

Impact of the Labour Force Survey Reweighting: July 2021

Theme: Labour Market

Geographical Area: Northern Ireland

The July 2021 Labour Market Report includes a revision to quarterly estimates derived from the Labour Force Survey data from January 2020 onwards. The following short paper provides an overview of the impact of the reweighting to headline estimates of unemployment, employment, and economic inactivity.

Please note that all statistics included in this paper refer to seasonally adjusted estimates and estimates of change are based on unrounded data. All data are available in Excel and ODS formats, and have been published alongside this paper on the NISRA website on the [LFS background information](#)⁵ page.

Key Points

- The overall impact of the reweighting has been to increase the employment rate, and to decrease the unemployment and economic inactivity rates.
- The unemployment rate has been mostly revised downwards from summer 2020 onwards. Changes range from +0.1pps to -0.2pps.
- The employment rate has been mostly revised upwards, with the largest change occurring in February-April 2021 (+1.2pps) from 69.8% to 71.0%.
- The economic inactivity rate has been mostly revised downwards, with the largest change occurring in February-April 2021 (-1.1pps, from 27.9% to 26.8%).

Background

The Labour Force Survey (LFS) is a household sample survey carried out by interviewing individuals about their personal circumstances and work.

Headline indicators of unemployment, employment, and economic inactivity are derived from survey data in a process where responses are weighted to population totals to provide estimates at both NI and UK levels.

Typically, the Office for National Statistics (ONS) would reweight the LFS every two years to take account of updated population estimates and projections. However, investigations by ONS during 2020 showed the composition of the achieved LFS sample had changed because of the change in survey methods introduced in response to the COVID-19 pandemic. Traditionally, the survey is conducted via a face-to-face household interview with follow-up telephone interviews, but this changed to solely telephone interviews in April 2020.

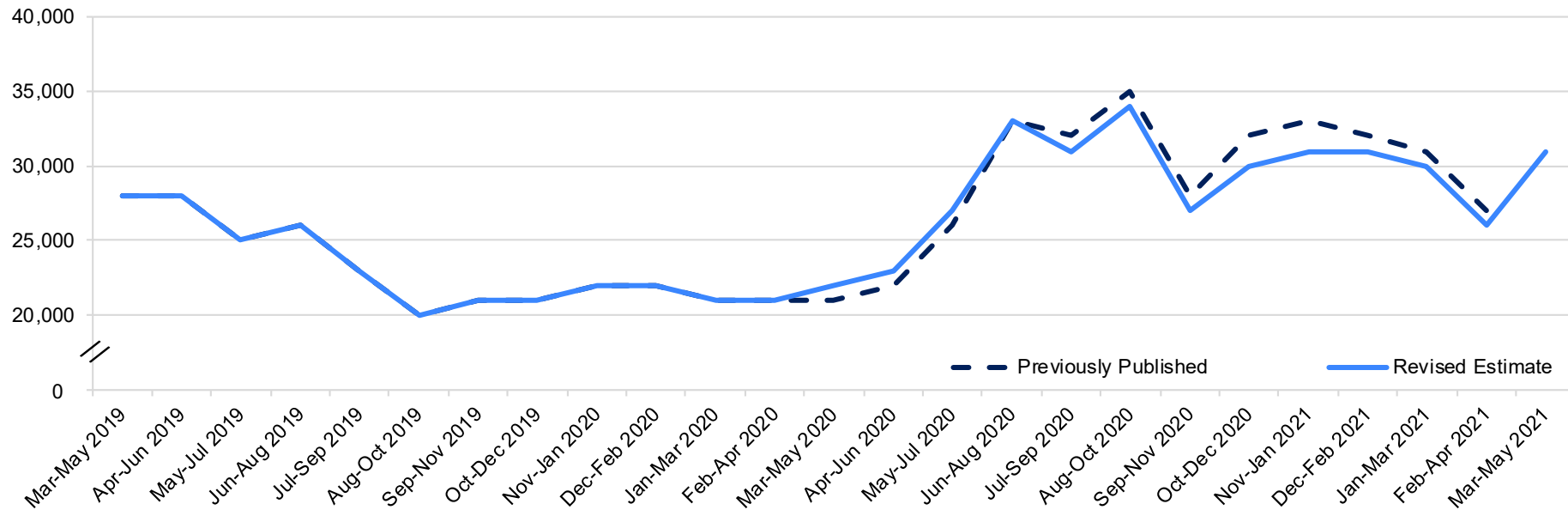
In October 2020 LFS data were reweighted to include additional factors (household tenure) to mitigate the changing sample composition, and estimates were revised from January 2020. More information on the October 2020 reweighting is available on the NISRA website: [LFS Revision Note – October 2020](#).

