"Skolans främsta uppgift blir att fostra demokratiska människor" [The main duty of the school is to foster democratic individuals]. /School Commission 1946

"Förskolors och skolors uppdrag är att utveckla demokratisk kompetens hos barn och unga" [The task of preschools and schools is to develop democratic competence in children and young people]. /National Agency for Education 2001

## AIMS AND OBJECTIVES

Encouraging the ability of children and young people to think and act democratically is one of the main aims of Swedish education policy. As the above quotations show, this is not a new idea: the view that one of the most important missions of the school is to foster good democrats has come to occupy a prominent position throughout the post-war period (Almgren 2006).

During this period Swedish education policy has also been characterized by a clear ideal of equality (Lindensjö & Lundgren 2000). Debaters from both the left and the right have regarded a higher level of education as an effective way of reducing the gaps in society. The argument that *equal access to education* for children from different social backgrounds will generate *equal opportunity* has been at the heart of many of the reforms in school policy that have been introduced over the last century. At the same time there have been critics who have considered this hope naive, since the education system can rather be seen as serving to reproduce prevailing socioeconomic differences in society.

Much of the research into the effects of different educational reforms has therefore centred on how the changes in the education system have affected social equality in various respects with regard to academic achievement, recruitment to higher education, and choice of occupation and income (e.g. Björklund et al 2010; Eriksson & Jonsson 1993; Svensson 2011). On the other hand there is only limited research into how the school reforms have affected *political equality* in society (but see Almgren 2006 and Persson and Oscarsson 2010). This is surprising both against the background of the great significance attached to the role of the school as promoter of democracy in various control documents and against the background of how poorly the occurrence of socioeconomic differences in the political area squares with the democratic maxim of "one person, one vote". Or as some leading experts in the area point out:

The transmission of political inequality across generations would constitute a double infringement: transgressing not only the principle of opportunity but also the principle of equality of outcome among citizens (Verba et al. 2003:45).

At the same time we know from Swedish and international research that such inequality exists because the social background of individuals in the form of their parents' education and socioeconomic status is closely connected with political efficacy and political activity later in life (e.g. Verba et al. 2003; National Board for Youth Affairs 2010, Oskarsson et al. 2011). This is a problem because differences in political activity between different groups may have a bearing on who gets what from the state.

This project aims to investigate whether this type of political inequality may be affected by the design of the education system. More specifically we will study the extent to which two of the major educational reforms of the twentieth century in Sweden, the nine-year compulsory school reform of 1962 and the upper secondary school reform of 1991, helped to reduce the differences in *political participation between individuals of different social*, *backgrounds*. This will be done in part with the aid of statistical analyses based on unique Swedish register data, in part with the aid of qualitative in-depth interviews with individuals who were the subject of these reforms. The project has obvious intra-disciplinary and extradisciplinary relevance. Within the discipline it can contribute knowledge of why certain people are more politically active than others. Outside the discipline the research findings may help us to answer the question of whether reform of the education system really can help to improve democracy.

#### Two education policy reforms

In this project we will therefore study the effect on political equality of two major educational reforms implemented in Sweden during the last century. The first is the nine-year compulsory school reform of the 1950s and 1960s, which meant the introduction of a nine-year compulsory elementary school in Sweden. The second reform is the reform of the upper secondary school which took place during the first half of the 1990s and which brought among other things the prolongation of upper secondary school vocational courses and an increase in the proportion of theoretical subjects.

We see at least three reasons for focusing on these two reforms. The first is that both the compulsory school and the upper secondary school reform were launched as a way of promoting equality in society. When the compulsory school reform was implemented, many of its advocates saw it as a way of abolishing the class society. If every child obtained the right to a nine-year compulsory school, the idea was that in the long run this would lead to greater social equality (Englund 2005). In a parliamentary debate barely half a century later the then minister of education Göran Persson defended the proposal to introduce a three-year upper secondary school with similar arguments:

In the long run it's all about defending a democratic society. If we accept that some people will be left out, that some people needn't be included – well, then we have also said that we are abandoning one of the foundations of a democratic society, namely that we all have equal rights and are all of equal value. It is against this background that social democracy has carried out its education reforms (Minutes of the *Riksdag* 1990/91:126).

