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### Career success:

The role of teenage career aspirations, ambition value and gender in predicting adult social status and earnings

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Abstract

Links between family social background, teenage career aspirations, educational performance and adult social status attainment are well documented. Using a contextual developmental framework, this paper extends previous research by examining the role of gender and teenage ambition value in shaping social status and income attainment in adulthood. Drawing on data from an 18 year British follow up study we tested a path model linking family background factors (such as family social status and parental aspirations) and individual agency factors in adolescence (in particular, career aspirations and ambition value) to social status attainment and earnings in adulthood. The findings suggest that ambition value is linked to adult earnings. That is, young people for whom it is important to get on in their job earn more money in adulthood than their less ambitious peers. The findings also confirm that teenage career aspirations are linked to adult social status attainment, and suggest that family background factors, teenage aspirations and ambition value interact to influence social status attainment and earnings in adulthood. Gender differences are discussed.

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The link between teenage career aspirations and adult career attainment has been established in previous research (e.g., Clausen, 1995; Croll, 2008; Elder, 1974/1999; Mello, 2008; Schoon, Martin, & Ross, 2007; Schoon & Parsons, 2002). Young people with high career aspirations are more likely to enter a professional career in adulthood. There is also evidence to suggest that teenage career aspirations are linked to values regarding future jobs and career development (Eccles, 2009; Eccles, Barber, & Jozefowicz, 1999). For example, the value that teenagers' attach to success and impressing people (referred to as achievement value, see Schwartz, 2005) has been shown to be associated with wanting to do better than others in school (e.g., Liem & Nie, 2008).

However, there appears to be a lack of research linking the values expressed during adolescence to adult outcomes. The aim of this paper is to close this evidence gap and to examine the association between teenage career aspirations and ambition value, and adult career outcomes. It is important to clarify what we mean by the terms career aspirations and ambition value. The terms expectations, aspirations and ambitions are often used interchangeably, yet operationalised in different ways (e.g., see Croll, 2008; Scheider & Stevenson, 1999; Spenner & Featherman, 1978).

Whilst expectations describe what one *thinks* will happen, aspirations capture what one would *like* to happen. Although adolescents' educational and occupational aspirations are likely to be more realistic than young children's, expectations and aspirations are not always aligned (Ritchie, Flouri & Buchanan, 2004). To tap into "realistic" career aspirations a combined measure is used, which takes account of realistic and ideal career choices.

On the other hand, our measure of ambition value captures the importance adolescents attach to having a job that enables them to be challenged, be promoted and get ahead. This

understanding fits with Desrochers and Dahir's (2000) Career Advancement Ambition Scale. The scale measures ambition through the importance that adults attach to being successful and moving up in their organisation and chosen profession. Similarly, Hyvönen, Feldt, Salmela-Aro, Kinnunen and Mäkikangas (2009) classified young managers' career goals to "progress in the hierarchy to the next level" or "progress to more challenging duties" as progression orientated.

In light of the current economic recession and increasing competition for jobs, a focus on whether teenage career ambitions (as well as aspirations) play a role in shaping career development is instructive. It is also timely given recent policy and government discussions encouraging young people to "aim high" (e.g., DCSF, 2010).

This paper will also explore gender differences in the processes that lead to the formulation and realisation of teenage career aspirations and ambition value. Despite the fact that women have gained much in terms of educational attainment over the last decades (Buchmann & DiPrete, 2006), there are persisting gender inequalities in the labour market and the occupational opportunities for women still lag much behind those of men.

Proportionately fewer women than men rise to the top of their professions (Joshi & Paci, 1998; Moen, 2001; Scott, Dex, Joshi, Purcell & Elias, 2008), and men continue to earn higher salaries than women in equivalent occupations (Freeman, 2004; Harris, 2008; ONS, 2009a).

It has been argued that men and women have different preferences relating to occupational choice, suggesting that females choose less prestigious positions in the labour market (Arbona, 1991; Herzog, 1982; Raffaele Mendez & Crawford, 2002; Shapka, Domene, & Keating, 2006) and place greater value on jobs that help them to fit in family role plans (e.g. see, Eccles, 2007; Frome, Alfeld, Eccles, & Barber, 2006). In contrast, males have shown to place more value than females on making money, seeking out challenging tasks, and work that involves mathematics and computers (e.g., Eccles, 2007; Eccles, Barber &

Jozefowicz, 1999; Ruble & Martin, 1998). Correll (2001) suggests that these differences in job preferences and aspirations stem from cultural beliefs about gender, which differentially shape males' and females' perceptions of their own competence at career-relevant tasks.

Gender-typical job preferences are one possible explanation as to why women do not receive the same rewards as men for their accomplishments in terms of earnings and career progression (e.g., Hakim, 2000,). Females' lower levels of competitiveness in winner-take-all environments (e.g., Dreber, von Essen & Ranehill, 2009; Gneezy, Niederle, & Rustichini, 2003; Gneezy & Rustichini 2004; Hakim, 2006; Niederle & Vesterlund, 2007) and lower levels of aspirations and ambition (e.g., Fels, 2004; Reis, 1991, Paton, 2006; van Vianen & Keizer, 1996; van Vianen & Fischer, 2002) have also been offered as explanations for mens' greater professional success.

However, evidence from more recent studies suggests that despite gender-typical job choices and the fact that society often links the manager role to men (Heilman Block, & Martell, 1995; Richway & Correll, 2004) teenage girls are at least as likely, if not more so, than teenage boys to aspire to a professional or managerial job requiring academic qualifications (Francis, 2002; Mello, 2008; Schoon, 2006; Schoon, Martin, & Ross, 2007). In line with these findings, a US study with under 29 year olds revealed that working women were just as eager as men to move up the career ladder (Galinsky, Aumann & Bond, 2008). *A contextual developmental approach* 

Based on assumptions formulated within a developmental contextual framework (Bronfenbrenner, 1979; Schoon, 2006; Vondracek, Lerner, & Schulenberg, 1986) we test a model specifying the pathways linking family socioeconomic background factors, parental educational aspirations, teenage career aspirations, teenage ambition value and educational performance to adult social status attainment and earnings. The model enables us to examine both the role of individual agency and its embeddedness in a wider social context, offering a

gender sensitive approach (Schoon et al., 2007). It recognises that the effects of socioeconomic origin can be mediated through individual factors (such as individual aspirations), which, in turn, are associated with educational achievement and subsequent positions on the occupational ladder (Campbell, 1983; Duncan, Featherman, & Duncan, 1972; Featherman & Hauser, 1978; Sewell, Haller, & Ohlendorf, 1970).