The ONS has continued to monitor the impact of the pandemic and the most appropriate statistical methods to use. Accordingly, the ONS has again reweighted the LFS quarterly datasets back to January 2020. The reweighting builds on insights from HMRC 'Real Time Information' that show, at a UK level, changes in employment vary by country of birth.

The ONS published a blog on their website ([Meeting the challenges in population estimation](#)) explaining these changes, a more detailed article for more technical readers ([Labour Force Survey weighting methodology](#)) and an article discussing the impact of the revisions for the year 2020 ([Impact of reweighting on Labour Force Survey key indicators, UK - Office for National Statistics \(ons.gov.uk\)](#)).

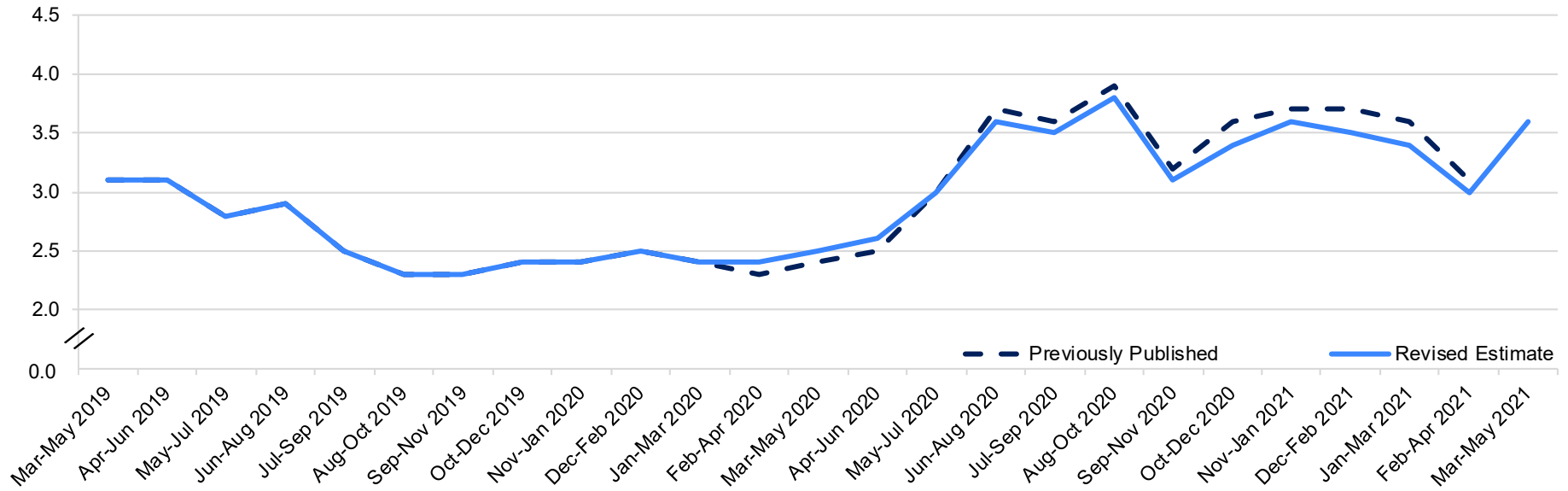
1. Unemployment

Figure 1: NI Unemployment Levels (Age 16+, Seasonally Adjusted), Previously Published and Revised Estimates, Rolling Quarters Mar-May 2019 to Mar-May 2021



The effect of the reweighting on the unemployment level trend has been to increase the estimates from March-May 2020 to May-July 2020, and revise downwards the estimates from June-August 2020 to February-April 2021. Proportionally, the impact of the reweighting on the unemployment level estimate is relatively small, as the changes range from a decrease of 1,000 to an increase of 1,000.

