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Self-efficacy, Locus of Control & Life Satisfaction in Northern Ireland, 2016/17

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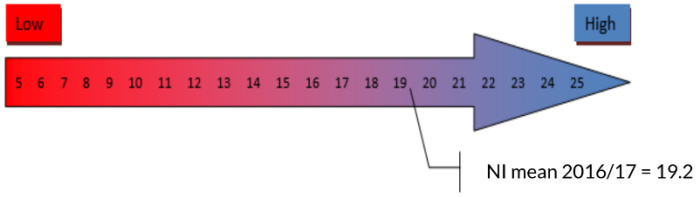
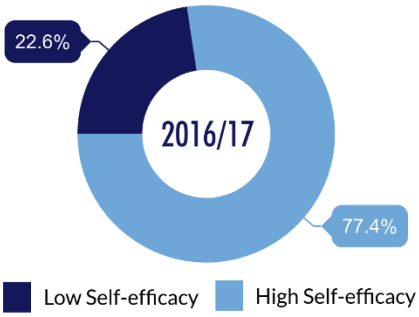
NISRA
Northern Ireland Statistics & Research Agency

Self-efficacy, Locus of Control and Life Satisfaction in Northern Ireland - 2016/17

Self-efficacy - is a person's belief about their capabilities to exercise influence over events that affect their lives.



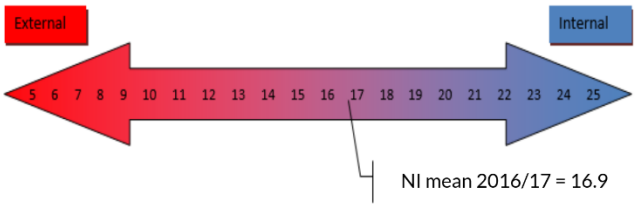
The mean self-efficacy score for the Northern Ireland population was relatively high in 2016/17 (19.2 out of 25).



Just over one fifth of people (22.6%) in Northern Ireland had low self-efficacy in 2016/17.

Statistically significant differences in mean self-efficacy scores were found across different sections of society. This was most prominent in relation to deprivation, employment status and health. Individuals who lived in the least deprived areas, those in employment, those in very good/good health, and those without a limiting long standing illness exhibited significantly higher self-efficacy than their respective counterparts.

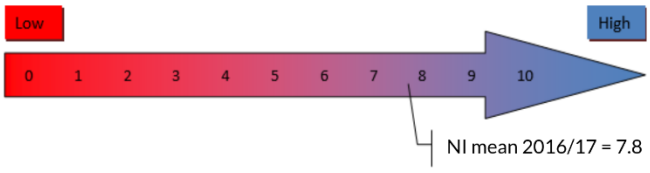
Locus of Control - explains the degree to which a person feels in control over their life. Individuals with an internal locus of control believe in their own influence and control, while those with an external locus of control believe control over their life is determined by outside factors.



The mean locus of control score for Northern Ireland in 2016/17 was 16.9 out of a possible 25.

Statistically significant differences in mean locus of control scores were found across different sections of society. This was most prominent in relation to deprivation, employment status, religion and health. Those living in the least deprived areas, those in employment, those whose religion was classified as other/non-determined, and individuals in very good/good health exhibited a significantly higher (more internal) locus of control than their respective counterparts.

Life Satisfaction



The mean life satisfaction score for Northern Ireland in 2016/17 was 7.8 out of a possible 10.

Statistically significant differences in mean life satisfaction scores were found across different sections of society. This was most prominent in relation to deprivation, employment status, health and marital status. Those living in the least deprived areas, those in employment, those in very good/good health and individuals married and living with their spouse exhibited a significantly higher life satisfaction than their respective counterparts.

Contents

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Introduction

This bulletin provides estimates for Northern Ireland on three metrics:

- Self-efficacy
- Locus of Control
- Life Satisfaction

Self-efficacy – Bandura[1] conceptually described self-efficacy as a person's belief about their capabilities to exercise influence over events that affect their lives. People with high self-efficacy are often seen as confident in their capabilities and produce sustained efforts to achieve their goals. In contrast, people with low self-efficacy often doubt their capabilities, are less ambitious and give up on their aims when challenged. In short self-efficacy is a question of resilience and those with higher self-efficacy often experience greater life satisfaction and wellbeing.

Locus of Control (LOC) – LOC is a personality construct which explains the degree to which a person feels they have control over their life. The locus of control scale can be seen as a continuum from external to internal. Those with internal LOC believe in their own influence over life events and are confident that their actions can have direct effect on their life outcomes. Those with external LOC believe the converse and appoint personal outcomes as the result of fate and factors outside of their control[2].

Life Satisfaction – Life satisfaction relates to an individual's satisfaction with their life overall. Higher scores on the life satisfaction scale indicate a greater sense of contentment with life and have many implications for life facets such as health, family, lowering depression and weight loss[3].

Data presented in this report were collected at the population level via the Continuous Household Survey (CHS), with data available for 2014/15 through to 2016/17. This bulletin examines the 2016/17 figures and also explores whether any differences exist in these metrics across various sections of society in Northern Ireland.

Data for these metrics have also been collected at a project level under several major Government programmes including the Social Investment Fund and Delivering Social Change signature programmes. The purpose of gathering these 'common metrics' across

[1] Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), Encyclopedia of human behavior (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in H. Friedman [Ed.], Encyclopedia of mental health. San Diego: Academic Press, 1998).
[2] Rotter, J. B. (1954). *Social learning and clinical psychology*: Englewood Cliffs, NJ: Prentice Hall.
[3]Quality Improvement Fund (2015). *Investigating Locus of Control, Self-efficacy and Wellbeing – The relationships between all items across 3 instruments for a single item scale*: https://gss.civilservice.gov.uk/wp-content/uploads/2013/02/Janis-Scallon-report.pdf.

government programmes is to assess whether involvement with projects has any influence on participants' belief in their own ability to overcome challenges and reach goals (self-efficacy), whether an individual's sense of control over their lives has been shifted more towards the internal (locus of control), and whether a participant's life satisfaction has been improved.

Programme for Government

The Northern Ireland Executive is seeking to increase the confidence and capability of individuals and communities. In order to monitor this, self-efficacy, specifically the proportion of the Northern Ireland population with low self-efficacy, was included as an indicator in the Executive's draft Programme for Government, which was publicly consulted on between October and December 2016.

Statistical Significance

Differences between years or groups have been highlighted throughout this report. All 'significant' differences refer to statistically significant differences at the 95% confidence level. This means that we can be 95% confident that the differences between groups are actual differences and have not just arisen by chance.

Deprivation

Deprivation figures presented in this report are based on the Northern Ireland Multiple Deprivation Measure 2010, which is a measure of deprivation at the small area level. Quintiles of deprivation categorise an area of deprivation; Quintile 1 (Q1) represents the 20% most deprived areas, and Quintile 5 (Q5) represents the 20% least deprived.

Chapter 1 – Self-efficacy

Developing from 'Social Learning Theory', self-efficacy is a psychological concept which is mediated by a person's environment and their capabilities to cope within this environment. Self-efficacy plays a role in determining what decisions a person makes and sees as realistically attainable. Any challenges to these goals are either seen as threats to be avoided or opportunities to engage and improve depending on where they are positioned on the self-efficacy scale. Self-efficacy is a question of resilience with those exhibiting higher levels of self-efficacy being more confident in their abilities and ready to face challenges, whereas those with lower self-efficacy often shy away from reproach.

Evidence has shown that self-efficacy can influence both physical and mental health[4], learning and achievement, career and job satisfaction[5] and family relations[6].

Developing the ability to measure and monitor levels of self-efficacy can have positive implications for large scale social change. Utilising interventions for specific groups, designed to increase and foster their self-efficacy, can develop collective resilience and capacity which has the potential to be self-perpetuating and sustaining. This can lead to positive social change among communities, and improve social cohesion and inter-group relations[7].

The tool for measuring self-efficacy is a simple statement based survey tool. It takes the form of five simple statements to which the individual indicates to what extent they agree or disagree on a five point Likert scale[8]. Self-efficacy is then presented as an overall score, minimum 5 and maximum 25, taken from the summated total of the five statement questions. A higher score on the scale represents a higher general self-efficacy.

For the purposes of this report, self-efficacy scores have been classified as either low or high depending on an individual's overall score on the 25 point scale. A score from 5-17 indicates low self-efficacy and a score from 18-25 represents high self-efficacy[9].