Figure 1 gives a diagrammatic depiction of the model to be tested. In depicting the model the usual structural equation modelling conventions are used (Bollen, 1989), with latent variables shown as a circle and manifest variables in rectangles. Single headed arrows represent causal influences. Unique and error variance for each manifest variable and disturbance on the latent variables are included in the model (not shown in the diagram).

According to socialisation theories young people from more privileged homes have more educational opportunities, greater access to financial resources, role models, occupational knowledge, and informal networks (Erikson & Jonsson, 1996; Schoon et al., 2007; Schoon & Parsons, 2002). It is therefore hypothesised that parents from privileged social backgrounds will have higher incomes and educational aspirations for their child (Erikson & Jonsson, 1996; Schoon & Parsons, 2002; Sewell & Shah, 1968; Vondracek et al., 1986). It is assumed that teenage career aspirations, ambition value and educational performance at age 16 are associated, and that they increase with family income (e.g., see Crockett & Bingham, 2000; Mau & Bikos, 2000; Teachman & Paasch, 1998). Also, an association between parents' educational aspirations for their children and the career aspirations, ambitions, and educational performance of their children is predicted (De Civita, Pagani, Vitaro & Tremblay, 2004; Erikson & Jonsson, 1996; Schoon et al., 2007; Schoon & Parsons, 2002; Pizzolato & Slatton, 2007).

We also predict a direct association between (a) family social background during adolescence and adult social status attainment, and (b) family income during adolescence and

own adult earnings (Blau & Duncan, 1967; Oden, 1968; Sewell, Haller, & Ohlendorf, 1970; Zuckerman, 1977). A positive association between social status attainment and earnings is also expected (e.g., see McClendon, 1976). It is assumed that individual agency, although influenced by family background factors, also has an independent impact on shaping subsequent social status attainment. Therefore direct links between teenage career aspirations, educational performance at age 16, and adult social status attainment and earnings are predicted (e.g., Clausen, 1995; Croll, 2008; Elder, 1974/1999; Mello, 2008; Hakim, 2006; Schoon et al., 2007; Schoon & Parsons, 2002). We also hypothesise that teenage ambition value (i.e., the importance placed on getting ahead, being promoted and being challenged) will be positively related to educational performance at age 16, teenage career aspirations, adult social status attainment and earnings.

Eccles et al. (1999) found that the values attached to relevant job characteristics were significant predictors of teenage career aspirations. For example, valuing helping others predicted teenager's plans to enter either human service or health related professions. In contrast, valuing occupational prestige predicted not aspiring to a human service occupation. These findings lend support to our hypothesis that teenagers for whom it is important to have a job that enables them to get ahead will also aspire to enter a professional or managerial career.

Nurmi, Salmela-Aro & Petri Koivisto's (2002) found that the more the young adults emphasised the importance of work-related goals, the more likely they were to find a job commensurate with their education, and the less likely they were to be unemployed after graduation. This finding provides tentative support for our hypothesis that ambitious teenagers will be more likely to find a professional job, and earn more in adulthood.

#### Method

This paper used data collected for the 1970 British Cohort Study (BCS70), which is a

continuing longitudinal study following children born in a week of April 1970. Data collection sweeps have taken place at ages 5, 10, 16, 26, 30 and 34 years. The data used in this analysis was collected at birth, at age 16, and at age 34. Although missing data due to survey loss and incomplete response is a problem (especially in analyses drawing on multiple sweeps of data collection), bias due to attrition of the whole BCS70 sample during childhood has been shown to be minimal (Butler, Despotidou, & Shepherd, 1997). The cohort has maintained its characteristics despite a disproportionate loss of the most disadvantaged cohort members, and a slight tendency for more women than men to continue with the survey (Plewis, Calderwood, Hawkes & Nathan, 2004).

The 16 year follow up survey took place during a teachers' strike meaning that many cohort members did receive questionnaires. Despite the relatively low response rate, all children were affected in the same way and the demographic characteristics of the sample at 16 remained representative of the target population (Shepherd, 1997). Potential bias due to missing variable information is addressed in the section on estimating the model.

The main samples used here comprise 1851 female and 1825 male cohort members, all of whom were in part- or full-time employment at age 34. Ninety eight percent of male participants were in full-time (as opposed to part-time) employment, compared to 58% of female participants.

#### Measures at birth

Family background. Family social status was assessed through three variables: parental occupational class, mothers' education and fathers' education. Parental occupational class was measured using the Registrar General's measure of social class (RGSC). The RGSC is defined according to job status and the associated education, prestige (OPCS, 1980) or lifestyle (Marsh, 1986). It is assessed by the current or last held job and is coded on a sixpoint scale (from I = professional, to V = unskilled, Leete & Fox, 1977). For ease of

interpretation, this scale was reversed, so that high scores reflect high status (from 1 = unskilled, to 6 = professional). Where the father was absent, the social class of the mother was used. Parental education was measured through asking mothers and fathers what age they were when they left full time education. In the model these three variables were combined into a latent variable, following previous research (Schoon, 2008).

# Measures at age 16

Family income. When cohort members were aged 16, their parents were asked about their combined gross income (not including child benefit, but including all other earned income before deductions for tax, national, insurance etc.). An 11-point scale was created, with a higher score indicating a higher family income (1 = less than £50 per week, 2 = £50-£99, ..., 11 = £500 & over).

Parental education aspirations. In order to create a measure of "realistic" parental educational aspirations for their teenage children, parental educational expectations and aspirations were combined into a latent variable.