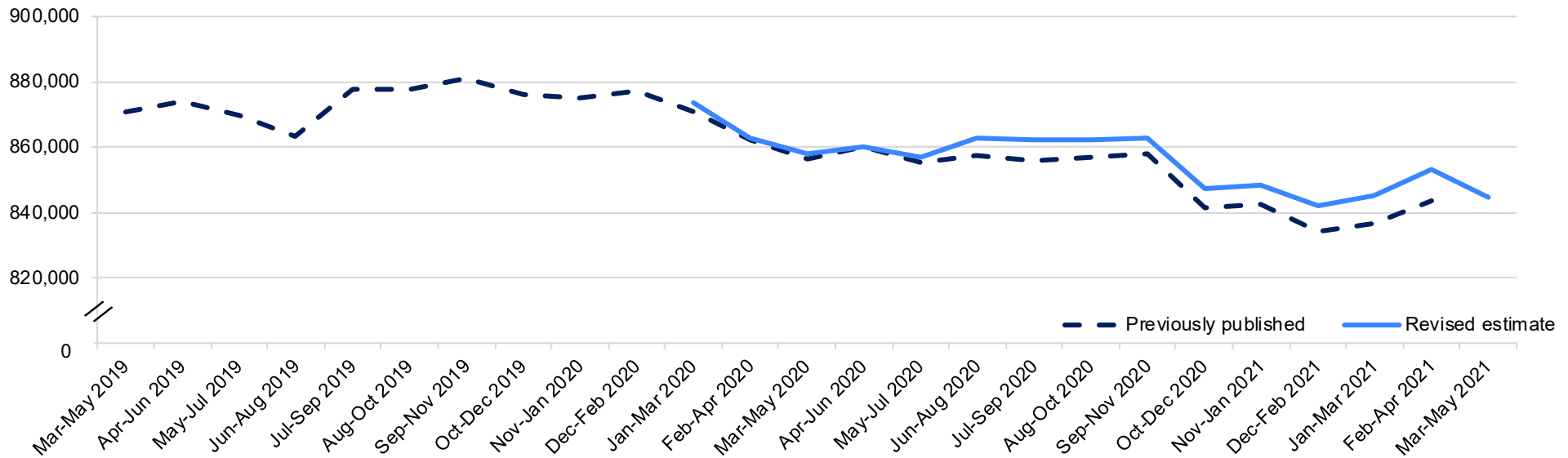
Figure 2: NI Unemployment Rates (Age 16+, Seasonally Adjusted), Previously Published and Revised Estimates, Rolling Quarters Mar-May 2019 to Mar-May 2021



The reweighting has had a similar impact on the unemployment rate estimates. The changes to the unemployment rate range from a decrease of 0.2 percentage points (pps) to an increase of 0.1 pps. The largest change between the previously published and revised estimates can be seen in the most recent quarters from October-December 2020, where the revised unemployment rates are 0.2 pps lower compared to the previously published estimates.

