a 2 – 3.5 time higher-than-average risk of having an “insecure job”. The highest odds ratios are associated with the feeling that “Life is meaningless” measured at 3.5 times (integrated basis) or 1.9 times (direct impact basis).

D. A person who used to be a “NEET” has a 1.9 times (integrated basis) or 1.1 times (direct impact basis) higher-than-average risk of getting an “insecure job”

Main Characteristics of Liverpool: (i) In Liverpool the risk factors during infancy and school days have much higher odds ratios for ending up with an “insecure job”, as compared with those of London, while they are slightly higher than those in Shinjuku. (ii) The impact of mental health issues is much stronger in Liverpool than in London, and is of a similar magnitude in Shinjuku. (iii) Employment-related risk factors have much a smaller impact in Liverpool than they do in the other two cities

Unemployment

“Unemployment” is the risk factor with the highest risk expansion effect on poverty among the risk factors investigated, followed by a “long-term illness”

Unemployment is very persistent once someone falls into this status:

CCS survey participants suffering from unemployment numbered 12.9% in Liverpool, 11.5% in London, and 12.7% in Shinjuku, according to the survey results.

The probability of a person who was unemployed in 2005 remaining unemployed after 5 years was 92% in Liverpool, 88% in London, and 93% in Shinjuku. This shows that the persistent nature of the unemployment problem is common to all three cities, though the degree of persistence is stronger in Liverpool and Shinjuku.



Unemployment is also very closely associated with poverty: The probability of a person who was unemployed in the year 2005 falling into poverty by 2010 was 39% in Liverpool, 56% in London, and 79% in Shinjuku. These figures show that the strength of the linkage between unemployment and poverty has significant differences; Liverpool displays the weakest linkage among the three.

A. In Liverpool, the risk factor showing the largest integrated impact on the risk of “unemployment” is “not good at playing with other children”: A person who was “not good at playing with other children” in their infancy has a **9.0 times** higher-than-average risk of becoming “unemployed”. However, this risk factor has no “direct impact” on the unemployment, according to the multivariate regression (Table 4). The large integrated impact of “Not good at Playing” is, therefore, attributed to its indirect impacts through the school-day risk factors, and mental health risk factors that are caused by it.

B. “Being bullied” increases the risk of “unemployment”: If someone was bullied during their school days, they have a 2.3 time (integrated basis) or 4.4 times*** (direct impact basis) higher than-average risk of unemployment.

C. Mental health also has a significant impact on unemployment:

If a person was “**alcohol dependent**”, they have a 3.9 times (integrated basis) or 6.1 times**** (direct impact basis) higher-than-average risk of becoming “unemployed”.

If a person felt “**life was meaningless**”, they have a 2.6 times (integrated basis) or 2.6 times* (direct impact basis)

higher-than-average risk of being “unemployed”.

The survey results highlight the fact that unemployment may follow mental health problems experiences as much as 5 years earlier, manifesting as the inability to sleep without drinking alcohol, or feelings of the life being not worth living. If counselling services are available to these individuals, or more careful human resource management policies are implemented, a significant proportion of these people may have avoided becoming unemployed.

D. Work-related risk factors have an impact on becoming unemployed:

A person who used to be a “**NEET**” has a 3.1 times (integrated basis) or 2.9 times** (direct impact basis) higher-than-average risk of becoming “unemployed”.

A person engaged in an “**insecure job**” has a 2.5 times (integrated basis) or 4.1 times**** (direct impact basis) higher-than-average risk of becoming “unemployed”

Summary of Employment-related Risk Factors: Many risk factors which have a large impact in respect of the problems of “NEET”, “Insecure Job” and “Unemployment” are related to the individual’s family environment during infancy and school, and their mental health condition; most of these factors are beyond the control of the person unless they had a chance to address these issues properly with the support of parents, school, and/or the local community. In combination with the very strong linkage between “insecure job” and “poverty”, which we will explore in the next chapter, it is very important to take “**early corrective measures**”. Otherwise, the gap between those who get a “secure job” and those who does not continues to widen.

Chapter 3. From Employment to Poverty

In this chapter we investigate the relationship between poverty and over 20 risk factors related to their infancy, school days, employment status, and mental health.

In this survey, a person’s poverty status is measured “subjectively”; by asking the participants whether “the income of their household is/was insufficient to support a minimum decent life”. According to this definition, 19% of the participants in Liverpool consider themselves in poverty, 21% in London, and 37% in Shinjuku. These percentages may not represent true averages from the total populations of each city, as the survey participants were selected from the clients of community organizations located in relatively deprived areas of Liverpool and Camden, while in Shinjuku the sample involves a large number of people who came to consult with the City Council on welfare benefits.

In the following paragraphs we analyse the results of the CCS survey in Liverpool in the following way:

(i) The first figure shows the **integrated impact** of the risk factor that includes both their direct and indirect effects calculated by the **case-control method** (Table 5); and

(ii) The second figure in the bracket indicates the **direct impact** of the risk factor, separating out the indirect impact, and calculated by **multivariate regression**. Asterisks represent the confidence level

of the odds ratio being larger than one. (Table 6)

A. Infancy: “Child poverty” has a strong direct association with “poverty in adulthood” in Liverpool:

A child who was raised in a “**poor family**” has a **2.9 times** (integrated basis) or **8.1 times****** (direct impact basis) higher-than-average risk of falling into “**poverty**” in adulthood.

A child who was “**raised by a single parent**” has a **2.2 times** (integrated basis) or **5.1 times****** (direct impact basis) higher-than-average risk of falling into “**poverty**” in adulthood.

A child who was “**not good at playing with other children**” has a **5.4 times** (integrated basis) or 1.1 times (direct impact basis) higher-than-average risk of falling into “**poverty**” in adulthood.

B. School Days: “Truancy” during school days also has a big impact on poverty in later life:

If a school-age child developed “**truancy**”, they have a **2.4 times** (integrated basis) or **4.3 times***** (direct impact basis) higher-than-average risk of falling into poverty in later life.

If a child was “**bullied**” at school or “**dropped out of school**”, they have, respectively, a **2.2 times** (integrated basis) or 1.3 times (direct impact basis), or, **2.9 times** (integrated basis) or 1.3 times (direct



impact basis) higher- than-average total risk of falling into poverty in later life.

C. Mental Health: The most powerful risk factor having a direct impact on Poverty is “Depression”:

People who experience feeling “unstable/depressed” has a 2.2 times (integrated basis) or **8.4 times****** (direct impact basis) higher-than-average risk of falling into poverty.

Those with feelings of “being isolated” or that “life is meaningless” have, respectively, a 3.9 times (integrated basis) or 1.7 times (direct impact basis) , or, a 2.6 times (integrated basis) or 1.3 times (direct impact basis) higher-than- average risk of falling into poverty, respectively.

D. Employment: “Unemployment” is the fifth largest risk factor leading to “Poverty”:

A person who was “unemployed” has a **2.8 times** (integrated basis) or **1.8 times** (direct impact basis) higher-than-average risk of falling into “poverty”,

Table 5. Determinants of Poverty Risks (Case-Control Method)

Poverty	Shinjuku	Liverpool	Camden
Prob. Of ‘Yes’	0.37	0.19	0.21
Prob. Of ‘No’	0.63	0.81	0.79
Odds	0.58	0.23	0.27
Child Poverty	2.47	2.88	2.74
Few Parenting	2.02		
Not Good at playing		5.39	0.66
Raised by Lone Parent	1.73	2.16	1.59
Bullied	0.00	2.16	2.09
Truancy	1.15	2.35	0.84
Drop out	2.31	2.88	1.59
Life-style Diseases	0.50	1.62	3.51
Fatigue	0.96	2.16	3.77
Illness	6.48	1.26	2.18
Disability	2.31	0.74	2.26
Need Care	0.86	3.59	1.64
Carer	1.73	1.67	1.05
Depression	1.84	2.24	3.11
Alcohol	2.59	1.54	2.51
No Trusted Friends	4.45	1.44	2.17
Isolated	3.89	3.92	1.88
Life Meaningless	0.77	2.64	2.26
NEET	2.02	2.32	3.09
Insecure Jobs	2.59	1.88	2.56
Unemployment	9.51	2.77	4.79
Single Parent	3.46	1.08	0.38
Domestic Violence	0.00	1.44	1.39

Difference between Liverpool and the other two cities:

In Shinjuku, by far the largest risk factor for entering poverty is being a “NEET”, while the third largest is having an “Insecure Job”, both being employment-related. Similarly in London, “NEET” is the factor with the second highest odds ratio for entering poverty, next to “No-Trusted Group”. In Liverpool, “NEET” and “Insecure Jobs” status do not have any risk expansion effects on poverty.

In Shinjuku, “Long-term illness” has the second highest direct impact on poverty (integrated basis) or 20.4 times**** (direct impact basis), whereas, in Liverpool and London, “long-term illness” has no significant risk expansion effect (integrated basis) or 1.4 times in Liverpool, and 0.8 times in London (direct impact basis).

Table 6. Determinants of Poverty Risks (Multi-variate regression)

Poverty	Shinjuku	Liverpool	Camden
Prob. Of ‘Yes’	0.37	0.19	0.21
Prob. Of ‘No’	0.63	0.81	0.79
Odds	0.58	0.23	0.27
Child Poverty	0.45	8.11****	2.44****
Few Parenting	1.46		
Not Good at playing		1.14	0.61
Raised by Lone Parent	4.44*	5.11****	1.09
Bullied	0.00	1.33	3.43****
Truancy	0.66	4.28***	1.16
Drop out	3.10	1.27	1.38
Illness	20.45****	1.37	0.77
Depression	4.94***	8.44****	0.89
Alcohol	1.72	0.57	1.63
No Trusted Friends	1.62	0.42	3.84****
Isolated	22.41	1.68	2.55****
Life Meaningless	0.01	1.31	0.64
NEET	106.92***	0.62	3.61****
Insecure Jobs	5.08****	0.51	1.95****
Unemployment	1.37	1.78*	1.69*
Male	1.32	2.87**	3.32****
Age26-49	15.67****	2.30****	2.20****
Age50-64	45.13****	7.63****	1.33
Age65+	44.40****	25.29****	0.29

Confidence levels: ****: 99%, ***:95%, **:90%, *75%



Chapter 4. Transmission of Risks to Mental Health

In the previous chapters, we saw how the risk factors that occur during infancy, such as “child poverty”, are transmitted to the risks that are generated during school days, such as “truancy”, and then through employment-related risks, such as “unemployment”, the individual’s whole life is affected. In addition to this “employment risk channel”, there is another important channel creating the “negative spiral” of risk transmission; namely, **the channel represented by the person’s mental health.**

In the CCS survey, we identified 5 types of mental health problems which often play an important role in social exclusion processes: “Unstable/Depressed”, “Alcohol Dependent”, “No Trusted Group”, “Feel Isolated”, and “Feel Life is Meaningless”. The CCS questionnaire asks 5 questions to track such mental health problems. As the CCS aims to be a simple self-diagnostic tool, and does not aim to make professional diagnoses of mental health diseases, questions are written as simply as possible using words that will help ordinary participants to reflect on and define their state of mind. In identifying these five mental health problems, the author used typical mental health states often cited in previous case studies such as those of high-school drop-outs (Aoto, 2009), and of homeless people (Iwata 2009; Kitagawa 2006).

A. Unstable/ Depressed: A person is considered as having a mental health risk factor defined as “**Unstable/ Depressed**”, if they answered ‘Yes’ to the question “I am/was depressed and anxious”. This category is intended to cover a broad spectrum of Depression and Bipolar syndromes, as well as their initial symptom of such conditions. Although there are many other mental health cases where similar symptoms appear, the “Unstable/Depressed” category of mental conditions is the ones which people suffer most frequently. In Liverpool 23% of the survey participants answered that they suffered from being “Unstable/Depressed”, while 18% did so in Camden, London, and 21% in Shinjuku, Tokyo.

B. Alcohol Dependent: A person is considered as having the mental health risk factor defined as “**Alcohol Dependent**”, if they answered ‘Yes’ to the question “I need/ed alcohol or medicine to sleep”. This risk factor is intended to cover those people who, although not necessarily addicted to alcohol, simply cannot sleep due to excessive stress, as well as those people who are actually alcohol/drug-dependent. Survey participants who answered ‘Yes’ to this question numbered 10% in Liverpool, 13% in Camden, and 8% in Shinjuku.

