

► ry a burden of loyalty to dusty old identities and institutions. It is no coincidence that the most successful forces for liberal pluralism in recent years have included Spain's Ciudadanos, founded in 2006 and currently leading polls, and Mr Macron's En Marche! in France, founded in 2016.

All of which calls for a new way of viewing populists. They can be a danger, but their rise is a call for renewal. That was the insight of the late 19th- and early 20th-century reformers, who kept the Marxists and the agrarian populists at bay by judiciously borrowing from them. Theodore Roosevelt and Woodrow Wilson took on oil and rail cartels, and advocated social insurance on behalf of the man in the street. Otto von Bismarck's introduction of old-age and health insurance in Germany and David Lloyd George's "People's Budget" in Britain in 1909 similarly annexed the populists' political territory.

Today's reformers have no shortage of ideas to mine. Mass immigration demands better integration that promptly im-

parts language skills, jobs and Western values to newcomers. Where recorded crime is rising, as in Germany and Sweden, politicians should admit it and set about tackling the problem. Expanded retraining and relocation, portable benefits and action against tax evasion can help spread the appreciation of free trade. Galloping automation and digitisation invite a re-making of education systems and should prompt reformers to take on tech giants like Google and Amazon in the name of competition and consumer protection. Canada combines immigrant integration, an effective safety-net and economic liberalism better than other major Western countries—and has been the least affected by the recent populist wave.

Fragmenting societies and polarised politics make it unlikely that populism's rise will be reversed soon. But its excesses can be contained by seeing it as the impetus for change. Because solving people's problems will bear fruit, populism is as much an opportunity as a threat. ■

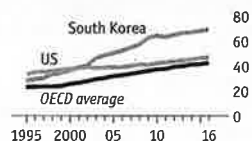
University degrees

Time to end the academic arms race

As higher education expands, returns are falling. School-leavers need other options

Tertiary degrees

25- to 34-year-olds, % of total



THERE are plenty of good reasons for a young person to choose to go to university: intellectual growth, career opportunities, having fun. Around half of school-leavers in the rich world now do so, and the share is rising in poorer countries, too.

Governments are keen on higher education, seeing it as a means to boost social mobility and economic growth. Almost all subsidise tuition—in America, to the tune of \$200bn a year. But they tend to overestimate the benefits and ignore the costs of expanding university education (see page 51). Often, public money just feeds the arms race for qualifications.

As more young people seek degrees, the returns both to them and to governments are lower. Employers demand degrees for jobs that never required them in the past and have not become more demanding since. In a desperate attempt to stand out, students are studying even longer, and delaying work, to obtain master's degrees. In South Korea, a country where about 70% of young workers have degrees, half of the unemployed are graduates. Many students are wasting their own money and that of the taxpayers who subsidise them.

Spending on universities is usually justified by the "graduate premium"—the increase in earnings that graduates enjoy over non-graduates. These individual gains, the thinking goes, add up to an economic boost for society as a whole. But the graduate premium is a flawed unit of reckoning. Part of the usefulness of a degree is that it gives a graduate jobseeker an advantage at the expense of non-graduates. It is also a signal to employers of general qualities, such as intelligence and diligence, that someone already has in order to get into a university. Some professions require qualifications. But a degree is not always the best measure of the skills and knowledge needed for a job. With degrees so common, recruiters are using them as a crude way to screen applicants. Non-graduates are thus increasingly locked out of decent work.

In any case, the premium counts only the winners and not the losers. Across the rich world, a third of university entrants never graduate. It is the weakest students who are drawn in as higher education expands and who are most likely to drop out. They pay fees and sacrifice earnings to study, but see little boost in their future incomes. When dropouts are included, the expected financial return to starting a degree for the weakest students dwindles to almost nothing. Many school-leavers are being misled about the probable value of university.

