

Educational Policies Changed Norwegian Attainment Patterns 1950-2010

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Abstract

Around 1950 was Norway behind the European average in educational attainments, with larger impacts of class background and gender. This changed during the next fifty years. Especially as a consequence of the expansion of compulsory education around 1960, which especially diminished the attainment impacts of class background. But the new policies of the 1990s, that expanded higher education, strengthened its research element, and revised upper secondary curricula to support these developments, produced a fallback in these developments. The educational mobilisation of the women proceeded largely independently of policies.

Keywords: Policy effects; Educational attainments; Inequality

Introduction

European context for the developments

The object for this paper is to disclose the impacts of educational policies (as distinct from those of developments in economy and welfare) on attainment levels and inequality. Norway is the case observed. To provide a standard for assessing Norwegian developments, are at first some general trends in European education after the second world presented. In early post-war Europe had reconstruction of economies and basic facilities priority to educational development. Only nineteen percent of European youth attended (upper or lower) secondary education in 1950 [1], and seven percent got an education that formally qualified for higher education entry. The Nordic figures were even lower: in Denmark and Sweden 4.7 and 5.4 percent. In contrast attained no less than 65 percent of the relevant age group in the USA formal qualifications for higher education entry in 1959, and 32 percent started studies at universities and colleges [2]. During the next sixty years was this gap between Europe and USA closed. In 2009 completed 81 percent of the 25-34 years old Europeans a "long programme" in upper secondary education [3], among Finns and Swedes even 90 percent. 38 percent of the Europeans now attained a tertiary level grade [3], of the Swedes and the Danes 47 and 44 percent [3]. Especially impressive were the women's advance. In the 1950s they were much behind the men in educational attainment. While 11 percent of European male youth got schooling beyond compulsory, was that the case for not more than 7 percent of the women [1]. But in 2009 were 53 percent the European upper secondary completers women, and the women made up 58 percent of the graduates on the tertiary stage [3]. In Denmark, Sweden and Finland were more than sixty percent of the tertiary stage graders women. There were in the 1950s large inequalities in educational attainment between social classes. Walter Müller [4] reviewed the attainment distributions of people born 1910-1930. The percentages with "secondary maturity certificates" were found to differ by 59 between youth from service class and working class in Hungary, by 50 in Poland, 37 in Sweden and West Germany, 35 in Northern Ireland and France and 26 in England. On the basis of Müller's figures calculated we Odds Ratios for the relative chances of youth from service against working classes to attain upper secondary completion. The rates varied from extreme 28:1 in France, to 12:1 in Sweden, and 8:1 in England and West Germany [5]. The inequalities were probably even greater in higher education. Material from B. Gesser indicated that in Sweden were the "socialgrupp 1" youth's chances for university admittance 28 times that for youth from "socialgrupp 3". Shavitt and Blossfeld [6] studied developments from the 1950s to around 1980 in USA, Germany, Netherland, England, Italy, Switzerland, Sweden,

Israel, Taiwan, Japan, and three (communist) countries in Eastern Europe. All these countries expanded their educational systems during that period, mainly on the primary and upper secondary stages, and there were policies to reduce class inequalities. However, "the impacts of the educational reforms on educational inequality between classes (were) negligible" (239) in capitalist as well as in communist countries. But two countries deviated from that: educational inequalities diminished in Sweden and Netherland. More recent researches traced developments until the turn of the century. Breen et al. [7] studied developments from cohorts born around 1930 to cohorts born around 1960. They confirmed the Shavitt/Blossfeld-conclusions on Sweden and Netherland, but found that class inequalities also shrank in England, West Germany, France and Italy. Their indicators measured differences between service class and intermediate strata as well as between service class and working class and did not differentiate between upper secondary completions and attainments in higher education. More limited studies observed that the differences in upper secondary completions between service class and working class now diminished in Switzerland Becker and Zangger [8,9] England, Sweden Erikson and Rudolphi [10], and Germany [7]. The class differences by university admission became smaller in Sweden [5] and Finland [11]. The most recent (around year 2000) ORs for attainment inequalities between service class and working class in the Western world were between 3.9 and 5.9, with those for recruitment of men to Finnish universities being an outlier (OR= 9.3).