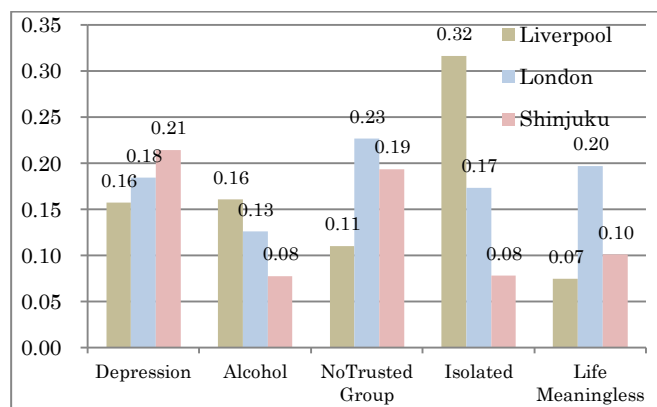
C. No Trusted Group: A person is considered as having the mental health risk factor defined as having “**No Trusted Group**”, if they answered ‘Yes’ to the question “Sometimes I feel/felt I have/had no trustworthy group to which I feel/felt I belong/ed”. This risk factor is intended to cover those people who cannot find a trustworthy group amongst either family, friends, school, neighbourhood community nor workplace, to which they can really feel they belongs. This mental condition is often cited by a broad range of deprived persons, such as school drop-outs, homeless people, and senior citizens living alone. The percentage of survey participants who answered ‘Yes’ to this question was 11% in Liverpool, in contrast to the significantly higher percentages recorded in the other

two cities: 23% in London, and 18% in Shinjuku.

D Feeling Isolated: A person is considered as having the risk factor defined as “**Feeling Isolated**”, if they answered ‘Yes’ to the question “I feel/felt difficulty in communicating with others and I feel/felt isolated”. This risk factor mainly cover people who prefer not to have social relationship with others and feel isolated, which is a condition that typically appears among young and elderly people. It can sometimes be one of the symptoms of autism / Asperger syndrome / pervasive developmental disorder (PDD). These people display a strong persistence in following their own habits and approach to life, and tend to live isolated existences. “Feeling isolated” is the risk factor which triggers the largest number of subsequent problems and deprivations among the 40 risk factors studied under the CCS survey. The percentage of survey participants who answered ‘Yes’ to this question was 10% in Liverpool, 17% in London and 8% in Shinjuku.

E. Life is Meaningless: A person is considered as having the risk factor defined as feeling that “**Life is Meaningless**”, if they answered ‘Yes’ to the question “Sometimes I feel/felt life is/was meaningless”. Many case studies show that when people feel their life is meaningless, they have lost hope for their future, lost their sense of self- esteem and if such feelings become stronger, they tend to harm themselves, or even develop a risk of committing suicide. The percentage of survey participants who answered ‘Yes’ to this question was 14% in Liverpool, 20% in London and 9% in Shinjuku.

Figure 6. Prevalence of various Mental Health Conditions



In the following sections, we will examine the risk factors affecting these mental health risks:

(i) The first figure shows the **integrated impact** of the risk factor that includes both its direct and indirect effects calculated by the **case-control method** (Table 5); and

(ii) The second figure in the bracket indicates the **direct impact** of the risk factor, separating out its indirect impact, and calculated by **multi-variate regression**. Asterisks represent the confidence level of the odds ratio to be larger than one. (Table 6)



Risk Factors during Infancy

A. In Liverpool, “**Child Poverty**” has an extremely high direct impact on mental health problems, as well as other two risk factors during infancy.

A-1. If a child experienced “**child poverty**”, they have

- a 2.8 times (integrated basis) or 3.6 time**** (direct impact basis) higher-than-average risk of becoming “**Unstable/Depressed**”;
- a 5.1 time (integrated basis) or 5.3 times**** (direct impact basis) higher-than-average risk of feeling they have “**No trusted group**”;
- a 5.5 time (integrated basis) or 4.4 times**** (direct impact basis) higher-than-average risk of feeling “**isolated**”; and

- a 3.2 time (integrated basis) or 3.8 times**** (direct impact basis) higher-than-average risk of feeling that “**Life is meaningless**”

A-2. If a child was “**Not Good at Playing with Other Children**”, they have:

- a 7.3 times (integrated basis) or 3.5 time* (direct impact basis) higher-than-average risk of becoming “**Unstable/Depressed**”;
- a 9.0 times (integrated basis) or 8.0 time*** (direct impact basis) higher-than-average risk of becoming “**Alcohol Dependent**”; and
- a 6.6 time (integrated basis) or 6.7 times** (direct impact basis) higher-than-average risk of feeling “**isolated**”



Table7. Transmission of risks to Mental Health Problems (Case-Control Method)

Liverpool	Depressed	Need Alcohol	No Trusted Group	Feel Isolated	Life is Meaningless
Prob. of Yes	0.23	0.10	0.11	0.10	0.14
Prob. of No	0.77	0.90	0.89	0.90	0.86
Odds	0.29	0.11	0.13	0.12	0.16
Child Poverty	3.08	1.13	3.06	3.32	5.20
Not good at Playing	6.88	9.03	3.98	8.63	4.41
Raised by Lone Parent	1.56	2.08	2.23	1.99	2.15
Bullied	4.82	4.52	5.69	8.63	6.18
Truancy	3.15	3.95	4.25	4.60	4.75
Drop out	4.82	4.52	4.78	8.63	4.41
Fatigue	4.06	3.72	1.68	2.40	3.97
Illness	2.72	2.14	1.88	2.88	2.44
Lone Parent	2.06	1.34	2.32	2.07	1.48
Domestic Violence	5.50	2.71	6.83	3.84	7.20
NEET	2.29	3.01	2.66	2.88	2.65
Irreg Emp	2.24	2.01	1.10	1.92	3.09
Unemployment	1.83	3.95	2.34	3.78	2.70
Poverty	3.44	3.76	1.71	3.60	3.37

Table7. Transmission of risks to Mental Health Problems (Case-Control Method)

Liverpool	Depression	Alcohol	No Trusted Friends	Isolated	Life Meaningless
Child Poverty	3.55****	0.44	5.29****	4.36****	3.79****
Not Good at playing	3.50*	7.96***	2.09	6.72**	0.63
Raised by Lone Parent	1.43	2.73*	1.03	2.30*	2.16*
Bullied	1.61	2.55*	2.72*	6.36***	5.62****
Truancy	3.01***	1.89	3.07**	6.21****	4.14***
Drop out	2.24*	5.49****	3.13*	2.17	2.46*
Fatigue	4.45****	1.20	0.69	0.62	10.80****
Illness	1.52*	2.12**	3.23****	1.70	0.71
Single Parent	2.22***	0.95	0.88	1.04	2.76**
DV	5.88****	1.11	32.29****	4.50*	8.74****
NEET	0.80	2.06*	1.04	1.61	0.66
Irreg Emp	1.49	1.60	1.75	1.41	1.20
Unemployment	0.83	1.28	0.37	0.72	0.10
Poverty	2.28****	2.42**	1.01	1.50	4.74****
Male	1.10	3.33****	0.09	0.30	0.51
Age17-25	3.16****	1.73*	2.67***	1.35	1.28
Age26-49	7.31****	5.14****	7.01****	3.73***	5.82****
Age50-64	6.13****	1.67	4.29****	4.64****	4.57****
Age65+	14.25****	3.04*	6.13****	8.46****	4.85***



- A-3.** If a child was “**Raised by a Single Parent**”, they have:
- a 2.1 times (integrated basis) or 2.7 time* (direct impact basis) higher-than-average risk of becoming “**Alcohol Dependent**”;
 - a 2.0 times (integrated basis) or 2.3 time* (direct impact basis) higher-than-average risk of feeling “**Isolated**”; and
 - a 2.2 time (integrated basis) or 2.2 times* (direct impact basis) higher-than-average risk of feeling that “**Life is Meaningless**”

Risk Factors during school Days

Likewise, in Liverpool, the risk factors experienced during school days, particularly that of being “**Bullied**” have an extremely high risk expansion effect on the mental health of these people.

- A.** If a child was “**bullied**” at school, he/she has:
- a 5.9 times (integrated basis) or 6.4 time*** (direct impact basis) higher-than-average risk of feeling “**isolated**”; and
 - a 4.5 times (integrated basis) or 5.6 time**** (direct impact basis) higher-than-average risk of feeling “**Life is Meaningless**”
- B.** If a child developed “**truancy**”, he/she has:
- a 3.7 times (integrated basis) or 3.0 time*** (direct impact basis) higher-than-average risk of feeling “**Unstable/Depressed**”
 - a 4.5 times (integrated basis) or 4.1 time*** (direct impact basis) higher-than-average risk of feeling “**Life is Meaningless**”
- C.** If a student was “**dropped out of school**”, he/she has
- a 4.5 times (integrated basis) or 5.5 time*** (direct impact basis) higher-than-average risk of feeling “**Alcohol Dependent**”

Risk Factors Related with Physical Health

In Liverpool, “**Fatigue**” has a strong impact on the risk of becoming “**Unstable/ Depressed**” and feeling that “**Life is Meaningless**”.

- A.** If a person experienced extreme “**Fatigue**”, he/she has:
- a 4.1 times (integrated basis) or 5.4 times**** (direct impact basis) higher-than-average risk of becoming “**Unstable/Depressed**”
 - a 4.0 times (integrated basis) or 10.8 times**** (direct impact basis) higher-than-average risk of feeling that “**Life is Meaningless**”
- B.** If a person experienced an “**Long-term Illness**”, he/she has
- a **4.1 times (integrated basis) or 5.4 times****** (direct impact basis) higher-than-average risk of feeling that they have “**No Trusted Group**”

Risk Factors related to Employment

There are no significant arising from impact employment-related risk factors on mental health problems in Liverpool, except for “being a NEET” or “Alcohol dependent”. In contrast, in Shinjuku being an “**NEET**” has a significant impact on the “**Alcohol Dependent**”, “**No Trusted Group**”, and “**Feeling Isolated**” statuses.

- A.** If a person was a “**NEET**”, he/she has a **3.0 times** (integrated basis) or **2.1 time*** (direct impact basis) higher-than-average risk of feeling “**Alcohol Dependent**”

Family-related Risk Factors on Mental Health

In Liverpool, family-related risk factors, particularly, “**Domestic Violence**”, have an extremely high impact on mental health problems.

- A.** If a person was raising a child or children as a “**single parent**”, they have:
- a 2.1 times (integrated basis) or 2.2 time*** (direct impact basis) higher-than-average risk of becoming “**Unstable/Depressed**”; and
 - a 1.5 times (integrated basis) or 5.9 time*** (direct impact basis) higher-than-average risk of feeling “**Life is Meaningless**”
- B.** If a person has experienced “**Domestic Violence**”, they have
- a 5.5 times (integrated basis) or 5.9 time*** (direct impact basis) higher-than-average risk of “**Unstable/ Depressed**”;
 - a 6.8 times (integrated basis) or 32.3 time*** (direct impact basis) higher-than-average risk of feeling that they have “**No Trusted Group**”; and,
 - a 7.2 times (integrated basis) or 8.7 time*** (direct impact basis) higher-than-average risk of feeling that “**Life is Meaningless**”

How does Gender relate to Mental Health Risks?

In **Liverpool**, the risk factor “**No Trusted Group**” tends to occur more frequently with women (for men this is less by a factor of 0.00***), and so does “**Feeling Isolated**” (for men this is less by a factor of 0.09) and “**Life is Meaningless**” (for men this is less by a factor of 0.01****), while, “**Alcohol dependent**” is predominantly a problem experienced by men (for men it is 3.3 time more frequent). The condition of “**Unstable/ Depressed**” is predominantly suffered by women (for men this is less by a factor of 0.25*).

In **London**, the gender pattern of these mental health problems is quite different: the risk factor “**No Trusted Group**” tends to occur slightly more frequently with women (for men this is less by a factor of 0.84), and so does “**Life is Meaningless**” (for men this is less by a factor of 0.48). However, “**Feeling Isolated**” tend to occur much more frequently for men (for men this is more frequent by a factor of 4.36) and, “**Unstable/ Depressed**” is also predominantly a problem experienced by men (for men it is 39.6 time**** more frequent). The condition of “**Alcohol dependent**” is predominantly suffered by men (for men this is more frequent by a factor of 39.5****).

In **Shinjuku**, the gender pattern of these mental health problems is more skewed toward women: The “**Unstable/ Depressed**”, “**Alcohol Dependent**”, “**No Trusted Group**” and “**Life is Meaningless**” conditions are mostly women’s problem (the same problems for men are less by a factor of 0.13***, 0.16*, 0.10*, and 0.00 respectively), while “**Alcohol Dependent**” is predominantly a problem of men (men experience it 1.2 times more frequently)

Summary

In the past, the mental health issues have been analysed mainly on the basis of a person’s hereditary characteristics and treatment are mainly focused on the medication and psychiatric therapies. However, the CCS study reveals that family and school-related risk factors have an extremely large impact on the risk of subsequent mental health problems. We need to pay more attention to the **social**



determinants of mental health issues and early intervention so as to address these causes more directly, particularly during the

infancy and school days. The gender analysis above indicates that quite different social determinants are working in each city.