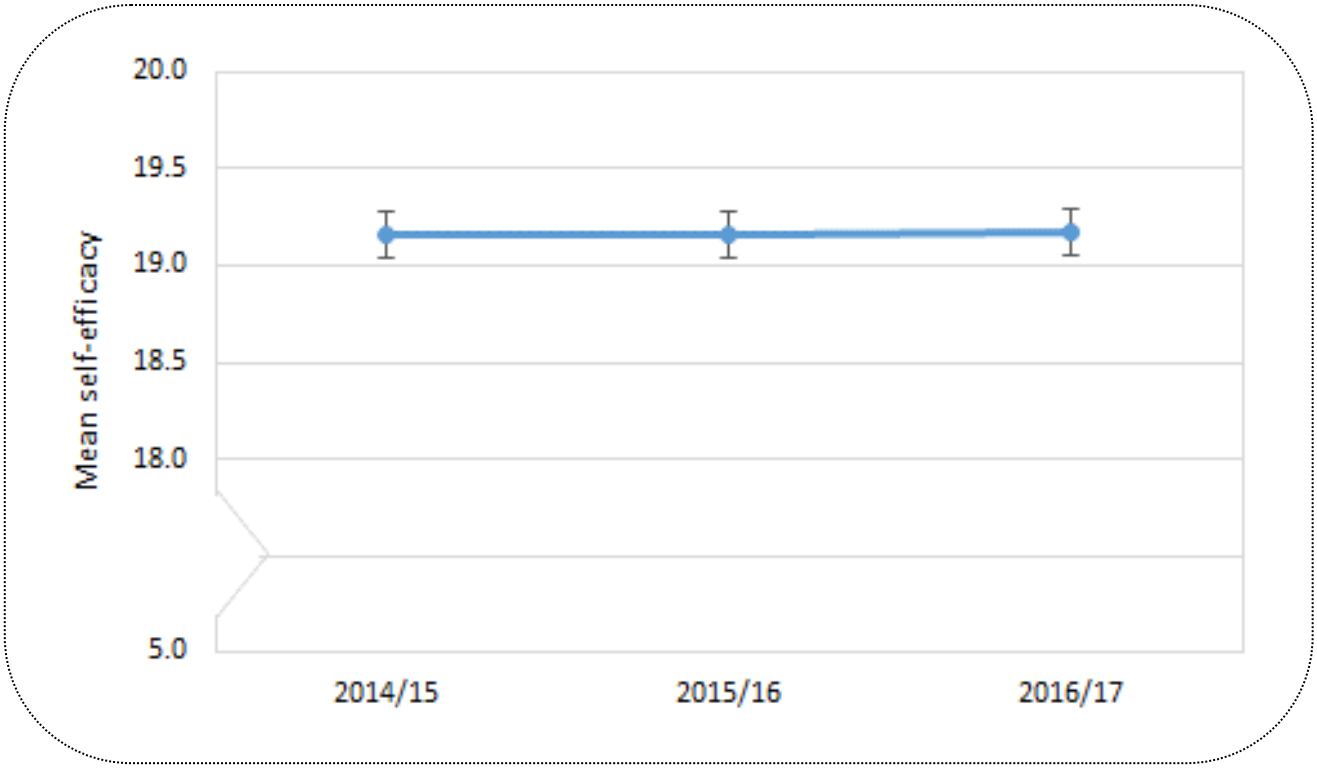
[4] Bandura, A. (1997). *Self-efficacy: The exercise of control.* New York: Freeman and Company.
[5] Bandura, A., Barbaranelli, C., Capara, G.V., & Pastorelli, C. (2001). *Self-efficacy beliefs as shapers of children's aspirations and career trajectories.* Child Development, 72, 187-206.
[6] Bandura, A., Barbaranelli, C., Capara, G.V., Regalia, C. & Scabini, E. (2011). *Impact of family efficacy beliefs on quality of family functioning and satisfaction with family life.* Applied Psychology. 60(3), 421-448.
[7] McNamara, N. Stevenson, C. & Muldoon, O.T. (2013). *Community identity as resource and context: A mixed method investigation of coping and collective action in a disadvantaged community.* European Journal of Social Psychology.
[8] See Appendix A for details on the five statements which are used to measure self-efficacy.
[9] See Appendix A for further details on low/high self-efficacy.

1.1 Mean self-efficacy scores for Northern Ireland, 2014/15 to 2016/17

(See tables A1.1 – A1.12)

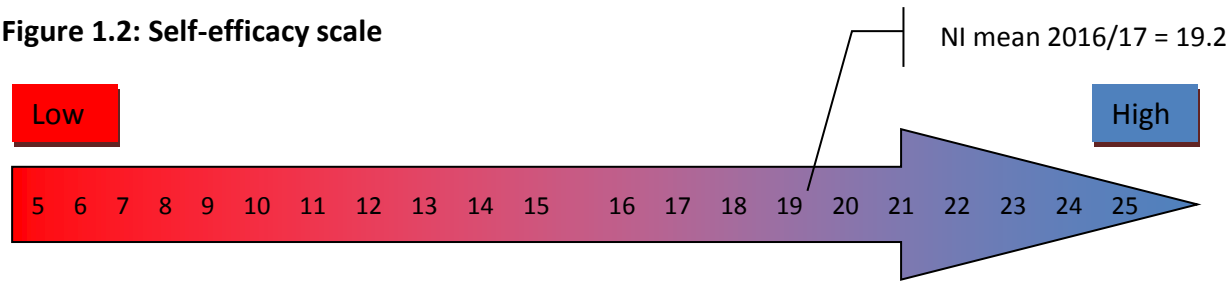
The mean self-efficacy score for the Northern Ireland population was relatively high in 2016/17; 19.2 out of a possible 25. This has remained consistent with mean self-efficacy scores from both 2014/15 and 2015/16.

Figure 1.1: Mean self-efficacy scores for the NI population (2014/15 to 2016/17)



Note: Figure 1.1 includes the (unrounded) 95% confidence intervals for each estimate. These confidence intervals represent the ranges either side of the CHS proportions which are 95% certain to include the true values for the population. For example, we can be 95% certain that the true NI population mean for both 2016/17 falls between 19.0 and 19.3 on the self-efficacy scale (see Appendix A for more information).

Figure 1.2: Self-efficacy scale



1.2 Distribution of self-efficacy scores, 2014/15 and 2016/17

Figure 1.3: Distribution of self-efficacy scores (2014/15 and 2016/17)

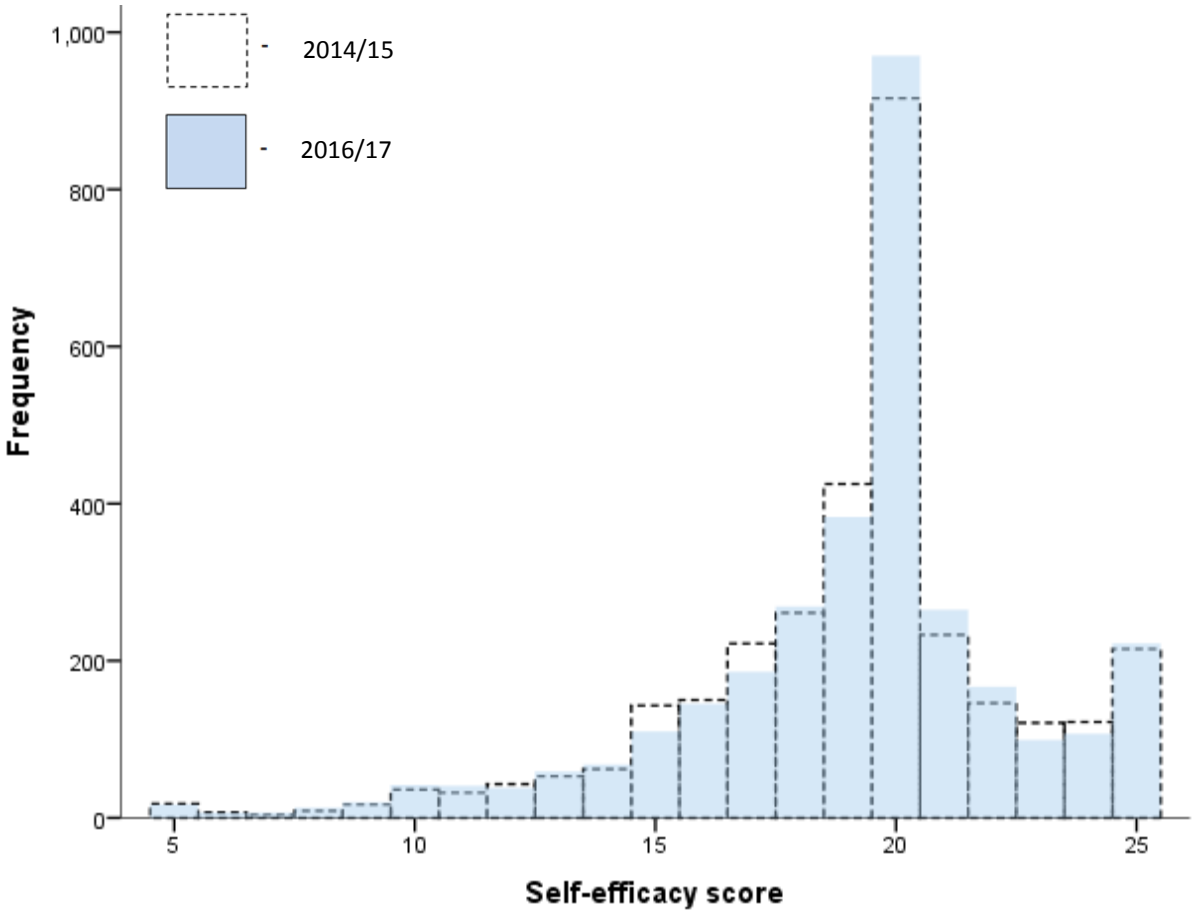


Figure 1.3 compares the distribution of self-efficacy scores for CHS respondents from 2014/15, the first year the scale items were included in the CHS, to 2016/17. The distributions across both years are similar, with no obvious shift evident.

1.3 Mean self-efficacy: Differences between various sections of society in NI, 2016/17 (*See tables A1.1 – A1.12*)

Gender

In 2016/17, males exhibited a significantly higher mean self-efficacy than females.

Age

In 2016/17, those aged 25 to 34 and 35 to 44 exhibited the highest mean self-efficacy. Mean self-efficacy for these age groups was significantly higher than those for the older age groups (55-64 and 65+).

Deprivation

Individuals living in the least deprived areas (Q5) reported a significantly higher mean self-efficacy than those in the most deprived areas (Q1) in 2016/17.

Employment

In 2016/17, individuals who were employed recorded a significantly higher mean self-efficacy than those who were economically inactive.

Religion

In 2016/17, there were no significant differences found when comparing mean self-efficacy scores for Catholics, Protestants and those classified as Other/Non-determined.

Urban/Rural

Mean self-efficacy for individuals from urban and rural backgrounds were similar, with no significant difference between the two in 2016/17.

Health

In 2016/17, individuals whose self-recorded general health was very good/good had a significantly higher mean self-efficacy than those with fair or bad/very bad health.

Limiting long standing illness

In 2016/17, individuals who **were not** living with a limiting long standing illness (LLSI) exhibited a significantly higher mean self-efficacy than those who **were** living with a LLSI.

Dependants

In 2016/17, individuals who **were** responsible for a dependant recorded a significantly higher mean self-efficacy than those who **were not** responsible for a dependant.