Norway's Particular Backwardness in 1950s

In 1950 had 16.4 percent of the Norwegians above 16 years some secondary schooling. This was below the European average. The number of upper secondary completions in 1951 was nevertheless high: it related to 8.5 percent of all 19 years old youths. The authorities had paid small attention to vocational education [12], and this produced a flocking into the (academic) upper secondary. But despite Norway's large number of upper secondary completers, entered not more than 3.4 percent of the 19 years old into higher education, less

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than half the percentage in Sweden. Norwegian women played an even smaller part in education than was the average in Europe; in 1951 were 40 percent of the upper secondary completers in Norway women (against 48 percent in Sweden), and the women made up 19 percent of the graduates from universities and colleges. There was also great skewness in class participation. In 1951 completed 47.8 percent of the youth from academic or higher functionary families upper secondary education, against just 2.5 percent of youth from working class [13]. This gives an Odds Ratio of 27:1 between these classes, which is close to the French figure, and show much greater inequality than in Sweden (9:1), Netherland (7:1) and West Germany (5:1). From this departure point had Norway 1950-2010 an expansion of dramatic magnitude. The number of upper secondary completions went up from 8.4 percent of the relevant age group to 70 percent, the number with higher education grades from 3-4 percent to 44. The post-2000 figures in higher education exceeded the OECD-average of 36 percent [14,15]. The women's participation increased even more. In 2009 were 53 percent of the upper secondary completers women, and the women made up 56 percent of all tertiary graduates [3]. But skewness remained in class participation in Norway. In 2007 completed 87 percent of youth from "graduated" families upper secondary education, against 44 from families that had just compulsory. This gave an OR score of 8:1, nearly the double that in comparable countries. Attainment inequalities were also great in higher education. Below we shall explore how educational policies after 1990 produced developments that partly countered previous trends.

Educational policies and their impacts 1950-1980

Social strata are separated by many levels of educational prequalification ("cultural capital") and differ in knowledge (and the salience of that knowledge) of the various external functions education prepare for. Educational policies should be considered from a perspective that focus what particular strata and birth cohorts were hit by the various reform, and observe that institutions and reforms are transmitters of perspectives and values as well as of opportunities, skills and qualifications. On page 5 is given an overview given of the main contents of educational policies in Norway after World War II. The Government in 1939 introduced a new "Normal-plan" for primary school, that specified the number of teaching periods and the skills and items of knowledge that should be mastered by the pupils at the various stages in primary school. Exams and other control regulations were established, and the Government was to refund the municipalities' primary school expenses. Also established was a grant systems for needy higher education students. But the enactment of both these policies was suspended because of Norway's participation in the second world war.

Main Reforms in Norwegian Education 1950-2000

Policies established before 1950

The 1939 Normal-plan for primary school ("folkeskole") specified the content and amount of instruction (6400 hours for complete seven year cycle in towns and 4500 hours in the countryside) and grading practices. The enactment was belated by the world war, and the birth cohort of 1938 may be considered the first with a complete primary school according to the regulations in the Normal-plan. In 1947 a Government's finance institution for students was established to provide loans and grants to higher education students. It gave priority to economically needy students, from around 1970 there was no such priority. After 1980 loans and grants were extended to needy pupils in upper secondary school.

Policies established after 1950

1959 Common law established identical number of primary school hours in cities and countryside. Procedure were laid down for extending compulsory schooling from seven to nine years after decision in the individual municipality. Expenses for all compulsory school were to be refunded by the state 1971. The Government decided nine years of compulsory school with common content for all youth. Initiative and plan is to be worked out by the individual municipality, but must be accepted by the Government 1974. New upper secondary school is established by the Parliament, with altogether 300 different programmes. Priority of entry is for older youth.

