Leisure contexts in adolescence and their effects on adult outcomes

Leon Feinstein
John Bynner
Kathryn Duckworth

Centre for Research
on the Wider
Benefits of Learning

LEISURE CONTEXTS IN ADOLESCENCE AND THEIR EFFECTS ON ADULT OUTCOMES

Leon Feinstein, John Bynner and Kathryn Duckworth

July 2005

The Wider Benefits of Learning Research Report Series

All the reports in this series are published by the Centre for Research on the Wider Benefits of Learning, Institute of Education, London.

1. Preston, J. and Hammond, C. (2002) *The wider benefits of further education: practitioner views*

2. Brassett-Grundy, A. (2002) *Parental perspectives of family learning*

3. Schuller, T., Brassett-Grundy, A., Green, A., Hammond, C. and Preston, J. (2002) *Learning, continuity and change in adult life*

4. Blackwell, L. and Bynner, J. (2002) *Learning, family formation and dissolution*

5. Feinstein, L. (2002) *Quantitative estimates of the social benefits of learning, 1: crime*

6. Feinstein, L. (2002) *Quantitative estimates of the social benefits of learning, 2: health (depression and obesity)*

7. Green, A., Preston, J. and Sabates, R. (2003) *Education, equity and social cohesion: a distributional model*

8. Feinstein, L., Hammond, C., Woods, L., Preston, J. and Bynner, J. (2003) *The contribution of adult learning to health and social capital*

9. Preston, J. and Green, A. (2003) *The macro-social benefits of education, training and skills in comparative perspective*

10. Feinstein, L., Duckworth, K. and Sabates, R. (2004) *A model of the inter-generational transmission of educational success*

11. Preston, J. and Feinstein, L. (2004) *Adult education and attitude change*

12. Sabates, R. and Feinstein, L. (2004) *Education, training and the take-up of preventative health care*

13. Preston, J. (2004) *Identity, learning and engagement: a qualitative inquiry using the NCDS*

14. Feinstein, L. and Sabates, R. (2005) *Education and youth crime: effects of introducing the Education Maintenance Allowance programme*

15. Feinstein, L., Bynner, J. and Duckworth, K. (2005) *Leisure contexts in adolescence and their effects on adult outcomes* (online only)

Executive summary

Overview and research questions

1.   This report describes research undertaken by the Centre for Research on the Wider Benefits of Learning for the Strategy Unit as part of the development of an evidence-base to inform government thinking on provision for young people. The research has been undertaken within the very tight time-frame required to enable the report to feed into fast-moving policy discussion.

2.   The two key research questions have been:

(i)   What kinds of background and personal variables predict participation, i.e. which children are participating in the different types of context?

(ii) What are the "effects" of these age 16 leisure contexts on later outcomes measured in the same cohort at age 30?

Method

3.   The 1970 Cohort was identified as the data source best able to address the research questions. Limitations in applicability to questions of current provision notwithstanding, the data provide the best range of measures for undertaking the most robust analysis possible.

4.   We considered the effects of a range of age 16 contexts, defined in terms of both participation or not, as well as in terms of level of participation. The contexts on which the analysis has focused were sports and community centres, youth clubs, uniformed youth clubs and church-based activities.

5.   We considered the effects of these contexts on a wide range of (age 30) adult measures of social exclusion, developing a set of 23 binary indicators, each representing a status commonly linked with social exclusion and classified according to the 5 target aspects of well-being described in the Green Paper "Every Child Matters."

6.   We used a great array of control variables in an attempt to deal with the selection bias problem that follows from the fact that participation in the age 16 contexts is not random but is systematically related to the adult outcomes. These children who attend church-based or uniformed activities will not be representative of the general population and one cannot assume that if such children have a low level of adult social exclusion, this is due to their participation in the activities.

7. To the extent that the control variables measure these underlying differences in characteristic, then one can be more confident that statistical associations are causal. We use measures of socio-economic and demographic family background, age 5 and 10 personal development, ability, aspiration and behaviour, as well as age 16 development, behaviour and aspiration to attempt to condition out key confounding factors. We also undertake analysis on particular at-risk subgroups to see whether effects of age 16 contexts persist when similar children are compared.

8. The control measures available include age 16 criminal activity, truancy, smoking, the desire to stay on in education, mother-rated behaviour, age 10 teacher-rated behaviour, peer relations and educational success and family functioning in terms of maternal depression, parental hostility, parental interest in education, and measures of family income and social class.

9. Even with all these control variables, one must recognise that age 16 contexts are not raw causal catalysts but mediators. They are parts of the complex life histories of individuals, that individuals may choose or be selected into in other ways, but which, the analysis can determine, may or may not be important elements of those life histories.

Results

10. We find that children who participate in youth clubs tend to have personal and family characteristics associated with adult social exclusion. The opposite is true for those who engage in uniformed or church-based activities. Attendance in sports or community centres is not strongly linked to personal or family characteristics.

11. Those who attend youth clubs have worse adult outcomes for many of the measures of adult social exclusion, even conditioning on the full set of controls. Thus, for similar levels of age 16 behaviour, success and aspiration and age 10 cognitive skill, amongst other factors, those who attended youth clubs were less likely to achieve educationally and more likely to be criminal offenders than those who did not. The reverse was true for the other types of age 16 participation.

12. When we consider results for those sub-samples who at age 16 had particular risk of adult social exclusion because of their age 16 behaviours, this pattern remained. For example, for adolescents whose self-report at 16 of criminal or anti-social behaviour was in the highest quartile of the sample, those who attended youth clubs were 2 percentage points more likely to have been found guilty in court more than once by age 30 than those who did not, even within this risk group.

Conclusions

13. Because of the methodological problem described, conclusions must be tentative. The adolescents studied had different adult outcomes for a great many reasons and these pathways have not been modelled or considered in the analysis described. Furthermore, some of the measures are rather general and there are many aspects of the age 16 contexts that have been combined into broad indicators that may describe very different realities of provision about which we can only conjecture.

14. One conclusion that we do assert, however, from these results is that the contexts in which adolescents spend their out-of-school or leisure time are clearly important aspects of their pathway from childhood to adulthood and should be considered so from a policy perspective. Provision of structured activities at this age can make a big difference to the life paths of adolescents.

