ELSA Pension Wealth Derived Variables (Waves 2 to 5): User Guide

Rowena Crawford*
Institute for Fiscal Studies
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1. Introduction

This document describes the derived pension wealth variables that are available for ELSA Wave 2 to Wave 5, and how to use these variables.[1] The derived pension wealth variables are available in datasets called *Wave_X_Pension_Wealth*, where X refers to the wave of data (i.e. 2 to 5). A companion document *Pension Wealth Derived Variables: Methodology* describes in detail how these variables were derived.

Unlike most other measures of wealth in the ELSA dataset, pension wealth is available at the individual level. Pension wealth estimates are included for all individuals in ELSA, both core and non-core sample members and non-sample members. Two aggregate measures of pension wealth are available. First there is wealth from private pension schemes. Second there is wealth from state pension schemes (from the Basic State Pension (BSP), and the additional pension (the State Earnings Related Pension Scheme (SERPS) or the State Second Pension (S2P)). The sum of these two sources of pension wealth gives total pension wealth.

The pension wealth derived variables give the discounted present value of the stream of income that an individual will receive from their pensions between starting to draw these pensions and death. For individuals aged below the State Pension Age (SPA) this is calculated under two alternative assumptions: first, that individuals leave work, and cease accruing any further rights to their pensions, in the year they are interviewed. Second, that individuals continue to work and accrue pension wealth until they reach the SPA. These alternative assumptions can be thought of as representing the two extremes. The former is the value of pension wealth currently accrued by the individual to date. The second can be thought of as the maximum value of pension wealth that an individual could be entitled to given their circumstances, assuming they do not work beyond the SPA. Individuals aged over the SPA

[1] A similar set of aggregate derived pension wealth variables is available for ELSA wave 1. These are available in the *Wave_1_Pension_Wealth* dataset and are described in the *5050_Wave_1_User_Guides_and_Documentation*. These are available from the Economic and Social Data Service (ESDS) at
http://www.esds.ac.uk/findingData/snDescription.asp?sn=5050

are assumed to start to draw any remaining pension entitlement that is not already in receipt in the year in which they are interviewed.

2. The derived variables

The variables provided in the dataset, and the relationship between them, are described in Figure 1.

There are two sets of 11 pension wealth variables:
- Variables ending in _XX refer to pension wealth in 20XX under the assumption that individuals below SPA cease to accrue pension entitlements beyond 20XX (the date of interview).
- Variables ending in _SPA refer to pension wealth in 20XX under the assumption that individuals below SPA continue to accrue pension entitlement until they reach the SPA.

3. How to use the derived variables

All pension wealth variables are expressed in 20XX (the date of the interview) discounted present value terms, using a 2.5% annual real discount rate. The variables are derived at the individual level. The pension wealth measures give the present discounted value of the pension income the individual will receive during his lifetime, plus, in the case of private pension wealth and state additional pension wealth[2], the discounted present value of the income the individual's spouse will receive after the individual dies (i.e. the discounted present value of the survivor benefits).

3.1. Retirement 'now' or at the SPA?

The amount of pension wealth that an individual will have when he/she retires depends in part on when he/she chooses to retire. Since we do not know when an individual will retire, estimates for individuals aged under the SPA are provided under two alternative assumptions:

- that individuals cease to accrue any further pension entitlements after they are interviewed, and that they start to draw income from their current pensions at the minimum pension age and from their retained pensions at the SPA
- that individuals work and accrue entitlements until the SPA, and that they start to draw income from their current and retained pensions at the SPA

In both cases pension wealth is measured as the sum of all pension income streams between 20XX and death, though some income streams will start later under the 'retire at SPA' scenario.

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[2] Any additional BSP income that an individual's spouse becomes entitled to after his death (on the basis of his entitlement) is counted in the pension wealth of the spouse rather than in the pension wealth of the original individual.

For individuals aged over the SPA, the same two variables are available, but both reflect pension wealth assuming the individual starts to draw in 20XX any remaining pension entitlement that is not already in receipt immediately. Pension wealth will therefore be the same in both cases.

