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Citation for published version:

Paterson, L 2013, *Outstanding Students and Philanthropic Contributions in Scottish School Education*. Hume Occasional Papers, vol. 98, The David Hume Institute.

Link:

[Link to publication record in Edinburgh Research Explorer](#)

Document Version:

Publisher's PDF, also known as Version of record

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THE DAVID HUME INSTITUTE



Outstanding Students and Philanthropic Contributions in Scottish School Education

Lindsay Paterson

September 2013

Hume Occasional Paper No. 98

The David Hume Institute
26 Forth Street
Edinburgh EH1 3LH

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ISBN 1 870482 97 4

**Outstanding Students and Philanthropic Contributions
in Scottish School Education**

Lindsay Paterson

September 2013

Report Commissioned by the Scottish Government

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Foreword

We were delighted to be approached by the Scottish Government to see if we would assist them in putting together an extended seminar at which Professor Lindsay Paterson would present a report on Philanthropy in Education, to be discussed by, among others, the Cabinet Secretary for Education and Lifelong Learning, Mr Mike Russell.

Arrangements for the session were rapidly completed, with a cast list including Martin Evans the Chief Executive of the Carnegie Foundation, Jim McColl of Clyde Blowers and Alex Wood, the former head teacher at Wester Hailes High School. Each will be exceptionally well placed to contribute, from very different, but most certainly informed, perspectives. Professor Sally Brown, Chair of the Education Committee at the Royal Society of Edinburgh, will make an excellent chair for the event. Additionally, we are very pleased that representatives of each of the other political parties represented at Holyrood has agreed to participate in the seminar, to be held at the Royal Society of Edinburgh on 4th September.

The foundation for the seminar will be this report by Lindsay Paterson, which we at the DHI are delighted to be able to publish as a Hume Occasional Paper. This paper was prepared especially for the Scottish Government's consideration and it receives its first public release for the Institute's seminar.

Lindsay Paterson's paper is full, well-argued and accessible. It is based upon specific consultations with those expert in the topic as well as a full search of the academic and policy literature. I found it of particular interest that funders wish to be 'involved in how money is spent' as well as wishing that the extra funding is used 'to supplement, not replace, core provision' – that provision is expected to be funded by the public purse. The sectors at present covered by philanthropic contributions include music, dance and sport. However, as suggested in this paper, such funds could also assist achievement of excellence in Scotland in a variety of other subject areas – languages, creative writing, science and civic leadership to name but four. Professor Paterson suggests that donations could be disbursed both via a national fund and via specific schemes for larger donations. In either instance equity of distribution and efficiency of delivery would be critical – with built-in evaluation of outcomes an essential requirement.

I expect a number of such key points to be drawn out at the seminar, with key conclusions clarified for the Government and for other key players. We all hope that the debate through the conference will establish the scope for continuing discussion in the weeks and months to come on how best to attract philanthropic donations to help add value across education in Scotland. However, as always in Hume Papers I must note that as a charity the Institute has no views on these matters, simply wishing to facilitate the objective, informed and evidence-based policy debate.

Professor Jeremy Peat OBE FRSE
Director
David Hume Institute
August 2013.

About the Author

Lindsay Paterson is Professor of Educational Policy in the School of Social and Political Science, University of Edinburgh, where he teaches courses in educational policy and research methods. His main academic interests are in education, civic engagement and political attitudes. He has published widely on school effectiveness, on the expansion and purposes of higher education, on social mobility and on the relationship between education and civic values. He has served on the ESRC Research Resources Board (2003-7), was an adviser to the Scottish Parliament's Education, Culture and Sport Committee (2002-3), and has provided consultancy advice to the Scottish Government on several occasions. He is a Fellow of the British Academy and a Fellow of the Royal Society of Edinburgh.

Summary

1. The report was commissioned by the Scottish Government to explore the scope which philanthropic contributions might have in providing bursaries to support outstanding students in Scottish school education. It is based on two sources of evidence – a search of the academic and policy literature, and consultations with people who have expertise in relevant ways.
2. The main conclusions from research on why philanthropists donate money and on how these donations might be managed most effectively are:
 - they donate when they believe in a cause;
 - they want to innovate;
 - they want to be involved in how the money is spent in order to ensure efficiency and effectiveness;
 - they want to supplement, not replace, core provision that is paid for by public funding;
 - they want public recognition.
3. The main conclusions from research on how to use bursaries to stimulate and encourage outstanding achievement are:
 - selection for receipt of bursaries can, properly designed, be both rigorous (not compromising on absolute standards of accomplishment) and fair;
 - bursaries tied to performance can provide an incentive and, properly designed, can be equitable;
 - in order to ensure that opportunities are as fair as is consistent with encouraging excellence, the initial assessment for receipt of a grant has to measure potential, often from a very early age, as well as current attainment, and has to be open to everyone;
 - the educational opportunities to which the bursaries would aid access have to be of a variety of kinds, from specialist schools to special classes supplementing school work; there is experience of all of these approaches in Scotland;
 - three principles should govern the character of specialist programmes and the offer of bursaries to take part in them: students should be expected to work hard (harder than students not in specialist provision would normally be expected to work), to be broadly educated as well as to be excellent in the specialism, and to develop a sense of duty to society in return for the privilege of being afforded the chance to develop their special talents;
 - the reason to encourage the development of special gifts and talents in Scottish education is not that the very able are performing badly in the core curriculum by international standards: they are not; it is, rather, that Scotland ought to be enabling greater diversity of accomplishment and to be stimulating achievement that is truly outstanding.
4. The main recommendation so far as persuading philanthropists to donate to Scottish school education is concerned is to draw on the research noted in (2)

above and in particular to respond to a sense that Scottish education is felt to be too uniform, a strength but also a constraint on innovation.

5. Two complementary approaches to managing donations might be adopted, depending on their size. For smaller donations, a national fund would be established to receive gifts. Money would be allocated from this in a way that would be analogous to that in which UK National Lottery money is given to charitable causes, by means of competitive bids from the organisers of schemes for talented or gifted students. Giving grants in response to competitive bidding would stimulate creative thinking among providers of opportunity to outstanding students, and would encourage diversity. The main criteria that would be used when deciding which proposals were worth funding would be that they could provide imaginative opportunities for truly outstanding students, and that they would do so in a manner that was as equitable as possible without compromising on absolute standards of excellence. These national competitions would be overseen by a national board. The only restriction on the kinds of organisation that would be eligible to enter the competition for funding is that they would have to be judged to be serving charitable purposes by the Office of the Scottish Charity Regulator.
6. It is likely that most of the schemes for gifted and talented students that would be funded in this way would themselves take the form of competitions for bursaries that would be intended to reward students who showed outstanding merit and to enable them to develop their potential.
7. Donors of large sums of money would probably want to fund schemes directly, rather than give money to the national fund, but they might also be willing to be guided by the same processes of selection and allocation as would guide the work of the national fund.
8. The board would seek to stimulate bids that sought to encourage all kinds of talent and gift, not only in the areas of outstanding talent which are currently recognised in Scotland (music, dance and sport). Examples of curricular areas that might benefit in this way are languages, mathematics, science, creative writing and civic leadership.
9. Specialist programmes in leadership might be funded by this scheme, but learning about leadership ought also to pervade all schemes. Understanding the social responsibilities of excellence ought to be a fundamental part of any educational programme for outstanding students.
10. The seven specialist schools in Scotland would be eligible to apply for such grants in order to develop their already strong provision. These seven are, in the publicly managed sector, four music schools, a dance school and a sports school, and in the independent sector one music school.
11. There would be careful evaluation of all funded schemes, and schemes themselves would have to provide plans for how they would evaluate the effectiveness of bursaries or other expenditure. The emphasis would be on outcomes – on whether the funding had made a measurable difference, and whether it had been spent efficiently.

1. Introduction

This report was commissioned by the Scottish Government to explore the scope which philanthropic contributions might have in providing bursaries to support outstanding students in Scottish education. On the supply of bursaries, the general questions addressed are: how might philanthropists be persuaded to donate money for this purpose, and what are the mechanisms that are available for receiving and administering such contributions? Discussion of research on these questions about supply is in Section 2. On the use of bursaries, the general question is: how might bursaries be used to provide or support special opportunities for outstanding students, in any field of education, in a manner that is both rigorous and fair? Discussion of research on these questions is in Section 3. Section 4 summarises the principles drawn from the discussion of supply and use, and proposes that these principles form the basis of any specific schemes that might be put in place. Section 5 then proposes several ways to expand the scope for providing specific bursary schemes in several areas of the curriculum.

These questions have been approached here using two kinds of evidence. One has been a search of the academic and policy literature on philanthropy in general and philanthropic contributions to bursaries in particular. Attention is paid to well-conducted academic research on how financial reward might encourage able students and might widen access to advanced levels of education. Much of this research in the past decade has come from the USA where there has been a shift towards basing financial aid on educational performance: this natural experiment has provided a unique opportunity internationally to understand how to select students rigorously and fairly.

The other source of evidence was consultation with 40 people in Scotland and elsewhere in the UK who have expertise in this field. These were informal discussions to explore ideas, and the interpretation is mine alone. The people who were consulted are listed in the Appendix; I am grateful to them for giving their time to the project. Their views are drawn upon throughout the report, partly as a means of assessing whether the conclusions of the international research that is reviewed in Sections 2 and 3 are relevant to Scotland, and partly as sources of ideas about innovation in Scotland.

2. The nature of philanthropy in education

2.1 Introduction

Philanthropic giving is usually thought to be quite marginal to the European traditions of education, in contrast to the USA. The norm in Scotland has become a mainly public educational infrastructure – the schools, colleges and universities – the public education of teachers, the public provision of curricula and examinations, and the public regulation of standards. Yet this meaning of ‘public’ is of relatively recent origin, essentially dating only from the middle of the twentieth century, though with antecedents back to the origins of the welfare state at the end of the previous century. For many years, a meaning of ‘public’ as only that which is publicly managed coexisted with a sense of public as being anything regulated by the state, or provided as a partnership between the state and others. The origins of many of Scotland’s secondary schools in philanthropic beneficence is evident in some of the well-known names of their founders – Anderson, Baxter, Bell, Fettes, Gillespie, Heriot,

Hutcheson, Marr, Milne, Nicolson, Watson, Webster, and many more. That some of these schools are now independent while some are managed by the local authority is an accident often of local politics stretching back again to the origins of the welfare state. Before the advent of comprehensive secondary education and the ending of grant aid to some of the now independent schools in the 1960s and 1970s, there was no sharp distinction drawn between schools that still rested on their original endowment and those where the endowment had been too meagre to prevent an absorption into fully public management.

Even in a Scotland that has been strongly attached to public provision, there has always been some philanthropy on the margins. There have been bursaries inherited by universities to be offered competitively to able students. There have been philanthropic contributions to young people's orchestras and sport. There have been special residential opportunities for encouraging particular talent. There has also been the continuing grant-giving impact of the various funds set up by Scotland's most famous philanthropist, Andrew Carnegie. There is greater openness in Scottish society to charitable than to commercial involvement in schools, although there is not much enthusiasm for it either: in the Scottish Social Attitudes Survey of 2007, whereas 66% were opposed to private companies' running state schools, 48% opposed charitable organisations' doing so; the proportions in favour (as distinct from being neutral) were 11% and 22%.¹

The character of philanthropic activity is changing world-wide in ways that might favour its greater use for bursaries awarded on the basis of merit. Pearson (2003) notes of Canadian philanthropists that they now seek to influence the content of education, not merely to have their names embodied in buildings. Likewise, for the USA, Hauptman (2006) notes that in recent decades donations have become more focused than previously, such as on specific educational needs rather than buildings. That intention has caused some concerns in England among critics of philanthropic involvement, a fear that it could distort the curriculum (Coles, 2006; Ball, 2010). Doubts about the long-term efficacy of philanthropy have been expressed in the USA, though there, unlike in England, the tendency is not a preference for greater state involvement but rather to look for more efficient ways of organising the market for charitable donations (Goldberg, 2009).

Nevertheless, the willingness of some philanthropists to look to the long term, to be interested in potential rather than any specific kind of activity, and to be willing to learn from the failure of individuals or of funding schemes may offer the scope for involving them in a manner that would suit their interests while also being firm in the protection of the freedom of teachers to teach and students to develop in whatever direction best suits their capacities. The question would then be whether schemes of funding might be developed that attracted the commitment of philanthropists while also being consistent with the fundamental liberal values of Scottish education.

This Section 2 reviews research on the scale of philanthropic and charitable giving in the UK, placing that in a global context where possible and examining trends over time. A distinction is drawn between giving by the general population and giving by very wealthy people, although it turns out that there are good reasons to believe that motives are not fundamentally different. The section also summarises what is known

¹ The sample was of 1,508 people selected randomly.

about the kind of people who give, again drawing that same distinction. The account in Section 2.5 of motivations for giving is the main part of the section, because it indicates some ways in which philanthropic interest in donating to education might be stimulated.

