

1. 2011 Arkwright Scholarships Programme

1.1 Affiliated Schools

The cadre of affiliated schools continues to grow with 67 new schools affiliating in 2011 - our largest ever annual amount. At 5th December 2011, Arkwright had 752 affiliated schools. The breakdown in school type and location is shown in **Appendix A**.

1.2 Sixth Form Scholarships

2011 was our most successful year ever – a record 906 talented young people applied for a Scholarship from affiliated schools in England, Scotland and Wales (**Appendix B**).

In February all applicants completed our Aptitude Paper under exam conditions at their school. The new Aptitude Paper (which was revised during 2010) was well-received and will be retained for future years. The Paper and the Scholarship application form were assessed and marked by our independent advisors (current Design & Technology teachers) as part of our rigorous selection process. Applicants who achieved the highest marks were invited to an interview, which is the final stage of our selection process.

470 successful applicants and their parents/guardians attended interviews during March and April. Our interviews are hosted at top UK engineering Universities – Bath, Heriot-Watt, Cambridge, Lancaster, Imperial College, Sheffield, Southampton, and Loughborough – with over 100 volunteers giving up their valuable time to help us conduct the interviews. Applicants and their parents were well looked after by each University, with talks about life at University, tours of the campus and engineering facilities and a team challenge event.



Mr Ian Liddell, Trustee of the Happold Trust with the 2011 Happold Scholars

With the continued support and generosity of our existing donors, plus our success in attracting new donors, we were able to increase the number of Scholarships awarded to successful interviewees in September 2011 to 298 (264 in 2010) (**Appendix C**): 60 females and 238 males; 148 from Maintained Schools and 150 from Independent Schools.

The Scholars' subsequent GCSE/Scottish Standard Grade results demonstrate the continued high quality of our recipients (**Appendix D**).

1.3 Undergraduate Scholarships

65 applications were received for the 3 inaugural Undergraduate Scholarships, which were made possible through generous support from The Lloyds Register Educational Trust and The

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Reece Foundation. The Scholarships are exclusive to existing Arkwright Sixth Form Scholars, support students over the full duration of their undergraduate degrees and are worth between £9,000 and £12,000 each.

Miss Supriya Gopinath, who is embarking on a chemical engineering degree, received The Arkwright/Lloyd's Register Educational Trust Undergraduate Scholarship. Mr Edmund Eustace and Mr David Hewlett received the two Arkwright/Reece Foundation Undergraduate Scholarships. Mr Eustace and Mr Hewlett have both just started the General Engineering course at the University of Cambridge.



1.4 Award Ceremonies 2011

All new Scholars, their parents and Head Teachers were invited to our Awards Ceremonies in the autumn. These were once again kindly hosted by the Institution of Engineering and Technology (IET): At IET Savoy Place, London on 28th October; and at the IET's Teacher Building in Glasgow on 4th November. At these prestigious events Scholars are able to meet their sponsor and are formally awarded their Scholarships.



Parents/Guardians are able to develop a sense of pride in the child's achievements and in the fact that they belong to such a select group of young people.

The Ceremonies were hosted by Dr Gary Vanstone FEng, Chairman of the Board of Trustees, Arkwright Scholarships Trust. Motivational and informative speeches were made by:

- Keynote Speaker (London, morning): Mrs Carol Burke FEng, Managing Director, Unipart Manufacturing Group
- Keynote Speaker (London, afternoon): Emeritus professor John Burland CBE DSc(Eng) FEng FRS, Senior Research Investigator, Department of Civil & Environmental Engineering, Imperial College, London
- Keynote Speaker (Glasgow): Dr Peter Hughes, Chief Executive, Scottish Engineering
- Arlene McConnell, Systems Engineer at SELEX Gallileo and The IET Young Woman Engineer of the Year 2011
- Arkwright Alumni speakers: Sarah Waterhouse, Robert Fryers, Nicola Murphy

Carol Burke commented "Unipart must maintain a strong pipeline of new talent at all skill levels to fully exploit future opportunities. I was delighted to speak at the Ceremony for these high-

potential Scholars. By focusing on future leaders in engineering and design Arkwright is making a significant contribution to the future strength of the UK engineering workforce.”

