

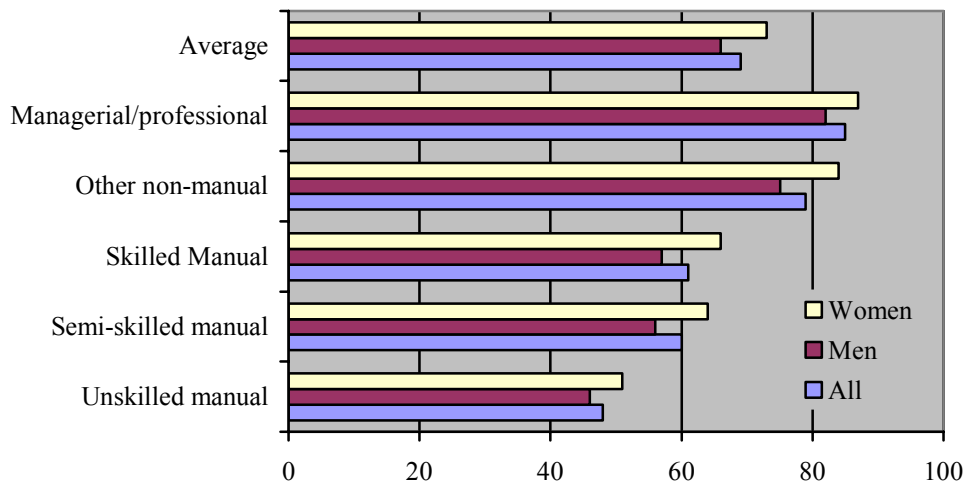
Encouraging education

Market failure can affect the choices that individuals make about education. Christine Frayne, of the Institute for Fiscal Studies, looks at the economic arguments

Over the last 50 years the percentage of 16 year-olds staying on in education has increased dramatically from 10% to 71%. Despite this large increase the UK still trails behind our Western European neighbours such as Germany, France, Denmark and the Scandinavian countries.

Possibly more striking than the cross-country differences in stay-on rates, though, are the differences in staying-on rates between groups *within* the UK. Figure 1 shows the percentage of 16-year olds in 1998 staying on in post-compulsory education broken down by gender and parental occupation. Breaking the population down according to other characteristics such as ethnic background yields further differences with young people who define themselves as white having significantly lower staying-on rates than other major ethnic groups.

Figure 1: Staying on rates for 16 year-olds in 1998, by gender and parental occupation.



Source: Youth Cohort Study: Education, Training and Employment of 16-18 Year Olds in England and the Factors Associated with Non-Participation, DfEE.

The government is concerned about the fact that some groups are less likely to continue in education past the compulsory school leaving age. Since Autumn 1999, it has been experimenting with a new type of allowance – the Education Maintenance Allowance (EMA) - for 16-18 year-olds who stay in full-time education. In a selected number of local education authorities 16-18 year-olds who stay in education are entitled to a payment of £30 or £40 depending on their parents' income. In parallel with this experiment (called a pilot), the government is undertaking an evaluation of the EMA to see whether it will be successful in

raising participation and achievement in post-compulsory education amongst young people. If this is indeed the case, the aim is to roll out the EMA to the rest of the country.

In a world of perfect information and no market failures, young people could be expected to use rational expectations to take the best decision about their education, by weighing up the potential benefits of staying on in education against the costs. That is, they consider whether the benefits of extra learning will be greater than the direct and opportunity costs of staying on. The benefits can be seen in terms of the possibility of obtaining a better job later or simply because they enjoy learning. The direct costs include such items as travel and books etc. The opportunity costs must be seen in terms of the income and experience of working or training forgone by staying in education.

The same analysis would tell us that young people who come from lower-income families which may struggle to support them if they remain in education could borrow against their future (higher) earnings in order to enjoy the benefits of longer education. Thus, 16-year-olds would make the best decision about how long to stay in education.