15. Contexts in which at-risk young people congregate bring risks as well as opportunities. Peer group effects mean that the young people may be very influential on each other and so there are unlikely to be positive long-term effects of the provision of contexts for children if no structure or facilitation is provided. Successful mediation of these risks can bring long-term benefits, however, where such provision is part of a real engagement of the young people in activities with some objective.

16. The big policy challenge is to develop leisure settings in which the young people who are most at risk of adult social exclusion will engage while at the same time building in the elements of curriculum and structure that this analysis has identified as supportive of subsequent social inclusion.

Contents

1. Theoretical rationale and analytic approach

1.1 Leisure activity and adolescent development

Through the teens, leisure activity takes on increasing significance in young people's development. It signals the growing role of the peer group as an influence on young people's choices, with potential for clashes between the continuing role of parents as a major source of advice and that of friends. The nature of the activity changes across the teenage years, as does the company kept. Thus family leisure activities give way to those initially of single-sex groups followed by mixed groups from which partnerships begin to form. Activities organised by adults such as scouts and guides are also prominent in the early to mid teens and are often an extension of schooling. In the late teens these tend to be replaced increasingly by commercially-run venues such as cafes, pubs and discos as the setting for social life.

Writers on adolescence such as John Coleman and Leo Hendry[1] point out that these shifts correspond with the "focal concerns" of adolescence, which broadly reflect:

- Developing a self-identity in light of physical changes;
- Developing a gender identity;
- Gaining a degree of independence from parents;
- Accepting or rejecting adult values;
- Shaping up to an occupational or unemployed role; and
- Developing and extending friendships.

Cutting across these age-based developmental shifts are other variations that are more structurally based[2]. Thus different kinds of venues attract different groups defined by family socio-economic status, gender and ethnicity. Some appeal to young people whose aspirations are fully in tune with the demands of secondary schooling, while others use leisure as an expression of their antipathy towards it. Some operate in both worlds, adapting their identities to the demands of the situation they are in – engaging in youth culture outside the school gates, while keeping on the qualifications track inside them.

It is in relation to these different areas of teenage social life that the longer-term impacts of adolescent leisure context begin to take shape and may therefore be particularly relevant to policy intervention. In certain respects they reflect not so much a significant component of new influence, as the reinforcement of career and identity development, the foundations of which are laid down much earlier. At the same time there can be "turning points" where the predicted route changes direction in response

---

[1] Hendry, L.B. and Kloep, M. (1983) *Growing up and going out*, Cambridge: Blackwell; Coleman, J.C. and Hednry, L. (1999) *The nature of adolescence*, London: Routledge.

[2] Bynner, J. and Ashford, S. (1992) 'Teenage careers and leisure lives: an analysis of lifestyles', *Loisir et Société* , 15: 499-519.

to new sources of influence and the exercise of the young person's own agency in acting upon them[3].

The differentiation of young people's careers and identities poses a problem for the assessment of such "turning point effects" of leisure activity on later life-course outcomes because of the selection bias involved. In other words, the kind of young people involved in scouts and guides, for example, are unlikely to be comparable in terms of educational levels and socio-economic background and aspirations, as those engaged in youth clubs. In such situations, the most that analysts can hope to achieve is the control of as many factors as possible to maximise comparability with a view to identifying the "added impact" on an educational and occupational career that is already fully underway. However, this leaves open the question of the remaining gap between data capability and the requirement of estimating effects. Some key aspects of the differences between those who choose different youth contexts will be unmeasured or immeasurable. In the absence of an experimental design, the methodological problem means that any interpretation must recognise that statistical associations, even conditional associations, include elements both of selection process and causal effect. The challenge for the analyst is to use the available controls in such a way as to be able to make reasonable interpretations about this balance.

1.2   Distal and proximal factors

A useful way of looking at the potential sources of confounding effects with the effects of leisure activity on later adult outcomes is in terms of different forms of influence impacting throughout the course of a child's development. We draw on the Bronfenbrenner ecological model as a basis for our analytic approach to the problem of isolating the leisure context effect[4]. The model provides a well-theorised conceptual framework for linking the diverse sets of variables implicit in this analysis. These include the various sources of influence stemming from the family, the school and the peer group that need to be set against the developing cognitive and personality attributes of the child.

The Bronfenbrenner model distinguishes between "distal factors" that reflect the broad structural variations in society to do with socio-economic status, gender, ethnicity and locality, and the more "proximal factors" identified with influences that are mediated through social relations in the family and in other settings. Within the family these proximal influences are manifested through the various kinds of support – including cognitively enriching materials and activities – that parents direct towards their children before and during the various stages of education. They also embrace

---

[3] Elder, G.H. (1998) 'The life course and human development,' Lerner, R.M. (ed.) *Handbook of child psychology, volume 1: theoretical models of human development*. New York: Wiley.

[4] Feinstein, L., Duckworth, K. and Sabates, R. (2004) *A model of the inter-generational transmission of educational success*, Wider Benefits of Learning Research Report No.10, London: Centre for Research on the Wider Benefits of Learning, Institute of Education.

the aspirations and attitudes parents adopt towards their children's educational progress and its longer-term educational and occupational outcomes. Proximal *family process* refers to the actual interactions experienced by the child. These interactions are the source of the most direct influence in this framework, referring to the day-to-day lived experience of the child. Examples of family process measures include aspects of parent-child relationships such as warmth and affection, the use of discipline, control and punishment, as well as the educational content of language use in the home.

Within the school, relations with teachers are clearly another important source of proximal influence; though with respect to the survey data used in this study we are restricted to broader classroom and school context factors, rather than data collected from classroom teachers directly. Contexts outside of the school are the primary focus of this analysis. Here there are the various kinds of proximal influence encountered in the different leisure settings, especially those stemming from the peer group with which the child or young person engages. Although data on such proximal influences are again difficult to come by from available survey sources, they are to a certain extent structured by the distal factors of social class, gender and ethnicity, and also performance in the educational system itself. Hence, insofar as leisure activity is differentiated in these terms, it can be seen as supplying a context for the whole set of peer group influences to which the young person is subjected.