Part IV. Mechanisms to Prevent the Negative Spiral

Chapter 5. What are the “Resilience Factors”?

In Part III, we examined the mechanisms of the “Negative Spiral” of social exclusion, which people find very difficult to exit once they enter it. If people have no means to escape from the mechanisms described above by reference to a set of odds ratios, it is a very tragic situation accompanied by a certain sense of inevitability. What factors have the potential for helping people to find the way-out of this “Negative Spiral”?

Fortunately, there are many factors which can assist people in escaping from this negative spiral. We call them “Resilience Factors”, and certain individuals and/or communities are endowed with them.

In the field of epidemiology, factors that increase the risk of becoming ill, such as smoking and obesity, are called “risk factors”, while factors that act to prevent a disease, such as proper diet, exercises, and immune system supported, are called “resilience factors” or “protective factors”. Practitioners in that field try to measure the impact of these factors. We adopt the same terminology in studies of social exclusion. In recent years, attention is being focused on the impact of “resilience factors”.

Selecting 40 resilience factors

In the CCS research studies, we identified 40 resilience factors which have some relevance to the social exclusion process, based on various previous studies. These factors were taken from different components of a person’s well-being to ensure a multi-dimensional perspective on the data collected. We chose 5 resilience factors from each of the following aspects of a person’s situation: employment, housing, health, mental health, family, education, child-raising, and neighbourhood. They were also designed to cover the different developmental stages of a person, such as infancy, school days, youth, adulthood, and old age. In this report, we analyse 22 resilience factors, relating to infancy, school days, employment, and mental health.

These 22 resilience factors are classified according to the sources of support potentially available to a person: self-support, mutual community support, and public support.

Self-Support: to step-up resilience by increasing one’s coping capacity. There are several areas relevant to this category:

- **Health:** “Health Care”, “Sports”, etc.
- **Self-Discipline/Values:** Having “Self-esteem”, “Goals & Plans”, etc.
- **Access to Education:** “Parents’ Encouragement”, “Role model(s) in the neighbourhood”, “Encountering a Good Teacher”,

and “Savings for Higher Education”, etc.

- **Educational Achievement:** “Vocational Qualification”, “University Qualification”, etc.

Mutual Community Support: mutual support in various types of communities

Family: “Support from Family”, “Loving family relationship” etc.

Friends: “Support from Friends”, “Network beyond the workplace”

Workplace: “Proper working hours”, “Training Opportunities”, “Work-Life Balance”, etc.

Neighbourhood: “Mutual support network”, “General Climate of Trust”, “Volunteer activities” .

Public Support: Access to national and municipal services

Access to Social Security System: Pension, Health System, unemployment benefits, etc.

Access to local services: In-home elderly people’s care, child-care centres, etc.

Changes in the Roles of Self-Help, Mutual Help and Public Support

In the UK, under the auspices of the “welfare state”, a public support system has been developed to cover most typical welfare risks, and this system has been complemented by traditional approach to self-help and mutual help, which have been relatively well developed in the UK. However, this well-developed public support system has result in an excessive dependence on the “welfare system”, and work incentives have been very low for the recipients of social benefit payments. In the 1980’s the Thatcher government started to change this approach by introducing work incentives to the social benefit system. This “workfare” policy was inherited by Tony Blair’s New Labour government from 1997. The new coalition government of the Conservative and Liberal Democrat parties, led by David Cameron has basically strengthened the policy shift to one of self-help by job participation, while “mutual help” through community organizations is encouraged so as to support those who lack the capacity to escape from poverty or other risks. The so-called “Big Society” vision was introduced to support the “third sector” and “social entrepreneurship” initiatives. These policy initiatives are being implemented in the face of the severe budget cuts prompted by the financial sector crisis in Europe,

which of course is making this transition more difficult.

In Japan, the situation is slightly different. The welfare system there was developed during Japan's high growth period and was designed to cover majority of citizens with public pension, and national health insurance entitlement. However, the way in which income redistribution is achieved through the welfare system puts Japan amongst the OECD countries with lowest welfare payments per head, next to the United States. What's more, welfare budget is severely skewed toward older people and health insurance entitlements, with very small proportion being allocated to the younger generation. Additionally the social benefits for low-income people are implemented with very strict conditions so that in practice most working age people cannot not receive such benefit.

Traditionally, these low-level "public support" was supplemented by the relatively strong "mutual help" provided by one's family, local community and employers and all these in combination played the role of a social safety network for the people. These "mutual help" networks are gradually weakening for the following reasons:

- (i) The family is increasingly dominated by households with only one person, while the main income earners of the typical households is becoming older,
- (ii) Local communities are also weakened by the general aging of the population and the migration of young people to large cities, where they enjoy little connection to local communities, and
- (iii) Employer are increasingly selective in employing workers –they prefer not to employ too many as "regular employee" who are fully eligible for company benefits.

In the area of "public support", the potential for wider use of social insurance system is increasingly questionable as the aging of the

population is causing the fiscal base of the national pension and insurance systems to deteriorate, and because the administration of these systems implicitly relies upon people having a stable employment status. Many people are not covered by these insurance systems, simply because they do not have a stable address and stable work status, since it is employers who are responsible for administrating of the system.

In the CCS survey, we try to re-examine how effective the various types of "resilience factors" are in reducing the various risks in the context of such structural changes in society in both the UK and Japan. We look at what differences there are in the effectiveness of these resilience factors due to contrasting institutional setting of the two countries.

In the following sections, we examine the risk mitigating effects of various "resilience factors" by reference to the following:

- (i) the first figure shows the **integrated impact** of the resilience factor including both their direct and indirect effects and calculated by the **case-control method**; and
- (ii) The second figure indicates their **direct impact** separate from their indirect impact, and calculated by **multivariate regression**. Asterisks represent the significance level of the odds ratio being larger than one. (Table 2)
- (iii) You may find that the "direct impact" of a resilience factor often has either a positive or negative figure, while its "integrated impact" has a lower risk mitigating impact (i.e. the odds ratio is closer to 1) because the plus and minus "indirect impacts" cancel each other out.

Chapter 6. Preventing Risks for Children of School Age

In Chapter 1, we examined the impacts of various "risk factors" during infancy relative to the three problems experienced during a child's school days; namely "being bullied", "truancy", and becoming a "school drop-out". In this chapter, we examine the impacts of various resilience factors which mitigate these school age risks.

It should be noted that the CCS survey 2010 did not ask the exact start and end of the period during which they experienced the various resilience factors. Thus the odds ratio calculated here do not represent a causal relationship, but only the association between the resilience factors and the outcome. As in the previous chapters, we will examine the 22 resilience factors relating to the life stages, various social relationships in the communities, and public support. As some of the resilience factors are closely correlated with income levels, we included "Poverty" as an independent variable in the multivariate regression in order to control the influence of income levels.

Loving Family Relations has a reduced risk of being Bullied

The CCS study examined two resilience factors relating to family environment during childhood; "Support from Family" and "Loving Family Relations".

Support from Family: The proportion of CCS participants who "were able to get support from their family when they face any difficulties" was 77% in Liverpool, 79% in London, and 60% in Shinjuku.

Loving Family Relations: The proportion of CCS participants who "have/had a loving relationship with their family members" was 61% in Liverpool, 53% in London, and 61% in Shinjuku.

If a child had "**Support from their Family**" during their childhood, they have a 1.01 times higher-than-average risk (integrated basis) of

"**being bullied**", but the risk of "being bullied" was significantly reduced on the direct impact basis to the level of 0%*** relative to the average. On the other hand "Support from Family" has no direct risk mitigating effects on the risk of "**Truancy**" and "**School Drop-out**".

If a child had a "**loving family relationship**" during their childhood, they had a 94% (integrated basis) or 4%* (direct impact basis) risk of "**being bullied**" relative to the average. Furthermore, they had a lower-than-average risk of "**dropping out**" of high-school, at 82% (integrated basis) or 0%**** (direct impact basis) relative to the average.

Good Health Care has a reduced risk of Dropping-out of School

The CCS study investigated two resilience factors relating to physical health: "Health Care" and "Sports".

“**Health Care**” is defined as “having regular health check-ups, and a healthy diet”. In Liverpool, 63% of the respondents answered ‘Yes’ to this question. (against 70% in London, , and 50% in Shinjuku).

“**Playing Sports**”: There are many sporting activities for youth that are promoted by schools, community centres and sports clubs. So far, there have not been any good quantitative evidence to demonstrate whether participants in sports has actually reduced the various risks relating to young people, such as “truancy” and “school drop-out”.

In Liverpool, the proportion of people who answered that they “are/were regularly participating in sports and other physical recreational activities” was 39%, while in London it was 56%, and in Shinjuku 42%.

Table 9. Resilience Factors during Infancy & School Days (Case-Control Method)

School Days	Liverpool		
	Bullied	Truancy	Dropped Out
Prob of Yes:q	0.04	0.08	0.09
Prob. Of No:1-q	0.96	0.92	0.91
Odds: q/(1-q)	0.04	0.09	0.09
Support from Famili	1.01	1.06	1.02
Loving Family	0.94	1.08	0.82
Health Care	0.82	0.93	0.64
Sports & recreation	0.65	0.93	0.73
Self-Esteem	0.55	0.74	0.57
Goals & Plans	1.00	1.13	0.84
Parents Encouragement	0.66	0.91	0.97
Learn from Neighbours	1.13	1.41	1.09
Good Teachers	0.46	0.72	0.74
Have Network	1.36	1.06	0.97
Support from Friends	1.08	1.01	1.15
Neighbourhood Network	0.38	1.01	0.63
Volunteer Activities	1.30	0.99	1.13
Trust /Reciprocity	0.31	0.57	0.76
Child-Care Centre	0.29	0.61	1.34

Self-Esteem is associated with significantly reduced risks in a child’s School Days

The CCS study examined two resilience factors relating to

A. A person who has enjoyed good “**health care**” has a smaller-than-average risk of being “**truant**” and the level was measured at 93% (integrated basis) or 13% (direct impact basis) relative to the average participants, and a lower risk of “**dropping out of secondary-school**” measured at 64% (integrated basis) or 0%**** (direct impact basis) relative to the average.

B. In Liverpool, a person who enjoyed “**sports**” during their childhood, has a lower risk of being “**bullied**”, measured at 65% (integrated basis) or 38% (direct impact basis) relative to the average, and lower risk of “**truancy**”, measured at 93% (integrated basis) or 0%**** (direct impact basis) relative to the average..

Table 10. Resilience Factors during Infancy & School Days (Multivariate Regression)

School Days	Liverpool		
	Bullied	Truancy	Dropped Out
Prob of Yes:q	0.04	0.08	0.09
Prob. Of No:1-q	0.96	0.92	0.91
Odds: q/(1-q)	0.04	0.09	0.09
Support from Family	0.00***	11.40	66.80
Loving Family	0.04*	3.11	0.00****
Health Care	70.59	0.13	0.00****
Sports & recreation	0.38	0.00****	25.37
Self-Esteem	0.00***	0.02**	0.01****
Goals & Plans	78.94	39.36	2.49
Parents Encouragement	0.00****	0.01***	0.01****
Learn from Neighbours	8488	803	27.46
Good Teachers	10.29	0.00****	3.61
Have Network	449450	0.25	104
Neighbourhood Network	0.00****	0.41	0.05**
Trust Relations	0.01*	0.14	0.01****
Child-Care Centre	0.56	3693	10024
Child Poverty	0.71	2989	2317
Male	661	0.01****	486

self-discipline during childhood; “Self-Esteem” and “Goals and Plans”.

Self-Esteem: For pupils and students to overcome the risks of “truancy” and “being bullied”, they must have a certain strengths of

character, in addition to favourable family and school environments. Among various aspects, “self-esteem” has become accepted as an important value for young people to possess so that they can cope with various hardships, and many youth programmes have incorporated activities to help foster the development of “self-esteem”. The proportion of CCS participants who “can/could maintain a sense of self-confidence and self-esteem even in difficult circumstances” was 77% in Liverpool, 79% in London, and 51% in Shinjuku.

Goals and Plans: It is widely known that people who have life goals and a plan to materialize such goals have much more “risk-resistance” than others. On the other hand, a person who suffers from deprivations, has lost their hope of achieving their goals, and stops planning for the future, may be subject to much more severe negative spirals. The attribute of “Goals and Plans” nurtures the practical skills necessary for young people to overcome difficult challenges. The proportion of CCS participants who “have/had goals for their life and plans to achieve them” was 68% in Liverpool, 82% in London, and 38% in Shinjuku.

A. A person with “self-esteem” has a significantly lower risk of “being bullied” measured at 55% (integrated basis) or 0%**** (direct impact basis) relative to the average, and also has a significantly lower risk of “Truancy” measured at 74% (integrated basis) or 0%** (direct impact basis) relative to the average. Furthermore, he/she has a significantly lower risk of “dropping out of school” measured at 57% (integrated basis) or 1%**** (direct impact basis) relative to the average

B. Contrary to expectation, the possession of “Goals and Plans” does not have a statistically meaningful risk-mitigating effects in Liverpool, except for the risk of “dropping out of school” which measured at 84% on an integrated basis relative to the average, but has no direct effect.