With the promotion of social equality being so fundamental to both the reforms, it is relevant to study whether the reforms actually did contribute to a realization of this political goal.

Another reason for studying the compulsory school and the upper secondary school reforms is that in important respects they were similar in content. For example both reforms implied an extension of the length of schooling for many young people and a stronger focus on social science subjects, which are often regarded as being calculated particularly to strengthen political efficacy and to encourage political activity (Almgren 2006). A third and final reason for studying the two reforms is that in both cases national implementation was preceded by a pilot scheme where for a transitional period the old and the new systems existed at the same time in different parts of the country. This means that the possibility of evaluating the effects is unusually good, because the education system could be different not only for two individuals born in successive years but even for persons born in the same year but living in different times we will also be able to study whether the effects of the reforms differ in the short and the long term.

As mentioned by way of introduction, there is quite a lot of research into how the compulsory school and the upper secondary school reforms have affected equality with regard to various social and economic outcomes. For example there has been study of the extent to which these reforms have contributed to a reduction in uneven recruitment to higher education (e.g. Erikson & Jonsson 1993; Svensson 2001) and to a reduction of income differences between people of different social backgrounds (e.g. Meghir & Palme 2005; Hall 2009).

Research into how the introduction of a nine-year compulsory school and three-year upper secondary school has influenced socioeconomic differences in political participation is scarcer, however. A partial exception is represented by a study by Persson and Oscarsson (2010), who use survey data to study how the differences in political participation between students on vocational and theoretical upper secondary school course programmes were affected by the upper secondary school reform. However, our project differs from this study in several important respects. First, we shall focus chiefly on how the reforms influenced the differences in political participation between individuals of different social backgrounds. Second, we will use the variation in education systems between different municipalities (during the pilot schemes), rather than merely the variation over time, to identify the relevant effects. Finally we will use comprehensive register data rather than more limited survey data, which will give substantially better opportunities for studying the educational effects on various interesting sub-groups.

The proposed project can thus supplement earlier research into the effects of these reforms in several important respects. At the same time, and as described below, the study of these two reforms may also make a significant contribution to the extensive political science research that exists concerning the connection between education and political participation.

#### FIELD OF RESEARCH

Put simply, there are two ways in which educational initiatives, such as the compulsory school and upper secondary school reforms, can help to reduce inequality in political participation. A first possibility is that increased education leads to a general and identical increase in political participation among all individuals irrespective of social background, at the same time as the educational reforms reduce the differences in education between individuals from different social groups. A second possibility is that education has a particularly positive effect on political participation among individuals of weaker social background. If education has such a compensatory effect on political participation, a higher level of education will lead to reduced political inequality even if the differences in education between individuals of differing social background remain unchanged. In both cases, however, there needs to be a real causal connection between education and political participation. So what does earlier research say about this?

Fifty years of political science research has generated volumes of studies that show that education is closely connected to degree of political commitment. Study after study has shown that more educated individuals are more politically interested and more knowledgeable about political questions and therefore also take a more active part in political life (for a survey of this literature, see Verba et al. (1995) and Hillygus (2005)). The greater part of this research tradition has focused on effects of the quantity of education on political participation. More education, irrespective of field and usually measured in number of years of study, is expected to lead to greater political involvement. But how the content of the education affects political involvement is equally relevant. A large number of studies show here that pupils who have taken social science course programmes have more knowledge of the political sphere and later in life are more politically active and committed (for reviews of this literature see Galston (2001) and Green et al. (2011)). A largely unanimous discipline also indicates that education is of crucial importance in explaining differences in political commitment between individuals. Some researchers have even gone so far as to claim that clarification of the strong link between education and political participation is one of the few major contributions of political science to humanity's bank of general knowledge (Schlozman 2002). Relative to the purpose of this project, however, the earlier research into education and political participation suffers from two shortcomings.

