

## Research Digest

### RESEARCH DIGEST: JANUARY 2012

<b>1</b>	<b>Introduction</b>	<b>2</b>
<b>2</b>	<b>CAYT projects</b>	<b>3</b>
2.1	<i>Prevention and Reduction: A review of strategies for intervening early to prevent or reduce youth crime and anti-social behaviour .....</i>	<i>3</i>
2.2	<i>Specialist drug and alcohol services for young people - a cost benefit analysis .....</i>	<i>3</i>
2.3	<i>Firms' engagement with the Apprenticeship Programme .....</i>	<i>3</i>
2.4	<i>The impact of KS4 vocational courses on disengaged young people's engagement with education 15-18.....</i>	<i>4</i>
2.5	<i>Young people's education and labour market choices aged 16/17 to 18/19 ...</i>	<i>5</i>
<b>3</b>	<b>Education and employment</b>	<b>6</b>
3.1	<i>Special theme: Charter School Effectiveness .....</i>	<i>6</i>
3.2	<i>The effectiveness of education policy .....</i>	<i>9</i>
3.3	<i>The role of non-cognitive skills .....</i>	<i>12</i>
3.4	<i>Schooling and labour market transitions .....</i>	<i>14</i>
<b>4</b>	<b>Risky behaviours and positive attitudes</b>	<b>16</b>
4.1	<i>Engagement in crime .....</i>	<i>16</i>
4.2	<i>Alcohol and smoking .....</i>	<i>17</i>
4.3	<i>Health outcomes .....</i>	<i>18</i>
4.4	<i>Teen parents .....</i>	<i>18</i>
4.5	<i>New data on adolescents .....</i>	<i>19</i>
<b>6</b>	<b>Disadvantaged and vulnerable groups</b>	<b>20</b>
6.1	<i>Low SES students .....</i>	<i>20</i>
6.2	<i>Pupils with Special Educational Needs .....</i>	<i>22</i>
6.3	<i>Teen mothers and their children .....</i>	<i>22</i>

# 1 Introduction

---

Welcome to the second edition of the CAYT digest. In this digest we aim to bring to the Department's attention key pieces of work in the field of youth transitions. In particular we highlight high quality research that has been published in the last year.

To correspond to the work streams that CAYT is working on, we have organised the research under the following themes:

- education and employment;
- risky behaviours and positive activities;
- disadvantaged and vulnerable groups.

In this second edition of our digest we also include a brief summary of CAYT work to date, highlighting key findings from the research we have carried out for the Department<sup>1</sup>. Additionally, we have included a special theme in this edition, focusing on an issue of particular policy interest, namely the effectiveness of more autonomous schools.

We start with a brief update on the major projects that CAYT has completed so far.

---

<sup>1</sup> Further queries on these projects can be addressed to Sophie Gerrard (sophie.gerrard@education.gsi.gov.uk) or Anna Vignoles (a.vignoles@ioe.ac.uk)

## 2 CAYT projects

---

### 2.1 **Prevention and Reduction: A review of strategies for intervening early to prevent or reduce youth crime and anti-social behaviour**

<https://www.education.gov.uk/publications/RSG/AllRsgPublications/Page1/DFE-RR111>

There have been a number of recent publications highlighting some of the inherent failures of the current system for dealing with youth crime and anti-social behaviour in England. Most notable are concerns regarding the levels of expenditure on enforcement, courts and the use of prisons. Despite a recent fall in youth imprisonment it still remains substantially higher than 20 years ago. This review provides the Department with a comprehensive understanding of the key characteristics of what works in terms of early interventions to prevent or reduce youth crime or anti-social behaviour. By drawing on evidence from the international literature, primarily the US where the evidence base is especially strong, this review is able to provide a critical evaluation of youth crime interventions in England, where the scientific evidence is less robust.

This collation of the best evidence and expert opinion will support the development of the strongest and most promising approaches. At the same time it identifies gaps in the evidence and makes recommendations for further research.

### 2.2 **Specialist drug and alcohol services for young people - a cost benefit analysis**

<https://www.education.gov.uk/publications/standard/publicationDetail/Page1/DFE-RR087>

CAYT was asked to undertake a cost benefit analysis of drug policy relating to young people. Overall, the study has shown that the immediate and long-term benefits of specialist substance misuse treatment for young people are likely to significantly outweigh the cost of providing this treatment. In particular, we have estimated a benefit of £4.66-£8.38 for every £1 spent on young people's drug and alcohol treatment. Furthermore, our central case estimates are based on a conservative set of assumptions. Therefore, the benefit of specialist drug and alcohol treatment for young people may be larger than we report here.

### 2.3 **Firms' engagement with the Apprenticeship Programme**

<https://www.education.gov.uk/publications/standard/publicationDetail/Page1/DFE-RR180>

In the UK there is strong evidence that individuals who acquire an apprenticeship qualification go on to have good labour market prospects, in terms of their earnings

and indeed their employability. This is consistent with international evidence on the high economic value of these qualifications for individuals.

This report explores what types of firm engage with the apprenticeship programme and if there are characteristics that make them more or less likely to offer apprenticeships. The aim of the research was to identify whether there are key determinants of firms' engagement with the apprenticeship programme that may be susceptible to policy intervention.

The research used two data sets, namely the National Employers Skills Survey (NESS) and the Annual Business Inquiry (ABI) to undertake the research. The former contains detailed information on a range of skills issues faced by firms and variables measuring their engagement with the apprenticeship programme. The latter provides additional information on the productivity, capital investment and employment characteristics of firms.

