DOCUMENT RESUME

ED 137 202 SO 009 924

AUTHOR Markovits, Andrei S.
TITLE Educational Reform and Class Cleavages in Social Democratic Regimes: The Case of Sweden.
PUB DATE Sep 76
NOTE 77p.; Paper presented at Annual Meeting of the American Political Science Association (Chicago, Illinois, September 2-5, 1976)

EDRS PRICE MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS Case Studies; *Comparative Education; Continuous Learning; Democracy; Developed Nations; *Educational Change; *Educational History; Educational Objectives; Elementary Secondary Education; Equal Education; Higher Education; Industrialization; Political Influences; Social Change; *Social Class; *Socioeconomic Influences; Surveys; Tables (Data)
IDENTIFIERS *Sweden

ABSTRACT

The purpose of the paper is to explore the relationship between the educational system of Sweden and its social class structure. The first section provides background information on Sweden's social democratic system which exhibits a strong tendency towards pragmatism, practicality, rationality, efficiency, competence, and educational planning. Section two focuses on changes in 1950 in the primary education system from the traditional two-tiered system to a nine-year comprehensive egalitarian system. Section III describes attempts of the secondary education system to play a modernizing role in society while initiating a smooth process of maximum student adaptation to an inherently unequal social system. Various realms and problems of post-secondary education, including educational structure, governmental role, industrial influence, American influence, decentralization, and faculty power are examined in sections IV and V. Curriculum and students are discussed in section VI, followed by a discussion of continuing education in section VII. In conclusion, Sweden's educational system is making strides towards increasing social justice and personal fulfillment through provision of appropriate educational opportunities for all students. Footnotes and extensive tables conclude the document. (Author/DB)

EDUCATIONAL REFORM AND CLASS CLEAVAGES IN SOCIAL DEMOCRATIC REGIMES: THE CASE OF SWEDEN

Andrei S. Markovits

Center for European Studies
Harvard University

Prepared for Delivery at the 1976 Annual Meeting of the American Political Science Association, The Palmer House, Chicago, Illinois, September 2-5, 1976

I am indebted to Barbara Haskel, Cynthia Kaplan, Jerome Karabel, Steven Koblik and Andrew Martin for their kind assistance. Special thanks to Marna Feldt for some of the materials and bibliographic suggestions.

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Educational systems embody the structural and class-specific phenomena of their respective societies. In order to develop a critical perspective on educational systems, the particular characteristics of societies must be examined. This does not mean, however, that societies should be viewed as the "independent" variable and education as the "dependent" variable. In fact, my analysis highlights the frequently dichotomous - and occasionally contradictory - dimension of their complex relationship. Sweden with its particular political culture and economy provides an exceptionally interesting critical case study focusing on these relations. Sweden's daring social reforms, high living standard, well functioning parliamentary democracy and an impeccably working record of 160 years of neutrality confronts its industrial capitalist system with all its ancillary phenomena exacerbated in the recent period of late capitalist development. The entire historicalprocess is the result of, and in turn is the creator of a number of structures and value orientations which continue to shape the parameters of Sweden's political reforms.

Sweden's historical development, so critical to its political and economic milieu, diverges from that of Western Europe. The country's social formations in feudalism were already substantially different from those of most of its Western European counterparts.[1] This was

reinforced during the country's industrialization in the 19th century. Despite the relatively late "take-off" of intensive and rapid industrialization in the 1890's, the process itself was evident as early as the 1840's.[2] Moreover, over one million Swedes who were displaced even by this comparatively slow and "spread-out" industrialization process emigrated, mainly to the United States.[3] The formation of the Swedish Social Democratic Party in 1889 also failed to create a revolutionary challenge to the evolving parliamentary system. From the very beginning the Social Democratic Party's "revolutionary orientation was minimal. Its stated goal was the abolution of capitalism, but...it saw the possibility of doing so through democratic politics...How that was to done was unclear, but the Party's reformist orientation was established."[4] The establishment of the Swedish Confederation of Labor (Landsorganisationen - LO) in 1898 accentuated Swedish social democracy's reformist orientation.[5]

Given the absence of manifest radical conflict in Swedish political development, one could almost agree with Herbert Tingsten's characterization of Swedish politics and history as "dull" .[6] The almost total ethnic and religious homogeneity of the Swedish people and the sparsely populated rather large country (circa 8 million inhabitants on 173,423 square miles) have contributed to Sweden's "Middle Way" development and to the country's "Politics of Compromise."[7] A strong tendency in Swedish academic and intellectual life toward pragmatism, practicality and rationality, a high regard for efficient administration and technocratic competence, a ubiquitous respect for the law and "fair play" and an empiricist propensity accompanied by a disdain for theoretical problem solving all represent class-transcending value orientations conducive to the regularized conflict management of the politics of reform.[8] Despite Sweden's unique historical development, a close

scrutiny of its political topography, particularly its reforms, has theoretical importance for the study of advanced industrial societies.