To measure parents' expectations for their teenagers they were asked, "Which of the following do you think he/she will actually do after this school year?" (Leave at the end of this term; Stay in full-time education and do vocational training; Stay in full-time education and do A'Levels etc.; Continue some form of full-time education beyond age of 18).

Answers were coded to differentiate between parents who expected their child to (1) leave school at age 16 years (minimum school leaving age), (2) continue full-time education to 18 years, and (3) continue full-time education after 18 years.

To measure parents' educational aspirations for their teenagers they were asked "Which of the following would you like your teenager to do after this school year?" (Leave at the end of this term; Stay in full-time education and do vocational training; Stay in full-time education and do A'Levels etc.; Continue some form of full-time education beyond age of

18). Answers were coded to differentiate between parents who wanted their child to (1) leave school at age 16 years (minimum school leaving age), (2) continue full-time education to 18 years, and (3) continue full-time education after 18 years.

Teenage career aspirations. In order to create a measure of "realistic" career aspirations at age 16, teenage educational expectations and occupational aspirations were combined into a latent variable (see Schoon & Parsons, 2002).

To measure occupational aspirations teenagers were asked, "Nearly everyone of your age has some sort of idea of what they will want to do in life. Here is a list of the types of jobs/careers/professions for which various amounts of training are necessary. How about your choice(s)? In Column A please tick one box to indicate your first choice for type of career and in Column B please tick boxes to indicate the other types of jobs you feel you might do, if any". Participants who indicated that they would like to be a "professional (needing a degree)" or a "manager" were coded as 1 (and 0 otherwise).

To measure educational expectations teenagers were asked, "Do you plan to go on with education training after the age of 18?" (Yes; No) and "What do you think you will be doing from September 1986?" (Leaving full-time education and doing something else; Doing GCE A'Level course; Doing O'Level or CSE course; Doing/continuing other educational course/training at school or college). Answers to these two questions were combined into a scale to differentiate between teenagers who expected to (1) leave school at 16, (2) continue in post-16 education or training, and (3) continue in post-18 education.

Teenage ambition value. Ambition value was measured through two variables: the importance placed on being challenged in a job and the importance placed on moving up and getting ahead. In a section of the survey entitled "what's in a job" participants were asked two questions relating to job ambition: "How much will it matter to me to get promotion so I can get ahead?" and "How much will it matter to me to get a job with a real challenge?". The

answers were coded as follows: (3) = "matters very much", (2) = "matters somewhat" and (1) = "doesn't' matter". In the model both variables (i.e., the importance placed on being challenged in a job and the importance placed on moving up and getting ahead) were combined into a latent variable.

Educational performance at age 16. Educational performance at age 16 was measured by two variables: highest qualifications obtained at age 16 and an "exam score" (see Schoon & Parsons, 2002; Schoon et al., 2007). Participants self-reported their examination results in a follow up study in 1986. The highest qualifications obtained were recorded, ranging from none (0), CSE grades 2–5 (1), to CSE grade 1, or O-level grades A–C (2). The exam score could be calculated from the examination performance at age 16. A simple scoring technique was applied to the results to giving a score of 7 to a grade A O-level and a score of 1 to a grade 5 CSE for each paper passed. Scores range from 0 to 89 more males, and 0 to 104 for females. In the model both variables (i.e., highest qualifications obtained and exam score) were combined into a latent variable.

## Measures at age 34

Own social status. Own social status was measured by two variables: adult occupational status and highest qualification achieved by age 34. Data on current or last occupation was classified according to the Registrar General Scale described above. The highest educational qualifications achieved comprise information on academic and vocational qualifications, and are coded to the six-point scale of National Vocational Qualifications levels (from 0 = none, to 5 = degree level and higher). In the model both variables were combined into a latent variable.

Own earnings at age 34. Employed participants were asked, "Last time you were paid, what was your total take home pay - that is after all deductions for tax, National Insurance, union dues, pension and so on, but including overtime, bonuses, commission and

tips?" A measure of net weekly earnings was created using the question. For females, weekly net wages ranged from £18 to £1923 with a mean of £252. For males, weekly net wages ranged from £21 to £1923 with a mean of £401. Females working part-time earned a mean of £144 per week compared to £156 for part-time males. Females working full-time earned a mean of £329 per week compared to £405 for full-time males. Females in full-time professional or managerial positions earned a mean of £388 per week compared to £478 for males.

## Analytic Strategy

To assess the pathways linking family background factors (such as parental aspirations) and individual agency factors in adolescence (in particular, career aspirations and ambition value) to social status attainment and earnings in adulthood we used a path model with latent variables, as depicted in Figure 1. We ran separate models for males and females to assess differences in factor loadings and pathway coefficients.

Latent variables in the model are shown as circles and include family social background (measured through parental occupational status, mothers' education and fathers' education); realistic parental educational aspirations (measured through parental educational expectations and parental educational aspirations); realistic teenage career aspirations (measured through educational expectations and occupational aspirations at age 16); ambition value (measured through the importance placed on being challenged in a job and the importance placed on moving up and getting ahead); educational performance at age 16 (measured through highest qualifications obtained at age 16 and an exam score); and respondent's social status attainment at age 34 (measured through own occupational status and highest level of education at age 34).

All analyses were carried out using the program Mplus 7 (Muthén & Muthén, 2007). This method allows analysis of cases with missing data under the assumption that the data

are missing at random, which means that "missingness" is permissible even when it is related to covariates or outcomes, so long as covariate status does not determine presence or absence of data (Little & Rubin, 2002). Estimation is based on the covariance matrices between observed variables for all patterns of missing data in the other observed variables. Mplus provides maximum likelihood estimation under MCAR (missing completely at random).

In line with current practice, several criteria were used to assess the fit of the data to the model, namely the  $\chi^2$  statistic, the root mean square error of approximation (RMSEA), and the comparative fit index (CFI). It should be noted that the  $\chi^2$  statistic is overly sensitive to model misspecification when sample sizes are large or the observed variables are non-normally distributed. The RMSEA gives a measure of the discrepancy in fit per degrees of freedom, with values less than .05 indicating a good fit. The CFI's values are restricted to lie on a 0-to-1 continuum, with higher values indicating a better fit (Bentler, 1990).