In London, the possession of “Goals and Plans” has a moderate risk mitigating effect on the potential for “Being bullied” and on “Truancy”, while in Shinjuku it has a risk-mitigating effect on the potential for “truancy” and becoming a “school drop-out”.

Parents’ Encouragement to seek better qualifications reduces the risks of all school-related problems

The resilience factors relating to a child’s school days are classified into two types: One category covers those that enable a person to access better learning opportunities, the other covers those that result in gaining qualifications as an educational achievement. The resilience factors which enable a person to access better education consists of three different kinds of support; from family, from one’s neighbourhood and from school. A child’s motivation to seek better education is crucially influenced by (i) their parents’ attitudes toward education, (ii) whether they have a mentor/role model in the neighbourhood, and (iii) whether they happen to encounter a “good teacher” who motivates them by recognizing their unique individual characteristics.

Parents Encouragement: The proportion of CCS participants whose “parents encourage/d them to study hard to get better qualifications” was 64% in Liverpool, 80% in London, and 49% in Shinjuku. This is contrary to the stereo-typed view that Japanese parents are eager to have their children better educated, and in contrast to British parents who are supposedly indifferent to their children’s education.

Learning from Neighbours: The proportion of CCS participants who “has/had somebody in their neighbourhood to consult with, or provide them a role model for how to develop their career” was

23% of the participants in Liverpool, 43% in London, and 45% in Shinjuku.

Encounter with a good teacher: The proportion of CCS participants who “met a teacher in their school who showed respect for the dignity and individual traits of the students” was 54% in Liverpool, 64% in London, and 39% in Shinjuku 39%.

A. In Liverpool, a person who has received their “parents’ encouragement” to progress to further education has a much lower risk of “being bullied”, measured at school, measured at 66% (integrated basis) or 0%**** (direct impact basis) relative to the average, and a lower risk of being “truant”, measured at 91% (integrated basis) or 0%**** (direct impact basis) relative to the average. Furthermore he/she has a lower risk of becoming a “school drop-out”, measured at 97% (integrated basis) or 0% (direct impact basis) relative to the average.

B. In Liverpool, a person who “Learned from their neighbours” actually has a higher-than-average risks of experiencing such school day problems, as “being bullied”, “truancy” and “school drop-out”. In contrast, all three risks are reduced to about half relative to the average in London, while in Shinjuku, the risk of becoming a “school drop-out” is reduced to about one fourth.

C. In Liverpool, a person who “encountered a good teacher” has a lower risk of “truancy”, measured at 72% (integrated basis) or 0%**** (direct impact basis) relative to the average. This factor also reduces other school-related risks as measured on the integrated basis, but not on the direct risk reduction basis. **In London and Shinjuku,** “a good teacher has a significant impact on reducing the risk of becoming a “school-drop out” as well.

Neighbourhood Networks have a strong risk-mitigation effects on school-related risks

One’s neighbourhood community has an important influence on behaviour and the effectiveness of one’s activities in the pursuit of overall well-being. Many studies on the phenomenon of “social capital” have examined its effectiveness on the various activities of society, such as democratic political system at large, and the specific community programmes, such as public health systems. There are also many studies which distinguish the different types of social capital, namely the “bonding” type of social capital which connects members who share the same or similar identities, and the “bridging” type of social capital which connects people with different backgrounds.

In the CCS survey, we used several “resilience factors” which represent the different aspects of “social capital”: (i) “Neighbourhood Network” aims to measure the strength of bonding based on geographical proximity; (ii) “Support from Friends” aims to measure the strength of the general bonding type of social capital, including relatives, neighbours and friends; (iii) “Volunteer Activities” tries to measure the strength of the “bridging” type of social capital associated with membership of the voluntary organizations; (iv) “Trust /Reciprocity” measures the strength of the general sense of trust and reciprocity between people; and (v) “Network of Friends” measures the relatively “weak relationships” shared between friends beyond school and workplace. More detailed definitions are given in each of the following sections.

Neighbourhood Network: The proportion of CCS participants who considered that “their neighbourhood had a mutual support network” was 47% in Liverpool, 49% in London, and 29% in Shinjuku. This indicates that the survey areas in Liverpool (Everton and Kensington) and London (Camden Borough) have relatively strong “bonding” social capital compared with Shinjuku.

Trust/reciprocity: In many previous studies, “trust/reciprocity” is the most fundamental factor needed to create social capital. The CCS study carried out in Liverpool and London asked whether a participant “thinks/thought that most people can/could be trusted” (Trust), while in Shinjuku, a slightly different question was asked: “whether he/she thinks/thought that people will/would reciprocate if he/she did things for them” (Reciprocity). The percentage of CCS participants who considered they had experiences “trust/reciprocity” was 53% in Liverpool, 53% in London and 66% in Shinjuku.

A. In Liverpool, a person who said that his neighbourhood has a “mutual help network” has a much lower risk of “being bullied” measured at 38% (integrated basis) or 0%**** (direct impact basis) relative to the average, and a lower risk of “school drop-out”, measured at 63% (integrated basis) or 3%*** (direct impact basis) relative to the average.

In London, no risk-mitigation effect as a result of having a “neighbourhood network” was found on either integrated or direct impact basis. **In Shinjuku,** the factor has a very strong risk-mitigation effect on school-related problems, whether measured on the integrated or the direct impact basis.

B. In Liverpool, if a person enjoyed a general sense of “trust/reciprocity”, he/she has a substantially lower risk of “being bullied” measured at 31% (integrated basis) or 1%* (direct impact basis) relative to the average, a lower risk of “being truant” measured at 57% (integrated basis) or 14% (direct impact basis) relative to the average, and a substantially lower risk of becoming a “school drop-out” measured at 76% (integrated basis) or 1%**** (direct impact basis) relative to the average.

In London, the “trust/ reciprocity” factor has a risk-mitigating effects only with respect to the risk of becoming a “school drop-out”. **In Shinjuku** the “trust/reciprocity” factor has no significant risk mitigating effect on the school-related problems whether measured on the integrated or direct impact basis.

Resilience Factors relating to Public Support

Child Care Centre: The proportion of CCS participants who answered ‘Yes’ to the question as to whether “there was a facility in their neighbourhood that offered counselling for parents on

child-care and communication opportunities for children and parents” was 34% in Liverpool, 39% in London, and 34% in Shinjuku

A person who answered that there was a “Child Care Centre” in his/her neighbourhood has a significantly lower risk of “being bullied” measured at 29% (integrated basis) or 56% (direct impact basis) relative to the average, and a lower risk of “truancy”, measured at 61% (integrated basis) relative to the average but not on the direct effect basis.

In London, the results were more consistent: a “Child Care Centre” has a risk-mitigating impact on two of the three school-related problems, namely “truancy” and “school drop-out” on both the integrated and direct impact basis. **In Shinjuku,** a strong risk-mitigating effect was found for “being bullied” and a moderate mitigating impact on “truancy”, when measured on both the integrated and direct effect basis.

These results pose an interesting question; why, in Liverpool, does the presence of a “Child Care Centre” has a large direct “risk-expansion effect”, when in the other cities there were positive “risk mitigation impacts” when measured on both the integrated and direct impacts? One possible answer to this question is that people on low-incomes in Liverpool utilize Child Care Centres more often than others, while in the other cities people who are not so poor use them more frequently. In Liverpool, 44% of the people on low incomes utilize the child care centres, compared with 34% of the people on higher incomes. Utilization by those on low income is 1.3 times higher. But in London and Shinjuku, those on higher incomes use child care centres more frequently.

This example demonstrates an important implication for interpreting the effect of “resilience factors”. If a resilience factor is more commonly possessed by people on low incomes with more risk factors, its risk-mitigation effects may appear to be negative. This issue will be discussed further in the summary of Part IV.

Chapter 7. Preventing Mental Health Risks

In Chapter 4, we examined the risk factors which caused 5 types of mental health problems. In this chapter we will investigate whether there are any resilience factors which reduce the risks of these mental health problems. The definition and prevalence of these 5 types of mental health problems, please refer to the first section of Chapter 4. We use the same set of resilience factors as in Chapter 6 “Preventing School-Age Risks”. For the definition of the resilience factors and the percentage of participants who have experienced such resilience factors in each of the three cities, please refer to the corresponding sections in Chapter 6.

It should be noted that the CCS Survey carried out in 2010 did not ask for an exact timing concerning the start and end points in relation to the resilience factors involved. Thus the odds ratio calculated here do not represent the causal relationship, but only the association between the resilience factors and the outcome. As in the previous chapters, we will examine the 22 resilience factors relating to life stages, various social relationships in the communities, and public support. As some of the resilience factors are closely correlated with income level, we included “Poverty” as an independent variable in the multivariate regression so as to control the influence of income level.

A Support from Family is associated with a reduced risk of all types of Mental Health Problems

A. Support from Family: In Liverpool, if a person has a “Support from Family”, he/she has a lower risk of becoming “Unstable/Depressed” measured at 91% (integrated basis) or 7%*

(direct impact basis) relative to the average: Similarly the risks of other mental health problems are reduced significantly: “Alcohol Dependency” measured at 87% (integrated basis) or 0%**** (direct impact basis), “No Trusted Group” measured at 74% (integrated basis) or 0%**** (direct impact basis), “Being Isolated” measured at 79% (integrated basis) or 0% (direct impact basis), and

“**Life is Meaningless**” measured at 81% (integrated basis) or 0%* (direct impact basis) relative to the average, respectively.

B. Loving Family: In Liverpool, if a person has “**Loving Family Relations**”, he/she has a lower risk of suffering from “**Unstable/Depressed**” measured at 91% (integrated basis) or 3%*** (direct impact basis) relative to the average: Similarly the risks of other mental health problems are reduced significantly: “**Alcohol Dependency**” measured at 97% (integrated basis) or 0%**** (direct impact basis), “**No Trusted Group**” measured at 68% (integrated basis) or 11% (direct impact basis), and, “**Being Isolated**” measured at 87% (integrated basis) or 4% (direct impact basis) relative to the average, respectively.

Self Esteem is associated with significantly reduced risks of Mental Health Problems

A. Self-Esteem: In Liverpool, if a person possesses a sense of “**Self-Esteem**”, they enjoy a reduced risk of suffering from “**Unstable/Depressed**” measured at 61% (integrated basis) or 4%*** (direct impact basis) relative to the average. Similarly, the risks of “**Alcohol Dependency**” is reduced to 77% (integrated basis) or 42% (direct impact basis), the risk of having “**No Trusted Group**” is reduced to 52% (integrated basis) or 0%**** (direct impact basis), the risk of “**Being Isolated**” is reduced to 33% (integrated basis) or 0%*** (direct impact basis) and the risk of feeling that “**Life is Meaningless**” is reduced to 56% (integrated basis) or 0%**** (direct impact basis) relative to the average, respectively.

B. Goals and Plans: In Liverpool, if a person has “**Goals and Plans**”, they enjoy a reduced risk of the risk of suffering from “**Unstable/Depressed**” measured at 74% (integrated basis) or 18%* (direct impact basis) relative to the average. Similarly, the risks of “**Alcohol Dependency**” is reduced to 66% (integrated basis) or 1%*** (direct impact basis), the risk of “**Being Isolated**” is reduced to 43% (integrated basis) or 1% (direct impact basis) and the risk of feeling that “**Life is Meaningless**” is reduced to 61% (integrated basis) or 5%** (direct impact basis) relative to the average, respectively.

Playing Sports is associated with a significantly reduced risk of Depression

A. Health Care: In Liverpool, if a person pays attention to having “*regular health check-ups, and a healthy diet*”, they enjoy a reduced risk of suffering from feeling that “**Life is Meaningless**” measured at 76% (integrated basis) or 54% (direct impact basis) relative to the average. The risks of other types of mental health problems are also reduced when measured on the integrated basis, though they have no “direct” risk reduction effect.

Other Cities: In London, “Health Care” has significant “direct” risk mitigating effect on all 5 types of Mental Health problems. In Shinjuku, “Health Care” has significant “integrated” risk mitigating effect on all 4 types of Mental Health problems, but only a modest “direct” impact on these risks.

B. Sports: In Liverpool, if a person is “regularly participating in sports and other physical recreational activities”, they enjoy a reduced risk of suffering from being “**Unstable/Depressed**” measured at 50% (integrated basis) or 4%*** (direct impact basis)

relative to the average. Similarly, the risks of “**Alcohol Dependency**” is reduced to 71% (integrated basis) or 42% (direct impact basis), the risk of having “**No Trusted Group**” is reduced to 73% (integrated basis) or 91% (direct impact basis), the risk of “**Being Isolated**” is reduced to 50% (integrated basis) or 23% (direct impact basis) and the risk of feeling that “**Life is Meaningless**” is reduced to 43% (integrated basis) or 0%**** (direct impact basis) relative to the average, respectively.

