

The impact of the Sutton Trust's Summer Schools on subsequent higher education participation: a report to the Sutton Trust

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Summary

Major recent changes have taken place to the university funding and recruitment rules within British Higher Education. These have made it considerably harder for universities to attain the levels of recruitment of 'widening participation' (WP) students (ie from currently under-represented groups) that they need in order to charge the new top-of-the-range tuition fees. This is particularly so for the most selective and competitive universities, the so-called 'elites'. Yet, more than ever, they will need to be able to demonstrate the use of effective, evidence-supported, methods to recruit such students. Outreach activities, including summer schools, have been, and will remain, a very important part of the WP policies they pursue, but it is particularly problematic for researchers to demonstrate convincingly what effects these outreach activities have had.

The Sutton Trust's well-established programme of Summer Schools at 'elite' campuses is not only now the largest remaining cross-university national-scale outreach programme, but is well-suited by its distinctiveness, timing and management to mitigate these research problems. In particular, we can establish a set of control groups - some (inner controls) of students who applied for a Summer School place unsuccessfully, some (outer controls) with similar characteristics to the Trust's eligibility criteria, but who never applied. We can compare their subsequent experience over applications and registrations to UK universities with those who attended the 2008 and 2009 Summer Schools. We present our results in three analytical sections of the report, first looking at these Summer School 'attendees' and the inner controls in aggregate, then by focussing on the experiences of different groups of students within these populations, and finally by adding in the experiences of the outer controls.

Three main conclusions are drawn. First, the Summer Schools do seem effective in generating proportionately more UCAS applications and registrations from attendees, and in particular to the Summer School host universities and, by other

definitions, the 'elite' universities. We do, of course, need to be aware that the inner controls may have a predisposition to apply to university anyway, and towards these same elites. By comparing their outcomes with those of the outer controls, we can distinguish what we term the 'impact' (of the Summer Schools) from these 'predispositions' on the part of its unsuccessful applicants, though our estimates of the relative size of the impact may err on the conservative.

Second, different sorts of students vary in their subsequent UCAS application and registrations behaviour irrespective of the Summer School intervention, with the more underprivileged less inclined to target the more elite universities, in line with existing independent research evidence. However, attending the Summer Schools reduces these differences, sometimes to vanishing point, to the relative advantage of the more underprivileged students. Further work is needed to discover precisely how and why this comes about.

Third, the five Sutton Trust host universities also show different experiences, not just in the social and academic composition of their attendees but also in some more important ways. So the profiles of the universities targeted by their attendees during the subsequent UCAS process vary, and they engage in significant levels of inter-host 'trade' of their Summer school students, especially the attendees. Here there are some clear winners and losers. We also find that the variable experiences of these attendees, over where they then apply to and register at, can be explained more convincingly by differences in the on-campus Summer School experiences, and the follow-up practices of the five universities towards them, than by variations in the social composition of these students.

The new phase of British Higher Education funding policy shifts the emphasis from the *inputs* of WP activities universities to establishing the evidence-base for their effective *outcomes*. This is especially crucial to the elite universities to underpin their recruiting more students from under-represented groups and justify their charging maximum tuition fees, and thereby contribute to kick-starting

stagnant national levels of 'social mobility'. The Trust's Summer Schools, and perhaps by extension other summer schools run by individual universities or university consortia, can make a valuable contribution to such an effective policy 'mix'.

Our study provides strong empirical evidence that summer schools do work, from the UK's now highest profile cross-university outreach programme, incorporating not just one control group but five. The Sutton Trust Summer Schools work from the perspective of their hosts, inevitably centered on their own individual downstream benefits, the perspective of the Trust whose mission is also furthered by the impacts on more widely-drawn sets of elite universities, and society as a whole, which benefits from identifying at least something that widens not just HE *participation* but also *access*, and kick-starts social mobility.

The out-going Director of OFFA urges universities to diversify their WP spend away from student financial support, which its own evidence suggests is ineffective (OFFA, 2010b), and direct proportionately more of it towards outreach. He promises that in the new, highly-challenging funding regime, OFFA will be on the lookout for good practice and '*any early evidence of impact on student behaviour or recruitment patterns*' (OFFA 2011, p.2). There seems no room to doubt that Sutton Trust's Summer Schools programme provides both.

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Section 1 - Introduction

1.1 *Changing Times*

The publication in 1997 of the agenda-setting Dearing report (NCIHE, 1997) placed, at the heart of the Higher Education (HE) sector's policy priorities, the importance of attracting a greater number of students from previously under-represented groups into British universities. Two key concerns on this agenda are those labelled 'widening participation' (WP) – the successful recruitment of proportionately more from under-represented groups into HE as a whole – and 'widening (or fair) access' (WA) – their specific admission to the more 'elite' campuses in the highly-hierarchical system of British universities. Both WP and WA are critical in energising Britain's resolutely static levels of social mobility, by both international and inter-temporal national comparisons. Amongst others, previous Sutton Trust reports have been central in providing the underlying evidence base here, charting the ways in which the products of elite British universities overwhelmingly make up such dominant professions as Parliament, the senior civil service, journalism and the law (eg Sutton Trust, 2009). Looking at national trends, more evidence can be cited for advances on the WP front than over WA (OFFA, 2010, HEFCE, 2010, Harrison, 2011). So the lion's share of the success in this area has been achieved by the newer, post-1992, 'non elite' universities where percentages of non-traditional students are already relatively high. Conversely, those already 'elite' in their academic standing have largely remained as socially 'elitist' in their undergraduate intakes as they ever were.

Life in the HE sector is set to become increasingly turbulent, in ways unprecedented in the working-lives of most of its practitioners, with much resulting uncertainty over how the future will shape up. Two elements of these changes have attracted criticism in the national media, and particularly concern

us here too. First, allowing tuition fees met by undergraduates and their families to rise to £9k per academic year will lead to almost a trebling of the costs of higher education. Inevitably, this burden will fall most heavily on low income families, who both lack the economic capital to meet such costs, and, psychologically, have no experience of living with such eye-watering levels of personal debt within the collective family memory. These, of course, are precisely the same groups of students currently under-represented in HE, and the target of the post-Dearing drive on WP. The second is allowing universities to enter into a free-for-all quota-less competition for students attaining AAB grades, or better, in their A Levels. But it is the social groups already well represented in HE who disproportionately attain these top grades, whether at fee-paying independent schools or the more successful state ones. So, unless UK universities choose not to exploit this further money-making opportunity, the consequences will be the unconstrained growth of their recruitment from already well-represented social groups.

Our report's main focus is on WA – the recruitment of under-represented groups to the more elite universities -and here both these recent policy 'initiatives' seem more likely to hinder than to help, given Britain's strongly hierarchical HE system. The existing 'elites' have declared that their 2012-and-beyond tuition fees will be at £9k per annum, or very close thereto. Some have argued that offering courses at anything less than 'top-rate' might be taken as a toxic market signal of a less-than-top-quality educational product, and anyway the fees seem to be at a level their existing client groups can bear (probably still fairly modest when compared to annual fees of £30k or more at leading independent schools). Predictably, the same high-price elite universities are also those with the highest proportions of their current undergraduate intakes with AAB or better grades, and so best fitted to try to recruit still more from their fellow elites, or high-achieving students at lower ranking universities, but with higher personal aspirations.

One further aspect of the current policy environment is pertinent to our report. Prior to the current debates and recommendations on funding levels and off-quota intakes, Government has decided to end, from summer 2011, both the payment of Educational Maintenance Allowance (EMA), and the main national, decade-long, programme of WP in schools – Aimhigher. As a result, more of the emphasis for planning, running and funding outreach activities now falls onto individual universities.

The elites in particular are caught in a pincer movement. To justify charging £9k per student-year, their Access Agreements need to convince OFFA they are making realistic and effective progress in diversifying their intakes, while they are thrust ever more onto their own resources to do so. Yet in other ways they are being given every financial incentive to do what will have precisely the opposite effect – to charge top rates and take more students from already well-represented, well-heeled groups, even paying them scholarships and bursaries to lure from the clutches of their competitors.

1.2. Outreach, and its research problems

Of all the devices that universities can employ in the cause of WP and WA at different stages in the student life-cycle – outreach activities, fair admissions practices, and student retention strategies – it is outreach which is most under threat from withdrawal of EMA and Aimhigher. Robust, directly comparable statistics on how much is spent on which WP activities across the sector are elusive (different universities classify and measure such activities in their own ways), but a recent analysis of the HE Strategic Assessments provided by all English universities for OFFA by Thomas (2011) shows the near universal status of outreach activity. And universities can only apply the other strategies - fair admissions and student retention practices - to those potential students who have decided, as least partly through such outreach activities, to apply to them in the first place. Furthermore, a number of recent policy reports and statements

have urged universities and key stakeholders to redouble efforts towards effective *outreach*. (OFFA, 2010; Browne, 2010; DBIS, 2011; Hughes, 2011).

Yet the *impact* of such outreach is also notoriously difficult to specify through robust, externally-verifiable research designs. First, the proliferation and overlapping nature of much that goes under the 'outreach' banner means that many students will experience the *combined* impress of *different* WP and WA initiatives – visits to and from the local university(ies), regional HE fairs, and personal mentoring and summer schools organised through Aimhigher, for instance. So rather than presenting in clearly-labelled, water-tight packaging and at distinctly discrete times, such 'different' outreach initiatives may merge one with another, especially in the minds of those students and schools at the receiving end. Second, some outreach may be delivered well before students have any opportunity to apply for university (such as HE talks in primary schools), allowing time for memories to fade and confounding variables to come into play, some of which may be entirely independent of the WP/WA agenda (eg the rise and fall of national youth unemployment rates). Third, the researcher's ability to track over time the subsequent experiences of those impacted by different outreach activities is often limited, partial and biased (so those who report on the beneficial effects of Aimhigher or a local university visit are more likely to be those who had positive experiences of them and also remained in the education system to be captured by such *ex-post* surveys). Fourth, and in some sense a consolidation of these separate concerns, the ability of researchers to build up any look-alike control group, from which to establish a convincing counterfactual to benchmark the separate impact of the WP/WA interventions, is severely constrained. Some researchers don't even try, and those that do risk criticism over shortcomings in their research designs and hence the robustness of their conclusions (Gorard et al, 2006). Yet robust conclusions are precisely what universities will need to cite to justify their own WP/WA expenditure, whether internally to senior management, or externally to Government in their Access Agreements (assuming it honours its promise that their vetting and approval will become a

more critical process). Finally, outreach research is often conducted from *within* the outreach community (as when Aimhigher-employed staff also investigate that policy's effects), so jeopardising the independence of its results in the eyes of sceptical reviewers, through the potential vested interest of investigators.

1.3. The Sutton Trust Summer Schools

The Sutton Trust has been running its summer schools programme, aimed at those at the end of their Year 12 and about to be confronted with the option of applying to university, since 1997. In that time some 10,000 young people have passed through the programme, which now runs at four universities – St Andrews, Bristol, Cambridge and Nottingham. However, over this period Oxford was also still part of the scheme, before opting recently for an independent summer school based on the Sutton model. Thus it is also included in our report, which looks at the experiences of what we term 'Summer School students' (those who applied, whether they eventually attended or not) in the summers of 2008 and 2009.

The Sutton Trust promotes these Summer Schools (STSSs hereafter) widely among UK schools, inviting applications from students who meet its criterion of academic attainment (five or more GCSEs at A and A* grades) and some or all of other indicators of a non-traditional HE background, namely :

- attendance at a 'low performing school' (both in attainment and progression to HE)
- being in receipt of Educational Maintenance Allowance
- having no parental experience of higher education

Students can apply to (only) one of the set of available STSSs in a specific year. All are oversubscribed, often heavily, with the difficult final selection decisions devolved to outreach staff at the relevant intended host university.

Exploring the impact of STSS attendance on subsequent HE applications is important and timely from both a policy and research methodology perspective. On the former, the programme now represents arguably *the* leading cross-campus outreach initiative in Britain. It benefits from the funding, managerial and promotional experience the Trust is able to bring to bear, but it still needs to show it provides a good return (however assessed) on that investment. It also represents a considerable commitment on the part of the host universities (who provide most of the on-site person-power, facilities and a significant proportion of the funding). They, more than ever before, also need to establish these 'returns' as clearly as possible.

On the research-design front, the nature of the STSS programme also makes it a particularly attractive case study, where the previously-discussed 'outreach research problems' are absent or significantly reduced. So although summer school students may have had a wide range of previous exposures to outreach programmes (or none at all), there are few if any confounding factors that could *subsequently* affect them in the short space of time between the ending of their Summer School and thinking about any UCAS application. Equally, the STSS is a distinct, clearly-bounded and strongly-badged intervention, taking up a week of holiday or paid work from the summer vacation, involving travel to an unfamiliar environment, and in the company of 100 or more previous strangers of similar age and background. Furthermore, the way that the databases of summer school students are now handled (see Section 2.1) is comprehensive, and facilitates their direct comparison with those held by UCAS for the purposes of university application and admission. Finally, the nature of the STSS application process provides some attractive opportunities to specify some look-alike control groups, which we have exploited in our own methodology (Section 2.2).

1.4 Summer School research to date

From our previous summary of the problems with research on outreach activities in general it comes as no surprise to find there is relatively little previous work published on the impact that summer schools have had.

A review on the impacts, real or claimed, of outreach activities by Gorard et al (2006) includes summer schools as part of 'the mix', yet the authors underline the problems of verifying just how important this form of intervention has been. Whilst summer schools are arguably the largest single such activity, they are sometimes not isolated, but treated simply as part of the outreach package, while other studies concentrate on the claims and future intentions of post-summer school students rather than what actually happens to them. And, where apparent effects *are* claimed, the supporting evidence is not robust – so summer school students could well have higher-than-average retention and success rates in HE, as some researchers have found, but maybe more as a reflection of the sorts of students who apply to go on them in the first place (the so-called 'volunteering effect') than the result of the summer school intervention itself. The absence of any well-designed set of control groups is again critical.

The efforts taken by the Trust to measure its summer school impacts have involved both the tracking of STSS attendees into any subsequent university applications (or not) and the post-Summer School evaluations (usually very positive) of attendees. But neither offers a completely robust source of evidence. The latter could simply reflect a short-lived after-buzz, or politeness – a sort of grown-up *'thank you for having me'* after a children's birthday party - rather than any longer-term commitment. The former – the tracking approach - is best illustrated by the NFER's (2001) evaluation, which went some way to redress the 'control group' problem by asking schools to report the subsequent UCAS history of both unsuccessful applicants to, and attendees at, a STSS, from their own

schools. It found strong statistical evidence that attending was associated with an increased probability of subsequently applying to at least one of the then-four participating universities (St Andrews was not as yet involved). However, this was nearly a decade ago and based on incomplete, unverifiable and potentially biased self-reporting by the students' own schools, who maybe had one eye on maintaining good relations with the Trust on behalf of their future STSSs hopefuls.

Britain's other main summer school programme has run through the auspices of Aimhigher, with HEFCE funding. This is a much bigger programme (with over 100 university centres), is targeted at younger students (years 10 and 11) and has promoted awareness of, and aspirations towards, HE entry in general rather than any specific university(ies). A nationwide analysis of participation from 2004 to 2008 by the funders (HEFCE, 2009) found the programme generally well targeted on the intended groups with low existing HE participation. But it concentrated on just summer school attendees (excluding unsuccessful applicants), with no attempt at 'control group' comparisons, nor at tracking participants through to any subsequent HE application.

Within the South West region, a second study of the same programme comes from colleagues at UWE Bristol (Hatt et al 2011, see also Hatt et al 2007), using a multi-methods approach. As part of this they tracked and compared the subsequent experiences of Aimhigher participants who had also attended its summer school component with those who hadn't, finding the former had a slightly higher HE application rate. Unsurprisingly, given the general focus of these summer schools, no information on 'universities applied to' was provided.

The authors make the important point that the personal sacrifice involved (ie foregoing a week's holiday) meant that most attendees were likely to be predisposed towards HE already, but *[this] has not been appreciated by the funders whose evaluation is largely predicated on the assumption that summer*

schools are for those who are not aspiring to HE' (Hatt et al,2001;338).¹ So rather than creating such aspirations from scratch, summer schools are seen as reinforcing pre-existing ones. However, interpreting their results in this way has to be treated with caution. First, we aren't told whether the Aimhigher non-attendees had this status out of choice (ie they never applied in the first place) or necessity (ie they did but were not accepted). Second, tracking students required their prior permission, and if the refusal rate here was non-trivial the results as reported could be a biased representation of the true HE application rates of either or both the attendee and non-attendee groups. Clearly then, the role of carefully-constructed control groups for a richer understanding of what is going on is an important message, as in the HEFCE study.

Section 2 - Research Design and Data

2.1 Research design

Previous studies clearly take us only so far in understanding the impact of summer schools in general and the Sutton Trust's in particular, but are more helpful in highlighting what further questions arise and how to go about answering them. Broadly speaking, we are concerned here with three important *research questions*, which have been, at best, only partially explored in the research literatures so far:

1. Has attendance at a STSS been associated with specific outcomes in the subsequent HE experience of those students, in terms of their *rates* of application, the university *destinations* involved, and the *success rates* of these applications? So have they generated more applications than would otherwise have occurred? Have these furthered the WA and not 'just' the WP agenda, and have these fed through to increased university registrations? If not, the warm glow of satisfaction from positive end-of-Summer School surveys or raised UCAS application rates soon evaporates.
2. How far do these experiences also vary with the personal characteristics of the students concerned? There is already considerable evidence that 'WP' students are less inclined to apply to elite universities than their equally qualified 'traditional' peers (eg Hoare and Aitchison, 2009). As the composition of summer school students leans towards the 'WP' end of the social spectrum we need to control for this when drawing conclusions about the impact of summer school attendance. It may be that aggregated differences in subsequent application rates to elite universities will take on a different interpretation when this 'composition' effect is taken into account, as the hypothetical example of Table 2.1 illustrates.

Table 2.1

	SS Attendees		Control	
	% group	% applying to elites	% group	% applying to elites
'More WP' students	80%	40%	20%	30%
'Less WP' students	20%	50%	80%	45%
Total	100%	42%	100%	42%

Here we compare the percentages of students who have attended a summer school, and who then apply for a place at an elite university, with the equivalents for a non-attending control group. At face value, when aggregating the students in each population, the summer school has apparently had no effect – the overall percentages are identical (42%). But in reality two different social groups, those with stronger and less strong WP credentials, exhibit very different behaviours. The former are consistently less likely to apply to the elites than the latter, but while the summer school experience raises this for both it does so more powerfully for the stronger WP students. And as the summer school attendees have been deliberately selected on the basis of the strength of these WP characteristics, the overall effect of aggregating the groups is to mask the positive effect of the summer school, and particularly on the 'more WP' students, by this difference in initial composition.

Furthermore, we can explore whether *specific* WP markers seem particularly powerful levers in converting a STSS experience into more ambitious, and successful, university applications. For example, were it to emerge that students without any parental HE background were generally less likely to apply to elite universities than those where at least one parent had been to university, but that this differential reduced significantly for those students

who had been on a Summer School (as in Table 2.1 again), then a case could be made, first for raising the status of this 'WP marker' in the initial Summer School selection, and second for safeguarding and enhancing parts of the delivered STSSs programme well geared to such 'HE novitiates'.

3. Finally, we want to explore whether the impacts of the STSSs vary across the five universities delivering them. While all are part of one umbrella programme, each university selects the successful candidates from the many more who apply, and then plans and delivers the detailed week-long programme in its own particular way. Some may provide strong encouragement for 'their' students subsequently to apply to the STSS host through UCAS, and 'flag' this for admissions tutors on their UCAS forms. Another, external, contributing factor in differentiating the subsequent behaviours of Summer School students from different hosts could be the sharp tuition fee differentials in 2008/09 (i.e. prior to the rise towards £9k) between Scotland and England.

We have stressed the importance of using meaningful control groups, given that those applying to Summer Schools in the first place may already be more predisposed than their non-applying peers to apply later to university, and specifically to elite ones (all the STSSs host universities can be so defined). Our approach to this imperative is two-fold. First, we use the STSSs application process to specify three separate groups of Summer School students:

- i) '*attendees*' (successful applicants)
- ii) '*reserves*' - those on a reserve list, but not eventually offered a Summer School place (Note 1)
- iii) and '*applicants*' who were unsuccessful and not placed on any reserve list either.

We label ii) and iii) our ‘*inner control groups*’. Arguably, the applicants (iii) would have the least information on, and sense of enduring commitment to, their intended host university specifically and to elite destinations in general, and the ‘*attendees*’ the most. Yet all three groups had sufficient initial enthusiasm to apply for a Summer School, and the preparedness to give up time to enhance their on-site experiences of university life, and so all might have a higher initial and on-going commitment level to HE than non-applicants.

Table 2.2 shows the distribution of Summer School students across these three groups for the five host universities, pooled for our two study years of 2008 and 2009.