1.3   Analytic approach

In this report we are unable to pursue all the nuances of variation in adolescent leisure context and their effects, especially the role of developmental shifts with age. Nor, as indicated above, are we able to encompass the whole range of distal and proximal influences that might be confounded with the effects of leisure context. Instead, capitalising on available data from a large-scale longitudinal study, the 1970 British Cohort Study, we focus on modelling the effects of engagement in different kinds of leisure activity, at a particular age, 16, taking account of a wide range of potential confounding factors as identified in the longitudinal data extending back to birth. The questions we address concern the different kinds of leisure context that different groups of young people are engaged in, in this cohort, at this age. We ask first what kinds of background and personal variables predict participation, i.e. which children are participating in the different types of context? Our second task is to estimate the "effects" of these age 16 leisure contexts on later outcomes measured in the same cohort at age 30.

Therefore, the analysis takes place in two stages. We first identify the antecedent experiences and circumstances that predict participation in different kinds of leisure activity, drawing upon the whole range of the longitudinal data, back to birth. This gives us a good purchase on the differential sorting of different groups of young people, defined by factors such as gender and socio-economic background, into the different kinds of leisure context.

The second stage of the analysis, which is the core of our interest, focuses on the outcomes of participating in different kinds of leisure activity, taking account of, by means of statistical controls, the different characteristics of the young people engaging in them. For simplicity we define the outcomes in binary terms: that is to say we take, for example, the outcome of being employed at age 30 as opposed to being unemployed; or having a certain level of qualification as opposed to not having it. The modelling approach is to estimate the probability of a young person falling into one of these categories as opposed to the other, so that a marginal effect can be estimated, conditional on the specified controls; i.e. how much higher or lower is the probability of the outcome for a young person who participates in it, than for one who does not. The main results of the work are reported in these terms.

Accordingly, we use logistic regression to obtain the estimates. These can be interpreted as showing the change in probability of entering the outcome status category, given participation in a given leisure context as opposed to not participating in it. The estimate takes into account the effects of all other leisure activities in which the young person could also be participating, as well as the whole range of family background and personal attributes variables selected as controls.

The modelling approach draws on the following data:

- Age 16 activities and contexts;
- Age 0 – 16 family background factors;
- Age 0 – 16 child development outcomes; and
- Age 30 outcomes.

We require data on each of these four sets of variables. In the analysis we first take the contexts at 16 as our dependent variables and focus on the associations of family background at age 0, 5 and 10 and child development at 10 on these contexts at 16. We then take the age 30 outcomes as the dependent variables and focus on the extent to which the age 16 leisure contexts and activities predict the outcomes, using the family background and child development variables as controls, i.e. to condition out selection bias.

A more detailed discussion of the methods is given in Sections 3 and 4, before the relevant results are presented.

1.4 Structure of the report

Section 2 of this report describes in more detail the measures available. In particular Section 2 categorises the age 30 outcome variables in terms of the five outcome areas identified in the green paper, "Every Child Matters" (ECM). Section 2 also gives specific details on the context measures and on the control variables, i.e. those reflecting distal and proximal influences, and child development indicators. Section 3 considers the issue of who participates in which contexts, presenting the results of

modelling the impact of the variables identified with distal and proximal factors, and child development indicators (child attributes) on the age 16 context measures. Section 4 reports results for the impact of the different types of leisure activity and context on the age 30 outcomes, conditioning on the distal, proximal and child factors serving this time as controls. Both participation and frequency of participation are investigated. We also model the impact of different kinds of leisure activity and context on age 30 outcomes for a particular subsection of the population likely to be at most risk of adult social exclusion. Section 5 concludes and provides important caveats recognising the limitations of what was a highly compressed research project.

2. Data resources

2.1 1970 British Cohort Study (BCS70)

The 1970 British Cohort Study is a longitudinal study following into adult life all the individuals born in GB in the week April 5-11, 1970. Follow-up surveys were carried out at ages 5, 10, 16, 26, and most recently, at age 30. The achieved sample at birth was 17,198, roughly 97% of the estimated target birth cohort. The responding sample was 14,940 at age 10, and 11, 628 at age 16. A lower response rate arose at 16 because a teachers' strike at the same time meant that many cohort members did not receive their questionnaires.

A total of 11,261 interviews were achieved at age 30 and outcome measures were available for roughly two-thirds of the achieved age 16 sample.

2.2 Categorisation of age 30 outcomes in the BCS70

The long-term adult outcomes used are all measures in the "negative direction" i.e. the kinds of outcomes – lack of qualifications, crime and so on – typically identified with social exclusion. They were assessed in 1999/2000 when the cohort members were age 30. The 23 age 30 outcome measures used fall into three broad domains of adult life. Not all of these, such as smoking and drinking, would be properly described as social exclusion indicators, but through the association with long term ill-health and marginalised life-style, they link to socially excluded statuses. All outcome measures were constructed as binary variables to define location in a socially excluded category. Table 1 in the statistical appendix categorises these outcomes into the five areas prioritised in ECM to provide an indication of how closely this paper will sit with policy objective. Summary statistics are also presented.

It is notable that some outcome binary variables are highly skewed as shown from the column of means in the table. As binary variables these give the proportion in one of the two categories. The following outcomes are all highly skewed in this sense: single parent, homelessness, victim of crime, serious offender, racial intolerance, and living in a workless household with children.

2.3 Leisure contexts

The leisure context variables covered ten types of leisure activities:

"Sports/community centre" linked the two kinds of venue and was mainly focused on sport;

"Youth club" referred to out-of-school-hours clubs for young people. These are typically run by local education authorities but run quite separately from the schools the young people were attending;

"Uniformed youth organisation" included boy scouts and girl guides, boys brigade and girls brigade and various kinds of cadet corps;

"Church" embraced the range of activities that churches run for young people outside religious services ranging from youth fellowship or group, to sports, to choir;

"Other" was a catch-all category mainly picking up other kinds of sports activity, music and dance;

"School-based leisure activities" included concerts, plays, clubs and societies, excursions and holidays, and charitable activity;

"Lessons" were of two kinds: those run out of hours in the school, and those run by other organisations outside school;

Table 1 in the statistical appendix also gives descriptive statistics for the binary variables "participated"/ "did not participate" in each table and for the reported frequencies of participation.