2.2 Mechanisms of giving

Although there is overlap in the mechanisms used by very wealthy people and by the population as a whole, there are important distinctions. Relatively wealthy people tend to be more aware of ways of taking advantage of tax relief on giving than do others who give only occasionally. Taylor et al (2007) note that, whereas the general population use ‘spontaneous methods’ – collection tins, raffle tickets, and so on – wealthy people use cheques, direct debits or standing orders. Cheques are particularly common where the donor has an account set up in accordance with the rules of the Charities Aid Foundation or has a charitable trust. As the authors point out ‘these methods were particularly attractive to this group because they offer complete control over the direction and timing of the donations they make’. Tax relief on charitable giving of this sort was welcomed by wealthy givers, not so much for the financial savings that it allowed but rather because it provided a way in which the wealthy could influence some government spending in a manner that is not possible with the payment of general taxes: implicitly, by tying tax relief to the choices of the donor, the government is following the donor’s preferences. These mechanisms are not used by the general population (Low et al, 2007).

Charitable trusts were also, however, regarded with some scepticism by many of the 76 wealthy donors interviewed by Lloyd (2004), because they are complex to set up and because they have to be scrutinised by the relevant authorities (in Scotland, the Office of the Scottish Charity Regulator). Gift Aid did not suffer from that problem, being added automatically to a donation as income-tax relief and passed on to the beneficiary, though there were also complaints that this happens smoothly only at the basic rate of tax because relief at the higher rates has to be claimed back by the donor, not the recipient. Lloyd notes the search by wealthy donors for the most ‘tax efficient’ form of giving, by which is meant that which uses its power of leverage to bring in the largest amount of government contribution through tax: achieving leverage is a common motive of wealthy donors, as will be discussed below. The most tax-efficient form of donation is payroll giving, where the donation is deducted before tax by the employer, because a further 10% is added by government to the value that passes to the recipient. Both Gift Aid and payroll giving are widely recognised and used by the general population (Low et al, 2007).

Several of the wealthy respondents to Lloyd’s survey suggested that there is a need in the UK for a scheme similar to that in the USA where a donor can get tax relief on an irrevocable capital gift pledged to the recipient but not in fact passed on until the donor dies. The advantage to the donor is that the capital can continue to be used, for example as investment on which the profit goes to the donor, not the recipient. The advantage to the recipient is the scope for long-term financial stability which such a gift provides, one aspect of which is that the gift counts as an asset against which the recipient may borrow before it is received. The capital gift may be in kind, for example a work of art, and may be in part, for example a share in a work of art.

2.3 Extent of giving

The small number of very wealthy donors contributes a relatively large share of the total amount given to charity in the UK. Breeze (2010) reports that the 201 donations in 2008-9 that were of more than £1m amounted to a total of £1.5bn. Since (as noted below) the total amount given to charity in 2008-9 was about £10bn, the donations from very wealthy people came to about 15% of the total. The ‘mass affluent’ (Lloyd, 2004) – meaning 3.1m higher-rate taxpayers (about 10% of all taxpayers) – gave about 17% of the total of all individual donations. Compared to the 10 other standard economic regions of the UK, Scotland had the second-highest number of donors of amounts over £1m, after London. Lloyd (2004) noted however that, compared to the USA, the very wealthy in the UK give a fairly small share of their total wealth to charity: for example, the top 30 donors in the *Sunday Times* Rich List in 2004 gave 2.3% of their wealth, in contrast to the analogous figure in the USA of 13%. It is also notable that the poorest people in the UK are the most generous in relation to their resources: Lloyd (2004) reports that donors from the poorest tenth of the population gave 3% of their income, while donors from the richest tenth gave 1% of theirs. However, because fewer poor people give anything at all, the proportion of the total wealth of wealthy people that is given is no lower than the total given from all the wealth of poor people (McKenzie and Pharaoh, 2011). Moreover, the share of total giving that comes from relatively large donations (and from the more wealthy (McKenzie and Pharaoh, 2011)) is increasing: the annual report *UK Giving* published by the National Council for Voluntary Organisations and the Charities Aid Foundation notes that donations of more than £100 rose from 6% of all donations in 2005-6 to 8% in 2009-10. One reason for growth in the absolute amount donated by the very wealthy was the economic expansion in the last couple of decades of the twentieth century. As Shaw et al (2010) put it:

Buoyant economies and stock markets, successful new product developments, technological advances and innovations, soaring property values, strong commodity prices and the emergence of a global marketplace all combined to create the ideal environment for successful capitalism and the opportunity for entrepreneurs to amass huge personal fortunes on previously unseen scales at younger ages than their historical peers.

Breeze (2010) notes further that the gifts of £1m or more went to 161 organisations. A recent trend has been that, increasingly, these large gifts went to universities, which received 37% of their total value, being 66 of the total of 161 recipients. The next largest category of recipients was in connection with ‘arts and culture’, receiving 13% of the value. Breeze suggests that this vindicates the UK government scheme for ‘matched funding’ in connection with donations to universities, introduced in 2008, whereby the extent to which government matched donations ranged from one-to-one for universities with little experience of fund-raising to one-to-three matching for institutions with longer experience.

Trends in general charitable donations are tracked annually as part of the Office of National Statistics omnibus survey by means of a module of questions commissioned by the National Council for Voluntary Organisations and the Charities Aid Foundation. This is a reliable source because the methods are rigorous and the sample size large (about 3,000 adults randomly selected from across Great Britain). The survey is reported in the annual *UK Giving*. It has found that the amount that was given fell in 2007-8 and 2008-9 at the depths of the current economic recession, but

has recovered more recently. Thus the proportion of people giving rose from 54% in 2008-9 to 56% in 2009-10, and the median amount given annually increased from £10 in 2008-9 to £12 in 2009-10. The £10.6bn in total amount given in 2009-10 was £400m more than in 2008-9 (after adjusting for inflation); although this is still about 10% lower than the pre-recession level of 2007-8.

2.4 Characteristics of donors

There are some consistent patterns differentiating people who give to charity from those who do not. Low et al (2007) report on the UK National Survey of Volunteering and Charitable Giving in 2007, which had a sample of over 2,700 selected randomly from across England. They found that women were more likely to donate than men, that people in work were more likely to do so than those who were not, that the likelihood and amount of donation increased with income, that white respondents were more likely to have donated than people from other ethnic groups, and that Christian respondents, and those in an amorphous ‘other’ religious category that included Buddhists and Jews, were more likely to have donated than other religious groups (including those with no religion). This survey found variation by region of England, but cannot tell us anything about any Scottish distinctiveness. However, Pharaoh and Tanner (1997) found that people in Scotland were more likely to give, and give larger amounts, than people elsewhere in the UK. The same pattern was found in the British Social Attitudes Survey of 2003, in which 43% of people in Scotland gave at least once a month, higher than in Wales or in any region of England and thus above the British figure of 32%.²

Comparing globally, it has been found that the UK ranks highly in charitable giving and other charitable activities – eighth out of 153 countries in the World Giving Index of 2010 (reported by the Charities Aid Foundation (2010), and based on data from Gallup’s WorldView World Poll, which in most countries is a random sample of 1,000 people living in urban areas). It was second equal in the percentage giving money. The Index is calculated from the percentage giving money, the percentage giving time, and the percentage who say that they would be willing to help a stranger. The survey also found that countries with higher levels of self-reported happiness tend to give more, and indeed that at country level there was a stronger correlation between the propensity to give and an index of self-reported happiness than there was between the propensity to give and GDP per head. The causal direction could be either way – both that societies with many happy people are more likely to be generous, and also that more generous societies encourage more people to be happy.

2.5 Reasons for giving

In her survey of ‘why rich people give’ – interviews with 76 people in England and Wales who had net financial worth over £5m – Lloyd (2004) found five reasons for donation. Behind each of them lay the influence of religion, family and community:

Belief in a cause

The strongest is a commitment to the ideas and aims of a cause. This motive is not only reported as the reason for past donations; it is also offered in reply to questions

² The sample sizes were 123 in Scotland and 1,133 in Britain as a whole.

as to what would encourage further giving. One of the causes most frequently cited by wealthy donors is education.

Being a catalyst for change

Rich people believed that charities could bring about changes in practice, for example in relation to various kinds of social service. They also believed in a partnership of private and public money, but on pragmatic not ideological grounds.

Self actualisation

Donors found some scope for personal fulfilment through donation – an opportunity to achieve some of their more idealistic goals.

Duty and responsibility

Wealthy donors felt a sense of social responsibility – that it was their duty to return to society some of the riches which society had enabled them to accumulate. They would see this not in any sentimental way, but as a form of investment.

Relationships

Donation enabled the donor to strengthen connections with institutions that had been influential on them, notably schools and universities.

Donation could also bring public recognition, and many of Lloyd's respondents felt that their humanitarian motives were treated with cynicism in public debate. They felt that in the UK there was a lack of respect for philanthropy, and would like it to be celebrated far more.

One consequence of these motives is that most donors would like some say in how their money was spent, not in the sense of detailed involvement in the programme to which they had donated but rather in how the money was managed, how the organisation was governed, what Information Technology systems it used, and so on. In the UK, philanthropists did not want to fund core costs, which were believed by almost all of Lloyd's respondents to be the responsibility of the state. But they would fund special provision that would add extra value to the basics, and where possible they would prefer to fund users rather than providers – students rather than schools, for example. They particularly liked having the leverage to bring in more state funding, this being one way in which philanthropy could be interpreted as a form of investment. But belief in the cause was regarded as much more important than tax incentives.

Lloyd (2004) also illuminatingly compares these UK responses with the findings of analogous research in the USA. One important difference there is the absence of a welfare state, arising from an abiding sense that the state does not have a core role in sustaining social welfare. From the same source comes a culture of individual achievement and individual responsibility. So far as motives are concerned, however, the important difference is that the sense of duty goes deeper. There, being philanthropic confers status: 'philanthropy in the USA', she notes 'is not just about giving, but is about engagement'.

For the UK, similar conclusions to Lloyd's about the reasons why wealthy people become philanthropists have been found by other researchers. Taylor et al (2007) interviewed 44 people who had an income of at least £200k per year (a sample drawn from the self-assessment records of Her Majesty's Revenue and Customs). The

motives for giving were commitment to the cause (as ‘worthy’), personal connections to the charity, being socially responsible and providing a ‘sense of well-being’ to the donor, which included having their generosity public recognised. Tax incentives were not a major reason for donation. An important barrier that would discourage wealthy people from giving was a fear that the donation would not have much of an impact because of the inefficiency of the recipient organisation. Thus donors of large amounts wanted to have some influence on how the money was spent.

Similar conclusions were reached by Shaw et al (2010), from a study of 100 wealthy philanthropists in the UK – people with personal wealth in 2007 of at least £10m and who, to that point, had donated at least £1m. The research found that the main reasons for giving is that philanthropists want to be engaged: they give to causes that excite them. Again, the most commonly cited such causes were in education (mentioned by 51 of the 100 philanthropists), and charities associated with young people more generally were also popular (31 citing these). The way in which wealthy people are involved in philanthropy is through their social networks and through the reputation which their wealth and their generosity create: they have influence because they have been economically effective and then because they choose to distribute some of the fruits of that success to others. As in Lloyd’s research, Shaw et al also found that wealthy donors want to ensure that their money is spent effectively; bringing with them the entrepreneurial spirit that had helped them to earn their wealth.

International comparative research on motives has reached similar conclusions also. A study by Barclays Wealth (2010) reported on the reasons for donation given by ‘2,000 millionaires across the world’ (further details not being specified in the report). Two vignettes reinforce the more general findings of Lloyd, of Taylor et al and of Shaw et al. Philanthropy in Ireland was described as showing ‘the big village effect’, demonstrating Lloyd’s theme of the importance to donors of strengthening relationships that had been important to them. As one respondent put it, ‘A lot of wealthy people [in Ireland] are still very connected to their grassroots be it through sport or through their friends at school who weren’t brought up with rarefied or privileged backgrounds.’ A second vignette, from the USA, encapsulates the desire to give something to society in order to enable others to be personally successful. As the authors of the report put it, ‘believing that everybody has the same capacity for success but not the same opportunities, the wealthy in the US want to help provide prospects for others, as they have had in their lives.’

Although many of these motives can apply only to very wealthy people, research on why the general population gives to charity reaches rather similar conclusions about motives (Low et al, 2007). The most common reason to donate was that the work of the charity was judged to be important and a belief therefore that supporting it was right. These are analogous to the motives from the wealthy of being committed to the cause and having a sense of duty. Dissatisfaction with the way in which charities are run was sometimes given as a reason not to donate, and donors wanted to know that charities were using money effectively. Thus appealing to wealthy donors does not involve a completely different set of activities or themes to appealing to the general population: what matters above all are that the donor has a cause to which to be committed, and that the cause be advanced in a business-like manner.

3. Bursaries

3.1 Types of financial aid to students

Four broad types of financial help to students may be identified – needs-based aid, merit-based aid, performance-based aid and aid for students with outstanding talents or gifts. Although the categories overlap, and although the last, which is the main focus of the present report, may contain elements of each of the other three, they are a useful way of clarifying the educational and social purposes to which special funding for students may be put.