Table 2.2 Profile of types of STSSs students by host university, 2008/9

	2008				
	B	C	N	O	StA
Attendees	19.2%	21.9%	22.0%	27.4%	38.2%
Reserves	4.9%	6.1%	12.4%	2.8%	0.0%
Applicants	76.1%	72.1%	65.7%	69.8%	61.8%
Total	673	798	460	1188	283

	2009				
	B	C	N	O	StA
Attendees	24.0%	19.9%	15.9%	21.6%	21.6%
Reserves	6.3%	7.9%	14.0%	6.4%	0.0%
Applicants	69.7%	72.2%	70.1%	72.0%	78.4%
Total	541	978	662	1788	384

B – Bristol

C – Cambridge

N- Nottingham

O - Oxford

StA – St Andrews

We also wished to compare the UCAS application behaviour of Summer School *reserves* and *applicants* on the one hand and non-applicants on the other, to

explore further the levels of *predisposition* towards higher education shown by the former. Here we focussed, as does the Summer School programme, just on state school students. We commissioned from UCAS a dataset of all university applications for the application cycles immediately following the 2008 and 2009 Summer Schools, within which we further distinguished three ‘*outer*’ control groups. These allowed us to specify, as closely as was practical, non-applicants with similar personal, family and educational backgrounds to those in our three Summer School groups, as follows:

Outer control group 1 (OC1) – those UCAS applicants in the relevant years (2008/9 and 2009/10) who met all the Sutton Trust’s criteria, insofar as these can be matched

Outer control group 2 (OC2) - those UCAS applicants in the same relevant years who met the Sutton Trust’s GCSE criterion and at least one, but not all, of the others that can be matched.

Outer control group 3 (OC3) – all other state school UCAS applicants in the same relevant years.

As the necessary school performance data are only available for English and Welsh schools, we had to make this a restriction on the outer groups. Collectively then, they represent all state-school England and Wales-schooled UCAS applicants who did not apply to any Summer School, successfully or otherwise, in the summer immediately before their UCAS application.

To show how we can use *attendees* and these various control groups to isolate the impact of Summer School attendance, consider the hypothetical examples of Table 2.3 where, for simplicity, we amalgamate the different inner and the outer control groups 1 and 2, and use UCAS applications to elite universities as the marker of post-Summer School behaviour towards higher education.

Table 2.3 Impact and Predisposition scenarios

Cases	% of UCAS applications to elites		
	Attendees	Inner Control	Outer Control
a)	60	20	20
b)	60	40	20
c)	40	40	20
d)	20	40	20
e)	20	20	20

In case a) we conclude that STSS attendance really matters in boosting such applications, distinguishing the attendees from the inner control groups; however, there is no pro-elite 'predisposition' evident as there is no difference between the unsuccessful (inner) applicants over the (outer) non-applicants. In b) there is, but the pro-elite boost of Summer School attendance still plays a part. If only the predisposition effect operates between inner and outer control groups, and STSS attendance has no further impact, then case c) will result, while d) arises in the unfortunate but still possible event that the Summer School experience proves a deterrent for attendees. Finally, should there be no predisposition effect and attendance is also a neutral experience then the flat-lining of e) is the outcome. Clearly, from the point of view of the Sutton Trust and the host universities, only the first two represent positive outcomes for resources both have committed.

2.2 Data sources and issues

2.2.1 Summer Schools and University Applications databases

We compiled our datasets in four stages. First, we used the STSSs applications records for our study years (the 2008 and 2009 Summer Schools) to record a series of characteristics about each Summer School student, as follows:

- Sutton Trust Summer School applied to (Note 2)
- Sutton Trust criteria met
- Outcome of application (successful applicants; unsuccessful-reserve list; unsuccessful – not on reserve lists. These respectively are the *attendees*, *reserves* and *applicants* as discussed in Section 2.1)
- Individual characteristics

Second, UCAS was commissioned to search its university applications files for the application cycles immediately following each of our two study Summer School seasons (2008/9 and 2009/10) to identify whether those same Summer School students made a UCAS application in the next-available admissions cycle, based on finding matches for them by name, school, home postcode and date of birth. This was greatly facilitated by UCAS also hosting the electronic records of Summer School applications for these years, since 2007. (Previous Summer School applications, held separately by each university as paper records, would have been very problematic and time-consuming to consolidate into a usable composite source, let alone compare with the UCAS records.)

Third, where such matches were found we asked for these Summer School student records to be enhanced with details of their subsequent UCAS applications:

1. Applied-to university/ies,

2. Progression through the various subsequent stages of the UCAS process:
 - Offer(s) received (if any)
 - Student response(s) to offer(s) received
 - Student final university registration (if any)

3. Additional individual characteristics
 - POLAR2 low HE participation quintile (identifying the local levels of HE engagement in the student's residential neighbourhood)
 - Ethnicity (recoded as white/non-white)
 - Parental experience of HE (Yes/No)

Fourth, we also commissioned UCAS to generate databases for our three outer control groups, under the same headings as we had for our Summer School students with a subsequent matched UCAS application:

- Applied-to universities
- Stages of UCAS applications
- Individual characteristics

Any student elsewhere identified as a Summer School student was eliminated from our outer control groups, making outer control groups 1 and 2 as close we could, within the limits of the data sources available, to the same-age population of the contemporaries of summer school students who could have applied to a STSS, but chose not to. Outer control group 3 represents all other state-school university applicants falling within our parameters of interest.

2.2.2 Variables and Definitions

Table 2.4 summarises the detailed variables and definitions employed.

Table 2.4 Definitions of variables used in study

Characteristic	Summer School Students	Outer control groups	Notes
UCAS destinations	University of Bristol University of Cambridge University of Nottingham University of Oxford University of St Andrews Sutton Trust 13 (excluding ST5) Russell Group (excluding ST5) 1994 Group (excluding ST5) All 'non elites' (excluding ST5)	As Summer School Students	ST5 = Sutton Trust five universities For outer control groups ST5 destinations are not subdivided into Host SS or Other SS, whereas they are for Summer School students
UCAS stages	For each UCAS destination... Number of applicants (mainscheme) Number of applications (mainscheme) Number of applicants that received an offer (conditional or unconditional) (mainscheme) Number of applications that received an offer (conditional or unconditional) (mainscheme) Number of conditional firm, conditional insurance, unconditional firm and unconditional insurance acceptances (mainscheme) Number of applicants that register on their firm (mainscheme) (1) Number of applicants that register (mainscheme) (1) Number of applicants that register (Clearing/Extra) (1)	As Summer School Students	SS students available for individual applicants, outer control groups only available as aggregations to UCAS destination groups (1) By registration we mean the final stage recorded by UCAS in the admissions system
Sutton Trust criteria	At least 5 GCSEs at A/A* Non-graduate parents (2) School low HE progression (4) School low attainment (5) EMA eligible (6)	As Summer School Students Non-graduate parents (3) School low HE progression (4) School low attainment (5)	(2) Specified on the SS forms as being the first in the family to attend university (3) Specified on UCAS application as 'whether or not your parents, step-parents or guardians have themselves undertaken a course at higher education level' (non-compulsory)? (4) Low school progression defined as less than 40% of year 13 student progression to HE. Control datasets use tables from 2008 calculation. (5) Low school attainment defined as below mean on average point score per student. Control datasets use tables from 2008 calculation. (6) EMA information only available for Summer School dataset
Other personal characteristics	Gender (Male/Female) Ethnicity (White/Non-white/Don't Know) POLAR2 (1/2/3/4/5/Blank)	As Summer School Students	

The precise definitions we adopted follow from the need to reconcile our research design with certain practical data and confidentiality/protocol issues, as follows:

a) *Outer control groups*

- i) An important qualifying criterion for Summer School applications is attendance at a 'poor performing' school. This is defined in two ways. First, for attainment, if a school falls below the national mean average point score per student, *and*, second, if a school has a progression to HE rate of 40% or below. But as these measures are only available through the UCAS data files for English and Welsh schools we could not extend our definitions of outer control groups to Scottish or Northern Irish resident UCAS applicants. Some of the STSSs also brought to our attention certain problems with the school progression measure used by the Trust. In our data we also found there to be lower frequency of flagging schools as 'low' on progression to HE than we would expect *a priori*, on the reasonable assumption that low attainment and low progression are related at the individual school level. We therefore resolved, for the purpose of our analysis, that a school would meet the 'poor performing' criterion if it fell into bottom 40% on *either* the attainment *or* progression measure.
- ii) The measure of 'no parental higher education' experience is different in detail for Summer School and UCAS application processes. It is also an optional question on the UCAS form.
- iii) The UCAS files contain no record of students on EMA, although this is a criterion for success in the STSSs application process during the study period.

- iv) To keep the outer control groups datasets commissioned from UCAS within practical computational sizes, the data provided were based on *aggregates of applications* (not individual applicants) for the categories identified.

b) UCAS application destinations

- i) We had secured the permission of each of the five STSS universities to identify and analyse separately the subsequent UCAS records *made by* their own Summer School candidates, and also UCAS applications *to* their university, both from other Summer School candidates and from outer control group candidates. For all other cases UCAS operate a 'rule of three' confidentiality constraint, which precludes our specifying any destination-specified data for groups of less than three universities.
- ii) 'Elite universities' were measured in three separate ways: through the 16 Russell Group universities (excluding their four STSS members); through the eight 'Sutton Trust 13' universities (excluding the five STSS universities); and the 18 '1994 Group' members (minus St Andrews, a STSS host but also a 1994 member). The second group also overlaps in membership with each of the other two, but the 'rule of three' precludes our eliminating this in our data specifications, so we have to accept some overlapping coverage of data for applications between both to the Russell and 1994 Groups on the one hand with the Sutton Trust 13 on the other. (Appendix 1 details the individual universities in each of these groups.) There were about 300 remaining 'non elite' higher education institutions.

c) UCAS application stages

The datasets provided tracked the same subsequent stages of all recorded 'main scheme' applications as for the Summer School students – offers received, offer

responses, and final registrations. Further, it gave details on direct registrations made through Extra or Clearing, which were incorporated in the registration analysis.

d) Personal characteristics

- i) In addition to those used to match the Summer School and outer control groups, we also obtained student *ethnicity* (white/non-white). Although a non-compulsory question on UCAS forms, this is still used by some universities as a WP criterion.
- ii) Residence in a low participation neighbourhood, as measured by HEFCE's POLAR classification of estimated HE participation rates, was also added to the Summer School and outer control records. This is a widely-used WP indicator and also one of the three Performance Indicators published annually for each university by HESA.
- iii) We also specified the *gender* of our Summer School and outer control groups. While not a conventional WP criterion, there is widespread concern at the increasing gender gap in national undergraduate populations, with females increasingly over-represented compared to the gender division of the relevant national age cohorts.
- iv) However, we did *not* also ask for an indicator of socio-economic status in these same records. This is also neither a STSS criterion nor a compulsory UCAS question (and the non-response rate has steadily risen to about 25%), while other researchers have cast doubt on the reliability of the NS-SEC social class classifications as are generated from those who do answer it (see HEFCE 2009). There was also an unfortunate decision to change the relevant question on the UCAS form for just 2008/09 cycle applicants, making the results over our two study years non-comparable.

e) Matched and unmatched cases

While the majority of summer school students generated a 'match' in the UCAS university application records, some 10% did not. Of course, they may have decided against any university application in the next UCAS round. However, some may have applied, but following some change in personal circumstances since the Summer School application (most likely home address and/or school) they were missed in the strict matching criteria we set. We have no way of resolving the 'unmatched' Summer School students between these two very different possibilities. Therefore we use both matched and unmatched cases at different times in later sections, whichever better suits our analysis.

2.3 The plan of our report

Rather than examining the research questions outlined in Section 2.1 in strict sequence, our report treats them within an alternative framework. We begin with an examination of the post-Summer School behaviour of STSS students - the attendees and inner control groups, first in aggregate (Section 3) and then disaggregated by individual student characteristics of interest (Section 4). In Section 5 we add the outer control groups to the analysis, again disaggregated by student types insofar as our commissioned dataset provides this in a way that allows direct comparison with Summer School students. In all these sections we adopt a mixture of descriptive presentations and simple statistical analysis, as appropriate, to test for the significance of observed differences among our various attendee and control groups, and, within these, of specific sub-sets of students by their social and educational backgrounds. Section 6 then summarises our findings and provides some final overview of the project.

Section 3 – What happens to Summer School Students?

In the first of our three sections of analysis we look at what many will see as the most fundamental aspect of the impact of the Trust's Summer Schools – what subsequently happens, in terms of university application and entry, to those we have defined as 'Summer School students'. In particular, what differences in outcome, if any, can we identify from those who attended a Summer School as distinct from the hopefuls who did not (our two inner control groups)?

Key findings

- Overall, Summer School attendance gives a modest but real boost to engagement with the UCAS applications process.
- Summer School attendees particularly outperform the other two inner control groups in applicant and registration rates to elite UCAS destinations.
- Differences between the attendees and inner control groups are primarily rooted in the initial patterns of applications.
- 'Trade' takes place in Summer School students across the five host universities
 - Attendees apply to their host relatively more than do the other two groups
 - Cambridge and Oxford emerge as net exporters, Nottingham and Bristol as net importers, and St Andrews remains the most detached, especially for exports.

3.1 The ‘headlines’

First, some very encouraging ‘big picture’ results, from looking at our three Summer School groups in aggregate (Table 3.1) and also against the university destinations to which they could have applied and at which they could have registered (Table 3.2(a) and (b)). In Table 3.1 we show the outcomes both for our total (‘including unmatched’) and matched summer school students (see Section 2.2), ie by respectively including and excluding those where we cannot find a match in the subsequent UCAS records, so defining the upper and lower bounds of applicant and registration rates.

Table 3.1 Overall rates of applicants and registration by type of Summer School students

	% who apply		% who register	
	incl unmatched	excl unmatched	incl unmatched	excl unmatched
Attendees	93.1%	99.8%	83.6%	89.6%
Reserves	90.2%	100.0%	75.9%	84.2%
Applicants	87.8%	99.8%	76.3%	86.7%

However, regardless of whichever ‘student population’ definition is taken, the percentages of the three summer school groups who subsequently apply to, and who register at, a university are all high. Inevitably, by definition, the unmatched figures are lower than their matched equivalents, and, also inevitably, not all who apply do eventually register (some may withdraw from the UCAS process, others will not receive an offer of a place or fail to achieve the grades they have been offered (Note 3)). But the most important feature of Table 3.1 is that the Summer School attendees perform (even) better than the reserves and applicants in engaging with the university applications process ‘in the round’. Assuming that any tendency in our tracking system to miss real applications amongst the unmatched (for reasons suggested earlier) is similar across the three categories, the fact that the attendees generate the highest percentages applying (93.1%)

and registering (83.6%) amongst the 'including unmatched' populations implies that Summer School attendance gives a modest but real boost to subsequent and successful engagement with the university applications process *as a whole*.

From now on we mostly concentrate on these 'including unmatched' Summer School students, for whom Table 3.2(a) shows some much more emphatic benefits of attendance, when we disaggregate these applicants and registrations by university destination, using the various definitions of elites and other university groupings outlined in Section 2.2.2b. The attendees make relatively more applications and generate relatively more registrations to the STSS universities, the Sutton Trust 13, and the Russell Group universities compared with the other two control populations. Only with the 1994 Group for the applications, and the 'non elites' for the registrations, are they toppled from top place (albeit with a tie with the reserves for 1994 Group registrations). The most dramatic differences of all arise in the case of the specific Summer School host university attended by the attendees and targeted by the other two groups; here the applications and registration rates are respectively double, and more than double, those of the reserves, the higher-scoring control group. Bear in mind that there is a 'zero-sum-game' element to these rows of figures, since, with a limit of a maximum of five UCAS choices, an application to, say, the host or another elite reduces the opportunities to apply to a 'non elite'. Predictably, then, the attendees figures are the lowest for the 'non elites' columns to compensate for their dominance in the columns to their left. Finally, it is worth noting that this breakpoint, separating the 'non elites' (and sometimes too the 1994s) from the elites, is a recurring theme in many of the results to follow. It demarcates sharply and consistently the parts of the national HE sector that feel the positive downstream impact of Summer School attendance from those that do not.

Table 3.2 Summer School student applicants and registrations by UCAS destination, **(a)** unweighted **(b)** weighted (highest values per column shaded)

(a)

	% applicant						
	Host SS	Other SS	ST13	RG	1994	All 'non elites'	None
Attendees	50.3%	36.1%	62.8%	81.3%	58.2%	43.5%	6.9%
Reserves	25.3%	34.1%	53.3%	74.9%	59.8%	51.8%	9.8%
Applicants	21.3%	31.1%	51.1%	71.6%	51.3%	50.3%	12.2%

	% registration						
	Host SS	Other SS	ST13	RG	1994	All 'non elites'	None
Attendees	12.0%	7.1%	15.7%	29.4%	15.3%	19.9%	16.4%
Reserves	5.3%	6.5%	12.2%	23.1%	15.3%	25.7%	24.1%
Applicants	4.5%	5.3%	12.9%	24.4%	14.6%	27.5%	23.7%

(b)

	% applicant						
	Host SS	Other SS	ST13	RG	1994	All 'non elites'	None
Attendees	50.3%	9.0%	7.8%	5.1%	3.2%	0.1%	6.9%
Reserves	25.3%	8.5%	6.7%	4.7%	3.3%	0.2%	9.8%
Applicants	21.3%	7.8%	6.4%	4.5%	2.9%	0.2%	12.2%

	% registration						
	Host SS	Other SS	ST13	RG	1994	All 'non elites'	None
Attendees	12.0%	1.8%	2.0%	1.8%	0.9%	0.1%	16.4%
Reserves	5.3%	1.6%	1.5%	1.4%	0.9%	0.1%	24.1%
Applicants	4.5%	1.3%	1.6%	1.5%	0.8%	0.1%	23.7%

One further feature of Table 3.2(a) to note is that we make no allowance in it for the numbers of universities falling within each of the columns. But they are very different –for each applicant there is just one host, but in the other groups there are between four (Other SS) and about 300 ('non elites'). This doesn't affect the results for our three Summer School groups relative to each other but it does mask the very impressive ways in which all of them, and in particular the attendees, are favouring their host SS, other STSSs, and other elites, over the 'non elites'. The stark differences when, in Table 3.2(b), we recast these same

figures, to weight the results according to the number of potential target universities in each destination category, simply underline this point.

3.2 Progression through the UCAS cycle

So far we have concentrated on the alpha and omega of the UCAS application process – the first (application) and final (registration) stages. But what happens in between? In Figure 3.1 we show the progression of the applications made by our three groups of Summer School students through the intervening stages of their receiving offers (or not) from their applied-to universities, to their firm acceptances of offers (each student can only hold one such firm acceptance), their university registration at their firm choice and their final registration. The last two stages differ in the extent that some students may register at their other, insurance, offer (usually having missed the conditions of their ‘firm’ acceptance) or will register through UCAS Extra and Clearing (‘Direct registrations’, in UCAS terminology). Each set of graphs shows this sequence for the same suite of university destinations discussed above; the left hand of each pair displays the progress of the attendees through the percentage of them still ‘in play’ at each stage (these inevitably decline from left to right, except between the final two stages), while the right hand accompaniment shows the relative performance of the reserves and applicants to the same university destinations when indexed against the attendees (ie attendees = 100). The extent of the change in the attendees’ results from stage to stage is constrained by the options open to candidates within the UCAS system and the numbers of universities in each destination set. So with just one host university and four potential other Summer School choices available to any attendee there is only one positive university response that could trigger a ‘hit’ in the ‘offers’ count for the first but up to four that could in the second, should the attendee have applied to all of them. For all the other destinations the number of application choices is greater still and maximum possible positive responses is five, should all applications be targeted there and all receive offers. The competitiveness of the universities is also

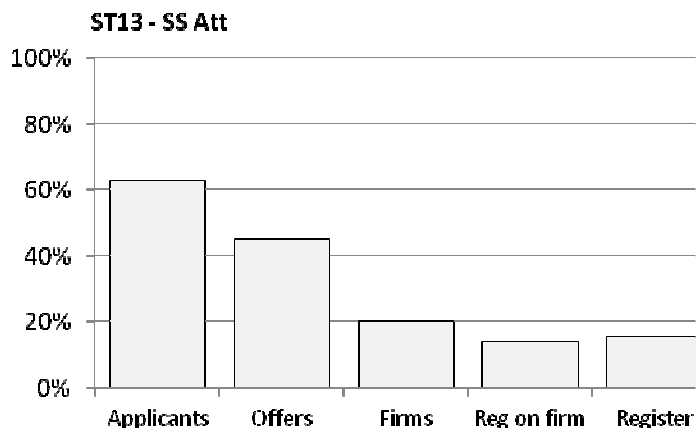
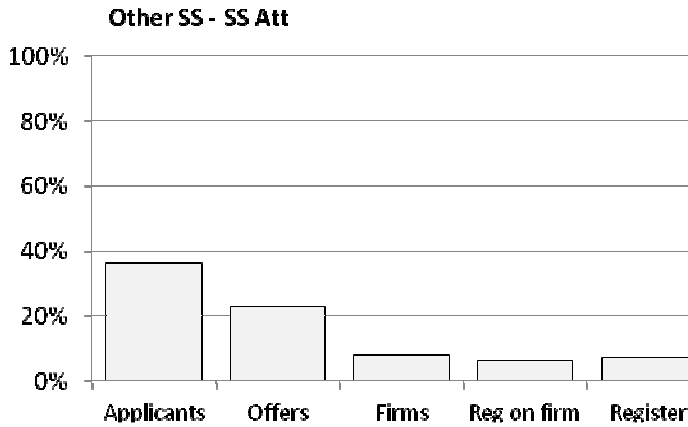
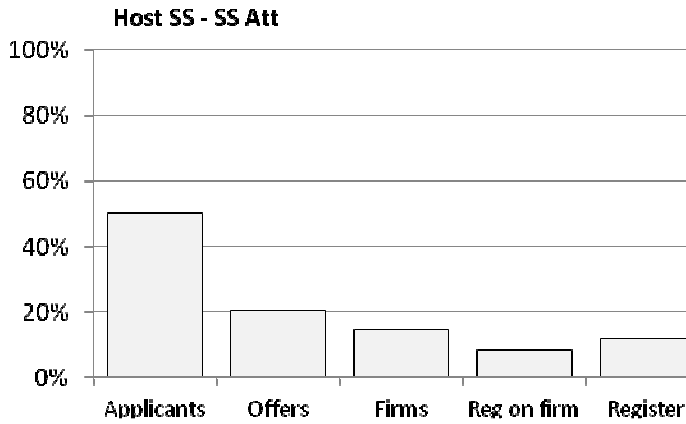
important in the chance of an offer, of course, so the near certainty of at least one offer for the 40% of attendees who apply to one or more of the 'non elites' will partly also be a function of their containing a disproportionate number of the least competitive courses covered by our analysis. Finally, irrespective of how many offers are received, no more than one can be accepted firmly and then registered at.

