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# Plugging the gap: Estimating the demand and supply of jobs by sector in 2030

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# Summary

- The UK economy could see a shortfall of 2.6 million workers by 2030 – almost twice the workforce of the NHS – as a result of population ageing, the COVID pandemic and Brexit.
- These shortfalls will affect the whole economy, with manufacturing, retail, construction, transport, health and social care among the sectors projected to be hardest hit.
- To plug these gaps, Government must introduce a comprehensive Workforce Strategy looking at:
  1. How to support people to stay in the workforce for longer, e.g. by supporting healthy workplaces, supporting carers and creating flexible conditions that suit people's needs.
  2. How to ameliorate childcare costs and reintegrate people into the workforce following timeout for caring or a health need
  3. The role of migration and automation in addressing major workforce gaps



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# Context

- Rough estimates suggest a further 2.7m jobs will be created in the UK by 2030.
- However, at the same time, the UK workforce is ageing rapidly, resulting in fewer people of working age to support the economy.
- This is compounded by the short-term effects of the pandemic, leading many into early retirement, and by decreased immigration, which before Brexit had been a mainstay.
- Although employment rates at older ages are on the rise thanks to government policies such as the scrapping of the default retirement age, this growth is insufficient to prevent a growing labour shortage.
- Moreover, there is a risk that the availability of older workers could be greatly diminished by poor health, part-time working and skill shortages.



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# Projected demand and supply of jobs

- The UK population is set to increase from 66.8m in 2019 to 69.8m in 2030 – an increase of 4.5%.
- Among adults, the highest increases will be in the age groups 65-74 and 16-25, with other groups falling in size.
- Assuming employment rates remain the same, there would be a small increase in the total workforce; however, this ignores the increased demand for workers.
- When demand is factored in, we're looking at shortfalls of 2.6m workers (+/- 0.6m) by 2030 – almost twice the workforce of the NHS.
- This is likely to be an underestimate as not all the forecasted increased supply will be available for work, due to:
  - Health or care needs and caring responsibilities that increase with age.
  - People choosing to work part-time rather than full time as they approach retirement.

# Which sectors will be hardest hit?

- Shortages will appear in all sectors, but the sectors where they will bite hardest are:
  - Manufacturing
  - Wholesale, retail, vehicle repair
  - Construction
  - Hospitality
  - Transport and storage
  - Professional and scientific
  - Education
  - Health and social care

# Recommendations

The Government must introduce a comprehensive Workforce Strategy across the whole economy, aimed at:

- Supporting longer and more productive working lives by:
  - Supporting physical and mental health at work
  - Promoting skills and life-long learning
  - Addressing age discrimination at work
  - Ensuring greater flexibility, including for carers and those re-entering the labour market
- Considering the role of migration in addressing vacancies and skill shortages, especially in sectors like health and social care, and professional and scientific jobs
- Utilising technology, innovation and automation to enhance productivity, support existing jobs and create new ones.