The research found that larger establishments are more likely to train apprentices, as one might have hypothesised. However, it is the case that smaller establishments that do train apprentices have proportionately more trainees (i.e. a higher number of apprentices per 1000 employees). This suggests that if policy-makers can engage small and medium sized enterprises (SMEs) in the apprenticeship programme, these firms have the potential to play a significant role in employing apprentices. Private sector establishments are more likely to offer apprenticeships than charities, local and central government establishments. Proportionately, apprenticeships are least likely to be offered in London. This might suggest that further policy work is needed to encourage firms in this region to train. However, the data we are using are from 2009 and since that time the situation in London may have changed as a result of efforts to engage London firms with the programme. In general firms that are more productive, i.e. have higher gross value added, were no more likely to train apprentices than those with lower productivity levels. Hence firms do not appear to train apprentices in response to low productivity levels. On the other hand, we did find that establishments suffering skill shortages were more likely to train apprentices, suggesting that engagement with the apprenticeship programme may be a response to problems either in recruitment or in the skill levels of existing employees. We also found quite clearly that apprenticeships complement, rather than replace, other forms of training. This is an important finding. Incentives to train apprentices do not appear, at least from this analysis, to be associated with firms cutting back on other types of training.

## 2.4 **The impact of KS4 vocational courses on disengaged young people's engagement with education 15-18**

<https://www.education.gov.uk/publications/eOrderingDownload/DFE-RB165.pdf>

Previous research and anecdotal evidence has suggested that offering a broader curriculum, and in particular, vocational qualifications, may be a way to motivate young people who have become disengaged from education and improve their

subsequent attainment. However, this hypothesis has not been systematically evaluated.

The analyses summarised here explore the educational outcomes of disengaged young people from a nationally representative cohort who reported taking vocational courses in Year 10 in comparison to similarly disengaged young people who did not.

The study explored outcomes across a range of different subgroups of young people from the Longitudinal Study for Young People (LSYPE), defined using different characteristics of being disengaged in Year 9.

The research found that disengaged young people who took at least one vocational course in Year 10 were more likely to show signs of disengagement over time compared to those who took no vocational courses. However, those who took vocational courses were also more likely to achieve basic qualifications at Key Stage 4, although they were less likely to achieve higher levels of qualifications. At age 17, they were less likely to be in full time education, part time education, or on a training course or apprenticeship, and more likely to be in full time work or doing something else. But by age 18, these differences in destinations had all but disappeared. Overall, where differences did exist between disengaged young people who did and did not take vocational qualifications, these tended to be very small and most were not statistically significant. We found no evidence to suggest that taking vocational courses in Year 10 helps to re-engage young people who are already disengaged from education. Neither did we find any evidence to suggest studying vocational courses makes matters worse. We also explored an additional hypothesis that students with borderline attainment (those achieving 1 – 4 GCSEs A\*-C) who follow vocational instead of academic pathways post Year 11 have better outcomes. However our analysis, which examined the relationship between course choice and the probability of experiencing NEET by age 18, found no support for this hypothesis.

## 2.5 Young people's education and labour market choices aged 16/17 to 18/19

<https://www.education.gov.uk/publications/eOrderingDownload/DFE-RB182.pdf>

This report presents some evidence on the relationship between different labour market and educational transitions made at age 16-19 and short and longer term labour market outcomes.

We found strong associational evidence that young people who become NEET at an early age have worse short and long-term labour market outcomes. We cannot claim that being NEET at age 16-19 necessarily causes these poorer outcomes. It may be that young people who become NEET at an early age have other characteristics that put them at risk of being NEET later in their lives. In either case though, our results do suggest that we might focus policy interventions on those who are initially NEET and hence at greater risk of poor outcomes. Our evidence also indicates that in general, taking a job (whether with training or not) or even combining full-time education and work at an early age (e.g. 16/17 or 17/18) is associated with a lower probability of becoming NEET at age 18/19, as compared to remaining in full-time

study only or being initially NEET. Work at an early age may therefore play a protective role in preventing young people from the risk of being NEET later on, though again the evidence is associational.

In the medium and longer term, outcomes for those taking jobs without training were generally not significantly different from those who took jobs with training. Our analysis therefore implies that simply taking a job with training is not sufficient to guarantee better labour market outcomes. To secure higher earnings, young people need training with progression which leads them to acquire an economically valuable qualification.

## 3 Education and employment

---

This theme is concerned with education achievement and transitions both within the compulsory education phase and beyond.

### 3.1 Special theme: Charter School Effectiveness

With the increasing interest in more autonomous schools, such as Free Schools and Academies, CAYT has undertaken a brief summary of recent evidence on the impact of school autonomy in the context of US charter schools.

Abdulkadiroglu A., Angrist J., Dynarski S., Kane T., and Pathak P. (2011) **Accountability and Flexibility in Public Schools: Evidence from Boston's Charter Schools and Pilots**. Quarterly Journal of Economics. 126. pp. 699-748.

Angrist J., Dynarski S., Kane T., Pathak P., and Walters C. (2010) **Inputs and Impacts in Charter Schools**: KIPP Lynn.

Angrist J., Pathak P., and Walters C. (2011) **Explaining Charter School Effectiveness**. NBER Working Papers, No. 17332.

Dobbie W., and Fryer R. (2011) **Getting Beneath the Veil of Effective Schools: Evidence from New York City**. NBER Working Papers, No. 7632.

Imberman S. (2011) **Achievement and Behavior in Charter Schools: Drawing a more complete picture**. The Review of Economics and Statistics, 92(3) pp. 416-423.

Charter schools are primary or secondary schools which are independent of school district control, and so free to set pay, curriculum, school hours and length of the academic year. In return charter schools are held strongly accountable to their sponsor (for example their local school board or state education agency) for producing the results set forth in their charter, and may be forced to close if their performance is poor. Like the first academy schools established in England, charter schools are often situated in disadvantaged areas, and have large number of Black and Hispanic pupils relative to other public schools in their districts. Unlike academy

schools, however, charter schools can be run “for-profit”, while remaining part of the public education system and not allowed to charge tuition.

The literature to date on the effect of attending a charter school on pupil achievement has not been conclusive. This may be partly because identifying the effect is difficult. This is because, for example, more motivated parents may choose to send their children to charter schools and may also spend more time helping them with their homework. If we are not able to account for parental motivation in some way, then it is possible that this might explain any positive relationship between charter school attendance and pupil achievement that we may observe.