The upper secondary school is under the authority of the individual county but the expenses are partly refunded by the state, according to a quota that favour educationally backward counties.

- 1971-1979: A new university is established in Tromsø and new "district colleges" in counties that have no university. Curricular priority for locally relevant subjects. The state has the financial responsibilities for all public universities and colleges.
- 1990-1991: Government white paper present expansion programme for higher education from below thirty to above forty percent of cohort.
- 1994: New curricula reorganises the upper secondary curricula into 13 different, three-year lines, nine with practical/vocational content.
- 1995: The college system, including district colleges and schools for training of teachers, nurses, and engineers are reorganised from a total of 103 institutions into 27.
- 1999: One part of the Government funding of individual universities and college shall reflect the staff's research publications and exam production.

The birth cohort that completed upper secondary school in 1951 came from a primary school that had not yet been transformed in accordance with the 1939 plan. This may be part of the explanation for the huge class inequalities in upper secondary school completions around 1950, that was disclosed in the Vangnes' [13] study of 1951 "artianere". But the 1939-plan served those who completed the upper secondary in 1958 and 1963. From the figures that Vangnes' [13] published for these cohorts, have we calculated ORs for upper secondary completions (service class against working class inequality) and observed decreases from 26:1 in 1951 to 22:1 in 1958 and 16:1 in 1963. When explaining this change we are not able to separate the impacts of the Normal-plan from those of the general reconstruction of the economy and welfare in the same period. Relevant for the development was that the school time in rural primary schools was one fourth below that in urban municipalities. And the data show that the women's percentage of the upper secondary completers remained stuck at 40-42 percent. The 1959 common law produced one further step in the equalisation of primary school conditions. The number of school periods in rural municipalities now became equal to those in towns. We assume that this especially affected the attainments of youth from families with little schooling. But more political attention related to that individual municipalities now became authorised to extend compulsory schooling from seven to nine years. At issue was both how this schooling should be fitted into local communities with diverging economies and cultural traditions, and if one uniform curriculum would be functional for all pupils. Perhaps there should be separate classes for youth who planned to go to upper secondary school. An

early study [16] explored the effects of the 1967-1968 extension of compulsory schooling in three municipalities neighbouring to Oslo, a geographical area with upper secondary school facilities within easy reach. Teaching time was now identical in rural and urban municipalities, and the “youth stage” (seventh to ninth form) had common classes and curricula (across of differences in interests and capacities), except in three subjects assumed to be too demanding for the weakest pupils. The immediate upper secondary admissions from the first two cohorts in the new (nine years) comprehensive school were compared with those from the preceding cohort (with seven years). The distribution of grade point at the primary stage did not change following the regime change. But the numbers that entered upper secondary school the next school, increased for all strata: from 52 to 56 percent among service class youth, from 6 to 12 percent for working class. The produced a change in the local OR from 16:1 to 10.0. Gunvor Iversen [17] studied the 19 years old men who met to screening for military service in 1968. They made up 90 percent of all 19 years old men. In the material for these “recruits” were registered if they had completed an upper secondary school or currently were in the finishing year. From Iversen’s data, we calculated upper secondary Odds Ratios between sons of academic/higher functionaries and youth from skilled or unskilled work background. It was 6.0:1 among those from a seven years primary school, 4.3:1 among those with a nine years comprehensive school. This supported that the extension of compulsory schooling equalised attainments, and that the change was not due to external factors. A more comprehensive study investigated the school careers of a seven percent sample of Norwegians born 1954 and 1955 [18,19] that used educational data from the National Office of Statistics and data on family conditions at age 15 or 16, from the 1970 census. Common factor now was a primary school fully shaped according to the Normal-plan, with equal amounts of instruction in countryside and itowns. Ninety percent of the pupils in this sample came from municipalities that had introduced the nine years comprehensive school previous to 1968. A new factor was that school time in 1973 and