Needs-based support is grants which depend on the financial circumstances of the student and on nothing else. In particular, needs-based grants do not depend on the student's educational achievement or potential. The purpose of needs-based support is then entirely social, to compensate for economic inequality, and there is no clear link at all to encouraging educational progress or attainment.

In fact, needs-based support in its pure form is rare, because usually the provision of support depends in some kind of implicit way on educational achievement. The best examples in the UK of purely needs-based support are Child Tax Credits and Working Tax Credit, which (through being paid to parents) are a form of aid to children that depend only on the family's financial position. Other kinds of aid that might appear to be purely needs-based contain hidden links to attainment. For example, the loans available to undergraduate students in higher education, with interest rates heavily subsidised by government, depend overtly on the student's financial circumstances, but are not purely needs-based because people who have not entered a higher-education course are not eligible at all; to enter such a course requires that a student be in approximately the top 40% of all school students by attainment. The same point can be made about an even rarer form of support, flat-rate payments not related to need. The only clear instance of that in the UK was Child Benefit (until the changes of 2012-13), which, for children still under the school-leaving age, was paid regardless of educational progress. At these ages, it was then an instance of support based on neither need nor attainment. However, for ages over 16 its payment, though still not needs-based, depends on the child's being in full-time education, and that in turn depends on some, albeit modest, level of achievement during the compulsory years of schooling. The means testing that is an inevitable corollary of needs-based awards also is inevitably complex, and so tends to reduce uptake. That is probably one reason why the uptake of Child Benefit was nearly complete, because it was so easy to claim.

In reality, then, there is almost always an element of the second basis of financial support, known as merit-based. The essential feature here is that the student has to pass a test of some kind in order to qualify for the financial payment. This kind of aid is sometimes described in the UK as a scholarship, with the word 'bursary' retained only for awards which are not merit-based. However, the word 'bursary' is used in the present report because it has a long history in Scotland of including awards made on the basis of achievement.

We may then distinguish several varieties of merit aid. The most important distinction in principle is between assessing achievement and assessing potential, though in practice it is rarely possible to draw it reliably. In Scotland, though qualifying for a student loan depends implicitly on showing the potential to benefit from higher education through the grades that have been obtained in Highers or other school-

leaving examinations, in practice not everyone who demonstrates that potential actually gains a place and thus not every such person qualifies for the loan. The reason is that entry to university is competitive, and so to enter most courses applicants have to show that they have achievement that is far beyond that which would be required to demonstrate potential. All the same, the distinction between awards based on achievement and on potential is worth drawing if only because assessing potential is important in selecting people at a very young age for participation in special educational programmes for the highly gifted or talented, the best-known of which is special tuition for musical performance. It is innate musical potential that has to be judged when deciding whom should be admitted to such courses, not yet musical achievement, and one of the reasons why that is the case is that until such a highly talented student has benefited from the special tuition which only courses of that kind can provide their musical achievement cannot come anywhere near to matching their musical talent. (This example is discussed further below.)

Related to that distinction between potential and achievement is the contrast between specific tests of particular talents and general tests of cognitive ability. The test to identify musical potential would be of the former kind. The achievement represented by gaining, say, six A grades in one sitting of Highers is of the latter: on the whole, when faced with an applicant of that kind, a university sees someone of striking all-round accomplishment, rather than a person with particular, specific skills, though clearly these skills must have been well-developed within such an accomplishment.

What is then done in a financial sense with the results of merit-based assessment also takes two broad forms. One is simply recognition, which for convenience we can call a prize. The old style of Scottish university entrance bursary was of that kind. Most of these were not needs-based (or means-tested): they were prizes awarded following a high ranking in the special bursary competition which each of the ancient universities ran for people who had already been admitted to a course. The money was no doubt useful, but it was the status which the award conferred that was the main reward. The other kind of reward is where passing the assessment qualifies the student for a needs-based award. Student loans are again an instance of this. The prize form and the needs-based form can readily co-exist, so that everyone who performs well can receive some financial recognition of the achievement but, beyond that, those who need further aid financially can be rewarded more generously.

The third kind of financial support is in some respects a refinement of the merit-based sort, but places greater emphasis on students' performance while in receipt of the aid than on the initial test of merit. This might take the form of simply having to achieve well enough to remain on the course. For example, the Educational Maintenance Allowance is paid to students from families which have low income who stay on in a full-time course at school or college after they have reached the minimum leaving age; they are thus indirectly but only weakly merit-based, insofar as schools will not encourage a student to stay on unless they have some minimal achievement in the examinations taken in the final year of compulsory education. But the EMA is paid only if students demonstrate commitment to the course by turning up for lessons, which is a measure of performance.

The fourth sort of financial aid is very specific to people who show outstanding talent, and usually draws on some element of each of the other three insofar as merit (or potential) has to be demonstrated before being admitted to the programme of study,

performance has to be sustained while on the programme, and some element of needs-based reward is also provided especially because programmes for exceptional talent tend to be exceptionally expensive. The reason it is useful to distinguish this kind of support from the other three, however, is that it often takes the form of placing students in entirely separate tracks, for example in specialist music schools, or at least in separate streams in mainstream schooling. So the aid is not only directly to the student but is also in the provision of the courses or schools themselves. Although all educational courses in the public sector of education depend for their very existence on public finance, that funding is much greater in the case of programmes for rare talent than it is for courses that are taken by a wider range of students.

Despite the variety of forms of financial aid in support of particular students, the central question to be asked of any scheme is how to balance rigour against equity. Any award of money to one student rather than another on the basis of measured achievement or potential is explicitly inegalitarian because talents are not equally distributed. The question is not only that some students are more accomplished than others, so that payments based on accomplishment cannot be universal, but is also that measured talent is not equally distributed socially: a reward that has some element that is not needs-based will, as a matter of fact, tend to make payment to some students who do not need the money. Moreover, any scheme of funding that recognises talents that are more common in socially and culturally advantaged social groups than in others will tend to reinforce their already higher status. Some of the most highly regarded talents will indeed be most common in high-status groups because well-educated parents tend to pass on their own education to their children, and so the success of their own education unavoidably confers advantage on their children by virtue simply of their being good parents. We can try to mitigate the effect of the absence of parental support by having strong elements of needs-based reward, but, if a scheme is to be fair to the talents of well-off children too, then it cannot avoid an element of social inegalitarianism. That has to be accepted as the price to be paid for recognising talent at all.

In that case, the principle to be adhered to so far as is possible is that which has been made famous by Rawls (2001, pp. 42-3). Interpreted for the circumstances being discussed here, the principle has three components. Everyone should have the same freedom to take part in every aspect of education. Since that right is not in any sense under threat in Scotland, it may be taken for granted. The more difficult components are the second and the third. Opportunity is to be offered 'under conditions of fair equality of opportunity', which is a condition that we can try to adhere to in setting the qualifying conditions on any scheme of financial aid and by providing wide opportunities to reach the threshold of qualification, for example by giving access to basic musical tuition in all schools or communities; but truly equal opportunities are extraordinarily difficult actually to achieve. Rawls's third criterion is even more difficult to satisfy in the recognition and reward of special talent: any distribution of special opportunity is 'to be to the greatest benefit of the least-advantaged members of society'. What this must mean here is those least-advantaged on social grounds who nevertheless do possess the educational potential which is under consideration. It cannot mean being of equal benefit to those who are least advantaged in terms of the talents in question, because to give to them equal rights of participation would be to distort the whole purpose and would be to undermine the very excellence that the scheme would be intended to further.

In short, a purely merit-based scheme would be inequitable; a purely needs-based one would have no educational rigour; and so the question of principle as between rigour and equity requires to be informed by evidence on whether and to what extent a merit-based scheme can be equitable in Rawls's sense in not being disproportionately harmful to the least socially advantaged students who might have the potential to benefit from it.

3.2 Merit aid

Fortunately, such evidence is available plentifully from the USA, where there has been a growth in the past couple of decades in merit-based schemes of financial aid to students and a shift away from purely or predominantly needs-based support. Within this there has also been, in some cases, a strengthening of performance-based criteria. Most of the schemes have been publicly funded, but several have come from philanthropic donors. The new schemes are aimed at a variety of age groups, though most are for students in post-compulsory education because part of the intention has been to encourage motivation and high achievement. The principles on which they are based, and thus the conclusions of the evaluation of them, are unlikely to depend on the precise age of the students for whom they are designed: the inferences to be drawn about the capacity of different kinds of aid to encourage motivation and aspiration are likely to apply across a range of ages. Thus the recently changing experience in the USA provides an invaluable opportunity, without parallel internationally, to form an evidenced-based judgement of the role which merit aid might play and how it might be made consistent with principles of equity. The next Section 3.2.1 briefly describes the aims, character and extent of the recent growth in merit aid in the USA, and the following Section 3.2.2 summarises the evidence from academic evaluation of such schemes. The special case of aid for gifted or talented students is discussed in Section 3.3, thus laying the basis for the recommendations of the present report for that group in Section 5.

3.2.1 Growth of merit aid in the USA

From the middle to the end of the twentieth century, the traditional kinds of financial support to students in the USA were mostly needs-based, the two main sources of aid being the federal Pell Grants and scholarships funded by individual states (Heller and Marin, 2002). Pell Grants had their origin in legislation passed in 1965 and took their current form in 1972 when the principle was established that all students in higher education would receive a minimum of financial support. The criteria for these grants are the income, wealth and size of the student's family; as Dynarski (2004) points out, this and similar schemes that have grown up alongside it (such as the Stafford Loans) are strongly needs-based: '90 percent of dependent students who receive federal grants grew up in families with incomes less than \$40,000'. Dynarski also notes that the main state-level support for students historically has been subsidising fees.

There have always been schemes of merit aid in the USA, most commonly in the private sector of education but sometimes with ramifications for the whole of education. Heller and Callender (2010) note that Harvard's introduction of merit-based scholarships in the 1930s led to the development of what became the nation-

wide SAT, the closest which the USA has to a national school-leaving examination.³ The growth in merit aid since the 1980s has been mainly in the public sector. It has had three main aims: to promote access to higher education and attainment in high school and at college, to provide incentives to students to work hard academically, and – at state level – to entice the most able students not to move to other states to enter university. Dynarski (2004) notes a change in purpose of the new merit aid compared to the traditional kind: ‘the old style of merit aid was aimed at top students, whose decision to attend college is not likely to be contingent upon the receipt of a scholarship’, whereas the new ‘broad-based merit aid programs are open to students with solid although not necessarily exemplary academic records. Such students may be uncertain about whether to go to college at all.’ The extent to which general schemes of merit aid are relevant to encouraging outstanding students is considered in Section 3.3 below.

The first state to introduce a more systematic programme of merit aid was Georgia in 1993. As with several of the dozen other states⁴ that have since established similar schemes, it is funded by a lottery, is dependent for award on the student’s achieving at least a B grade in all core subjects of the high school curriculum, and depends for renewal also on at least B grade attainment (Dynarski, 2004). These new schemes are thus mostly both merit based and performance based. The total value of the new merit aid at state level quintupled between 1980 and 2000, and at federal level tripled (Heller and Marin, 2002). The proportion of all state aid that was awarded on the basis of merit rose from 11% to 24% in the decade 1991 to 2001, and in the 12 states that in 2001 had merit-aid schemes these provided three times as much aid as needs-based schemes. Between 1995 and 2007, the proportion of student aid in the USA that was awarded without any means testing (and solely on the basis of measured merit) rose from 35% to 55% (Heller and Callender, 2010).

Although that shift is the most visible way in which merit aid has grown in the USA, there have been other instances. The best known is the Gates Millennium Scholars program, established in 1999 by the Bill and Melinda Gates Foundation. Desjardins and McCall (2008) describe this as ‘a \$1 billion, 20-year project designed to promote academic excellence by providing higher education opportunities for low-income, high-achieving minority students.’ It is open to students while they are in high school. To assess their academic potential they are assessed cognitively, and have to demonstrate commitment to academic work by having sustained a Grade Point Average in the B range. They also are assessed on non-cognitive measures which Desjardins and McCall describe as ‘positive self-concept, realistic self-appraisal, successfully handling the system, preference for long-term goals, availability of strong support person, leadership experience, community involvement, and knowledge acquired in a field.’

In short, not only has merit aid grown massively in the USA; its growth was most rapid more than a decade ago and so there is a record of experience that allows proper evaluation of its effects. A natural experiment on such a scale provides a strong

³ ‘SAT’ was originally the acronym of ‘Scholastic Aptitude Test’, but is now used without specific meaning.

⁴ Arkansas, Florida, Kentucky, Louisiana, Maryland, Michigan, Mississippi, Nevada, New Mexico, South Carolina, Tennessee and West Virginia (Dynarski, 2004),

evidence base for any discussion of proposals to introduce merit-based awards in other countries.