One way in which researchers have tried to get around this problem is by exploiting the fact that some over-subscribed charter schools allocate their places via a lottery system. By comparing the outcomes of pupils who applied for a place at a particular charter school, some of whom got in and some of whom didn't, they are able to combat the selection problem described above. Of course, the disadvantage of this approach is that it can only assess the impact of oversubscribed (or most popular) charter schools. If we assume that over-subscribed charter schools are likely to be the most effective, then this suggests that the effects estimated by such papers are likely to be an upper bound on the effects of charter schools as a whole.

Two recent papers have identified the effects of charter schools on student achievement using the charter school lottery admissions system. Angrist et al (2010) focus on a single school in Lynn, Massachusetts while Abdulkadiroglu et al (2011) investigate the impact on achievement in Boston.

Abdulkadiroglu et al (2011) find that there are significant positive impacts on attainment for pupils who attend charter schools. One extra year of attending a charter school in “middle school” (approximately ages 10-14) increases maths test scores by between 0.35 and 0.4 standard deviations; English results increase by between 0.2 and 0.25 standard deviations. The gains for high school pupils (approximately ages 14-18) are significant for maths and writing, although slightly smaller in magnitude.

Angrist et al (2010) conduct a similar study focused on a single school in Lynn, Massachusetts, run by a franchise that places particular focus upon discipline and parental involvement, with a disproportionate number of Black and Hispanic students. Although the article focuses on a single school, the results are broadly similar to those in Abdulkadiroglu et al (2011); an extra year at the school increases test scores in Maths by 0.35 standard deviations and English by 0.12 standard deviations.

Imberman (2011) investigates charter school effectiveness in terms of cognitive skills (test scores) and non-cognitive skills (measured using pupils' attendance rates and discipline resulting from serious infractions) using a rather different method, known as a “fixed effects” approach. This exploits the fact that pupils move in and out of charter schools – either because their current school converts to become a charter school, or because they move into a new charter school – to estimate the effect of attending a charter school on pupil achievement. The identification strategy here relies on “within pupil” comparisons, which allows the author to strip out any unobserved pupil

characteristics that may affect the likelihood of attending a charter school and pupil achievement, and that are fixed over time. A good example of such a characteristic may be innate ability.

This paper uses data on schools in a large urban school district in the south western USA, which includes information on test scores, attendance, serious disciplinary infractions and background characteristics from 1994 to 2007. It also looks at whether charter school effectiveness differs for schools which convert from traditional public schools and those which start up as new schools.

Imberman finds some evidence for higher attainment in maths in the years after entering a “start up” charter school, but no effect for English or for pupils attending converted charter schools. Mirroring the evidence in Massachusetts, he finds that only middle charter schools (ages 10-14) have a significant impact on pupil attainment. For start up charter schools, he finds a strong increase in the attendance rate upon entering the school and a fall in the number of serious disciplinary infractions. The effects on discipline and attendance are found to be reasonably short-lived, however; most disciplinary improvements occur in the first year in start up charters, with only small gains in the following years.

While the papers discussed above find some positive impacts of charter schools, it is clear that there is variation in their impact on pupil attainment. Angrist et al (2011) and Dobbie and Fryer (2011) investigate the determinants of charter school effectiveness (in terms of academic attainment) following the same lottery-based research design used by previous studies in this area.

Angrist et al (2011) investigate whether student demographics and observable characteristics of the school, such as their disciplinary policy and pedagogical factors explain the variation in charter school effectiveness. Documenting first the variation in charter school effectiveness, this study shows that urban charter schools in Massachusetts increase pupil attainment, but suggests that non-urban charter schools decrease pupil attainment on average. Attending an urban charter school is most beneficial to Black and Hispanic pupils (but has no impact on white students) and for those with the lowest academic attainment upon entering the school. Attending a non-urban charter school has no positive impact for any of the demographic sub-groups, and indeed middle schools have a negative impact some groups, including females, white pupils and those with low attainment upon entering the school. The study finds that the composition of urban and non-urban schools partly, but not wholly, explains the difference in effectiveness (as urban schools have a higher proportion of more disadvantaged pupils for whom charter schools seem to have more impact).

Other determinants of school effectiveness are investigated by relating the characteristics and pedagogy of all charter schools in Massachusetts (not just those operating a lottery) to their observed effectiveness. Schools that have taken the No Excuses approach to education (characterised by a strict disciplinary environment, an emphasis on student behaviour and comportment, extended time in school, and an intensive focus on traditional reading and math skills) are found to have the largest



gains, while the length of the school day and pupil expenditure are found to have little impact on attainment once No Excuses status is accounted for.

Dobbie and Fryer (2011) investigate the relationship between charter schools' characteristics and effectiveness in New York City. This paper provides further insight than the analysis in Angrist et al (2011) by collecting detailed data on the "inner workings" of the schools, through interviews with the principal, teachers and pupils. They also collect information on curriculum vigour through analysis of the schools' lesson plans, and the level of pupil engagement through videotaped lessons. This data collection has a clear purpose; to determine whether factors identified by qualitative research on school effectiveness can explain the effectiveness of charter schools better than traditional measures of school quality (for example class size and teachers' qualifications). The five factors investigated are: frequent teacher feedback, data driven instruction, high-dosage tutoring, increased instructional time, and a relentless focus on academic achievement.

Their results do not find an association between traditional measures of school quality (such as class size, resources per pupil, and teachers' qualifications) and school effectiveness. In contrast, however, the five factors outlined above have a strong and significant positive relationship with school effectiveness; indeed, an index combining all five measures explains around one half of the variation of school effectiveness for charter schools in New York City. In contrast to Angrist et al (2011), Dobbie and Fryer find that a schools' status as No Excuses is not an important predictor of school effectiveness once the additional information they have collected is accounted for.