2.4   Control variables

The control variables introduced address the distal and proximal factors referred to in Section 1, including socio-demographic characteristics of the family and the neighbourhood, and child attributes including attainment measures. The variables were grouped in terms of type of influence – distal, proximal, child attribute – and the age at which they were measured – birth, 5, 10 or age 16. Summary statistics are presented in Table 2 in the statistical appendix.

3. Influences on young people's out-of-school leisure activities

3.1 Modelling approach

In this section we use the theoretical framework set out in chapter 1 to identify sets of variables that are hypothesised to impact on young people's propensity to engage in different kinds of leisure activity and context. First we introduce the family distal factors concerned with socio-economic status, income, and parent's education. Second we introduce family proximal factors concerned with parental interests and hostility towards the child. Next we move to peer and neighbourhood factors, then child development, and finally age 16 behaviour, and indicators of personality development at age 16. Introducing these blocks of variables in steps has the merit of showing how variables that early on in life may seem particularly powerful predictors of different kinds of adolescent activity and have their effects mediated by the social relations associated with the proximal influences operating in the family and in the peer group. (Full details of these are available on request.) For the purposes of the report the results of the final regression analysis, including all variables, is of primary interest, and we focus on that.

Table 3 in the statistical appendix supplies the regression coefficients expressed as marginal probabilities, with indications of a statistical significance; i.e. the probability of the statistic being significantly different from zero. Three levels of probability are distinguished: 5%, 1%, and 0.1%.

3.2 Sports and community centre

Notably none of the distal factors had any impact on engagement in leisure activities in these contexts, and generally there was little impact of almost all the other variables on it. A few exceptions appertain principally to health-related behaviours that may well be antagonistic to sport, including eating problems at 10 years of age, and smoking at 16 both of which were negatively associated with this type of context. Notably, going to pubs and engaging generally in anti-social acts had a positive relationship with this context, whereas for engagement in criminal anti-social acts the relationship was negative. Of all the psychological characteristics measured, only internal locus of control showed a significant positive relationship with this context, i.e. young people using it tended to feel they had personal control over their lives rather than subject to the control of others.

Generally we can conclude that sports and community centre activity embraces a full cross section of the population and is not biased towards particular socio-demographic groups and, other than internal locus of control, towards young people with particular personal attributes.

3.3 Youth clubs

Youth clubs as a leisure context, showed a rather different picture from that of sports and community centres. This was predicted by membership of large, low-income families, and low birth weight (associated with mother's inadequate diet at the time of the child's birth). There was a negative association with parental approval of friends, and also with having acquaintances (i.e. a peer group) who were reported as engaging in anti-social acts. Youth club attendees tended to have higher self-efficacy than others and lower levels of internalising problems. This apparent contradiction is in line with Emler's conclusion that negative attributes in adult terms need not necessarily be accompanied by negative self appraisal providing the peer group context is supportive[5].

3.4 Uniformed youth clubs

These contexts were based on membership of organisations such as scouts and guides and appeared to attract a very different clientele from those going to ordinary youth clubs. Good readers, high scorers on vocabulary measures, lack of internalising behaviour problems and young people doing homework after school were all more likely to be engaged in uniformed activities than other young people; as were those from high to medium income and high socio-economic status, English speaking, small families. Internal locus of control was also associated with this kind of activity.

3.5 Church activities

Church-going attracted girls more than boys. Young people from low income middle class families, with parents showing interest in their children's progress at school were also more likely than others to be engaged in Church-based activities. Parents tended to approve of these children's activities and the children tended to be high primary school achievers in classes with a high proportion of middle class children living in good neighbourhoods. The young people themselves were characterised by a high internal locus of control, doing homework and helping at home; though their self-efficacy tended to be low. They tended not to go to pubs.

3.6 Out-of-school lessons, non-school lessons, any lessons

A similar picture was obtained for most of these activities so they were treated as a single group. Girls were far more likely to be involved in such lessons than boys. Few of the other "distal" factors appeared to have any impact. The children's own capabilities, as revealed through educational performance measures at earlier ages, tended to be associated with engagement in these education-related activities, particularly for non-school lessons. Age 10 cognitive development indicators, such as reading and maths, doing homework after school and reading for pleasure were also

---

[5] Emler, N. (2001) *Self esteem: the costs and causes of low self-worth*, York: Joseph Rowntree Foundation.

associated with out-of-school lessons, as more surprisingly, was truanting. Such children also tended to have a high internal locus of control, but few other personality characteristics were identified specifically with this kind of activity.

It seems likely that the main incentive for children to engage in lessons after school comes from their parents who are responding to two kinds of situation. Firstly parents may be responding to various kinds of falling behind on the part of their children, which the extra lessons can help to make up. At the other end of the spectrum, they are probably high-performing children whose parents want to extend their learning beyond the formal school day through more educational experience such as music. Somewhat surprisingly, neither kind of motivation appeared to be significantly associated with socio-economic status.

3.7 Volunteering

In contrast to many of the other activities, volunteering was strongly related to a large number of both distal and proximal factors. The overall picture was of high achieving young women coming from relatively well-off, high socio-economic status families, living in good neighbourhoods and though not necessarily attending high-performing schools. Such young people also helped at home and seemed to have an active social life. There was a greater tendency for those engaged in volunteering to go to pubs and to smoke compared to those not engaged in volunteering. There was also a negative relationship with engagement in criminal anti-social acts. Again, there tended to be a high internal locus of control among these young people. Girls from single parent families were particularly likely to undertake volunteering but this is probably an artefact of the data coding process, by which volunteering may include baby-sitting and child-minding activities, not necessarily those outside of the home.

3.8 After-hours school activities

Those engaged in these school activities tended to follow a similar pattern to that of volunteering, again tending to come from high income socio-economic groups, in good-performing schools and with supportive parents. They also tended to show a high locus of control.