Other Cities: In London, “Sports” has no “direct” risk-mitigating influence on any of the 5 types of Mental Health problems. In Shinjuku, however, “Sports” has a strong “direct” risk-mitigating influence on the “No Trusted Group” factor, and a modest mitigating impact on “Being Isolated”.

Parents’ Encouragement is associated with a reduced risk of Depression

A. Parents Encouragement for Education: In Liverpool, if a person has the parent(s) who “*encouraged them to acquire a better education*”, they have a lower risk of becoming “**Unstable/Depression**” measured at 95% (integrated basis) or 2%*** (direct impact basis) relative to the average. Similarly, they have a lower risk of “**Alcohol Dependency**” measured at 95% (integrated basis) or 3%* (direct impact basis) relative to the average, and of “**Being Isolated**” measured at 74% (integrated basis) or 39% (direct impact basis) relative to the average.

Other Cities: In London, meanwhile, “Parents’ Encouragement” has no direct risk-mitigation influence on any of the 5 types of Mental Health problems. In Shinjuku, however, “Parents’ Encouragement” has a strong direct risk-mitigation on all of the 5 types of Mental Health problems.

B. Learning from Neighbours: In Liverpool, a person who “*had somebody in his/her neighbourhood to consult with, or provide him/her a role model for how to develop his/her career*” has a lower risk of “**Being Isolated**” measured at 42% (integrated basis) or 3% (direct impact basis) relative to the average.

Other Cities: In London, “Learning from Neighbours” has no direct risk-mitigation impact on any of the 5 types of Mental Health problems. In Shinjuku, however, “Parents’ Encouragement” has strong direct risk-mitigation effect on the “No Trusted Group”, and “Being Isolated” factors.

C. Good Teacher: In Liverpool, a person who “*met a teacher who showed respect for the dignity and individual traits of their pupils/students*” has a lower risk of “**Alcohol Dependency**” measured at 64% (integrated basis) or 0%*** (direct impact basis) relative to the average. Similarly they enjoy a lower risk of having “**No Trusted Group**” measured at 70% (integrated basis) or 5%* (direct impact basis) relative to the average, and the risk of “**Life is Meaningless**” measured at 74% (integrated basis) or 6%* (direct impact basis) relative to the average.

Other Cities: In contrast, in London, having a “**Good Teacher**” has a direct risk-mitigation impact on “Alcohol Dependency”, “Being Isolated” and feeling that “Life has Meaningless”, while in Shinjuku “Parents’ Encouragement” has a strong direct risk-mitigation effect on the “Unstable/Depressed”, and “Life is meaningless” factors.

Table 11. Mitigating Mental Health Risks (Case-Control Method)

Mitigating Mental Health Risks	Liverpool				
	Depressed	Alcohol	No Trusted Group	Isolated	Life Meaningless
Prob. of Yes: q	0.23	0.10	0.11	0.10	0.14
Prob. of No:	0.77	0.90	0.89	0.90	0.86
Odds: q/(1-q)	0.29	0.11	0.13	0.12	0.16
Support from Family	0.91	0.87	0.74	0.79	0.81
Loving Family	0.87	0.97	0.68	0.87	1.05
Health Care	0.93	0.78	0.87	0.81	0.76
Sports & recreation	0.50	0.71	0.72	0.50	0.43
Self-Esteem	0.61	0.77	0.52	0.33	0.56
Goals & Plans	0.74	0.66	0.78	0.43	0.61
Parents Encouragement	0.95	0.95	0.75	0.74	0.88
Learn from Neighbours	1.24	1.29	0.69	0.42	1.03
Good Teachers	0.96	0.64	0.70	0.69	0.74
Vocational Qualification	0.78	0.87	0.96	0.63	0.90
University Qualification	0.71	0.62	0.54	0.70	1.00
Have Network	0.83	1.14	0.58	0.74	0.84
Support from Friends	1.07	0.97	0.88	1.04	1.00
Proper Work Hours	0.83	1.34	0.56	0.45	0.74
Work-Life Balance	0.99	1.07	0.50	0.78	0.85
Training Opportunities	0.83	1.02	0.47	0.80	0.86
Neighbourhood Network	0.72	0.53	0.54	0.43	0.42
Trust Relations	0.68	0.71	0.39	0.55	0.40
Social Security	0.88	1.11	0.80	0.85	0.84
Home Care Services	0.87	0.94	0.84	0.77	0.75
Child-Care Centre	0.66	0.72	0.31	0.57	0.49

Table 12 Mitigating Risks of Mental Health (Multivariate Regression)

Mitigating Mental Health Risks	Liverpool				
	Depressed	Alcohol	No Trusted Group	Isolated	Life Meaningless
Prob. of Yes: q	0.23	0.10	0.11	0.10	0.14
Prob. of No: 1-q	0.77	0.90	0.89	0.90	0.86
Odds: q/(1-q)	0.29	0.11	0.13	0.12	0.16
Support from Family	0.07δ	0.00α	0.00 α	0.00α	0.00δ
Loving Family	0.03α	0.00α	0.11	0.04	1.93
Health Care	2.53	172	2.67	52.80	0.54
Sports & recreation	0.04β	0.42	0.91	0.23	0.00α
Self-Esteem	0.01α	0.01 γ	0.00 α	0.00 β	0.00 α
Goals & Plans	0.18δ	0.01β	1.61	0.01	0.05 γ
Parents Encouragement	0.02 β	0.03 δ	8.56	0.39	5.06
Learn from Neighbours	11.44	551083	0.83	0.05	694
Good Teachers	3.93	0.00β	0.05δ	0.82δ	0.06δ
Vocational Qualification	0.01α	5.09	0.89	0.00	0.17
University Qualification	23.00	0.00α	1.14	141	15.70
Have Network	21.01	8020	0.00α	1.39	1.32
Support from Friends	14388	1990	6712	1014	508
Proper Work Hours	21.30	5679	0.89	0.14	2.40
Work-Life Balance	12.57	5.38	5.29	9.22	7.45
Training Opportunities	0.12δ	0.01δ	134	105	935
Neighbourhood Network	0.07δ	0.00α	0.17	0.07	2.23
Trust Relations	0.42	643	0.00α	0.18	0.00β
Social Security	0.10γ	19.44	0.07	0.01γ	0.04δ
Home Care Services	0.61	0.17	1.58	0.45	0.18
Child-Care Centre	3.74	0.03δ	0.09	13.11	0.08
Poverty	113	1794	735	608	114
Male	0.25δ	9.65	0.00α	0.09	0.01α
Age26-49	16.59	927	12.88	26.34	10.02
Age50-64	298	59029	6035	1205	728
Age65+	3777	2998312	259232	259837	20445

University Qualifications are associated with a reduced risk of Alcohol Dependency

A. Vocational Qualification: In Liverpool, a person with a

“Vocational Qualification” has a lower risk of being “Unstable/Depressed” measured at 78% (integrated basis) or 1%**** (direct impact basis) relative to the average. Similarly, they experience less risk of having “No Trusted Group”, measured at 96% (integrated basis) or 89% (direct impact basis) relative to the

average, less risk of being “Being **Isolated**”, measured at 63% (integrated basis) or 0% (direct impact basis) relative to the average, and less risk of feeling “**Life is Meaningless**” measured at 90% (integrated basis) or 17% (direct impact basis) relative to the average.

Other Cities: In **London**, having a “**Vocational Qualification**” has no direct risk-mitigation impact on any of the 5 types of mental health problems. In **Shinjuku**, however, having a “**Vocational Qualification**” has a moderate direct risk-mitigation effect on the “Being Isolated”, “No Trusted Group” and “Alcohol Dependent” factors.

B. University Qualification: In Liverpool, a person with a “**University Qualification**” has less risk of “**Alcohol Dependency**” measured at 62% (integrated basis) or 0%**** (direct impact basis) relative to the average. However, for other types of mental health risks, while “**university qualification**” reduces “integrated risks” of these problems, but it has no direct impact on these risks or can even increase these risks.

Other Cities: In contrast, those in **London** and **Shinjuku** with a “**University Qualification**” see no direct risk-mitigation impact on any of the 5 types of Mental Health problems.

Resilience Factors relating to Friends

A. Having a “Network of Friends” reduces the risks of having “No Trusted Group” and “Being Isolated”: In Liverpool, a person “with a *strong network of human relationships inside and outside of his/her school /college/ workplace*” enjoy less risk of having “**No Trusted Group**”, measured at 58% (integrated basis) or 0%**** (direct impact basis) relative to the average. Similarly, he/she has less risk of “**Being Isolated**” measured at 74% (integrated basis) or 62% (direct impact basis) relative to the average.

B. Having “Support from Friends” has a reduced risk of Mental Health problems marginally when measured on the “Integrated” basis, but **increases the risk when measured on the “direct impact” basis**. It may look strange that “support from friends” seems to increase the risk of mental health problems. It is speculated that the friends’ support picked up in the survey often comes after somebody has started to experience mental health problems, rather than prior to the problem surfacing,

Resilience Factors relating to the Work Place

In the CCS study, we examined three resilience factors relating to the workplace; “Proper Working Hours”, “Proper Work-Life Balance” and “Training Opportunities”. It is often said that workplace environment has a significant impact on the mental health conditions of workers. The CCS study aims to measure the impact of three factors on the prevalence of the 5 types of Mental Health problems being observed.

Proper Working Hours: The proportion of CCS participants who “are comfortable with their current job in terms of *working hours and leaves*” was 50% in Liverpool, 64% in London, and 69% in Shinjuku.

Proper Work-Life Balance: The proportion of CCS participants who answered that “*their employers take/took steps to support a balance between work and life*” was 35% in Liverpool, 43% in London, and 50% in Shinjuku.

Training Opportunities: The proportion of CCS participants who consider that “*their employer supported training and the acquisition of new skills*” was 46% in Liverpool, 54% in London, and 38% in Shinjuku.

A. In Liverpool, if a person who is comfortable with their “**working hours and leaves**” has less risk of “**Being Isolated**” measured at 45% (integrated basis) or 14%* (direct impact basis) relative to the average. Similarly they experience less risk of having “**No Trusted Group**” measured at 56% (integrated basis) or 89% (direct impact basis) relative to the average.

B. In Liverpool, if a person who has a proper “**work-life balance**” enjoy a positive “**integrated**” risk-mitigation impacts on the following 3 types of mental health problems ; “**No Trusted Group**”, “**Being Isolated**” and “**Feeling Life is Meaningless**”. However, the “work-life balance” factor has no “**direct**” risk-mitigating impact on these problems.

One possible reason for this outcome may be that those employed in a work-place with proper attention to the “Work-Life Balance” may also enjoy better salaries and better working conditions than more typical workers. The fact that the statistics show a positive “integrated” impact may come from the “**indirect**” effects of these conditions, but not directly from the “Work-Life Balance” factor itself.

Other Cities: In **London**, however, the enjoyment of proper “Work-Life Balance” significantly reduces the risks of mental health problems in terms of both the “integrated impact” and “direct impact basis”. Meanwhile, in **Shinjuku**, the measured impacts are in between the two British cities: a stronger risk-mitigation impact is seen than in Liverpool, but not such a strong impact as in London.

This suggests that the direct causes of mental health problems in Liverpool are not so much related to the work place as to family- or neighbourhood-related factors.

C. In Liverpool, a person who has “**Training Opportunities**” enjoys less risk of becoming “**Unstable/Depressed**”, measured at 83% (integrated basis) or 12%* (direct impact basis) relative to the average. Similarly, on the “direct” impact basis, they enjoy reduction of risk of experiencing “**Alcohol Dependency**” measured at 1%*** (direct impact basis) relative to the average.

Other Cities: In London, “**training opportunities**” have a strong risk-mitigation effects on all 5 types of mental health problems, while in Shinjuku, they have a direct risk reduction effect only with respect of “**Alcohol Dependency**”

Neighbourhood Network has a surprisingly high risk-mitigation impact for Mental Health

In recent years, many research works have examined the relationship between “social capital” and the mental health (Ichiro Kawachi 2008, Kwame McKenzie 2006) with a mixture of positive and negative impact. The CCS study investigated two resilience factors relating to social capital at the neighbourhood level; “Neighbourhood Network”, and “Trust/ Reciprocity”

Neighbourhood Network: The proportion of CCS participants who consider “*their neighbourhood has/had a mutual support network*”, was 47% in Liverpool, 49% in London, and 29% in Shinjuku.