While there is a lot of detail within Figure 3.1 there are two main points to emphasise. First, it shows graphically that, as we move from the hosts through to other UCAS destinations, the relevant percentages of the inner control groups close in on the 100 benchmark of the attendees, rival them (with the 1994 Group) and then overtake them (with 'non elites'). Second, the relative performance of the three groups is remarkably consistent after the initial differentiation in their profiles of applications. So the surface across the top of the right-hand columns is as flat as one could reasonably expect to find within such a dataset (the slight peak in firm acceptances for 'non elites' is the sole exception). The conclusion to be drawn from this is that few other perturbations are introduced into the relative outcomes of the attendees and inner control groups, once their initial applications have been made. They subsequently have neither more nor less offers, acceptances, firms, or registrations *pro rata* of their initial applications than do the attendees. So the differences in experience are primarily rooted in the initial patterns of attendee and inner control group applications and the ways these differentiate amongst potential destination universities and university groups. One further conclusion is that, overall, the reserves lie closer to the attendees than do the applicants - when the hosts and other Summer School destinations are concerned, throughout the UCAS stages, and in the earlier stages for all university destinations. This is consistent with the expectation earlier (Section 2) that they would show greater commitment to the Summer Schools universities, and to the prospect of university entry as a whole, than those unsuccessful applicants without this possibility of a Summer School place.

Figure 3.1 Summer School student groups by UCAS destination, and stage of cycle (unweighted)

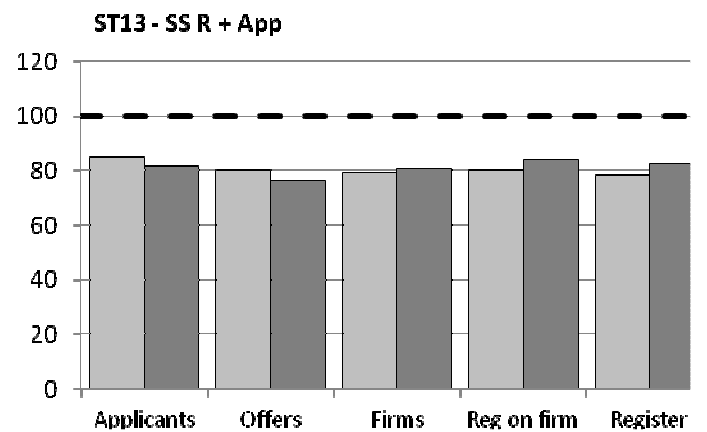
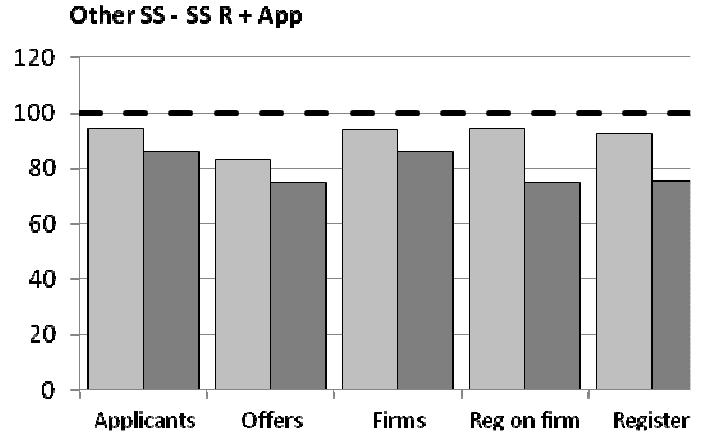
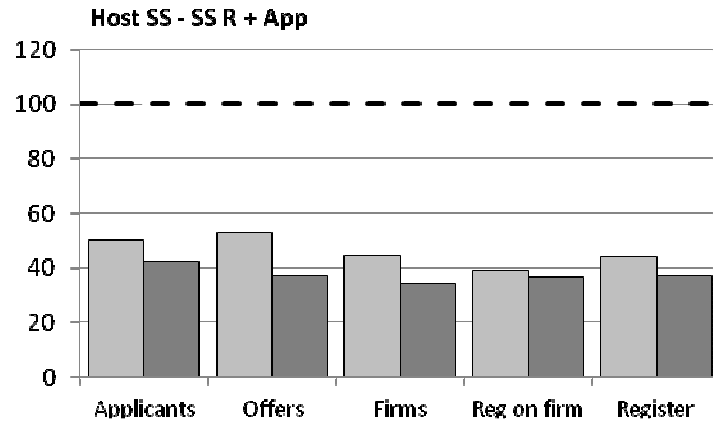
Percentage of SS attendees

□ SS Attendees

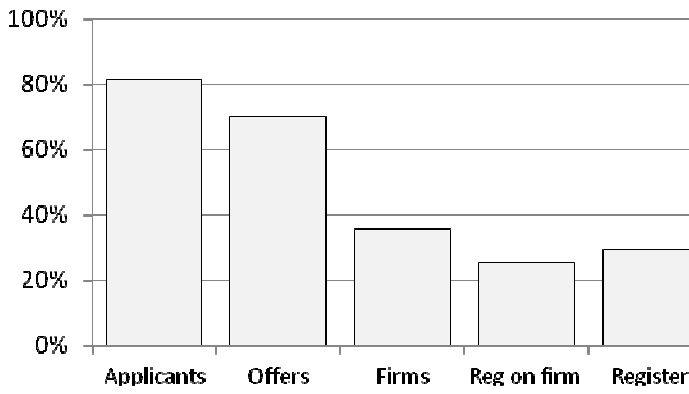


Percentage of SS reserve and applicants indexed attendees

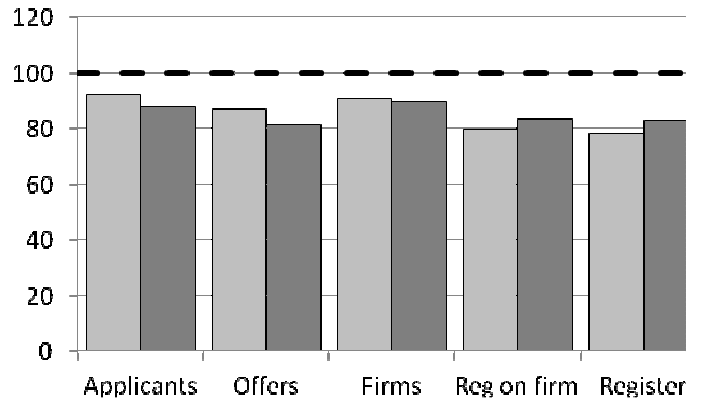
□ SS Reserves (% UCAS applicants indexed to attendees)
 ■ SS Applicants (% UCAS applicants indexed to SS attendees)



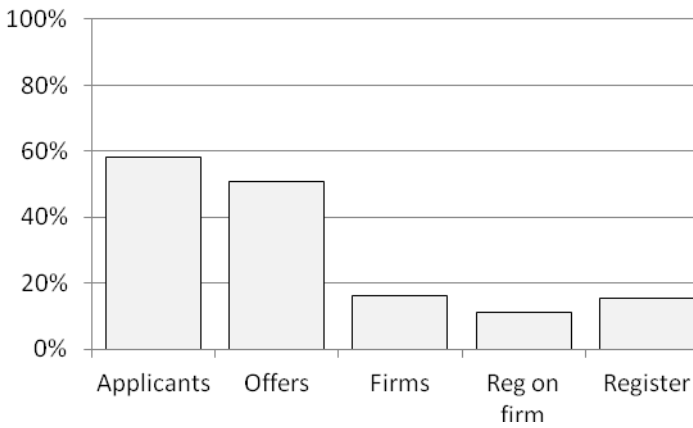
RG- SS Att



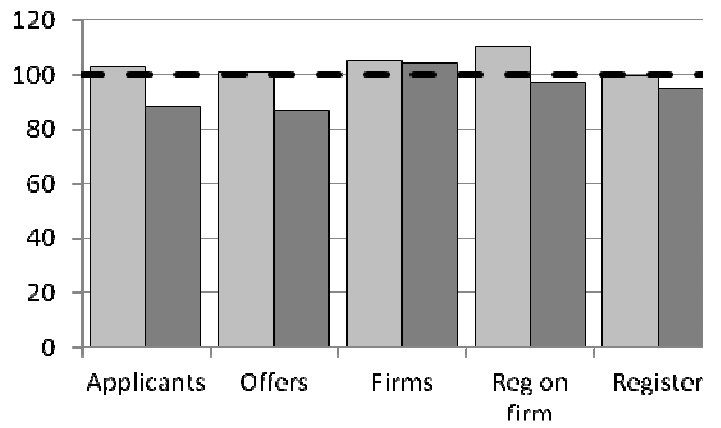
RG- SS R + App



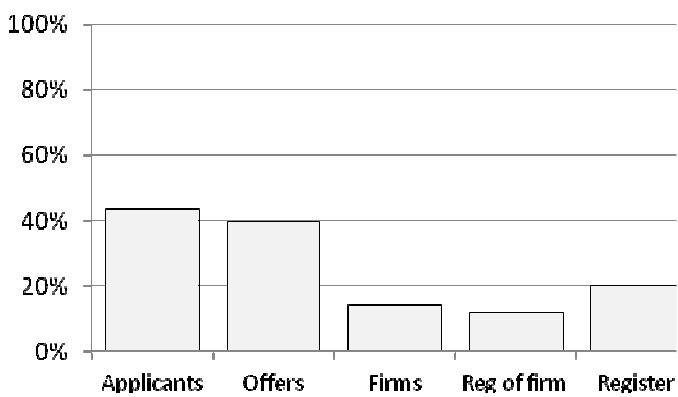
1994 - SS Att



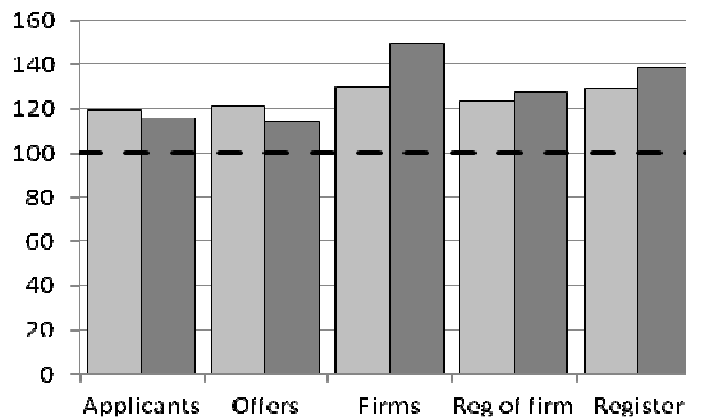
1994 - SS R + App



All 'non elites' - SS Att



All 'non elites' - SS R + App



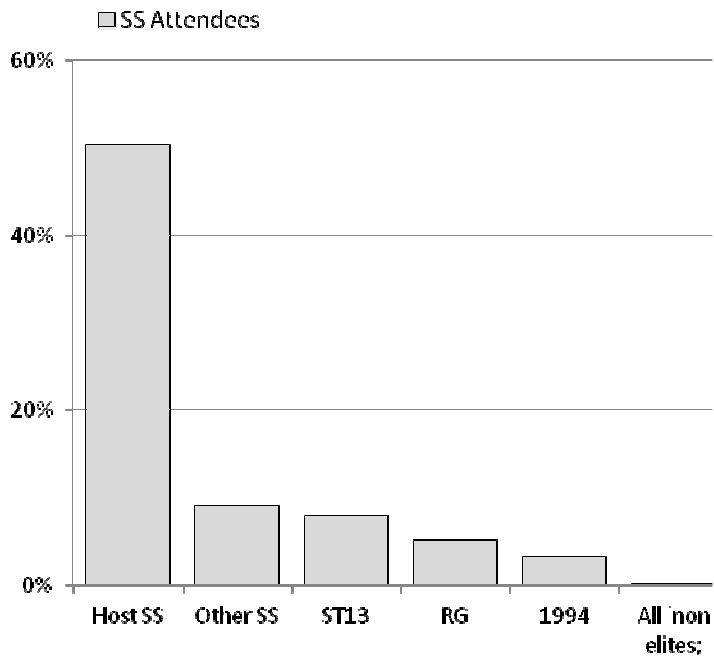
3.3 Profiles of ambition and reality – intended and eventual destinations

On the basis of these results we focus on just the initial (applications) and final (all registrations) stages for the remainder of our report, as in Figure 3.2. Here, on the same basis as we used in Table 3.2(b), we summarise the weighted differences across the possible university destinations for attendees (on the left) and, relative to them, for reserves and applicants (on the right) for UCAS applicants (above) and registrations (below). Again, the attendees are benchmarked at 100 for ease of visual comparison. The results underline what we have seen before. The catch-up of the control groups on moving away from the Summer School universities and elites is apparent, again the reserves are marginally closer than the applicants to the attendees, and again the *very* clear preference from the attendees for their Summer School host for applications and registrations, over any other option is emphasised. We also checked for statistical significance across these profiles, using the familiar Chi-square test, for the three Summer School groups across the destinations, and separately for the applications and registrations. Unsurprisingly, both showed the three groups as significantly different at the conventional 95% level (X^2 respectively of 675.32 and 156.47 for applications and registrations) (See Note 4)

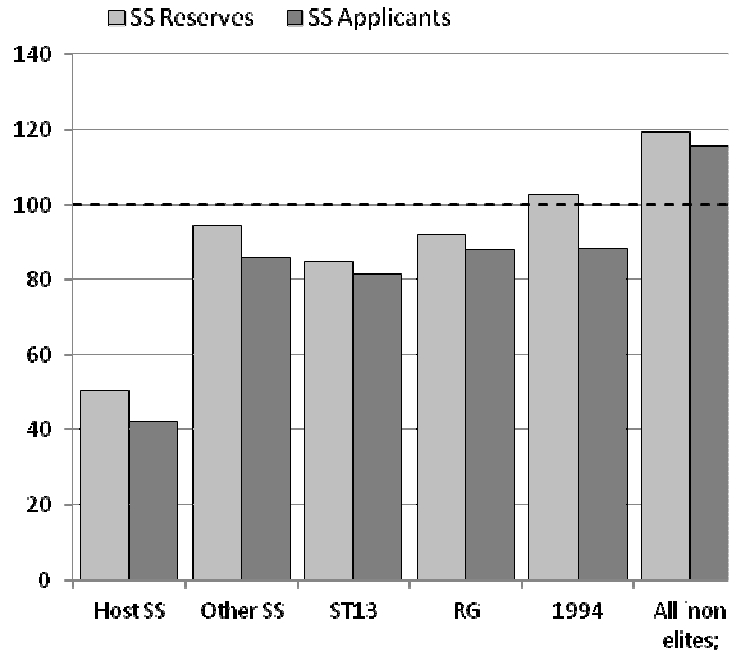
Figure 3.2 Summer School student groups (a) applicant and (b) registration rate by UCAS destination (weighted)

(a)

Percentage of SS Attendees - UCAS applicant

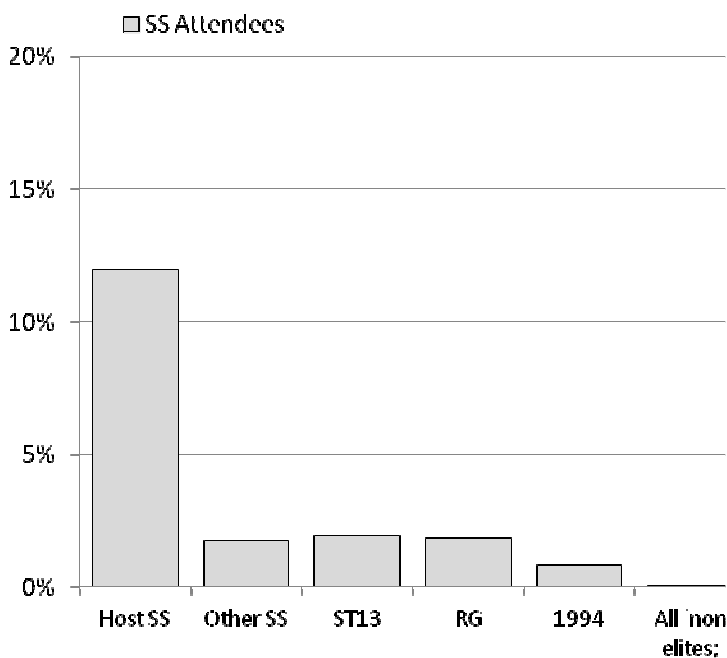


Percentage of SS Reserves + Applicants indexed against SS Attendees - UCAS applicant

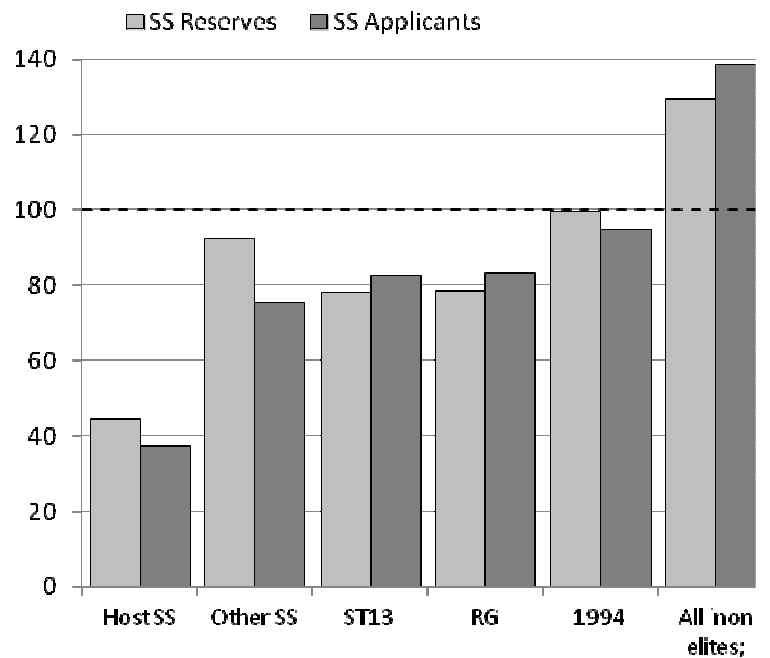


(b)

Percentage of SS Attendees - UCAS registration



Percentage of SS Reserves + Applicants indexed against SS Attendees - UCAS registration



We can also examine these destination 'profiles of ambition and reality' for the five separate Summer School universities. Rather than repeating the previous analyses for each of them, we summarise the main outcomes in Table 3.3. This highlights which of the three Summer School groups is relatively the most focussed on each of our university destinations for their applications and registrations, as well as the percentages of these 'dominant' groups so involved. We show, on the same terms as above, the corresponding Chi-squares for each of these Summer School host profiles.

Clearly, they reproduce many of the same outcomes as before, with attendees the dominant group for the host destinations, and, though less consistently, the other elites, before giving way, usually to the reserves. The dominant group is also very consistent between the matched cells for the applicant and registration cases (identical in 80% of these pairs of cells), while the differences among the UCAS destination profiles of the three groups for each university are reinforced by Chi-squares being consistently significant in every instance. The most distinctive university is St Andrews, where the attendees by-pass other STSS hosts and 1994 Group destinations, in favour of the Russell Group and the 'non elites'. It is noticeable too that the percentage application rates to these by-passed destinations from the dominant group (the applicants in both cases) are very low. The remoteness of St Andrews from the other STSS hosts and 1994 Group members (it is the only one in Scotland) is an undoubted influence here. Many of its attendees apply to nearby Aberdeen and Dundee instead, which are classed among the 'non elites'. (For further details of individual host university profiles by STSS groups, UCAS destinations, applicants and registrations see Appendix 2.)