The authors note that the relationships observed between characteristics such as frequent teacher feedback and data driven instruction and school effectiveness are not causal, however; unobserved factors (such as headteacher ability or parental involvement) may drive the correlation. With this in mind, the authors stress that an important next step is to inject the strategies that they have found to be important predictors of school effectiveness into traditional public schools, and assess whether they have a causal impact on pupil attainment.

### 3.2 The effectiveness of education policy

Machin, S., McNally, S. (2011) **The Evaluation of English Education Policies**, CEE Discussion Paper,

Paper No. CEEDP0131: [Read Abstract](#) | [Full paper](#)

The first paper by Machin and McNally (2011) presents a broad sweep of evidence, concluding that the additional resources allocated to education in recent decades has had a positive impact on pupil achievement, particularly for the most disadvantaged students. On the other hand, Machin and McNally also conclude that the introduction of parental choice into the English school system, and the attempt to introduce more competition, has not had a big impact on pupil achievement nor has it narrowed the socio-economic gap in achievement. They suggest this may be because schools lack the autonomy to make the necessary changes to raise standards and compete. To

this end they consider the evidence on the effectiveness of more autonomous schools, such as Academies, and conclude that the earliest Academies at least have been performing at a higher level than similar schools and further they have had a positive impact on the schools around them (see also our summary of the evidence on the importance of school autonomy later in this Digest).

---

Kane, T., Taylor, E., Tyler, J. and Wooten, A. (2011) **Identifying effective classroom practices using student achievement data**, Journal of Human Resources, Vol. 46, No. 3, pp. 587-613

[http://www.gse.harvard.edu/ncte/resources/publications/Identifying\\_Effective\\_Classroom\\_Practices\\_-\\_Kane\\_Taylor\\_Tyler\\_Wooten.pdf](http://www.gse.harvard.edu/ncte/resources/publications/Identifying_Effective_Classroom_Practices_-_Kane_Taylor_Tyler_Wooten.pdf)

A third paper by Kane et al. (2011) examines the link between teachers' classroom practices and pupil achievement. The data used for this study are from Ohio and are for 8 to 14 year olds. The study was able to control for teacher proficiency in teaching techniques and investigated the impact of specific practices, such as teachers' questioning technique, response to poor behaviour etc. Teachers were judged on a scale of quality of classroom practice and the authors found that having higher quality classroom practice was associated with improved pupil achievement in both reading and mathematics, though the effect was larger for reading. The magnitude of the effects was such that having a teacher in the top quartile of the quality distribution (in terms of their classroom practice) was associated with a 3 percentage point improvement in English test scores and a 2 percentage point increase in performance in mathematics test scores. The study suggested that classroom management skills appeared more important in mathematics and good management of questioning and discussion was more important in English.

---

Muralidharan K. and Sundararaman V. (2011), **Teacher Performance Pay: Experimental Evidence from India**, The Journal of Political Economy, Vol. 119, pp. 39-77

Muralidharan and Sundararaman (2011) evaluate a performance-pay scheme for teachers in India using a randomised control trial. They randomly select schools in south eastern India and administer tests of maths, language, science and social studies. At "treated" schools they introduce an incentive scheme which pays teachers a bonus dependent on the increase in their pupils' average test performance in language and maths. They compare the results to a control group. They examine 3 further (randomly assigned) groups: 1) schools where the incentive scheme for teachers is based on whole school performance; 2) schools that are given more inputs in terms of an extra teacher; 3) schools that are given more inputs in terms of additional school materials.

They find that, relative to no treatment, the "individual teacher" incentive structure (paying for results) increases maths and language results by 0.27 and 0.17 standard deviations respectively. The "whole school" bonus scheme also has significantly

positive effects, but they are smaller than those for the “individual teacher” bonus scheme. They do not find a negative impact on other academic subjects that were not incentivised, but find persistent improvements over two years, and evidence of increases at all levels of baseline ability. They also find increases in both “mechanical” and “conceptual” test scores (designed to capture cognitive skills). The authors argue that, compared to increasing school inputs, teachers’ performance pay is extremely cost effective, and that it is possible to design simple, cheap and transparent performance pay structures that increase pupil attainment without negative side effects.

---

Fryer, R.G. (2011) **Financial Incentives and Student Achievement: Evidence from Randomised Trials.**

<http://qje.oxfordjournals.org/content/126/4/1755.full.pdf+html?etoc>

This is a survey of some US school experiments that have used pupil financial incentives to try to improve educational achievement. The incentives include paying students for reading and for performance in tests and at school. The survey found no statistically significant effects and therefore provided no evidence in support of using pupil financial incentives in schools.

---

Jerrim, J. (2011) **England’s “plummeting” PISA test scores between 2000 and 2009: Is the performance of our secondary school pupils really in relative decline?**, Institute of Education.

It has been widely cited by educational policymakers that over the last decade England’s performance on international achievement tests (such as PISA) has declined rapidly in comparison to its international competitors. A paper by John Jerrim, at the Institute of Education, examines this claim in detail, using the PISA and TIMSS datasets (Jerrim 2011). The author discusses the strengths and limitations of both datasets for examining change over time. The results of the PISA and TIMSS studies differ in that they show different patterns of change over time and the author concludes that government policy should not be based on the assumption that the performance of England’s secondary school pupils has declined (relative to that of its international competitors) over the past decade.