Marital Status

Individuals who were married and living with their spouse had a significantly higher mean self-efficacy than those who were single and those who were widowed.

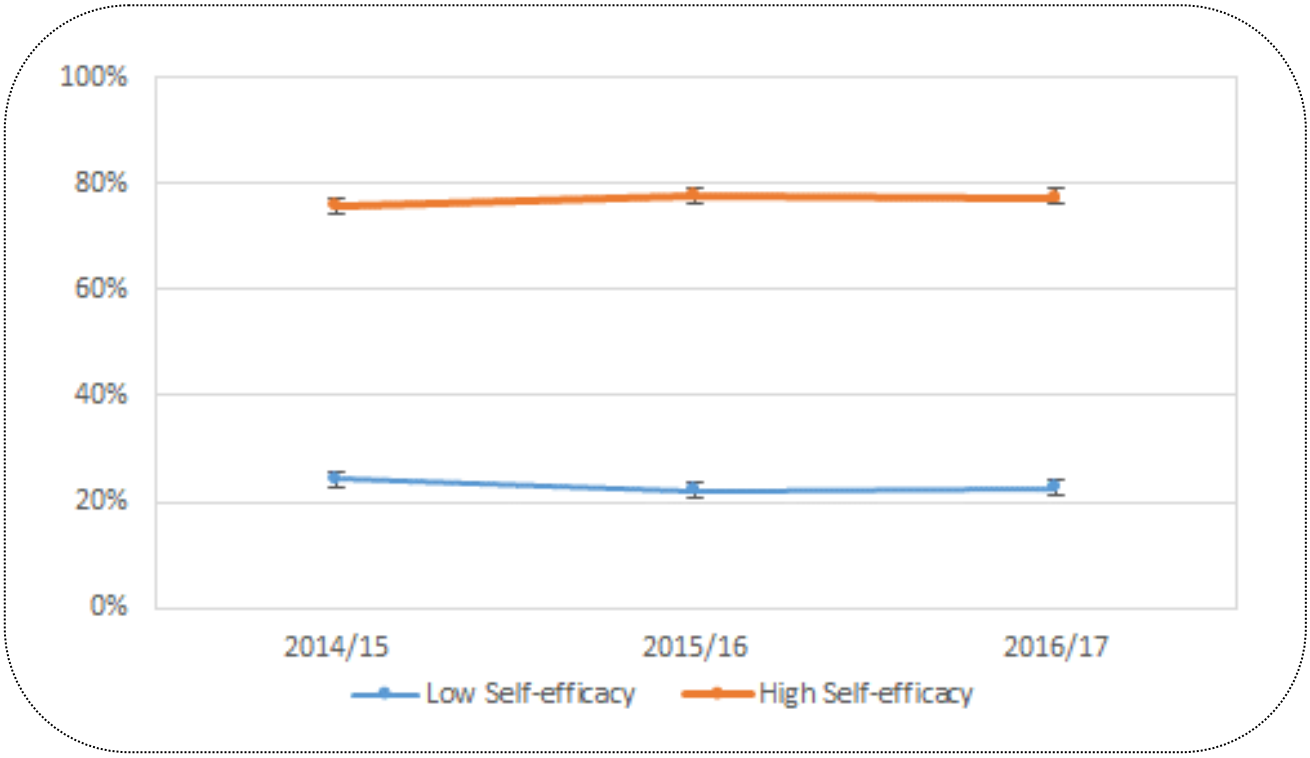
Chapter 2: Low/High self-efficacy in Northern Ireland

Chapter 1 examined the average levels of self-efficacy in Northern Ireland, and the distribution of self-efficacy scores for CHS respondents. This chapter focuses on the proportion of individuals in Northern Ireland who have either high or low self-efficacy. Self-efficacy scores have been classified as either low or high depending on an individual's score on the 25 point scale. A score from 5-17 indicates **low** self-efficacy and a score from 18-25 represents **high** self-efficacy.

In 2014/15, approximately three-quarters (75.7%) of people in Northern Ireland were classified as having high self-efficacy. This increased to 77.4% of people in 2016/17, although this change was not statistically significant.

Conversely, in 2014/15, approximately one-quarter (24.3%) of people were classified as having low self-efficacy. This decreased to 22.6% in 2016/17; again, this was not a statistically significant change.

Figure 2.1: Proportion of the NI population with low/high self-efficacy

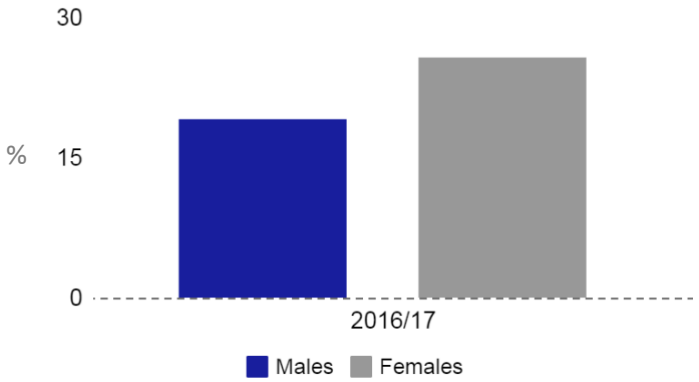


Note: Figure 2.1 includes the (unrounded) 95% confidence intervals for each estimate. These confidence intervals represent the ranges either side of the CHS proportions which are 95% certain to include the true values for the population. For example, we can be 95% certain that the true proportion of the NI population for 2016/17 with low self-efficacy falls between 21.1% and 24.0% (see Appendix A for more information).

2.1 Proportion reporting low self-efficacy: Differences between various sections of society in NI, 2016/17 (See tables A2.1 – A2.12)

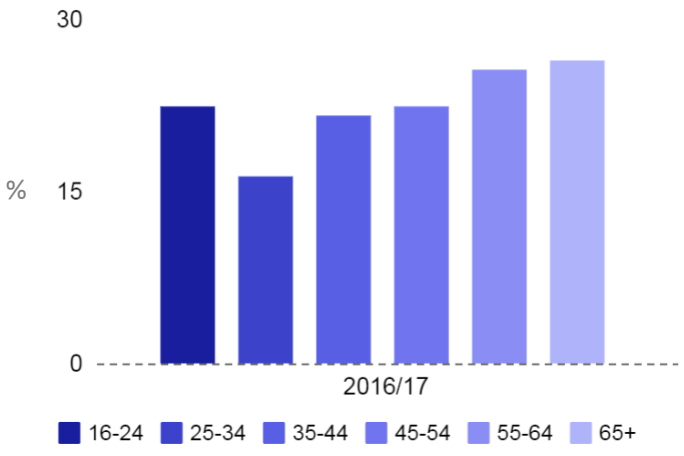
Note: Self-efficacy, specifically the proportion of the Northern Ireland population with low self-efficacy, has been included as an indicator in the Executive's draft Programme for Government.

Gender



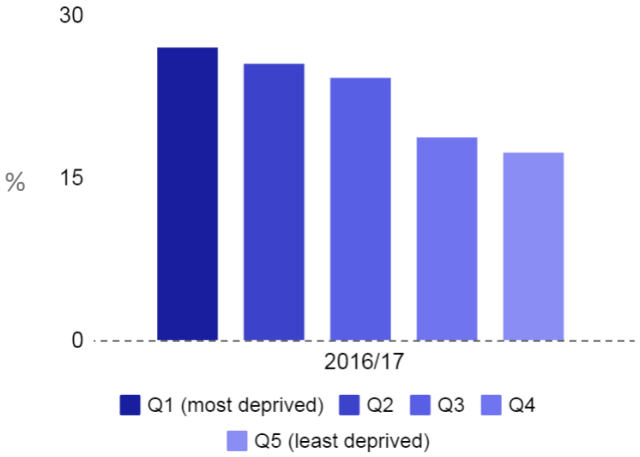
In 2016/17, a significantly higher proportion of females (25.7%) had low self-efficacy compared to males (19.1%).

Age



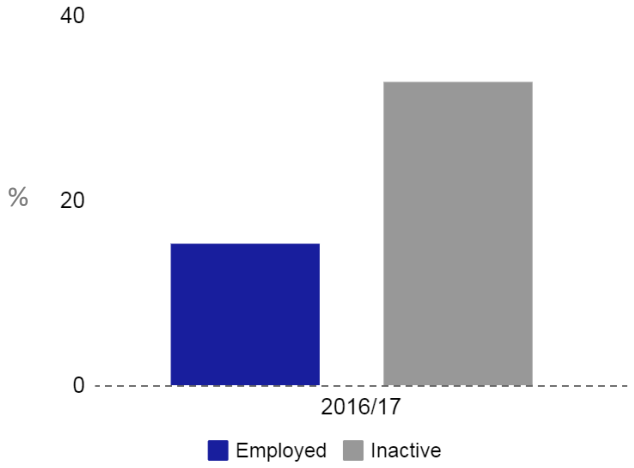
In 2016/17 those aged 65 and over exhibited low self-efficacy in approximately a quarter of cases (26.4%); the highest proportion across all age groups. This was significantly higher than the 25-34, 35-44 and 45-54 year old age groups (16.3%, 21.6% and 22.4% respectively).

Deprivation



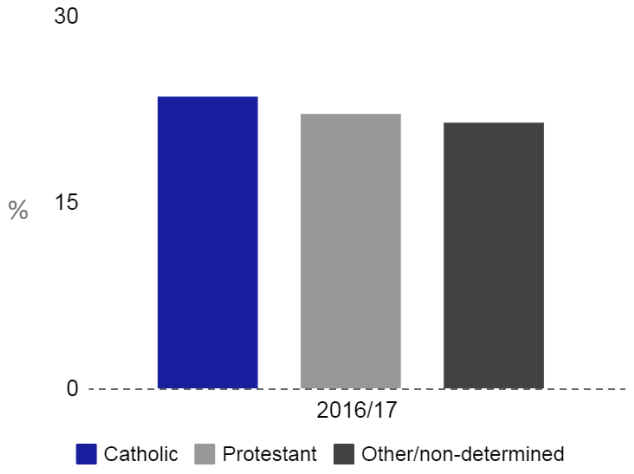
In 2016/17 a significantly higher proportion of people living in the most deprived areas (Q1) exhibited low self-efficacy compared to those in the least deprived areas (Q5); 27.0% and 17.3% respectively.