Table 3.3 Summer School student group by host SS and UCAS destination with highest percentage of UCAS (a) applicants and (b) registrations

(a)

	B	C	N	O	StA
Host SS	50.2	47.4	57.3	51.3	45
Other SS	30.5	47.6	22.3	46.9	6.5
RG	82.1	83.7	71.8	87.5	72.3
1994	62.2	69.1	50	69	10.3
All 'non elites'	59.7	24.7	63.3	45.6	82.2
χ^2	51.32*	81.3*	40.56*	142.39*	52.15*

* The Chi-square statistic is significant at the 0.05 level

Attendees

Reserves

Applicants

(b)

	B	C	N	O	StA
Host SS	8.5	11.1	13.1	11.7	18.3
Other SS	6.6	11.9	2.9	9.5	1.7
RG	28.4	32.2	19.4	35	22.5
1994	17.9	18.7	14.6	17.3	2.9
All 'non elites'	35.1	23	35.4	23.1	42.4
χ^2	32.75*	43.10*	35.27*	71.45*	33.04*

* The Chi-square statistic is significant at the 0.05 level

3.4 Trading places

We have already shown that Summer School attendees are disproportionately likely to apply to, and register at, other Summer School universities, and not simply their host, compared to reserves and applicants. On reflection, this is not particularly surprising, for two reasons. First, all five are promoted and advertised by the Trust as a collective offering of Summer School places, and students meeting the eligibility criteria for the programme as a whole could apply without

constraint to any one of them, there being no external geographical limitations imposed by the Trust or the hosts on who can apply where. It is also reasonable to expect that many potential applicants will check out a number of the five STSS universities, if not necessarily all, before deciding whether and where to apply for a Summer School. So, whether successful or not, it is reasonable to expect that many Summer School applicants will be more familiar with the attractions, academic and non-academic, of more than one host from an early stage than they are with other possible university choices. Then, for those who successfully apply, the informal sharing of information, preferences and prejudices about other university members of the Summer School family is also likely to happen amongst their attendee peers.

Second, when it comes to completing a UCAS application, the ability of attendees to indicate their experience at a STSS might also be thought by them as advantageous, with a view to the reactions of admissions selectors not just at their host but also at the other four. At least one of the five is known to flag this to selectors on receipt of appropriate UCAS forms, whether or not its own was the Summer School in question.

So, in a number of ways, there may be some predisposition for Summer School students, especially but not exclusively attendees, to apply to one or more of the other four hosts, whether or not they apply to their own. But what specific geographies of interaction underlie this broad-brush conclusion? Who gains and who loses in this inter-university traffic of Summer School students?

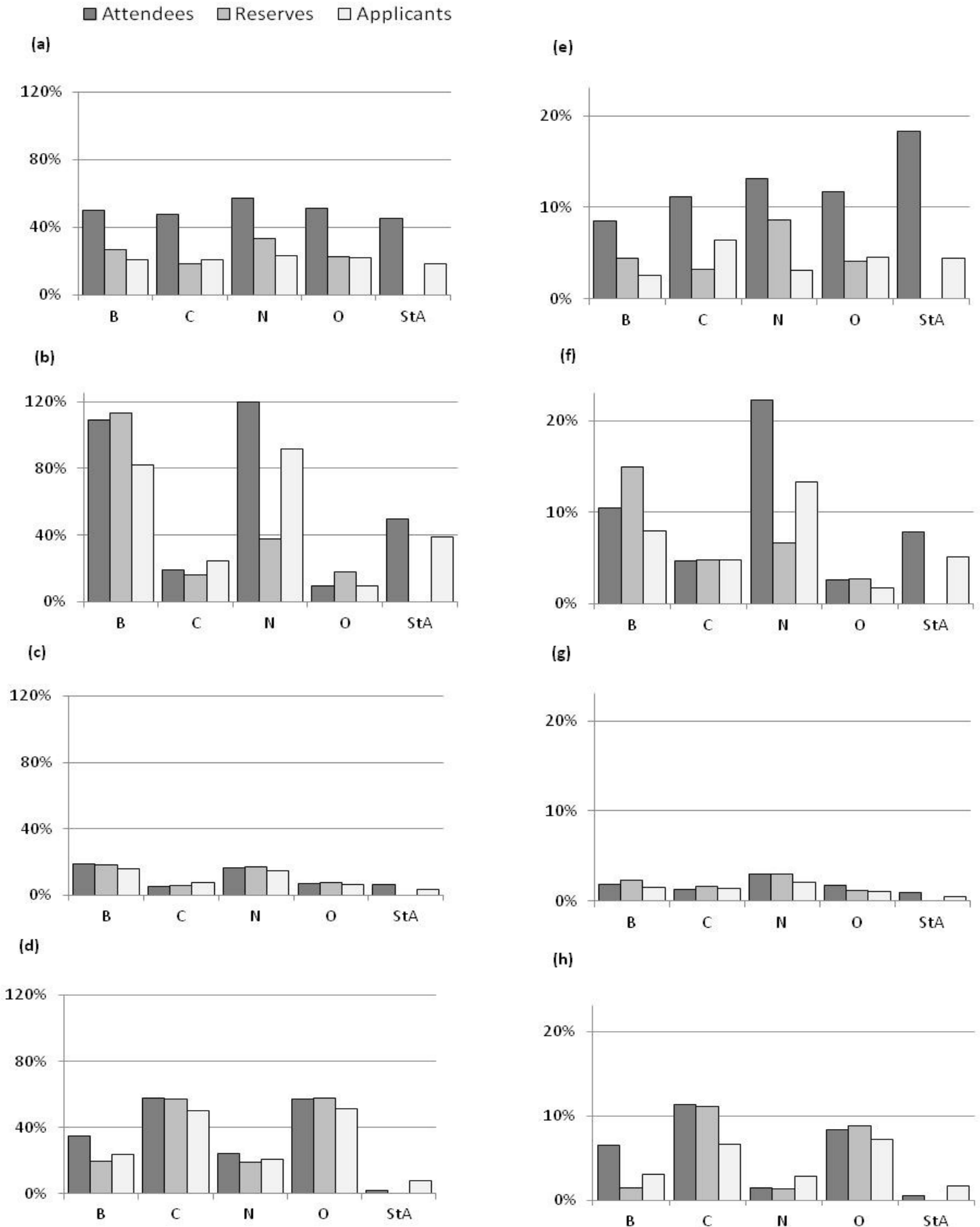
In Figure 3.3 we examine the levels of trade across the STSS set of universities for attendees, reserves and applicants in four ways, and each of these for applications and registrations:

- (a) plots levels of 'self-applicants' for each of the five hosts, as a proportion of its relevant base student total (so applicants to Bristol from attendees at

- the Bristol Summer School benchmarked against all Bristol attendees, and so on),
- (b) plots in-coming applicants against the relevant destination student base (so applicants to Bristol who were attendees hosted elsewhere benchmarked against all Bristol attendees...),
 - (c) the same in-coming applicants as in (b) are shown as a proportion of the total relevant students at the other four (so the Bristol in-comers are compared to the total attendees elsewhere...),
 - (d) each host's students who apply elsewhere are plotted against the same base as in a) and b) (so Bristol attendees who then are applicants to one or more of the other hosts, against the Bristol attendee base...)
 - (e) – (h) give the corresponding graphs for the registration stage (with, inevitably, rescaled y-axes for ease of display).

So, collectively, we have one measure of the hold of each host on 'its own' attendees or aspirant attendees, two of its attractive capacity on those who attended, or hoped to attend, elsewhere, and one of the leakage of 'its own' to other hosts in the Summer School programme.

Figure 3.3 Measurements of inter-university trade in Summer School student groups among SS universities



From Figure 3.3 it is clear that the loyalty shown by the attendees to their hosts is, predictably, much higher than for the other two groups, and for applications and registrations alike (in (a) and (e)). In St Andrews almost 20% of its attendees eventually register there too. But when we turn to inward trade ((b) and (f)), this is no longer the case; each of the other two is the dominant trading group in one instance or another, when measured relative to the relevant host Summer School group at each 'destination' university. Large inter-host differences are now apparent too, with the attendee inflows to Bristol and Nottingham from elsewhere exceeding the original stock of attendees at those two hosts; conversely, Oxbridge receives minimal inflows from all three groups on that basis. Nottingham's conversion of incoming attendees into registrations (in (f)) is also impressive, at nearly one quarter of its local attendees. The equivalent inflows plotted on the much larger benchmark of the corresponding numbers for the STSS *origins* of these in-flows, rather than their destinations, are inevitably much smaller ((c) and (g)), but retain the same overall profile as before. Finally, the outflows ((d) and (h)) show the flipside of the corresponding inflows ((b) and (f)), with heavier 'losses' at Oxbridge, where about half of their own attendees apply to another host university, and over 10% (Cambridge) and nearly 10% (Oxford) of their attendees register at another host (h). St Andrews maintains its isolation from such external losses to other hosts, despite moderately healthy inflows of others' attendees.

Table 3.4 consolidates these trade balances, by amalgamating the internally-sourced and inward-flowing applicants and registrations for each host, again against the relevant groups (or attendees, reserves or applicants) at that host and for all hosts combined. The much greater importance of these Summer School-sourced students for Bristol and for Nottingham than for Oxbridge, compared to those who had earlier submitted a Summer School application there, is plain to see again, as is the success of Nottingham in converting these into registrations.

Table 3.4 Internal and inward flows of Summer School student groups to host universities

Host and student group		All group applicants to host as % of...		All group registrations to host as % of...	
		Host SS	All SS	Host SS	All SS
B	Att	159%	24%	19%	3%
	R	140%	19%	19%	3%
	App	103%	16%	11%	2%
C	Att	67%	14%	16%	3%
	R	34%	9%	8%	2%
	App	45%	10%	11%	3%
N	Att	177%	21%	35%	4%
	R	71%	22%	15%	5%
	App	115%	16%	16%	2%
O	Att	61%	25%	14%	6%
	R	40%	12%	15%	5%
	App	32%	12%	6%	2%
StA	Att	95%	10%	26%	3%
	App	57%	5%	9%	1%

Finally in this section, Figure 3.4 shows graphically the balance of trade for applicants and registrations, again for attendees, reserves and applicants, but now by all possible trading pairs of STSS universities.

The bonds shown are the net trade flows between them. So in a), for instance, the 13.7% net flow from Cambridge to Nottingham is the percentage point difference between:

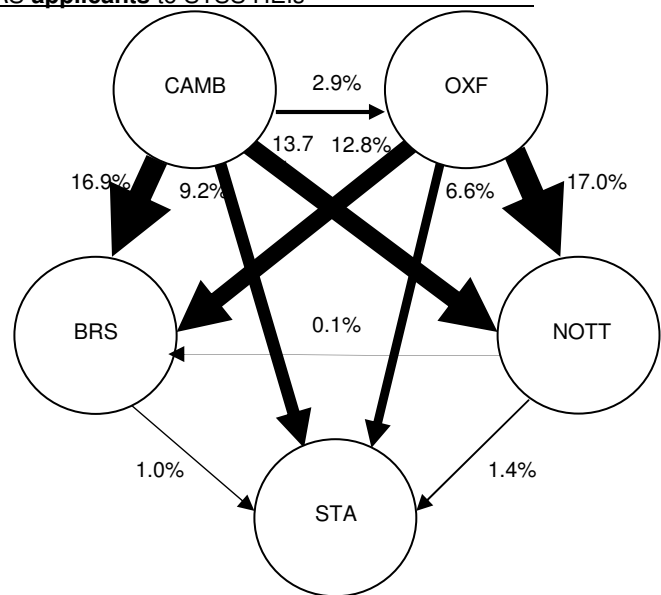
- the Cambridge-hosted to Nottingham UCAS applicants as a proportion of all Cambridge attendees (15.2%)
- and Nottingham-hosted to Cambridge UCAS applicants as a proportion of all Nottingham attendees (1.5%)

In this illustrative case Cambridge emerges as the net exporter of applicants and Nottingham the net importer. Overall, the resultant maps of trade flows are remarkably similar, irrespective of precisely which 'commodity' is being traded. Cambridge and Oxford always emerge as net exporters to the other three, whether of attendees, reserves or applicants, and irrespective of whether for initial applicants or eventual registrations. The main corresponding gainers at Oxbridge's expense are Bristol and Nottingham. Trade flows between Oxford and Cambridge and between Bristol and Nottingham are relative small in comparison; that between the first two is of variable direction (to Oxford for attendees, to Cambridge for applicants), while Bristol is usually the net exporter in its trade with Nottingham. Finally, St Andrews remains the most detached of the five universities, perhaps through its geographical isolation from the Sutton Trust system's centre of gravity, though such flows are usually inwards, in its favour. The most likely explanation for this is that most of those applying to be hosted by St Andrews will be Scottish residents, for whom any English university place incurs a heavy cost in additional tuition fees (tuition fees for Scottish students studying in Scotland being zero) whereas for English applicants studying in Scotland this cross-border traffic is less fee-sensitive (the same annual fees apply across all five STSS universities, though for an extra year too, given the 4-year first degree structure in Scotland)

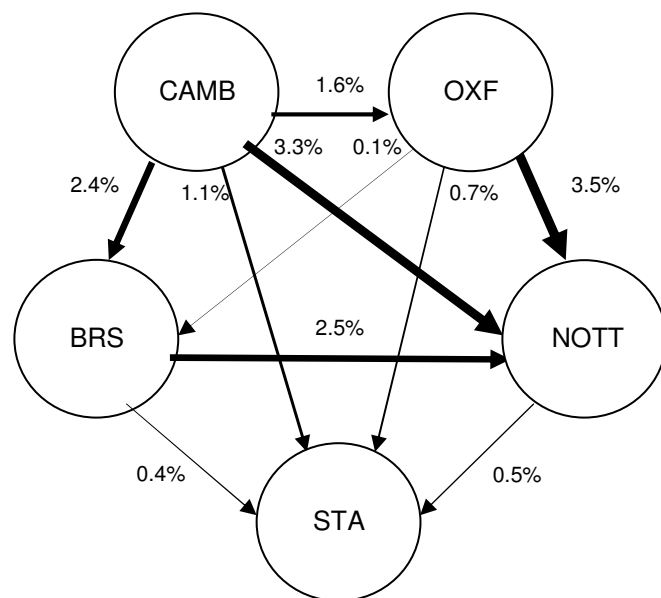
Figure 3.4 Bilateral trades of Summer School student groups

SS Attendees

UCAS applicants to STSS HEIs

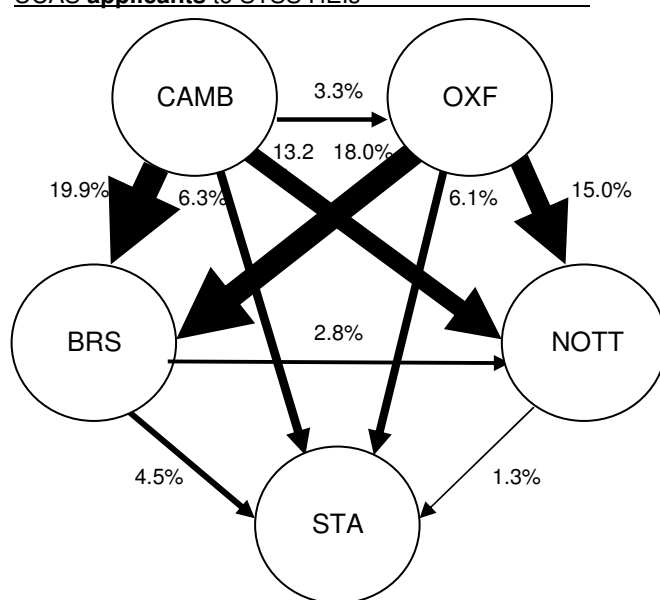


UCAS register at STSS HEIs

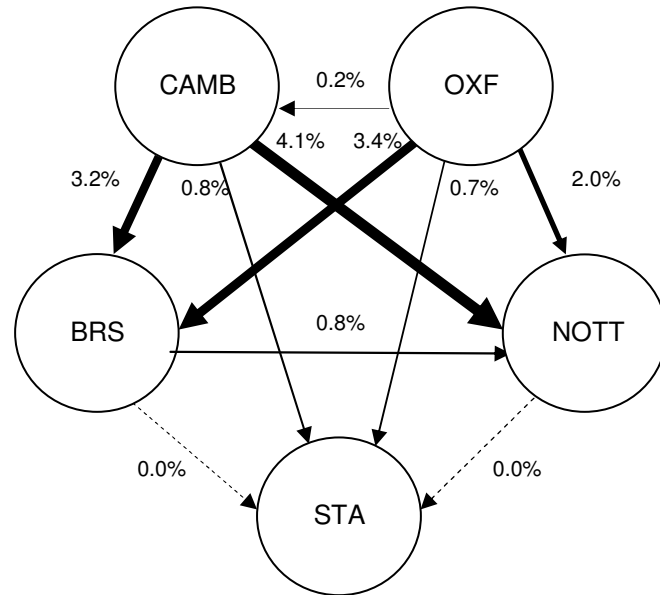


SS Reserves

UCAS applicants to STSS HEIs

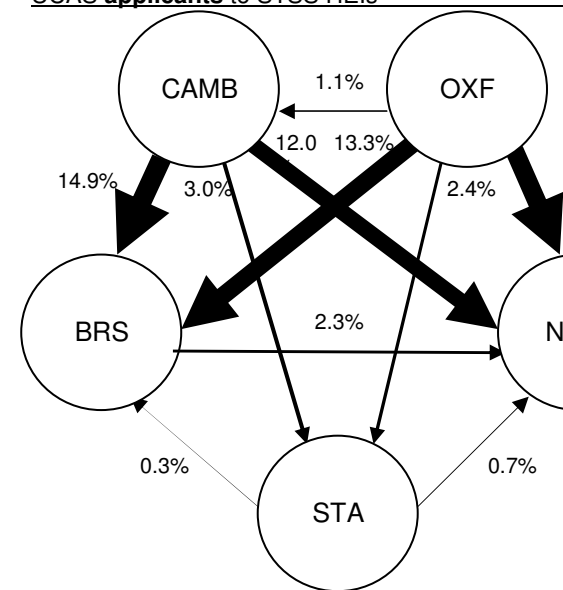


UCAS register at STSS HEIs

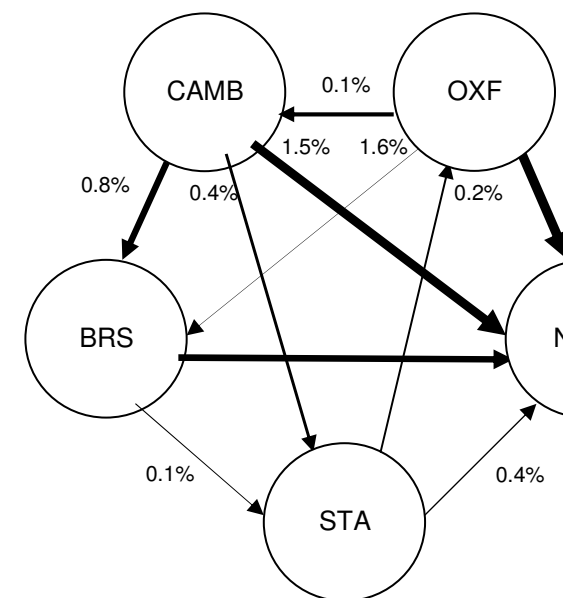


SS Applicants

UCAS applicants to STSS HEIs



UCAS register at STSS HEIs



Section 4: Different sorts of students

The Sutton Trust's declared mission '*is to improve educational opportunities for young people from non-privileged backgrounds and increase social mobility*' (<http://www.suttontrust.com/home/>). Although its Summer Schools are targeted on such under-represented groups, those that apply will inevitably differ from one to another in the ways in which, and extents to which, their non-privileged backgrounds manifest. How far is this apparent across attendees and control groups, and the five STSS universities? And how far is it also apparent in the ways in which they subsequently engage with the university admissions process?

Key findings

- Summer Schools are successful at selecting students who best fit academic and WP criteria
- Overall, 'more WP' groups do worse in UCAS applicant and registration rates than 'less WP' groups
- But, attending a Summer School narrows this gap for students...
 - matching all ST criteria (against those matching GCSE plus at least one other)
 - in receipt of EMA,
 - from low participation neighbourhoods (POLAR2 1-2)
- Student experiences and universities' practices at each Summer School university are more important in its subsequent success in attracting applicants and registrations from its own attendees than is their detailed social composition.

4.1 The composition of the Summer School student populations

Table 4.1(a) shows the academic and other personal characteristics, introduced in Section 2.2.2d of the three groups of Summer School students aggregated across the five host universities. We show those meeting each of the Summer School selection criteria first in isolation and then in different combinations, so there are duplications in the students counted across the different rows. So, for instance, 99.2% of all attendees meet the GCSE criterion of 5 or more A* and A GCSEs, while 68.1% both meet this and are in receipt of EMA, and 45.3% *also* meet these and the other two criteria of non-graduate parents and being from a low performing school. Below the line we show three other indicators we have incorporated from outside the Sutton Trust datasets, but which are also often taken as significant indicators by widening participation practitioners.

Reassuringly, the prevalence of the Trust's own criteria among the Summer School students is high – even the least frequent of them (low school performance, with all the attendant measurement issues we discussed earlier) still covers three-quarters of all attendees and over half of the control groups. Reassuringly too, the prevalence of these criteria is highest amongst the attendees group for each and every combination shown, and often sharply so, especially when used in combinations of two, three or four. Those we have added in show less variation across the columns, but again for two of them the attendees figure is the highest ('ethnicity', measured by non-white students, is the exception, and also the least prevalent of any of the indicators shown).