3.2.2 The effects of merit aid

What, then, has this US experience to teach us? On the one hand, there have been vocal critics, claiming that it has exacerbated inequalities. Heller and Callender (2010, p. 10) show that, in 2007-8, students from families in the top quartile of the income distribution were about twice as likely to receive merit-based awards as students from the bottom quartile (19% as against 11%), the reverse of the pattern for needs-based awards (10% as against 22%). Ness and Tucker (2008) note that ‘the effects on college access of state merit aid programs have been well-reported to disproportionately disadvantage students who are traditionally under-represented in post-secondary education’.

Concluding a compendium of evidence from several authors on the effects of the various schemes of state merit-based scholarships, Marin (2002) found that the awards went disproportionately to upper-income, white students, with only a few exceptions: in New Mexico Native Americans benefited, as did, according to some evaluations, black students in Georgia. Other analysis did not find even that benefit for blacks, and Dynarski (2002) explained this on four grounds: that applying for the Georgian scholarships was complicated in a manner that might discourage parents who did not themselves have high levels of education, that at the same time as introducing the scholarship scheme the tuition fees in Georgian public universities were increased and the total amount of public money going to needs-based grants was cut, and that, for individual students, the incentive effect of being eligible for a merit scholarship was weakened by its being reduced by the amount of any needs-based grant that was also received. Marin (2002) then suggested that for a merit-based scheme to work fairly it had to be simple to operate and had to use a broad definition of merit. Well-off students, though eligible, ought to receive no more than ‘a modest one-off reward’ – in other words, a prize – and the continuing payments which poor students should receive from the merit award had to be supplemented by needs-based payments. Marin also recommended that there had to be continuing, good-quality academic advice to students, especially those from families where there was no tradition of going beyond the minimum, compulsory period of education.

Ness and Tucker (2008), despite this kind of evidence that merit aid is ‘inequitable and inefficient’, nevertheless conclude that it might, somewhat paradoxically, be better than less targeted forms of support if the merit element made it politically acceptable (as Ness (2008) shows in fact to be the case in the USA). They point out that policies that make education available free or at very low cost are more inefficient and inequitable than merit aid, and have the extra disadvantage over merit aid of not being tied in any way to academic incentives. Thus Ness and Tucker suggest that the main requirement of a merit-aid programme, in terms of equity, is that it should be generously funded so that the least advantaged eligible students may be better-off financially than they would be in the absence of any kind of merit aid.

These somewhat more subtle conclusions are amplified by other research which shows that the effects of merit aid are more complex than the most hostile critics allege. Dynarski (2004) points out that rigorous analysis of the effects of merit aid requires good-quality statistical data on cohorts of students both before and after the merit-aid scheme was introduced, recording for each student their scores on

standardised tests, their family income and preferably other measures of social status. Using the best publicly available data set in the USA in these respects (the Current Population Survey), she finds that merit-aid schemes do provide an incentive in that they increase the attendance in post-compulsory education by about 5-7 percentage points; they are, she found, more effective than purely needs-based schemes according to that criterion. The educational incentive effect is more specific than that: merit aid shifts students towards longer programmes of study. Moreover, in some states merit aid reduces inequalities of educational progression between racial or ethnic groups. These effects on the social distribution of educational opportunity, she suggests, depend on the scheme's being simple to operate. She concludes that the reason why merit aid is more effective at raising participation than needs-based aid (such as the Pell Grants) is that merit aid is simpler and more transparent. Like Ness and Tucker, she notes that, although merit aid is costly and subsidises many students who do not need the subsidy financially, it is no more costly than providing education free and may have the political benefit of being widely supported.

Cornwell et al (2003) reached similar conclusions even for the Georgian scheme about which Dynarski was more sceptical. They assessed the effects of the introduction of the scheme in the early 1990s, and found that it caused participation to rise by 6.9% in post-secondary education, especially in four-year degree programmes. This effect was especially noticeable for black students, but white students benefited also. The explanation offered by Cornwell et al is that the scheme is simple to apply for, although they also point out that, where a social group has very low participation before any change is introduced, it is likely that any change that is encouraging of participation will have a relatively large effect on that group.

Dynarski's conclusions on the relative effects of merit aid as compared to needs-based aid have been confirmed by other researchers. Zhang and Ness (2010) found that merit aid does encourage the best students to remain in their state of residence. Belley et al (2011) note that generous needs-based grants do not in themselves reduce inequalities of educational progression: they reach that conclusion by comparing the USA and Canada, finding that the USA aid is more generous to students from low-income families than is aid in Canada, and yet that inequalities are lower in Canada than in the USA. Harrison and Hatt (2011) find that the student bursaries introduced in England after 2006 in response to the increase of university tuition fees there have had no effect on reducing inequalities of participation.

Similar conclusions have also been reached from the close analysis of the Gates Millennium Scholarships (Desjardins and McCall, 2008). They compared the experiences of successful and unsuccessful applicants to the scheme several years after it was started, measuring academic achievement and progress in post-school education, educational aspirations, and various measures of self-belief, propensity to social leadership and involvement in the community. The conclusion was that the recipients of scholarships were more likely than the non-recipients to remain in education and to have high educational aspirations, and that these differences were due to the scholarship itself, not to any pre-existing differences. The recipients also had lower debt, lower parental contributions to maintenance, and fewer hours spent earning money while they were on their educational courses.

Analysis of the effects of performance-based aid – where retaining the aid depends on commitment and achievement – also reaches similar conclusions. Deming and Dynarski (2009), reviewing the research evidence on all kinds of aid (whether or not

related to merit or performance), conclude that programmes which ‘link money to incentives and/or the take-up of academic support services appear to be particularly effective’. Brock (2010) notes that critics of schemes of financial aid claim that most of it does not encourage persistence and attainment. He analysed two performance-based schemes, in Louisiana and in Canada, and found that the most effective approach was to combine financial incentives to perform well with sustained academic counselling to students. The incentives on their own also had a beneficial effect, though smaller, while the counselling on its own had no effect. Deming and Dynarski (2009) note that other research has reached similar conclusions on the effects of combining academic advice with financial incentives. Similar conclusions were reached also by Berlin (2008) from analysis of schemes in New Orleans, Brazil, New Mexico and New York.

Richburg-Hayes et al (2009) analysed the New Orleans experience with a particularly strong research design, in that students were randomly assigned to receive either their college’s normal financial aid or to receive that and a performance-based scholarship; random assignment such as this is the most valid technique for evaluating the effects of aid because it removes most of the possibility of bias between the characteristics of those who did and those who did not receive the aid. The conclusion was that the performance-based incentive had strongly beneficial effects on persistence, attainment, engagement with education and aspirations for the future. The explanations which the authors offer were that the scheme acknowledged that costs were associated with educational success or failure, that it was particularly aimed at students who would not traditionally have continued in education, and that the amount of needs-based aid in Louisiana is limited. They also note that the aid was paid immediately after a period of academic success, so that its receipt was a form of prize, whereas in other schemes aid is withheld as a form of punishment. The authors conclude that ‘it is reasonable to assume that a key mechanism by which the enhanced incentive scholarships improve student outcomes is increased effort while in school.’

The relevance of evidence from one country to another may always be questioned, of course. The USA differs from Scotland in ways that might limit the scope for learning from this research. The absence of a welfare state, the fees charged by universities, the greater openness to philanthropy and probably the stronger belief in self-help: these and other features of US society will have shaped response to merit aid in ways that cannot be replicated in Scotland. Nevertheless, experience is not so different as to render the evidence useless, as educational research over many decades has repeatedly shown. What stimulates students to learn, what encourages them to persist in education, why education has expanded and how education relates to success in later life: all these factors have been shown to be common across developed societies.⁵ To the limited extent that we have direct evidence on the effects of merit aid in Scotland we already know, in fact, that the US conclusions are pertinent. The Scottish Educational Maintenance Allowances are a means-tested grant, the continuing payment of which is dependent on students’ persistence. Croxford and Ozga (2005) found that they increased participation and attainment in National Qualifications, and

⁵ Examples of research which shows this (respectively on these three topics) are: Bransford et al (2000), Shavit et al (2007) and Breen (2004). Further examples are in Section 3.3 (immediately below) on gifted and talented students, notably in the edited collection by Shavinina (2009).

that they interacted with the greater flexibility of courses available through the Higher Still framework to encourage disadvantaged students to remain in full-time education after age 16. These conclusions are quite consistent with the evidence from the USA.

3.3 Programmes for gifted or talented students

The general conclusions about the effect of merit-based aid and its variants may be expected to be relevant to programmes specifically for gifted or talented students, insofar as the provision of such aid would have to be tied closely to stringent measures of outstanding performance and potential. Where the general research is likely to be least relevant is on incentives and motivation, because such students are likely to be highly motivated by the intrinsic satisfaction derived from being given the chance to exercise their talents. Indeed, that capacity to work hard at the details of developing the relevant skills is itself part of what is required to be judged suitable for taking part in special programmes for gifted or talented students (Schunk et al, 2007; Ericsson, 2004). The importance of measuring commitment as part of the assessment of potential is developed more fully in Section 5.2. Nevertheless, no amount of commitment will in itself buy an excellent musical instrument or a place on a residential sporting camp where the coaching is by athletes of Olympic standard: so the chance to excel may often depend on extra funding. It is likely, too, that the element of merit awards that may be thought of as prize could be encouraging of even the most talented student's aspirations, especially when their potential was only at the beginning of being recognised. Research on motivation shows the importance to it of public recognition of achievement (Schunk et al, 2007; Ericsson, 2004): the prize does not have to be generous, but it has to be celebrated, just as an athlete at the highest level is pulled on by an urge to win, or as an established concert pianist will enter the leading competitions for the instrument.

There has been a shift in recent years in the definition and understanding of what 'gifted' and 'talented' mean, away from a concentration only on a small number of outstanding specific skills (such as those relating to musical performance) to a wider range covering many aspects of the curriculum, though still including these traditional areas. Lohman (2009, p. 972) defines the main relevant criterion very broadly 'as a readiness or propensity to acquire particular kinds of expertise.' 'Talented' is the term that has come to be used for specific accomplishment, such as in music or sport, whereas 'gifted' has tended to be used for outstanding ability in a core area of the academic curriculum, such as mathematics or languages (Bailey et al, 2008). However, maintaining the distinction consistently is impossible (because, for example, accomplished performance also requires understanding of academic theory), and so the phrase combining both terms is used here, as it is in much of the recent writing about the subject. The term 'outstanding' is also used here synonymously with that same phrase.

Freeman et al (2010), reviewing the research on selecting gifted or talented students for special opportunities conclude that the consistent finding is that the effect of being placed on these is beneficial. Thus for outstanding achievement to be made possible it is not enough to rely on natural gifts: it is necessary that special tuition is provided. Outstanding students may indeed not flourish at all in mainstream classes. Silverman (2009, p. 965) note that 'exceptionally gifted children often know more than the teacher is teaching or the classroom tests are testing, but they have no chance to display their advanced knowledge.' Freeman et al (2010) 'it is not surprising that bright, keen children will learn more with extra educational help than those who have

not had that opportunity and experience.’ Motivation and commitment are crucial, and indeed Lohman (2009, p. 978) prefers the term ‘aptitude’ to ‘talent’ because it encompasses these broader matters:

Aptitude is also a more inclusive term than talent. Academic talent commonly refers only or primarily to the cognitive aspects of aptitude, thereby excluding the broader range of motivational, temperamental, and other characteristics required for the development of expertise.

He lists examples of these non-cognitive characteristics as ‘the ability to comprehend instructions, to manage one’s time, to use previously acquired knowledge appropriately, to make good inferences and generalizations, and to manage one’s emotions.’

What is needed, then, is a broad-based programme of screening that starts with offering special enrichment of basic tasks to all pupils who, at a young age, are performing above the average. The exceptional pupils then take this further, and, through a process of progressive sifting, the outstanding few are identified. The class teacher is thus crucial in this selection, however important formal tests of above-average and later outstanding merit may be. It is teachers’ intuition which first identifies the pupils who potentially are very high achievers, and mainstream class teachers, too, would have to have responsibility for recommending that such pupils benefit from any special programmes that are available. Any scheme for identifying outstanding students must be closely tied to the opportunities that would be offered to them (Lohman, 2009, p. 972). The research also shows, incidentally, that classrooms where there is a focus on identifying and encouraging above-average performance by those who are capable of it are also more effective for all pupils, whatever their abilities (Freeman et al, 2010; Bailey et al, 2008; Eyre, 2010; Silverman, 2009; Lohman, 2009).