Employment



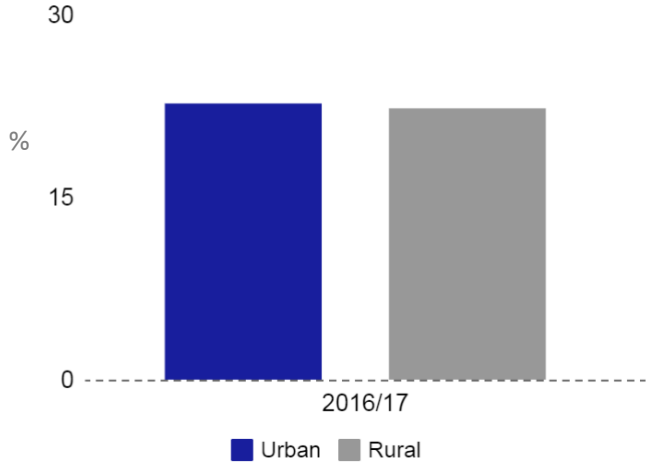
In 2016/17, approximately one third of individuals who were economically inactive had low self-efficacy (32.8%). This was significantly higher than the corresponding figure for individuals who were employed (15.3%).

Religion



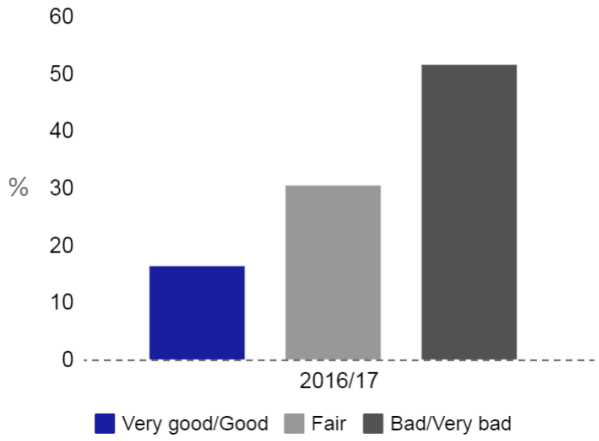
The proportion of individuals classified as having low self-efficacy was similar for Catholics, Protestants and those classified as Other/Non-determined in 2016/17, with no significant differences found.

Urban/Rural



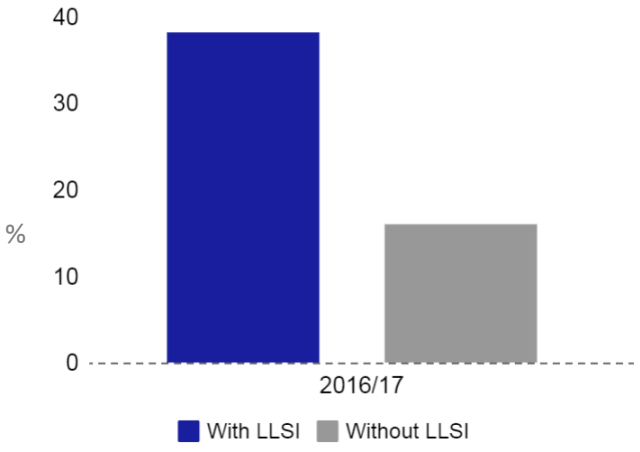
In 2016/17 the proportion of individuals classified as having low self-efficacy from both urban and rural areas were similar, with no significant differences between the two.

Health



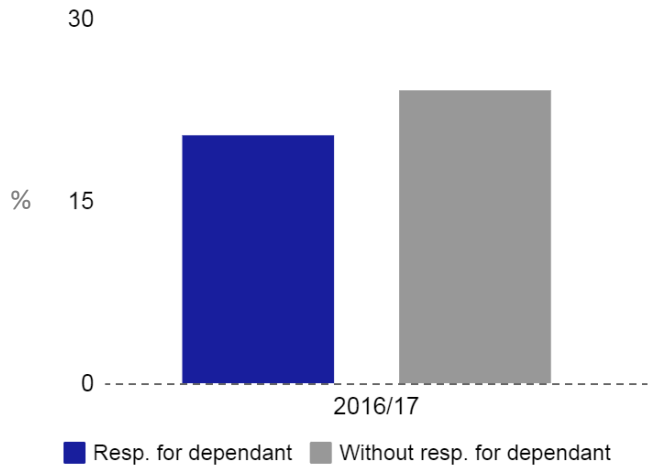
Over half of people with bad/very bad health had low self-efficacy in 2016/17 (51.5%). This was significantly higher than individuals with very good/good (16.3%) or fair health (30.4%).

Limiting long standing illness (LLSI)



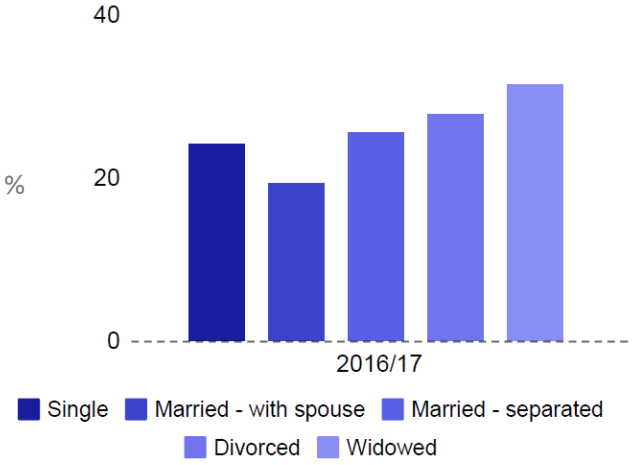
In 2016/17, 38.2% of people living with a LLSI had low self-efficacy; a significantly higher proportion than those **not** living with a LLSI (16.0%).

Dependants



In 2016/17, 24.1% of individuals **without** responsibility for a dependant had low self-efficacy; this was significantly higher than those who **were** responsible for a dependant (20.4%).

Marital Status



In 2016/17, 31.4% of individuals who were widowed exhibited low self-efficacy; the highest proportion across all marital groups. This was significantly higher than single people (24.1%) and those who were married and living with their spouse (19.3%).

Chapter 3 – Locus of Control

Rotter[10] outlines locus of control as a personality construct which explains the degree to which a person feels they have control over events that shape their lives. Those with internal locus of control harbour the general belief that they have influence over the events which shape their lives; they are more likely to see success as a reflection of their efforts. In contrast people with a more external locus of control often attribute outcomes to the result of fate/external influences and therefore outside of their control.

Individuals with a more internal locus of control tend to take responsibility for their lives, tackle problems confidently and persevere and improve on their tasks. On the other hand, individuals with an external locus of control tend to attribute influences in their lives to factors outside of their control, such as other people or fate/destiny for lack of success or challenges to their progression[11].

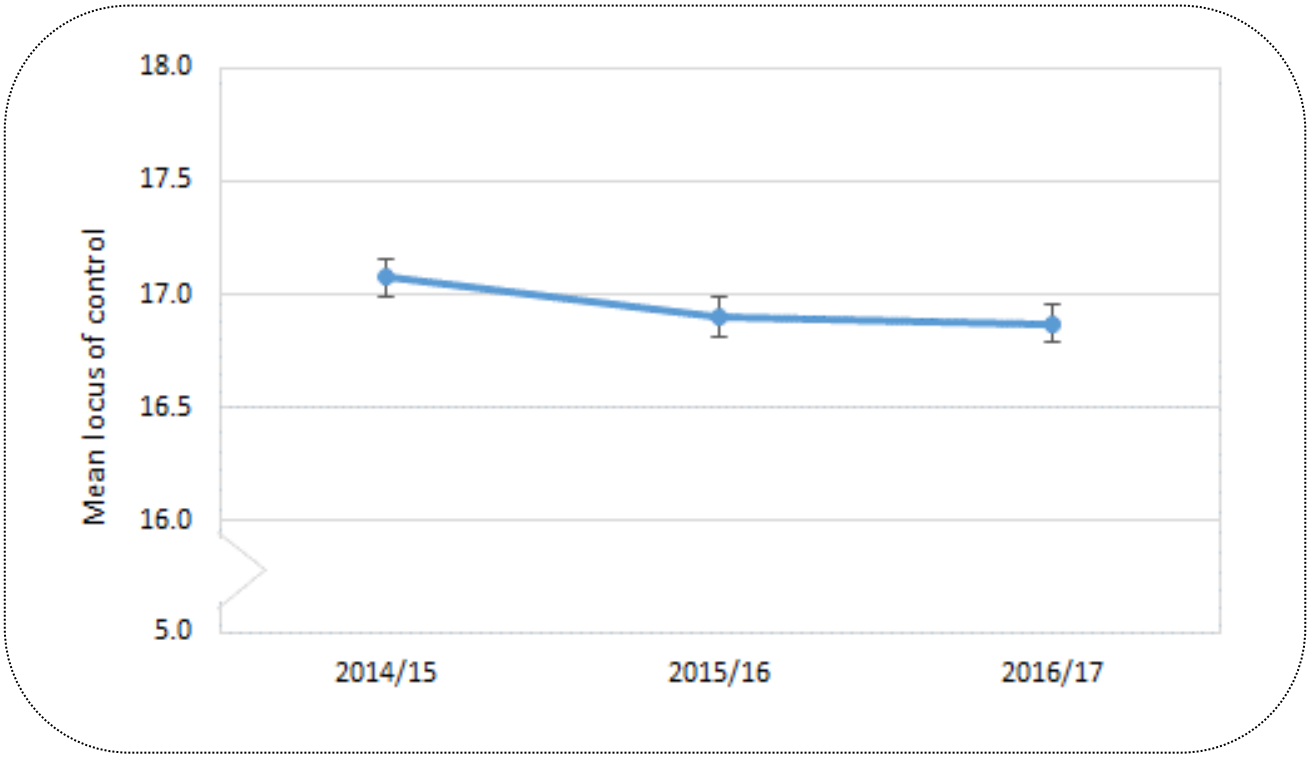
The tool for measuring locus of control is a simple statement based survey tool. It takes the form of five simple statements to which the individual indicates to what extent they agree or disagree on a five point Likert scale[12]. Locus of control is then presented as an overall score, minimum 5 and maximum 25. It is important to distinguish the differences between the self-efficacy scale and the locus of control scale; although both are measured on a scale of 5 to 25, the locus of control scale is not a measurement of higher and lower, rather it is seen as a continuum from external to internal.

