



## CaSE Proposal: A STEM Diversity Bursary

CaSE proposes a scheme of university bursaries for science, technology, engineering and mathematics (STEM) targeted to the brightest students studying these subjects in schools with a poor history of university access. These STEM Diversity Bursaries should work as an incentive to increase uptake of strategically important STEM subjects at school and beyond. They should also widen participation, particularly to include those from disadvantaged backgrounds and ethnic minorities.

### Background

The Texan *Ten Percent Plan* provides an interesting model for improving access to higher education. All students in the top ten percent of Texan high schools are guaranteed a place at public college or university. The plan was conceived to increase the proportion of ethnic minority students entering university without using affirmative action. Students entering university through this plan complete their courses at normal rates and perform better than would be expected from their school grades. Florida and California have now adopted similar plans.

### Improving STEM Uptake and Diversity - Reducing Inequalities in Schools

- Schools that send a low percentage of students on to higher education would be selected. This catchment will include many schools in disadvantaged areas and also many with high numbers of ethnic minority students, thus widening participation.
- Students throughout the target schools would be motivated to choose STEM subjects and to perform well in them. Even students not achieving the bursary would have had their aspirations raised by the real possibility that they and their peers could participate in higher education.
- Participating in the scheme should draw both children and STEM teachers to schools that may not have previously been appealing, helping to even-out inequalities.

### Cost-Effectiveness

- £5 million would secure a £3150 student bursary (thus covering student fees) for nearly 1600 students: this could be an average of the top 5 students in 320 schools or colleges.
- The scheme would be cost effective as money would not be spent on students likely to pursue STEM at university anyway.
- Many students are not aware of the bursary schemes available to them until too late. Locating this scheme within the schools should address this problem.<sup>1</sup>
- Industry may help finance this scheme and could possibly link-in work experience.

### Other Considerations

- Universities should recognise the potential that these students represent, even though their attainment may not be as high as traditional applicants. Reference to the Texas plan may help alleviate concerns about how the students will perform.
- Different time-scales of operation would have to be explored, as schools participating in the scheme would send more students to higher education and then cease to qualify.

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<sup>1</sup> Davies, P, Slack, K, Hughes, A, Mangan, J & Vigurs, K (2008). *Knowing Where to Study? Fees, Bursaries and Fair Access*. Institute for Educational Policy Research, Staffordshire University, UK, & The Sutton Trust.