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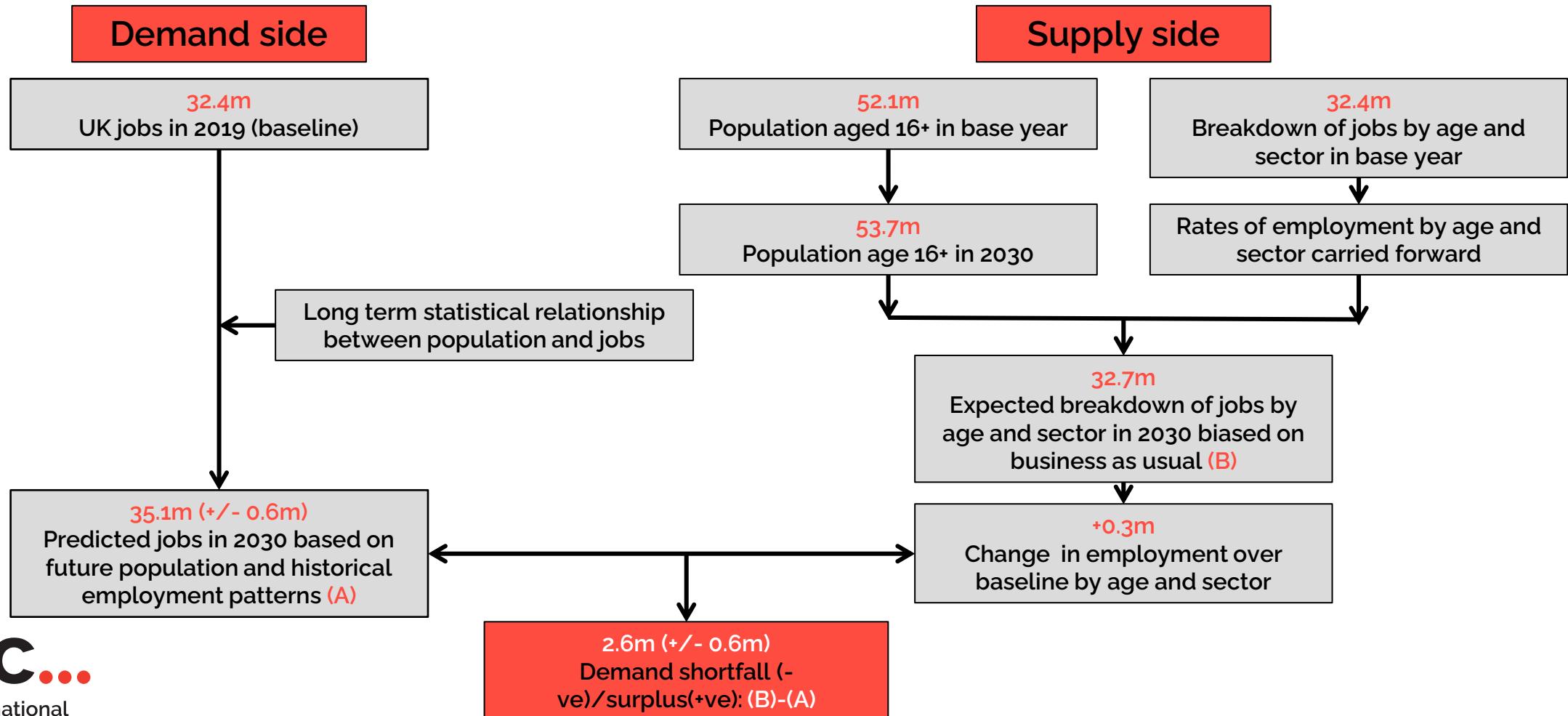
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# Our findings in more detail

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# Demographic drivers impacting on jobs between now and 2030



# Changes in population by age group (millions)

Population group	2019	2030	Difference	% change
16-20	3.7	4.4	0.66	17.7
21-24	3.4	3.5	0.13	3.9
25-29	4.5	4.0	-0.49	-10.7
30-33	3.6	3.4	-0.17	-4.8
34-39	8.9	8.9	-0.03	-0.3
40-54	13.1	13.0	-0.05	-0.4
55-64	8.2	8.7	0.55	6.7
65-74	6.7	7.7	1.04	15.6
Total	52.1	53.7	1.64	3.2

- The UK population will grow from 66.8m in 2019 to 69.8m in 2030 – an increase of 4.5% or 3m.
- The number of adults aged 16 to 74 will grow by 3.2%.
- Most of the difference in the increase is accounted for by a rising number of people aged 75+.

Whole population	66.8	69.8	3.0	4.5
o/w <16	12.7	12.2	-0.5	-4.1
o/w 75+	5.7	7.4	1.7	30.3

# Jobs by age 2019 and 2030 based on business as usual (millions)

Population group	2019	2030	Difference	% change
16-20	1.4	1.7	0.25	17.7
21-24	2.3	2.4	0.09	3.9
25-29	3.7	3.3	-0.40	-10.7
30-33	3.0	2.9	-0.14	-4.8
34-39	4.5	4.4	-0.01	-0.3
40-54	10.9	10.9	-0.04	-0.4
55-64	5.3	5.7	0.36	6.7
65-74	1.3	1.5	0.20	15.6
Total	32.4	32.7	0.30	0.9
Jobs required	32.40	35.05	2.7	8.2

- Based on 'business as usual', the number employed will increase by 300k between 2019 and 2030 to 32.7m.
- There will be a re-shuffling of the number of workers in each age group, with jobs in age groups 25-29, 30-33, 34-39 and 40-54 declining and those in 16-20, 21-24 and 55+ groups increasing.
- Assuming no change in productivity, the number of jobs demanded will increase in proportion to population increase by 2.7m (+/- 0.6m) or 8.2%, i.e. ~3% higher than the expected population increase.