Trust/Reciprocity: “Trust/Reciprocity” is considered to be an important base of generating social capital. The CCS survey asked a question about “trust” in Liverpool and London, and a question about “reciprocity” in Shinjuku. On “trust”, the proportion of CCS participants who think/thought “*most people can/could be trusted*” was 22% in Liverpool, and, 37% in London,. On “reciprocity”, the proportion of CCS participants who “*think/thought people will/would reciprocate if I did things for them*”

was 66% in Shinjuku.

A. In Liverpool the presence of a “Neighbourhood Network” has a surprisingly large impact on all 5 types of mental health problems. A person who considers that there is/was a “Neighbourhood Network” in his/her neighbourhood has a lower-than-average risk of becoming “Unstable/Depressed”, measured at 72% (integrated basis) or 7%* (direct impact basis) relative to the average. Similarly, he/she has a considerably lower risk of all other types of mental health problems; for “Alcohol Dependency”, measured at 53% (integrated basis) or 1%*** (direct impact basis) relative to the average, for the “No Trusted Group” condition measured at 54% (integrated basis) or 17% (direct impact basis) relative to the average, and for “Being Isolated”, measured at 43% (integrated basis) or 7% (direct impact basis) relative to the average.

Other cities: In London, the direct impacts of having a “Neighbourhood Network” were measured to be positive for four types of mental health problems, though **in Shinjuku**, there was a positive impact only for the “Unstable/Depressed” factor with a much lower mitigating impacts.

This outcome indicates that in Liverpool the influence of neighbourhood on the mental health problems is very strong.

B. In Liverpool, “Trust/Reciprocity” also has a very large impact on mental health issues. A person who has a “Trust Relationship” with most of the people they come into contact with has a lower-than-average risk of becoming “Unstable/Depression”, measured at 68% (integrated basis) or 36% (direct impact basis) relative to the average. Similarly, he/she has a lower-than-average risk of having “No Trusted Friends” measured at 39% (integrated basis) or 0%*** (direct impact basis), a lower-than-average risk of “Being Isolated”, measured at 55% (integrated basis) or 18% (direct impact basis), and a lower-than-average risk of feeling “Life is Meaningless”, measured at 40% (integrated basis) or 0%*** (direct impact basis) relative to the average.

Other Cities: In London too, having a “Trust Relationship” has a strong impact on 4 types of mental health problems. But **in Shinjuku**, while the survey asked a slightly different question about “reciprocity”. It was found that it does not have a positive direct impact on any of the five types of mental health problems.

Resilience Factors relating to Public Support

We have examined three resilience factors concerning public support; “Access to Social Security”, “Home Care Services” and “Child Care Centre”.

Social Security: The proportion of CCS participants who “have a full entitlement to State Pension, the NHS system and National Insurance” was 77% in Liverpool, 69% in London, and 55% in Shinjuku.

Home Care Services: The proportion of CCS participants who think “Senior citizens in their neighbourhood have access to various services that allow them to live independently at home” were 56% in Liverpool, 59% in London, and 21% in Shinjuku.

Child Care Centre: The proportion of CCS participants who think “There is a facility in their neighbourhood that offers counselling for parents on child-care and communication opportunities for children & parents” were 34% in Liverpool, 39% in London, and 35% in Shinjuku.

A. In Liverpool, “Access to Social Security” has a strong risk mitigating effects on four types of Mental Health Problems: A

person who has a full- entitlement to “Social Security” has a lower-than-average risk with four types of mental health problems: namely a lower-than-average risk of becoming “Unstable/Depressed”, measured at 88% (integrated basis) or 10%** (direct impact basis), a lower-than-average risk of having “No Trusted Group”, measured at 80% (integrated basis) or 7% (direct impact basis), a lower-than-average risk of “Being Isolated”, measured at 85% (integrated basis) or 1%** (direct impact basis), and a lower-than-average risk of feeling “Life is Meaningless”, measured at 84% (integrated basis) or 4%* (direct impact basis).

B. In Liverpool, “Home Care Service” in the neighbourhood has a reduced risk of all 5 mental health problems occurring: A person who has a “Home Care Service” in his/her neighbourhood has a lower-than-average risk of becoming “Unstable/Depression”, measured at 87% (integrated basis) or 61% (direct impact basis), a lower-than-average risk of “Alcohol Dependent”, measured at 94% (integrated basis) or 17% (direct impact basis), a lower-than-average risk of “Being Isolated”, measured at 77% (integrated basis) or 45% (direct impact basis), and a lower-than-average risk of feeling “Life is Meaningless”, measured at 75% (integrated basis) or 18% (direct impact basis).

C. In Liverpool, “Child Care Centre” significantly has a reduced risk of 3 types of mental health problems occurring: A person who has/had a “Child Care Centre” in their neighbourhood has a significantly reduced risks of “Alcohol Dependency”, measured at 72% (integrated basis) or 3%* (direct impact basis), a lower-than-average risk of having “No Trusted Group”, measured at 31% (integrated basis) or 9% (direct impact basis), and the risk of “Life is Meaningless”, measured at 49% (integrated basis) or 8% (direct impact basis) relative to the average.

Summary: We observed that the following resilience factors have significant risk reduction effects on more than 4 types of mental health problems in Liverpool: “Family Support”, “Loving Family”, “Sports”, “Self-Esteem”, “Goals & Plans”, “Good Teacher”, “Vocational Qualification”, “Neighbourhood Network”, “Trust Relationship”, “Social Security”, and “Home Care Services”.

On the other hand, some resilience factors, which have a significant risk mitigating power in other cities, do not have a significant impact in Liverpool. These factors were “Health Care”, “Working Hours”, “Work-Life Balance”, “Training Opportunities”, and “Network of Friends”. Most of them are relating to the workplace environment.

It is noteworthy that having a “University Qualification” does not have a direct risk-mitigating effect on Mental Health problems in the any of the three cities, apart from “Alcohol Dependency” in Liverpool.

In summary, the importance of **family relationships** on mental health risks is common to all three cities.

In addition, **neighbourhood**, and **self-discipline** matter most in **Liverpool**, while **in London**, self-esteem, Health Care, and working conditions matter, and **in Shinjuku**, Health Care and parents’ encouragement have large risk-mitigation effects.

Traditionally, mental health problems have been treated within the medical and public health context. However the analysis in this chapter, together with that in Chapter 4, shows the importance of various types of risk factors and risk-mitigating factors in regard to “social relationships”. This points to the importance of combining and integrating these factors to create a comprehensive programme for tackling the mental health problems.

Chapter 8. Preventing Employment Risks

In Chapter 2 we examined how the “risk factors” experienced during infancy and school age influence the risks of employment-related problems, such as becoming a “NEET”, getting an “Insecure Job”, and becoming “Unemployed”. In this Chapter we will examine whether there are “resilience factors” which mitigate such transmission of risks to the employment phase. As in the previous chapters, we will examine the 22 resilience factors relating to the life stages, various social relationships in the communities, and public support. As some of the resilience factors are closely correlated with income level, we incorporated the “Poverty” factor in the multivariate regression to control the influence of income level influence.

In the following paragraphs,

(i) The first odds ratio figure shows the **integrated impact** of the risk factor, which includes both direct and indirect effects, using the **case-control method**; and

(ii) The second odds ratio figure indicates the **direct impact** of the risk factor, separating out the indirect impact of the risk factor, and calculated by **multivariate regression**. Asterisks represent the confidence levels of the odds ratio being larger than one.

Support from Family is associated with a large reduction in Employment Risks

Support from Family: The proportion of CCS participants who “are able to get support from their family when they face any difficulties” were 77% in Liverpool, 79% in London, and 61% in Shinjuku.

Loving Family: The proportion of CCS participants who have “a loving relationship with their family members” was 61% in Liverpool, 53% in London, and 61% in Shinjuku

A. “Support from Family” reduces the risk, when measured on the “direct impact basis, of all three school-related problems. A person who can get “**Support from Family**” has an increased risk of becoming a “NEET”, when measured on the “integrated basis”, at 1.05 time of the average, but its “direct” effect is to reduce the risk to 0%*** (direct impact basis) relative to the average.

Similarly he/she has an increased risk of getting an “**Insecure Job**”, measured at 1.2 times the average (integrated basis), but on the direct impact basis the risk is reduced to 2%*** relative to the average. Like-wise, he/she has a higher risk of becoming “**Unemployed**”, measured at 1.08 times (integrated basis) or 37% (direct impact basis) relative to the average.

It may seem strange that the “integrated effect” shows an increase in the risks while the “direct effects” show that the risk is substantially reduced. However, this is due to the fact that those who have “Support from Family” tend to have a higher-than-average probability of experiencing school-related risk factors, and the “integrated effect” of measuring the “Support from Family” factor includes the indirect risk-expansion impact of these risk factors, while the “direct effects” measurement separate out these indirect effects.

B. A person who has “Loving Family Relations” has a higher risk of becoming a “NEET”, measured at 1.07 time the average on the “integrated” basis, but a reduced risk, at 18% relative to the average on the “direct impact” basis.

As for the other employment-related problems, however, “Loving

Family Relations” have neither “integrated” nor “direct” risk reduction effects.

Other Cities: In contrast to the Liverpool results, “Loving Family Relations” have a significant “integrated” and “direct” impact on employment-related risks in Shinjuku, and particularly significant “direct” impacts in London.

Sports has a strong association with a reduced risk of becoming a NEET

Health Care: The proportion of CCS participants who are “*having regular health check-ups, and have a healthy diet*” was 63% in Liverpool, 70% in London, and 51% in Shinjuku.

Sports & recreation: The proportion of CCS participants who “*are regularly participating in sports and other physical recreational activities*” was 39% in Liverpool, 56% in London, and 43% in Shinjuku.

A. In Liverpool, a person who practices/ed a good level of “Health Care” has a lower risk of getting an “Insecure Job”, measured at 76% (integrated basis) or 32% (direct impact basis) relative to the average. But “Health Care” has no “direct” risk reduction impact on becoming a “NEET”, or “Unemployed”.

B. In Liverpool, a person who plays “Sports” has a reduced risk of becoming a “NEET”, measured at 46% (integrated basis) or 0%*** (direct impact basis) relative to the average. “Sports” has no other direct risk reduction effects on employment-related problems.

Other Cities: “Health Care” has a strong “integrated” and “direct” impact of employment-related risks **in Shinjuku**, and a moderately positive impact on employment risks **in London**.

In London, “Sports” has a strong direct impact on three employment-related risks, while in Shinjuku it has a greater “integrated impact” on three employment-related risks.

Self-Esteem has a strong association with reduced risk of becoming a NEET and Unemployment

Self-Esteem: The proportion of CCS participants who “*can maintain a sense of self-confidence and self-esteem even in difficult circumstances*” was 77% in Liverpool, 79% in London, and 51% in Shinjuku.

Goals & Plans: The proportion of CCS participants who “*have goals for their life and plans to achieve them*” were 68% in Liverpool, 81% in London, and 38% in Shinjuku.

A. In Liverpool, a person who has/had a sense of “Self-Esteem” has a reduced risk of having an “Insecure Job”, measured at 88% (integrated basis) or 28%* (direct impact basis) relative to the average, and the risk of being “Unemployed” is reduce to a level of 84% (integrated basis) or 0%**** (direct impact basis) relative to the average.

B. “Goals & Plans” have no “direct” or “integrated” impact on employment-related risks in Liverpool:

Other Cities: In London, “Self-Esteem” has significant direct

Table 13. Preventing Employment Risks (Case-Control Method)

Preventing Employment Risks	Liverpool		
	NEET	Insecure Jobs	Unemployed
Prob of Yes:q	0.10	0.21	0.13
Prob. Of No:1-q	0.90	0.79	0.87
Odds: q/(1-q)	0.11	0.27	0.15
Support from Family	1.05	1.20	1.01
Loving Family	1.07	0.97	1.08
Health Care	0.86	0.76	0.93
Sports & recreation	0.46	0.92	0.86
Self-Esteem	0.98	0.88	0.84
Goals & Plans	1.07	1.01	1.03
Parents Encouragement	1.35	1.25	1.06
Learn from Neighbours	1.40	1.00	0.88
Good Teachers	1.24	0.79	0.91
Vocational Qualification	0.77	1.01	0.97
University Qualification	1.17	1.16	0.85
Have Network	1.05	1.25	1.23
Support from Friends	1.10	1.19	1.04
Proper Work Hours	0.91	1.44	1.15
Work-Life Balance	1.13	1.88	1.24
Training Opportunities	0.65	1.53	1.19
Neighbourhood Network	0.83	0.61	0.75
Volunteer Activities	1.11	1.18	1.20
Trust Ralations	0.63	0.91	0.96
Social Security	0.68	0.77	0.99
Home Care Services	0.80	0.98	1.05
Child-Care Centre	1.21	1.25	1.50

risk-mitigation effects of the potential of becoming a “NEET” or “Unemployed”, while in Shinjuku we observed a strong “integrated impact” and “direct impacts” on the potential for becoming a “NEET” and “Unemployed” from the “Self Esteem” factor.