Bailey et al (2008), in their systematic review of research on the most effective provision for gifted and talented pupils, found there to be good-quality evidence supporting a mixed range of programme. The basic requirement is ‘personalised learning and differentiation’ within mainstream classes so that pupils with outstanding potential have the chance to demonstrate it. The next step up is setting, the separation of the outstanding pupils for their work in those areas where they excel; one successful model in primary schools is the grouping of pupils for mathematics by their ability in that subject, cutting across age groups. Provision for outstanding pupils also can be very effectively made by some kind of streaming, the best-known instance of which is the placing of pupils in special music schools such as, in Scotland, St Mary’s Music School in Edinburgh. Scotland has four music schools that embody the principle of setting in a systematic and formal way, in which the pupils who have been selected as having outstanding potential in musical performance spend part of their school time in the separate music school but for the rest of the curriculum are fully mixed with the other pupils in the comprehensive school where the music school is located. These four music schools are in Broughton High School (Edinburgh), Douglas Academy (East Dunbartonshire), Dyce Academy (Aberdeen) and, for traditional music, Plockton High School (Highland). In Broughton, for example, the time which a pupil in the music school spends there is approximately one quarter in the first two years of secondary, one third in the middle two years, and one half in the final two years. Scotland has two other schools of this kind, Knightswood High School (Glasgow) for dance and music theatre, and Bellahouston Academy (Glasgow)

for sport. The character and provision in these six National Centres of Excellence, and in St Mary's Music School, are considered more fully in Section 5.1.1 below.

Some countries already have national systems for selecting and developing outstanding accomplishment to the highest level while also encouraging students who are well above average even if not at the very top of the field. In Israel, for example, there are 53 'enrichment centres' in mainstream schools around the country which cater for the top 15% of students in specified domains of ability, and then select the top 3% for further advancement (Freeman et al, 2010). In South Australia, the 'Students of High Intellectual Potential' programme clears space in the normal curriculum to allow special abilities to be nurtured in special classes. In Baltimore, the Centre for Talented Youth at Johns Hopkins University has, Horsley (2009) notes, 'earned an international reputation for the model it has developed for working with students of high mathematical and/or verbal ability.' Horsley sums up its character: 'approximately 80,000 students each year are served through a wide range of provisions that include summer academic camps, on-line programs, diagnostic testing, and family camps, in addition to producing two magazines aimed at this population of high achievers.'

In England in the past decade, all schools have been encouraged to develop pupils' special gifts or talents (Eyre, 2009, 2010). As part of this, there was a programme based at Warwick University and funded by central government, the 'National Academy for Gifted and Talented Youth'. Although there has also been the analogous Scottish Network for Able Pupils, based at Glasgow University, it has never had the funding nor the centrality to policy that the English network had in the early part of the past decade. Eyre (2010), in a paper in 2010 for the House of Commons Committee on Children, Schools and Families, noted the importance of three principles in the effective provision for such pupils. One is what she calls 'intensive face-to-face with experts'. Examples abound in music and sport, but she also points out that 'working with experts such as Chatham House or the Royal Shakespeare Company is the intellectual equivalent to football coaching at a premier club. New advanced skills are learned and expectations are raised.' The second principle is providing opportunities to outstanding pupils to have conversations with other, similar pupils: 'for academically able students, especially in low achieving schools or from families with limited formal education, isolation can be a problem.' The third is then that, although physically bringing such pupils together remains important (and crucial, we might add, for intrinsically social activities such as team sport or orchestral music), electronic technology allows far more of this to happen than was previously feasible, both in the sense of providing 'high quality, non-school, academic learning' to the most able students and also in that it provides a means by which groups of such students can interact with each other. Eyre emphasises this last point: what is effective is the active creation of networks for outstanding students, both formal through special classes or special schools, and informal through electronic communication: encouragement requires networks that have 'a social as well as an academic purpose' and which enable 'students to join a club of like-minded individuals operating at a similar intellectual level and with similar interests.'

These several authors mention the importance of special funding to support special programmes for gifted or talented students, precisely because individual attention is crucial – the music tutor, the sporting coach, the expert mathematician supplying increasingly stretching puzzles attuned to the pupil's prior attainment. Freeman et al

(2010) suggest that the only way to provide this is through partnerships of public and private funding. Horsley (2009) notes that the Johns Hopkins provision always falls short of what it could offer because donations never match what is required. Eyre (2010) explains that continued funding is necessary to ensure that a culture of attention to outstanding ability is properly embedded in the national school system.

4. Principles

From the research reviewed in Sections 2 and 3, principles may be derived that might inform the design of any scheme for the provision of bursaries. These principles have been shaped also by the comments received in the consultation, and underlie the recommendations made in Section 5.

4.1 Principles of philanthropy

Philanthropists donate when they believe in a cause

It is important to make the case for bursaries as serving educational purposes to which potential philanthropists would be committed. Some people who were consulted suggested that commitment to a cause was more likely if it was local and if it was in a specific curricular area. There is some evidence that philanthropists have become increasingly interested in educational causes in recent years.

Philanthropists want to innovate

Being able to make a change – whether through a new scheme of providing bursaries, or through new ways of running bursary schemes – would appeal to many philanthropists according both to the published research and to the people who were consulted.

Philanthropists want to be involved

This is a difficult point, because it would not be educationally effective to have philanthropists involved in the details of courses or other arrangements. Some people who were consulted warned against ‘donors with an agenda’. The involvement should be in management and general guidance, not in details.

Philanthropists want to see efficiency and effectiveness

It is crucially important that any scheme is administered efficiently and that its impact is evaluated rigorously. Philanthropists see their donation as a form of investment that has social rather than financial returns. So these social returns have to be demonstrated.

Philanthropists want to supplement the core provision

It is widely believed by philanthropists in the UK that the state or other forms of public funding should provide the basics. Philanthropy is an extra, and indeed philanthropists prefer to give in ways that strengthen the value of public money. They also want to use the leverage of their donations to bring in extra public investment.

Philanthropists want recognition and celebration

Public recognition of their humanitarian generosity is important to most philanthropists. Many of them adhere to an idea of giving something to the communities that have helped them. Recognising this then helps to strengthen their relationship with these communities.

Trust funds can be useful but are difficult to manage

While educational institutions find a trust fund that is under their control to be invaluable in providing small grants to pupils, there is great complexity in attracting donations to a general fund and in managing it so as to demonstrate to each donor the value of their investment.

4.2 Principles of fair selection

Merit aid provides an incentive and, properly designed, can be equitable

The best scheme for combining rigour and fairness of selection is to base initial entitlement on stringent educational tests of eligibility, and to base continuing receipt of the grant on continuing performance at a high level.

Assessing potential

The initial assessment for receipt of a grant has to be of potential, and has to be open to everyone. Some way has to be found of compensating for the fact that some students, though with a great deal of potential, have not had the opportunities to develop it. This might involve, for example, special tuition or coaching for students who have not had such opportunities but who do have potential: at the end of that special training, they could compete for bursaries on the same basis as everyone else.

Prizes and supplementary aid

All students who meet the specified educational threshold of eligibility ought to receive some award in recognition of their talents or accomplishments. This prize element gives public reward to successful students regardless of their wealth. Then for students whose financial circumstances do require extra support, that would be available on the basis of assessment of financial need.

Simple application process for bursaries

Complex processes of application are a deterrent for parents who have only minimal education.

Special educational programmes

The educational opportunities to which the bursaries would aid access have to be of a variety of kinds. Details are discussed in Section 5.2, but examples are special classes in mainstream schooling (including at weekends and in the evenings), summer schools, separate streams or schools for gifted or talented pupils and opportunities for outstanding students in mainstream schools to attend separate schools part-time. The model of apprenticeship works better in some contexts than others, but as a metaphor it describes a central feature of all kinds of special provision: the able student learns from someone of distinguished accomplishment. There is experience of all of these approaches in Scotland.

Range of programmes

As well as the core areas of special provision that exist already, in music, sport and dance, many other types of excellence could be encouraged by bursaries. Examples include languages, mathematics, science, creative writing, public speaking, civic leadership, and entrepreneurship.

Recognising extra work by teachers

Some recognition of extra work done by teachers in support of outstanding pupils would be encouraging of this dedication: the US research shows that sustained support is as important for encouragement of students as financial aid. A part of the recognition might be financial, but important also is public recognition of the commitment and also the provision of extra educational facilities which facilitate this work by teachers.

5. Offering new opportunities

5.1 Provision

The purpose here is to provide examples of the kinds of educational programmes and opportunities that might stimulate outstanding students, if adequate funding were to be available. These examples are no more than illustrations because the only satisfactory way of gathering ideas for this purpose is to open whatever funding might be available to competitive bidding from imaginative teachers, schools, students and other people with ideas about how to encourage special talents and gifts. Only in the effervescence of competition will ideas be provoked into life. How such a competition might be managed is discussed in Section 5.3.

There are broadly two ways of providing special opportunities for gifted or talented students – specialist schools, and specialist programmes that run alongside non-specialist schooling. The distinction is not wholly tenable, as will be explained, but is useful pragmatically, the main reason for it here being that Scottish policy has accepted the public provision of a few specialist schools for talented students in the specific areas of music, dance and sport, but not for gifted students in the core areas of the curriculum.

5.1.1 Specialist schools

There are six publicly funded specialist schools in Scotland, known in policy as National Centres of Excellence, each attached to a non-specialist, comprehensive secondary school. These are four music schools (Broughton Music School at Broughton High School in Edinburgh, Aberdeen City Music School at Dyce Academy, the Music School of Douglas Academy in Milngavie and the National Centre of Excellence in Traditional Music at Plockton High School), one dance and music theatre school (the Dance School of Scotland at Knightswood Secondary School), and one sports school (the Glasgow School of Sport at Bellahouston Academy). There is one independent specialist music school (St Mary's Music School) for attendance at which publicly funded bursaries are available. The purpose here is not to describe these schools in detail but to draw out some common organisational principles about the way in which they operate that are relevant to any increase in funding to them and that might be relevant to any more general provision of schools of this kind. In this summary, the mode of operation of the six National Centres is in detail often somewhat different to that of St Mary's, reflecting the distinction between the experience of a wholly specialist school and of a specialist school within a non-specialist school, but the general principles are common. There are three principles, relating to students' hard work, to their broad education, and to their duty to society.

The first of these principles is how the school balances work in the specialism with students' other school work. This is managed in a variety of ways, but a common

point is that the normal length of the school day and week is not enough to cover both kinds of activity. Where most students are boarders the management of many hours of work on the specialism is more straightforward than where most are not: boarding is common because recruitment of students is in most of the schools from throughout Scotland, with some coming from outside the country. Having students in residence means that late afternoon, evening and weekend working can be the norm, and the striking feature of all the schools is not only that the students enthusiastically practice their specialist activities at these times but also that tutors and coaches readily volunteer to take part (in the local-authority schools typically being paid at evening-class rates). In the Glasgow School of Sport, the work continues right through the normal school holidays; the teaching and coaching staff of the specialist school are employed by Glasgow Life (which provides leisure and recreation services for the city), not by the city's education department. In all the schools, there is extensive attendance at summer schools and other special activities, often in other places, some outside the UK: the chance to meet students from elsewhere who have the same outstanding abilities, and the chance to receive special tuition or coaching from distinguished professional practitioners of the craft, is highly stimulating of the students' commitment and imagination. Extra hours of work of all these kinds enable bonds of shared interest and collective endeavour to develop, a spirit akin to that of the successful professional music ensemble, or dance group, or sporting team. Beyond these hours of formally organised work together, the students also practice on their own and, in addition, undertake the normal homework in their other subjects of study. So this first principle may be summed up as the importance of hard work in the service of excellence: students cannot succeed in becoming an outstanding exponent of their specialist skill unless they work very hard. The schools emphasise the importance of that to them.

One reason for this is the second principle, which is that the general curriculum is followed by students in the specialist schools more or less as if they were non-specialist students. In the National Centres, they take part in mainstream classes in exactly the same way as everyone else, mixing with other students of a full range of abilities and social backgrounds rather than receiving these other lessons as an intact specialist group: thus the specialist students in the National Centres are members of a comprehensive school despite having been selected for a partly special curriculum. There is some fast-tracking, especially in the areas of their specialism, and there is some withdrawal from classes, especially again in these same areas, and the proportion of the normal school day that is devoted to the specialism rises as the students get older, but on the whole the students follow a common curriculum culminating in four or five Highers in fifth year and sixth year, as well as in the specialist examinations or other measures of achievement specific to the specialist area (such as the Graded music examinations of the Associated Board of the Royal Schools of Music and the examinations of the Royal Academy of Dance). The same principle applies in St Mary's, even though it is not attached to a non-specialist school and thus itself provides the classes in the core curriculum: that has the advantage that the common identity of the music students is strongly developed throughout their school work, a possibility that is not available in the National Centres, although it also does mean that they do not have daily contact with students who are not specialists, something that happens routinely in these other schools. There is no straightforward conclusion as to which approach works best, and in truth its effectiveness is likely to vary among students.