It is usually recommended to report correlations, means, and standard deviations of observed variables included in a structural model along with path estimates for the model (Boomsma, 2000, p.473). First, Pearson's correlations between the variables under study were calculated. Second, the model was run on the male and female samples.

### Results

Table 1 shows means, standard deviations and correlations between the variables for the male and female samples. Before we present the results of the analyses, we briefly discuss the descriptive findings. Males and females experienced no significant differences in family social background at birth (measured by parental occupational status, mothers' education,

fathers' education) or family income at age 16<sup>1</sup>. However, parental educational aspirations were significantly higher for teenage daughters than for teenage sons. Females also experienced higher educational performance at age 16 than males: the highest qualifications obtained by teenage girls were significantly greater than those obtained by boys, and girls achieved (borderline) significantly higher exam scores than boys. Regarding teenage ambition value, there was no significant difference between males and females in the importance that they placed on moving up and getting ahead in a job. However, adolescent males placed significantly more importance than adolescent females on being challenged in a job. Regarding teenage career aspirations, a significantly higher proportion of teenage girls aspired to professional or managerial jobs (36% of teenage girls compared to 29% of teenage boys). There was no significant difference however between teenage boy's and girl's educational expectations.

At age 34, females had achieved a higher level of education, and a higher mean level of occupational status attainment than males. However, a higher proportion of males were represented in the top professional category (8% of males compared to 6% of females), and a higher proportion of females were represented in the bottom two categories (14% of females compared to 11% of males). Males also reported significantly higher weekly earnings than females (£401 compared to £252). The pattern was the same when comparing males and females in full-time employment: males earned a mean of £405 per week compared to female's £329. Females in full-time professional or managerial positions earned a mean of £388 per week compared to £478 for males. Part-time females also had lower mean earnings than males (£144 compared to £156), yet this difference was not significant owing to the small number of males in part-time employment.

The Analyses

 $<sup>^{1}</sup>$  Significant differences between males and females reported in the following are p < .05, borderline significant differences are p < .1.

The model, which is displayed in Figure 1, was a moderate to good fit to the women's and men's data, as suggested by the goodness of fit indicators,  $\chi^2$  (72) = 304.768, p = 0.00; CFI = 0.964, RMSA = 0.042, and  $\chi^2$  (72) = 201.464, p = 0.00; CFI = 0.978, RMSA = 0.031, respectively. It explains 84 percent of the variance in the variable "social status in adulthood" amongst men, compared to 77 percent of the variance amongst women. It explains 24 percent of the variance in the variance in the variance amongst women, compared to 17 percent of the variance amongst men.

### Insert Table 1

Table 2 shows the measurement model for the latent variables as well as the estimated standardised path coefficients for the model displayed in Figure 1 when fitted to the male's and female's data. The signs of the path coefficients were all in the expected direction. All of the predicted pathways were significant when the model was fitted to the female sample's data. However, three of the paths were not significant when the model was fitted to the male sample's data.

In line with previous findings, family social background was positively linked to family income and parental aspirations. As predicted, ambition value and teenage career aspirations were positively associated with educational performance at age 16. Ambition value was also positively associated with teenage career aspirations. However, this relationship appeared to be (borderline) significantly stronger for females than males<sup>2</sup>.

As hypothesised, adolescents from higher income families were more likely to aspire to professional jobs and expect to stay on in education than those from lower income families. The same pattern of results was found between family income and educational attainment at age 16. Teenage females from higher income families were also more likely to think that it was important to have a job that enables them to "aim high," than those from

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 $<sup>^2</sup>$  Significant differences in path coefficients reported in the following are p < .05, borderline significant differences are p < .1.

lower income families. However, the association between family income and ambition value was not significant for teenage males.

As predicted, teenage career aspirations, ambition value and educational performance at age 16 all increased with parental educational aspirations. That is, individuals whose parents both expected and wanted them to continue on in education achieved higher results at age 16, were more ambitious, and had higher aspirations for their own job and education. The relationship between parental aspirations and educational performance at age 16 was significantly stronger for males than females.

In line with past findings, teenage educational performance and career aspirations were positively related to social status attainment. However, the relationship between educational performance at age 16 and social status at age 34 was significantly stronger for males. For females, ambition value was also positively linked to social status attainment in adulthood, yet this relationship was not significant for males. As predicted, educational performance at age 16 and teenage ambition value were positively related to earnings in adulthood. For females, ambition value was also positively linked to adult earnings, yet this relationship was not significant for males. Family social background was positively related to social status attainment at 34, while family income at 16 was positively related to earnings at 34. A positive association was also found between social status attainment and earnings, yet this link was stronger for women than men.

# Discussion

This paper illustrated a link between teenage ambition value and adult earnings. That is, young people for whom it was important to have a job that enabled them to get ahead earned more money in adulthood than their less ambitious peers. However, the paper did more than establish a link between ambition value and adult earnings. It also explored the way in which family background and individual agency factors (in particular, teenage career

aspirations and ambition value) interact to influence career development for both men and women. Consistent with assumptions within a developmental contextual framework, the findings suggest multiple influences on social status attainment and earnings in adulthood.

In line with predictions and previous research (e.g., Schoon & Parsons, 2002) parental educational aspirations and family income played an important role in shaping teenagers' career aspirations, ambition value and educational performance. Adolescents from higher income families were more likely than those from lower income families to (a) aspire to professional jobs, (b) expect to stay on in education, and (c) perform better in the exams at age 16. Teenage girls from higher income families were also more likely to express high ambition value compared to girls from lower income families, yet this association was not significant for teenage boys. Teenage boys, in turn, placed more importance than girls on being challenged, which might explain why they "aimed high" (i.e., expressed high job ambition) independent of whether they came from a high or low income family. Since rising to the top of the career ladder is traditionally associated with men not women (e.g., Scott et al., 2008), it is also plausible that for females (more than males) higher earning parents act as role models, encouraging them "get ahead" in their own careers. However, family income is by no means the only factor influencing teenagers' aspirations and ambition.