In London, “Goals & Plans” have a direct risk-reduction effect on becoming “Unemployed”, while in Shinjuku, there was a very strong “integrated” impact observed in relation to all employment-related risks, and a very strong “direct impact” on the “NEET”, and “Insecure Job” conditions.

Table 14. Preventing Employment Risks (Multivariate Regression)

Preventing Employment Risks	Liverpool		
	NEET	Insecure Jobs	Unemploy ed
Prob of Yes:q	0.1	0.21	0.13
Prob. Of No:1-q	0.9	0.79	0.87
Odds: q/(1-q)	0.11	0.27	0.15
Support from Family	0.00***	0.04**	0.37
Loving Family	0.18	2.75	3.50
Health Care	14.62	0.32	1.33
Sports & recreation	0.00***	1.13	3.29
Self-Esteem	4.94	0.28	0.00****
Goals & Plans	0.15	5.66	66.49
Parents Encouragement	63.89	54.94	3.37
Learn from Neighbours	1.95	0.08**	0.01***
Good Teachers	4.43	0.03***	6.26
Vocational Qualification	0.01***	17.71	1.32
University Qualification	201	0.04****	0.25
Have Network	37.34	7.81	1.84
Support from Friends	2.28	4.59	0.18
Proper Work Hours	6.43	0.04***	105.58
Work-Life Balance	101	4.85	3.41
Training Opportunities	0.00***	124	0.48
Neighbourhood Network	257	0.31	3.01
Trust Relations	0.03*	3.07	0.24
Social Security	0.00****	0.00****	2.10
Home Care Services	3.21	12.58	1.75
Child-Care Centre	0.68	2.33	0.08*
Poverty	12438	14.52	58.15
Male	0.00****	0.07***	184
Age26-49	31.53	8.87	52.15
Age50-64	0.25	19.45	129
Age65+	0.00****	1.85	171

Learned from Neighbours is associated with reduced Unemployment Risks

Parents Encouragement: The proportion of CCS participants whose “*parents always encouraged me to study hard to get better qualifications*” was 63% in Liverpool, 80% in London, and 49% in Shinjuku.

Learn from Neighbours: The proportion of CCS participants who “*had somebody in their neighbourhood to consult with, or provide them a role model for how to develop their career*” was 24% in Liverpool, 43% in London, and 45% in Shinjuku.

Good Teachers: The proportion of CCS participants who met “*Teachers in their school who showed respect for their students+ dignity and individual traits*” was 54% in Liverpool, 64% in London, and 39% in Shinjuku.

A. In Liverpool, a person who “**Learned from Neighbours**” has a risk of getting a “**Insecure Job**”, measured at 1.00 time the average (integrated basis) or 8%** (direct impact basis) relative to the average, and a lower risk of being “**Unemployed**”, measured at 88% (integrated basis) or 1%*** (direct impact basis) relative to the average.

B. In Liverpool, a person who met a “**Good Teacher**” has a reduced risk of getting an “**Insecure Job**”, measured at 79% (integrated basis) or 3%*** (direct impact basis) relative to the average. Having a “**Good Teacher**”, however, does not have a positive impact on the risk of becoming a “**NEET**” or “**Unemployed**”.

C. “Parents’ Encouragement” has no risk reduction effect in Liverpool, either on the “integrated” or “direct impact basis”.

Other Cities: In London, “**Learning from Neighbours**” only directly has a reduced risk of “**Unemployment**”. However, having a “**Good Teacher**” has a strong direct risk reduction effects on all three employment-related risks. On the other hand, “**Parents’ Encouragement for Education**” has no risk-mitigation effects on employment risks in any of the three cities, either on the integrated or direct impact basis.

In Shinjuku, “**Learning from Neighbours**” reduces all three employment risks, but having a “**Good Teacher**” has no direct risk-mitigation effects. “**Parents’ Encouragement**” has a strong “integrated” impact on all three employment-related risks, but has a “direct” impact only on “**Insecure Jobs**”.

Vocational Qualifications reduce the risk of NEET

Vocational Qualification: The proportion of CCS participants who have a “**Vocational Qualification**” was 38% in Liverpool, 51% in London, and 42% in Shinjuku.

University Qualification: The proportion of CCS participants who have “**University Qualification**” was 34% in Liverpool, 54% in London, and 43% in Shinjuku.

A. In Liverpool, a person who has a “**Vocational Qualification**” has a lower risk of becoming a “**NEET**”, measured at 77% (integrated basis) or 1%*** (direct impact basis) relative to the average. But this does not reduce the risk of getting an “**Insecure Job**” or becoming “**Unemployed**”.

B. In Liverpool, a person who has a “**University Qualification**” has an increased risk of getting an “**Insecure Job**” on the integrated

basis, measured at 1.16 times, but has a strong “direct risk reduction” impact at 3%**** relative to the average. It also lead to a reduced risk of becoming “**Unemployed**”, measured at 85% (integrated basis) or 15%* (direct impact basis) relative to the average.

Other Cities: In London, having a “**Vocational Qualification**” has a reduced risk of becoming a “**NEET**” on the direct impact basis only, while **in Shinjuku,** it reduces the risks of both the “**NEET**” and “**Insecure Job**” conditions.

Having a “**University Qualification**” does, however, have as much stronger “integrated” risk-mitigation effect for employment-related risks in both Shinjuku and London. In the case of Shinjuku, it has no direct risk-mitigating effects. All of the impact comes from the “indirect effects”.

Neighbourhood Network is associated with a reduced risk of getting an Insecure Job

Neighbourhood Network: The proportion of CCS participants whose “*neighbourhood has a mutual support network*” was 47% in Liverpool, 48% in London, and 29% in Shinjuku.

Trust Relations: The proportion of CCS participants who “*think most people can be trusted*” were 22% in Liverpool, 37% in London, and 66% in Shinjuku.

A. In Liverpool, a person who has a “**Neighbourhood Network**” has a reduced risk of having an “**Insecure Job**”, measured at 61% (integrated basis) or 31% (direct impact basis) relative to the average.

B. In Liverpool, a person who has a “**Trust Relations**” has a reduced risk of becoming a “**NEET**” measured at 63% (integrated basis) or 3%* (direct impact basis) relative to the average. Similarly, they enjoy a reduced risk of becoming “**Unemployed**”, measured at 96% (integrated basis) or 24% (direct impact basis) relative to the average.

Access to Social Security is associated with a significant reduction in the risk of becoming a NEET and getting an Insecure Job

Social Security: The proportion of CCS participants who “*have a full entitlement to State Pension, the NHS system and National Insurance*” was 77% in Liverpool, 69% in London, and 55% in Shinjuku.

Home Care Services: The proportion of CCS participants who think “*Senior citizens in their neighbourhood have access to various services that allow them to live independently at home*” was 56% in Liverpool, 59% in London, and 21% in Shinjuku.

Child Care Centre: The proportion of CCS participants who think “*There is a facility in their neighbourhood that offers counselling for parents on child-care and communication opportunities for children & parents*” was 34% in Liverpool, 39% in London, and 35% in Shinjuku.

A. In Liverpool, a person who has a full-entitlement to “**Social Security**” has a lower risk of becoming a “**NEET**”, measured at 68% (integrated basis) or 0%**** (direct impact basis) relative to the average, and a lower risk of getting an “**Insecure Job**”, measured at 77% (integrated basis) or 0%*** (direct impact basis) relative to the average.

B. In Liverpool, a person whose neighbourhood has “**Home Care**

Services” has a lower risk of becoming a “**NEET**”, measured at 80% (integrated basis) of the average, but there is no “direct impact”

C. In Liverpool, a person who has a “**Child Care Centre**” in their neighbourhood has an increased risk of “**Unemployment**”, measured at 1.5 time higher-than-average (integrated basis), but on the “direct impact” basis, a significantly reduced risk of 8%* (direct impact basis) relative to the average,

Other Cities: In addition to the risk-mitigation effects stated above, in London and Shinjuku, having access to a “Child Care centre” has a strong risk-mitigating impacts on the potential for becoming a “NEET” in Shinjuku, and on all three employment risks in London.

Summary

The “NEET”, “Insecure Job” and “Unemployment” conditions have been viewed as the main sources of social exclusion. The ultimate solution to these problems is macroeconomic growth and expansion

of the total number of employment opportunities. However, the CCS study shows that there are many social and individual factors affecting the risks of these problems occurring, and many resilience factors which mitigate the risks.

The impact of the resilience factors varies across the 3 cities studied. In Liverpool, “Vocational Qualification”, “Sports”, “Training Opportunities” and “Support from Family” are among the resilience factors with high risk reduction ratios for the potential for becoming a “NEET”. Meanwhile, “University Qualification”, “Support from Family”, and “Good Teacher” are among those factors with the highest risk reduction ratios for the potential for getting an “Insecure Jobs”. “Self-esteem” and “Learning from Neighbours” show the highest risk reduction ratios in regard to “Unemployment”.

Chapter 9. Preventing the Poverty Risk

In Chapter 3, we investigated the transmission of risks from infancy and school age, to employment and ultimately to poverty through a “negative spiral” of deprivation. In this chapter we will investigate the factors which mitigate the transmission of such risk to poverty. As in the previous chapters we will examine the 22 resilience factors relating to the life stages, various social relationships in the communities, and public support. As some of the resilience factors are closely correlated with income level, we incorporated “Poverty” in the multivariate regression to control the influence of income level.

Definition of Poverty

In this survey, we use a subjective definition of poverty, namely, a person is considered to be in poverty, if they answered ‘Yes’ to the question “*the income of his/her household is/was insufficient to support a minimum decent life*”

The proportion of CCS participants who consider themselves as being in “poverty” was 19% in Liverpool, 21% in London, and 37% in Shinjuku. These figures do not represent the average of the total population of these cities as explained in Chapter 3.

The risk mitigating effects of the resilience factors are different from city to city. In Liverpool, 10 resilience factors out of the 22 factors investigated showed a positive risk mitigating effects in both case control methods and multivariate regression. The total number of resilience factors having a positive risk-mitigating effect in London was 10 with a slightly different combination from Liverpool), while in Shinjuku it was 12 in multivariate regression (which shows the direct impacts only).

In the following sections, we will show the relevant resilience factors in the order of their “direct” risk-mitigating impact on “Poverty” in Liverpool.

The Highest Risk Reduction factor is associated with having a “Neighbourhood Network”

The proportion of CCS participants who considered “their neighbourhood has/had a mutual support network” was 47% in Liverpool, 49% in London, and 29% in Shinjuku.

In Liverpool, a person who considered that their neighbourhood has a “**Neighbourhood Network**” has a lower-than-average risk of falling into “**poverty**”, measured at 72% (integrated basis) or 2%**** (direct impact basis) relative to the average. It shows that there is a strong neighbourhood community in Liverpool which plays a big role in preventing people from falling into poverty.

Other Cities: In London, the presence of a “Neighbourhood Network” has no risk mitigating effect on “poverty” whether measured on the integrated or direct basis. However, **in Shinjuku** it has a significant risk-mitigation impact of 14% relative to the average on the integrated basis, though on the direct impact basis only a modest impact.

Good Health Care is associated with less poverty

The CCS study selected two resilience factors related to health: “Health Care”, and “Sports”.

Health Care: The proportion of CCS participants who considered “*they are having regular health check-ups, and have a healthy diet*” was 63% in Liverpool, 70% in London, and 50% in Shinjuku.

Sports: The proportion of CCS participants who “are/were regularly participating in sports and other physical recreational activities” were 39% in Liverpool, 56% in London, and 42% in Shinjuku.

A. In Liverpool, a person who is practicing a good level of “**Health Care**” has a less-than-average “**poverty**” risk, measured at 71% (integrated basis) and 4%**** (direct impact basis) relative to the average.