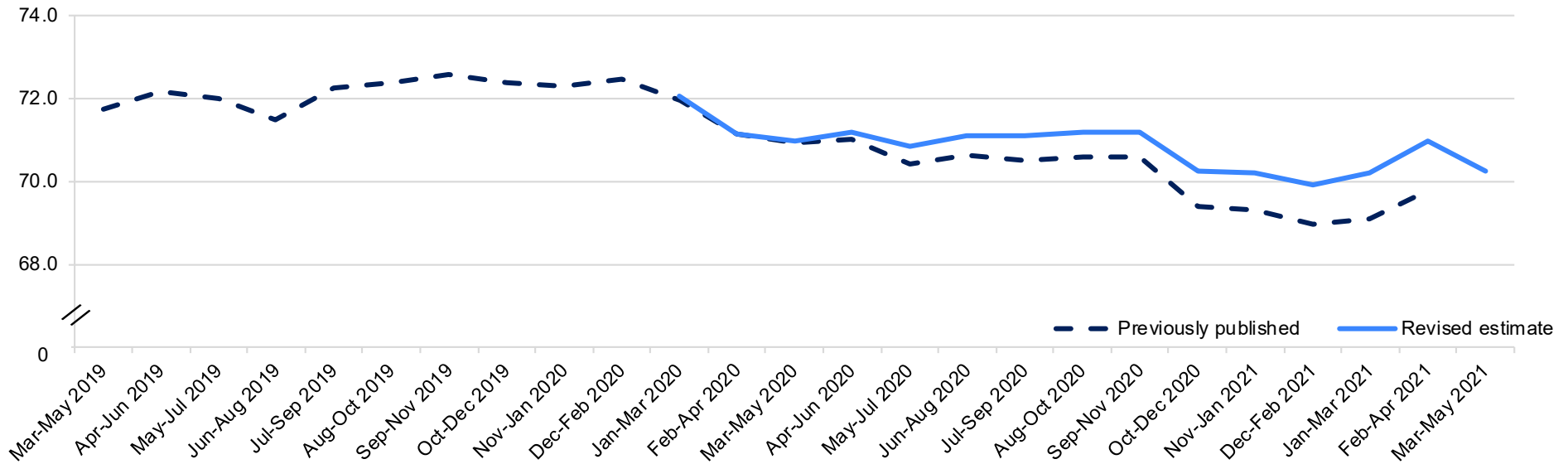
2. Employment

Figure 3: NI Employment Levels (Age 16+, Seasonally Adjusted), Previously Published and Revised Estimates, Rolling Quarters Mar-May 2019 to Mar-May 2021



The effect of the reweighting on the employment level trend has been upwards. The revisions to the employment levels range from an increase of less than 1,000 to an increase of 10,000. The largest change between the previously published and revised estimates can be seen in February-April 2021 data, where the revised employment level is 10,000 higher than the previously published estimate.

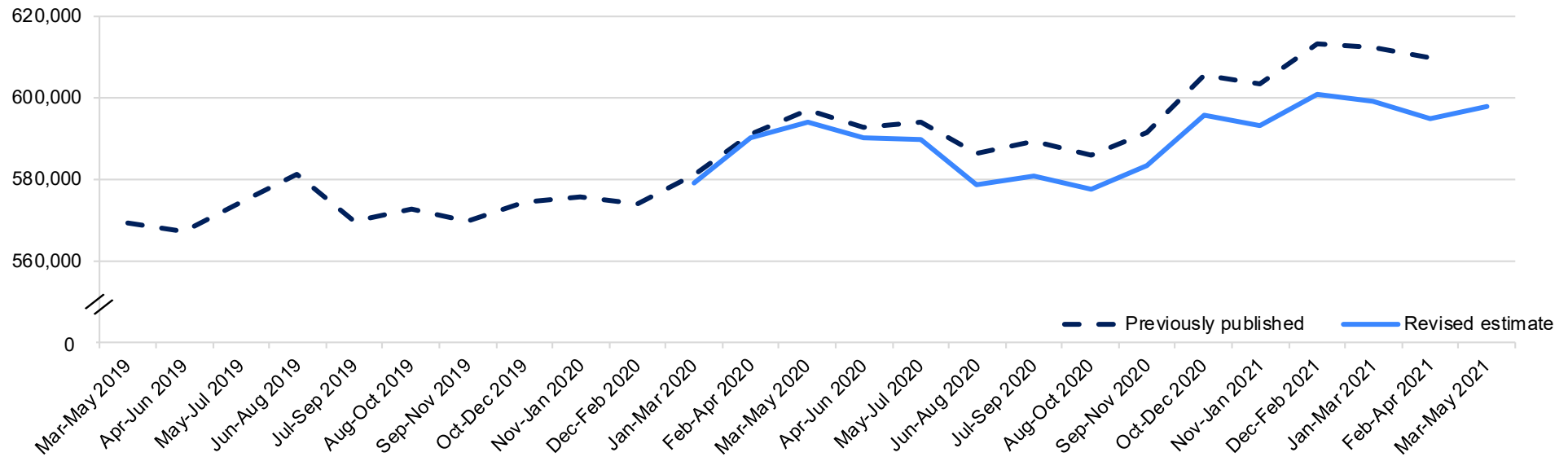
Figure 4: NI Employment Rates (Age 16-64, Seasonally Adjusted) Previously Published and Revised Estimates, Rolling Quarters Mar-May 2019 to Mar-May 2021