Individuals whose parents both expected and wanted them to continue on in education achieved higher exam results at age 16, were more likely to value job ambition, and had higher aspirations for their own jobs and education. In line with previous studies (e.g., De Civita et al., 2004), these results suggest that high parental educational aspirations for their children can go some way to balancing out the negative effect that a low family income has on teenagers' educational performance. For policy-makers they also confirm that parents, as well as teenagers, need to be encouraged to "aim high" for their children. As British politician Alan Milburn put it, "We have to enter what is new territory for public policy and

find new ways of systematically raising the aspirations of those youngsters and families who simply do not believe that they will ever progress" (The Panel on Fair Access to Education, 2009).

Overall, parents had significantly higher expectations and aspirations for teenage daughters than for teenage sons, and females achieved significantly higher exam results at age 16 than males. Interestingly though, the relationship between parental educational aspirations and educational performance at age 16 was stronger for teenage boys than for teenage girls. Although girls have closed the overall gender gap in educational attainment and often outperform boys, it appears that teenage boys' educational performance could benefit from raised parental aspirations.

Teenage career aspirations, ambition value and educational performance at age 16 were all positively related. However, the relationship between teenagers' career aspirations and ambition value was slightly stronger for females than for males. One explanation for this finding is that females learn early on that if they want to be successful, it is not enough just to become a professional, they also need to "aim high" once they get there.

As hypothesised, adult social status attainment was influenced by family social background, teenage career aspirations, and educational performance at age 16 for both men and women. Meanwhile adult earnings (which were positively related to adult social status) were influenced by family income, teenage ambition value and educational performance at age 16. It is commonsensical that teenage aspirations to continue on in education and aspirations to become professionals or managers lead individuals to achieve more educational qualifications and become professionals or managers. It also appears likely that if getting ahead and being promoted is important to you, you will be more likely to be attracted towards a higher paying job.

For females both teenage career aspirations and ambition value predicted adult social

status attainment and earnings, whilst for males career aspirations predicted social status attainment and ambition value predicted earnings. More research is required to unpack why this is the case. It may stem from the fact that, as discussed above, teenage ambition value and career aspirations are more strongly tied for females than males. Also, it worth noting that at age 34, females had achieved a higher level of education, and a higher mean level of occupational status attainment than males. However, males reported significantly higher weekly earnings than females. Given the association found between teenage ambition value and earnings in adulthood, these findings may, at least partly, be due to the fact that teenage boys were more ambitious than girls in that they placed significantly more importance on being challenged in a job.

### Limitations& Future Research

In interpreting our results some limitations should be noted. As this study used an existing dataset, we were limited in the measures available to us. Here, teenage ambition value was measured through two variables: the importance placed on being challenged in a job and the importance placed on moving up and getting ahead. This measure fits with past categorisations (e.g., Hyvönen et al., 2009) and an established ambition scale (Desrochers & Dahir, 2000). However, it is an adapted version, since Desrochers and Dahir's (2000) scale is aimed at working adults not teenagers. Further work to test the validity of this scale would be beneficial. Also, due to the measures of earning available the sample included only those in full- or part-time employment. The sample composition needs to be born in mind when making any generalisations. Further research is required to replicate this paper's findings using a broader sample base.

Future work could also enrich this research by exploring whether teenage ambitiousness is able to predict the exact type of occupation that individuals go into. Eccles and colleagues' work (e.g., Eccles et al., 1999) implies that teenagers who value ambition

would be more likely than their less ambitious peers to enter specific occupations that make the highest levels of income.

One further issue to be addressed is missing data, which might have affected the validity of the results. Response bias at the individual level would tend to underestimate the magnitude of effects of social disadvantage, as sample attrition is greatest among cohort members in more deprived circumstances. The results might thus provide a conservative estimate of social inequalities in the sample. Missing data at the variable level may also be non random. Here we used multiple imputations as implemented in Mplus (Muthén & Muthén, 2007; Little & Rubin, 2002) as a "best effort" technique for dealing with the problem of missingness.

### Final Remarks

Whilst acknowledging the above caveats, the cohort data offered the unique opportunity to examine some of the antecedents of social status attainment and earnings for both men and women in a prospective longitudinal data. This paper's contribution is to provide new evidence regarding the link between teenage ambition value and adult earnings. For policy makers, educationalists and academics the findings imply that encouraging adolescents to aim high by valuing job ambition as well as aspiring to professional and managerial jobs could go some way to shaping their career development in later life. An important next step, as well as explore possible variations by country, region, school environment and peer group, appears to be linking teenage career aspirations and ambition value to adult outcomes (such as wellbeing) beyond career and income attainment (Ritchie, Flouri & Buchanan, 2004).

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### References

- Arbona, C., & Novy, D. M. (1991). Career aspirations and expectations of Black,

  Mexican American, and White students. *The Career Development Quarterly, 39*,

  231-239.
- Bentler, P. M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246.
- Bollen, K. A. (1989). Structural equations with latent variables. New York: Wiley.
- Boomsma, A. (2000). Reporting analysis of covariance structure. *Structural Equation Modeling*, 7, 461-483.
- Breen, R., & Goldthorpe, J. (1997). Explaining educational differentials: Towards a formal Rational Action Theory. *Rationality & Society*, *9*, 275–305.
- British Household Panel Survey. Research Papers in Education, 23, 243-268.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.
- Bronfenbrenner, U. (1994). Ecological models of human development: Research models and fugitive findings. In R. H. Wozinak, & K. Fischer (Eds.), *Scientific environments*. Hillsdale, NJ: Erlbaum.
- Buchmann, C., & DiPrete, T., A. (2006). The growing female advantage in college completion: The role of family background and academic achievement. *American Sociological Review* 7, 515-41.
- Butler, N., Despotidou, S., & Shepherd, P. (1997). 1970 British Cohort Study (BCS70)

  ten-year follow- up: A guide to the BCS70 10-year data available at the Economic

  and Social Research Unit Data Archive. London: Social Statistics Research Unit,

  City University.