The first problem with earlier research concerns the question of whether education really does have a causal effect on political participation. That there is an empirical association between education and political participation is beyond doubt. In recent years, however, a number of critical voices have been raised against the interpretation that the strong

empirical association between education and political participation is a causal one. The misgiving expressed here is that the association is rather an effect of different types of selection processes (Kam and Palmer 2008; Persson and Oscarsson 2010; Sondheimer and Green 2010; Green et al. 2011). More specifically, the possibility has been pointed out that the same underlying factors may influence both an individual's choice of education and their political commitment. If this is the case we should rather interpret the connection between education and political participation as non-causal or spurious.

The argument behind this suspicion is based on research into the influence of early socialization and partially inherited abilities on both education and political participation. One possible factor that may explain both the education choice of the adult individual and his or her willingness to become politically active is the norms and values that the person learns while growing up. Research into socialization has shown that children of highly educated parents are themselves to a higher degree well educated (Plug 2004; Björklund et al. 2006). At the same time we know that well educated parents are also more politically committed, which in turn has a positive effect on their children and their political activity later in life (Jennings and Niemi 1981; Plutzer 2002).

The connection between education and political participation may also reflect deepseated personality factors. One such factor is cognitive ability. Previous studies have shown that cognitive ability has both genetic and social origins (Bouchard and McGue 2003). Cognitive ability in early years is also closely associated with the wish to obtain education (Entwisle et al. 2005) and to become politically active later in life (Denny and Doyle 2008).

Non-cognitive personality factors may also conceivably underlie both choice of education and political participation. For example, Entwisle et al. (2005) show that children of the age of seven who display the personal characteristic of openness – creativity, enthusiasm and receptivity to new situations – are more highly educated as adults. The same personality characteristic is also positively related to political participation (Mondak et al. 2010). Furthermore, self-reliance – faith in one's own ability to solve situations that arise in life – has a positive effect on both education (Zimmerman 2000) and political commitment (Blais and Labbe-St-Vincent 2010).

To investigate whether education in itself has a causal effect on political commitment, therefore, relevant background factors of this type have to be considered. The problem with earlier studies is that they have generally been based on a computer model and used methods giving very little opportunity for considering such matters. Information on underlying factors such as family socialization, cognitive ability and personality characteristics is often completely absent, for which reason they may be regarded as non-observable factors. There is thus a risk that in these studies education is apt to function rather as an indirect measure of, or substitute for, experience while growing up and different personality factors, which are the real causes of differences in political commitment between individuals. The possibility of then determining whether the connection between education and political participation is or is not causal is basically nil.

Another problem with earlier research is that it has focused exclusively on the average effect of education on political participation and not studied whether the effect differs between individuals of differing social background. If we wish to understand how the education system influences political equality, however, it is essential to examine how the level of education interacts with other factors such as class background, formative circumstances, ethnicity, gender etc. For example, Meghir & Palme (2005) show that the effect of the compulsory school reform of the 1950s on the later level of income of the individual was stronger among pupils from less favoured formative backgrounds. To our knowledge, however, there are no major systematic studies that examine whether education determines the effect of social background on individual political participation.

# **PROJECT DESCRIPTION**

In this project we are therefore going to study whether the compulsory school reform of the 1960s and the upper secondary school reform of the 1990s have had a levelling effect on socioeconomic differences in political participation. Methodologically we will take two different approaches – one quantitative and one qualitative. Below we describe the two approaches and how they can remedy some of the inadequacies of previous research in the field. The design of the project gives us excellent opportunities of examining whether the compulsory school reform and the upper secondary school reform actually led to greater political equality. In addition to the evaluation of the Swedish school reforms we will also be able to draw more general conclusions regarding the role of education in political participation.

#### Quantitative approach - analysis of register data

To decide whether education actually has a causal effect on political participation the ideal would be an experiment where individuals were randomly allotted different levels and areas of education and the way in which these differences influence the degree of political participation were then studied. Such a design would ensure that individuals with different educations do not systematically differ from each other in other respects (e.g. cognitive ability or fundamental personal characteristics). Fully randomized experiments of this type are naturally ruled out for both practical and ethical reasons.