The idea behind the government's actions is that it is not the case, from society's point of view, that young people *are* making the best choices about their education. The government is hoping that the EMA will entice more young people to invest in education. So how does that fit in with analysis above?

The first reason why we might think that young people are investing in education sub-optimally would be due to *credit constraints*. 16-year olds may find that they have inadequate resources to fund their education and are unable to borrow the necessary money because banks or other financial institutions will not lend it to them. In other words, they may be credit constrained due to the credit market working imperfectly and they may have no choice but to leave school.

It might however, be the case, that young people are incorrectly perceiving the potential benefits of education. Before they have direct experience of the labour market, they may not feel that extra education will be of enough benefit to their working lives to justify foregoing two years of work experience and wages. If there is evidence that 16 year-olds who leave education tend to underestimate the benefits of extra education, then some sort of intervention could be justified.

So far, the possible reasons for introducing the EMA have been based around the belief that young people are not choosing the right level of education for themselves. Yet, even if it is believed that all young people choose the level that is best for them, there may still be a case for encouraging them to educate themselves above that level if there are positive spillovers to society from having more educated individuals. For example, it may be thought that an economy with higher educated individuals grows faster as such people are more productive at

work and more likely to have the necessary educational tools to make technological discoveries. In other words there may be positive **externalities** from education – society overall may benefit from individuals being more educated.

This means that the total marginal benefit - called the social marginal benefit - of a person staying on education will consist of the direct benefit to that person in terms of better prospects and the extra benefit to society. If this is the case, the optimal level of education is higher than that which will be chosen by individuals acting on their own interest alone as they are making decisions based on a low marginal benefit curve. One way of overcoming the resulting inefficiency is to artificially lower their marginal cost curve through a subsidy. By setting the subsidy at the optimal level, young people will find it in their interest to expand their education until they reach the level which is best for society.

So given that there are a variety of inefficiencies in education, can any of them justify an intervention of the form of the EMA? Both credit constraints and information problems could be improved by an allowance. In the former case, this could alleviate any inefficiencies caused by an imperfect credit market, while in the latter case the allowance would decrease the cost of education, by lowering the opportunity cost – i.e. the difference between what is being gained in education and what could be gained by working. Thus more young people will perceive it in their interest to stay on in education. However, while this would lead to a less inefficient situation, a first-best solution to information problems would be to solve the actual cause of the inefficiency by providing the information needed rather than to induce people to make the choices they might have made under full information through other means. Alternatively, if it is believed that the information problem is endemic and serious, the government could opt for the paternalistic option and raise the school leaving age to 17 or 18. Either way, credit constraints and information problems need not lead to the same optimal solution.

One characteristic that these two inefficiencies do share though, is that in both cases, it is plausible to think that 16-18 year olds from less affluent backgrounds may be worse affected than those higher up the income distribution. In the case of credit constraints this may seem obvious; but if we think that young people form their expectations and take decisions based on what they see in their immediate surroundings we have good reason to believe that the less affluent are more affected by information problems too. Those who come from groups with historically low staying-on rates, might not have as much evidence about the benefits of post-compulsory education as compared with their counterparts whose parents, older siblings, friends or neighbours have been educated to 18 or over.

Finally, consider the externalities argument for the EMA. While the careful setting of an optimal subsidy (in this case, the EMA) could lead to the optimal choice for education spending, it is not obvious that education aged 16-18 should be the prime beneficiary of any subsidy. Any argument that applies to that age group could equally apply to primary or university education. Moreover, there is

no reason to believe that those at the lower end of the income distribution have a higher discrepancy between their private marginal benefit and the social marginal benefit. While targeting any intervention to this group might be desirable on distributional grounds, it would be hard to argue that the EMA would be chosen as best way of dealing with distributional issues – other interventions which included those leaving education would be more appropriate. Evidence from 1999-2000 points towards increased participation amongst the pilot groups, implying that the government is going some way towards achieving its objective with the EMA, although further research will be needed to assess any impact of the EMA on actual educational achievement.