1

Clausen, J.A. (1995) Gender, contexts and turning points in adults' lives. In P. Moen, G.H. Elder, Jr. and K. Luscher (Eds.), *Examining lives in context: perspectives on the ecology of human development*. Washington, DC: APA Press.

- Correll, S. J. (2001). Gender and the career choice process: The role of biased self-assessments. *American Journal of Sociology*, *106*, 1691-1730.
- Croll, P. (2008). Occupational choice, socio-economic status and educational attainment: A study of the occupational choices and destinations of young people in the British Household Panel Survey. *Research Papers in Education*, 23, 243-268.
- Crompton, R., & Scott, J. (2000). Introduction: the state of class analysis. In R.

  Crompton, F. Devine, M. Savage & J. Scott (Eds.), *Renewing Class Analysis*.

  Oxford: Blackwell/The Sociological Review.
- DCSF, 2007, 2009, 2010
- Danzinger, N. (1983). Sex-related differences in the aspirations of high school students. Sex Roles, 9, 683-694.
- De Civita, M., Pagani, L., Vitaro, F. & Tremblay, R. (2004). The role of maternal educational aspirations in mediating the risk of income source on academic failure in persistently poor families. *Children and Youth Services Review*, 26, 749-769.
- Desrochers, S., & Dahir, V. (2000). Ambition as a motivational basis of organizational and professional commitment: Preliminary analysis of a proposed Career Advancement Ambition Scale. *Perceptual and Motor Skills*, *91*, 563-570.
- Dreber, A., von Essen, E., & Ranehill, E. (2009). Outrunning the gender gap: Boys and girls compete equally. SSE/EFI Working Paper Series in Economics and Finance

No 709.

Duncan, O. D., Featherman, D. L., & Duncan, B. (1972). Socioeconomic background and achievement. New York: Seminar Press.

- Eccles, J. S., Barber, B., & Jozefowicz, D. (1999). Linking gender to education, occupation, and recreational choices: Applying the Eccles et al. model of achievement-related choices. In W. B. Swann, J. H. Langlois, & L. A. Gilbert (Eds.), *Sexism and stereotypes in modern society: The gender science of Janet Taylor Spence* (pp. 153–192). Washington, DC: APA Press.
- Eccles, J. S. (2007). Where are all the women? Gender differences in participation in physical science and engineering. In S. J. Ceci & W. M. Williams (Eds.), *Why aren't more women in science? Top researchers debate the evidence* (pp. 199–210). Washington, DC: American Psychological Association.
- Eccles, J.S. (2009). Who am I and what am I going to do with my life? Personal and collective identities as motivators of action. *Educational Psychologist*, *44*, 78-89.
- Elder, G. H. (1974/1999). *Children of the great depression: Social change in life experience*. Boulder, CO: Westview Press.
- Erikson, R., & Jonsson, J. O. (1996). Explaining Class Inequality in Education: The Swedish Test Case. In R. Erikson & J. O. Jonsson (Eds.), *Can education be equalized?: The Swedish case in comparative perspective* (pp. 1-63). Boulder, Colorado; Oxford: Westview Press.
- Featherman, D. L., & Hauser, R. M. (1974). Sexual inequalities and socioeconomic achievement in the U.S., 1962-1973. *American Sociological Review, 41*, 462-483.

1

Fels, A. (2004). Do women lack ambition? Harvard Business Review, 82, 50-60.

- Francis, B. (2002). Is the future really female? The impact and implications of gender for 14-16 year olds' career choices. *Journal of Education and Work, 15,* 75-88.
- Freeman, C. E. (2004). *Trends in educational equity of girls & women: 2004*. Washington, DC: U.S. Government Printing Office.
- Frome, P.M., Alfeld, C.J., Eccles, J.S., & Barber, B.L. (2006). Why don't they want a male-dominated job? An investigation of young women who changed their occupational aspirations. *Educational Research and Evaluation*, 12, 359-372.
- Galinsky, Aumann & Bond, 2008.
- Gershuny, J. (2000). Social position from narrative data. In R. Crompton, F. Devine, M. Savage & J. Scott (Eds.), *Renewing Class Analysis*. Oxford: Blackwell/The Sociological Review.
- Gneezy, U., Niederle, M., & Rustichini, A. (2003). Performance in competitive environments: Gender differences. *Quarterly Journal of Economics*, 118, 1049 1074.
- Gneezy, U., & Rustichini, A. (2004). Gender and competition at a young age. *American Economic Review Papers and Proceedings*, 94, 377-381
- Hakim, C. (2000). Work-lifestyle choices in the 21st century: Preference theory. UK: Oxford University Press.
- Hakim, C. (2006). Women, careers, and work-life preferences. *British Journal of Guidance & Counselling*, 34, 279–294.
- Heilman, M. E., Caryn, J. B., & Martell, R., F. (1995). Sex stereotypes: Do they influence perceptions of managers? *Journal of Social Behavior and Personality*

10, 237-52.

Hoffnung, M. (2004). Wanting it all: career, marriage, and motherhood during college-educated women's 20 s. *Sex Roles*, *50*, 711–723.

- Hyvönen, K., Feldt, T., Salmela-Aro, K., Kinnunen, U., Mäkikangas, A. (2009). Young managers' drive to thrive: A personal work goal approach to burnout and work engagement. *Journal of Vocational Behavior*, 7, 183–196.
- Joshi, H., & Paci, P. (1998). Unequal pay for men and women: evidence from the British Birth Cohort Studies. London: MIT Press.
- Lampard, R. (1995). Parents' Occupation and their children's occupational attainment: A contribution to the debate on the class assignment of families. *Sociology*, *29*, 715-728.
- Leete, R., & Fox, J. (1977). Registrar General's social classes: origins and users.