---

Chetty, R., Friedman, J.N., Hilger, N., Saez, E., Schanzenback, D.W. and Yagan, D. (2011) **How Does Your Kindergarten Classroom Affect Your Earnings? Evidence from Project Star**, Harvard University,

<http://obs.rc.fas.harvard.edu/chetty/STAR.pdf>

Project Star, also known as the Tennessee Class size experiment, has long been cited as a prime example of a random control trial in education. In this experiment, nearly 12,000 pupils in Tennessee (and their teachers) were randomly assigned to small or medium class sizes. Initial results found that these smaller class sizes

resulted in improved cognitive achievement in primary school. Chetty et al. (2011) have returned to the Project Star participants and determined whether there are measurable impacts from the reduced class sizes they experienced on longer term outcomes, such as earnings. They track the Project Star participants via administrative data records and find that having a smaller class in kindergarten (reception) up to year 3 is not associated with having higher earnings at age 27 (though the standard errors of the estimate were large). Project Star participants who had smaller class sizes did however, have a higher probability of going to university, were more likely to own their own home and had more savings. The team also found that although smaller classes did not lead to higher earnings later in life, having a more experienced teacher in the early years **was** associated with higher earnings at age 27. They also found clear evidence that peer groups matter. Students assigned to classes with higher achieving peers had better outcomes at age 27. The robustness of the underlying experiment means that this is powerful evidence though we need to be mindful that tracking individuals is difficult and therefore those who were not traceable may have had worse outcomes than those who were.

### 3.3 The role of non-cognitive skills

A number of recent papers have investigated both the formation of non-cognitive skills and the value of non-cognitive skills in the labour market.

Anger, Silke, (2011) **The Intergenerational Transmission of Cognitive and Non-Cognitive Skills During Adolescence and Young Adulthood**. IZA Discussion Paper No. 5749.

Available at SSRN: <http://ssrn.com/abstract=1863071>

Anger (2011) assesses the inter-generational transmission of a variety of non-cognitive personality traits (Big Five, locus of control) and cognitive skills (including forms of intelligence) using German data. They found clear evidence of an inter-generational transmission of both cognitive and non-cognitive skills but the transmission of non-cognitive skills was somewhat weaker. This implies that the family component may be less important in determining non-cognitive skills and hence policy might more usefully focus on improving young people's non-cognitive skills. The paper also found that this inter-generational transmission was not strongly influenced by the family's socio-economic circumstances.

---

Peter, Frauke and Spiess, C. Katharina, **The Bigger the Children, the Bigger the Worries – Are Preschoolers and Adolescents Affected Differently by Family Instability with Regard to Non-Cognitive Skills?** (March 13, 2011). SOEPpaper No. 367. Available at SSRN: <http://ssrn.com/abstract=1792614>

In related work, also using German data, Frauke and Spiess (2011) investigated the impact of family structure and relationship breakdown on non-cognitive skill development in adolescence. They found that adolescents who experienced fewer

partnership transitions in early childhood had better non-cognitive skills, specifically they were more active and self-determined in life.

---

Sanson, A., Smart, D. and Misson, S. (2011), **Children's socio-emotional, physical, and cognitive outcomes: Do they share the same drivers?**. Australian Journal of Psychology, 63: 56–74. doi: 10.1111/j.1742-9536.2011.00007.x

<http://onlinelibrary.wiley.com/doi/10.1111/j.1742-9536.2011.00007.x/full>

A psychological paper from Sanson et al. builds on previous work (Guo et al. 2000; Kiernan and Huerta 2008; Schoon et al. 2010) to look at the development of non cognitive and cognitive skills. It provides an Australian perspective, showing that there are common drivers (similar risk factors) that are associated with a range of adjustment problems in children (cognitive, emotional, behavioural adjustment). However, policy makers should be aware that there are specific risk effects associated with different types of skill formation, insofar that family socio-economic factors are more strongly associated with cognitive outcomes, while family structure and family stress are more strongly linked to behaviour and socio-emotional outcomes. However, since problems often co-occur across domains, it is important to address the common risk factors: family demographic and structural characteristics, family and maternal functioning (depression etc) and area characteristics.

---

Coneus, K., Laucht, M. (2011) **The effect of early noncognitive skills on social outcomes in adolescence**. Education Economics.

<http://www.tandfonline.com/doi/abs/10.1080/09645292.2010.547720>

Deborah A. Cobb-Clark, Michelle Tan, **Non-cognitive skills, occupational attainment, and relative wages**, Labour Economics, Volume 18, Issue 1, January 2011, Pages 1-13, ISSN 0927-5371, 10.1016/j.labeco.2010.07.003.

In terms of the impact of non-cognitive skills on outcomes, Coneus and Laucht (2011) found clear evidence using German data, of the impact of non-cognitive skills, particularly attention span, on a range of adolescent outcomes, including education achievement, risky behaviour and delinquency. Such non-cognitive skills were found to be particularly important for boys. However, Cobb-Clark and Tan (2011) found that non-cognitive skills were actually more important for women in terms of securing a wage advantage in the labour market. Their study did confirm that non-cognitive skills were important in terms of determining individuals' occupations.

- **Additional useful references on skill formation**

Guo, G., & Harris, K. M. (2000). The mechanisms mediating the effects of poverty on children's intellectual development. *Demography*, 37(4), 431-447.

Kiernan, K. E., & Huerta, M. C. (2008). Economic deprivation, maternal depression, parenting and children's cognitive and emotional development in early childhood. *British Journal of Sociology*, 59(4), 783-806.

Schoon, I., Hope, S., Ross, A. & Duckworth, K. (2010). Family hardship and children's development: the early years. *Longitudinal and Life Course Studies*, 1(3), pp. 209-222.

### 3.4 Schooling and labour market transitions

Rice, Patricia (2010) **Minimum wages and schooling: evidence from the UK's introduction of a national minimum wage**. SERC Discussion Papers, Spatial Economics Research Centre (SERC), LSE

This paper examines the impact of the introduction of the National Minimum Wage (NMW) for 18-21 year olds on young people's education participation decisions. The author uses data from the Youth Cohort Study for a sample of young people who completed compulsory schooling in 1996-97. These young people would have been in Year 13 (aged 17/18) when the NMW was introduced on 1st April 1999. At this time, some would have been 17 years old (i.e. not eligible for the NMW) but some would have been 18 years old (i.e. eligible for the NMW). The author's identification strategy is to compare the change in outcomes over time amongst those aged 18 (the 'treatment' group) with the change in outcomes over time for those aged 17 (the 'control' group).