3.9 Conclusions

The overall picture we get from these results is one of a broad distinction between, on the one hand, youth activities that relate to some form of schooling either directly or indirectly (including extra lessons, after-hours school activities and uniformed activities like scouts and guides), and on the other hand, youth clubs. The former tend to be identified with higher socio-economic status families and successful children in tune with schooling. Youth clubs attract a different type of young person, typically from a low socio-economic status and low-income family, and with a poor school record.

We see emerging therefore two broad routes through education, to which leisure activity and the context in which it takes place will tend to add reinforcement. One route comprises young people on the educational pathway to high achievement typically identified with such distal factors as high socio-economic status and parental support. The other route suggests movement out of education within the context of poor socio-economic circumstances and lack of parental support. In this sense engagement in one or another kind of leisure activity appears to reinforce existing developmental processes rather than redirect them. The major exception is sport and community centre activity, which overrides family background factors appearing to serve the whole population more evenly.

4.   Adult outcomes of out-of-school leisure activities

4.1   Analytic approach

In this next stage of analysis we move a step forward in using the leisure activities themselves as the predictors of later outcomes, but also controlling for the wide range of distal and proximal factors to which they relate, in the interest of minimising selection bias. We attempt to equalise the groups entering different kinds of leisure contexts in terms of the backgrounds and personal attributes identified with the earlier distal and proximal influences to which they have been subjected. The aim is to isolate an independent leisure context effect.

As described earlier, the outcomes are grouped in terms of the ECM classification:

i.   Being healthy;
ii.   Staying safe;
iii.   Enjoying and achieving;
iv.   Making a positive contribution; and
v.   Economic well-being.

We place controls on the predictions of these outcomes from leisure contexts in two ways. Four sets of results are presented:

i.   Controlling for family background and development up to age 10;
ii.   Controlling as in (i) but also including age 16 measures;
iii.   Taking frequency of participation as the key policy variable; and
iv.   Considering effects of contexts for key risk groups.

First, maintaining the longitudinal time-sequencing of the data, we restrict the controls to 10 year-old individual attribute measures together with all the other distal and proximal factors operating up to that age. In the second set of results we introduce, as a further set of controls, age 16 measures of attributes and background circumstances. These are synchronous in time with the leisure activity, so therefore might be expected to eliminate much of the effects of the age 16 leisure activities. Such a step might be seen as "over-controlling" in the sense that we have no means of knowing whether the effects on long-term outcomes of these factors precede or follow, in a causal sense, the effects of leisure context. The results could therefore be misleading. Accordingly, we place main reliance on analysis that includes controls only for variables measured up to the age of 10. However, for the reasons given, introducing the age 16 controls can be seen as a particularly stringent test of the effects of contexts.

The third set of results is made possible by the fact that for five of the leisure contexts (sports centre, community centre, youth club, uniformed youth club and church)

measures were available for the reported *frequency* with which the activity had been undertaken – once a week, twice a week, three times a week and so on.
For the final set of results we focus specifically on 2 groups particularly at risk for many of the adult social exclusion outcomes. We focus specifically on groups at risk of criminal offending. The specific groups are defined in the relevant subsection below.

Note that in all of these sets of regressions, we enter simultaneously the relevant set of variables indicating participation in age 16 contexts. Thus, in Model 1, for example, 10 "dummy variables" are entered, each indicating participation or otherwise in one of the observed contexts. The interpretation of the resulting coefficients must be for each dummy variable as relative to non-participation in that specific context. The effects of youth clubs alone, relative to no participation in any context is provided by the marginal effect parameter on youth clubs.
Because many children participate in more than one context the effects of the different contexts can be added so that, for example, the effects of participation in youth clubs and sports centres is the sum of the two relevant marginal effects. A more sophisticated analysis would allow for full interaction effects – the effect of participating in each set of contexts – but this extension to the analysis was not possible in the time available, and is not necessary for the interpretation given.

4.2   Model 1: Controlling up to age 10

Partial results from the first set of regressions are provided in Table 4 of the statistical appendix.

4.2.1 Being healthy

Being healthy comprised both health-related behaviours and psychological dispositions. Becoming a single parent was also included. Taking account of the very large number of controls employed in the analysis, the results are quite striking for some variables, if not so much for others. Thus for smoking: most of the different kinds of leisure activity appeared to have a statistically significant effect in reducing the probability of smoking. The exception was youth club and to a lesser extent non-school lessons. Adult smokers tended to be more likely to have spent their leisure time at 16 in youth clubs, and less often in sports and community centres, even conditional on all the age 10 and prior information. They tended not to be church goers, nor to engage in out-of-school activities, nor to engage in school activities. Obesity showed no statistically significant connection with leisure activities.

Moving to psychological kinds of outcome, depression appeared to be countered only by participation in sports and community centre activity. Depression was strongly related to being female as was psychological disturbance more generally. The age 30 family status of "single, separated or divorced" was more likely for men and negatively related to age 16 sports and community activity, i.e. the probability of *not*

being in this status appeared to be enhanced by engaging with this context at age 16. Being a single parent was clearly predicted by youth club attendance at 16 and women tended this time to be far more likely to have this family status than did men.

4.2.2 Staying safe

These variables comprised "temporary or social housing", "being homeless" and "being a victim of crime". A similar picture emerged as previously. Attendance at a youth club tended to predict these adult statuses, whereas sports and community centre involvement was negatively associated with them. Only for the outcome of temporary or social housing was there a statistically significant effect. Being a victim of crime was strongly associated with being male; none of the leisure activities related to it.

4.2.3 Enjoying and achieving

This category comprised "satisfied with life so far", "no qualifications", "not level 2 qualifications" and "not level 4 qualifications". Satisfaction with life was not predicted by any of the age 16 leisure context variables. Notably gender, in this case, had no bearing on the outcome.

Achievement showed a much stronger pattern, reflecting the integral connection between leisure context and educational achievement. Youth club attendance showed the strongest relationships with *poor* educational outcomes, while sports and community centres, uniformed youth clubs (less so) and church-based activity showed negative relationships; i.e. these latter activities appeared to *enhance* the prospect of high achievement. Notably additional lessons, inside or outside school, were not significantly related to qualifications, nor was volunteering or school-based leisure activity. Another interesting feature of the results was the steady rise in the size of the strength of the prediction (coefficient estimates) as the qualification level increased. In other words the largest return to the age 16 leisure activity variables was identified with getting a degree (Level 4 qualification).