  \*Population Trends, 8, 1–7.
- Liem, A., D., & Nie, Y. (2008). Values, achievement goals, and individual-oriented and social-oriented achievement motivations among Chinese and Indonesian secondary school students. *International Journal of Psychology*, *43*, 898-903.
- Lerner, R. M. (1989). Individual development and the family system: A life-span perspective. In K. Kreppner & R. M. Lerner (Eds.), *Family systems and life-span development* (pp. 15-31). Hillsdale, NJ: L. Erlbaum Associates.
- Little, R. J., & Rubin, D. B. (2002). *Statistical analysis with missing data*. 2nd edition ed. New York: John Wiley.
- Marini, M., & Greenberger, E. (1978). Sex-differences in educational aspirations and expectations. *American Educational Research Journal*, 15, 67–79.

Marsh, C. (1986). Social class and occupation. In R. G. Burgess (Ed.), *Key variables in social investigation*. London: Routledge.

- Mau, W. C., & Bikos, L. H. (2000). Educational and vocational aspirations of minority and female students: A longitudinal study. *Journal of Counseling and Development*, 78, 186-194.
- Mello, Z. R. (2008). Gender variation in developmental trajectories of educational and occupational expectations and attainment from adolescence to adulthood. *Developmental Psychology*, 44, 1069-1080.
- Raffaele Mendez, L.M., & Crawford, K.M. (2002). Gender-role stereotyping and career aspirations: A comparison of gifted early adolescent boys and girls. *Journal of Secondary Gifted Education*, 13(3), 96-107.
- Mc clendon 1978 check date
- McClendon, M. J. (1976). The occupational status attainment process of males and females. *American Sociological Review*, 41, 52-64.
- Moen, P. (Ed.). (2003). *It's about time. Couples and careers*. Ithaca: Cornell University Press.
- Muthén, L.K.., & Muthén, B.O. (2007). Mplus User's Guide. 5th edition ed. Los Angeles.
- Niederle, M., Vesterlund, L., 2007. Do women shy away from competition? Do men compete too much? *Quarterly Journal of Economics*, 122, 1067-1101
- Nurmi, J.E., Salmela-Aro, K. & Koivisto, P. (2002) Goal importance and related achievement beliefs and emotions during the transition from vocational school to work: antecedents and consequences. *Journal of Vocational Behaviour*, 60, 241–261.

1

Office for National Statistics (ONS). (2009a). *Gender Pay Gap* . Retrieved May 2010, from http://www.statistics.gov.uk/cci/nugget.asp?id=167.

- Office for National Statistics (ONS). (2009b). *Women in the labor market*. Retrieved May 2010, from http://www.statistics.gov.uk/pdfdir/iwd0309.pdf.
- Paton, N. (2006). Women are less ambitious than men: And men are to blame.

  \*Management Issues\*. Retrieved April 2006 from http://www.management-issues.com/2006/11/23/research/women-are-less-ambitious-and-men-are-to-blame.asp
- Pizzolato, J. E. & Slatton, Z. L. (2007) The function of family involvement in adolescents' aspiration achievement. In P. R. Zelik (Ed.), *Issues in the psychology of motivation*. New York: Nova Science Publishers, Inc.
- Plewis, I., Calderwood, L., Hawkes, D., & Nathan, G. (2004). National Child

  Development Study and 1970 British Cohort Study. Technical Report: Changes

  in the NCDS and BCS70 populations and samples over time. London: Institute

  of Education, Centre for Longitudinal Studies.
- President Obama, 2009
- Reis, S. M. (1991). The need for clarification in research designed to examine gender differences in achievement and accomplishment. *Roeper Review*, *13*, 193–198.
- Richway, C., L. & Correll, S., J. (2004). Unpacking the gender system: A theoretical perspective on gender beliefs and social relations. *Gender & Society, 18*, 510-531.
- Ritchie, C. Flouri, E., & Buchanan, A., (2004). *Aspirations and Expectations*. Briefing Paper for London National Parenting and Family Institute.
- Ruble, D. N., & Martin, C. L. (1998). Gender development. In W. Damon (Series Ed.)

1

& N. Eisenberg (Vol. Ed.), *Handbook of child psychology* (5th ed., Vol. 3, pp. 933–1016). New York: Wiley and Sons.

- Sandberg, D.E., Ehrhardt, A.A., Ince, S.E. and Meyer-Bahlburg, H.F.L. (1991) Gender differences in children's and adolescents' career aspirations: a follow-up study. *Journal of Adolescent Research*, 6, 371–386.
- Schoon, I. (2006). *Risk and resilience. Adaptations in changing times*. Cambridge: Cambridge University Press.
- Schoon, I. (2008). A transgenerational model of status attainment: the potential mediating role of school motivation and education. *National Institute of Economic Research*, 205, 72-82.
- Schoon, I., Martin, P., & Ross, A. (2007). Career transitions in times of social change.

  His and her story. *Journal of Vocational Behavior*, 70, 78-96.
- Schoon, I., & Parsons, S. (2002). Teenage aspirations for future careers and occupational outcomes. *Journal of Vocational Behavior*, 60, 262-288
- Schoon, I., & Polek, E., (in press). Pathways to economic and psychological wellbeing among teenage mothers in Great Britain. *European Psychologist*.
- Schoon, I., Ross, A., & Martin, P. (2007). Science related careers. Aspirations and outcomes in two British Cohort Studies. *Equal Opportunities International*, 26, 129-148.
- Scott, J., Dex, S., Joshi, H., Purcell, K., & Elias, P. (Eds.). (2008). Women and employment: Changing lives and new challenges. Edward Elgar.
- Schneider, B. and D. Stevenson. 1999. *The ambitious generation. America's teenagers, motivated but directionless*. New Haven and London: Yale University Press.

Sewell, W. H., Hauser, R. M., & Wolf, W. C. (1980). Sex, schooling, and occupational status. *The American Journal of Sociology*, 86, 551-583

- Shapka, J. D., Domene, J.F., & Keating, D. P. (2006). Trajectories of career aspirations through adolescence and young adulthood: Early math achievement as a critical filter. *Educational Research and Evaluation*, 12, 347-358.
- Shepherd, P. (1997). Survey and response. In J Bynner, E. Ferri, & P. Shepherd (Eds.).