The Trust’s Alumni volunteers and Trustees took up many crucial roles on the days – the Awards Ceremonies really couldn’t occur without their support.

During the Ceremonies additional special awards were made:

- Tanmoy Banerjee, St. Olave's Grammar was presented with the Year In Industry Prize
- Simon Crowther, Nottingham High School, was awarded the The Sir Henry Royce Memorial Foundation prize for the exceptional work and craftsmanship of his project work, which was demonstrated along with sixteen fellow exhibitors during the lunchtime networking session at the Savoy Place Ceremony.
- The three inaugural Undergraduate Scholarships were formally awarded



Simon Crowther receiving his prize from John Lowe and Michael Peters of The Sir Henry Royce Foundation

2. Enhancing the Scholarship Experience for Existing Scholars

2.1 Mentoring and Support

Our 12 Liaison Officers (LOs) continue to visit Arkwright Scholars at their schools, to find out how they are progressing and to provide advice. In 2011 we initiated a mentoring scheme that pairs Scholars with STEM Ambassadors provided by the STEMNET organisation. This is now operating successfully in Somerset and London and will be expanded to other regions in 2012.

2.2 Engineering Experience Days

Our Engineering Experience Days continue to prove very popular with Scholars. In 2011 we ran days with the RNLI, RAF, Flakt Woods. Planning for 2012’s Engineering Experience Days is ongoing with Greenwich University, Goodrich, ARM Ltd and Nottingham University.

Oakham School provided CAD/CAM software training for Scholars who are making use of the free CAD/CAM software generously provided by PTC.

Rolls-Royce has continued to adopt two non-Rolls Royce Scholars per year who are sponsored by charitable trusts, giving them the same opportunities



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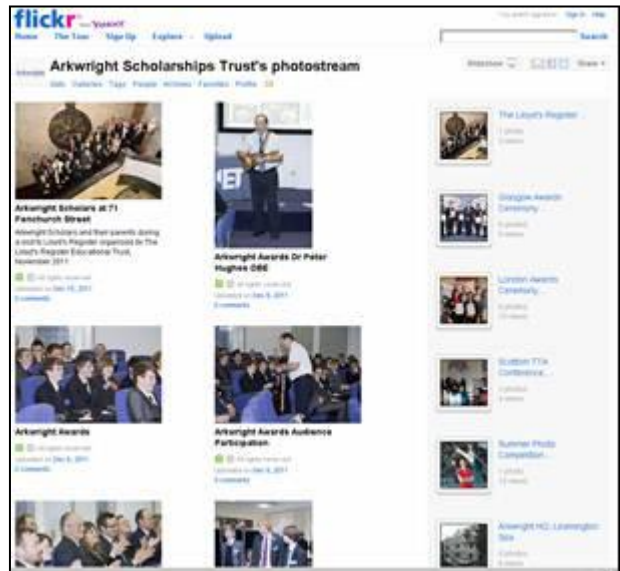
at Rolls-Royce as the 6 Scholars already sponsored by the company. Goodrich has agreed to adopt 2 scholars in 2012. In 2012 we shall encourage more corporate sponsors to open up work experience and career awareness days to other Scholars with sponsors who are unable to offer these opportunities.

2.3 On-line Resources

The on-line registration for candidates, introduced in 2010, is working well. At 31st December 2011, 99% of student applications for the 2012 Scholarships had been received on-line.

A detailed survey was conducted in 2011 with current Scholars and all Alumni, to find out how they wanted to see the Trust's on-line presence develop. As a result of this:

- The Arkwright website has been improved to make navigation easier and the content more informative.
- An Arkwright YouTube channel has been launched with videos of Trust activities
- An Arkwright Flickr page has been launched showcasing photos of many Trust events and activities
- The Trust's presence has been strengthened on the following websites: Wikipedia; Linked In; Student Room; Hotcourses
- Increasing use is being made of the on-line Survey Monkey tool to collect timely guest feedback from events



3. Arkwright Alumni

We continue to track the progress of our Scholars once they leave school, to ascertain whether they are going on to pursue a career in engineering or related areas of design. Analysis of the scholars who completed their Scholarships in summer 2011 shows that our rolling average for the percentage of Scholars who go on to study engineering/design at a UK Top 20 University is 85%. The remaining 15% is split between Scholars studying engineering/design at a non-Top 20 UK university or overseas; studying a non-engineering/design degree at university; taking up an engineering apprenticeship; taking a gap year; taking up paid work; and 'other'.