An alternative research strategy is instead to make use of the fact that the reforms studied gave rise to exogenous variation in education between individuals, where there are good grounds for assuming that the level and area of education are not dependent on characteristics (observed and unobserved) of the individuals. In both cases the reforms were preceded by pilot schemes where the new systems were implemented at different times in different municipalities. As there are no clear systematic differences between the local authorities that implemented the reforms early and those that did so later, it has been claimed that both the compulsory school reform and the upper secondary school reform represent examples of natural experiments that can be used to study causal effects of education (e.g. Meghir & Palme 2005; Holmlund et al. 2011; Hall 2009).

Our idea is to utilize the quasi-experimental variation offered by the compulsory school reform and the upper secondary school reform to study the effects on the socioeconomic differences in political participation. As a first stage we will compare the differences in political participation between individuals of different social backgrounds among those who went through the new education system and the old one. For example we can then examine whether the distribution of political participation among individuals born in 1950 is less among those who went through the new compulsory school system than among those who went through the older elementary school system. We can also check whether the differences in political participation are less among persons born in 1973 who were covered by the new upper secondary school system than among persons born in the same year who went through the old system.

In a second stage we will then study the connection between education and political participation at individual level in order to ascertain whether there is a causal connection and, if there is, what it is like. We will then be studying whether there is a difference in political participation between persons born in a particular year who went through the old and the new compulsory school or the old and the new upper secondary school and whether the strength of any effects of the reforms is due to the social background of the students (in the form of parents' education and socioeconomic status). If we find that the reforms have led to a levelling out in political participation among individuals of different social backgrounds we will then also be able to say how much is because the reforms have led to a levelling in degree

of education between the groups and how much is because education has a bigger effect on political participation in individuals with less favourable social backgrounds. If we find a causal effect of education on political participation we will also be able to examine some of the mechanisms behind this effect. For example we can study how much of any effect of education on political participation comes through factors such as occupation, income and labour market status.

The data needed for carrying out these studies can be obtained by collating information from various public registers available at Statistics Sweden. As regards political participation we will obtain particulars of different types of political participation from several different data sources. Details of participation in elections from 1991 to 2010 will be obtained from Statistics Sweden's *Valdeltagandeundersökning* [Electoral Participation Survey], which is a selective survey that includes about 80,000 individuals in each election. Another source of data is provided by Statistics Sweden's *ULF-undersökning* (Surveys of Living Conditions), which is a selection-based questionnaire carried out annually by Statistics Sweden since 1975 and which includes various questions on the political and civic activities of individuals.

In addition we shall obtain details of various types of political positions held by making use of two other registers kept by Statistics Sweden. The first is *registret över nominerade och valda* [Register of Nominees and Those Elected], which contains information on all candidates nominated, elected and not elected in parliamentary, county council, municipal and European parliament elections in the period 1991 – 2010 inclusive. The other register is the *undersökning om förtroendevalda i kommuner och landsting* [Survey of Elected Municipal and County Council Representatives], which has been maintained by Statistics Sweden and which gives information concerning all elected representatives in Sweden's municipalities and county councils after the elections of 2006 and 2010. We intend in other words to study the effects of the reforms on political participation both at mass level (through Valdeltagandeundersökningen and ULF) and at elite level (through the registers of different types of political position).

As the next step we intend then to link *deanonymized* information from these data sources with other public registers, such as the multi-generation register, the upper secondary school search register and Statistics Sweden's LISA database, in order to facilitate the studies outlined above. These registers contain, in addition to basic details of people's level of education, information on a large quantity of relevant background characteristics, such as age, gender, country of birth, employment status, income and place of work. Furthermore, with the aid of Statistics Sweden's multi-generational register we can link information on parents' socioeconomic position during childhood and adolescence (education, income, occupation, class allegiance) to the individuals that are covered by the compulsory school and the upper secondary school reforms. The ethical review board in Uppsala has approved an application for linking of these public registers (Dnr 2011/471).