Table 4.1(a) Percentage meeting academic and WP criteria for all Summer School student groups (highest values per column shaded)

					Attendees	Reserves	Applicants
ST Criteria							
5A*-A GCSEs					99.2%	95.1%	79.2%
Non Grad Parents					91.8%	88.0%	62.4%
EMA					68.9%	63.3%	42.8%
Low Sch Perf					75.9%	55.5%	51.7%
Non Grad Parents + 5A*-A GCSEs					91.0%	83.3%	46.3%
EMA + 5A*-A GCSEs					68.1%	59.0%	29.9%
Low Sch Perf + 5A*-A GCSEs					75.2%	51.4%	38.9%
EMA + Non Grad Parents + 5A*-A GCSEs					62.9%	51.8%	20.9%
Low Sch Perf + EMA + 5A*-A GCSEs					49.5%	26.5%	13.3%
Low Sch Perf + EMA + Non Grad Parents + 5A*-A GCSEs					45.3%	21.4%	9.2%
Other WP criteria							
Polar2 Groups 1-2					31.0%	28.6%	23.7%
Non white					24.2%	30.8%	30.9%
Male					36.4%	31.2%	31.1%

Table 4.1(b) SS University with highest and lowest academic and WP criteria, all Summer School student groups combined

					Highest	Lowest
ST Criteria						
5A*-A GCSEs					O	N
Non Grad Parents					N	StA
EMA					N	StA
Low Sch Perf					StA	C
Non Grad Parents + 5A*-A GCSEs					O	N
EMA + 5A*-A GCSEs					C	StA
Low Sch Perf + 5A*-A GCSEs					O	N
EMA + Non Grad Parents + 5A*-A GCSEs					O	StA
Low Sch Perf + EMA + 5A*-A GCSEs					O	N/B
Low Sch Perf + EMA + Non Grad Parents + 5A*-A GCSEs					StA	C
Other WP criteria						
Polar2 Groups 1-2					O	StA
Non white					N	StA
Male					O	B

In Table 4.1(b) we provide a different breakdown of these same indicators and their combinations by the Summer School in which candidates showed an interest (by combining together attendees, reserves and applicants). For ease of display we only show the highest and lowest universities for each row, but this is sufficient to reveal some interesting differences. Overall, Oxford has the largest number of 'top' scores, including that of GCSE attainment. Cambridge is its closest rival here, and it comes as no surprise that Oxbridge attracts those with the very highest academic criteria (whether through student self-selection or school encouragement and endorsement). St Andrews appears as the host university with the greatest number of 'least' percentages, and Bristol and Oxford are the only ones without a mixture of highest and least scores (Oxford has none of the latter, Bristol none of the former or latter). A general implication of these differences is that the different responses of the three groups of Summer School students, and of the five universities, noted throughout Section 3, may partly reflect the different compositions of these sub-populations. So this should be factored into the analysis of our results, as we now do in two different ways in the next two sub-sections.

4.2 Ambitions and realities for different types of students

Figures 4.1 to 4.6 present a series of analyses designed to see whether and how these inter-personal student differences map onto the patterns of the applications to, and registrations at, our suite of university destinations, when we also compare attendees with reserves and applicants.

a) Meeting the Summer School criteria

As we have seen from Table 4.1a), less than half of all Summer School attendees meet all the Trust's specified criteria, and far less than this for the control groups. On the other hand, the majority of attendees and reserves meet the GCSE criterion and at least one other. For the purpose of Figure 4.1 we

divided the Summer School groups into those meeting all the criteria and those meeting the GCSE criterion and at least one more, but not all. As well as showing the now-familiar tendency for the reserves and applicants to catch up with, and overtake, the attendees, as we progress from the 'host' to the 'non elites' case, there are now two new, important and, as we shall see, recurrent themes. First, there is a general tendency throughout the profiles of the elite destinations for the '*less WP*' group (in this case those meeting some but not all of the criteria) to have *higher* rates of application and registration than the '*more WP*' (meeting all Sutton Trust criteria). The 1994 Group case usually proves the turning point again, after which these relationships reverse, with the '*more WP*' group having the higher equivalent rates (though the '*more WP*' applicants are, exceptionally, out-applying their corresponding attendees to the Russell Group universities). But second, and a very positive outcome for the Summer Schools and their promoters, among the attendees these differences are much *less* pronounced than for the control groups. So not only does the Summer School experience encourage all attendees to target the more elite universities subsequently, but they reduce, sometimes to vanishing point (see the Russell Group case, for instance) the greater reluctance of the more under-privileged group to do so.

Figure 4.1 “Match all” and “Match GCSE plus” students – percentage applicant and registration by Summer School groups to UCAS destinations

■ Match all ST criteria □ Match GCSE plus at least 1 other ST criteria

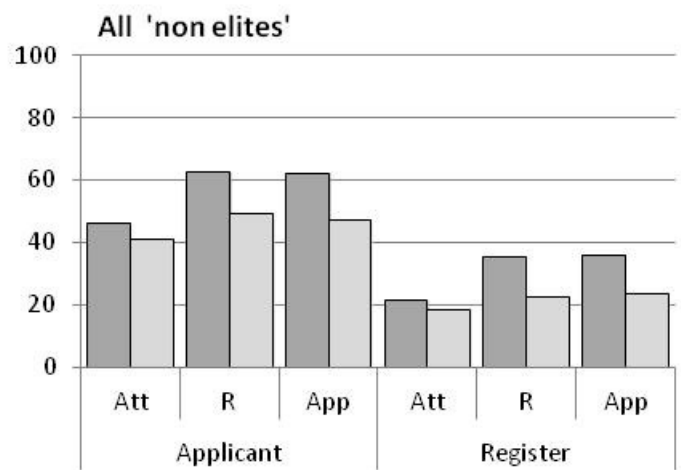
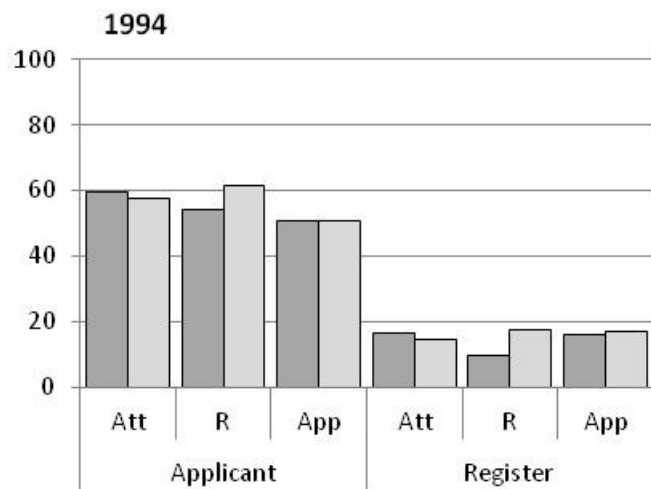
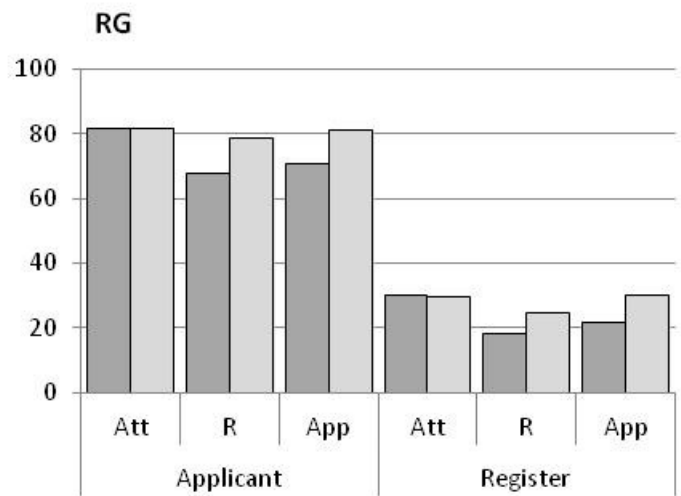
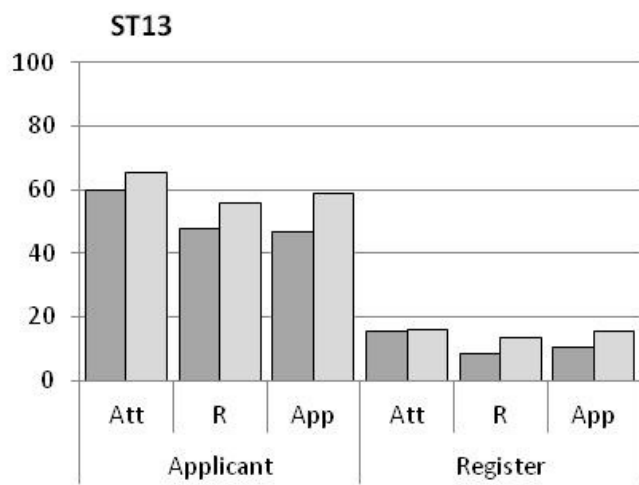
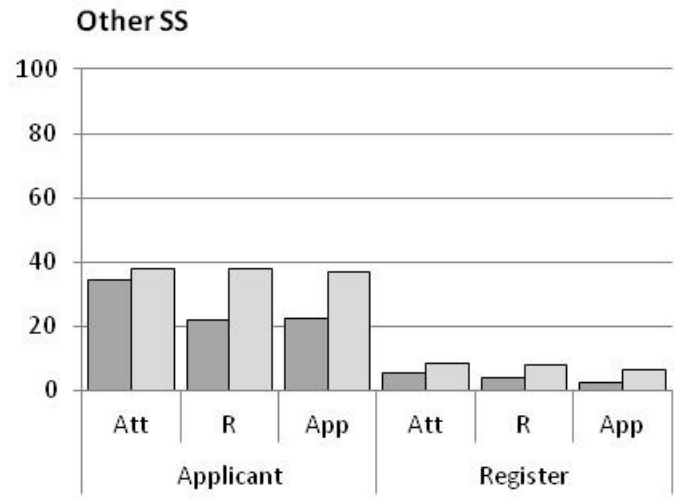
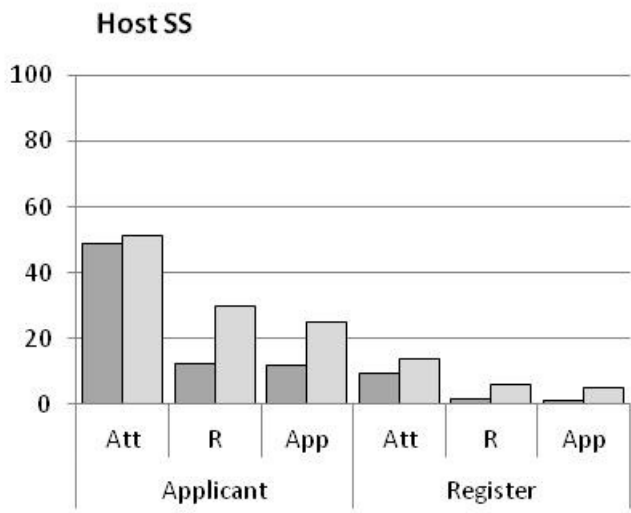
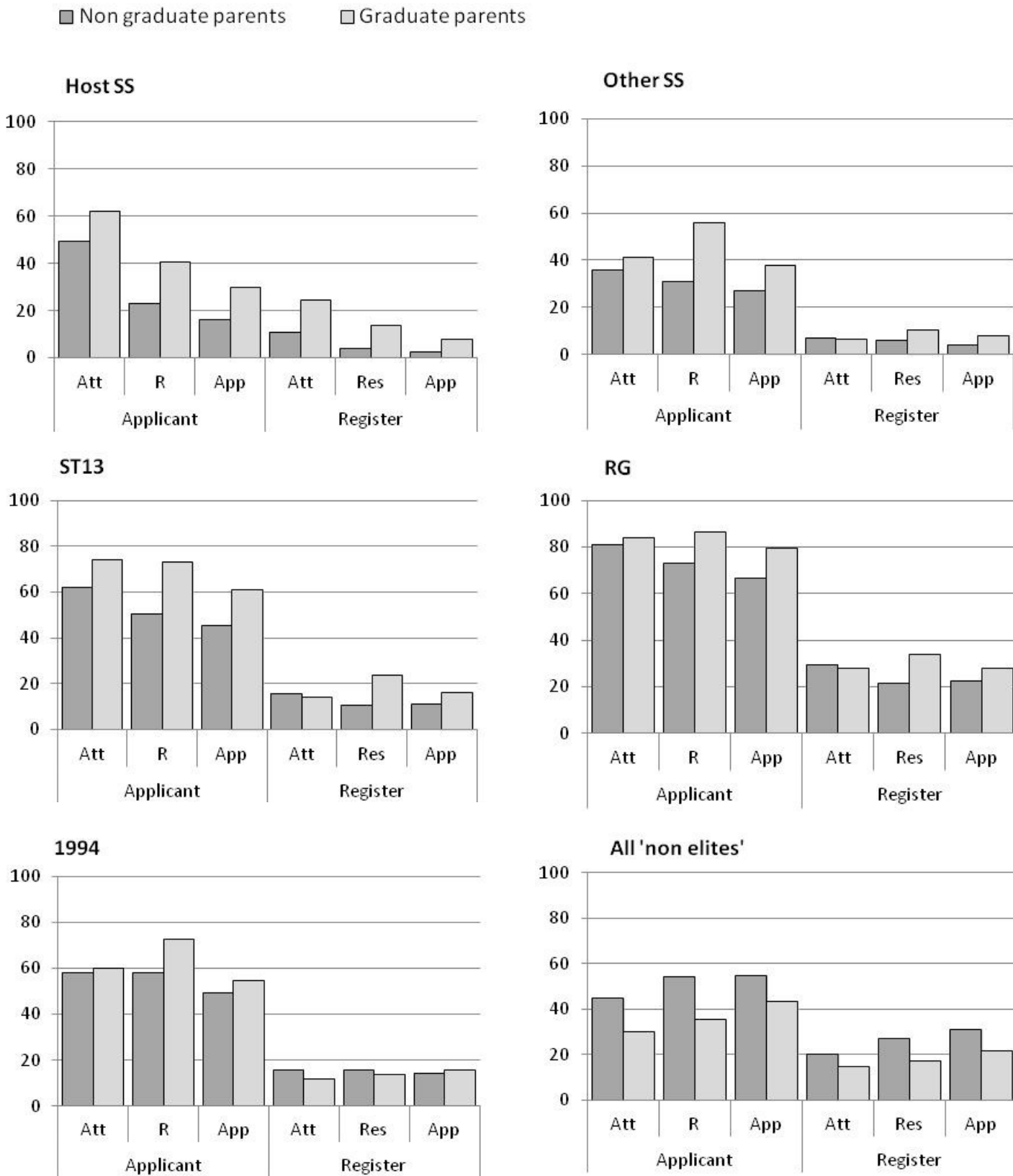


Figure 4.2 Non-graduate and graduate parents students – percentage applicant and registration by Summer School groups to UCAS destinations



When we look at the Chi-square significance levels of these same profiles (now run separately for attendees, reserves and applicants) we find, unsurprisingly, that they are all significant at the 95% level (see Table 4.2), with the one exception of the attendees' applications profile. This is consistent with this leavening effect of attendance on the otherwise different subsequent applications ambitions of the 'more' and 'less WP' students.

b) Non-graduate parents

The remaining graphs take the various WP criteria of Table 4.1 separately, and in the case of Figure 4.2 through the identification of Summer School students who flag up 'non graduate parents' on their Summer School application form. Its key features echo the previous graphs – the tendency for the less- WP students (ie those with graduate parents) to be more pro-elite in their applications and registrations, and for Summer School attendance to narrow the differential between them and those without graduate parents. Even so, all of the three Chi-square tests run for this indicator proved significant at 95% level.

c) Educational Maintenance Allowance

The overall levels of EMA receipt are lower among the Summer School students than the incidence of non-graduate parents. Figure 4.3 reproduces some of the general features noted before, but rather less emphatically than for most other indicators examined. Only the applicants' profiles generate any statistically significant outcomes, though does so both for applications and registrations. Many of the detailed results are consistent with Summer Schools having a particularly positive impact for this particular non-privileged group – for example, attendees in receipt of EMA apply *more* frequently to other Summer School universities than those without it, and register *more* frequently at Russell Group

Figure 4.3 With and without EMA students – percentage applicant and registration by Summer School groups to UCAS destinations

■ EMA □ Non-EMA

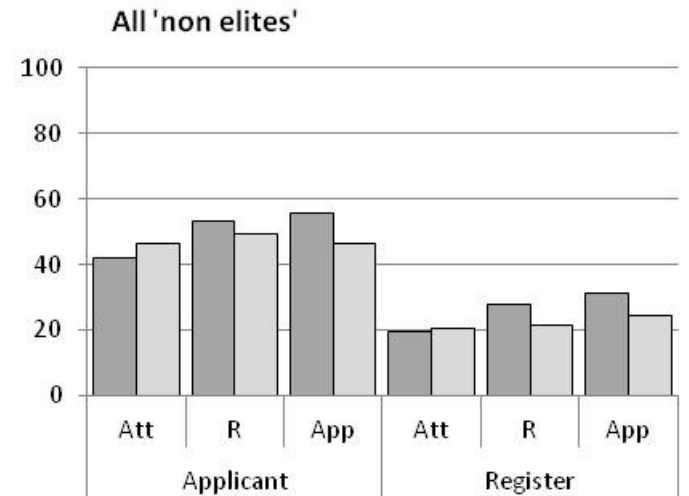
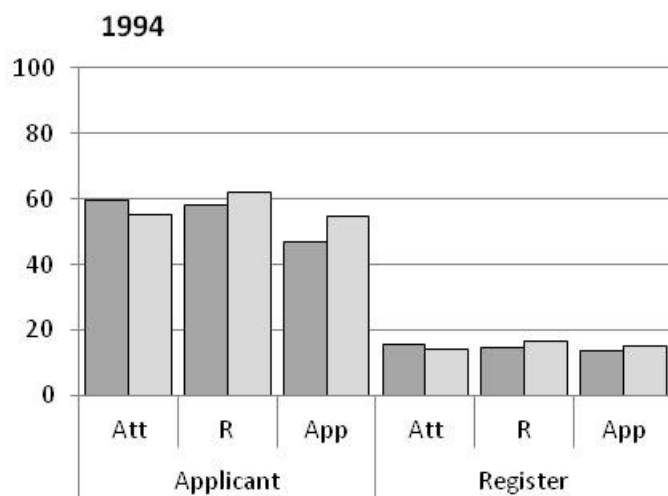
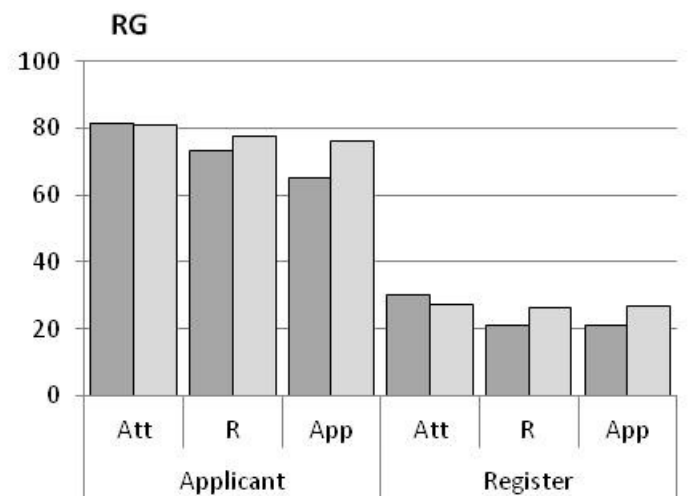
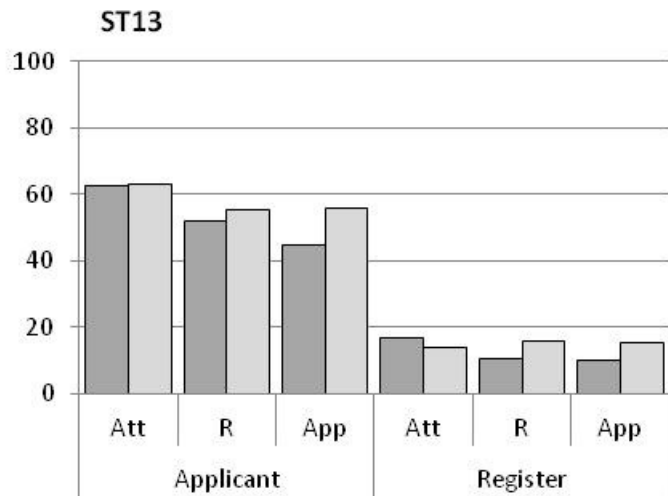
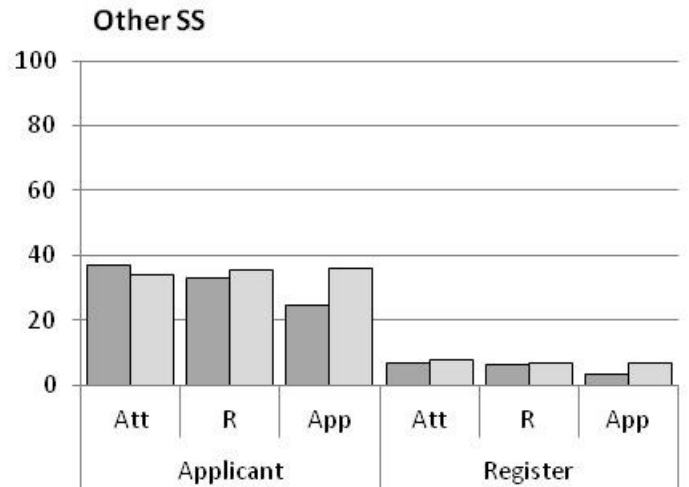
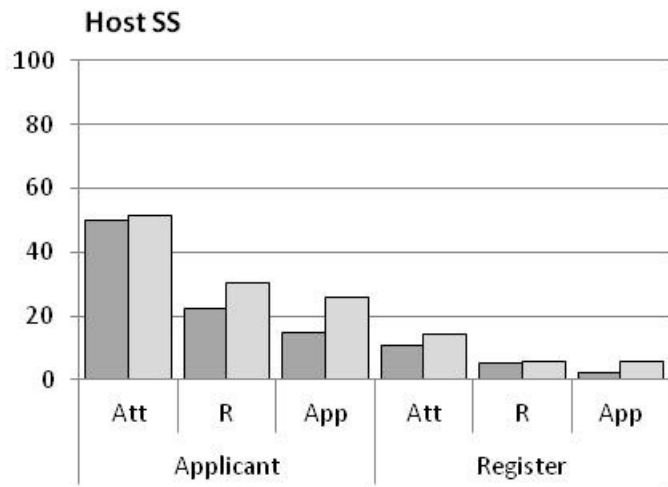
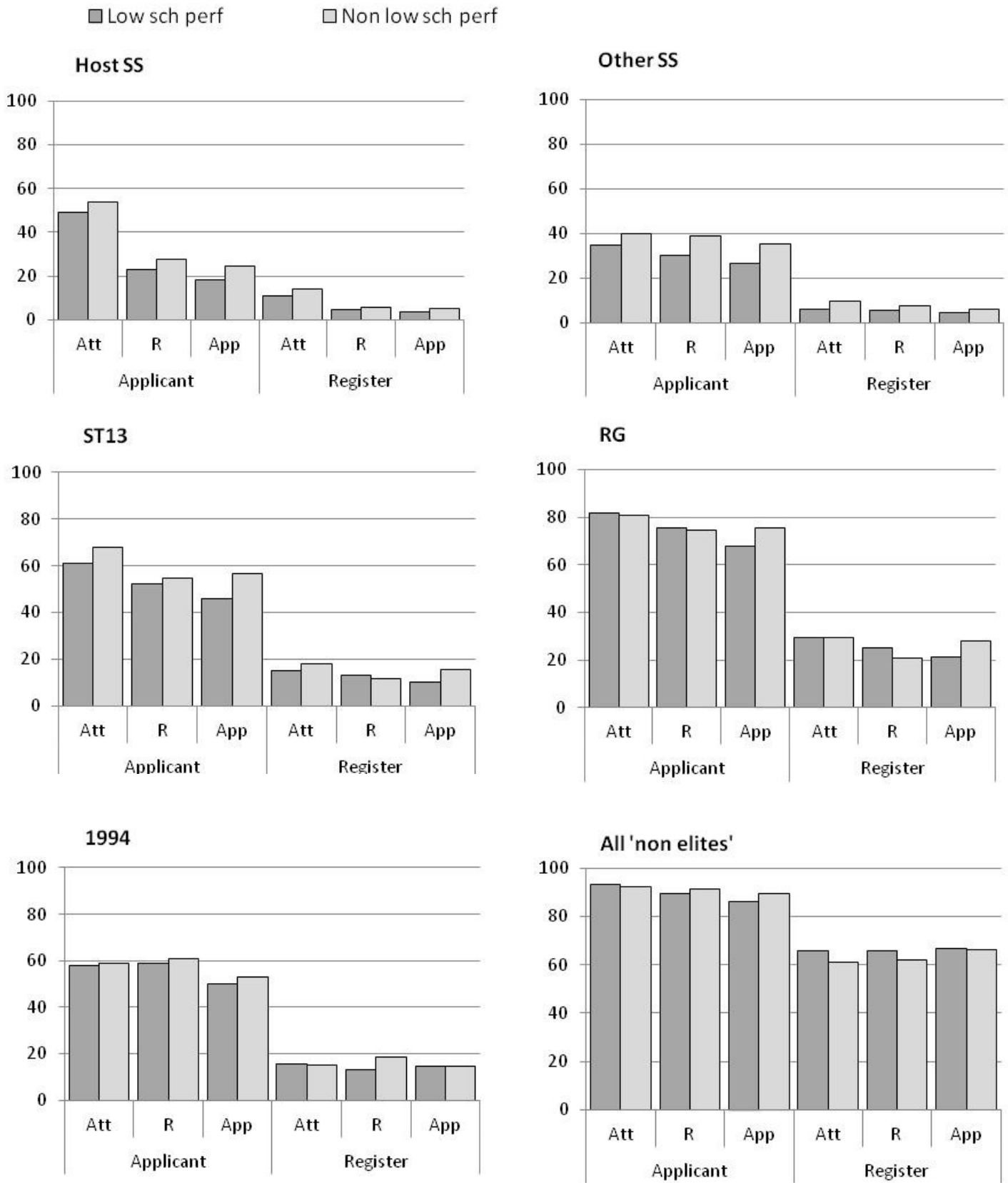