She starts by estimating the impact of the NMW for the cohort as a whole. In this specification, education participation did not appear to be affected by the introduction of the NMW. However, it seems plausible that the impact of the NMW might depend upon its 'bite', i.e. the extent to which it increased earnings upon introduction: we might expect the NMW to bite more in areas with lots of 18-21 year olds earning below the minimum wage than in areas with very few 18-21 year olds earning below the NMW. Once the impact of the NMW is allowed to vary by 'bite', the author finds statistically significant effects, with eligibility for the NMW found to significantly reduce the probability of enrolment in schooling for young people living in low-wage areas (where the bite is high). The methodology used means that it is difficult to translate these estimates into percentage point impacts, but she did find that the estimated effect was negative in around 60 percent of local areas in England and Wales, which covered almost 70 percent of the cohort.

In terms of policy implications, the paper presents evidence that the impact of the NMW depends crucially on the level of local wages faced by young people. While the average impact across the UK might have been insignificant, the high level of the NMW relative to unskilled wages in some areas had detrimental effects on education participation not long after its introduction. Note however, that previous work from the Low Pay Commission has not found a strong relationship between the minimum wage and education participation decisions.

Jerrim, J. (2011) **The wage expectations of UK students: are they realistic?**, *Fiscal Studies*, 32(4), 483-509.

This paper investigates whether the wage expectations of British University students are in line with the actually salary obtained by graduates in the labour market. It does this by comparing UK undergraduate students' wage expectations with the actual wages earned by the same cohort on graduation, after attempting to correct for statistical issues arising from the difficulty of comparing similar graduates. The author finds that students tend to overestimate (on average) the pay they will receive in their first job upon graduation. This is particularly true for first year students, those studying an arts or humanities course, or enrolled in a post-1992 institution. The wage expectations of university students have relevance for human capital theory, models of student enrolment, and public policy on the provision of higher education. However, these expectations have been the subject of relatively little research in European countries, with no contemporary evidence available in the UK and this paper therefore makes a useful contribution to this issue.

## 4 Risky behaviours and positive attitudes

---

This theme is concerned with a variety of behaviours and activities that can potentially lead either to unfavourable or indeed enhanced outcomes for young people.

### 4.1 Engagement in crime

Deming D. (2011), **Better Schools, Less Crime?**, The Quarterly Journal of Economics, Vol.126, pp. 2063-2115

Deming (2011) examines the impact of attending a better school on criminal activity by adolescents in Charlotte, North Carolina. He exploits the fact that, in 2002, the city introduced school choice, in which pupils can apply to attend schools out of their neighbourhood and places are allocated using a lottery system. The author then compares those who were offered a place at their first choice school in the lottery with those who were not. He focuses entirely on males, and has data on all arrests made (for people aged 16 and over) in the county, which he matched to individuals' school records and incarceration. Since most individuals commit no crime at all, he looks primarily at "high risk" individuals, who are identified as such based on their test scores, neighbourhood and demographics.

He estimates that the effect of "winning" the school lottery is to move from one of the worst schools to a school of average quality, as measured by a range of teacher, school and peer variables. Using various measures of crime (including arrests, incarceration and the social cost of crime), getting into your first choice school causes a persistent reduction in crime. This fall is mainly driven by reductions in violent and serious crimes, especially at ages 18 and 19. Winning the school lottery reduces crime committed among high risk male adolescents by up to 50% when weighting for the severity of crime. The mechanism through which these reductions in crime occur is unclear, but there is some evidence that it is the result of better peers and higher school quality increasing the return to staying on in high school.

---

Carol McNaughton Nicholls, Rachel Kinsella & Nicola Cleghorn (NatCen), **Responding to youth crime and antisocial behaviour: Young people's perspectives on the criminal justice system**, NatCen.

The Police Foundation and NatCen were awarded grant support from the Paul Hamlyn Foundation's Social Justice Programme for an engagement project with young people who have experience of the youth justice system as witnesses, victims or perpetrators of crime. The engagement process consisted of two stages of research, interviewing 21 young people and 4 deliberative focus groups, and a series of workshops that brought young people together with members of the Commission to discuss their views. Key findings include an over-all lack of trust in the police and that attending court is not necessarily a deterrent that would prevent young people from committing an offence. Restorative forms of justice were favoured by the young



people throughout the research. The insights obtained through the project were used to contribute to proposals for reforming the way society responds to youth offending, developed by the Independent Commission on Youth Crime and Antisocial behaviour ('the Commission').

Their recommendations can be found at: <http://www.youthcrimecommission.org.uk>.

## 4.2 Alcohol and smoking

Crost B. and Guerrero S. (2011), **The effect of alcohol availability on marijuana use: Evidence from the minimum legal drinking age**; *Journal of Health Economics* (January 2012)

Crost and Guerrero (2011) estimate the effect of the minimum legal drinking age on cannabis consumption. They use self reported survey data from the USA which asks whether the individual has consumed the drug (alcohol or cannabis) in the last 30 days, and on how many of those days they consumed the drug. This allows the authors to look at both "participation" and "frequency" of consumption using a "Regression Discontinuity" design, which allows them to compare consumption just before and just after turning 21 (the minimum drinking age in America).

They find that turning 21 increases alcohol consumption and decreases cannabis consumption, with effects on both participation and frequency. The effects are weaker for cannabis, although turning 21 is associated with a 2 percentage point decrease in the probability of smoking cannabis, from a baseline of 20%, and a reduction of 0.3 days per month smoking cannabis from 2.3 days per month. They find that the effects are larger for women and are robust to various specifications. They calculate that the elasticity of substitution between the frequency of cannabis and alcohol use is 0.4. They therefore conclude that, when setting minimum drinking age laws, substitution effects towards other drugs should be taken into account.