The Arkwright Alumni Facebook group continues to be popular and this was joined in 2011 by an Arkwright Group on www.linkedin.com. Scholars are encouraged to join the Facebook group to network with Alumni and take advantage of the Alumni experience and to find out more about University courses and careers.

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In 2011, Arkwright began sending regular e-newsletters to our Alumni, with 1,415 Alumni on our mailing list and more being added monthly.

We have started to develop a set of case studies of Alumni who have now achieved senior positions in Business and Industry to prove the success of our mission **“to identify and nurture future leaders in engineering”**.

Our alumni play important roles in supporting Arkwright by:

- Acting as mentors to Scholars
- Performing roles at the annual Awards Ceremonies and at Interview Days
- Providing case studies for the Arkwright website and in communications to Scholars.



4. Operational Matters and Future Strategy



Mrs Linda Scott OBE FRSA retired as Chief Executive on 31st August. She was succeeded by Dr Martin Thomas CEng MIMMM MInstLM FIET. Martin, who is a materials engineer by training, has had an extensive career in academia, industry and the civil service in both management and engineering research. He has particular experience in engineering education and skills having been Director of Educational Outreach at the defence engineering company QinetiQ and most recently as a Director at EngineeringUK.

Martin is in the process of developing and implementing a new Five-year Strategy that will ensure the Trust’s growth whilst enhancing the quality of each Scholarship and positioning the Trust as the most prestigious Scholarship scheme in the UK for aspiring engineers and designers from all educational backgrounds.

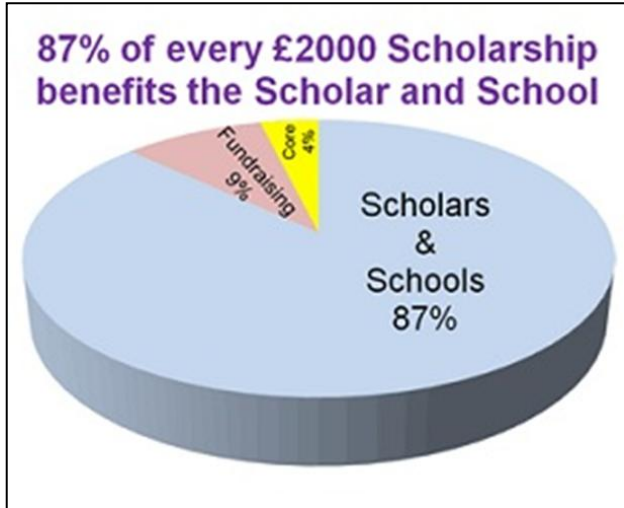
The team welcomed a new Liaison Officer during the year who will progressively take over the Wiltshire, Bristol, Gloucestershire area. In Wales a new partnership with STEM Cymru and Engineering Education Scheme Wales has seen the Trust strengthen its activities in Wales.

The financial position was once again a delicate balance of managing the income generated by fundraising and controlling our expenditure. The Arkwright Scholarships Trust has no capital fund and relies entirely on annual donations and pledges. The on-going viability of the Scholarship scheme was helped by the receipt of a significant donation mid-year. However, the

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future development of Arkwright will depend on securing donations specifically to fund the development of the Arkwright Scholarships Trust itself, in addition to funding for Scholarships.

Administration costs continue to be kept to a minimum and the Arkwright Scholarships Trust is run efficiently. We work closely with The Smallpeice Trust. Arkwright is a separate registered charity, but has the benefit of Smallpeice's facilities and administrative expertise – which provides economies of scale. We also benefit from many volunteers who support our work for free and benefit from the provision of in-kind support from a number of partners.