Figure 4.4 Low and non-low performing school students – percentage applicant and registration by Summer School groups to UCAS destinations



universities, following virtual equality with their non-EMA peers in their earlier applicant profiles. It is tempting to speculate that the student financial information and advice dispensed at Summer Schools may have proven particularly persuasive and supportive here, but we have no independent evidence to offer for this. While the value of EMA as a criterion for Summer School selection has been nullified by the (controversial) termination of the EMA subsidy for low-income-family students in summer 2011, the inference we have drawn above reinforces the importance of maintaining a strong component of financial advice within the Summer School programmes as delivered, as an effective support for low income students.

d) School Performance

This is more conformist to the trends noted from other indicators. Summer School students from low performing schools are applying and registering to elite destinations relatively less than their peers from higher performing ones, accompanied by some signs that this difference is ameliorated for attendees, as shown in Figure 4.4. Both the attendees and applicants profiles are significantly different through Chi-square, but not the equivalents for the reserves.

e) Low Participation Neighbourhoods

As it is not one of the current Sutton Trust selection criteria, this is a potential replacement for the enforced loss of EMA from 2011. In its favour, it is easy to measure (from look-up tables provided by HEFCE, from students' home postcodes) and not dependent on student recall and the form-filling errors this can generate. It is also one of the trinity of Access Performance Indicators used by the Higher Education Statistics Agency in its annual published series of university statistics, and hence one indicator where elite universities might be particularly anxious to improve their intake profiles, under the promise of more

Figure 4.5 POLAR2 1-2 and 3-5 students – percentage applicant and registration by Summer School groups to UCAS destinations

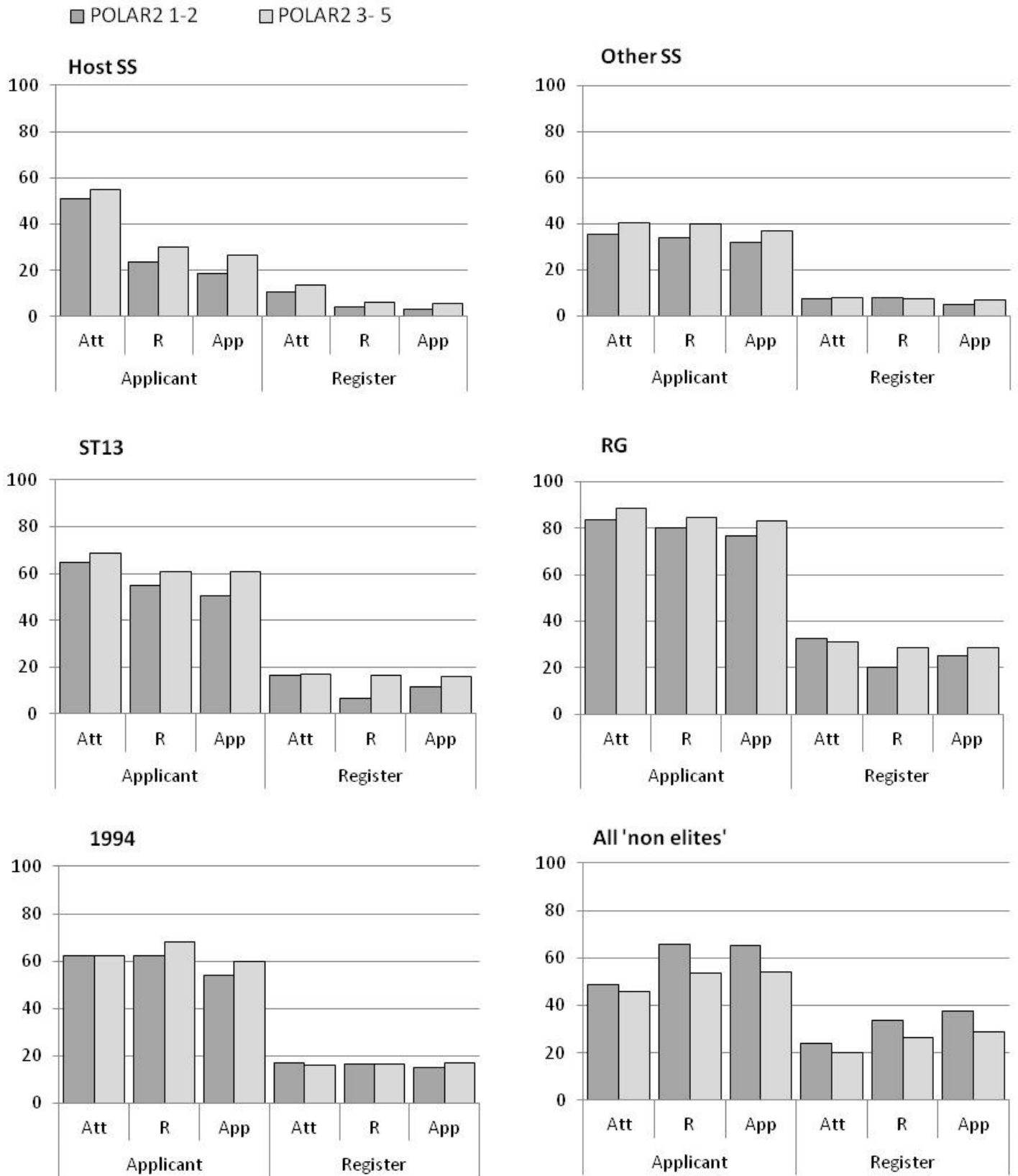
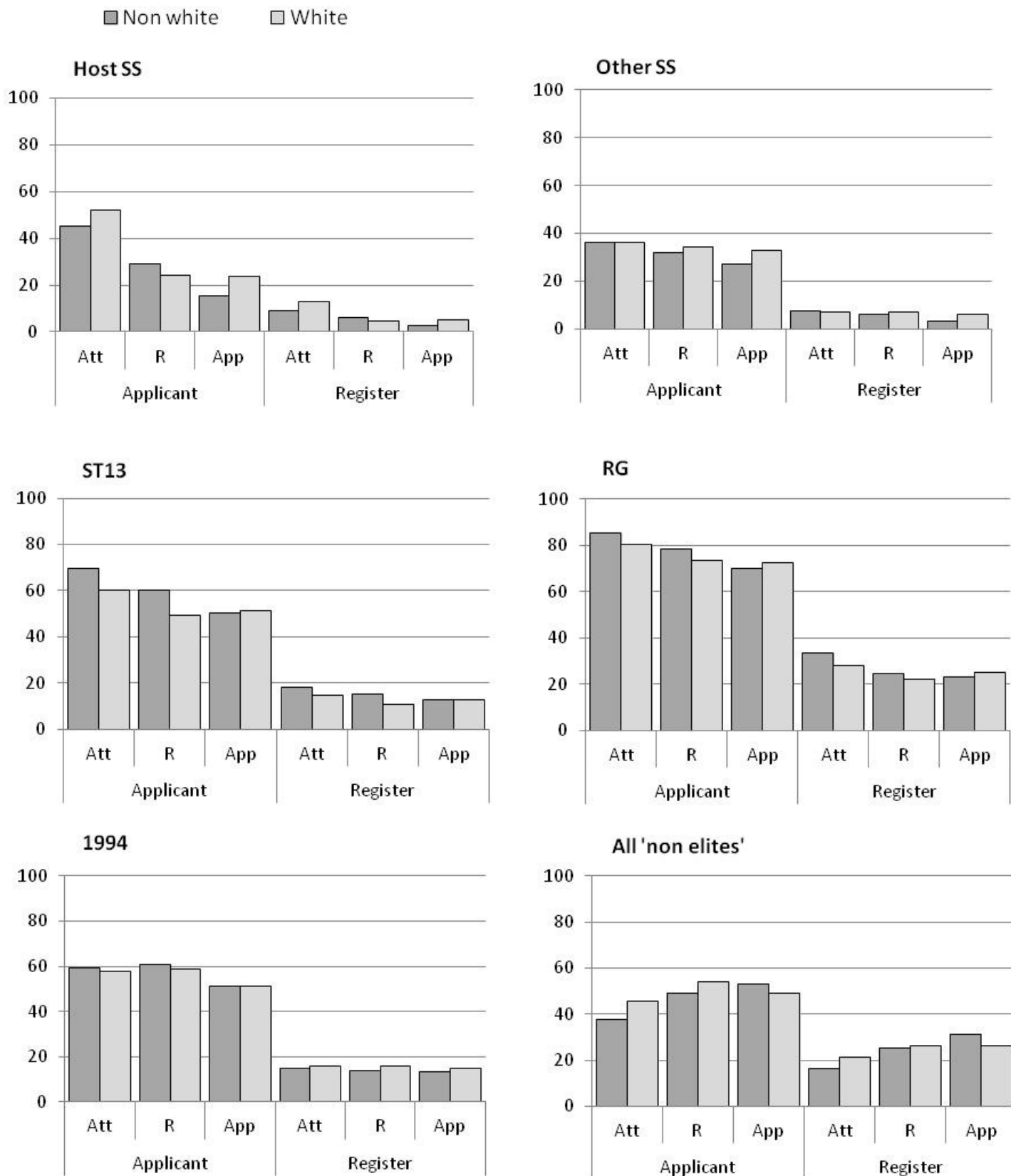


Figure 4.6 Non white and white students – percentage applicant and registration by Summer School groups to UCAS destinations



rigorous scrutiny from the Office for Fair Access. Figure 4.5 conforms to the broad trends noted before, for the more under-privileged group (in this case, from 1 and 2) to apply and register disproportionately less to hosts and elites than those from higher participation neighbourhoods. The applicant profiles for the host and other Summer School universities and Sutton Trust 13 Group are also consistent with some beneficial effect of attendance in narrowing this differential, as are registrations at the Russell Group. Neither applications nor registrations profiles for attendees or reserves are significantly different across the range of destinations, whereas those for applicants are. Again, we have to speculate as to the on-the-ground processes at work here. Maybe the Summer Schools provide a short, but intense and effective, opportunity for attendees to engage with a fresh, ambitious academic community of their HE-aspirant peers in ways that counteract any negative vibes they may have received from their local communities, where attending university may not be normal, necessary or smart. Taken together, this would support the use of the POLAR2 measure as a replacement for EMA, should the Sutton Trust be searching for one.

f) Ethnicity

Although not a Summer School eligibility criterion, ethnicity is a common theme in British WP discourses. But it is also a confusing one. Often-expressed concerns about the ‘under-representation’ of non-white students are at variance with the statistical evidence that they are, on balance, *over*-represented in HE. Things are complicated further by the sub-division of the non-white component into ten or more sub-groups, depending on the classifications used, with the various non-white ethnic categories so distinguished displaying very different propensities to become undergraduates. Our own results (Figure 4.6) reflect this state of confusion. Although there is a close match between whichever of the white/non-white categories is greater for matching pairs of applicants and the registrations, there is no clear pattern to the results along the spectrum from hosts to all ‘non elites’, nor to differences between the attendees on the one hand

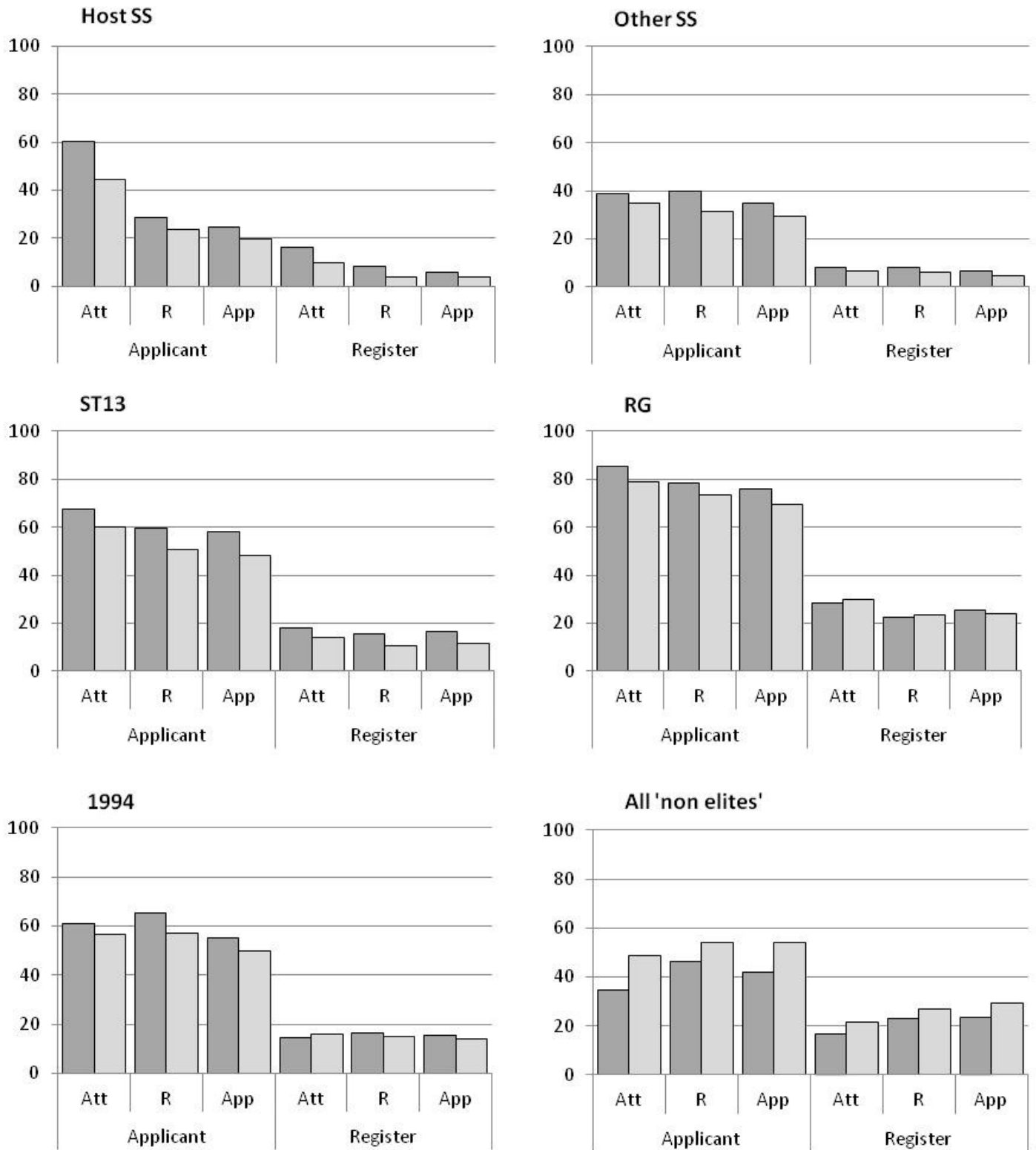
and reserves and applicants on the other, the two recurring features we noted in many of the other WP categories.

g) Gender

Finally, in Figure 4.7, the most consistent and in some ways surprising, of these results. Males are becoming an increasing minority amongst national undergraduate populations and are very much in the minority in the summer school student groups (see Table 4.1a). This in itself is not surprising, given that HEFCE's analysis of its own Aimhigher summer schools identified similarly stark under-representations of male participants there too (HEFCE, 2009). What is surprising is the very consistent way in which they are disproportionately applying to, and registering at, the elite groups, including the 1994 Group universities on this occasion, after the Summer School season. Within this there seems a particularly strong pro-host effect amongst the attendee males. Only with the 'non elite' destinations do the females universally prove to be the dominant applicant and registration gender. So although male Summer School students are the minority group, they do appear particularly determined in their focus upon degree opportunities at elite, prestigious institutions, particularly their Summer School host.

Figure 4.7 Male and Female students – percentage applicant and registration by Summer School groups to UCAS destinations

■ Male □ Female



While these different indicators, and combinations of indicators, of more and less under-privileged, 'WP', groups of students do not all produce carbon-copy patterns of applications and registrations, they do still have some important features in common. We should not be surprised that the less WP students have a general and clear tendency to favour the more elite universities, including the Summer School hosts; this is entirely consistent with other evidence we cited earlier on the social structuring of the UK's higher education hierarchy. But a substantial effect across many of the social groups we have analysed through Figure 4.1 to 4.6, is also that Summer School attendance shrinks the gap between the more and less WP students in this regard, to the extent of sometimes eliminating it altogether or even reversing it.