1974 was reduced by 15 percent to accommodate the introduction of a five days school-week. But the 1954-55-cohort was not hit by this change. It also was too young to profit from the expansion and new curricula in upper secondary school, that came in the mid-seventies, following the recommendations in 1970 from two governmental school commissions, but they might attend the new “district colleges” that recently had been established. The left column of Table 1 gives an overview of this cohort’s general attainment levels within age 28. 35 percent completed upper secondary school, and 22 percent completed two years or more of higher education. The attainment differences between classes give an OR=4.7:1 for upper secondary completions, which is close to that from the Iversen material, and 5.3:1 in higher education completions. The women made up 43 percent of the upper secondary completers of the 1954-55-cohort, mostly the same proportion as among those who completed upper secondary school in 1951. But their number with higher education grades equalled now that for the men. The future pattern with the women in majority at universities and colleges, now was emerging, partly, maybe, in response to the new colleges’ multiplicity of practical and vocationally oriented programmes. Two principles were predominant in the educational reforms of the early 1970’ies: geographical decentralization of upper secondary and higher education facilities, and larger manifold of subjects, especially in practical and vocational areas. While the number of upper secondary school places in the mid-seventies grew by one half percent in the Oslo and Akershus counties, was the average increases above twenty percent in the other counties; the “district”. Now was a new university established in Tromsø, and new state colleges in all counties that lacked a university. The greater manifold of school subjects was especially marked on the upper secondary stage, with more than 300 different introduction programmes. The new state colleges had economic/administrative programmes, and gave introductory courses in a great number of university disciplines. The right hand column of Table 1 gives attainment data for a sample consisting of seven percent of the Norwegians born 1964 and 1965,

Background data	1954-55-cohort				1964-65 cohort			
	Average	Up.sec.	Hi ed.	N	Average	Up.sec.	Hi.ed.	N
Men	11.13	39.1	22.3	5176	11.39	53.0	19.8	5468
Women	10.71	30.3	21.3	5042	11.60	52.6	25.6	5028
All	10.92	34.7	21.7	10218	11.50	52.8	22.3	10496
Locality when 15y.								969 6
Agglomeration	11.27	39.9	25.8	6077	11.60	55.8	26.4	7188
Dispersed area	10.66	28.7	16.3	3659	11.25	46.0	18.6	3308
Father’s education								
Just compulsory	10.59	29.2	11.4	8242	11.15	45.2	10.2	7187
Short higher educ	13.13	71.0	45.4	563	12.24	71.2	26.5	693
Mother’s education ;								
Just compulsory	10.70	30.3	12.2	7037	11.03	42.3	9.0	6298
Short higher educ	11.97	53.2	27.6	1080	11.95	65.4	19.5	1315
Kort høyskole								
Fars utdanning:								
Grunnskole								
VKII/artiums nivå								
VKII/Artiums nivå								
Social class:								
Service class	12.72	64.5	43.1	1584	12.52	74.9	30.4	2634
Intermediate	11.31	41.0	21.0	3914	11.57	51.9	20.3	3809
Working class	10.62	28.4	13.5	1677	11.05	42.7	13.0	1874
Family type								
Two parents	11.12	37.1	16.0	8786	11.60	55.0	16.2	9031
Just mother	10.71	27.8	11.8	624	11.06	42.3	10.9	1048
Just father	10.38	22.2	6.8	117	10.92	40.9	9.6	198

Note: A main part of this table was previously published in Norsk pedagogisk tidsskrift 2008/2:97

Table 1: Distribution of educational attainments by background. Percentages.