In 2012 we shall:

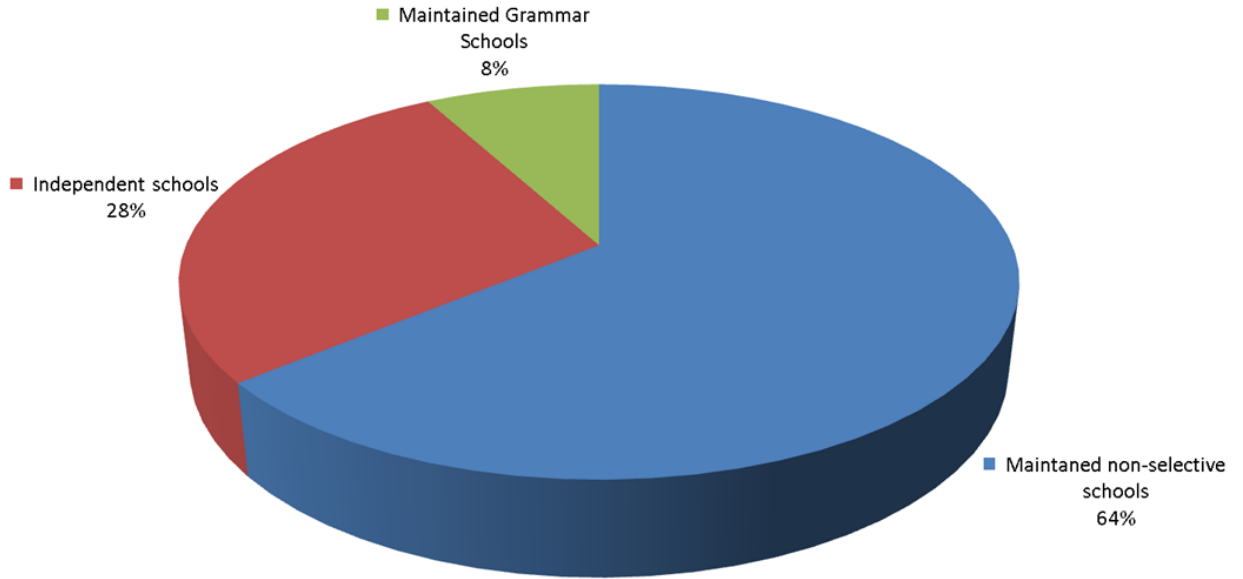
- Enhance the promotion of the Arkwright Scholarships to new and existing schools and directly to eligible students (especially through on-line means)
- Pilot an activity to allow Maths and Physics students to apply for a Scholarship
- Encourage students from disadvantaged backgrounds to apply for a Scholarship through a number of pilot projects conducted in partnership with The Smallpeice Trust
- Maintain the level of Scholarships in the very challenging economic climate
- Enhance the enrichment offered to Scholars, specifically: Mentoring; Engineering Experience Days; access to third-party enrichment activities; access to free and discounted membership of Professional Engineering Institutions.
- Ensure the rigour and relevance of the selection process is maintained
- Enhance the profile of the Arkwright Scholarship Trust with government, industry and other stakeholders using our experience and knowledge of Design and Technology