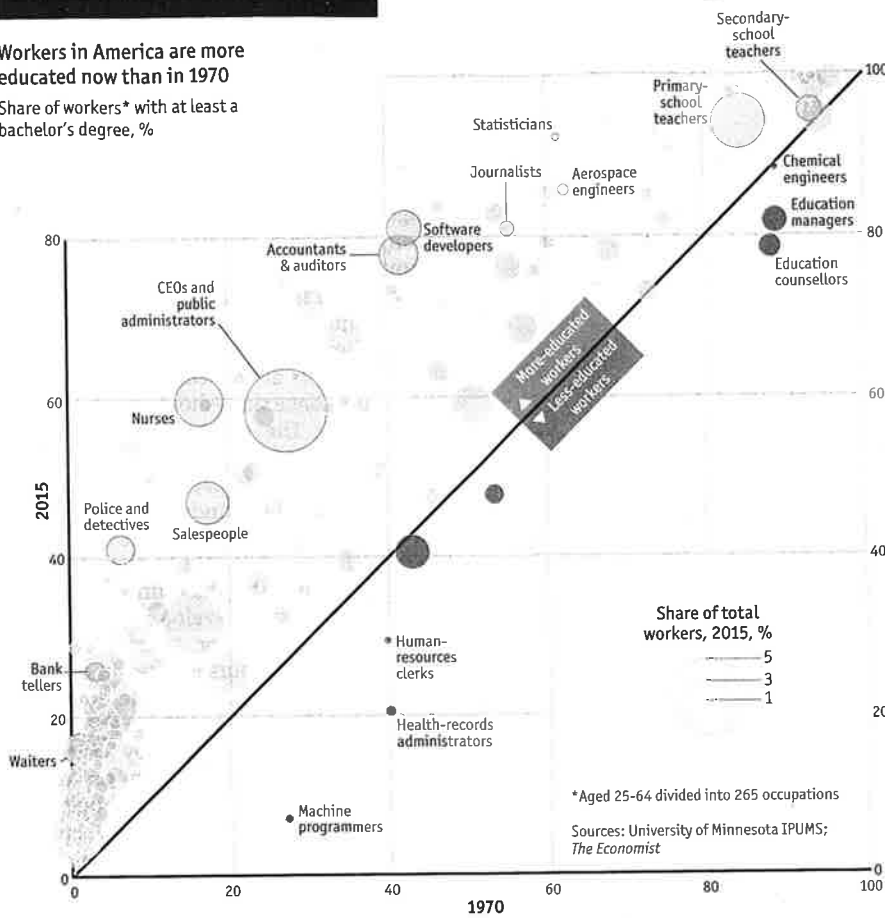
Governments need to offer the young a wider range of options after school. They should start by rethinking their own hiring practices. Most insist on degrees for public-sector jobs that used to be done by non-graduates, including nursing, primary-school teaching and many civil-service posts. Instead they should seek other ways for non-graduates to prove they have the right skills and to get more on-the-job training.

School-leavers should be given a wider variety of ways to gain vocational skills and to demonstrate their employability in the private sector. If school qualifications were made more rigorous, recruiters would be more likely to trust them as signals of ability, and less insistent on degrees. "Micro-credentials"—short, work-focused courses approved by big employers in fast-growing fields, such as IT—show promise. Universities should grant credits to dropouts for the parts of courses they have completed. They could also open their exams to anyone who wants to take them, and award degrees to those who succeed.

Mutually assured instruction

Such measures would be more efficient at developing the skills that boost productivity and should save public money. To promote social mobility, governments would do better to direct funds to early-school education and to helping students who would benefit from university but cannot afford it. Young people, both rich and poor, are ill-served by the arms race in academic qualifications, in which each must study longer because that is what all the rest are doing. It is time to disarm. ■

Workers in America are more educated now than in 1970
Share of workers* with at least a bachelor's degree, %



Higher education All must have degrees

SEOUL
Going to university is more important than ever for young people. But the financial returns are falling

IN A classroom in Seoul a throng of teenagers sit hunched over their desks. In total silence, they flick through a past exam paper. Stacks of brightly coloured textbooks are close to hand. Study begins at 8am and ends at 4.30pm, but some will not go home until 10pm. Like hundreds of thousands of South Koreans, they are preparing for the *suneung*, the multiple-choice test that will largely determine whether they go to a good university or a bad one, or to university at all.

Over the course of a single generation in South Korea, degrees have become close to ubiquitous. Seventy per cent of pupils who graduate from the country's secondary schools now go straight to university, and a similar share of 25- to 34-year-olds hold degrees, up from 37% in 2000. Students scramble to gain admittance to the most prestigious institutions, with exam preparation starting ever younger. Sought-after private nurseries in Seoul have long waiting lists.

South Korea is an extreme case. But other countries, too, have seen a big rise in the share of young people with degrees. In the OECD club of 35 countries, 43% of 25- to 34-year-olds now have degrees (see chart 1 on next page). In America the figure is 48%.