  Getting on, getting by, getting nowhere. Twenty something in the 1990s (pp. 129-136). Aldershot. UK: Ashgate.
- Spenner, K. & Featherman, D. L. 1978. Achievement ambitions. *Annual Review of Sociology*, 4, 373-420
- Teachman, J.D. and Paasch, K. (1998) The family and educational aspirations. *Journal of Marriage and the Family*, 60, 704–714.
- Vondraceck, F. W., Lerner, R. M., & Schulenberg, J. E. (1986). Career Development: A life-span developmental approach. In. Hillsdale, NJ: Erlbaum.

Table 1. Means, Standard Deviations, and Pearson Correlations between Variables Included in the Model

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	Mean female
1.Mother's education	-	.425	.347	.383	.239	.250	013 <sup>ns</sup>	.142	.266	.183	.109	.291	.273	.153	.202	15.48 (1.01)
2. Father's education	.480	-	.429	.367	.215	.228	$.038^{ns}$	.130	.298	.197	.166	.299	.280	.166	.201	15.52 (1.13)
3. Parental Social Class	.371	.462	_	.405	.239	.179	.079	.146	.313	.224	.145	.325	.332	.195	.213	3.35 (1.17)
4. Family Income	.388	.424	.449	_	.267	.230	.097	.170	.272	.228	.139	.312	.322	.244	.288	5.00 (2.34)
5. Parental Expectations	.274	.285	.315	.344	_	.732	.119	.173	.428	.289	.318	.656	.450	.251	.255	1.90 (.74)
6. Parental Aspirations	.279	.237	.253	.284	.728	_	.077	.155	.302	.197	.267	.515	.369	.184	.216	2.08 (.69)
7. Getting ahead in job	.021 <sup>ns</sup>	020 <sup>ns</sup>	.054 <sup>ns</sup>	.057 <sup>ns</sup>	.100	.064 <sup>ns</sup>	-	.248	.160	.113	.066	.171	.128	.132	.175	2.36 (.67)
8. Being challenged in job	.089	.064 ns	.091	.060 ns	.148	.082	.227	_	.212	.172	.174	.275	.252	.211	.234	2.20 (.70)
9. Education at 16	.312	.298	.334	.333	.498	.410	.153	.158	-	.616	.316	.496	.543	.430	.374	32.96 (18.16)
10. Highest ed. score	.221	.204	.218	.277	.378	.330	.162	.136	.685	_	.272	.369	.382	.262	.226	1.19 (.55)
11. Occ. Aspirations	.239	.250	.275	.257	.406	.356	.137	.132	.407	.335	_	.447	.316	.272	.210	.36 (.48)
12. Ed. Expectations	.296	.298	.348	.329	.663	.553	.115	.146	.540	.415	.534	_	.570	.345	.343	1.04 (.82)
13. Highest ed at 34	.268	.265	.305	.321	.529	.446	.130	.156	.669	.511	.402	.531	-	.464	.407	2.76 (1.34)
14. RGSC	.213	.234	.271	.312	.445	.366	.161	.147	.545	.378	.310	.418	.548	-	.468	4.2 (1.15)
15. Earnings at 34	.138	.190	.179	.263	.213	.183	.135	.117	.317	.258	.208	.252	.301	.361	-	252.28 (173.99)
Mean male	15.49	15.52	3.37	5.09	1.83	1.97	2.43	2.23	31.56	1.23	.29	.98	2.55	4.06	400.89	202.20 (170.55)
	(1.03)	(1.13)	(1.17)	(2.44)	(.77)	(.76)	(.67)	(.66)	(20.00)	(.59)	(.45)	(.84)	(1.41)	(1.25)	(208.20)	

Note: All correlation coefficients are significant (p<.01), except where specified ns. Values for females are above the diagonal, and values for males are below the diagonal. Standard deviations (SD) are given in parentheses.

Table 2. Estimated Standardized Path Coefficients in the model for Males and Females

	Standardised estimates by dataset		
	Male (N=1825)	Female (N=1851)	
Identification of the latent variables			
Family Background <sup>+</sup>			
Mother's Education	.630***	.607***	
Father's Education	.708***	.662***	
Social Class	.649***	.632***	
Parental Educational Expectations			
Educational Expectations	.929***	.948***	
Educational Aspirations	.791***	.780***	
Teenage Ambition Value			
Importance placed on being challenged in a job	.493***	.621***	
Importance placed on moving up and getting ahead	.460***	.397***	
Teenage Career Aspirations			
Educational Expectations	.875***	.911***	
Occupational Aspirations	.600***	.496***	
Educational performance at 16			
Educational Score	.914***	.906***	
Highest Education	.712***	.658***	
Social Status at 34			
Highest education at 34	.804***	.756***	
RGSC	.680***	.610***	
Path coefficients			
Family Background			
→ Family Income	.637***	.626***	
→ Parental Educational Expectations	.506***	.436***	
→ Social Status at 34	.087**	.139**	
Family Income			
→ Teenage Ambition Value	.056 (ns)	.221***	
→ Teenage Career Aspirations	.129***	.138***	
→ Educational Performance at 16	.187***	.234***	
→ Earnings at 34	.167***	.123***	
Parental Educational Aspirations			
→ Teenage Ambition Value	.262***	.273***	
→ Teenage Career Aspirations	.785***	.725***	
→ Educational Performance at 16	.529***	.442***	
Teenage Ambition Value			
Teenage Career Aspirations	.245***	.335***	
⇔ Educational Performance at 16	.261***	.251***	
→ Social Status at 34	.054 (ns)	.151**	
→ Earnings at 34	.159**	.217***	
Teenage Career Aspirations			
⇔ Educational performance at 16	.379***	.388***	

.311***	.356***		
.024 (ns)	.101*		
.611***	.448***		
.206***	.208***		
.249 ***	.466***		
201.464	304.768		
72	72		
.00	.00		
.980	.964		
.031	.042		
	.024 (ns) .611*** .206***  .249 ***  201.464 72 .00 .980		

*Note.* Significance level: \*\*\*p < .001, \*\*p < .01, \*p < .05. Latent variables are italicised.

Figure 1. Contextual Developmental Model predicting social status attainment and earnings in adulthood.

Birth 16 years 34 years