Dr Martin Thomas CEng MIMMM MInstLM FIET
National Director
December 2011

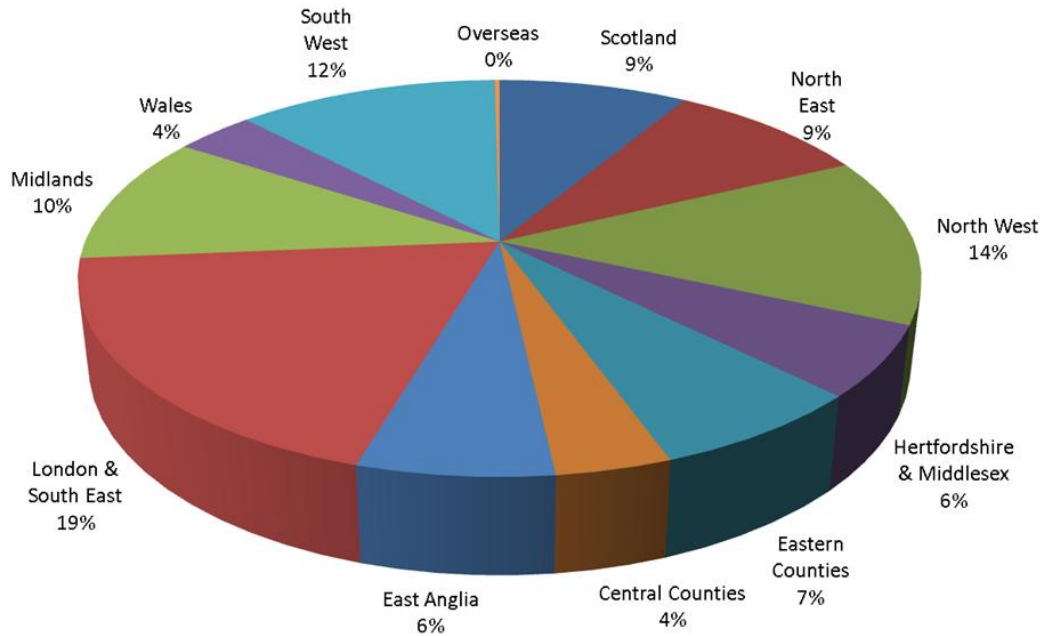
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Appendix A: Arkwright Affiliated Schools

At 1st December 2011, 741 schools were affiliated to the Trust, broken down as follows:



The locations of Arkwright’s affiliated schools are:

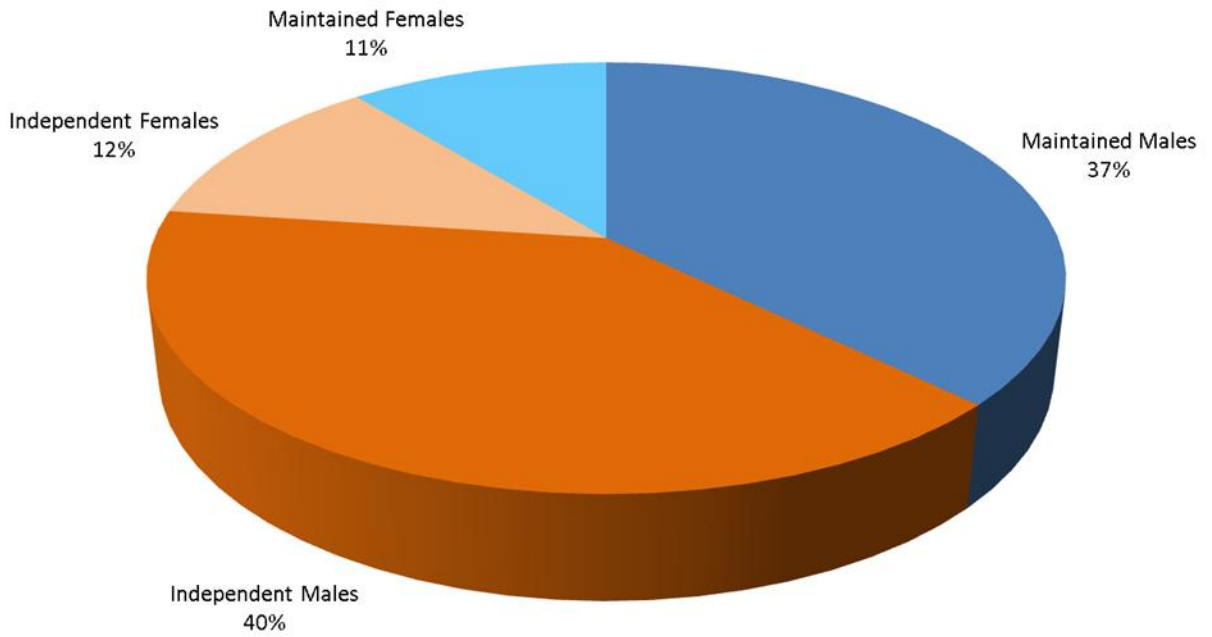


There are Arkwright-affiliated schools in 12 of the UK’s 20 most deprived geographical areas¹.