[10] Rotter, J. B. (1954). *Social learning and clinical psychology*, Englewood Cliffs, NJ: Prentice Hall.
[11] Rotter, J. B. (1990). *Internal versus external control of reinforcement: A case history of a variable*. American psychologist, 45(4), 489.
[12] See technical annex for details on the five statements which are used to measure locus of control.

3.1 Mean locus of control scores for Northern Ireland, 2014/15 to 2016/17 (See tables A3.1 – A3.12)

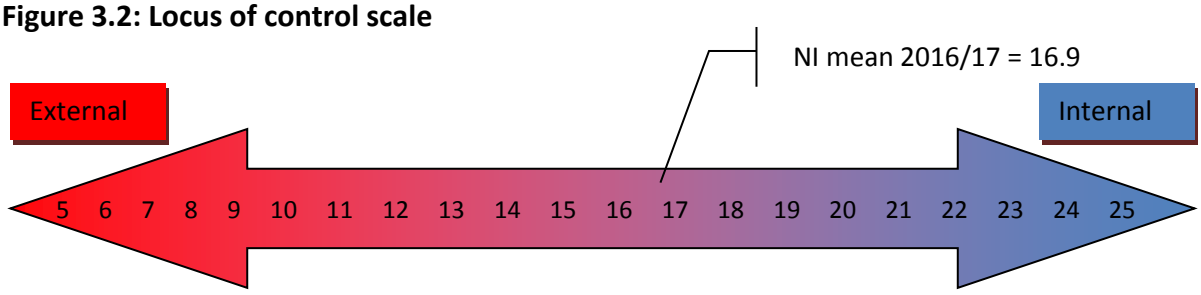
Mean locus of control scores in Northern Ireland are generally anchored towards the 'internal' end of the scale. The mean score in general population was 17.1 in 2014/15 and 16.9 in 2016/17. This decrease was found to be statistically significant, providing some evidence of a shift in our population to a more external locus of control.

Figure 3.1: Mean locus of control scores for the NI population



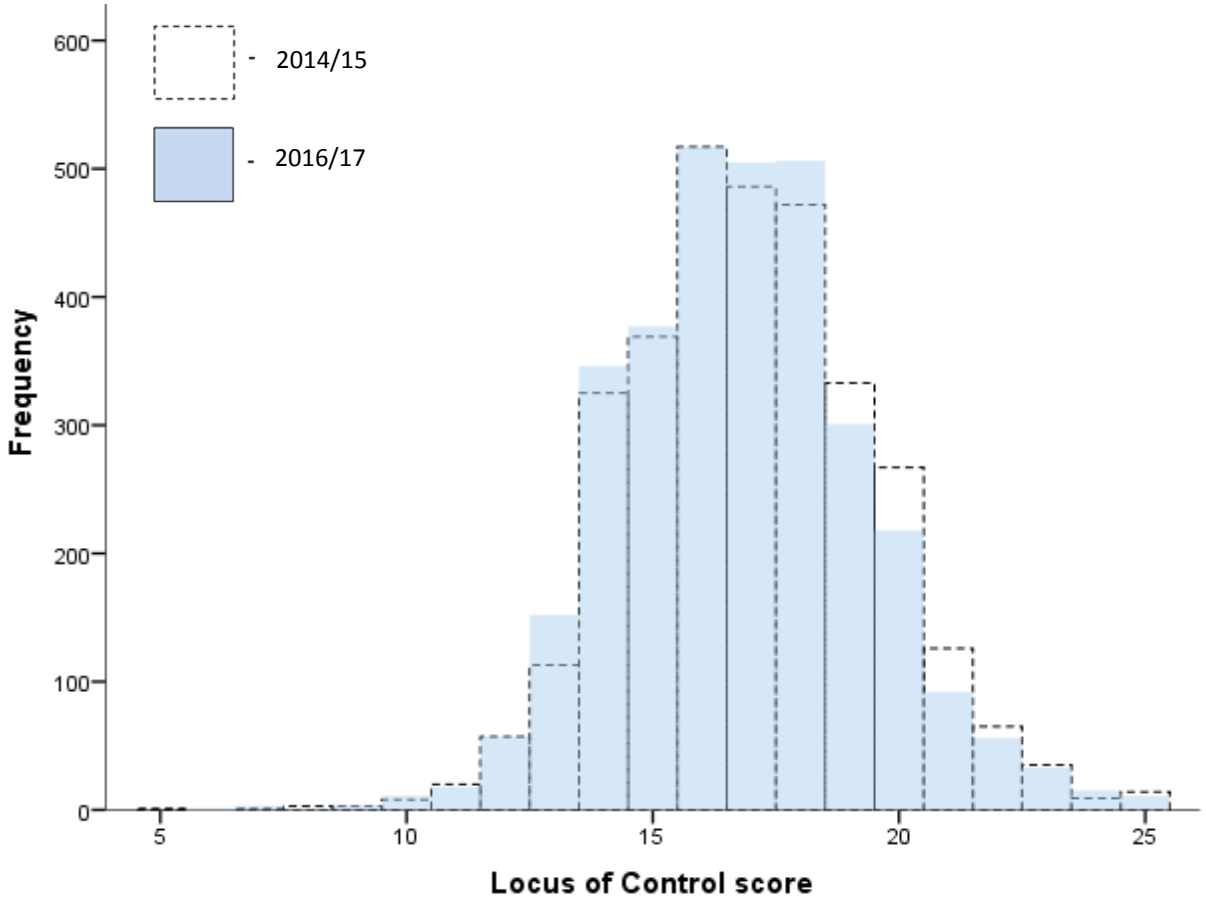
Note: Figure 3.1 includes the (unrounded) 95% confidence intervals for each estimate. These confidence intervals represent the ranges either side of the CHS proportions which are 95% certain to include the true values for the population. For example we can be 95% certain that the true mean locus of control score of the NI population in 2016/17 falls between 16.8 and 17.0 (see Appendix A for more information).

Figure 3.2: Locus of control scale



3.2 Distribution of locus of control scores 2014/15 and 2016/17

Figure 3.3: Distribution of locus of control scores (2014/15 and 2016/17)



A slight shift to the left is evident when comparing the 2016/17 distribution of locus of control scores with the 2014/15 distribution, providing some evidence of a shift to a more external locus of control (Figure 3.3).

3.3 Mean locus of control: Differences between various sections of society in NI, 2016/17 (See tables A3.1 – A3.12)

Gender

Males on average scored significantly higher than females on the locus of control scale in 2016/17, exhibiting a more internal locus of control.

Age

The younger age groups (16-24 and 25-34) exhibited the highest mean locus of control in 2016/17; their mean scores were significantly higher (more internal) than the oldest age group (65+).

Deprivation

Individuals living in the least deprived areas (Q5) exhibited the highest mean locus of control scores in 2016/17; their mean scores were significantly higher (more internal) than those living in the most deprived areas (Q1).

Employment

In 2016/17, the mean locus of control scores for individuals in employment were significantly higher (more internal) than the mean locus of control scores for individuals who were economically inactive.

Religion

Individuals classified as Other/Non-determined exhibited significantly higher mean (more internal) locus of control than both Catholics and Protestants in 2016/17.

Urban/Rural

Individuals living in urban areas had a significantly higher (more internal) mean locus of control score than those from rural areas in 2016/17.

Health

In 2016/17, individuals who reported having very good/good health had a significantly higher (more internal) mean locus of control score than those who reported having fair or bad/very bad health.

Limiting long standing illness

In 2016/17, individuals who were **not** living with a limiting long standing illness had significantly higher (more internal) mean locus of control scores than those living **with** a long standing illness.

Dependants

There were no significant differences in the mean locus of control scores for those who had responsibility for a dependant and those who **did not** in 2016/17.

Marital Status

There were no significant differences in the mean locus of control scores between any of the different marital groups in 2016/17.

Chapter 4 – Life satisfaction

Life satisfaction relates to an individual's satisfaction with their life overall. Continuous Household Survey (CHS) respondents were asked: *"Overall, how satisfied are you with life nowadays?"* and asked to give their response on a scale of 0 to 10, where 0 is 'not at all' and 10 is 'completely'.