Between 1995 and 2014 government spending on higher education in the OECD rose from 0.9% of GDP to 1.1%, while private spending rose from 1.2% to 1.5%. As government subsidies for tuition fees flow through to institutions they have helped inflate costs. Since 1990 fees for American students who do not get scholarships or bursaries have risen twice as fast as overall inflation.

Policymakers regard it as obvious that sending more young people to university will boost economic growth and social mobility. Both notions are intuitively appealing. Better-educated people should surely be more likely to come up with productivity-boosting innovations. As technological change makes new demands of

workers, it seems plausible that more will need to be well-educated. And a degree is an obvious way for bright youngsters from poor families to prove their abilities.

But comparisons between countries provide little evidence of these links. Richer countries have more graduates, but that could be because there is more money to spare, and less urgency to start earning. Rich economies grow more slowly, but that is probably because they have fewer easy ways to raise productivity, not because education depresses their growth.

A truth universities acknowledged

The main piece of evidence cited by policymakers is the "graduate premium"—the difference between the average earnings of someone with a degree and someone with no more than a secondary-school education, after accounting for fees and the income forgone while studying. This gap is often expressed as the "return on investment" in higher education, or the annualised boost to lifetime earnings from gaining a degree. Research by the New York Federal Reserve shows that the return on investment in higher education soared between 1980 and 2000 in America, before levelling off at around 15% a year. In other words, an investment equal to the cost of tuition and earnings forgone while studying would have to earn 15% annual interest before it matched the average value over a working life of gaining a degree.

The World Bank has produced estimates of this return for 139 economies. It varies from place to place, but is substantial everywhere. *The Economist's* analysis of the data finds that returns are linked to the share of people with degrees, and the range of earnings. Returns in Britain and Germany are similar to those in America. In sub-Saharan Africa, where degrees are scarce and the least-educated workers earn little, they are around 21% a year. In Scandinavia, where wages are less unequal and two-fifths of adults have degrees, they are around 9%.

But as a guide to school-leavers considering going to university—and to policymakers considering expanding access to higher education—the graduate premium is flawed. Even within countries the average conceals wide differences. Most students know that a degree in mathematics or finance is likely to be more lucrative than one in music or social work. What fewer realise is that the graduate premium overstates the financial benefit of embarking on a degree if their school grades barely qualify them for entry, no matter what they study.

In a comparison of the earnings of people with degrees and people without them, those who start university but do

An interactive version of the chart above can be found on our website, at economist.com/ReturnsToEducation

▶ not finish are lumped in with those who never started, even though they, too, will have paid fees and missed out on earnings. Their numbers are considerable. In America 40% of college students fail to graduate with four-year degrees within six years of enrolling. Drop-out rates across the developed world average around 30%. It is the students admitted with the lowest grades who are least likely to graduate.

Including dropouts when calculating the returns to going to university makes a big difference. In a new book, "The Case Against Education", Bryan Caplan of George Mason University argues that the low graduation rates of marginal students, and the fact that, for a given level of qualification, cleverer people tend to earn more, mean that the return on a four-year degree in America ranges from 6.5% for excellent students to just 1% for the weakest ones.

Part of that difference is because the weakest students attend the worst universities, where drop-out rates are highest. When they make it into better institutions, the returns may be higher. In a study published in 2014 Seth Zimmerman of the University of Chicago compared the earnings of school-leavers in Florida whose grades were close to the minimum for admission to a good state university. Those just above the cut-off were much more likely than those just below to start courses in good institutions. They graduated at a rate similar to that of the broader student population. They went on to earn considerably more than those just below the cut-off, and their return on investment was substantial.

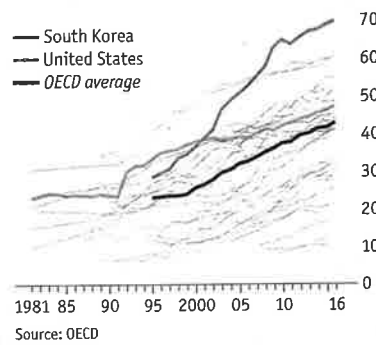
Overstating the graduate premium is not the only reason policymakers overestimate the wider benefits of increasing the share of young people who go to university. The usual way to calculate the social returns of higher education is to sum up all the graduate premiums and subtract any public subsidies. But degrees are in part a way to access a "positional good" that benefits one person at the expense of another. Part of the premium comes from gaining an advantage over others in the competition for a good job, rather than the acquisition of productivity-boosting skills and knowledge. A complete calculation would include not just gains to graduates, but losses to non-graduates.