4.2.4 Making a positive contribution

The negative outcomes under this category included "being an offender", "being a serious offender", "racial intolerance", "not voting" and "no civic memberships". Being an offender was positively predicted by youth club attendance and negatively only by out-of-hours school lessons and being female. Serious offending was related only to youth club attendance. Racial intolerance appeared to be countered by church attendance at 16 and by being female. Voting was positively linked to being a member of a uniformed youth club and to church attendance and (barely significantly) to school-based leisure activity. Memberships were most common among those 30 year-olds who had attended, at 16, uniformed youth clubs, church leisure activities and after-school lessons.

4.2.5 Economic well-being

This comprised "low income", "living on benefits", "living in a workless household" and "living in a workless household with children". Low income was *less* likely among 30 year-olds who had attended sports and community centres, uniformed youth clubs and school-based leisure activities. Living on benefits was less likely among those who had engaged at 16 in "other" kinds of leisure activity (mainly hobbies and sports). Low income and living on benefits was also more likely among women than among men. Living in a workless household was related (negatively) only to sports and community centre activities.

4.3   Model 2: Adding in age 16 controls

Results from this set of models are provided in Table 5 of the statistical appendix.

As we might expect, when 16 year-old controls were added, fewer of the relationships with leisure context reach statistical significance. Those that survived particularly strongly were the predictors of qualifications at different levels (youth clubs, negative; sports and community centre, uniformed youth club and church-based activity, positive). Sports and community centres also appeared to reduce the likelihood of depression, being single, divorced or separated and (with school-based leisure activities) living in temporary or social housing. Youth club attendance still showed up as a powerful predictor of being an offender or a serious offender, even conditional on the age 16 controls.

4.4   Model 3: Taking account of frequencies

Results from this set of models are provided in Table 6 of the statistical appendix.

Because of the greater variability encompassed by this measure, compared with the binary context measures considered so far, not surprisingly more of the leisure contexts showed effects. Thus being a smoker at age 30 was less likely with higher frequency of attendance at sports centres, uniformed youth clubs and church, whereas frequency of attendance at youth clubs increased the probability of being a smoker at age 30. For depression, sports and community centres appeared to offer an antidote, in the sense that depression was less likely for those participating, as was the case for the outcome of being single or separated. In contrast, frequency of youth club participation predicted single parenthood, whereas frequency of uniformed youth club was negatively associated with single parenthood.

Including age 16 controls again reduced the number of statistically significant relationships. Sports and community centres and churches continued to be associated with positive adult outcomes, whereas youth club attendance was still significantly associated with negative adult outcomes.

4.5 Model 4: Considering high-risk subgroups

In this final section we report results from models in which we limit the analysis to those for whom the adult social exclusion outcomes are particularly likely. Many such subgroups might be created and many would be of policy and theoretical interest. We focus here on two subgroups. The first comprises those 16 year-olds with three or more risk factors from the following:

i.   top quartile of the distribution of anti-social or criminal activities committed personally;
ii.   top quartile of the distribution of anti-social or criminal activities committed by friends;
iii.   a smoker at 16;
iv.   truanting from school, and;
v.   not wanting to stay on in education at age 16;

The second subgroup comprises just those young people in the top quartile of the distribution of those admitting anti-social or criminal activities committed.

Restricting the analysis to these subgroups of course means that the sample size comes down, to around 500 for the first subgroup, or 900 for the second. This reduces statistical significance for all coefficients and reduces degrees of freedom in terms of the number of control variables that might be introduced. What is gained, however, is an analysis focusing on a relatively homogenous subgroup, who are demonstrating some level of increased risk. Due to the reduction in the sample size, fewer control variables are introduced. We restrict controls to dummy variables to indicate social class and measures of mathematics and reading at age 10. As in the previous section, the leisure context variables are expressed in terms of frequencies. Results are reported in Table 7 of the statistical appendix.

It can be seen that, as expected, fewer of the effects of leisure context were statistically significant. However, for subgroup 1, the smallest subgroup, negative effects of youth clubs on offending rates persisted and were particularly strong. This may still reflect selection bias – the decision to go to youth clubs representing impulses that may also be associated with subsequent criminal activity rather than the effect of the youth clubs themselves. However, those who assert this interpretation must recognise that the youth clubs of 1986 were clearly environments in which children with high levels of propensity to engage in activities leading to offending and other adult social exclusion outcomes were congregating. It is not obvious from these results that the youth club experience did anything to ameliorate these risks. On the other hand, those 16 year-olds at risk who attended the other contexts had no such negative subsequent outcomes. It is a reasonable and plausible interpretation that structure, focus and adult supervision are important elements of youth contexts that can support positive development for at-risk young people.

For the second, slightly larger risk sample, similar results emerged. This sub-sample comprises the one quarter of children with the highest levels of participation in criminal or anti-social activities at age 16. For this quarter of the sample, the protective effects of sports centres are striking, being significant at 5% for a good number of the outcomes, including the likelihood of being found guilty in court by age 30 and being homeless by age 30. Youth clubs, on the other hand, were positively associated with adult social exclusion in terms of being a victim of crime, not achieving Level 2 qualifications and being found guilty of criminal activities more than twice in a magistrate's court. At the very least, an apparent conclusion is that those children at risk of these later outcomes, who also attended youth clubs, were either exacerbating their level of risk or seeking out contexts that did little to offset the apparent risk.

4.6 Conclusions

The results presented in this section extend the pattern of development described in the previous section. The long-term impact of distal socio-demographic family background factors on young people's attendance at youth clubs, as opposed to other kinds of activities, appears to strengthen the particular educational trajectory typically identified with these factors. Thus the negative consequences of poor socio-economic background, as manifested, for example, in the middle teens in youth club attendance, reinforce the tendency towards negative long-term adult outcomes. In contrast those activities arising from the more affluent and educationally supportive family backgrounds, such as uniformed clubs, church and school-based leisure activities, tend to be associated with positive adult outcomes.