Since immediate retirement is a rather extreme assumption for employed individuals and continuous work until the SPA is rather extreme for currently economically inactive individuals, an alternative that some users may wish to consider is to create a composite pension wealth measure from the two alternatives available. Taking the two groups separately (those who were employed and those who were inactive in 20XX), users could assume employed individuals remain in employment until the SPA, whereas inactive individuals never return to work. Thus TOTPENW_XX and TOTPENW_SPA (and similarly for the other variables) could be combined to produce a measure of pension wealth with perhaps more realistic underlying assumptions about future employment.

3.2. Individuals aged over the SPA

In the case of individuals who are already aged over the SPA, an alternative estimate of their state pension wealth could be found using the income they actually receive from state pensions, as reported in the Income and Assets module of ELSA, rather than the estimated state pension wealth figures described here. This will not, of course, be the case for individuals who have deferred their state pensions (i.e. people over the SPA who do not currently receive any state pension income but who will in future receive higher state pension income as a result).

4. Imputed variables

The derivation of pension wealth is more complicated than for other forms of wealth. ELSA respondents are asked a number of questions from which an estimate of pension wealth can be derived, where the number of questions asked depends on the number of pensions the individual reports and the type of those pensions. A detailed description of the method of deriving each type of pension wealth is available in the companion document *Pension Wealth Derived Variables: Methodology*.

In some cases individuals do not know or refuse to answer the questions asked. For these cases we impute the answer by randomly selecting an individual with matching characteristics, and assuming that the person with the missing information should have answered the same as that matched individual. This is known as a conditional hotdeck. The imputation is done on a cross-sectional basis – in other words, the imputation procedure uses data from other individuals *within* the ELSA wave, rather than data on the non-responding individual (or other individuals) from *other* ELSA waves.

A number of imputation flags are provided in the dataset to indicate where data have been imputed. A list of these flags is provided in Table 1 below. Please note that this is by no means an exhaustive list of the imputations underlying the pension wealth calculations, and many important parameters in the calculations are (necessarily) assumed for all individuals.

Table 1: Imputation flags provided in the dataset

Variable name	
iflag_earn	Indicates whether an individual's current earnings were imputed (includes all those not currently in work who have earnings imputed)
iflag_DCfund	Indicates whether any element of a current DC fund was imputed
iflag_DCcont	Indicates whether any element of personal or employer contributions to a current DC fund was imputed
iflag_DBsr1	Indicates whether any major information required for computing DB pension entitlement (accrual fraction or pension tenure) was imputed
iflag_DBsr2	Indicates whether any secondary information required for computing DB pension entitlement (lump sum, normal retirement age or indexation rules) was imputed
iflag_rten	Indicates whether pension tenure for any 'always retained' pensions was imputed
iflag_rec	Indicates whether any income from a pension in receipt was imputed

Figure 1: Pension wealth derived variables

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                          ┌────────────────────────┐
                          │  Total pension wealth   │
                          │      TOTPENW_X          │
                          └────────────────────────┘
                      +         /              \        +
        ┌──────────────────────────┐      ┌──────────────────────────┐
        │ Total private pension    │      │ Total state pension      │
        │ wealth   PRIPENW_X       │      │ wealth   STPENW_X        │
        └──────────────────────────┘      └──────────────────────────┘
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Total pension wealth — TOTPENW_X

- Total private pension wealth — PRIPENW_X
  - (Current pensions) +
    - Current DB pensions — CURRENTDC_X
      - + Current DC pensions — CURRENTDB_X
  - (Retained pensions) +
    - Retained DB pensions — RETAINEDDB_X
      - + Retained DC pensions — RETAINEDDC_X
        - + Widows/divorcee pensions — WIDPEN_X
  - (Pensions in receipt) +
    - Pensions in receipt — INRECEIPT_X
- Total state pension wealth — STPENW_X
  - + Basic State Pension — BSP_X
  - + Additional pension (SERPS/S2P) — ADDPEN_X