The effect of the reweighting on the employment rate trend has been predominantly upwards, with only February-April 2020 revised downwards. The largest change between the previously published estimates and the revised estimates can be seen in the February-April 2021 data, where the revised employment rate is 1.2pps higher than previously published. The changes (rounded to 1 decimal place) to the employment rate vary from 0.0pps to a 1.2pps increase.

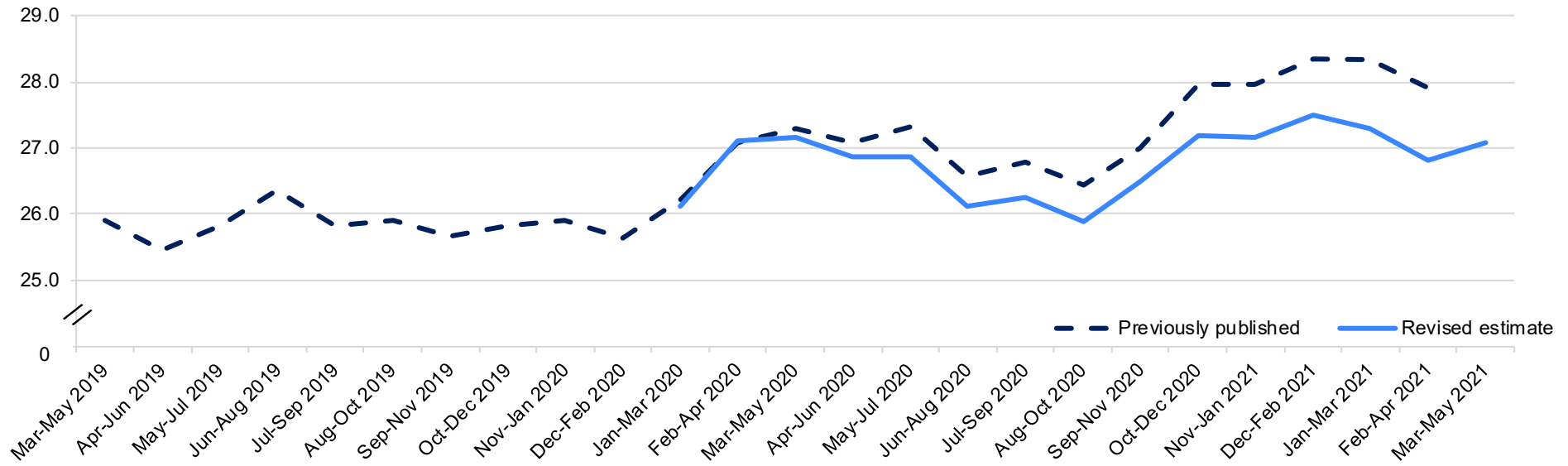
3. Economic Inactivity

Figure 5: NI Economic Inactivity Levels (Age 16+, Seasonally Adjusted), Previously Published and Revised Estimates, Rolling Quarters Mar-May 2019 to Mar-May 2021



Economic inactivity has been revised downwards. The changes to the economic inactivity level vary from a decrease of 1,000 (February-April 2020) to a decrease of 15,000 (February-April 2021).