Social democracy has in the last decade become a major target for criticism emanating primarily from a group of European scholars. Albeit vastly differing in their respective epistemological and methodological approaches as well as in their normative and empirical frameworks of analysis certain underlying commonalities are discernable.[9] This scholarship views social democracy as a co-optative mechanism obfuscating real power rather than redistributing it.[10] Existant class inequalities of capitalist societies are not erradicated by social democracy. Instead of promoting the forces of transformation, it becomes mature capitalism's main political guarantor, ideological legitimizer and structural partner. Hence, social democracy can never produce what Andre Gorz aptly calls a "strategy of system transcending reforms".[11] Social democracy remains therefore a more or less socially futile endeavor of philanthropy at best or a willing optimizer of mature capitalism's goals at worst.

Although fully sharing the essence of these criticisms of social democracy, I see certain traits in social democratic reforms which make it less easy to dismiss them in an a priori manner. The ambivalence evident in social democratic reforms toward major societal transformations argues for a careful analysis of them. This certainly is the case in regard to the recent reforms of the Swedish educational system. Most importantly, a preoccupation with what Nicos Poulantzas terms an "objective relation" between the existant class structure and the state forces theorists to dismiss any system-changing potential of social democratic reforms. This, in effect, ignores the influence of powerful political intentions aimed at change.[12]

Intentions can make a difference when supported by a powerful party,

its ancillary organizations and constituents. Even if the outcome consistently falls short of the initially determined goal - a point which certainly does corroborate the objective structural constraints wherein social democratic reforms operate - the process itself poses a challenge to the capitalist order. A response requires certain concessions on the part of the status quo which weaken its previous position. The process of cooptation is a dialectic one. It is not only the cooptee who changes, but also the cooptor.

Another facet discounted by many scholars is the level of popular disaffection and its political consequences due to qualitatively deficient, quantitatively insufficient or nonexistant reforms. The politics of social democratic reform is not necessarily the "doctor at the bedside of capitalism who will aid the dying system by a few well-targeted technology injections thereby reviving it for yet another phase of profit maximization and prolonging the life span of late capitalism."[13] Reforms are not always soothing, conflict-reducing and coopting. They may indeed give rise to opposite results.

Thus social democracy embodies a dialectical ambivalence which may play an important system-saving role for capitalism. Yet, at the same time some of its policies represent head-on challenges to the capitalist system. This unclear, contradictory and tension-ladden dynamic may, however, be a major factor in preventing the emergence of a new authoritarianism. A short-run perspective envisages some modifications in capitalism and social improvements due to social democratic reform. A long-run view nonetheless suggests the validity of the pessimistic conclusions espoused by the critics of social democracy.

Capitalism has not vanished into post-capitalism or post-industrialism. Profit is still socially produced and privately appropriated. The structures of private ownership with all their ancillary social inequalities do exist. However, social democracy does make objective contributions to the incremental

improvement of everyday life. A qualitative difference exists between equality and human dignity in capitalist countries with a social democratic tradition and those without one.

Of course, social democratic countries do not form a uniform group. Historical antecedents have contributed to substantial differences among the "Northern" socialists in addition to those between the "Northern" and "Southern" countries. An important example of this is the Swedish Social Democrats' strong reliance on education (Bildungspolitik) as a force for societal change and equalization. This approach to societal change is not replicated by their colleagues in Germany and Austria. The reasons for this are obvious when specific historical and empirical differences between the Swedish and, for example, the Austrian Social Democrats are taken into consideration.[14] The Swedish Social Democrats have been in power for 44 almost totally uninterrupted, peaceful years. Their Austrian counterparts had to overcome open repression and the role of being a junior partner in a conservative coalition until they finally succeeded to power in 1970.