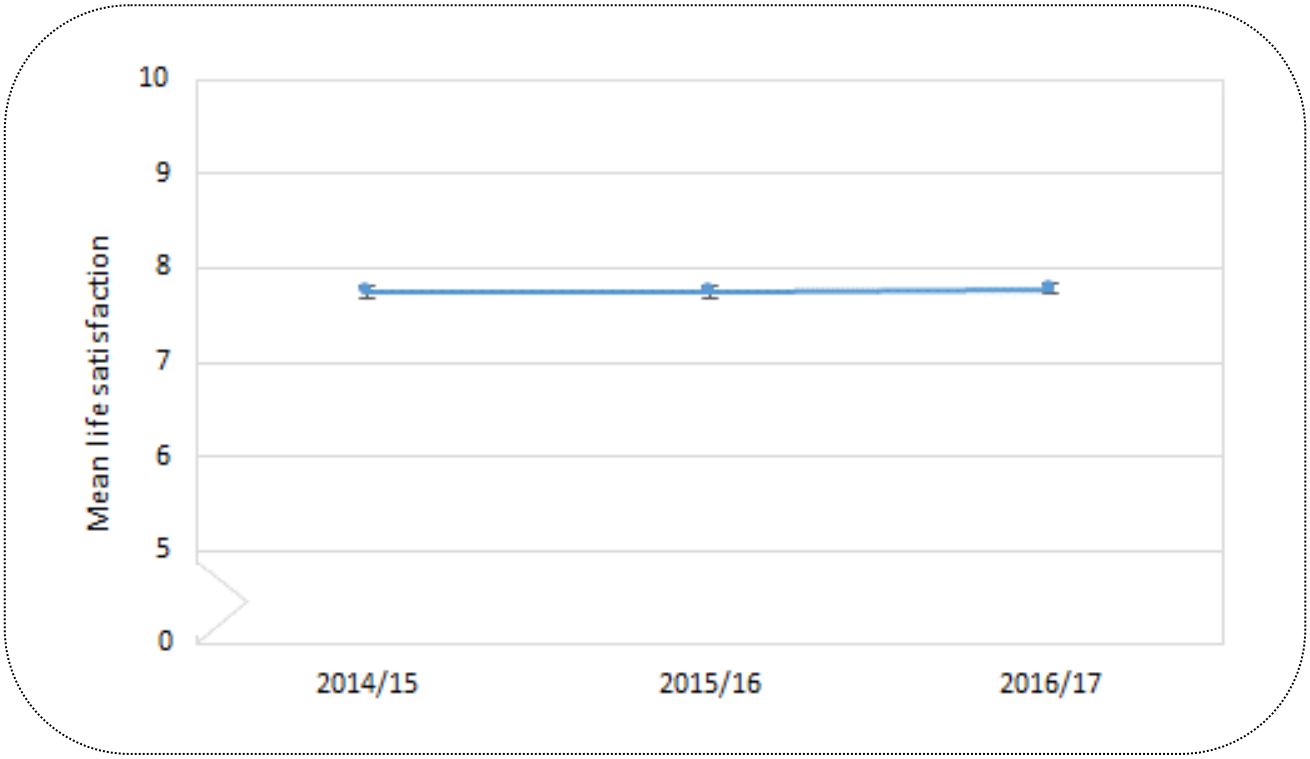
Life satisfaction, is one of four measures currently being used by the Office for National Statistics (ONS) to explore and measure national wellbeing[13].

[13] https://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/measuringnationalwellbeing/localauthorityupdate2015to2016.

4.1 Mean life satisfaction scores for Northern Ireland, 2014/15 to 2016/17 (See tables A4.1 – A4.12)

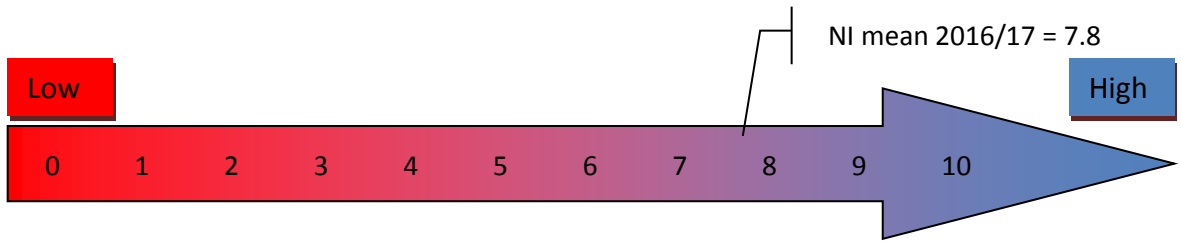
Mean life satisfaction scores for Northern Ireland have remained the same across all three years of data, at 7.8 out of a possible 10. The Northern Ireland population is generally anchored towards the upper end of the life satisfaction scale, with a high average. This is consistent with findings from ONS' Annual Population Survey[14].

Figure 4.1: Mean life satisfaction scores for the NI population



Note: Figure 4.1 includes the (unrounded) 95% confidence intervals for each estimate. These confidence intervals represent the ranges either side of the CHS proportions which are 95% certain to include the true values for the population. For example, we can be 95% certain that the true mean life satisfaction score of the NI population in 2016/17 falls between 7.7 and 7.9 (see Appendix A for more information).

Figure 4.2: Life Satisfaction scale



[14] See: ONS, Personal well-being in the UK: local authority update, 2015 to 2016, http://www.ons.gov.uk/peoplepopulationandcommunity/wellbeing/bulletins/measuringnationalwellbeing/localauthorityupdate2015to2016#main-points.

4.2 Distribution of life satisfaction scores, 2014/15 and 2016/17

Figure 4.3: Distribution of NI life satisfaction scores (2014/15 and 2016/17)

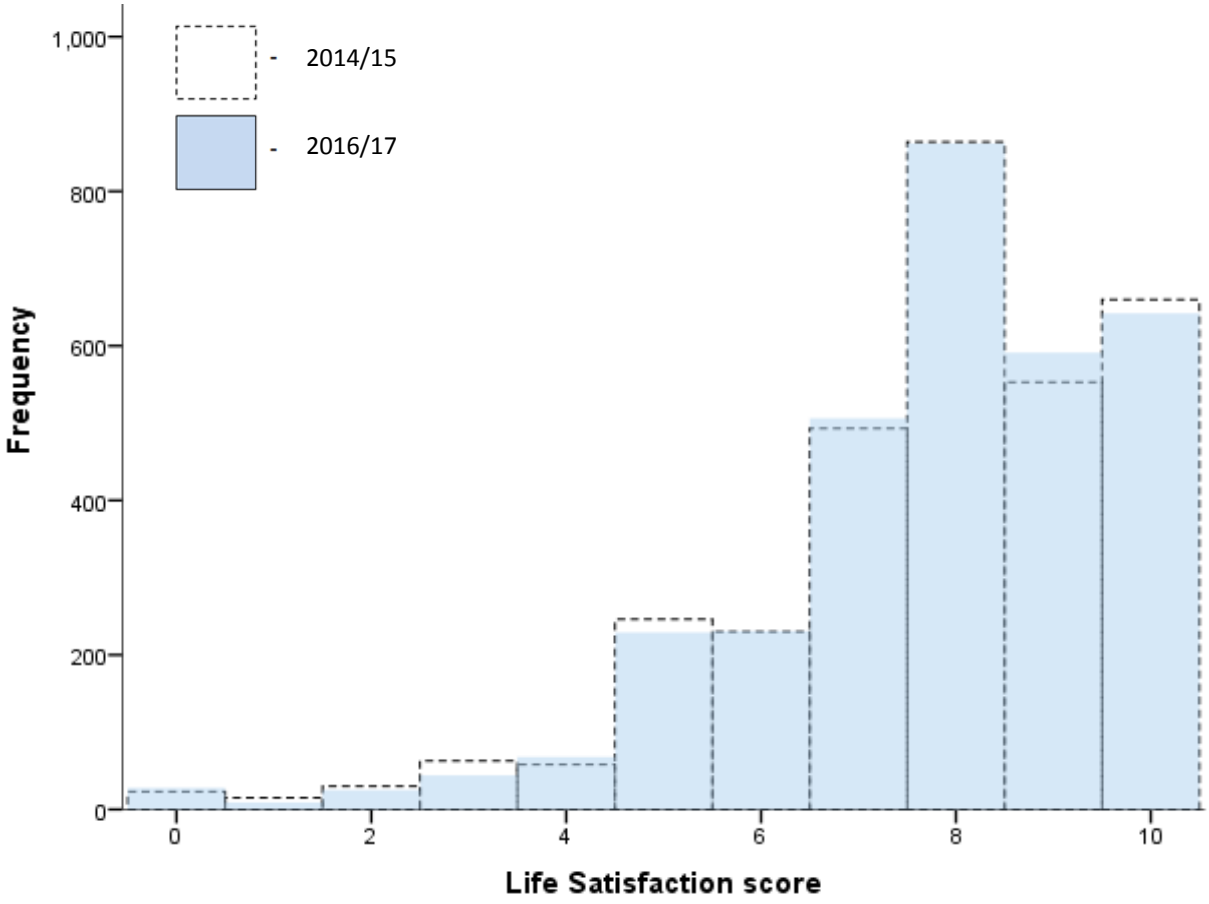
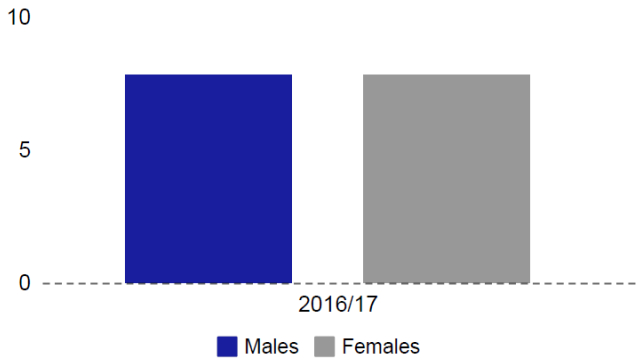


Figure 4.3 compares the distribution of life satisfaction scores for CHS respondents from 2014/15, the first year the scale items were included in the CHS, to 2016/17. The distributions across both years are similar, with no obvious shift evident.