¹ Using data from the Office of National Statistics’ Multiple-Index Deprivation Maps

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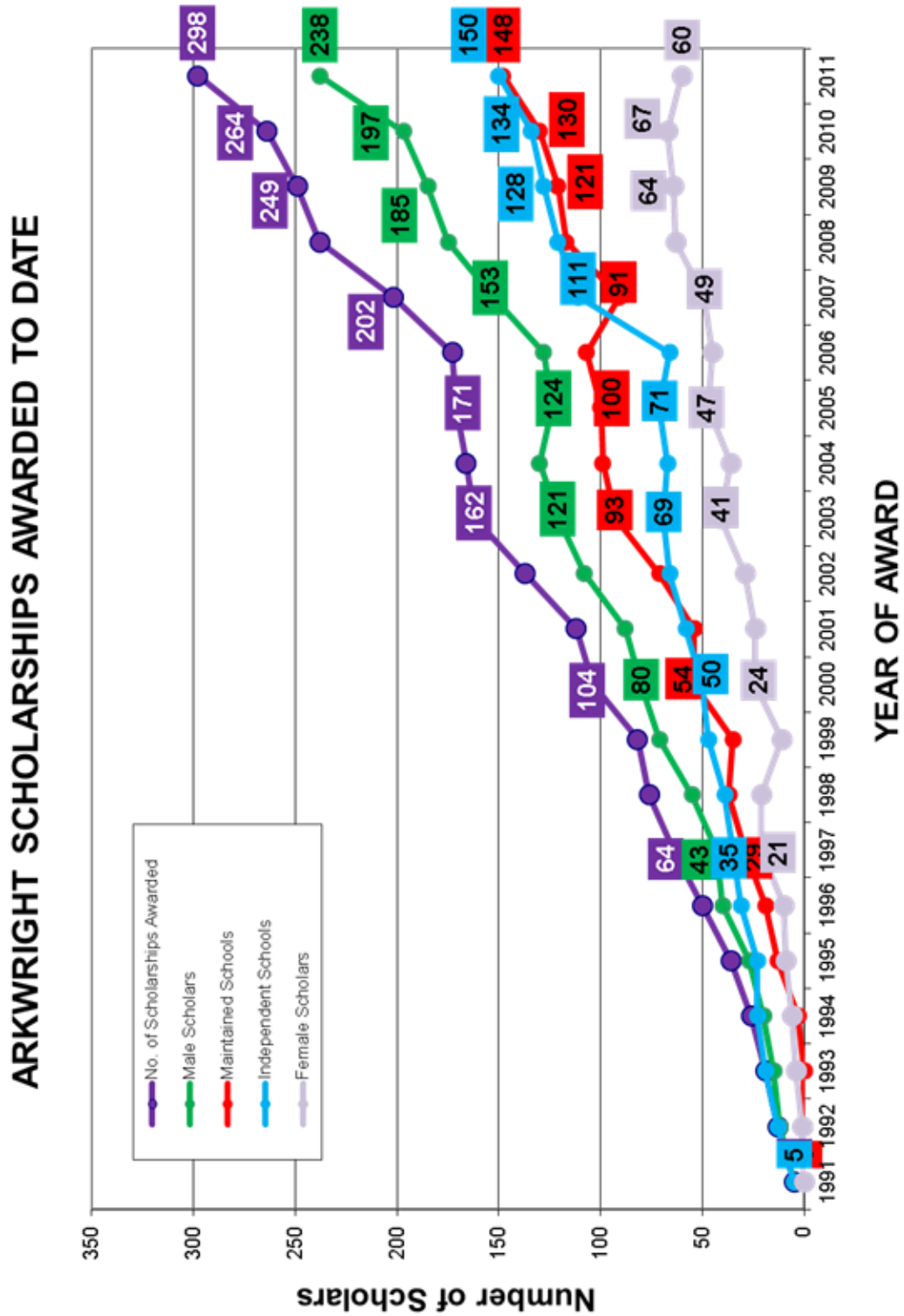
Appendix B: Breakdown of applicants for the 2011 Arkwright Scholarships