Within the framework of the project we also have access to a poll based on a large number (approx. 11500) of twins from the Swedish twin register (Lichtenstein et al. 2006). The survey is the product of an ongoing collaboration between researchers within the project group and researchers at the Karolinska Institute and the School of Economics in Stockholm. The material contains a large number of variables that measure electoral participation, other forms of political activism, civic norms, political interest, political efficacy and political confidence, In addition detailed information on the maximum level of education of the individuals and the focus of the education is linked to the twins survey, which makes it possible to examine whether both the length and the nature of the education affect the political commitment. The twin design is usually used to investigate the extent to which different outcomes (e.g. political attitudes and behaviour) are due to genetic or alternatively to social factors. For example in a number of studies the project participants have examined with the

aid of the relevant twins data whether political ideology (Oskarsson et al. 2012a), political participation (Dawes et al. 2011) and social confidence (Oskarsson et al. 2012b) are in part hereditary characteristics.

In this project, however, we will not use the twin design but will instead link the individuals in the twin survey to information on the compulsory school reform during the 1960s. The twins in the selection were all born between 1943-1958 and therefore belong to the generation of Swedes whom the compulsory school reform directly concerned. The selection of twins is admittedly considerably smaller than the very large selection to which we have access via Statistics Sweden's register data. The advantage of the twin survey is instead that it contains information on more relevant forms of political commitment. However it is even more important that in this way we can by a similar method – a natural experiment based on the compulsory school reform – verify the results that are based on the register data of Statistics Sweden with an independent selection.

With the aid of this survey design we believe we can deal with the two basic problems that we referred to earlier. 1) By comparison with earlier studies we are a good deal better placed to study whether education in general and the Swedish education reforms in particular actually have a causal effect on political commitment. 2) Unlike previous research, ours will not involve only an examination of whether education has on average a positive effect on political commitment. We will also study whether the education reform has led to greater political equality by reducing the effects of individuals' class backgrounds and formative environments on political participation. At the same time, however, the quantitative approach has its limitations and we will therefore also start from a more qualitatively oriented strategy to study the association between education and political participation.

#### **Qualitative approach – in-depth interviews**

In-depth interviews make it possible to broaden the analysis of political participation, which in turn cerates the conditions for also investigating *how* and *in what way* education may conceivably influence political commitment and function as an equalizer of socioeconomic differences.

With regard to the possibility of broadening the analysis of political participation, the interview study aims both to pick up several different forms of political participation but also to pick up more qualitative aspects, of political efficacy in particular. By allowing those interviewed themselves to talk about their political commitment the interview study may investigate different forms of political commitment. As well as traditional forms of participation such as electoral participation or party-political commitment, it may, for example, involve political commitment in the immediate environment, social media or other social contexts.

This part of the project will focus particularly on examining how education influences the political efficacy of individuals. Political efficacy has long been regarded by research as a precondition of political participation (cf Almond & Verba 1963) but this has proved hard to measure, being complex in nature and containing several different dimensions (cf Morell 2003). Here in-depth interviews give a chance of identifying aspects that cannot fully be captured in quantitative analyses. Researchers usually speak of an internal and an external dimension to political efficacy. The internal one is about how people see their own competence and ability to understand and influence politics, while the external one concerns how people see the possibility of being heard by decision-making bodies or by politicians (e.g. Converse 1972). Both of these dimensions will be examined in the in-depth interviews.

The interview study will in addition include a qualitative examination of whether and how education affects people's political efficacy and participation and whether education can have an equalizing effect on socioeconomic differences in the political sphere. In this way the interviews will supplement the quantitative survey by looking at how education, and also other factors such as social background, impact on people's inclination to become involved politically.

The selection of interview people will be made on the basis of the statistical data that can be obtained in the project. For each of the two reforms that have been chosen, interviewees of different social backgrounds who have taken the longer, more extensive education and interviewees who have taken the shorter one will be selected. Altogether 40-50 interviews will be held. This means that people of different ages will be interviewed. Those who went to school when the first reform started are now around retirement age whereas those who went to school when the second reform was implemented are somewhat over 30. The interview study can thus examine whether education affects people in both the short and the longer term.

