OCR
Oxford Cambridge and RSA

Wednesday 13 October 2021 – Afternoon

Level 3 Certificate Core Maths A (MEI)

H868/02 Critical Maths

Insert

Time allowed: 2 hours

INSTRUCTIONS
- Do **not** send this Insert for marking. Keep it in the centre or recycle it.

INFORMATION
- This Insert contains the pre-release material that you have already seen.
- This document has **4** pages.

A: The gender pay gap

The Equal Pay Act of 1970 came into force on 29 December 1975 in Great Britain. The Act required employers to pay men and women the same wage for equal work and to ensure they have the same conditions of employment. Previously, it had been common for men and women to have different rates of pay, with women being paid less.

Although it is now illegal to pay men and women differently for the same work, generally more women are in lower paid jobs than men. There are two main reasons for this: there are fewer women than men in senior positions, and there are more women working part-time than men.

The **national gender pay gap** is the difference between average hourly earnings of men and women written as a percentage of men's average hourly earnings. Overtime is excluded.

The national gender pay gap is a measure across all jobs in the UK, not of the difference in pay between men and women for doing the same job.

The calculation for the mean gender pay gap is as follows.

$$\text{Mean gender pay gap} = \frac{(A-B)}{A} \times 100\%$$

where
A is the mean hourly rate of pay of all male employees,

B is the mean hourly rate of pay of all female employees.

The calculation for the median gender pay gap is similar, but using the median hourly rate of pay instead of the mean.

In 2017, the median hourly earnings for all male employees was £13.70 and the median for females was £11.18.

$$\frac{(13.70-11.18)}{13.70} \times 100 = 18.394\ldots$$

So the national median gender pay gap for all employees in 2017 was 18.4%.

Fig. A.1 shows the national median gender pay gap over time. The national gender pay gap usually reported is calculated using median hourly earnings from the Annual Survey of Hours and Earnings. The median is used rather than the mean because it excludes the effect of outliers.

There were changes to the methodology of the survey in 2004, 2006 and 2011. These are shown by vertical lines on the chart.

Gender pay gap for median gross hourly earnings (excluding overtime), UK, April 1997 to 2019
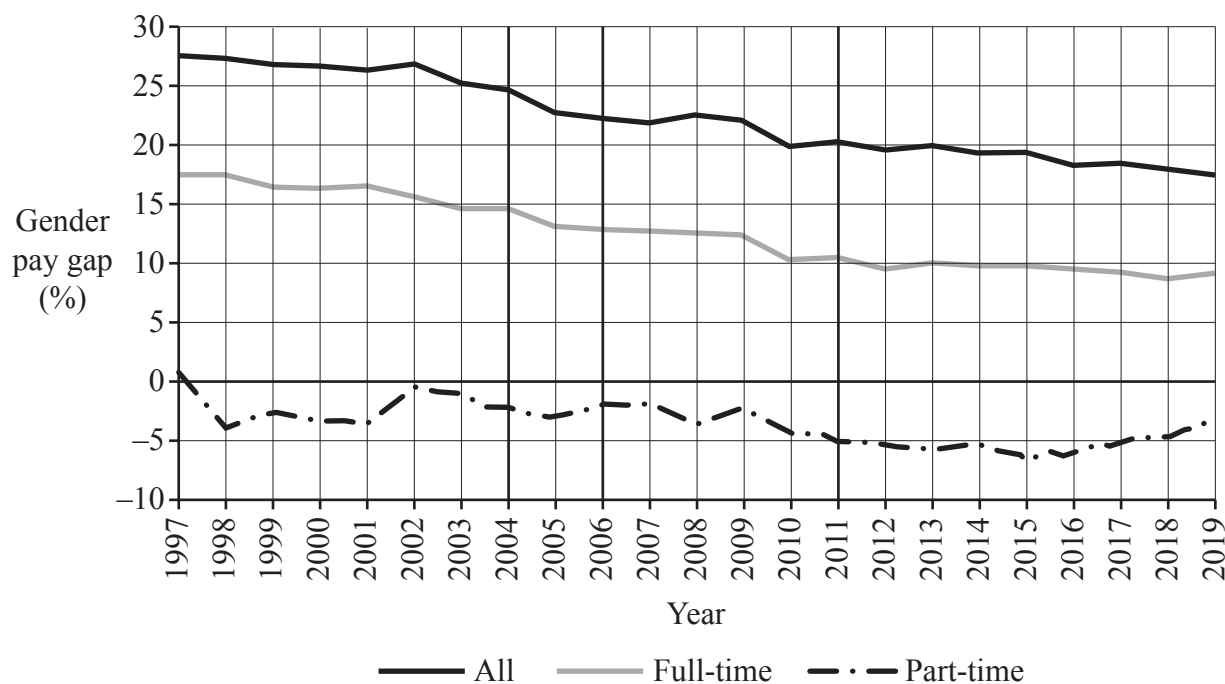

Fig. A.1

Since 2017, employers with 250 or more employees have been required to publish the following gender pay gap information for their employees.

- Their mean gender pay gap
- Their median gender pay gap
- Their mean bonus gender pay gap
- Their median bonus gender pay gap
- The proportion of men in the organisation receiving a bonus payment
- The proportion of women in the organisation receiving a bonus payment
- The proportion of men and women in each quartile pay band

Employers with fewer than 250 employees sometimes calculate their gender pay gaps but they do not have to report them. The gender pay gap for an employer is calculated in the same way as for the national gender pay gap but using the data for the employer, instead of national data.

10 811 employers published gender pay gap information in 2018. The distributions of the mean and median gender pay gaps are shown in the frequency charts in **Fig. A.2** and **Fig. A.3**.
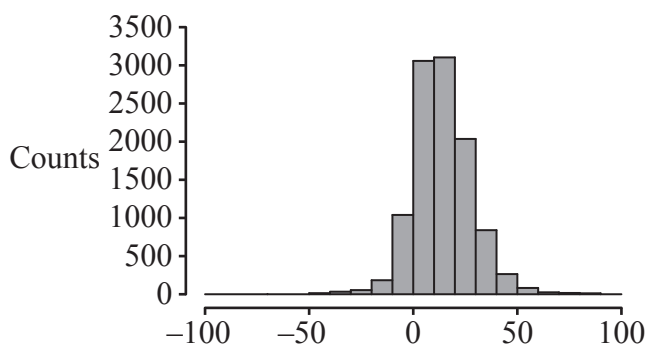
Mean gender pay gap
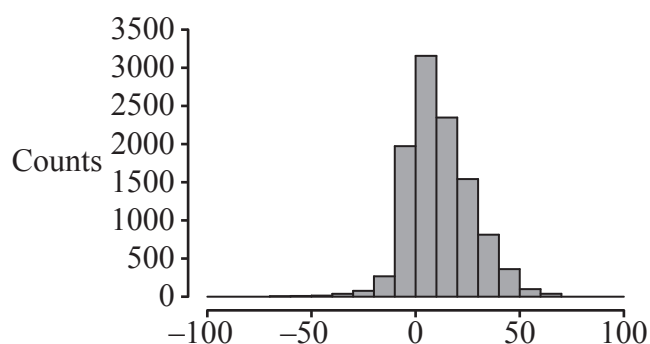

Fig. A.2

Median gender pay gap

Fig. A.3

B: The 2016 European Union (EU) membership referendum

On 23 June 2016, UK electors voted on the following question.

Should the United Kingdom remain a member of the European Union or leave the European Union?

The national results were as follows.

Remain	Leave
16 141 241	17 410 742
Total electorate: 46 500 001	
Turnout: 72.2%	
Rejected ballots: 25 359	