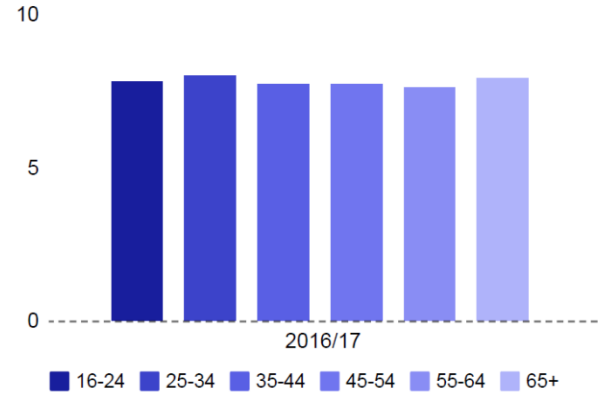
4.3 Mean life satisfaction: Differences between various sections of society in NI, 2016/17 (See tables A4.1 – A4.12)

Gender



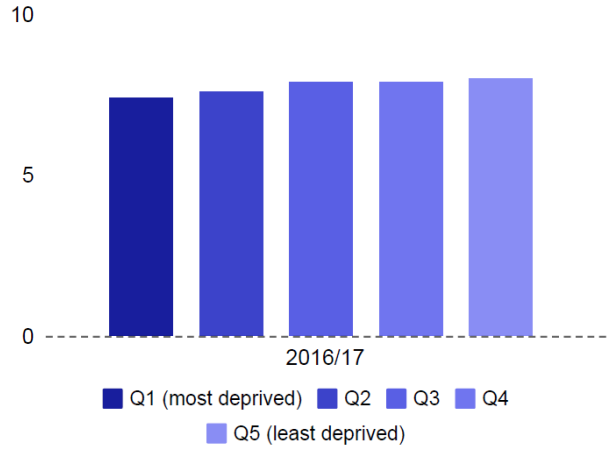
In 2016/17, mean life satisfaction for males and females were similar with no significant difference between the two.

Age



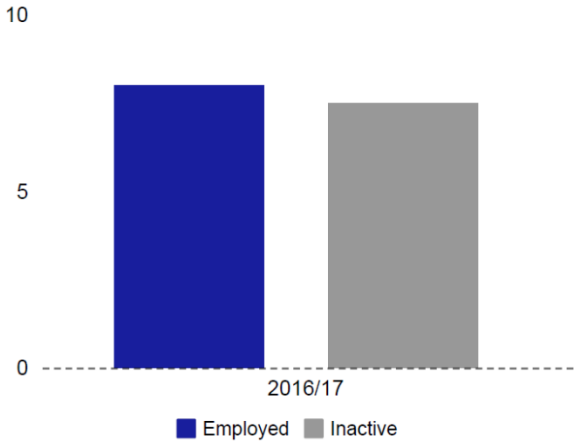
In 2016/17, mean life satisfaction was highest among 25 to 34 year olds. This mean score was significantly higher than the corresponding scores for the 35-44, 45-54 and 55-64 age groups.

Deprivation



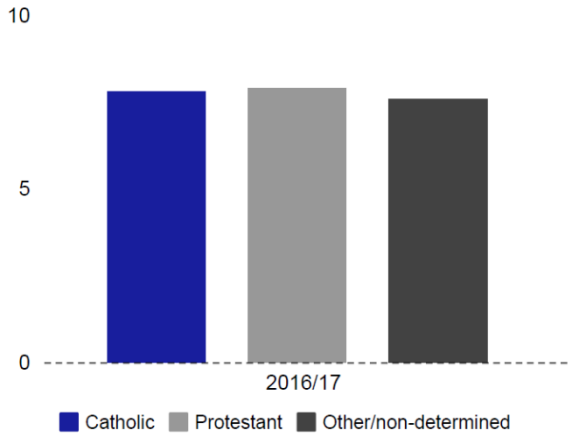
People from the most deprived areas (Q1) had the lowest mean life satisfaction scores; significantly lower than people from Q3, Q4 and the least deprived areas (Q5), in 2016/17.

Employment



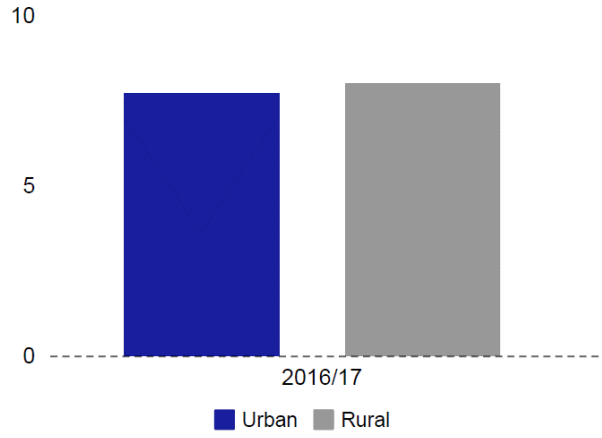
In 2016/17, individuals who were in employment had a significantly higher mean life satisfaction score than those who were economically inactive.

Religion



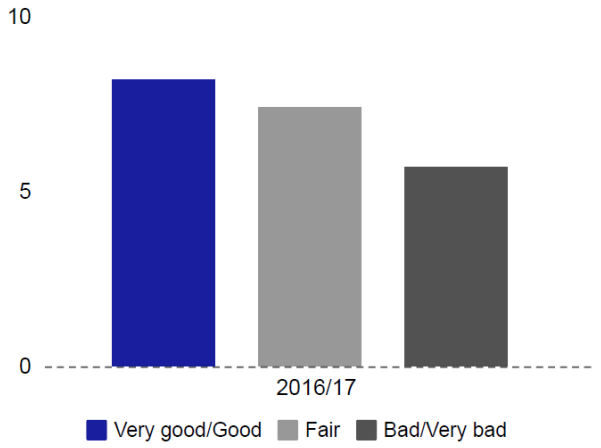
The mean life satisfaction scores for all three religious groups, Catholics, Protestants and Other/Non-determined, were similar in 2016/17, with no significant differences between them.

Urban/Rural



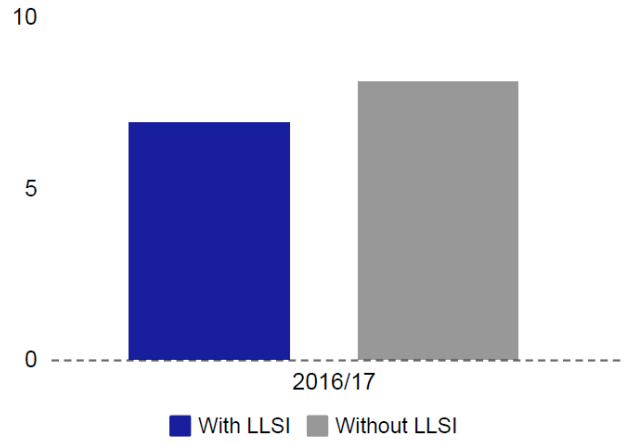
People living in rural areas had a significantly higher mean life satisfaction score than those who lived in urban areas in 2016/17.

Health



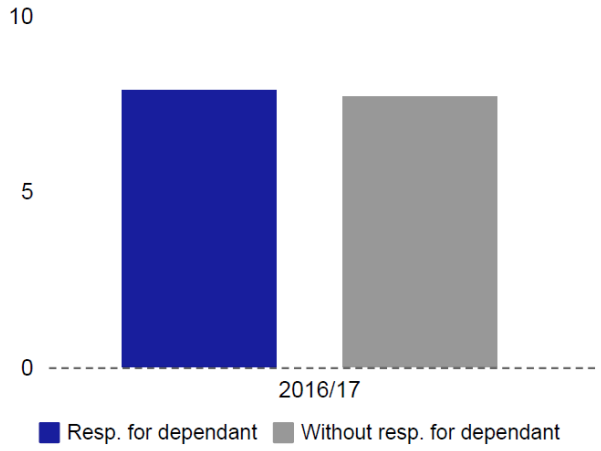
The highest mean life satisfaction scores were exhibited by individuals who reported having very good/good health. Their mean life satisfaction scores were significantly higher than people with fair or bad/very bad health in 2016/17.

Limiting long standing illness (LLSI)

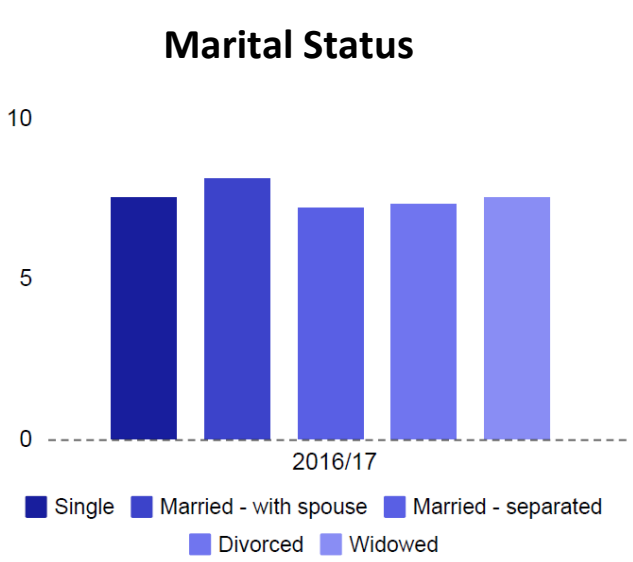


In 2016/17, individuals **without** a LLSI exhibited a significantly higher mean life satisfaction score than those who **were** living with a LLSI.

Dependants



Individuals who had responsibility for a dependant exhibited a significantly higher mean life satisfaction than those who **did not** in 2016/17.



In 2016/17, those who were married and living with their spouse had the highest mean life satisfaction scores. Their mean scores were significantly higher than all other marital groups.

Appendix A – Technical Notes

Continuous Household Survey

This report presents findings from the 2016/17 Continuous Household Survey (CHS) on the perceived general self-efficacy, locus of control and life satisfaction of the Northern Ireland population. The CHS is carried out by the Central Survey Unit (CSU) within the Northern Ireland Statistics and Research Agency (NISRA); the CHS has been in existence since 1983 and is designed to provide a regular source of information on a wide range of social and economic issues relevant to Northern Ireland.

Each year CSU sets the content of the questionnaire in consultation with client departments. The questionnaire consists of both a household interview and an individual interview with each person aged 16 and over. Both the household and individual questionnaires consist of core items that are included each year and modules that recur on a regular cycle. Core items include household and individual demographics, accommodation, tenure, migration, internet access, environmental issues, domestic tourism, participation in sports, arts and leisure, employment status, employment activity, educational qualifications, health and Section 75 classifications.