The interviews will begin with general questions where the interviewees can themselves talk about both how they see their chances of being politically active and their political commitment and interest. There then follow more specific and theoretically motivated questions to be asked concerning different aspects of political efficacy and different forms of political participation. The aim here is as far as possible to avoid influencing the interviewees' replies (cf Kvale 2007 (1997)). In the same manner general questions will be asked about how the interviewees regard their own education and how it has been significant to them and also about their social background. These questions, too, will be followed by more concrete questions that concern how and in what manner the education has been important where both the length and the content of the education are illuminated. Questions concerning other underlying factors, such as the level of education and other social factors relating to those closest to the interviewee, will be asked.

### Research group, funds applied for and publication plan

The project involves five researchers: Sven Oskarsson (project leader), Karl-Oskar Lindgren and Josefina Erikson (all working at the Department of Government in Uppsala), David Cesarini (Assistant Professor at the Research Institute of Industrial Economics and at New York University) and Christopher Dawes (Assistant Professor at New York University). Salaries equivalent to 50 % of full-time for four years are being sought for Erikson, Lindgren, and Oskarsson and also for 20% for three years for Cesarini and Dawes.

We plan to present the results of the analyses in a number of reports intended for publication in respected scientific journals. We also intend to summarize the most important findings of both the quantitative and the qualitative surveys in an integrated monograph where the results of the different studies can be allowed to cross-fertilize. As the subject of the project is of more general interest we mean also to disseminate the main findings in Swedish and in more popular non-technical form.

### IMPLICATIONS/SIGNIFICANCE

The project is of obvious relevance from both an intra-disciplinary and an extra-disciplinary perspective. Studying why certain individuals are more politically committed and interested than others is fundamental in political science. As we have already pointed out several times, education has long been seen as the most important single explanation of differences in political commitment. But what used to be an established truth has now begun to be questioned. Whether the connection between education and political participation is causal must therefore be considered an open question. We would however maintain that we have exceptionally good opportunities for trying to answer that question. For one thing we have access both to quasi-experimental variation from two education policy reforms and to register data about education and political participation that in an international perspective are unique

both in nature and scope. In addition we then have the opportunity to supplement and give depth to the statistical analyses of register data with systematic in-depth interviews of individuals concerned. It is difficult to imagine that this type of study could be completed in very many countries other than Sweden.

From a societal perspective the project is important because it will contribute new knowledge of whether educational reforms can be an effective instrument for levelling out differences in political influence between people of different social backgrounds. Ultimately the project is therefore about the possibility of the school being able to fulfil its task of bringing up good democrats.

### **PROVISIONAL RESULTS**

Oskarsson, Lindgren, Dawes and Cesarini all have much previous experience of research into political participation, register-based studies and the heredity of political and economic behaviour (Cesarini et al 2009; Dawes and Loewen, forthcoming; Lindgren 2010; Oskarsson et al. 2012a; Oskarsson et al. 2012b), while in the course of work on his thesis (Erikson 2011) Erikson has become very familiar with analyses based on in-depth interviews.

A number of studies of direct relevance to the project are currently in progress. Using what is known as an "adoption design" with data concerning adopted children and their biological and adoptive parents, Oskarsson et al. (2011) examine the connection between the parents' level of education and the children's participation in the parliamentary election of 2010. The results show that children who have grown up with highly educated adoptive parents are more likely to vote in general elections. In a comparative study Oskarsson et al. (2012c) use twin data from Sweden, Denmark and the USA. The results show positive but relatively weak associations between education and participation. In a current study of the political dispute surrounding the upper secondary school reform of 1991 Erikson looks among other things at the equality aspect in an analysis of the underlying ideas on education that were at issue.