Figure 6: NI Economic Inactivity Rates (Age 16-64, Seasonally Adjusted), Previously Published and Revised Estimates, Rolling Quarters Mar-May 2019 to Mar-May 2021



The reweighting has caused the economic inactivity rate to be revised downwards from March-May 2020 onwards. The revisions to the economic inactivity rate range from a decrease of 1.1 pps to a decrease of 0.1 pps. The largest change between the previously published and revised estimates can be seen in the estimate for February-April 2021, where the revised economic inactivity rate is 1.1 pps lower compared to the previously published estimates

Appendix

Table 1: Comparison of Previously Published and Revised Estimates: NI Unemployment Level and Rates (Age 16+, Seasonally Adjusted)

Period	Previously Published Level (number)	Revised Estimated Level (number)	Change (number)	Previously Published Rate (percent)	Revised Estimated Rate (percent)	Change (pps)
Mar-May 2019	28,000	x	x	3.1	x	x
Apr-Jun 2019	28,000	x	x	3.1	x	x
May-Jul 2019	25,000	x	x	2.8	x	x
Jun-Aug 2019	26,000	x	x	2.9	x	x
Jul-Sep 2019	23,000	x	x	2.5	x	x
Aug-Oct 2019	20,000	x	x	2.3	x	x
Sep-Nov 2019	21,000	x	x	2.3	x	x
Oct-Dec 2019	21,000	x	x	2.4	x	x
Nov-Jan 2020	22,000	x	x	2.4	x	x
Dec-Feb 2020	22,000	x	x	2.5	x	x
Jan-Mar 2020	21,000	21,000	0	2.4	2.4	0.0
Feb-Apr 2020	21,000	21,000	0	2.3	2.3	0.0
Mar-May 2020	21,000	22,000	+ 1,000	2.4	2.5	+ 0.1
Apr-Jun 2020	22,000	23,000	+ 1,000	2.5	2.6	+ 0.1
May-Jul 2020	26,000	27,000	+ 1,000	3.0	3.0	+ 0.1
Jun-Aug 2020	33,000	32,000	0	3.7	3.6	- 0.1
Jul-Sep 2020	32,000	31,000	- 1,000	3.6	3.4	- 0.1
Aug-Oct 2020	35,000	34,000	0	3.9	3.8	- 0.1
Sep-Nov 2020	28,000	27,000	- 1,000	3.2	3.1	- 0.1
Oct-Dec 2020	32,000	30,000	- 1,000	3.6	3.5	- 0.2
Nov-Jan 2021	33,000	32,000	- 1,000	3.7	3.6	- 0.2
Dec-Feb 2021	32,000	31,000	- 1,000	3.7	3.5	- 0.2
Jan-Mar 2021	31,000	30,000	- 1,000	3.6	3.5	- 0.2
Feb-Apr 2021	27,000	26,000	- 1,000	3.1	3.0	- 0.2
Mar-May 2021	x	31,000	x	x	3.6	x

x – data not revised

Levels rounded to nearest thousand

Rates rounded to 1 decimal place

Changes calculated on unrounded figures

Table 2: Comparison of Previously Published and Revised Estimates: NI Employment Level 16+ and Rates 16-64, Seasonally Adjusted