with background data from the 1980 census, and from NOS' data on educational careers until age 28 (1992) These data included the studies abroad (from the Government's authority for student finance) (Table 1). Even pupils from the "latest" 151 municipalities had now completed a nine-years comprehensive school, for these cohorts one with common classes for all pupils and one common curriculum. But this cohort also experienced 15 percent reductions of instruction time in primary and upper secondary school through all school years, following the introduction of the five days' school week. For the nine years in compulsory school as a whole produced this reform a reduction of school-time that equalled 1.3 school-years. We assume that this reduction mainly affected the socialisation and skills of youth from little schooled backgrounds. The right hand column of Table 1 shows an average increase in the (formal) number of school-years amounting to 0.6 for this cohort (in comparison with the 1954-55 cohort). Here no account is taken of the school-time reduction. The number that completed upper secondary education grew from 35 to 53 percent. But the number of higher education completers did not increase, despite the new college facilities. A geographical redistribution of attainments resulted: In the Oslo/Akershus region increased the a(formal) attainment levels from 11.41 to 11.64, and the number that completed upper secondary education increased by 13.4 percent points, but those with a higher education completion *sank* by 2.9 percent points. In the "district" counties went attainment levels up from 10.97 to 11.55, which tripled the advance in Oslo/Akershus. The upper secondary completions increased by 16.7 percent-points, while the number with higher education grades was stable. While the 1954-55-women's upper secondary completions were below the men, had the genders in of 1964-65-cohort about equal attainments. All three classes increased their upper secondary completions. While the working class youth also increased their higher education attainments, had the service class a decrease. The resulting ORs for upper secondary completions of these two classes now was 4.0, for higher education grades 4:2:1. This implies an equality increase between classes, despite the reductions of instruction time in primary and secondary education. Were these changes caused by the general developments in welfare and economy in that period or by the changes in school regime? The output from a linear regression analysis of attainments of the two cohorts (Table 2) shows that the two most "central" counties (excluding the municipalities in this area with comprehensive reform after 1968) neither increased their average attainment levels nor reduced attainment differences between service class and working class. This implies that the attainment effects of economic improvements in this area (if any), were balanced out by the effects of the school-time reductions in the period (Table 2).

Table 2 shows that the geographical redistribution of facilities lifted the "district" counties' attainment average but had small effect on class differences. But the nine-years reform in municipalities that formerly had no lower secondary facilities produced large attainment increases, as well as a halving of attainment level difference between service class and working class. But the effect of this development for the cohort as a whole was small because if affected just a minority (five percent). It is remarkable that the extension of compulsory schooling in municipalities that prior to the reform had a lower secondary school was smaller both in attainment levels and distributions. The comprehensive school reform may have contributed to the women's advances, but the educational mobilizing of the women mostly proceeded quite independently of the educational reforms. In conclusion: The analysis of attainment developments between the two cohorts support that the extending of compulsory schooling, which was organised with common classes and curricula for all pupils, raised the general attainment levels as well as in reduced class inequalities. This reform equalised practical opportunities and motivations for schooling and qualification-building, and told all youths that upper secondary education now was within easy reach for all, just a question of proceeding one further step on the road one already walked on. While the new upper secondary curricula, and the expansion and geographical redistribution of school places increased general attainment levels, they had small impact on class inequalities, and the educational mobilisation of women in this period was due to quite other conditions. The unexpected stagnation in higher education attainments may have been a consequence of the reductions of school-time in primary and secondary school in the 1970s, and that the universities' and colleges' adjustment of standards were belated.

To make for comparability with attainment data for later periods, were OR rates also calculated for the impacts of *educational background* (with no corrections for class): for families with graduation from a long (4 years or more) education at university or college, against families with just compulsory education. Within the 1964-65-cohort was the OR for educational background impact on upper secondary completions 6.2 (against 4.3 for the 1954-55 cohort), for higher education grades 3.6 (against 5.6). The NOS-data on students admitted to universities and colleges 1990 provided a more detailed account of the higher education careers of youth born around 1970. These attainments relate to the same reform period as those for the 1964-65-cohort. The NOS analysed how the students' careers varied by parents' education. We related these attainments (within ten years after admittance) of these students to the average distribution of family strata youth who finished compulsory school 1983-1985, which broadly corresponded to the