Table 15 Preventing the Poverty Risk (Case-Control Method)

Preventing Poverty Risks	Shinjuku	Liverpool	London
	Poverty	Poverty	Poverty
Prob of Yes:q	0.37	0.19	0.21
Prob. Of No:1-q	0.63	0.81	0.79
Odds: q/(1-q)	0.58	0.23	0.27
Support from Famili	0.28	1.03	0.87
Loving Family	0.30	0.86	1.02
Health Care	0.16	0.71	0.84
Sports & recreation	0.19	0.50	0.82
Self-Esteem	0.41	0.83	0.84
Goals & Plans	0.47	1.00	1.01
Parents Encouragement	0.22	1.27	0.98
Learn from Neighbours	0.19	1.10	0.79
Good Teachers	0.36	1.01	0.94
Vocational Qualification	0.39	0.79	0.94
University Qualification	0.25	0.69	0.76
Have Network	0.26	1.05	0.95
Support from Friends	0.28	1.10	0.92
Proper Work Hours	0.29	0.90	0.87
Work-Life Balance	0.19	1.21	0.56
Training Opportunities	0.19	0.94	0.72
Neighbourhood Network	0.14	0.72	1.16
Trust Ralations	0.36	0.75	0.92
Social Security	0.28	0.90	1.00
Home Care Services	0.12	0.92	0.70
Child-Care Centre	0.05	1.51	0.79

Table 15 Preventing Poverty Risk (Case-Control Method)

Preventing Poverty Risks	Shinjuku	Liverpool	London
	Poverty	Poverty	Poverty
Prob of Yes:q	0.37	0.19	0.21
Prob. Of No:1-q	0.63	0.81	0.79
Odds: q/(1-q)	0.58	0.23	0.27
Support from Family	0.88	0.09*	1.84
Loving Family	0.02***	4.59	0.63
Health Care	1.16	0.04***	1.65
Sports & recreation	0.59	0.10*	1.00
Self-Esteem	5.15	1.80	0.00****
Goals & Plans	0.53	1.55	0.39
Parents Encouragement	1.54	3.55	16.91
Learn from Neighbours	0.87	1.72	1.81
Good Teachers	0.23	20.93	0.03**
Vocational Qualification	9.19	0.05***	4.38
University Qualification	0.03****	0.41	0.01****
Have Network	2.56	1.41	0.99
Support from Friends	0.39	91.66	0.04***
Proper Work Hours	0.42	0.06*	2.75
Work-Life Balance	0.02****	219	0.04***
Training Opportunities	0.08**	0.99	3.40
Neighbourhood Network	0.70	0.02***	17.66
Trust Relations	0.88	0.81	7.57
Social Security	3.95	0.56	5.95
Home Care Services	0.38	0.04**	0.05***
Child-Care Centre	0.08*	34.68	0.25
Poverty	8.61	23.86	1.70
Male	0.21*	2.37	6.96
Age26-49	14.40	13.47	5.07
Age50-64	76.49	124	24.83
Age65+	160	447	91.98

B. In Liverpool, a person who plays “**Sports**” has a less-than-average “**poverty**” risk, measured at 50% (integrated basis) and 10%* (direct impact basis) relative to the average.

Although people practice “Health Care” and “sports” primarily with a view to enhancing their physical health, these activities have a strong association with reducing the incidence of “Poverty” even after controlling the poverty status of their childhood on measurement. Causal relationship may go both ways: a good level of health care has a reduced risk of falling into poverty, and people who are not in poverty have a better chance of practicing a good level of health care or of playing sports.

Home Care Service is associated with a reduced risk of Poverty

Home Care Service: The proportion of CCS participants who consider that “*Senior citizens in their neighbourhood have access to various services that allow them to live independently at home*” was 56% in Liverpool, 59% in London, and 21% in Shinjuku.

In Liverpool, a person whose neighbourhood has adequate “**Home Care Services**” has a smaller-than average risk of falling into “**Poverty**” measured at 92% (integrated basis) or 4%** (direct impact basis) relative to the average.

Vocational Qualifications help to reduce the risk of poverty

The CCS study investigated the risk-mitigation effects of two types of educational qualifications: “Vocational Qualifications”, and “University Qualifications”.

Vocational Qualifications: The proportion of CCS participants who “have a vocational qualification that matches their job/intended job” were 38% in Liverpool, 51% in London, and 42% in Shinjuku.

University Qualification: The proportion of CCS participants who “have a university or other higher education qualification” was 34% in Liverpool, 53% in London, and 42% in Shinjuku.

A. In Liverpool, a person who has a “**Vocational Qualification**” has a reduced risk of being in “**Poverty**” measured at 79% (integrated basis) or 5%*** (direct impact basis) relative to the average.

B. In Liverpool, a person who has a “**University Qualification**” has a reduced risk of being in “**Poverty**” measured at 69% (integrated basis) and 41% (direct impact basis) relative to the average.

Other Cities: In London and Shinjuku, having a “University Qualification” has a much higher “direct impact” on reducing the risk of being in “poverty”, measured at 3%**** and 1%**** of the average, respectively. On the other hand, in these cities, having a “Vocational Qualification” has no direct risk mitigating impact in contrast to Liverpool. This may be due to the different labour market situation for university graduates and those with vocational skills in these two cities.

Proper Work Hours is associated with a reduced risk of Poverty

The CCS study examined three resilience factors related to the workplace: “Proper Work Hours”, “Work Life Balance”, and

“Training Opportunities”

Proper Work Hours: The proportion of CCS participants who “*are comfortable with their current job in terms of working hours and leaves*” was 51% in Liverpool, 63% in London, and 69% in Shinjuku.

Work-Life Balance: The proportion of CCS participants who considered that “*their employer took steps to support a balance between work and family life*” was 35% in Liverpool, 43% in London, and 50% in Shinjuku.

Training Opportunities: The proportion of CCS participants who considered that “*their employer supports training and the acquisition of new skills*” was 46% in Liverpool, 54% in London, and 38% in Shinjuku.

A. In Liverpool, a person who considered that they enjoy “**Proper Work Hours**” has a reduced risk of being in “**Poverty**” measured at 90% (integrated basis) or 6%* (direct impact basis) relative to the average.

B. On the other hand, no significant risk reduction effects were observed in Liverpool regard to “**Poverty**” as a consequence of “**Work-Life Balance**”, and “**Training Opportunities**” resilience factors.

Other Cities: **In London**, on the other hand, having a good “**Work-Life Balance**” has a significant direct risk reduction impact on being in “Poverty”, while “**Proper Work Hours**” and “**Training Opportunities**” have no direct impact. **In Shinjuku**, all three have a significant direct impact on being in “Poverty”. In Shinjuku, employment-related problems are the most important risk factors that can result in “Poverty”, and “Work-Life Balance” and “Training Opportunities” are closely linked to the employment in a “decent workplace,” which represents an important factors higher levels of well-being.

Support from Family has a reduced risk of being in Poverty

The CCS study investigated two family-related resilience factors: “Support from Family” and “Loving Family Relations”.

Support from Family: The proportion of CCS participants who “*were able to get support from their family when they face any difficulties*” was 77% in Liverpool, 79% in London, and 60% in Shinjuku.

Loving Family Relations: The proportion of CCS participants who had “*a loving relationship with their family members*” was 61% in Liverpool, 53% in London, and 61% in Shinjuku.

A. In Liverpool, a person who enjoys “**Support from Family**” has a slightly above-average risk of being in “Poverty” measured at 103% (integrated basis). However, on the direct impact basis, they have a significantly reduced risk of being in “Poverty” measured at only 9%* of the average.

B. On the other hand, a person who enjoyed a “**Loving Family Relations**” does have a reduced risk of being in “**Poverty**” measured at 86% on the integrated basis, though there is no risk-reduction impact of being in “**Poverty**”, when measured on the direct basis.

Other Cities: In London, family-related resilience factors only have a modest risk reduction impact on being in “**Poverty**”. In contrast in Shinjuku family-related resilience factors have a very strong risk reduction impact on the integrated basis, and in

particular for “Loving Family Relations” on the direct impact basis

Summary:

We have examined the risk-mitigating effects of various resilience factors according to the order of their strength in having a direct risk reduction impact on “Poverty” in Liverpool. As an overview, we have seen that a wide range of resilience factors are associated with a reduced risk of Poverty”.

In Liverpool there are 9 resilience factors out of the 22 investigated, that have direct risk-mitigating effect on poverty (only three of them have a 95% reliance level), and 12 factors when measured on the integrated basis. The number of resilience factors which have a positive direct risk-mitigation impact on poverty is similar to those in other cities.

In London, there are 9 resilience factors which have a positive “direct” risk-mitigation impact (5 of them have 95% or greater reliance level), and 11 resilience factors have a positive “integrated” risk-mitigation impact to less than 90% relative to the average.

In Shinjuku, there are 14 resilience factors having a positive “direct” risk-mitigating impact on “Poverty” (only three of them have as 95% or greater reliance level), and all 22 resilience factors have positive and 50% or greater “integrated” risk reduction impact on “Poverty”.

“Self-Help”, “Mutual Help”, and “Public Support” all matters

In the area of **Self-Help**, “Health Care”, “Sports”, and “Vocational

Qualification” have a strong positive risk-mitigation impacts in Liverpool. In London, in addition to these, “Self Esteem” is found to have the highest risk mitigating impact. In Shinjuku and London, “University Qualification” have a strong risk mitigating effects on “Poverty”, while in Liverpool, it has a modest impact.

In the area of **Mutual Support**, having a “Neighbourhood Network” is identified as the strongest “direct” risk mitigating effect on “Poverty” in Liverpool. “Support from Family” is also an important risk mitigating factor in Liverpool. In general we can say that Liverpool has a strong impact from the influence of “bonding social capital” in terms of neighbourhood and family.

In London, mutual support comes from “Support from Friends” and relationships in school and workplace, such as a “Good Teacher” and “Work-Life Balance”

Shinjuku display a mixture of these two extremes: “Loving Family Relations” give a very strong risk-mitigation effect on “Poverty”. “Work-Life Balance” and “Training Opportunities” also have a very high impact in mitigating the risk of poverty. “Support from Friends”, “Neighbourhood Network” and “Trust Relations” are all positive factors but have rather modest “direct” risk-mitigation impacts.

In the area of **Public Support**, community-based public services, such as “Home Care Services” have a strong “direct” risk mitigating impact in Liverpool. Also access to “Social Security” has a strong risk-mitigation effect on “Poverty” reflecting the phenomenon of “welfare dependency” within the segment of people on low incomes in this city. In contrast, “Social Security” is associated with an increased risk of “Poverty” in London and Shinjuku, rather than mitigating it

APPENDIX Sample Characteristics of the three cities

	Camden		Liverpool		Shinjuku	
Totla Sample	316	100.0%	299	100.0%	195	100.0%
Male	172	54.4%	154	51.5%	121	62.1%
Female	144	45.6%	144	48.2%	71	36.4%
Age						
0-24	127	40.2%	39	13.0%	15	7.7%
25-49	127	40.2%	111	37.1%	55	28.2%
50-64	35	11.1%	79	26.4%	58	29.7%
65-74	22	7.0%	41	13.7%	40	20.5%
75-	5	1.6%	28	9.4%	24	12.3%
Ethnicity						
English	127	40.2%	254	84.9%		
Scottish	10	3.2%	5	1.7%		
Welsh	7	2.2%	4	1.3%		
Irish	22	7.0%	7	2.3%		
Other European	17	5.4%	0	0.0%		
Other	126	39.9%	24	8.0%		
Household Type						
Single	91	28.8%	102	34.1%	76	39.0%
Single+Parent/s	93	29.4%	39	13.0%	4	2.1%
Lone Parent	30	9.5%	26	8.7%	14	7.2%
Lone Parent+Parent/s	13	4.1%	5	1.7%	1	0.5%
Couple	85	26.9%	122	40.8%	99	50.8%
Employment Status						
Self Employed	25	7.9%	13	4.3%	7	3.6%
Employee	129	40.8%	100	33.4%	61	31.3%
Unemployed	86	27.2%	66	22.1%	35	17.9%
Retired	26	8.2%	76	25.4%	47	24.1%
Others	47	14.9%	40	13.4%	44	22.6%
House Ownership						
Rented Public	200	63.3%	121	40.5%	144	73.8%
Rented Private	45	14.2%	54	18.1%	12	6.2%
Employer	1	0.3%	1	0.3%	1	0.5%
With Relatives	4	1.3%	1	0.3%	1	0.5%
Own w/ Mortgage	37	11.7%	53	17.7%	17	8.7%
Own Outright	21	6.6%	59	19.7%	18	9.2%
Educational Background						
No Secondary Qualif.	100	31.6%	152	50.8%	14	7.2%
GCSC D-E	43	13.6%	36	12.0%	27	13.8%
GCSC 5 A*-C	37	11.7%	32	10.7%	7	3.6%
A Level	37	11.7%	33	11.0%	53	27.2%
Univ or Higher	92	29.1%	41	13.7%	93	47.7%

Research Partner Organizations:

Shinjuku: Shinjuku City Council, Institute of Innovative Local Autonomy, Shinjuku Social Welfare Conference, Shinjuku Council of NGOs, Community Support Home: Soup no Kai, NPO Shinjuku Homeless Support Network

Liverpool: Liverpool City Council, Liverpool First, Liverpool Primary Care Trust, City and North Liverpool Neighbourhood Management Services, Breckfield & North Everton Neighbourhood Council Ltd., North Liverpool Citizens Advice Bureau (NLCAB), Kensington Fields Community Association, Kensington Community Learning Centre, Healthy Homes Programme.

London, Camden Borough: Camden City Council, Castle Haven Community Association, Kentish Town Community Centre, Queens Crescent Community Association, One Housing Group, West Hampstead Women's Centre, Winchester Project, City Action Link.

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