If working hard to follow a common curriculum demonstrates the value of general education to those who profess a distinct specialism, they also learn through it, too, the value of giving to society. This is the third principle: each of the specialist schools makes strong contributions beyond the specialist stream – in the case of the National Centres to the work of the wider school, and in all seven cases more widely still, locally, nationally and internationally. This can take the form of joint work with those departments of the host school that are cognate with the specialism – physical education, health, music, dance, drama. In the Traditional Music School, that includes Gaelic, a strength of Plockton High School. The joint work can be after-school sessions, or concerts, or tutoring of other students by the specialist students. The specialist schools also contribute to the wider life of the community, through concerts, specialist workshops, and touring events. They are all connected to networks of similar schools elsewhere in the UK or further afield, the most formal links being in the case of St Mary's, which is part of the group known as 'Music and Dance Schools' (www.musicanddanceschools.com). If not being residential has disadvantages for working beyond the normal school day, it also has advantages in retaining links between the students and their home communities: thus the School of Sport, though recruiting from throughout west-central Scotland, is not residential, and each of the students remains a member of a local sports club, which is often the route through which they would have first come into contact with the School of Sport. Many of the students also, of course, enrich the life of the wider society once they leave school, through becoming professional exponents of the specialism. In short, the specialist stream adds to the overall quality of the wider school and of the wider society. Learning about the social obligations of excellence ought to be a fundamental part of any educational programme for outstanding students.

These seven schools, though differing greatly, thus demonstrate the importance of the three principles: how important it is that the students be utterly dedicated to the specialist tasks, that they come to understand their specialism in the context of a broad, general curriculum, and that they learn the value of contributing through their specialism to the quality of the wider communities of which they are part, in the school, in the locality, or nationally and internationally. Each of these organisational principles depends also on teachers, tutors and coaches who are as wholly committed to and absorbed in the specialism as the students are expected to be. These three principles would then be the areas which would benefit most from any new funding, especially (for the purposes of the present report) in providing new opportunities to stimulate the development of individual talented students.

There is always a need for more specialist staff, better equipment, better physical accommodation, and more scope for boarding. However, there are four particular examples of kinds of support that might specifically encourage and reward excellence, or that might help to create the conditions in which promising talent might be encouraged and picked out:

1. Students at the specialist schools benefit from the opportunity to travel to take up summer placements in international centres of excellence. Some of the costs are covered by parents, and some by the schools, especially where parents cannot afford it, but the availability of more money would enable a wider range of such activities to be offered. A firm principle ought to be that the money is available only for attendance at events where rigorous

auditioning or trialling is required to be admitted – in other words, where selection to take part is itself a measure of significant achievement.

2. Bringing international experts to Scotland to work with outstanding students is of benefit not only to individual students but also more widely to the specialist school, and to students and staff from schools, colleges and universities who also have an interest in that specialism. For example, bringing distinguished musicians to Scotland can provide master-classes for music students in the Royal Conservatoire of Scotland or in university courses as well as in the specialist schools.
3. With suitable funding, specialist schools can also provide specialist programmes for neighbouring schools. In all the National Centres, that already takes the form of some working with local primary schools in which talented new recruits might be found, and expansion and intensification of such work would strengthen its impact. St Mary's provides specialised music courses for sixth-year students who come from other schools for these alone (not for the rest of their studies), a model that, with new funding, might be extended and might be developed in other specialist schools.
4. More generally, the funding of national networks of tutoring, coaching, encouraging and selection would gradually build up an expectation nationally that an important focus of Scottish education was on the nurturing of talent, recruited from as wide a geographical and social range as possible. The rudiments of such networks already exist in the sports clubs and in the Saturday morning and after-school clubs from which the existing specialist schools recruit students, but these would benefit from more systematic funding and from strongly proclaiming that one of their main purposes was the identification and selection of outstanding students.

Beyond such developments, the successful examples of these few specialist schools in Scotland suggest that the gradual development of other schools with these or other specialisms might be effective and might be consistent with Scottish comprehensive principles. For example, there is scope for developing specialist language schools, not only because of the precedent of the National Centres, but also because of the successful, though only partially relevant, experience of schools that provide Gaelic-medium education where students learn some or all of their subjects in Gaelic rather than English (Johnstone et al, 1999; O'Hanlon et al, 2010). In some respects, at secondary-school level, these are organised similarly to the specialist schools: in most such schools, the students who are studying some subjects through the medium of Gaelic study the rest of their curriculum in English, doing so in classes that are mixed with students whose entire curriculum is in English. There are 14 secondary schools which provide in this way at least one subject other than Gaelic itself through the medium of Gaelic (Galloway, 2011, Table B6a). Students in Gaelic-medium education have attainment in English that is at least as good as that of their monolingual peers (Johnstone et al, 1999; O'Hanlon et al, 2010), mainly because of the wider linguistic context in which they live outside school, reinforced by lessons on the English language in school.

The main difference from the National Centres is that there is no selection in Gaelic-medium education: most students taking subjects through the medium of Gaelic have attended a Gaelic-medium stream at primary school, and thus have been immersed in a Gaelic-medium environment for at least seven previous years. The evidence on

language immersion shows that, for minority languages such as Gaelic, it is probably most effective when it starts from an early age, but that for other languages an early start is (in the words of Johnstone (2002, p. 63) ‘perhaps desirable but certainly not essential’ (see also Baker, 2006). So the development of a variety of language-immersion schools in which students selected as having outstanding linguistic potential were immersed in languages other than English would draw upon both precedents – the National Centres and Gaelic-medium education – to create a distinctive new form, providing specialist schools in, say, Spanish, Chinese languages, Japanese, French or German. Gaelic itself might be one of these. As with Gaelic-medium streams, the students would learn all their subjects through the medium of the language from an early age, English being gradually introduced from the mid-primary years onwards. The difference from the existing Gaelic medium streams is not only that the students would be selected as having strong linguistic potential, and be continuously assessed for their developing linguistic capabilities – analogously to what happens in the National Centres (as explained in Section 5.2 below) – but also that, unlike in most secondary schools with Gaelic-medium provision, the immersion in the language would continue right through the secondary school. That happens with Gaelic medium only really in one school, Sgoil Ghàidhlig Ghlaschu (the Glasgow Gaelic School), although the breadth of Gaelic-medium provision at Portree High School, with eight subjects available through the medium of Gaelic in first year, provides part of such an experience (Galloway, 2011, Table B7). Other languages would not have the problem of availability of resources which faces Gaelic-medium schooling, because syllabuses, textbooks, websites and examinations in the language would be plentifully available from other countries. The same would be true of suitably qualified teachers, whereas teachers who are qualified to teach through the medium of Gaelic are in short supply. Language-immersion schools could also learn from the importance of students’ boarding that has been shown by the National Centres: the scope for being truly immersed in the language would then be much greater than for students attending only during normal school hours. The purpose of such specialist language schools would also be fundamentally different from the Gaelic-medium schools: it would be to bring on the most linguistically gifted students not only to stimulate their accomplishment but also with a view to making some contribution to improving Scotland’s poor record in educating people to speak languages other than English.

Language-immersion schools might then be the most readily available first way of extending the provision of specialist schools which have the aim of fostering outstanding students. They are the obvious starting point because of the partial precedent of the success of Gaelic-medium education. Schools with other specialisms – science, mathematics, drama, visual arts – might then follow, perhaps building upon less structured opportunities of the kind outlined in the next section. As with the National Centres, and as with the existing Gaelic-medium streams (O’Hanlon et al, 2010, pp. 76-77), it is likely that the whole school in which such specialist provision is situated would benefit from the stimulation and example that the specialism would bring. The students in the specialist provision would also then benefit from being part of a mainstream school that contained the full range of ability, social backgrounds and interests.

5.1.2 Other specialist provision

Nevertheless, if Scotland is likely to remain tentative for the time being about developing specialist schools, there are several other ways in which specialist opportunity might be offered. The recurring principles, in whatever field, ought always to be those which characterise the seven existing specialist schools: students who are capable of showing distinction in the specialism have to work much harder than the average student, they have to follow a broad curriculum because their specialism will flourish only if all aspects of their minds and character are being encouraged to grow, and they have to learn that the obligation concomitant on having the privilege of developing their special abilities is that they contribute them to the service of society. The second of these – following a broad curriculum – is perhaps easier to ensure if the specialist opportunity is wholly in addition to the normal school curriculum, but the other two are if anything more difficult: students seeking stimulus for their specialist interest will have to work even harder, and they will have fewer structured opportunities while at school to make their specialism socially available. The question of social leadership is dealt with separately, in Section 5.1.3, because it is not only a potential specialist area in itself but also might pervade all other areas.

Any such specialist provision would take place mainly during school holidays or at weekends. Four ideas might be worth developing. The first would be summer schools in various disciplines, in which there are two sources of precedent. One such source is in the summer schools in science that are already provided for school-age students at various universities, notably in Scotland at St Andrews. Thus the Sutton Trust Summer School at St Andrews is for ‘those who have the academic potential to do well at university, but who may not have family experience of Higher Education or who may have attended a state-sector school with little experience of sending pupils to the University of St Andrews.’ (Sutton Trust Summer School website, 2011). The purpose of the summer schools proposed here would be more rigorously based on prior selection, for which there would have to be analogous kinds of identification of gifted students as are used in selection for the specialist schools (and as are discussed in Section 5.2 below).

For science, the most experienced organisation that could provide such summer schools would be the Scottish Schools Education Research Centre. It has an excellent record of providing very high-quality courses for teachers (Lowden and Hall, 2011), and it already does provide specialist support to individual students for scientific projects in Advanced Higher courses. Such a summer school would be run jointly with university departments of science that were undertaking research of international distinction: in that way, school students who had been selected as having outstanding scientific ability and potential would be put in touch with leading scientists who were themselves embedded in international networks. As with the idea of paying for visits to Scotland by internationally distinguished exponents of artistic or sporting skills, so too, here, it would be stimulating to these young scientists if some leading scientists from other countries would be brought to Scotland to teach and provide advice. The opportunity to be in touch with exciting young minds would be enough to persuade scientists from Scotland and elsewhere to contribute in these ways, especially if they also knew that it was part of a concerted national effort in Scotland to nurture outstanding talent.

Similar ideas would work for mathematics. Two existing programmes illustrate what can be achieved. One is ‘Maths in the Pipeline’, in which mathematically able

students aged 15 spend a day applying mathematics to problems in the oil and gas industries under the guidance of mathematicians from Aberdeen University and Robert Gordon University. The other is quite different, and so forms the second kind of specialist provision – the range of competitions run under the auspices of the British Mathematical Olympiad. Students sit tests in school that are more difficult than the normal school examinations and that go beyond the standard school curriculum. The highest performers in these tests are selected to proceed to the next round of tests, from which the highest achievers are then selected to represent the UK at the International Olympiad, which has been running annually since 1959. Progressive, competitive challenges of this kind, with prizes and further opportunities for the most accomplished students, could be extended to subjects other than mathematics. Although providing international opportunities for the very best would take time to build up, Scotland might, of course, seek to take the lead.

A third example of specialist provision would be for the most able students in school sixth year, bringing together the highest-achieving students in a range of disciplines from a group of schools. There would be two purposes. One would be to provide advanced tuition in the specific subjects, so that, for example, outstanding students of history, taking Advanced Higher history, would spend periods of time working with internationally distinguished historians from Scottish universities and from further afield. The purpose, extending beyond this specialist tuition, would be to bring together the students from several subjects to work on common problems, learning how to apply their specialist knowledge in a team, but also learning that proper inter-disciplinary achievement requires prior deep knowledge of the separate disciplines at which they have severally excelled, and requires also a respect for the expertise of other people. The inter-disciplinary programme might be supervised not only by university academics but also by leading decision-makers in the commercial and public sectors, bringing the students to appreciate that real-world problems are challenging and are amenable to intellectual as well as practical analysis. Selection for such a programme of advanced and inter-disciplinary tuition would require both very strong ability in one or more specific subject areas and also a high achievement across a range of subjects normally taken in fifth year. It might be easiest to organise such a programme in a city, where students from a large number of neighbouring schools could be brought together readily, but with appropriate use of technology and of residential courses it could also work in less densely populated areas. The programme would involve students from both the independent and the local-authority schools. The tutors on it would be drawn from schools, universities, and government and business: they, too, would have to be properly selected to be leading practitioners in their fields. After several years of successful operation it might be feasible to have the students take part in some aspect of the programme for, say, a day each week throughout their school sixth year. If it would also be advisable to start more modestly, then the use also of week-long events taking place during the school holidays would help the programme to build up experience and to offer a properly stimulating experience even to early participants.

The fourth example of specialist provision is the Children's University, which has been running successfully throughout England and Wales since the 1997 (Macbeath, 2011) but which currently has only one branch in Scotland (in Aberdeen). The general aim of the Children's University is (in the words of its website) 'to complement the work of schools by offering diverse opportunities and supporting innovative approaches to learning'. It does so by providing, for example, 'art, astronomy or

drama, music or maths, science or sport, philosophy, poetry or photography, or any combination of these and other subjects according to the expertise available locally. Children's University learning provision can be in any subject which can be studied as part of a degree programme at a UK university.' The typical form of the provision is a day each week, although weekend and holiday activities are also arranged. The funding usually comes from local sponsors. The central organisation provides advice and assurance of quality: because the title 'Children's University' is a registered trade mark, local activities may use it only with the approval of the over-arching body. Thus the costs of registration with the central organisation are partly to ensure that the quality remains high.