Regime changes 1954-55 to 1964-65	Attainment averages 1954-55 cohort	Attainm increase from 1954-55 to 1964-65 cohort	Women's relative attainment advance 1954-55	Service/Working class difference to 1964-65 to 1964-65	Change in class diff. from 1954-55 1965-65 to 1964-1964196 cohort
Stable regime (Central area)	11.39	0.23	0.64	1.04	0.01
District policy area aaarearea aarea	10.86	0.56	0.51	0.94	-0.10
Municipalities A: from 7 years primary to 9 years comprehensive	10.85	0.65	0.85	0.92	-1.23
Municipalities B: from 7 y.primary and low.sec. to 9 years comprehensive 9999ycprhy.cprh	11.17	0.51	0.61	0.69	-0.11

Notes: Central area=Oslo and Akershus counties minus 2 municipalities of type A.

District area=17 counties minus 129 municipalities types A and B.

Municipalities A=56 municipalities with just seven years primary school in 1968.

Table 2: Average changes in attainment and attainment difference service class/working class. From cohort 1954-55 to cohort 1964-65. Outputs from linear regression analysis.

birth cohorts 1968-1970. According to the investigations by Askvik and Helland had 38 percent of all youth born 1972 a (first) enrolment in higher education within age 30, and five sixth of these enrolments came within age 22. These NOS-data on new students 1990 do not cover the attainments of the 1968-1970 cohort that enrolled after age 22, but this omission is compensated by that they include a similar number of late-enrollers from earlier cohorts. The number of new students in 1990 (33.400) exceeded the expected number of enrolments (38 percent) from the average cohort 1968-1970 cohorts by 25 percent, who therefore belonged to other cohorts. The NOS- figures of 1990-students' higher education completions were therefore reduced by that amount. This gave a completion percentage for the average 1968-1970-cohort 25.5. Table 5 shows that the percent completers for the various background categories varied between 49.4 (youth from "graduated" families) and 17.3 (families with only compulsory education). This gives an OR between the two "extreme" status categories of 4.7: 1, which indicate a small increase in background impacts after the 1964-65-cohort. 7.7 percent of the base cohort completed on master level or higher. The percentages here varied from 26.5 to 2.3. The OR for this distribution was 12:1, showing that the distributional pattern for advanced grades diverged much from that for the bachelor stage.

New policies in the 1990s reversed developments

The Government white paper no.40 (1990-1991) presented a policy to expand the higher education sector and enrol larger proportions of the growing-up generations. Estimated number of higher education students should in the future be above forty percent of birth cohort, against currently below thirty. To support this development should the number of programmes in upper secondary school to be reduced, the training for particular practical/vocational fields reduced, and options introduced on the practical/vocational programmes that might give access to higher education without loss of time. In 1994 were the number of introductory programmes in upper secondary school curricula reduced from more than 300 to 13. Universal right for admission into upper secondary immediately after compulsory school supplanted a former priority for older youth. Contrary to these changes was that the third school year could taken in form of a trainee-job at a private firm or a public agency. To improve higher education quality were the number of state colleges in 1995 reorganised from 106 into 27. In 1999 were the funding principles for universities and colleges revised so that a (minor) part of the funding reflected the number of scientific publications produced by the staff. A new Government white paper in 2000-2001 confirmed that universities and colleges has different objectives; but even the college teaching shall be in interplay with research. The research council's 1999 evaluation of the college reform observed that 25 percent of the college staff's work time now was FOU. The report also observed that the staff's teaching load had diminished after the 1995-reform, and that individual self-study had become a regular element in the students' work [20]. After the 1994 upper secondary reform, promoted the counties now one uniform set of programmes. This made for more dependable progression than