Initial project work has already begun with the approval of the ethical application to match different registers of Statistics Sweden. We have also begun a discussion with Statistics Sweden concerning the details of our data order and expect to receive a quotation from Statistics Sweden shortly. The aim is to have the project up and running by the turn of the year 2012-2013.

### REFERENCES

Almgren, E. 2006. Att fostra demokrater. Uppsala: Acta Universitatis Upsaliensis

Almond, G. A. and S. Verba. 1963. The Civic Culture. Princeton, Princeton University Press

Berinsky, A. and G. Lenz. 2011. "Education and Political Participation: Exploring the Causal Link." *Political Behavior* 33:357–373

- Björklund, A., M. Lindahl and E. Plug. 2006. "The Origins of Intergenerational Associations. Lessons from Swedish Adoption Data?" *Quarterly Journal of Economics* 121:999–128
- Björklund, A., P. Fredriksson, J-E. Gustafsson and B. Öckert, 2010. *Den svenska utbildningspolitikens arbetsmarknadseffekter*. IFAU Rapport 2010:13
- Blais, A. & S. Labbe-St-Vincent. 2010. "Personality Traits, Political Attitudes, and the Propensity to Vote." Unpublished manuscript
- Bouchard, T. and M. McGue. 2003. "Genetic and Environmental Influences on Human Psychological Differences." *Journal of Neurobiology* 54:4–45
- Cesarini, D., C. Dawes, M. Johannesson, P. Lichtenstein and B. Wallace. 2009. "Genetic Variation in Preferences for Giving and Risk Taking." *The Quarterly Journal of Economics* 124:809–842

- Converse, P. 1972. "Change in the American Electorate." I A. Campbell and P. Converse (ed.). *The Human Meaning of Social Change*. New York: Russell Sage Foundation
- Dawes, C. and P. Loewen. Forthcoming. "The Heritability of Duty and Voter Turnout", *Political Psychology*
- Dawes, C., D. Cesarini, J. Fowler, M. Johannesson, P. Magnusson and S. Oskarsson. 2011. "Do Psychological Traits Mediate the Relationship Between Genes and Political Participation?" Unpublished manuscript
- Denny, K. and O. Doyle. 2008. "Political Interest, Cognitive Ability and Personality." *British Journal of Political Science* 38:291–310
- Englund, T. 2005. "The Discourse on Equivalence in Swedish Education Policy", *Journal of Education Policy*, 20:39–57

Entwisle, D., K. Alexander and L. Steffel Olson. 2005. "First Grade and Educational Attainment by Age 22: A New Story." *American Journal of Sociology* 110:1458–502