Table 4.2 Chi-square results for Summer School student group profiles of UCAS destinations, applicants and registrations, by WP criteria

	Attendees		Reserves		Applicants	
	UCAS app	UCAS reg	UCAS app	UCAS reg	UCAS app	UCAS reg
Match all and Match GCSE plus	4.76	16.05*	17.44*	14.76*	80.53*	64.11*
Non grad parents	11.54*	23.38*	14.29*	12.51	167.79*	166.42*
EMA	4.11	5.74	3.07	3.31	137.77*	112.75*
Low sch perf	12.11*	9.73*	4.37	5.84	74.46*	58.12*
POLAR2	3.35	5.04	5.25	5.12	55.60*	50.46*
Ethnicity	8.36	11.45*	2.08	0.93	48.50*	52.69*
Gender	38.35*	19.87*	4.40	5.60	66.08*	35.75*

* The chi-square statistic is significant at the 0.05 level

4.3 Composition and Context – the experience of the Sutton Trust universities

We conclude Section 4 by looking again in more detail at each of the STSS universities, and in particular the fate of their attendees, while maintaining the focus on the individual characteristics of the Summer School students. Their prime purpose in mounting Summer Schools is self-promotion, so the subsequent experiences of their attendees are critical to them. We know that, taking all five hosts together, the characteristics of attendees are echoed in their rates of to-host applications and at-host registrations, so how far can we explain the variations in these rates across the five host universities by the *composition* of the individual characteristics of these attendees?

We specified three components of these to-host applications and at-host registrations for each STSS university:

- the average observed proportion of attendees applying to (registering at) the host, calculated as the weighted average such proportion over the five universities (we call this the '*share*'),
- the expected proportion of attendees applying to (registering at) the host, predicted from the 'mix' of individual characteristics of its attendees, and their average propensities to apply to (register at) the hosts over all five universities. (We use the unweighted averages here to factor out any effect of the different sizes of the five Summer Schools.) This is the *compositional* component, and is calculated like this. Suppose 60 of Cambridge's attendees are of the characteristics identifying them as being from poor performing schools and meeting the Summer Schools' GSCE criterion, but as not in receipt of EMA, nor having non-graduate parents. If 50% of all those with these same characteristics over all five Summer Schools apply to their host, then Cambridge would be predicted to receive

30 applicants from this element in its attendee profile. To obtain its overall compositional component we simply repeat and then sum this calculation over all such unique characteristic combinations (16 in our case, though not all will be present in all cases), and then note the difference (positive or negative) between this and the *share*.

- the residual component for each university necessary to balance the sum of the first two components with its observed number of to-host applicants and at-host registrations from its attendees – the *contextual* effect. Again, it can be positive or negative, and could be the result of might be students' experiences or institutional practices during and after the Summer Schools at particular universities, which boost or erode its level of attendee applicants and registrations, as predicted from the other two components.

Table 4.3 shows the results, based on measuring the percentage-point (pp) differences between i) the share and the compositional prediction (the '*compositional effect*') and ii) the compositional prediction and the observed outcome (the '*contextual effect*') for each host. So at Bristol, for example, the composition of its attendees leads to expected rates of to-host applicants and at-host registrations of 49.9% and 11.4% respectively, below the equivalent all-university shares of 50.2% and 12.5%. But while its real figure for such applicants (50.2% of attendees, the same as the share, by chance) leads to a positive contextual effect, its registrations are a disappointing 8.5% of attendees. This generates a larger negative contextual effect to balance this outcome, which is below the negative compositional prediction.

Table 4.3 Compositional and Contextual effects by Summer Schools for UCAS applicants and registrations to host.

		B	C	N	O	StA	Share
Applicants to host	<i>Compositional prediction</i>	49.9%	50.4%	48.4%	50.9%	50.7%	50.2%
	<i>Compositional Effect</i>	-0.3pp	0.2pp	-1.8pp	0.7pp	0.5pp	
	<i>Contextual Effect</i>	0.3pp	-3.0pp	8.9pp	0.3pp	-5.7pp	
Registrations at host	<i>Compositional prediction</i>	11.4%	11.7%	10.2%	12.6%	12.9	12.5%
	<i>Compositional Effect</i>	-1.1pp	-0.8pp	-2.3pp	0.1pp	0.3pp	
	<i>Contextual Effect</i>	-2.9pp	-0.6pp	2.9pp	-0.9pp	5.4pp	

Notes:

Compositional predictions below the Share are shaded, as are both sorts of negative Effects

pp – Percentage points

Although the compositional effects are mostly similar in sign for any one university at the application and registrations stages, each university has a unique pattern to the signs of their compositional and contextual effects. Further, only at Nottingham are they the same for their applications and registrations

outcomes (negative compositional effects, positive contextual effects). Some of the effects identified are small, and we need to caution against 'over-interpreting' them. As expected, most percentage-point differences are substantially lower for the registrations, given that the percentage of host registrations from attendees is, overall, about 25% of the equivalent for the earlier applications. But, of course, this also makes some of the registrations results even more noteworthy for the universities concerned.

Each will have its own 'take' on the outcomes, but we would emphasise the following. Bristol's main concern should be that the negative 'contextual' effect contributes so much to its relatively poor performance with registrations; most of this comes from the failure to convert applications into registrations during the admissions process. In Cambridge the University might focus on its relatively poor conversion of attendees into applications (not least when compared to the equivalent performance of Oxford). Nottingham presents the opposite picture; in addition to its impressive conversion of attendees into applications it has further success in retaining these throughout the admissions process, with the reward of an eventual 13% of attendees registering at the University. Oxford's is the most steady performance shown, starting from a strong compositional position, although there is some 'contextual' loss between applications and registrations. Finally, St Andrews again stands out. Following its substantial drop in applications (despite its positive compositional mix), the University more than makes up with its success in retaining these during the admissions process. The result is an impressive registration rate of over 18% against the all-university share of 12.5%.

These results are consistent with what we know of the 'contextual' realities at some of the universities. Nottingham has a comprehensive follow-up programme of activities for its summer attendees – e-mentoring, online revision access, mock interviews and a reunion day on campus, as well as flagging attendee applications for admissions tutors. St Andrews' attendees have the opportunity of

completing a pre-UCAS application form to receive informal feedback on their likelihood of an offer, as well as sending attendees to professional degree programmes such as law, medicine and dentistry which, although unavailable at St Andrews, are provided at other nearby Scottish campuses. In the light of this, the high applicant and registration rates at Nottingham, and low applicant but high registration rates at St Andrews are perhaps not surprising.

In these, and maybe other ways, hosts can actively encourage and support UCAS applications from 'their' attendees, and keep a watchful eye on their subsequent progress through admissions system towards registration. Indeed, the single most important outcome of our detailed analysis of the five hosts is that, taken together, contextual processes play a more important part than compositional ones. It follows that if these universities wish to capitalise further on their investments in the Summer Schools, through higher eventual enrolments of under-privileged students, they should focus less on the composition of those they accept onto the Sutton Trust programme (here they seem to be doing well already against those who apply) and more on their local practices to attract and recruit them subsequently through the UCAS process.

Section 5: Adding in the Outer Control Groups

In the final part of our analysis we incorporate students who have shown no interest in the Summer School programme, but who also made UCAS applications during the same admissions cycles as the Summer School students. These are the three outer control groups, introduced and defined in Section 2: those meeting all the Sutton Trust's eligibility criteria, insofar as we can match them (outer control group 1 - OC1 in this section); those meeting some of them (outer control group 2/OC2); and those others who were at state schools, but who do not have any of the other eligibility criteria (outer control group 3/OC3). The value of this wider net of students for comparison was explained in Section 2.1; it allows us to gauge whether the inner control groups differ not just in their HE applications and registrations behaviour from the attendees, but also from their look-alikes who show no apparent interest in the Summer Schools. In turn, this enables us to explore the relative importance of what we previously termed the 'impact' (of the Summer Schools) and the 'predisposition' effects on university applications and registrations to the more elite institutions, unrelated to any Summer School influences. Note that in this section we have to limit the analyses to the four English summer schools, as data for Scotland to calculate the outer control groups, on a reliable and consistent basis with England, are unavailable. We also make comparisons, in the majority of our calculations, based on patterns of 'applications' rather than 'applicants', as we cannot construct base populations for OC1, OC2 and OC3 individually.

Key findings

- Outer control groups consistently fall below Summer School student groups' application and registration rates, even OC2, the 'less WP' but highly academic group
- Differences between our inner and outer control groups are every bit as substantial as between attendees and inner control groups
- Both impact and predisposition are at work, and are both positive for the elites (attendees show higher rates of application and registration than reserves and applicants – *impact*, and reserves and applicants in turn higher rates than OC1 + OC2 – *predisposition*)
- Impact is always relatively greatest compared to predisposition when the UCAS destination is the Summer School universities.

5.1 Rates of application

Table 5.1 extends the picture of rates of HE application and registration shown earlier for the Summer School students alone (in Table 3.1), to incorporate the outer control groups. To do so we compared the known UCAS applicant and registration totals for our combined outer control groups with the numbers of state-school Year 13 students in same two academic years that generated our UCAS applications. These total 634,517 students, as recorded in the DfE school performance tables (www.education.gov.uk/performance-tables). From these we subtracted numbers equivalent to those we could assign to the three Summer School student groups, to produce the best estimate of the underlying national state school pupil populations for 2008/9 and 2009/10, from which these outer control group applicants would have come. No further disaggregation into OC1,

OC2 and OC3 is possible, but even so the differences between them in aggregate on the one hand, and the Summer School students on the other, are startlingly large. Even the less HE-oriented inner control group (the applicants) apply and register at more than double the rate of the outer control groups combined.

Table 5.1 Overall rates of applicants and registrations by Summer School student groups and combined outer control groups

	% who apply		% who register	
	incl unmatched	excl unmatched	incl unmatched	excl unmatched
Attendees	93.1%	99.8%	83.6%	89.6%
Reserves	90.2%	100.0%	75.9%	84.2%
Applicants	87.8%	99.8%	76.3%	86.7%
OC1 + OC2 + OC3	38.6%		31.7%	

Table 5.2 further disaggregates those applications and registrations by university destinations, where now the different outer control groups can be distinguished. Each also has an unweighted and weighted variant, similar to that of Tables 3.2(a)-(b). Because we use UCAS applications here we make the corresponding adjustments to the attendees and inner control groups too, of course, to ensure we compare like with like. And because there is no equivalent to the Summer School ‘host university’ for the outer control groups we have amalgamated the Summer School student applications such that, for instance, the 5.3% recorded as ‘applications to Bristol from attendees’ combines applications to Bristol from *all* attendees, not simply those who attended the Bristol Summer School.

Table 5.2 Summer School student groups' and outer control groups' applications and registration as percentage of total, by UCAS destination **(a)** unweighted **(b)** weighted (highest values per column shaded)

(a)

	% applications								
	B	C	N	O	StA	ST13	RG	1994	All 'non elites'
Attendees	5.3%	3.1%	4.9%	5.5%	2.5%	23.1%	38.2%	20.3%	20.1%
Reserves	4.4%	2.0%	5.5%	2.7%	1.1%	19.9%	36.2%	21.3%	26.8%
Applicants	3.9%	2.4%	3.9%	2.8%	1.2%	19.9%	37.4%	19.5%	28.8%
OC1	2.5%	0.7%	3.2%	0.7%	-	12.0%	28.4%	18.0%	46.2%
OC2	3.0%	1.1%	3.7%	1.1%	-	14.5%	30.8%	19.9%	40.1%
OC3	1.3%	0.4%	1.8%	0.4%	-	6.9%	15.8%	12.3%	67.7%

	% registrations								
	B	C	N	O	StA	ST13	RG	1994	All 'non elites'
Attendees	3.4%	4.0%	5.0%	7.0%	3.4%	18.7%	35.1%	18.4%	23.7%
Reserves	3.5%	2.7%	6.2%	2.7%	0.5%	16.1%	30.4%	20.2%	33.9%
Applicants	2.2%	3.4%	3.0%	3.2%	1.1%	16.9%	32.0%	19.1%	36.1%
OC1	1.2%	0.6%	2.2%	0.6%	-	8.7%	24.0%	17.4%	53.9%
OC2	1.6%	1.1%	3.2%	1.0%	-	11.7%	27.8%	20.2%	44.9%
OC3	0.7%	0.5%	1.5%	0.5%	-	4.7%	12.1%	10.4%	74.3%

(b)

	% applications								
	B	C	N	O	StA	ST13	RG	1994	All 'non elites'
SS Attendees	5.3%	3.1%	4.9%	5.5%	2.5%	2.9%	2.4%	1.1%	0.1%
SS Reserves	4.4%	2.0%	5.5%	2.7%	1.1%	2.5%	2.3%	1.2%	0.1%
SS Applicants	3.9%	2.4%	3.9%	2.8%	1.2%	2.5%	2.3%	1.1%	0.1%
OC1	2.5%	0.7%	3.2%	0.7%	-	1.5%	1.8%	1.0%	0.2%
OC2	3.0%	1.1%	3.7%	1.1%	-	1.8%	1.9%	1.1%	0.1%
OC3	1.3%	0.4%	1.8%	0.4%	-	0.9%	1.0%	0.7%	0.2%

	% registrations								
	B	C	N	O	StA	ST13	RG	1994	All 'non elites'
SS Attendees	3.4%	4.0%	5.0%	7.0%	3.4%	2.1%	2.2%	1.0%	0.1%
SS Reserves	3.5%	2.7%	6.2%	2.7%	0.5%	1.8%	1.9%	1.1%	0.1%
SS Applicants	2.2%	3.4%	3.0%	3.2%	1.1%	1.9%	2.0%	1.1%	0.1%
OC1	1.2%	0.6%	2.2%	0.6%	-	1.0%	1.5%	1.0%	0.2%
OC2	1.6%	1.1%	3.2%	1.0%	-	1.3%	1.7%	1.1%	0.1%
OC3	0.7%	0.5%	1.5%	0.5%	-	0.5%	0.8%	0.6%	0.2%

Unsurprisingly, and again consistent with what we have discovered already, the less WP of the two 'Summer School eligible' groups (OC2) still falls consistently short of the inner control applicants in its applications and registration rates to the elite universities, other than for a slight edge for OC2 registrations over Summer School applicants at Nottingham (remember, this is registrations there from all Summer School applicants, not just those who tried, unsuccessfully, for a place on the Nottingham Summer School). Otherwise, the 1994 Group again proves the turning point. It is also worth noting that the two groups with high GCSE attainments (OC1 and OC2) are much more elite-oriented in their applications than OC3, where we have no indication of how many in this group reach the same academic level (though it seems reasonable to infer from these and other results that they were in a small minority). Only with the 'non elites' category do the OC3s overtake either of the other two outer control groups in their proportions of applications or registrations.

5.2 Profiles of ambition and reality by different types of students

Figures 5.1 to 5.4 show comparisons between different combinations of Summer School students and outer control groups, by the strength and direction of percentage point differences between profiles of applications and registrations (Note 5). Bars plotted above the 0% line indicate Summer School profiles

generating higher proportions of applications and registrations, whilst those below the line show the outer control groups to be higher. Figure 5.1 confirms that, at the most aggregated level, these two populations behave very differently, as we would expect, with Summer School profiles performing better than the outer controls in all but the 'non elites' case. But the following figures home in on populations which we might predict, *a priori*, to show greater similarities. They all compare those who tried to attend but failed (reserves and applicants) with those who did not try, despite being eligible. So in Figure 5.2 we can compare all the reserves and applicants with all those in OC1 and OC2. Then, making a further distinction based on levels of eligibility, we compare, in Figure 5.3, the most eligible inner and outer control groups - reserves and applicants, matching all eligibility criteria with the OC1 control group (who display greater eligibility than OC2). Finally, in Figure 5.4 we compare those inner control groups meeting some but not all criteria with their outer control equivalents (OC2).

Figure 5.1 Percentage point difference between **all** Summer School students and **all** outer control groups, UCAS applications and registrations

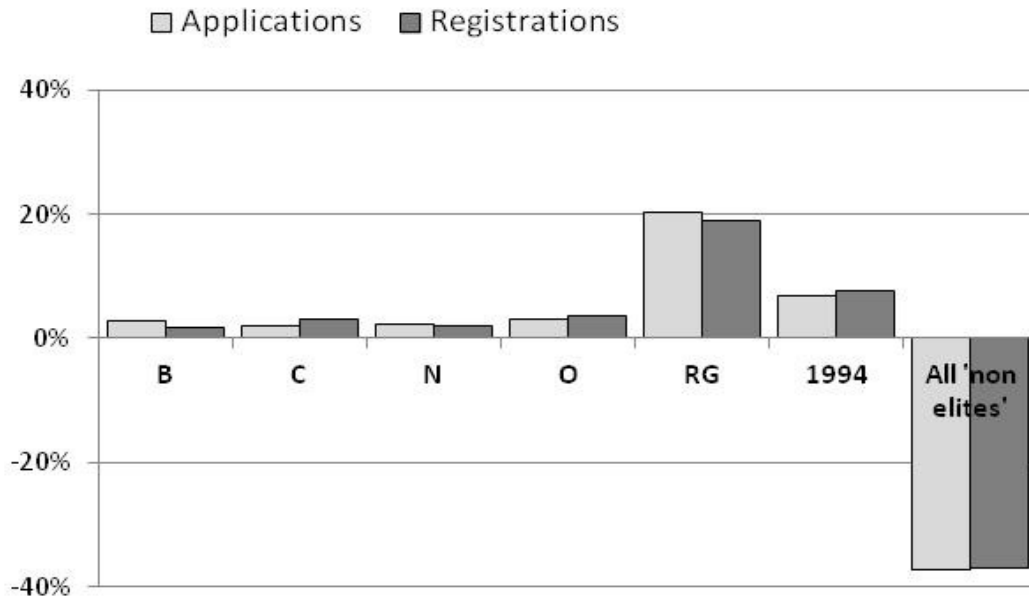


Figure 5.2 Percentage point difference between Summer School **reserves + applicants** and **OC1 + OC2**, UCAS applications and registrations

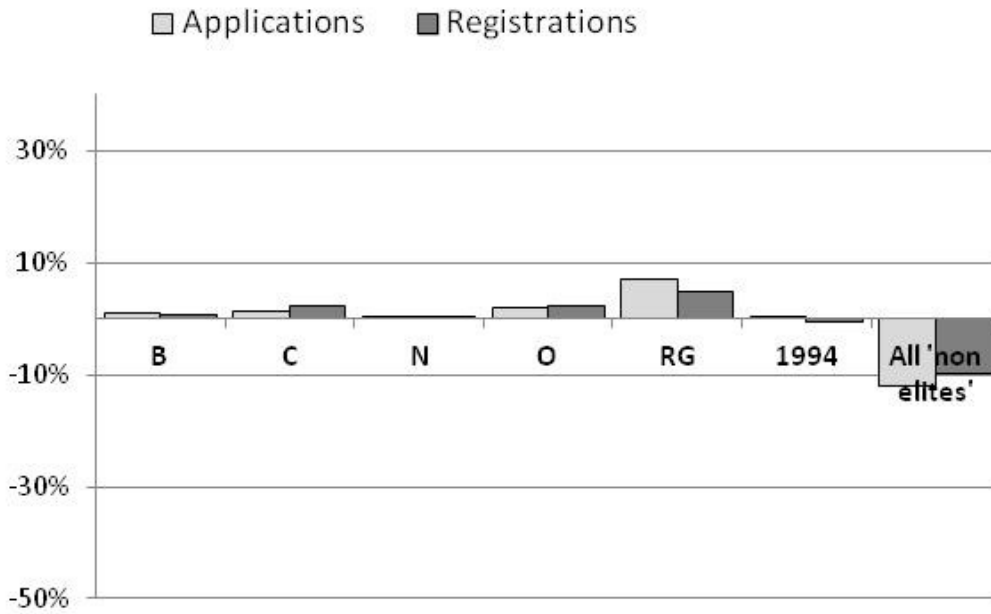


Figure 5.3 Percentage point difference between Summer School **reserves + applicants matching all ST criteria** and **OC1**, UCAS applications and registrations

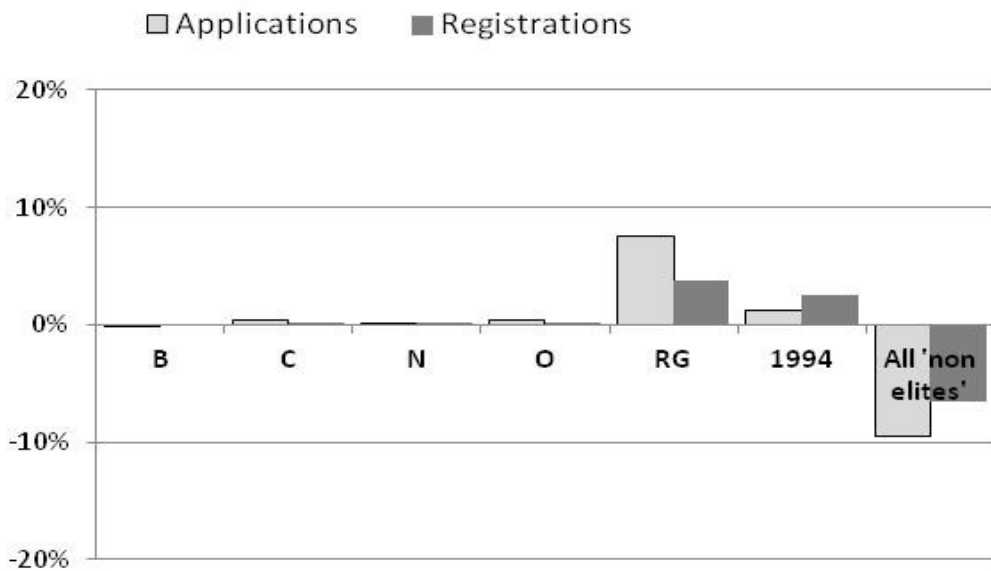
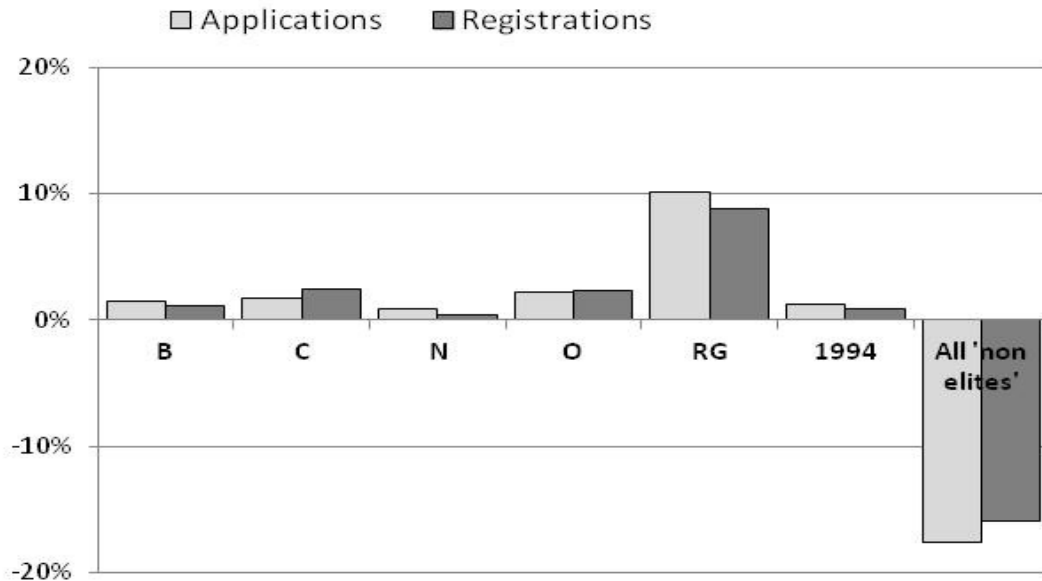


Figure 5.4 Percentage point difference between Summer School **reserves + applicants matching GCSE plus at least one other ST criteria** and **OC2**, UCAS applications and registrations



In general, the comparisons are clear and similar. They also have much in common with Figure 5.1, though now the importance of the five hosts is reduced (the most loyal group, the attendees, having been removed from the analyses, of course). Instead, the preferences of the inner control groups for the Russell Group and the outer controls for the 'non elites' destinations produce the most striking differences, and more so for applications than registrations. In detail, the comparison of the 'match all' against OC1 is marginally less pronounced, but still the compared profiles are significantly different at conventional levels, as the Chi-squares summarised in Table 5.3 show.