previously. Now was also avoided that students took several programmes on same stage instead of advancing to a more advanced stage. These changes furthered completions. But the reduction of programme multiplicity, the increased emphasis on theoretical content at the cost of practical/-vocational training, and the reduction of opportunities for older youth's should be expected to reduce the attraction of this schooling for youth from less schooled backgrounds - despite that trainee-jobs now might be integrated in the education. But it had turned out that the potential employers distrusted the pupils' practical qualifications, and the trainee jobs therefore became scarce. Table 3 overviews practical/vocational pupils' choices of schooling in the third school year. and show tha many pupils deserted from practical/vocational courses. In 2014 were altogether 55879 pupils in programmes that prepared for higher education. This equalled 87 percent of the total number admitted into upper secondary school three years before (Table 3). The NOS-statistics show that the percentage of women among upper secondary completers reached 53 percent after the 1994-reform, which may be compared with a percentage slightly below 50 for the 1964-65 cohort. Table 4 reviews how completions developed for the various background strata. While the figures for the 1964-65 cohort relate to completions within age 28, show those for pupils admitted 1997 and 2007 completion percentages within five years after admission. To attain comparability with the 1964-65 cohort, were the NOS-figures for students admitted into upper secondary school 1997 and 2007 expanded by two percent [21] so that the basis for the calculations include those who did not enter the upper secondary. The not-enterers were distributed evenly between the background categories, following the conclusions from the Markussen [21] study of this group (Table 4) show that the total completion percentage did not change by the reform. While the completion rates increased from "graduate" families were the trends for other strata more uncertain (Table 4). The OR between "graduate" families and those with only compulsory education increased from 6.2:1 (1964-65 cohort) to 8.5:1 (same OR for the two post-reform cohorts). As we expected, grew the attainment inequalities between strata. However, a swelling sector of private institutions now developed to better the pupils' grade points in particular subjects, and improve the chances of access to higher education. The NOS data on students admitted to universities and colleges in 1990 and 2002 show that the plan to increase student numbers succeeded. The admission of new students went from 33400 in 1990, to 42.300 in 2002. The educational mobilisation of the women continued; they made up 58 percent of the new 2002-students. The increase were uneven between background strata: while the number from families with a graduate higher education increased by 23 percent, increased those for families with shorter higher education by 42 percent, those from families with only compulsory by 31 percent and those from upper secondary background by 10 percent. The number with a grade on bachelor (representing more than two years of study) or higher level, increased from altogether 22141 to 24766 between the two cohorts of new students. But the percentage with a completion within ten years after admission, sank from 65 percent

Subject area	Apprenticeship	Third year vocational school course kurs 3.kl.	Qualify for higher ed. ededuc eeduc e3dueduc entry Studiekomp	Leave school	Other
Building/constructionn cgg	46	0	15	24	15
Health/social work	21	8	35	17	19
Service/communicat.nonnn	20	1	40	23	16
Technical/industrial prod	43	3	7	27	20
Electronics	37	18	15	13	17

Table 3: Third year choices of new pupils 2009 on some practical/vocational programmes Percentages.

Family background	1964-65 cohort	Upper sec.entry cohort 1997	Upper sec.entry cohort 2007
Higher educ.graduate stage stagelevel eeduc.graduate	82.8	88.9	87.2
Higher educ.undergr. stage	72.6	85.4	70.3
Upper secondary education	67.0	62.2	63.1
Just compulsory education	43.8	47.2	44.7

Table 4: Percent who completed upper secondary school. From thee 1964-65 cohort to the basis-populations for upper secondary. admissions 1997 and 2007.

Family background	Higher education completions among students admitted 1990* 2002**		Higher education completions on master stage or higher among students admitted 1990* 2002**	
	1990*	2002**	1990*	2002**
Long higher education	49.4	40.3	26.5	23.7
Short higher education	32.6	33.9	8.8	12.9
Upper secondary educ.	20.6	20.0	5.4	4.1
Just compulsory	17.3	15.1	.3	2.2
All	25.5	24.5	7.6	7.8

Notes: *New students 1990 that completed higher education. As percentages of average year cohort finishing compulsory school 1983-1985.

**New students 2002, that completed higher education. As percentages of average year cohort finishing compulsory school 1994-1997.