Period	Previously Published Level (number)	Revised Estimated Level (number)	Change (number)	Previously Published Rate (percent)	Revised Estimated Rate (percent)	Change (pps)
Mar-May 2019	871,000	x	x	71.7	x	x
Apr-Jun 2019	874,000	x	x	72.2	x	x
May-Jul 2019	870,000	x	x	72.0	x	x
Jun-Aug 2019	863,000	x	x	71.5	x	x
Jul-Sep 2019	878,000	x	x	72.3	x	x
Aug-Oct 2019	878,000	x	x	72.4	x	x
Sep-Nov 2019	881,000	x	x	72.6	x	x
Oct-Dec 2019	876,000	x	x	72.4	x	x
Nov-Jan 2020	875,000	x	x	72.3	x	x
Dec-Feb 2020	877,000	x	x	72.5	x	x
Jan-Mar 2020	871,000	874,000	+ 3,000	71.9	72.1	+ 0.1
Feb-Apr 2020	862,000	863,000	0	71.2	71.1	0.0
Mar-May 2020	856,000	858,000	+ 1,000	70.9	71.0	+ 0.1
Apr-Jun 2020	860,000	860,000	0	71.0	71.2	+ 0.2
May-Jul 2020	855,000	857,000	+ 1,000	70.4	70.8	+ 0.4
Jun-Aug 2020	857,000	863,000	+ 5,000	70.6	71.1	+ 0.5
Jul-Sep 2020	856,000	862,000	+ 6,000	70.5	71.1	+ 0.6
Aug-Oct 2020	857,000	862,000	+ 5,000	70.6	71.2	+ 0.6
Sep-Nov 2020	858,000	863,000	+ 5,000	70.6	71.2	+ 0.6
Oct-Dec 2020	841,000	847,000	+ 6,000	69.4	70.2	+ 0.9
Nov-Jan 2021	843,000	849,000	+ 6,000	69.3	70.2	+ 0.9
Dec-Feb 2021	834,000	842,000	+ 8,000	69.0	69.9	+ 0.9
Jan-Mar 2021	836,000	845,000	+ 9,000	69.1	70.2	+ 1.1
Feb-Apr 2021	843,000	853,000	+ 10,000	69.8	71.0	+ 1.2
Mar-May 2021	x	845,000	x	x	70.3	x

x – data not revised

Levels rounded to nearest thousand

Rates rounded to 1 decimal place

Changes calculated on unrounded figures

Table 3: Comparison of Previously Published and Revised Estimates: NI Economic Inactivity Level 16+ and Rates 16-64, Seasonally Adjusted

Period	Previously Published Level (number)	Revised Estimated Level (number)	Change (number)	Previously Published Rate (percent)	Revised Estimated Rate (percent)	Change (pps)
Mar-May 2019	570,000	x	x	25.9	x	x
Apr-Jun 2019	567,000	x	x	25.5	x	x
May-Jul 2019	574,000	x	x	25.8	x	x
Jun-Aug 2019	581,000	x	x	26.4	x	x
Jul-Sep 2019	570,000	x	x	25.8	x	x
Aug-Oct 2019	573,000	x	x	25.9	x	x
Sep-Nov 2019	570,000	x	x	25.7	x	x
Oct-Dec 2019	574,000	x	x	25.8	x	x
Nov-Jan 2020	576,000	x	x	25.9	x	x
Dec-Feb 2020	574,000	x	x	25.6	x	x
Jan-Mar 2020	581,000	579,000	- 2,000	26.2	26.1	- 0.1
Feb-Apr 2020	591,000	590,000	-1,000	27.1	27.1	0.0
Mar-May 2020	597,000	594,000	- 3,000	27.3	27.2	- 0.1
Apr-Jun 2020	593,000	590,000	- 3,000	27.1	26.9	- 0.2
May-Jul 2020	594,000	590,000	- 4,000	27.3	26.9	- 0.4
Jun-Aug 2020	586,000	579,000	- 8,000	26.6	26.1	- 0.4
Jul-Sep 2020	589,000	581,000	- 8,000	26.8	26.3	- 0.5
Aug-Oct 2020	586,000	578,000	- 8,000	26.4	25.9	- 0.6
Sep-Nov 2020	591,000	583,000	- 8,000	27.0	26.5	- 0.5
Oct-Dec 2020	606,000	596,000	- 10,000	28.0	27.2	- 0.8
Nov-Jan 2021	604,000	593,000	- 10,000	28.0	27.2	- 0.8
Dec-Feb 2021	613,000	601,000	- 12,000	28.3	27.5	- 0.8
Jan-Mar 2021	612,000	599,000	- 13,000	28.3	27.3	- 1.0
Feb-Apr 2021	610,000	595,000	- 15,000	27.9	26.8	- 1.1
Mar-May 2021	x	598,000	x	x	27.1	x

x-data not revised

Levels rounded to nearest thousand

Rates rounded to 1 decimal place

Changes calculated on unrounded figures