- Erikson, J. 2011. *Strider om mening. En dynamisk frameanalys av den svenska sexköpslagen.* Uppsala: ACTA Universitatis Upsaliensis
- Erikson R. and J. Jonsson. 1993 Ursprung och utbildning: Social snedrekrytering till högre studier. SOU 1993:85, Stockholm: Ministry of Education and Science
- Galston, W. 2001. "Political Knowledge, Political Engagement, and Civic Education." Annual Review of Political Science 4:217 –234
- Green, D., P. Aronow, D. Bergan, P. Greene, C. Paris, B. Weinberger. 2011. "Does Knowledge of Constitutional Principles Increase Support for Civil Liberties? Results from a Randomized Field Experiment." *Journal of Politics* 2:463–476
- Hall, C. 2009. "Förlängningen av yrkesutbildningarna på gymnasiet: effekter på avhopp, utbildningsnivå och inkomster. IFAU Rapport 2009:7
- Hillygus, D. 2005. "The Missing Link: Exploring the Relationship between Higher Education and Political Engagement." *Political Behavior* 27:25–47
- Holmlund H., M. Lindahl and E. Plug. Forthcoming. "The Causal Effect of Parent's Schooling on Children's Schooling." *Journal of Economic Literature*
- Jennings, K. and R. Niemi. 1981. *Generations and Politics. A Panel Study of Young Adults and Their Parents.* Princeton: Princeton University Press
- Kammarens protokoll [Minutes of the Riksdag]1990/91:126, 5 juni 1991
- Kam, C. and C. Palmer. 2008. "Reconsidering the Effects of Education on Political Participation." *Journal of Politics* 70:612–631
- Kvale, S. 2007. Den kvalitativa forskningsintervjun. Lund: Studentlitteratur.
- Lichtenstein, P., P. Sullivan, S. Cnattingius, M. Gatz, S. Johansson, E. Carlström et al. 2006. "The Swedish Twin Registry in the Third Millennium." *Twin Research* 9:875–882
- Lindensjö, B. and U. Lundgren. 2000. *Utbildningsreformer och politisk styrning*. Stockholm: HLS Förlag
- Lindgren, K-O. 2010. "Dyadic Regression in the Presence of Heteroscedasticity An Assessment of Alternative Approaches." *Social Networks* 32:279–289
- Meghir, C. and M. Palme. 2005. "Educational Reform, Ability, and Family Background." *American Economic Review* 95: 414–424
- Mondak, J., M. Hibbing, D. Canache, M. Seligson and M. Anderson. 2010. "Personality and Civic Engagement." American Political Science Review 104:85–110
- Morell, M. E. 2003. "Survey and Experimental Evidence for a Reliable and Valid Measure of Internal Political Efficacy." *The Public Opinion Quarterly* 67:589–602
- Oskarsson, S., D. Cesarini and M. Johannesson 2011, "Like Parent, Like Child?" Paper presented at annual conference of APSA, Seattle 1-4 September 2011
- Oskarsson, S., D. Cesarini, C.Dawes, J. Fowler, M. Johannesson, P. Magnusson and J. Teorell 2012a "Linking Genes and Political Ideology." Unpublished manuscript

- Oskarsson, S., C. Dawes, M. Johannesson and P. Magnusson. 2012b. "The Genetic Origins of Social Trust." *Twin Research and Human Genetics* 15:21–33
- Oskarsson, S, P. Thisted Dinesen, R. Klemmensen, C. Dawes, M. Johannesson, S. Hobolt et al. 2012c. "Estimating the Causal Impact of Education on Political Engagement. Unpublished manuscript
- Persson, M. and H. Oscarsson. 2010. "Did the Egalitarian Reforms of the Swedish Educational System Equalise Levels of democratic Citizenship?" *Scandinavian Political Studies* 33:135–163
- Plug, Erik. 2004. "Estimating the Effect of Mother's Schooling on Children's Schooling Using a Sample of Adoptees." *American Economic Review* 94:358–368
- Plutzer, Eric. 2002. "Becoming a Habitual Voter: Inertia, Resources, and Growth in Young Adulthood." *American Political Science Review* 96:41–56
- Schlozman, K. 2002. "Citizen Participation in America." I I. Katzelson and H. Milner (ed.). *Political Science: The State of the Discipline*. New York: Norton
- Sondheimer, R. and D. Green. 2010. "Using Experiments to Estimate the Effects of Education on Voter Turnout." *American Journal of Political Science* 54:174–189
- Svensson A. 2001. "Består den sociala snedrekryteringen?" *Pedagogisk forskning i Sverige* 6:3, 161–72
- Svensson, A. (ed.) 2011 Utvärdering Genom Uppföljning. Longitudinell individforskning under ett halvsekel. Gothenburg Studies in Education Sciences 305
- Ungdomsstyrelsen [Swedish National Board for Youth Affairs]. 2010. *Fokus 10 En analys av ungas inflytande*. Stockholm: Swedish National Board for Youth Affairs
- Verba, S., K. Schlozman and H. Brady. 1995. Voice and Equality. NY: Harper and Row
- Verba, S, N. Burns and K. Schlozman 2003. "Unequal at the Starting Line" *The American* Sociologist 34:45–69
- Verba, S., K. Schlozman and N. Burns. 2005. "Family Ties." I A. Zuckerman (ed.). *The Social Logic of Politics*. Philadelphia: Temple University Press
- Zimmerman, Barry. 2000. "Self-Efficacy." Contemporary Educational Psychology 25:82-91