---

Nonnemaker, J. and Farrelly, M. (2011), **Smoking initiation among youth: The role of cigarette excise taxes and prices by race/ethnicity and gender**", *Journal of Health Economics*, Vol. 30, pp. 560–567

There is limited evidence on the relationship between the cost of cigarettes and youth smoking habits. This paper considers the role of cigarette excise taxes and prices as significant determinants of youth smoking initiation. Specifically the paper examines the role of cigarette taxes and prices on the age at which young people start smoking using US data from the National Longitudinal Survey of Youth 1997 cohort. We present results overall and by gender, race/ethnicity, and gender by race/ethnicity. They find that cigarette taxes do act as a deterrent to smoking though the effects are not large, with the strongest effect for young black people. However, the impact of higher cigarette prices more generally is stronger, again particularly for black youth. Hence this paper suggests that cigarette pricing and tax policy can influence when/if young people start smoking.

### 4.3 Health outcomes

Anderson, P., K. Butcher, E. Cascio and D. Whitmore Schanzenback (2011), **Is Being in School Better? The Impact of School on Children's BMI When Starting Age is Endogenous**, NBER Working Paper No. 16673

This paper exploits differences in the age when children start school to determine whether attending school for longer impacts on body weight and obesity. This is a similar methodology to that used by Dearden and colleagues for the UK when they examined the impact of starting school at different ages on academic outcomes. Whilst this previous research has suggested that those children who start school earlier have better cognitive outcomes, Anderson et al. find that children starting school earlier have greater BMI and a higher probability of being overweight or obese. This of course might reflect that children who have higher BMI have parents who are more likely to choose for them to start school at the earliest possible time, for example if mothers are working. Hence the relationship is not necessarily causal. When the authors use instrumental variable methods to determine a causal relationship they find no significant relationship between age starting school and BMI except for pupils who eat school lunches. Children eating school lunch have a significantly higher risk of being overweight.

### 4.4 Teen parents

Monstad, K., C. Propper and K. Salvanes (2011), **Is Teenage Motherhood Contagious? Evidence from a Natural Experiment**, CMPO Working Paper No. 11/262

This paper explores the relationship between peers and becoming a teenage parent, asking whether teenagers may be influenced in their fertility decisions by the fertility decisions of their older siblings. They do this by estimating the impact of an older sister's fertility and age of parenthood on the younger sister's fertility decisions. They use a quasi-experimental approach based on education reform that impacted directly on the older sister's teenage fertility and thus this evidence can be considered causal. They conclude that indeed teenage pregnancy can be "contagious" in the sense that having an older sister who has a teen pregnancy substantially increases a younger sister's chance of having a teen pregnancy. This was particularly true when sisters are close in age and the family is poor. This study has clear implications for targeting and counselling families at risk of teen pregnancy.

---

Girma, S. and D. Paton (2011), **The impact of emergency birth control on teen pregnancy and STIs**, *Journal of Health Economics*, Vol. 30, pp. 373–380

This paper examines the relationship between access to emergency birth control and teen pregnancy and sexually transmitted diseases. The paper uses panel data from local authorities in England between 1998 and 2004. They use a variety of robust methodologies that exploit changes over time, including both difference-in-difference and difference-in-difference-in-differences models. The evidence can therefore be

considered causal. The results indicate that schemes to facilitate access to emergency birth control via pharmacies are associated with higher rates of sexually transmitted disease amongst teenagers. The evidence on the impact of emergency birth control schemes on conception rates was weaker.

#### 4.5 New data on adolescents

NatCen, University of Mannheim, University of Oxford, University of Stockholm, University of Tilburg and University of Utrecht (2011), **Youth in Europe Study**, <http://www.natcen.ac.uk/study/youth-in-europe-study-yes>

The Youth in Europe Study is a longitudinal cross national study which is taking place in England, Germany, the Netherlands and Sweden. Young people were selected for the first wave of the study through schools when they were aged 14/15 (Year 10) in the 2010/11 academic year and will be contacted again one and two years later. The study aims to find out about young peoples' social relationships, attitudes to school, participation in cultural and leisure activities and will allow researchers to look at changes in integration, mixing and relationships as participants make the transition into young adulthood. First findings from wave 1 will be available shortly.

## 6 Disadvantaged and vulnerable groups

---

For some groups of children, the pressures on their lives stemming from within their family, their peers, or the wider community will increase the chances of taking part in risky behaviours. This theme focuses on the education achievement and transitions made by these groups of students.

### 6.1 Low SES students

Jerrim, J. and Vignoles, A. (2011) **Social mobility, regression to the mean and the cognitive development of high ability children from disadvantaged homes**, Institute of Education.

Social mobility has emerged as one of the key academic and political topics in Britain over the last decade. Although economists and sociologists disagree on whether mobility has increased or decreased, and if this is a bigger issue in the UK than other developed countries, both groups recognise that education and skill plays a key role in explaining intergenerational persistence. This has led academics from various disciplines to investigate how rates of cognitive development may vary between children from rich and poor backgrounds. A number of key studies have definitively shown that a gap in cognitive skill between richer and poorer children is evident from a very early age. This paper investigates a related claim that initially able children from disadvantaged backgrounds are overtaken by their affluent but less able peers before the start of secondary school. The authors discuss the methodological challenges in examining this topic, focusing upon the widely documented (but commonly miss-understood) problem of regression to the mean (RTM). Jerrim and Vignoles conclude that, due to methodological difficulties, there is currently little statistically robust evidence to support the claim that high ability low SES children are overtaken by their low ability high SES peers. The analysis also suggests that there are serious methodological problems plaguing the existing literature.