Although the Children's University is not itself aimed specifically at outstanding students, it might help to create a context in which high achievement is valued and respected. According to the evaluation of it by Macbeath (2011), attendance at Children's University events improved students' attendance and attainment, and it provided 'an environment for self-driven, confident and collegial learning'. This model of stimulation might then, for a range of school subjects, act like the hierarchy of local clubs through which students are selected for the National Centres of Excellence and the expansion of which is envisaged in Section 5.1.1 above: it could underpin the provision of opportunities for excellent students not only in the areas exemplified here (music, dance, sport, languages, science and mathematics) but in many others too – such as drama, visual arts, creative writing or the various branches of social science; a specific further example is also discussed below, in connection with leadership. The wide stimulation of children, in whatever field of study, truly to excel most of their peers is the best way of ensuring that encouraging outstanding talent might be consistent with the equal provision of opportunities to have talent recognised and developed.

One final point may be made about the provision of specialist opportunities: outstanding students need the stimulation of outstanding staff. The specialist schools have attracted as tutors and coaches many leading exponents of their crafts. The Scottish Schools Education Research Centre not only has experts in the pedagogy of scientific education on its own staff but also works with distinguished scientists at Scottish universities. The Mathematical Olympiad has always been closely associated with universities, as has – by its very constitution – the Children's University. The Donaldson report on teacher education (Donaldson, 2011) proposes that specialist professional development would be of benefit to all teachers, and certainly the development of advanced expertise for the purposes of encouraging outstanding students would have the effect on whole schools of having some teachers who are experts in particular subjects. Therefore part of the development of specialist provision for able students ought to be specialist master-classes for teachers, where they can not only keep up to date with the subject content of the topics which they teach but can also have opportunities to learn about, discuss and help to develop effective ways of teaching the most able.

5.1.3 Leadership

The best-known opportunities to learn about leadership are available through Columba 1400, which runs residential courses at its centres in Skye and beside Loch Lomond. Special programmes for leadership have also been encouraged by several notable philanthropists, such as Tom Hunter and Irvine Laidlaw. Columba 1400 tries to develop what it calls 'values led leadership', concentrating on the six principles of

‘awareness, focus, creativity, integrity, perseverance, and service’ (Columba 1400 website). These combine aspects of the three general principles for any specialist programme that were drawn in Section 5.1.1 from the work of the existing specialist schools – the principles of hard work (‘focus’ and ‘perseverance’), of being broadly educated (‘awareness’ and ‘creativity’) and of public service (‘integrity’ and ‘service’). The specialist programmes of Columba 1400 are based on the premise that learning about leadership has to be experiential, and has to take place far away from the participants’ everyday world. The most relevant of the programmes for the present discussion is based on a residential course for a week on Skye: it involves a group of 13 school students, aged around 14, usually from a single school, along with three of their teachers. The work requires a lengthy preparation, over several months, and a follow-up period afterwards: that is why the teachers have to be as fully part of the course as the students. The aim is to encourage the students to think about how the inner resources they might already possess might bring about change in some aspect of their community or school: the metaphor is about drawing out rather than teaching or mentoring.

Preparing people for leadership is not only a specialist programme in itself, however, but also might be part of all specialist provision because becoming a leader is likely to be the way in which any outstanding student, in whatever field, fulfils the social obligations of excellence. Part of this is learning to work in teams. Part is meeting regularly with donors, and part of that, in turn, is the student’s being readily prepared to give an account of what has been achieved with a bursary: recording outcomes, far from being inimical to effective education, is in fact the clearest and most objectively measurable way in which society can assess whether investment in outstanding talent is yielding what is intended. The regular meeting between donors and recipients could also become a kind of master-class in entrepreneurship for the student, who could learn how the social obligations incurred by success are fulfilled.

The current specialist schools already encourage students to be leaders because that is in the very nature of the crafts which they profess, in teams, bands, ensembles or orchestras. Thus at the Glasgow School of Sport students are expected to be ambassadors for their sport, in the sense, for example, of making speeches and being coaches for younger pupils. Students in the music and dance schools are involved in tutoring and mentoring: for example, the Traditional Music School takes its students each year to give workshops in a locality elsewhere in Scotland, working with students there to develop their musical skills and to involve them in a joint public concert.

All these examples in this Section 5.1 of ways of recognising outstanding students are, it must be emphasised again, no more than illustrations of what might be done: the actual schemes that might be funded by philanthropy ought to be decided by means of the competition proposed below, in Section 5.3.

5.2 Selection

The means by which students might be selected for participation in specialist programmes will vary, because it is in the nature of specialisation that the form of assessment appropriate to each disciplinary area must have unique features to reflect the special character of that activity. Thus performing before an audience, while greatly important in some areas, is irrelevant in, say, mathematics. Nevertheless, certain principles are general, the most fundamental of which is that which follows

from Rawls's principles of justice that were outlined in Section 3.1: everyone should have the opportunity to take part in the competition to be selected, everyone should have access to the minimum of education in the relevant sphere of activity that is required to allow their potential to show, and no-one should be debarred from taking up any opportunities that might be offered solely because they are not able to afford it financially.

Fulfilling the second of these principles – adequate basic education – is the responsibility of the normal curriculum in primary and secondary schools, along with the informal system of clubs and other means by which children are encouraged to exercise their interests. Although these grounds from which the talented and the gifted are recruited are not the subject of the present report, it is to be hoped that the very fact that prominence was being given to outstanding students in the manner that is being proposed here would itself encourage schools to make sure that all children had the chance to develop any particular gifts or talents they might have, and would also encourage the informal networks of voluntary clubs by linking them more formally to national provision. Indeed, ensuring that schools and other classes were fully aware of the opportunities for selection into specialist programmes, and that they encouraged their best students to enter competitions for bursaries, are the most effective ways of fulfilling the first principle, that everyone should have the same opportunity to take part. The provision of bursaries is itself the means by which students with the necessary talent are not prevented from developing it for financial reasons alone, although here a distinction is to be drawn – as explained in Section 3.1 – between financial reward as a prize, open to everyone, and financial aid related to students' means. Awarding prizes is one way in which talents and gifts are publicly celebrated, and thus they relate solely to the quality of the achievement. Financial aid beyond the prize, always subject to the student's already having been selected according to the same absolute standards as everyone else, is the most important means by which any scheme of developing outstanding talent might satisfy Rawls's third principle that it should benefit 'the least-advantaged members of society.'

Thus the main question about selection is how to combine absolute standards with mechanisms that involve as wide a range of recruitment as possible: it is partly the responsibility of those who carry out any selection to ensure that the competition is known about and understood by schools and appropriate specialist clubs throughout Scotland. The existing practice of the specialist schools in this respect offers good, workable models. Each of them sees as their main recruiting grounds the primary schools, Saturday morning classes, local clubs and so on which form the base of the pyramid at the apex of which are the specialist schools. Each sees local teachers, tutors and coaches as the first line of talent-spotters: in line with research summarised in Section 3.3, relying on these people allows the widest possible initial screening. Each specialist school offers something akin to an advisory audition to anyone who enquires, indicating what kinds of improvement in their skills would be required to make entry to the specialist course at all feasible. This then transfers the responsibility back to the parents, schools and clubs as sources of special tuition or coaching that might bring the student up to the standard required to enter the competition with any reasonable hope of success. Then comes the process of formal selection – full audition or performance, assessment of potential as well as standards reached, and the insistence always on absolute standards that are common to all candidates, regardless of social circumstance. This rigour is the only way to ensure that true excellence is being identified. It is consistent with Rawls's principles because of what happens

before the student reaches that point – because of the wide provision of basic education or tuition – and, in the National Centres, because of the location of the specialist centres within mainstream schools. To relax the standards of selection at these final stages would be to defeat the whole purpose. In each of the seven specialist schools, too, there is recurrent auditioning while the students are on the course, and failure to continue to reach the necessary absolute standards leads to the student having to leave.

Two other aspects of selection are as important as the specialist skills in the particular sphere of activity that is being assessed. One is measuring students' attitudes – their capacity for hard work that goes far beyond the normal requirements for homework, their ambition and commitment to the specialism, and their understanding that, however important the specialist activity is to them, they also have to follow a broad curriculum. The other aspect of selection that ought to be measured is candidates' openness to understanding the obligations of excellence – their capacity for leadership, for public service, for working in teams, for due modesty about their own distinction.

With appropriate modification, all these techniques of selection could be used in any area of specialist activity, of all the kinds envisaged in Section 5.1 – whether into specialist schools or for specialist programmes of other kinds. As well as finding the students most able to benefit, moreover, a programme of selection also would gradually have an effect on the culture of Scottish education, proclaiming that a central purpose of the whole system is to recruit and promote the best. Giving recognition to gifts and talents is a way of encouraging young people's aspirations, and of encouraging, too, those teachers who care about excellence of this kind: students and their teachers thus would have a focus that would be publicly acknowledged as important.

5.3 Funding

The purpose here is not to propose detailed mechanisms either for collecting donations or for disbursing them to students and to educational programmes. The manner in which any scheme would work is for further discussion led by people who have expertise in fund-raising, in the administration of charitable funds, and in the organisation of specialised educational programmes. The point here is to propose the principles that might govern such activities. Two broad considerations will have to be taken into account – how to persuade people to donate, and how to administer and allocate the money thus brought together. Principles guiding the proposals here come from the research literature reviewed in Section 2, as summarised in Section 4.1, and also from the consultation carried out for the present project, and thus are based on common practice from other countries as well as on what is likely to be feasible in Scotland.

5.3.1 Persuading people to donate

The purpose of philanthropy would be to supplement core funding which would continue to be provided by public means. It is widely believed by the wealthy as well as most other people in Scotland that it is the role of government to ensure that opportunities in general are fair and to ensure that a broad curriculum is available to everyone. Thus philanthropists would be interested in helping to achieve things that would not otherwise have happened – things that had never happened before, or recently – and they would want to have evidence that their money had made a

difference in this way. Indeed, if their money could also be used to attract extra public funding as well, then that kind of leverage would be very appealing to them.

The effect which new money would be expected to have could be on individual students, even on just one person: especially in any programme that was intended to encourage outstanding gifts and talents, to bring one exceptional person to the fore would be a tangible success. Local projects would also be likely to attract donors of smaller sums, in the same manner as, in the past; founders of university bursaries tied their money to students from a single county or parish. It may be also that many donors would want to give only to work in one specific disciplinary area. Such preferences should be encouraged. An alternative way of invoking a geographical focus when seeking donors would be to encourage a sense of patriotism linked to internationalism, making the connection between enabling outstanding students to achieve their full potential and strengthening Scotland's standing in the world. Many of the students would be the country's future leaders.

In short, the main sources of motivation to contribute to the schemes that are being envisaged here are a sense that Scottish education is felt to be too uniform, and a belief analogous to that expressed by the Chief Executive of Education Scotland, Bill Maxwell, that too many schools are 'coasting' (*The Scotsman*, 29 September 2011). The very strength of the common provision of a basic curriculum which is commented upon when comparison is made internationally (such as in the report by the OECD (2007a)) is also, if not felt to be a weakness, then seen as no more than a beginning. It is not that excellent students are not doing well in Scottish education: they are, as the evidence from PISA shows: for example, Scottish students at the 95th percentile of reading attainment in the 2009 study were about the same amount ahead of students at the corresponding percentile across OECD countries as students with average attainment.⁶ The trajectory of Scottish attainment at the 95th percentile between 2003 and 2009 was also parallel to that of OECD countries as a whole.⁷ (Similar results are found in mathematics and in science.) But beyond that basic, quite satisfactory commonality of experience has to be encouraging diversity. One such project would be enabling brilliant students to shine.

In return for this – apart from the satisfaction of seeing their money being well-spent – most philanthropists would want public recognition. There would be little desire to interfere in properly pedagogical concerns, although they would be concerned to ensure that their money was being efficiently used towards the purposes for which it was intended: thus there would be an interest in the management of any system of bursaries or of special educational programmes, but not in detail in the content or in the character of the teaching and learning that might take place. Recognition is most readily achieved for people who give very large sums, but for smaller amounts the

⁶ At 95th percentile (with standard errors in brackets): Scottish mean of 650 (5.2) compared to OECD mean of 645 (1.8); for all students: Scottish mean of 500 (3.2) compared to OECD mean of 492 (1.2). Sources: Scottish data: OECD (2010, Table S.1.c); all-OECD data: OECD (2010, Table I.2.3).

⁷ 95th-percentile means in 2003, 2006 and 2009 (with standard errors in brackets): Scotland, 646 (3.9), 650 (7.3) and 650 (5.2); OECD, 646 (1.3), 647 (1.2), 645 (1.8). Sources for 2003 and 2006: OECD (2004, Tables B2.5 and 6.2); OECD (2007b, Tables S6c and 6.1c).

problem is having the donor's unique contribution identified in a large pool. One possibility would be to have even small donations linked to named recipients even if the decision to award a bursary, for example, was made in relation to an undifferentiated fund: thus the link between sponsor and recipient might be established after the award had been made. Holding annual meetings between donors and groups of beneficiaries has also been found by Inspiring Scotland to be effective at encouraging engagement by the donors and commitment by the students. The interest of the donor would also be strengthened by their being given case studies of impact – detailed accounts of how the extra money had made a difference in measurable ways. Such examples ought to form part of a larger context of careful evaluation of the effects of any expenditure: monitoring ought to be part of any scheme right from the start, and everyone involved should expect to have to provide detailed accounts of what had been achieved. For the students, that would be part of their understanding that privilege entails duties, that receipt of aid, however well-earned by their own excellence and hard work, enjoined acts of gratitude.