Taken together, Sections 5.1 and 5.2 show that, despite some points of detail, there are differences between our inner and outer control groups every bit as substantial as between the attendees and inner controls. The final section turns to how we can formulate these in terms of the impact and predisposition effects introduced earlier.

Table 5.3 Chi-square results for Summer School student against outer control group profiles of UCAS destinations, applicants and registrations

Figure	SS group	Control Group	Applications	Registrations
Figure 5.1	All SS groups	against OC1 + OC2 + OC3	25760.88*	5124.03*
Figure 5.2	R + App	against OC1 + OC2	2263.91*	432.80*
Figure 5.3	R + App, Match all ST crit	against OC1	487.46*	12.47
Figure 5.4	R + App, Match GCSE plus at least one other ST crit	against OC2	5939.14*	510.22*

* The chi-square statistic is significant at the 0.05 level

5.3 Impact and Predisposition

While we can measure the *impact* of the Summer Schools through the difference between the subsequent HE behaviour of our attendees on the one hand and the reserves and applicants on the other, we also have to quantify the difference between the latter and their look-alikes in the outer control groups, which we have labelled *predisposition*. This represents the extent to which those who applied for Summer Schools, successfully or otherwise, would have also subsequently applied for, and registered at, the same particular destination university(ies) anyway, even without the intervening opportunity of a Summer School experience. Here we echo the observations we noted earlier (Section 1) from Hatt et al's (2001) work on the impact of the Aimhigher summer schools, which implied these were pushing at an already half-opened door; those who attended were often minded to apply for Higher Education anyway, even without the additional impetus a summer school might provide.

It is clear from what has gone before that the relative sizes of the differences between attendees and the inner control groups, and the inner and equivalent

outer control groups, will vary to a greater or lesser degree with three further factors:

- which university destinations are being considered
- whether we focus on UCAS applications or registrations
- which specific student groups we take for the comparisons

The first two are straightforward, the third less so. Here, to try to make the matches as close as possible across the attendees and two sets of control groups, we again subdivided the attendees into those that matched *all* and those that just matched *some* of the Sutton Trust’s eligibility criteria, as in Section 4.2a) (and Figure 4.1). This gives us three sets of dual comparisons, as outlined in Table 5.4.

Table 5.4 Comparison groups for impact and predisposition

Case	Measurement of...		
	Attendees	Inner control group	Outer control group
1	All attendees	All reserves and applicants	All OC1 + OC2
2	Those meeting all criteria	Those reserves and applicants meeting all criteria	OC1
3	Those meeting the GSCE and at least one but not all other criteria	Those reserves and applicants meeting the GSCE and at least one but not all other criteria	OC2

The corresponding results of our measurements of impact and predisposition are then as in Table 5.5

Table 5.5 Impact and predisposition results for each case outlined in table 5.4 by UCAS destination (pp = percentage points)

Case 1	Applications (sum)		Registrations	
	Impact	Predisposition	Impact	Predisposition
English STSS 4	6.8pp	5.4pp	1.7pp	1.1pp
ST13	3.7pp	6.0pp	0.5pp	1.0pp
RG	1.0pp	7.3pp	0.8pp	0.7pp
1994	1.7pp	1.2pp	0.1pp	0.0pp
All 'non elites;	-10.0pp	-14.4pp	-2.3pp	-2.4pp

Case 2	Applications (sum)		Registrations	
	Impact	Predisposition	Impact	Predisposition
English STSS 4	10.9pp	1.3pp	2.1pp	0.1pp
ST13	4.9pp	5.4pp	1.2pp	0.7pp
RG	2.2pp	8.2pp	1.7pp	0.5pp
1994	1.4pp	2.8pp	0.1pp	0.6pp
All 'non elites;	-15.1pp	-12.6pp	-3.7pp	-2.0pp

Case 3	Applications (sum)		Registrations	
	Impact	Predisposition	Impact	Predisposition
English STSS 4	6.4pp	6.9pp	2.3pp	1.2pp
ST13	3.4pp	7.5pp	0.3pp	1.3pp
RG	-2.1pp	10.2pp	0.0pp	1.5pp
1994	1.0pp	2.1pp	-0.3pp	0.2pp
All 'non elites;	-5.9pp	-19.8pp	-1.6pp	-3.5pp

As we found before, in Section 3, the absolute size of the gap between attendees and the inner control group – the *impact* – generally declines as we move from the hosts towards the ‘non elites’, despite the very different numbers of target universities in each group and also despite differences between our analyses then and now (recall, the current measurements are in terms of applications not applicants, and we are amalgamating the four English host universities).

Indeed, for the 'non elites' the impact has become negative (ie the attendees are *less* inclined to apply and register there than the inner control groups). The *predisposition* values are rather less regular, but again become negative for the 'non elites', showing that the inner control group are *less* inclined to apply and register there than their matched outer control group. So for case 2, where the three populations compared are of those meeting all available eligibility criteria, the hosts receive an impact boost from the Summer School attendance of 11 percentage-points (pps) in applications and above 1 pp in registrations over the reserves and applicants, who in turn generate over 1 pp more applications than the equivalent outer control group, and a trivial amount of additional registrations. But for the 'non elites' the same attendees are producing 15 pps *fewer* applications than the inner controls, who in turn produce over 12 pps *fewer* than the outer controls, while for registrations the respective shortfalls are 3.7pps and 2 pps. So both impact and predisposition effects are at work and can be measured, both are almost always positive for the elite destinations (including the 1994 Group now), both are always negative for the 'non elites', and their relative sizes vary from context to context, through with the impact always relatively greatest compared to the predisposition in the case of the Summer School university destinations. This is obviously good news for these universities, and the resources they have committed to the Trust's Summer School programme.

It might be even better news than these figures suggest. We have assumed, in the absence of any alternative evidence, that all of the differences between the various pairings of inner and outer control groups measured in Table 5.5 can be ascribed to 'predisposition' – a greater probability that those in the inner control groups would seek a place at a specific university or type of university (from among the elites) *before* the prospect of the Summer School programme appeared over their personal horizons. But we have no direct way to confirm that this is always the case. It is possible, and indeed likely, that some of their so-labelled predisposition is itself the result of their becoming aware in this way

(maybe *further* aware, maybe aware *from a zero base level*) of the possibility and appeal of a place at a competitive, selective university. The examples of previously successful STSS attendees in the publicity material might invoke a sense of '*well, why not?...if (s)he can, then maybe I could too...*'. If there is any element of this in the inner-outer control differences we have captured from our data, then simply labelling it all as 'predisposition', without assigning any of the credit to the effectiveness of pre-Summer School promotion and awareness-raising, is to downplay the real impact of the Summer Schools. So the ways in which we have distinguished impact from predisposition in Table 5.5 almost certainly generate *conservative, minimum estimates* of the true effect of the programme in the complex processes of establishing personal agendas towards Higher Education amongst potential undergraduates.

Section 6: Discussion

6.1 Our research questions

In Section 1 we set out three research questions. What are our corresponding answers?

Question 1- Has attendance at a STSS been associated with specific outcomes in the subsequent HE experience of those students, in terms of their rates of application, the university destinations involved, and the success rates of these applications?

Yes.

Students can be defined along a spectrum, based on how close they come to experiencing a Sutton Trust Summer School. For some (our outer control groups) there is no such interest, others, (applicants) are interested and try but are unsuccessful, others get closer, but not quite close enough (reserves) and the rest successfully secure a Summer School place at one of the five hosts – our attendees. We find that in important ways this spectrum is echoed in the experiences these same groups subsequently have of Higher Education. First, in their participation rates, the outer control groups apply to university least of all and register least of all, whereas the attendees show the highest rates of each and the reserves normally edge ahead of the applicants in theirs too. Second, in the universities applied-to and registered-at, the same relationships hold, from the outer control groups with the least orientation to the more elite universities (however defined), including the Summer School host universities, to the attendees with the greatest ambitions towards, and successful UCAS applications to, the hosts and other elites. Within the inner control groups the reserves are slightly, but consistently, more similar to the attendees in their profiles. For these same inner control groups and attendees, the imprint of their

final registration profiles is, by and large, set at the initial applications stage; nothing happens in between to make any substantial and systematic alterations to the patterns already established. Finally, we disentangle the relative roles of the Summer Schools 'impact', exhibited by attendees, and the 'predisposition' of the other reserves and applicants to target elite universities for UCAS applications and registrations, despite not securing a Summer School place. The balance between the two shifts significantly, with the impact being greatest when the Summer School hosts are the university target group and weakest for the 'non elites', leaving the other three elite groups jostling for position in between. We also cautioned that our analyses may underestimate the real impacts from the Summer School programme as they may extend beyond those who enjoy the on-location summer experience at one of the hosts.

Question 2 -How far do these subsequent HE experiences also vary with the personal characteristics of the students concerned?

Substantially yes, and pretty consistently, but in some surprising ways too.

For one thing, although the Summer School selection process overall seems effective at winnowing out those who are a less close fit with the eligibility criteria on their paper credentials, the resulting composition of the characteristics profile of those attending the five hosts are still not the same. For another, certain types of students within the Summer School populations are more likely to apply to, and register at, their actual or hoped-for hosts and other elite destinations than others – those with relatively fewer of the WP, and other, criteria when taken collectively or separately. If this is a disappointing finding at least it is unrelated to the Summer School experience *per se*, since this is consistent with similar trends we also find in our outer controls, with no involvement in Summer Schools, and indeed the wider research literature on the 'secondary to higher education' transition. Where the Summer Schools do appear to play a part is in narrowing

the gap between these 'more' WP and 'less' WP groups, to the relative advantage of the former, who, of course, are the primary focus of the national widening participation agenda and the mission of the Sutton Trust. So the Summer Schools predominantly recruit those least likely of all to go to elite universities from amongst the eligible applicants, and make them relatively more likely to, compared with their peers. Why this happens is less clear. Perhaps through the supportive information networks the Summer Schools provide about UCAS, funding and the like. Perhaps Summer Schools dispel previously-held myths and mysteries of university education, the academic or social life of 'being at uni'. Or perhaps it's providing a week's company with a congenial, collegial and mutually-energising community of young people of the sort they may befriend for longer, maybe even for life, by becoming undergraduates.

Question 3- Do the impacts of the STSSs vary across the five universities delivering them?

Yes, but in a number of more finely textured ways than in the answers to the other two questions.

While attendees at all of the host universities are a better match to the Trust's preferred selection criteria than unsuccessful applicants, those attending at Oxbridge have the edge in academic performance at GCSE level. There is also some variation among the universities over which of their Summer School groups is dominant in each of the destinations of their applications and registrations. Trading patterns show another dimension of the inter-university variations. Some hosts (Bristol and Nottingham) have a trading surplus when viewed both overall and through bilateral trade flows, Oxford and Cambridge are in deficit, leaving St Andrews comparatively isolated in these student exchanges amongst Summer School universities. Finally, our attempt to cross-compare the roles of the 'who' and the 'where' - the inter-personal differences apparent everywhere and

university place-specific ones affecting everyone there – comes out in favour of the latter. ‘Where’ better accounts for the variable subsequent experiences in applications and registrations of attendees at their host universities. As we’ve seen, this is the group where the Summer School programme has the greatest impact and where the hosts have invested the greatest amount of resources and interest. In some instances this emphasis on place-based, contextual, factors can be enriched by additional evidence of specific campus practices.

6.2 Summer Schools in Changing Times

In its latest review of English universities’ widening participation strategic assessments, OFFA (2011) reported that summer schools rated second only to the Aimhigher programme as successful WP activities. With the subsequent demise of Aimhigher they now presumably occupy top spot. But given the paucity of published work on summer schools, and the difficulties of specifying quite what effect they and other outreach activities really have, this vote of confidence would seem to rest more on optimistic perceptions than on hard evidence. The mere fact that 60% of University X’s summer school cohort then apply there through UCAS is of limited value without some basis on which to construct the ‘counterfactual’, a task that seems hardly, if ever, attempted. Our study, in contrast, provides strong empirical evidence that summer schools do work, from the UK’s now highest profile cross-university outreach programme, incorporating not just one control group but five. The Sutton Trust Summer Schools work from the perspective of their hosts, inevitably centred on their own individual downstream benefits, the perspective of the Trust whose mission is also furthered by the impacts on more widely-drawn sets of elite universities, and society as a whole, which benefits from identifying at least something that widens not just HE *participation* but also *access*, and kick-starts social mobility.

They achieve this by raising two of the three 'As' of the WP canon – student *awareness* and student *aspirations*. It may not directly enhance the third – student *attainment* – though summer schools can support students' study skills – but the growing adoption of a 'contextual data' approach to the treatment of university admissions should be to the further benefit of the sorts of students who pass through summer schools. Contextual data encourages universities to be guided by academic *potential*, rather than simply the unquestioning acceptance of pre-university exam grades, as the criterion for making offers. With this powerful accompaniment, it is reasonable to expect that summer schools can achieve higher future application-to-registration conversions at competitive universities than we record here, which in turn should encourage even more to apply there.

The out-going Director of OFFA urges universities to diversify their WP spend away from student financial support, which its own evidence suggests is ineffective (OFFA, 2010b), and direct proportionately more of it towards outreach. He promises that in the new, highly-challenging funding regime, OFFA will be on the lookout for good practice and '*any early evidence of impact on student behaviour or recruitment patterns*' (OFFA 2011, p.2). There seems no room to doubt that Sutton Trust's Summer Schools programme provides both.

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Notes

1. St Andrews does not operate a reserve list.
2. Students will also have applied to a particular subject stream at each host university. We have no ready way of checking for differences in subsequent HE experience of these streams even though this may cause further variation among the universities applied to through UCAS.
3. As a small number of applicants in the 'excluding unmatched' column register with UCAS but do not submit a formal application the figures there can dip below 100%; registrations include all those who register for university, whether through the mainstream UCAS route (some 88% of our populations) or through the UCAS Extra and Clearing pathways (the remaining 12%) , designed for those who enter the process late in the UCAS cycle or re-submit an application following a lack of success at an earlier stage).
4. For this we converted applicants into absolute values and discarded the Sutton Trust 13 destination, since its overlapping with the Russell and 1994 Groups would have violated the Chi-square requirement of mutually exclusive categories for observations.
5. As in note 4, the Sutton Trust 13 was discarded from this part of the analysis as its inclusion would have violated the Chi-square requirement of mutually exclusive categories for observations.

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Appendix 1

HEIs groupings for Sutton Trust SS research

Sutton Trust 5 (Sutton Trust Summer School universities)

University of Bristol
University of Cambridge
University of Nottingham
University of Oxford
University of St Andrews

Sutton Trust 13 which are not also Sutton Trust 5

Imperial and University Colleges London
London School of Economic & Political Science
University of Birmingham
University of Durham
University of Edinburgh
University of Warwick
University of York

Russell Group which are not also Sutton Trust 5

Cardiff University
Imperial and University Colleges London
King's College London
London School of Economic & Political Science
Newcastle University
Queen's University Belfast
University of Birmingham
University of Edinburgh
University of Glasgow
University of Leeds
University of Liverpool
University of Manchester
University of Sheffield
University of Southampton
University of Warwick

1994 Group which are not also Sutton Trust 5

Birkbeck, University of London
Goldsmiths, University of London
Institute of Education, University of London
Loughborough University
Queen Mary, University of London
Royal Holloway, University of London
School of Oriental and African Studies
University of Bath
University of Durham
University of East Anglia
University of Essex
University of Exeter
University of Lancaster
University of Leicester
University of Reading
University of Surrey
University of Sussex
University of York

Appendix 2

Individual Summer School by student group and UCAS destination percentages of (a) applicants and (b) registrations

(a)

	Attendees				
	B	C	N	O	StA
Host SS	50.2%	47.4%	57.3%	51.3%	45.0%
Other SS	30.5%	45.0%	22.3%	46.9%	1.6%
ST13	45.6%	71.3%	45.6%	72.6%	51.8%
RG	75.3%	83.7%	71.8%	87.5%	72.3%
1994	62.2%	69.1%	50.0%	69.0%	1.0%
All 'non elites'	51.0%	29.8%	60.7%	32.4%	82.2%
None	0.0%	0.3%	0.0%	0.1%	1.0%

(b)

	Attendees				
	B	C	N	O	StA
Host SS	8.5%	11.1%	13.1%	11.7%	18.3%
Other SS	6.6%	11.4%	1.5%	8.4%	0.5%
ST13	8.1%	22.8%	3.9%	19.5%	10.5%
RG	22.8%	32.2%	19.4%	35.0%	22.5%
1994	17.4%	18.7%	14.6%	17.3%	0.0%
All 'non elites'	26.3%	12.2%	29.6%	12.6%	42.4%
None	9.7%	7.6%	13.6%	10.7%	6.3%

	Reserves			
	B	C	N	O
Host SS	26.9%	18.3%	33.3%	22.4%
Other SS	23.9%	47.6%	16.0%	45.6%
ST13	50.7%	61.1%	36.7%	64.6%
RG	82.1%	77.0%	65.3%	79.6%
1994	59.7%	67.5%	49.3%	63.9%
All 'non elites'	59.7%	41.3%	63.3%	45.6%
None	0.0%	0.0%	0.0%	0.0%

	Reserves			
	B	C	N	O
Host SS	4.5%	3.2%	8.7%	4.1%
Other SS	1.5%	11.9%	1.3%	9.5%
ST13	9.0%	16.7%	6.7%	15.6%
RG	28.4%	31.0%	14.7%	22.4%
1994	17.9%	14.3%	13.3%	17.0%
All 'non elites'	28.4%	18.3%	33.3%	23.1%
None	13.4%	11.1%	17.3%	14.3%

	Applicants				
	B	C	N	O	StA
Host SS	20.7%	20.8%	23.2%	21.8%	18.1%
Other SS	21.2%	40.0%	17.2%	40.3%	6.5%
ST13	36.0%	58.5%	35.0%	60.5%	43.7%
RG	63.2%	74.4%	62.4%	79.5%	59.0%
1994	49.2%	62.1%	43.6%	57.6%	10.3%
All 'non elites'	58.7%	42.7%	60.4%	42.4%	73.5%
None	0.6%	0.0%	0.3%	0.1%	0.0%

	Applicants				
	B	C	N	O	StA
Host SS	2.6%	6.4%	3.1%	4.5%	4.4%
Other SS	3.0%	6.6%	2.9%	7.2%	1.7%
ST13	8.2%	15.1%	7.4%	16.5%	8.6%
RG	20.0%	25.2%	18.9%	28.9%	18.7%
1994	13.4%	17.8%	11.6%	16.8%	2.9%
All 'non elites'	35.1%	23.0%	35.4%	21.1%	41.6%
None	11.3%	10.5%	12.4%	12.1%	12.6%