---

Wilson, J. (2011), **Are England's Academies More Inclusive or More 'Exclusive'? The Impact of Institutional Change on the Pupil Profile of Schools**, CEE Discussion Paper 125

In 2002 the former Labour government launched the Academies Programme of school improvement. This scheme has targeted entrenched issues of pupil underachievement within state secondary schools located in deprived areas, by enabling private sponsors to run the renewed schools and by granting Academies independence from local authority control. A total of 203 institutions were established by the end of Labour's time in power (April 2010). This paper considers the efficacy of the scheme in delivering on an objective determined at its inception – that requiring Academies to feature a more inclusive and mixed-ability background of pupils. Administrative information in the National Pupil Database is combined with school-level data to assess how the academic quality and composition of pupils entering

year 7 of Academies and how their whole school composition has compared to those in predecessor and non-Academy schools. Difference-in-differences regression analysis is applied to a sample of 33 Academies and 326 control schools over the period 1997-2007. Findings reveal an immediate boost to the prior achievement of the pupil intake in Academies once the policy came into effect and a fall in the proportion of pupils with weaker prior achievement. The sampled Academies have also taken in fewer pupils from underprivileged backgrounds. Thus Academies have actually featured a more 'exclusive' pupil profile. The Coalition government – formed since May 2010 – has extended the policy to allow all state schools to become Academies. Newer Academies, like the original ones, may adapt their admissions in a performance-favouring way, implying a worsening of educational opportunity under both policy versions.

---

Barnes, M., S. Butt and W. Tomaszewski (2010) The Duration of Bad Housing and Living Standards of Children in Britain, *Housing Studies*, 26,1: 155-176.

Whilst the presence of a link between bad housing and children's and young people's outcomes has been acknowledged in a number of studies, there is little evidence on how long people live in bad housing for, and whether the duration of living in bad housing is associated with other poor outcomes for children and young people. This research uses five waves of data from the Families and Children Study, a representative longitudinal study of families with children in Britain, to show that the longer children and young people live in bad housing the more vulnerable they are to a range of other poor outcomes.

---

Paul Oroyemi (Cabinet Office), Giacomo Damioli (University of Essex), Matt Barnes (NatCen) and Tim Crosier (Cabinet Office) / Linda Cusworth, Jonathan Bradshaw, Bob Coles, Antonia Keung and Yekatarina Chzhen (University of York), *Social exclusion among families with children / youth and young adulthood*.

Understanding how different disadvantages cluster among vulnerable families, and the types of families most at risk, can assist public services to better target and prioritise their services. This project uses secondary analysis of large social surveys to understand the combinations of disadvantages that households face and to identify the types of households most at risk of social exclusion. Eighteen indicators of disadvantage are constructed from the data, ranging from income poverty to lack of social contact to overcrowded accommodation. The report concludes that social exclusion is about more than income poverty and encompasses a range of linked problems, particularly unemployment, discrimination, poor skills, low incomes, poor housing, high crime and family breakdown. Certainly these problems are linked and indeed dynamically changing over time. Around 45% of families with children experienced multiple risks (in 2006). A very small minority (less than 2%) experienced more than 10 risks. Children from the most at risk families experienced lower levels of well-being. The key factors associated with multiple risks were lone

parenthood, large family size, young mothers, mothers from Black ethnic groups, social tenants and those living in urban areas.

## 6.2 Pupils with Special Educational Needs

Keslair, F., Maurin, E., McNally, S. (2011) **An Evaluation of “Special Educational Needs” Programmes in England**, CEE discussion paper, Paper No' CEEDP0129: [Read Abstract](#) | [Full paper](#)

Keslair, Maurin and McNally (2011) undertake an evaluation of one particular policy, namely the system of support for children with moderate (non-statemented) special educational needs in England. They conclude that there is no evidence that the SEN system in place to support children with moderate special educational needs actually improves children's achievement, as measured by key stage tests.

---

Crawford, C. and A. Vignoles (2010), **An analysis of the educational progress of children with special educational needs**, DoQSS Working Paper No. 10-19

One in five children in England are recorded as having some kind of special educational need, meaning that they receive additional help in school; yet there is very little evidence of the effect of such assistance on pupil's academic progress. This is at least partly because it is usually very difficult to define an appropriate control group for pupils with special educational needs. To overcome this issue, we make use of extremely rich data from the Avon Longitudinal Study of Parents and Children to assess the academic progress of pupils between Key Stages 1 and 2 (ages 7 and 11). Specifically, we compare the progress of children who have been formally identified by the SEN system as having non-statemented (less severe) needs with the progress of children who do not have SEN label, but whose class teacher reports that they exhibit behaviour which suggests that they might have special educational needs. Our results suggest that, despite a very similar control group, pupils with a SEN label still score about 0.3 standard deviations lower at Key Stage 2 than otherwise identical pupils without a SEN label. This is perhaps not an entirely unexpected result, given that there is no compulsion in the system for non-statemented SEN funding to be spent on children with special educational needs and in any case additional resources may not close the gap completely. Nonetheless, such a result clearly has significant policy implications: schools are provided with resources to help children with special educational needs and if these resources are not improving academic outcomes for these children, then this should be of concern to both parents and policymakers alike.

## 6.3 Teen mothers and their children

Louise Marryat, Claudia Martin, Martine Miller, Rachel Ormston (ScotCen) and Jacki Gordon (Jacki Gordon & Associates), **Evaluation of the Family Nurse Partnership Pilot in Scotland**

The evaluation explores the implementation of the Family Nurse Partnership (FNP) in Scotland. The FNP is a programme for first-time teenage mothers and their children and involves intensive home visits from a specially trained nurse, from pregnancy through to the child's second birthday. The programme aims to improve the outcomes for mothers and children in a range of areas, from improving health and development, reducing child injury and abuse, to promoting economic self efficacy for families. The linked report looks at implementation in the intake and early pregnancy stages of the programme. Data was collected from clients (teenage mothers) in the programme, as well as from a 'significant person' nominated by the client, Family Nurses and stakeholders. Early results indicate that the programme achieved a high degree of fidelity to the design of the intervention, in terms of its implementation. Those receiving the programme also had a high degree of acceptance of it and indeed placed a high value on the FNP support they received. Evidence on impact is not yet available.