

Sandrith Care Homes: the shortage of care assistants

Student workbook | Pearson Edexcel A level Economics A (9EC0), Theme 3 | Year 12 or 13 (A level exams in 2027 for the current Year 13) | Original TBS three-lesson series

Sandrith Care Homes runs four residential care homes in a district on the coast of England. It cannot fill its care assistant jobs. A big new parcel depot has opened nearby and pays more, and the county council, which pays most of the fees, has asked for advice. Over three lessons you will work as an economist: demand for labour (Lesson 1), supply of labour and elasticity (Lesson 2), then wage determination and government action (Lesson 3), and you will advise the council's adult care committee.

Lesson	Question	You will
1	Why do homes want care assistants, and how many?	work out the marginal revenue product of each care assistant, plot a demand curve for labour, and decide which events shift it
2	Why can't Sandrith find enough staff?	shift a supply curve, find a shortage on a diagram, calculate the elasticity of supply of labour, and compare care assistants with nurses
3	What should the council do?	read a wage cap and a minimum wage on a diagram, calculate the elasticity of demand for labour, compare five options with figures and write a recommendation of about 170 words

Sandrith at a glance

Feature	Details
Homes	Sandrith runs 4 care homes. The district has 20 care homes of about the same size, so Sandrith is a fifth of the district's demand for care assistants.
Care assistants	Care assistants work a 36-hour week. One full-time equivalent (FTE) means one person working 36 hours a week. Sandrith pays £12 an hour. Sandrith wants 28 FTE (7 in each home).
Income	The county council pays most of the fees. It pays £24 for each hour of care delivered and reviews the fee once a year.
The problem	A new parcel depot 9 miles away pays £13.20 an hour. Some care assistants have left. Sandrith has only 22 FTE, so 6 FTE jobs are empty.
Units	Labour is in full-time equivalents (FTE). Wages are £ per hour. Marginal product is in care hours a week. Percentages are to 1 decimal place.

Sandrith Care Homes, the county council, the parcel depot, the college and every figure are fictional and invented for teaching. They are not real businesses or statistics, and the legal minimum wage in this case is a made-up figure. You need a calculator, a pencil and a ruler. The data pack is on pages 2 to 4; each task repeats the figures it needs. This is original classroom practice, not an exam paper. This is a TBS resource, not endorsed by Pearson, and contains no exam board questions, marks or mark schemes.

Free sample

Sandrith Care Homes: the labour market

Contents of the full pack

Lesson 1: Why do homes want care assistants, and how many?

Lesson 2: Why can't Sandrith find enough staff?

Lesson 3: What should the council do?

Student workbook and teacher guide, as PDF and as editable Word files.

The teacher guide has lesson plans, full worked answers and indicative guidance.

This sample is the cover and the first two pages of Lesson 1 of the student workbook. It contains no answers. The pages that follow are exactly as in the full pack.

Lesson 1: Why do homes want care assistants, and how many?

You can explain derived demand, calculate MRP, find how many care assistants a home hires and decide what shifts demand.

Starter: write the term for each description

Description	Term
1. Demand that depends on demand for another product	
2. The extra output from employing one more worker	
3. The extra revenue from employing one more worker	
4. Machines or software that can replace some workers	
5. The price of labour per hour	

Task 1: marginal revenue product (MRP)

Table 1 (page 2). A home earns £24 for each hour of care. MRP is the extra revenue from the nth care assistant: $\text{MRP per week} = \text{marginal product} \times £24$; $\text{MRP per hour worked} = \text{MRP per week} / 36$. A home hires another care assistant while the MRP per hour is at least the wage. Rows 1 to 3 are done.

Care assistant (nth)	Marginal product (care hours a week)	MRP per week (£)	MRP per hour worked (£)
1	36	864	24.0
2	33	792	22.0
3	30	720	20.0
4	27		
5	24		
6	21		
7	18		
8	15		
9	12		
10	9		

Task 1 continued. The MRP per hour for the 7th care assistant is £12.0 and for the 8th it is £10.0 (check these against your table).

b. Sandrith pays £12 an hour. How many care assistants does one home employ? State the rule and use figures from your table.

c. Complete the table: how many care assistants does one home employ at each wage, and how many does the district's 20 homes employ in total?

Wage (£ per hour)	16	14	12	10
Care assistants in one home				
Care assistants in 20 homes				

d. Compare the last row with the demand column in Table 2 (page 3). What do you notice? Why?