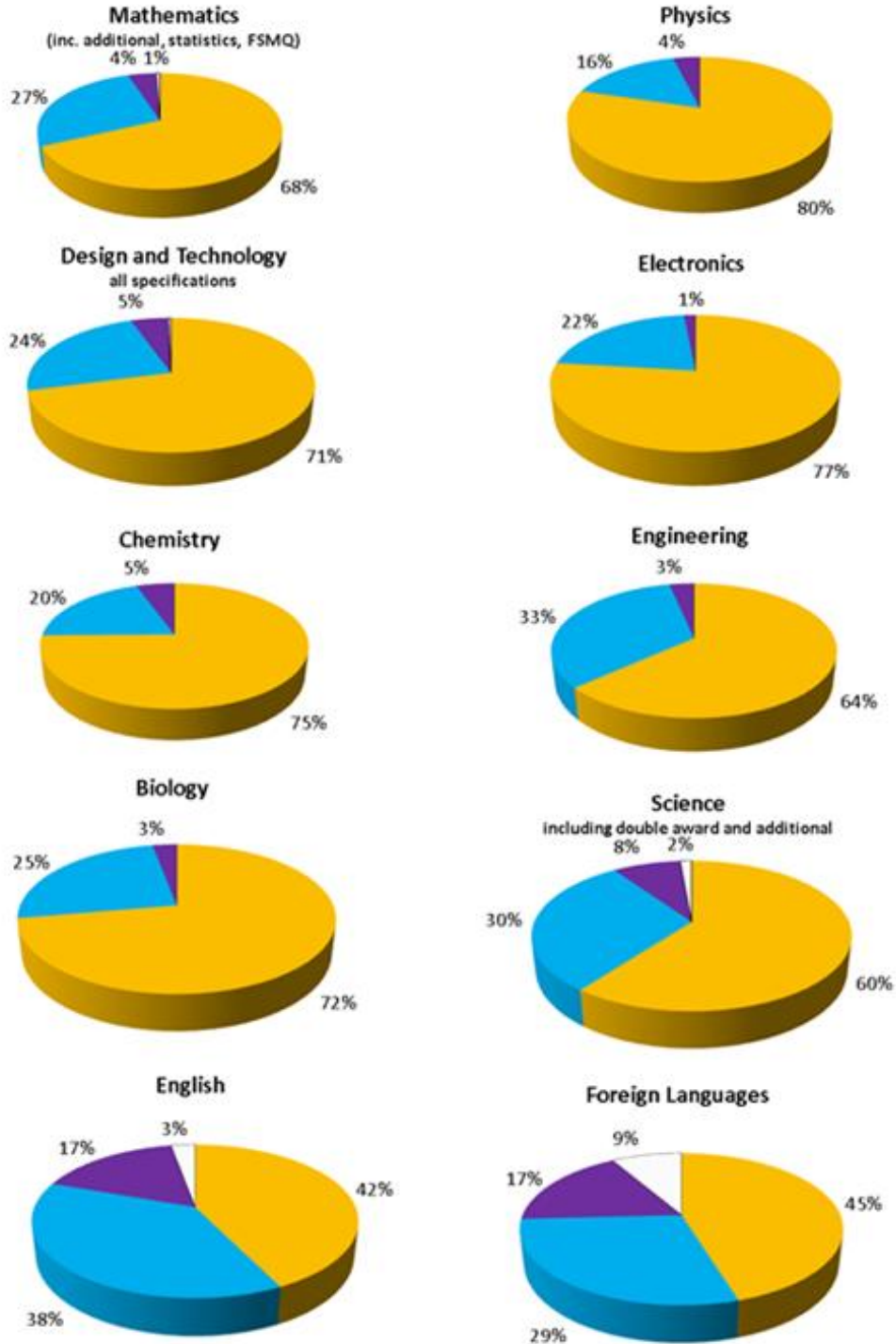
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Appendix C: 2011's Scholarships



Appendix D: Scholars' GCSE/Scottish Standard Grade Results



Legend:

GCSE A* or Standard Grade 1	GCSE A or Standard Grade 2	GCSE B or Standard Grade 3	GCSE C
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