Table 5: Percent who completed higher educations grades within ten years after admission in higher education. As percentages of relevant birth cohorts.

among the 1990-students to 59 among those admitted 2002. The educational advance of the women related to completion rates as well as the total numbers: while 73 percent of the female students completed a grade, did only 49 percent of the men. There also were increased differences in completion rates between the background strata. While the completion rates remained comparatively stable among students from families with higher education (73-74 and 68-70 percent) declined those for students from upper secondary-families from 63 to 54 percent, and those for students from families with only compulsory education from 59 to 40 percent. These trends accord with the expectations that an increasing number of those from “newcoming” strata would be losers under the new circumstances., How did these changes affect the general attainment distributions between social strata? The attainments of the new 2002-students were related to the average distribution of background families among the new upper secondary pupils 1994-1997, which broadly corresponded to the birth cohorts 1979-1982. According to the Askvik/Helland-calculations [22] enrolled 45 percent of that birth cohort within age thirty, of these 36 percent within age 22. But the total higher education admission figure in 2002 exceeded the expected number from the average 1979-1982-cohort by 41.7 percent [23]. To get a better match between attainment numbers and and population basis were the completion figures for the various background categories reduced by that amount (41.7 percent). Table 5 presents the completion numbers for the average the background categories [24]. These figures show the combined effects of the changes in higher education recruitment and of the internal changes in higher education after the 1994, 1995 and 1999-policies. For comparison are shown the higher education completions for the late “pre-reform” cohort born around 1970. Between the cohorts declined the completion rates from 25.5 to 24.5. Only that for the “undergraduate” stratum was stable in the period [25]. The post-reform OR for graduate backgrounds against only compulsory was 4.0:1. which was below that based on data for the new students 1990. This indicates a more stable distribution pattern than

expected, which diverges from that for upper secondary education. Two moments may serve to explain this divergence of trends. While the desertions from practical/vocational programmes in upper secondary education diminished the upper secondary completion numbers of youth from little schooled strata backgrounds increased it the number with qualifications for higher education admission [26]. This increase compensated for lowered completion rates. Table 5 at the same time show that the while the number with higher education completion sank for the two “extreme” strata, were they comparatively stable for the intermediates. An attainment divide at also developed between the “intermediates and the families with only elementary education. The OR for this divide increased from pre-reform 1.4:1 to 1.9:1 [27]. Youth from master level families had an unexpected decline in higher education completion rates after the reform of the 1990s. But this trend had no parallel at advanced levels [28]. Here remained their completion figure double that for youth from undergraduate families, and OR for the most extreme strata just changed from 14.1:1 to 13.8:1. The recruitment processes and activities for this stage in academia remained disparate from those at the lower stage and were little changed by the policies of the 1990s [29,30] (Table 5).

Conclusion

Around 1950 was Norwegian education behind the European average in attainment levels, and Norway had greater inequalities due to gender and social class [31-33]. The developments 1950-2010 produce large advances in education levels and established distributional patterns on par with other European countries. But the impacts of background strata reasserted themselves after 2000. This paper traced the main stages of this development, attempting to assess the autonomous impacts of educational policies during the period. While the educational advance of the women in the period was quite independent of educational policies, did these policies influence the impacts of class background [33-36]. The extension of compulsory schooling, diminished the impacts of class, when the additional years of schooling were structured along comprehensive lines, with one common curriculum. But the reduction of vocational/practical manifold in upper secondary education after the 1990s and the more explicit “scientification” of universities and colleges increased the advantages of students from well schooled backgrounds. These impacts of policies were independent of external developments in the same periods. However, the growth of attainment levels and changes in attainment distributions 1950-1980 [37,38] are reconcilable with that the 1959 equalising of school conditions between urban and rural areas and the specification of curricular demands and instruction periods following the “Normal-plan” of 1939 furthered attainment growth as well as educational equality, but we were not able to correct for the developments in economy and welfare due to reconstructions after the second world war. Markovic and Kogan [39] have analysed the recent emergence in several European countries of a stratum of youth with higher education institutions as waiting room for opening in unskilled job-markets. Among the not-completing students in Norway was an over-representation with poor background resources and social network. Their prospects for a future reintegration into society are not favourable.

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