Instruments for measuring self-efficacy, locus of control and life satisfaction

The instruments for measuring self-efficacy and locus of control are each a simple statement based survey tool. They each take the form of five simple statements to which the individual indicates to what extent they agree or disagree on a five point Likert scale. Self-efficacy and locus of control are each presented as an overall score, minimum 5 and maximum 25, taken from the summated total of the five statement questions.

Self-efficacy statement questions:

1. I can always manage to solve difficult problems if I try hard enough.
2. I am confident that I could deal efficiently with unexpected events.
3. I can remain calm when facing difficulties because I can rely on my coping abilities.
4. When I am confronted with a problem, I can usually find several solutions.
5. No matter what comes my way, I'm usually able to handle it.

Locus of control statement questions[15]:

1. I am in control of my life.
2. If I take the right steps, I can avoid problems.
3. Most things that affect my life happen by accident.
4. If it's meant to be, I will be successful.

[15] Locus of control statement questions 3, 4 and 5 were reversed and recoded prior to analysis.

5. I can only do what people in my life want me to do.

Life satisfaction is presented as a single statement question, 'Overall, how satisfied are you with your life nowadays?' to which the individual responds on an 11 point Likert scale (0-10). Life satisfaction is scored out of 0-10, with 10 being the highest achievable score.

Life satisfaction statement question:

1. Overall, how satisfied are you with your life nowadays?

Sample

The CHS is based on a systematic random sample of 4,500 addresses drawn each year from the Pointer list of domestic addresses. Pointer is the address database for Northern Ireland and is maintained by Land & Property Services, with input from Local Councils and Royal Mail. This is now the common standard address for every property in Northern Ireland. The Pointer addresses are sorted by district council and ward, so the sample is effectively stratified geographically. Data are collected by personal interview using Computer Assisted Personal Interviews, and the interviews are spread equally over the 12 months from April to March.

Weighting

As the CHS is based on a sample of the general population in private households the results are subject to sampling error i.e. the actual proportion of the population in private households with a particular characteristic may differ from the proportion within the CHS sample. As a result data has been weighted to make considerations for the sampling error, the three weights produced accounted for age, sex and general analysis. The adjustment made to any data may be less than or greater than 1, but will generally be reasonably close to 1. While weighting for non-response should reduce bias it must be acknowledged that it will not completely eliminate bias. **All reported means /proportions have been weighted**.

Sample error

Because the CHS is a sample survey there is a certain level of sampling error in the reported figures. The data tables include the 95% confidence intervals for each estimate. These confidence intervals represent the ranges either side of the CHS proportions which are 95% certain to include the true values for the population. For example we estimate that the self-efficacy population mean score is 19.2, we can be 95% certain that the true NI population mean for 2016/17 falls between 19.0 and 19.3. Confidence intervals for the demographics gender, age, deprivation employment status, Religion, SOA urban/rural, health, long-standing illness, dependants and marital status have been calculated using **un-weighted** data.

Response Rate

The target response rate on CHS is 68% or approximately 2,700 participating households. Within each participating household, every member of the household aged 16 and over is invited to carry out an individual interview. Some interviews are carried out by proxy method for those persons who do not wish to take part in the individual interview. In 2016/17, 2,532 households participated in the survey and 3,262 individuals aged 16 and over completed an individual interview, the overall response rate was 63%.

Publication Threshold

It is the nature of sampling variability that the smaller the group whose size is being estimated, the (proportionately) less precise that estimate is. Estimates for groups where the sample is less than 100 have been omitted from the report, as they are likely to be unreliable. These instances have been denoted with an asterisk (*) in the tables.

Statistical Significance

Statistically significant differences between years or groups (at the 95% level) have been highlighted throughout the report. This means that we can be 95% confident that the differences between groups are actual differences and have not just arisen by chance. The base numbers, mean scores and percentages have an effect on statistical significance. Therefore on occasion, a difference between two groups may be statistically significant while the same difference in mean score or percentage points between two other groups may not be statistically significant. The reason for this is because the larger the base numbers or the closer the percentages are to 0 or 100, the smaller the standard errors. This leads to increased precision of the estimates which increases the likelihood that the difference between the proportions is actually significant and did not just arise by chance.

Definitions

Low/high Self-efficacy: Each of the five statement questions on self-efficacy were answered in response on a five point Likert scale (strongly agree = 5, agree = 4, neither agree nor disagree = 3, disagree = 2 and strongly disagree = 1). Individual responses were summated into a total scored out of 25, with 5 being the lowest and 25 the highest. High self-efficacy scores were calculated by determining a score of 70% of the total possible (25) and over as being high self-efficacy (18-25); low self-efficacy was therefore anything under 70% (5-17)[16].

[16]For more information on determining high and low scores in Likert-type survey instruments, please see: Child, D. (1973) *The Essentials of Factor analysis.* In T. Hick & M. McFrazier (Ed.), *College Student Self-efficacy Studies*. New York: University Press of America.

Deprivation

Deprivation figures presented in this report are based on the Northern Ireland Multiple Deprivation Measure 2010, which is a measure of deprivation at the small area level. The model of multiple deprivation is based on the idea of distinct domains of deprivation which can be recognised and measured separately. People may be counted as deprived in one or more of the domains, depending on the number of types of deprivation they experience. Quintiles of deprivation categorise an area of deprivation; Quintile 1 (Q1) represents the 20% most deprived areas, and Quintile 5 (Q5) represents the 20% least deprived.

Employment Status

The following definitions for employment status are used for the data presented in this report:

Employed: Comprises all individuals aged 16 or over who are in paid employment (both employees and self employed), those on government training or work schemes, those who had a formal attachment to their job but were temporarily not at work during the reference period, performed some work for profit or family gain in cash or kind, were with an enterprise such as a business, farm or service but who were temporarily not at work during the reference period for any reason.

Unemployed: The unemployed compromise all persons above 16 who are without work, that is, not in paid employment or self employment, currently available for both paid employment or self-employment and seeking work with specific steps taken to seek either employment or self employment. Please note: throughout the report sample sizes are too small to provide an analysis of this category.

Inactive: The economically inactive population comprises all persons aged 16 and over who are neither employed nor unemployed.

Religion

Interviewers for the CHS collected information on the religion of residents aged 16 and over in each household, the religious categories represented within the questionnaire were as follows:

Catholic
Presbyterian
Church of Ireland
Methodist
Baptist
Free Presbyterian
Brethren
Protestant – not specified
Christian – not specified
Buddhist
Hindu
Jewish
Muslim
Sikh
Any other religion
No religion

For the purposes of this report, the aforementioned religious groups were coded into three distinct categories, as follows:

1. Catholic
2. Protestant – to include Presbyterian, Church of Ireland, Methodist, Baptist, Free Presbyterian, Brethren, Protestant – not specified and Christian – not specified.
3. Other/Non-determined – to include Non Catholic/Protestant religions, respondents that did not specify a religion, and for those for whom religion could not be determined.

Urban/Rural

Data presented in this report have also been analysed by whether respondents are living in SOAs that have either been categorised as urban or rural. The definitions for an urban/rural SOA are outlined in the 'Technical Guidance on production of official statistics for Settlements and Urban-Rural Classification' (May 2016)[17]. This report classified each settlement in Northern Ireland into one of eight bands (A-H), bands A-E (i.e. those with a population of greater than or equal to 5,000) can be defined as urban and bands F-H (i.e. those with a population of less than 5,000) as rural.

Health

The CHS outlines 5 distinct health categories by which respondents classify their health status; these are 1) Very Good, 2) Good, 3) Fair, 4) Bad and 5) Very Bad. For the purposes of this report, both very good/good and bad/very bad has been combined to create three health groups under which respondents are classified: 1) Very good/good; 2) Fair; and 3) Bad/very bad.

Limiting long standing illness

Respondents are defined as having a limiting long standing illness if they have any physical or mental health conditions or illnesses lasting or expecting to last for 12 months or more, and these condition(s) or illness(es) reduce their ability to carry out day to day activities.

Dependants

An individual is defined as having dependants if they have responsibility for the care of: a child(ren); a person with a disability; and/or a dependant elderly person.

[17] http://www.nisra.gov.uk/archive/geography/settlement15-guidance.pdf

Quality Improvement Fund research

This report has been informed by research conducted by Queens University, Belfast which was supported and contributed to by the ONS Methodological Advisory service funded through the Quality Improvement Fund (QIF)[18]. The research was titled '*Investigating Locus of Control, Self-efficacy and Wellbeing – The relationship between all items across 3 instruments for a single item scale*'.

This report examined the key constructs of Locus of Control and Self-efficacy and how they relate to individual Wellbeing, through analysis of data from the Belfast City Council Resident Survey and the Continuous Household Survey. Previous research suggested that both internal locus of control and self-efficacy are important constructs which predict higher wellbeing and life satisfaction among individuals and the Queen's research supported this.

The aim of this research was to assess if all three constructs were linked and whether they were significant predicators of one another and assess the feasibility of developing one overall scale of measurement which encompassed the three metrics together. Despite finding that higher wellbeing is partially mediated by self-efficacy and internal locus of control, it was concluded that the three metrics could not be measured on the same scale and must be treated as the three separate constructs they are.

The research conducted by Queens University has also influenced the use of a 5 item scale to measure self-efficacy rather than an alternative number of items. For self-efficacy, an exploratory factor analysis revealed that on the 5 item scale all items loaded highly and consistently onto a single underlying latent factor. For example, the self-efficacy scale when utilising the data from the CHS and Belfast City Council recorded loadings of .66-.81 and .81-.86 respectively, on a scale of 0 to 1 with higher being stronger. The exploratory factor analysis suggests that the self-efficacy scale functioned as a coherent and strong scale with the five items, this is further reflected in the good internal consistency, highlighted by the scales high Cronbach's alpha score (.854 in 2014/15 and .860 in 2015/16).

[18] This research was funded by the Quality Improvement Fund (QIF). The QIF was provided by the UK Statistics Authority each year to the Government Statistical Service to support improvements in quality and trust in official statistics.