

Business

Productivity and skills

We often hear talk of productivity, outputs and skills deficits, but what are they and how do they affect the economy locally and globally?

Why study productivity and skills?

Whether you are thinking about a company or a whole national economy, productivity is the measure of how effective it is at getting more outputs from its inputs. Professor John Van Reenen, director of the ESRC Centre for Economic Performance at the London School of Economics, explains: “The starting point is the output of an economy or business, compared to the inputs used to produce it. Productivity is the measure of how efficiently the inputs turn into outputs.”

He says there is now a growing realisation that skilled labour is a key variable in how productive a nation or firm will be. “People vary vastly in their economic output per hour, from Bill Gates at one extreme and an untrained labourer at the other. People go to school or university so that their human capital can be grown by expanding their skills, which means that they can produce more output per week when they are at work.”

Education and training are not the only ways of raising productivity. Firms can invest in more machines and better IT systems. And overall productivity also depends on the abilities of the managers who run businesses. Van Reenen says; “Even given the same ingredients for the cake, some companies are just better than others at baking it, so they produce better services and goods from the same raw materials. We call this higher Total Factor Productivity. It’s the bit of magic that is left over after everything you can measure has been allowed for. It may be down to better management, better technology, or some effect we have not thought of.”

What does research tell us?

Professor Ken Mayhew is director of SKOPE, the ESRC Centre on Skills, Knowledge and Operational

Performance, based at Oxford and Cardiff Universities. His work involves “looking inside the black boxes” of the education and training system, and of people’s working lives. He says: “All western governments have a vision of becoming high-productivity economies making high-end products. So they need more skilled workforces. However, we have found clear evidence that skills, whether acquired at school, college, university or by in-house training, are severely underutilised in the workplace.” An example is the debate about whether university graduates are doing what are termed “graduate jobs.”

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Van Reenen agrees that this issue is a complex one, but disagrees with the notion that the economic value of education and training has fallen. “People born smart would have got paid more even if they hadn’t got a good education, so some theorists have argued that education is really a “sheepskin”, just signalling underlying cleverness without really raising productivity. There has been a huge amount of research on this, which has convincingly shown that the effect of skills really does raise wages and productivity.” One way of looking at it is by tracking the earnings of pairs of identical twins. If one twin went to university and the other did not, you can see how higher education choice affected two

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people with the same genes. The answer is that the better educated twin does get on average more money.

There are many unknowns in all this. But Van Reenen says research proves without doubt that education is a powerful force for improving company performance, the national economy, and the earnings of individuals.

What difference does it make?

Research in this area is of acute interest to business people and policy makers. Mayhew says that SKOPE research informed the last Labour government's massive *Train to Gain* initiative.

This research also helps understand the long-running problem of low productivity in the UK, for example by comparison with Germany or the US. The UK has top universities to train the elite, explains Van Reenen, but is less good at workplace training and apprenticeships. Employers often see little point in training people, fearing that they will be poached by rival companies. This insight means that governments are getting more interested in a national system of prestigious vocational qualifications. The problem, he adds, is to get employers to take such a system seriously and get involved.

How do social scientists research productivity and skills?

There is a wealth of data on these issues: statistics on the economy and sectors within it; on education at all levels, for example on how long people spend in education and the qualifications they get; on company profits; on young people in the workforce; and on wages and salaries. Especially informative are a growing number of "cohort studies" in which individual careers are tracked through time.

However, there is less solid data on what happens inside a specific workplace, either in training or

during the actual business process. To fill this gap, researchers spend a lot of time engaging with individuals and organisations to get at the granular detail of how they operate. So research in this area is active and international. One example is a large multi-nation study of low-paid work in the US and Europe, the UK part of which was led by Ken Mayhew and Geoff Mason, of the [National Institute for Economic and Social Research](#).

It's even possible to experiment on enhancing productivity. Van Reenen says that in India, textile firms were split into two groups, with one set receiving training to build up its management skills while the other did not. It proved that better-trained managers do indeed lead more effective firms. The group with training were 20 per cent more productive and \$350,000 a year more profitable. This is part of a global initiative he leads called the World Management Survey (<http://worldmanagementsurvey.org>) which generates data inside the firm on management practices, skills and productivity in over 30 countries.



Key terms

Here are some terms that you will hear experts on productivity and skill using. Get them right and you'll find it easier to understand them – and sound like an expert yourself.

- **Academic learning:** new knowledge acquired in formal settings such as university. It often

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concentrates on general mental preparation rather than on bestowing specific skills.

- **Earnings inequality:** the variation in pay for different types of work, for the same work in different countries or regions, or for similar work carried out for different employers.
- **Economic performance:** the relative performance of a nation, region, business or organisation, in terms of its economic inputs and outputs, relative to its competitors.
- **Human capital:** people at work. Highly-skilled human capital is more productive than less skilled capital, and can command higher rewards from employers.
- **Productivity:** the amount of economic output produced by an individual in a given period of time, measured in for example thousands of pounds or dollars per year.
- **Recruitment and selection:** the task of finding the right people for jobs. It becomes increasingly complex as skills and jobs become more specialised and fast-changing.
- **Skill:** the ability to do something work-related, from writing code to stacking shelves.
- **Total Factor Productivity:** the efficiency with which all the inputs used in a business (in classical economics, land, labour and capital) are turned into outputs.
- **Transition into the labour market:** the often problematic process of taking people into work from education in an optimum way.
- **Vocational learning:** learning whose intention is to improve a specific skill.