Sport and community centre activity is also associated with positive adult outcomes. However, as we saw earlier, in this case the activity is quite distinctive in largely attracting young people independently of their socio-economic background. Consequently sport and community centre activities might well be playing a role in ameliorating the long-term effects of poor family background. This is not the case for youth clubs, where long-term *negative* likelihoods tend to be marginally strengthened through engagement with this leisure context, especially in relation to the achievement of qualifications and youth offending. Nor is it the case for participation in uniformed youth activities and church and school-based activity where, if anything, the long term positive effects of strong socio-economic family background are strengthened by such participation.

It is a particularly important challenge for policy in this area to recognise that although the effects of relatively unstructured environments for young people may not be as positive as policy may wish, these may be precisely the contexts in which the most challenging and at-risk young people are choosing to engage. It may be the lack of imposed adult structure and curricula that makes these contexts attractive. Therefore imposing structured activities risks excluding from these programmes precisely the groups targeted. Similar conclusions have emerged from evaluations of

policies to reduce social exclusion among young people. Activities with a well worked-out educational component (including a residential element) appear to work best[6]. As we have also discovered, sport has particular attractions to 16 year-olds, which makes the case for anchoring the wider curriculum experience around it. Such a synthesis of activities across contexts that "work" would seem to lead to the best prospects for success.

---

[6] Bynner, J. Londra, M. and Jones, G. (2004) *The impact of economic policy on social exclusion among young people*, London: Social Exclusion Unit.

5. Discussion and conclusions

5.1 Background

The evidence we have considered supports the hypothesis that leisure contexts matter in young people's development – even though not always as expected. This provides an important basis for understanding why and when youth policies work or fail to work and how they might be more effectively targeted and improved.

We set the scene for our analysis in terms of the role that youth leisure activities and contexts have in young people's development. We noted the divide between those whose engagement is fully in line with school and educational aims and those whose leisure life puts them to a certain extent in conflict with these aims. We also mapped out a framework for identifying the range of key influences that shape these different pathways in terms of distal and proximal factors and manifest child cognitive and personality attributes at different stages of childhood.

Our strategy was guided by the overarching "lifecourse" perspective and set out to try to identify by statistical modelling the *added* effects, if any, over earlier circumstances and achievements, that participation in different kinds of leisure contexts could have on long-term adult outcomes identified with social exclusion.

5.2 Evidence

We have presented the results of five sets of analyses. The first considered the issue of who chooses which adolescent (age 16) leisure contexts. We considered how factors such as socio-economic family background and earlier child development predicted participation in a range of contexts, including sports and community centres, youth clubs, church activities and uniformed youth groups. We found that youth clubs were characterised by participation from adolescents with above average levels of family deprivation and with personal characteristics strongly associated with increased probability of social exclusion in their own adult lives. This picture was reversed for uniformed and church activities. Those engaged in sports activities were fairly representative of the general population of adolescents.

We then went on to see how these youth activities predicted social exclusion in adulthood using a range of measures of adult outcomes across the five domains of the "Every Child Matters" Green Paper. We undertook four sets of analyses to address this research question, the analyses varying in terms of the definition of the age 16 context measure, the control variables selected for inclusion and the sub-sample investigated. It is striking that even in the most rigorous models tested in which we either (i) controlled for age 16 covariates in the regression as well as measures from age 0, 5 and 10, or (ii) restricted the analyses to at-risk sub-samples: the general pattern remained that participation in youth clubs was associated with adult social exclusion, particularly in terms of criminal offending or poor educational attainment.

Thus, children who attended youth clubs were 4 percentage points more likely to fail to achieve qualifications than those who were not, even controlling for factors such as family income and social class, parental concern for education, ethnicity, neighbourhoods and the adolescent's own age 5 and 10 cognitive development, peer relations at age 10, and age 16 truanting, smoking, participation in criminal activities, mother-rated conduct disorder, and the age 16 desire of the adolescent to stay on in education or not.

On the other hand, participation in more structured activities, either in sports or community centres, or in terms of church or uniformed activities, was generally associated either with beneficial or zero effects. For example, children who were active in sports and community centres were 4 percentage points less likely to fail to achieve Level 2 qualifications than those who did not participate in such activities, even controlling for all the age 16 and prior variables. In other words, the effects of the sports or community centre participation are robust to the inclusion of a great many of the factors that explain the differences in participation. Even when controls are introduced for factors such as age 16 anti-social behaviour, truancy and smoking, amongst others that may be part of the mechanism by which participation in sports centres has its long-term effects, the statistical association remains.

Overall, therefore, we draw two general conclusions. Firstly, in line with our theoretical framework, there is a clear difference between those who participate in youth clubs and those who do not. Youth club participation is predominantly undertaken by adolescents who are, for other reasons, at risk of adult social exclusion. Those who participate in the other age 16 contexts, on the other hand, are more likely to be characterised by reduced risks of adult social exclusion. Such predispositions are grounded in earlier circumstances and experience to which the age 16 leisure experience adds reinforcement. Sports centre participation is an interesting example because those who participate are fairly representative of the population at large, on average without particularly high levels of risk or protection for adult social exclusion. This means that those engaged in them are likely to be less influenced by social origins than others, offering in some sense a platform for positive development and constructive influence.

Secondly, youth clubs are found to be fairly strongly associated with adult social exclusion, even beyond the risk that their characteristics lead the analysis to predict.

5.3 Caveats and extra analyses required

Before drawing any final, general conclusions from this finding, we would like to emphasise once more that this research exercise has been conducted quickly, in line with the requirements of those funding it. There are a number of additional analyses that we would recommend before concluding too firmly in the direction that the current results tend to indicate. In particular, we would propose analysis to consider the following issues.

There should be more detailed study of the complex interactions between contexts, i.e. the combinations of contexts in which individuals participate. The results of the study presented here can be interpreted as showing the effects of participation in each context relative to non-participation in that context. Effects can be considered additively, but more sophisticated analysis should be undertaken.

Further analysis should unpack the age 16 context measures in more detail. We have grouped together some quite diverse youth activities under the headings provided. The underlying more specific activities may have important individual effects that have been obscured. The volunteering variable, for example, hides a great range of different activities that may be very important for policy, and these different pathways should be assessed. In the time available it has not been possible to undertake detailed investigation of the effects of participation in music and art-based activities, to give two examples amongst others that may be important.