5.3.2 Structures of management

It is unlikely that only one way of managing donations would be flexible enough to cater for the interests of a variety of donors or to serve diverse purposes. Charitable Trusts, for example, would be likely to work best for individual very wealthy philanthropists, as they already do: the donor would control objectives, and be named in all the work which the Trust funded. For smaller donations, a more effective approach would be to administer them as part of a national fund managed as a Scottish Charitable Incorporated Organisation, a new structure (made available by legislation in 2011) that seeks to combine the advantages of a Trust and of a Company Limited by Guarantee but to simplify the administration, regulation and reporting (OSCR, 2011). An SCIO of this kind may receive donations from a large number of sources. It is regulated by the Office of the Scottish Charity Regulator only, not by Companies House as would be a company. On the other hand, it operates like a limited-liability company insofar as it would be governed by an unincorporated Board of Trustees who would not be personally liable for any expenditure. Like a Charitable Trust, it would have a legal duty to act in the interests of the specified charitable objectives, here the furtherance of certain educational aims. These objectives could be changed without lengthy legal procedures, unlike with Trusts. The purposes of any such scheme would have to be eligible for registration as a charity. Provided any competition to achieve grants from the fund were truly open, and provided no fee was required to enter the competition, it is very likely that such registration would be achieved.⁸

⁸ It has been suggested that Social Impact Bonds might be a way of organising such funding. These are contracts between public authorities and private investors to mitigate a specific social problem – such as re-offending by convicted criminals – and in which private investors are paid some share of the savings in public expenditure that result from the effects of the scheme: for the evaluation of a pioneer example in England, among prisoners in Peterborough, see Disley et al (2011). However, there is too little experience in the UK to allow a reliable appraisal of the worth of such an approach, and it does not in any case offer much that is relevant to the promotion of outstandingly talented students if the purpose is to enhance public spending, not replace it.

Whatever the structure, there would have to be a fair and rigorous procedure for allocating money. The criteria of selection of promising students are discussed in Sections 4.2 and 5.2, and so what concerns us here is how to set up and manage competitive opportunities to receive grants that would then in turn be competitively disbursed to students. There ought to be a single, national board overseeing the process. It should be fairly small, it should contain general expertise in the relevant educational questions and in financial management, it should not be involved in the detailed management of expenditure, and it should call upon a network of expert advisers in the particular disciplinary areas that might be funded. Though the board would probably consist of people based in Scotland, the advisers ought to be from anywhere: what would matter would be expertise. The board would have two tasks – raising philanthropic money, and granting it to suitable recipients.

One fundamental initial question is whether this board should be involved in allocating money to individual students, or whether it should only give grants to schemes that would themselves award bursaries. The advantage of the national board's giving money directly is that it could draw upon its own and its advisers' expertise to ensure, so far as is possible, that the best students were given support. The disadvantage is that the task might become overwhelmingly bureaucratic and would thus soon be the brake on innovation the release of which is one of the reasons why the scheme would have been set up.

Therefore a preferable approach is that the national board would receive competitive bids from the organisers of schemes for the promotion of outstandingly talented or gifted students. Part of any such bid would have to be an explanation of how bursaries were to be awarded, which would nearly always have to be by some competitive process: thus these bids to the national board would be in large part bids to organise competitions among students for individual bursaries. The principles of selection for bursaries would be of the kind outlined in Sections 4.2 and 5.2. The national board would, if asked, help to provide expertise for the evaluation of bursary applications in such competitions, and indeed that element of distance from the organisers of the competition might often be desirable, but it is likely also to be the case that the organisers of bursaries in a particular discipline would know far better than the board where the expertise lies in Scotland and internationally. The board would also seek to stimulate bids relating to all kinds of talent and gift, and to ensure that the principles of fair opportunity as well as rigorous selection were respected, following the principles outlined in Sections 4.2 and 5.2. The only restriction on the kinds of organisation that would be eligible to enter the competition for funding is that they would have to be judged to be serving charitable purposes by the Office of the Scottish Charity Regulator. Examples of the kinds of scheme that might arise in such a competition have been given in Section 5.1, but the very holding of a public contest for funding would stimulate many more ideas than these.

The bids that would be entertained by the board would be evaluated by assessors from the network of expert advisers. In a formal sense, its operation would thus be similar to that of the various organisations which allocate grants from the UK National Lottery, or of the Scottish Communities Foundation which allocates charitable money to community projects. The financial aspects of the work, including both fund-raising and expenditure, might be run with the help of Inspiring Scotland.

The distinctive aspect of the operation would be in its content: projects would be funded that would have persuaded the assessors consulted by the national board that

they could provide opportunities for truly outstanding students. Since competition for a limited fund would be likely to be fierce, many which might in principle be worthy of support would fail to achieve it. Those schemes which were successful would thus have the extra distinction of having won against stringent competition, and those students who would then benefit from the successful schemes would be encouraged not only by having succeeded in the competition which that scheme would have run but also by the recognition which, through success in the prior funding competition, the scheme would have gained.

There would be careful evaluation of the operation of all funded schemes, and schemes themselves would have to provide plans for how they would evaluate the effectiveness of bursaries or other expenditure. The emphasis would in all respects be on outcomes – on whether the expenditure had made a measurable difference, and whether it had been spent efficiently. There ought also to be a generous allowance for failure: if risks are to be taken in order to stimulate the imagination, then failure is to be expected. Thus some mechanisms by which failure may be learnt from ought to also be included in any funded scheme. Evaluation ought to be long-term, not merely during the period of time when the student was in receipt of the bursary: despite all the research that was summarised in Section 3, there is no evidence on whether merit-based bursaries make a difference to students' whole careers, and yet if outstanding students are to be the future leaders of society then some such evaluation of impact is essential.

The national board would be the means by which a large number of small donations could be administered. It might also advise large donors in the same way as it might advise the schemes that had successfully applied for funding to the board, although of course such advice would here be entirely at the request of the philanthropist. The advice would thus be a service offered, for example on how most effectively to run fair and rigorous competitions for the award of bursaries, or how to evaluate impact. It may also be that some existing schemes for awarding bursaries in specific areas might want to be associated voluntarily with this new mechanism.⁹ The advantage to them, as for the large donors, might be gaining access the networks of advice which the national board would establish. The board would also benefit from the expertise which existing schemes have built up. It would differ from some of them in being interested in a wider range of disciplines and, from others, in being concerned with encouraging outstanding students: there seems to be no current scheme of funding that combines a concentration on gifted or talented students with a broad approach to the fields of achievement in which that excellence might be manifest.

The purpose of the competition, it is worth reiterating in conclusion of the discussion of management, is to provoke ideas. No national body could plan something as individual and unpredictable as the encouragement of outstanding talent, which by its very nature is specific, even eccentric, and liable to be destroyed by any hint of bureaucracy or reduction to norms. The best people to judge what is needed are those

⁹ Examples of existing schemes are the Ambition AXA Awards (www.ambitionaxaawards.com), the Dewar Arts Awards (www.dewarawards.org/About.aspx), the Hunter Foundation (www.thehunterfoundation.co.uk), the Paul Hamlyn Foundation (www.phf.org.uk), the Robertson Trust (www.therobertsontrust.org.uk) and the Sutton Trust Summer Schools (www.suttontrust.com/summer-schools).

expert teachers, tutors, coaches or mentors who know what is needed to foster the next generation of outstanding performers, scientists, mathematicians or social leaders, and who understand, in particular, the importance of hard work and of adjusting the support to encourage each individual's commitment. The role of funding, whether private or public is solely to enable individuality to flourish.

6. Conclusions

A strength of Scottish school education is its homogeneity, but that is also its main weakness, in respect both of specialist opportunities and of diversity in funding and direction. The school system does mitigate the effects of social inequalities as much as it is possible for education on its own to achieve, in that segregation among schools is low by international standards, that a common curriculum is provided to all students, and that common standards of teacher quality are in force in all schools (OECD, 2007a; Croxford and Paterson, 2006; Paterson and Iannelli, 2007). But all that comes at a cost. In the interests of trying to offer equal opportunities to everyone, Scottish education has rather neglected the outstanding students; in the interests of public accountability, it has neglected the diverse, imaginative and controversial ideas that might be provoked by diverse sources of finance.

The consequence is not any sort of crisis, but is rather a sense that matters might be better. It is not that the outstanding student has failed to make progress: being highly intelligent, the gifted and talented have managed to survive, but, on the whole, their potential has been fostered mainly by accident of local circumstance and the commitment of individual mentors. The notable exceptions, in the seven specialist schools, show in their excellence what might be achieved more generally, but their virtues are kept rather hidden from public acclamation. Philanthropic sources of funding, while not absent, have been left on the margins, and no thought has been given in policy to harnessing the imagination of the highly successful in a manner that might serve the common good.

What is proposed therefore in this report might encourage the individual imagination both at source and in the classroom – the creativity of entrepreneurs brought to bear on stimulating the creativity of outstanding students. The most important challenge is to find ways of selecting the outstandingly able, in whatever field of activity, in a manner that is both rigorous and fair. These two criteria are equally significant: it is as important that the standards of selection are absolute as that everyone with the capacity to be thus chosen is given the opportunity to come forward. Some suggestions as to how to achieve these potentially conflicting goals are offered here, but the main proposal is that no single report or committee or national policy could ever hope to have all the answers, and thus that only through competitive bidding for new sources of money can the imagination of teachers, tutors, coaches and entrepreneurs of all kinds be stimulated into action. However important this may be to individual students and schools – however much they might benefit and the community might be able to appreciate their achievements – the ultimate purpose is a change to Scotland's educational culture so that it would have the reputation not only of providing opportunities for everyone but also, once more, of fostering true individual excellence.

Appendix: people consulted

I am grateful to those who kindly agreed to be consulted in connection with this project. The consultation, between September and December 2011, took the form of discussions of how philanthropic money might be used to develop merit-based bursaries to encourage outstanding students in Scottish school education. The consultation was face-to-face except where mentioned otherwise below. The interpretations are mine alone.

Keir Bloomer.

Kenny Burke, Acting Artistic Director, The Dance School of Scotland.

Jack Carr, Professor of Mathematics, Heriot-Watt University. [phone]

Norman Drummond, Chairman of Board of Trustees, Columba 1400.

Sir David Edward, former Judge of the Court of Justice of the European Communities, Chairman of the Carnegie Trust for the Universities of Scotland and of and of the Scottish Council of Independent Schools.

John Edward, Director, and Sarah Randell, Deputy Director, Scottish Council of Independent Schools.

Martyn Evans and Jennifer Wallace, Carnegie United Kingdom Trust.

Peter Fair, Laidlaw Capital Management. [phone]

Robin Fallas and Duncan Osler, MacRoberts LLP (advice on charitable financial mechanisms)

Duncan Ferguson, Head Teacher, Plockton High School. [phone]

Colin Graham, Professor of Experimental Geochemistry, Edinburgh University.

Paul Grice, Chief Executive, Scottish Parliament.

Alistair Hector (Headmaster), Cameron Wyllie (Head of Senior School), Stewart Adams (Head of Junior School) and Jo Easton (Director of Admissions and Marketing), George Heriot's school.

Lynn Hendry, Hunter Foundation. [phone]

Andrew Hunter (Headmaster), James Dixon (Deputy Head Academic), Nigel Rickard (Deputy Head) and David Rider (Development Director), Merchiston Castle school (sponsor of Excelsior Academy).

Lord Irvine Laidlaw, [phone]

Philomena Marshall, Executive Principal, Excelsior Academy, Newcastle. [phone]

Judith McClure, formerly Head Teacher, St George's School.

Maureen McGinn, Independent Philanthropic Professional.

Tudor Morris, Director, Broughton Music School.

Andrew Muirhead, Chief Executive, Inspiring Scotland.

Danny Murphy, formerly Head Teacher, Lornshill Academy.

Scott Naismith, Principal, Methodist College, Belfast. [phone]

Dougie Pincock, Director, National Centre of Excellence in Traditional Music.
[phone]

Angela Porter, Director, Glasgow School of Sport.

Jennifer Rimer, Head Teacher, St Mary's Music School.

Sonia Scaife, Acting Director, Aberdeen City Music School. [phone]

Eleanor Shaw, Strathclyde Business School [email].

Howard Vaughan, Chief Executive, Columba 1400.

Alex Wood, formerly Head Teacher, Wester Hailes Education Centre.

Fred Young, Chief Executive, and Kath Crawford, Scottish Schools Equipment Research Centre (Dunfermline).

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