Degrees are also signalling devices. The premium includes the income-boosting effects of personal characteristics that are more likely to be held by those with degrees, not because they acquired them at university, but because they possessed them on admission.

As degrees have become more common, their importance as signalling devices is rising. Recruiters, who pay none of the cost of jobseekers' higher education, are increasingly able to demand degrees in order to screen out the least motivated or competent. A recent study by Joseph Fuller

Swot teams

25- to 34-year-olds with tertiary degrees
% of total



Source: OECD

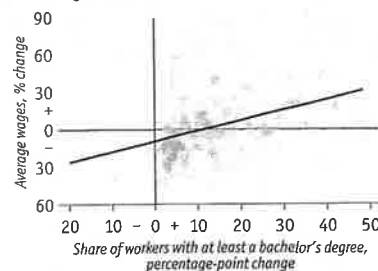
and Manjari Raman of Harvard Business School found that companies routinely require applicants to have degrees, even though only a minority of those already working in the role have them. This increases the graduate premium—but by punishing non-graduates rather than boosting the absolute returns to degrees.

Analysis by *The Economist* of American census data finds that between 1970 and 2015 the share of workers aged 25-64 with at least a bachelor's degree increased in 256 out of 265 occupations (see previous page). Some of these are intellectually demanding jobs that changed a lot over that period, such as aerospace engineer or statistician. Others are non-graduate jobs such as waiting tables. Sixteen percent of waiters now have degrees—presumably, in most cases, because they could not find a graduate job. But other jobs that are mostly done by graduates, such as journalism, nursing and teaching in primary schools, used to require only shorter training, often received while working. Today, having a degree is usually an entry requirement.

The Economist has produced a measure of over-education by defining a graduate job as one which was staffed mostly by degree-holders in 1970. We find that just 35% of graduates work in such occupations today, down from 51% 45 years ago. Judging by job titles alone, 26.5m workers in America—two-thirds of those with degrees—are

Earning by degrees

United States, employment by occupation*
Workers aged 25-64, 1970-2015



Sources: University of Minnesota IPUMS; *The Economist*

*Divided into 265 occupations

doing work that was mostly done by non-graduates a half-century ago.

That calculation exaggerates the trend. Advances in technology have doubtless made some of these jobs more demanding. But not all of them, at least judging by pay. We find only a weak link between higher shares of graduates in an occupation and higher salaries (see chart 2). For around half of the occupations that employ higher shares of graduates now than a half-century ago, real wages have fallen.

Andreas Schleicher, the head of education research at the OECD, reckons that "countries have skills shortages, not degree shortages". The way universities have come to monopolise higher education, he says, is a problem in part because universities do not suit all kinds of learners. And university dropouts tend to see little in the way of financial benefit from the part of their course that they have finished.

One promising development is that of "micro-credentials" or "nano-degrees"—short vocational courses, often in computing and IT. Udacity, an online education company, offers a variety, including one in self-driving cars approved by Uber and Mercedes-Benz, and another on digital marketing approved by Facebook and Google. EdX, a collaboration between MIT, Harvard and other leading universities, offers similar courses free. Students can take exams to prove their mastery of the material for a few hundred dollars.

Boot campus

For now, such courses are mostly add-ons to degrees, rather than replacements. Three-quarters of edX's students already had a bachelor's degree upon enrolling. But the collaboration with sought-after employers makes it more plausible that they could eventually become established as a stand-alone testament to a job applicant's worth.

In the meantime the decision not to go to university remains risky, even though many graduates will end up doing work that used to be done by non-graduates—or struggle to find a job at all. Around half of unemployed South Koreans now have degrees. For them, the very concept of a "graduate premium" may seem a mockery. Kim Hyang Suk, a recruiter in South Korea, says that half the applicants for customer-service jobs at her firm are graduates, even though only a secondary-school education is specified.

She would prefer school-leavers with experience, says Ms Kim, to inexperienced graduates whom she will have to train. She is not looking for swots, but people who are "engaging, good on the phone". But when few employers are this open-minded, most young people will want a degree. It may not boost their earnings as much as they had hoped, but without one, they will probably fare even worse. ■