It would be very valuable to know more about the pathways by which these context effects are realised. There are many mechanisms and channels through which the relationship between age 16 activities and age 30 adult social exclusion may be generated. Knowing more about these would help both in establishing the validity of the estimates and understanding the results, and so developing appropriate policy.

In the final set of results presented we considered the effects of context measures for particular at-risk subgroups. We focused on those particularly at risk of criminal offending, but other subgroups who may be particularly at risk of some of the other social exclusion outcomes should also be investigated.

We have dealt with missing data by imputation or by use of a dummy variable categorisation. More robust techniques are available such as Full Information Maximum Likelihood and models should be run using these to test robustness. However, we have not undertaken imputations for any of the context measures or adult outcomes so it is very unlikely that the results would change substantively. The fact of high attrition remains a problem and should be borne in mind in all interpretations of these results. Many of the young people failed to engage in the survey and this introduces biases into estimation that should be more thoroughly studied than has been possible here.

The data considered are from children born in 1970 engaging in youth leisure activities in 1986. There are other more recent data sets that may lack the detail of the 1970 cohort, but which provide more up-to-date information that should also be investigated. In this regard it is interesting to note a recent study from Sweden (Mahoney, Stattin and Lord, 2004[7]) which found very similar results in a sample of

---

[7] Mahoney, J.L., Stattin, H., and Lord, H. (2004) 'Unstructured youth recreation center participation and antisocial behavior development: selection influences and the moderating role of antisocial peers', *International Journal of Behavioral Development*, 28: 553-560.

1,163 adolescents passing through the unstructured youth recreation centres that were established in Sweden in the 1990s. These settings were established in order to provide young people with leisure contexts as alternatives to congregating in public spaces, in particular street settings. The study found not only that increases in use of the recreation centres were associated with increases in anti-social behaviour but that the effects were worse the higher the level of anti-social behaviour of peers in the youth centres. In other words, peer relations explained a large part of the negative effects of unstructured youth settings. Given its centrality to adolescent development, the process of peer influence can be expected to be fairly general across time and place. The evidence from the 1970 cohort can therefore be reasonably interpreted as providing genuine warning signals about the importance of the relational content of young people's experience in youth centres. The warning should be heeded today every bit as much as 20 years ago.

5.4   The policy implications

Even when all of these additional analyses have been undertaken, however, the methodological problem of selection bias remains. This is not entirely a technical matter; youth clubs are associated with social exclusion, but as we have argued it is likely that this is because they are a proxy for unobserved characteristics that drive both youth club participation and the adult outcomes. However, under this interpretation, it must be recognised that most at-risk adolescents are choosing youth clubs almost as a pathway for negative outcomes, possibly deliberately. It is not unreasonable in this situation to assert that provision has not been entirely successful.

However, a focus on outcomes may run counter to the perspectives and self-concepts of many of the adolescents who are important in the generation of the kinds of statistical results presented, and to those of adults who work with them. The solutions to the problems of young people are not going to be church and sport. Rather, these more structured activities represent better models of engagement with and between young people because there is a general focus on structured, joint activities towards a common goal, even where the objective is as apparently mundane as a good game of football, for example.

The channelling of energy and aspiration into activity that is viewed as socially or personally beneficial is a challenging task for youth workers, as for young people and their families. At the very least, it may be viewed as a government responsibility to ensure that youth contexts do not add to the processes of experimentation and risk in ways that make the likelihood of adult social exclusion worse, on average, than it would otherwise have been. Recognition of some level of risk may be necessary to ensure the engagement of those young people in contexts that may ameliorate their aspirations, self-concepts and behaviours.

Beyond this, for many young people provision of structure, common objectives, a range of curricula such as sport and music, and engagement in youth activities may

provide developmental opportunities that can significantly transform their life paths at key transitional moments. Therefore, youth contexts can provide an important channel for government investment in the lives and well-beings of individuals and communities.

It should also be emphasised that another reason why church-based, uniformed and sporting activities demonstrate better long-term results, whereas the effects of youth clubs appear on the whole to be more negative, may well be that participation in the former is more commonly built up over a long period of time, during which relationships with other children and adults are formed, common understanding is developed and objectives and norms are discussed and set. This persistence and continuity in provision may be a vital element in its success.

Leisure contexts in adolescence and their effects on adult outcomes

This report describes research undertaken by WBL for the government's Strategy Unit as part of the development of an evidence-base to inform government thinking on provision for young people. It examines the kinds of background and personal characteristics that predict participation. We look at which children are taking part in different types of age 16 leisure contexts and then consider the apparent implications of these contexts on later outcomes, measured in the same cohort at age 30.

The research is based on a preliminary analysis of the relevant data, so conclusions from the study are tentative. However, a clear finding is that the contexts in which adolescents spend their out-of-school time are important aspects of their pathways into adulthood and carry strong signals about future life chances. We conclude that the provision offered in these contexts is an important and hitherto under-valued and under-resourced component of the infrastructure for young people. Structured activities at around age 16 can make a big difference to the life paths of adolescents.

Yet the contexts in which young people congregate bring risks as well as opportunities. The expansion of funding for out-of-school contexts cannot be made without assessment of the quality of that provision. Peer group effects mean that there are unlikely to be positive long-term effects for children if no structure is provided but successful mediation of these risks can bring lasting benefits. However, it is the young people who need targeted provision and support that are most likely to be found in unstructured settings. These are precisely the settings where adult facilitation and investment is needed.

From a perspective of equality of opportunity, the big policy challenge is to develop leisure settings in which young people who are most at risk of adult social exclusion will engage, while at the same time building in the elements of curriculum and structure that this analysis has identified as supportive of subsequent social inclusion.

Leon Feinstein is Director of the Centre for Research on the Wider Benefits of Learning and Reader in the Economics of Education at the Institute of Education.

John Bynner is the former Director of the Centre for Research on the Wider Benefits of Learning and Professor of Social Sciences in Education at the Institute of Education.

Kathryn Duckworth is a Research Officer at the Centre for Research on the Wider Benefits of Learning.