# Jobs by sector 2019 and 2030 based on business as usual (millions)

Sector	2019	2030	diff	% change
Agriculture, forestry and fishing	0.34	0.35	0.01	3.9
Mining and quarrying	0.14	0.14	0.00	0.2
Manufacturing	2.91	2.93	0.02	0.6
Electricity, gas, air cond supply	0.18	0.18	0.00	-0.3
Water supply, sewerage, waste	0.23	0.23	0.00	0.4
Construction	2.34	2.36	0.02	0.9
Wholesale, retail, repair of vehicles	4.07	4.14	0.07	1.8
Transport and storage	1.61	1.62	0.01	0.9
Accommodation and food services	1.78	1.84	0.06	3.3
Information and communication	1.36	1.35	-0.01	-0.6
Financial and insurance activities	1.28	1.27	-0.01	-0.7
Real estate activities	0.38	0.39	0.01	1.6
Prof, scientific, technical activ.	2.52	2.53	0.01	0.3
Admin and support services	1.52	1.53	0.01	0.9
Public admin and defence	2.11	2.12	0.01	0.4
Education	3.39	3.41	0.03	0.7
Health and social work	4.33	4.36	0.03	0.7
Arts, entertainment and recreation	0.87	0.89	0.02	2.2
Other service activities	0.93	0.94	0.01	1.2
Households as employers	0.05	0.05	0.00	3.3
Extraterritorial organisations	0.06	0.06	0.00	-1.2
All	32.40	32.70	0.30	0.9

- This table breaks down jobs in each sector in 2019 with rates applied to the forecast population by age group in 2030 (i.e. business as usual).
- The largest employing sectors are health and social care (13.4% of the total workforce); wholesale and retail (12.6%); education (10.5%) and manufacturing (9%).
- Overall employment increases from 32.4m to 32.7m based on this assumption.

# Jobs by sector after adjusting labour demand for population growth

Sector	2019 (actual) (mns)	2030 (demographically adjusted demand) (mns)	Shortfall (-ve)/surplus (+ve) (thousands)
Agriculture, forestry and fishing	0.34	0.38	-38.7
Mining and quarrying	0.14	0.15	-10.0
Manufacturing	2.91	3.14	-228.0
Electricity, gas, air conditioning supply	0.18	0.20	-12.7
Water supply, sewerage, waste	0.23	0.25	-17.5
Construction	2.34	2.53	-190.0
Wholesale, retail, repair of vehicles	4.07	4.44	-369.2
Transport and storage	1.61	1.74	-131.2
Accommodation and food services	1.78	1.97	-190.6
Information and communication	1.36	1.45	-88.2
Financial and insurance activities	1.28	1.36	-83.1
Real estate activities	0.38	0.41	-33.9
Prof, scientific, technical activities	2.52	2.71	-190.0
Admin and support services	1.52	1.64	-123.4
Public admin and defence	2.11	2.27	-160.8
Education	3.39	3.66	-270.8
Health and social work	4.33	4.68	-343.5
Arts, entertainment and recreation	0.87	0.95	-83.3
Other service activities	0.93	1.01	-79.0
Households as employers	0.05	0.06	-5.5
Extraterritorial organisations	0.06	0.06	-3.5
All	32.40	35.05	-2,652.7

- With the UK population due to increase by 3m by 2030, the demand for jobs will increase over and above business as usual.
- This table adjusts for this population increase using the historical relationship between people and jobs in the economy.
- It identifies a total shortfall of 2.7m workers.
- Since older workers work fewer hours than younger adults this is likely to be an underestimate.