Swedish social democracy's ambivalence toward system transcending change and contradictions manifest themselves in almost every aspect of Swedish life and political economy. Thus on the one hand, there is an exceedingly high involvement of the public sector in the country's economy in all forms of revenue, whereas on the other, there is very low involvement of the public sector in the country's economy in the forms of public ownership. Andrew Martin aptly calls the former, "the financial dimension of the public sector" and the latter, "the entrepreneurial dimension of the public sector."[15]

The dual aspect identified above is also present within the realm of education which in a structural sense should be classified as an almost exclusive

part of the "financial dimension". There is no question that the Swedish Social Democrats have and still do attach a greater importance to education and its potential role as an agent of social change, than most advanced industrial countries.[16] This optimistic evaluation of education's potential impetus in encouraging upward social mobility, the erradication of economic inequality and the realization of every citizen's capabilities contradicts some important research in the field of education which presents a much more pessimistic picture in terms of education's rather limited effectiveness and confined possibilities.[17]

Again, important analytic as well as structural differences between the short and the long run perspectives have to be considered. Swedish educational reforms do not embody head-on attacks on the capitalist property and ownership structures of society. Thus from a long-run point of view, they remain important as inherent pillars of the capitalist mode of production. These reforms help to maintain the present system precisely by embodying elements which have often , despite their protagonists' fervent desire to the contrary, increased the productive and reproductive capacity of education as a productive force in the service of capital.[18] Yet, education's short-run results are remarkable in terms of augmenting the life chances of a large number of disadvantaged individuals. Most importantly, an examination of Swedish educational reforms leaves no doubt that their social task is perceived to be more significant than their contribution to educational efficiency. Overall, the aim of Swedish educational reform is the synthesis of the theoretical and practical, the academic and vocational, work and education. In short, it is bent on changing the unidirectionality of what Johan Galtung calls the "education-formation-work-retirement cycle" prevalent in most advanced industrial societies.[19] Educational reform is, of course, only one side of the equation for change. Work reform constitutes its complement. This suggests a concept of structural change affected by the

interrelationship between work and education. Such a model has justifiably been hailed as one of the radical alternatives to the present situation. It represents a Maoist approach to the problem of transforming society. In a perceptive article, R. Rossanda, M. Cini and L. Berlinger argue for the total synthesis of education and work as the sine qua non for a socialist society.[20] Education and the transmission of knowledge, necessary functions within every society, are fulfilled by schools in capitalism. Instead of educational institutions reproducing ideology as in capitalist society, in socialism they are part of an unalienated work process. The immediate step of abolishing all formal schools which the above authors demand separates the Marxist-Maoist concept of education from the social democratic one. The latter, albeit agreeing with the ultimate goal of an education - labor synthesis takes the opposite approach by expanding rather than abolishing the formal educational system as the major societal locus for the transmission of attitudes, skills and knowledge. Schools are rapidly changing in Sweden, though they will remain formal institutions.

Proportionally, education since World War II has consistently played a more important role in Sweden than in most other industrial countries, including the United States and the Soviet Union.[21] It has constituted an important tool for innovation and change while simultaneously functioning as a major integrative and system-maintaining mechanism. Daring reforms, not even on the drawing boards in most countries, have become reality in Swedish education. They have had an impact on many disadvantaged Swedes whose objective life chances and subjective dimensions of self-actualization were enhanced. This represents a remarkable achievement not to be dismissed lightly. Yet, education's social and collective impact has fallen short of its protagonists' expectations. The underlying structures of Swedish capitalism have not been seriously challenged by educational reforms. In some cases the latter have been directly instrumental in the implementation

of capitalism's modernization and continuity. Examples of these ambiguities in social democratic educational reform will be examined in the following empirical study.

The following review of the historical development and the contemporary structure of Swedish primary and secondary education explores the selection processes, comprehensivization attempts and other important reforms which do not only have pioneering importance sui generis, but which, above all, effect the forms and content of all dimensions of post-secondary education. Primary and secondary educational reforms are analyzed partly "in their own right", and partly as important structural and generational antecedents to post-secondary education.

Primary Education

Since the middle of the 19th century, Sweden had maintained a rigid, structurally exclusive primary school system which reflected the pronounced class inequalities of Swedish society. There existed both full, six-year terminal schools providing a practically oriented curriculum and nine-year very selective and expensive pre-gymnasium prep-schools frequently specializing in a thorough classical education. The latter prepared the children of the upper class for gymnasium and university.[22]

This two-tiered system was abolished in 1950. Following proposals submitted by the 1946 School Commission the nine-year comprehensive school was introduced in Sweden in 1950 on an experimental basis.[23] This development was finalized in 1962, permanently abolishing the two-tiered elementary school and establishing a nine-year coeducational compulsory primary school system. Thus Sweden joined the United States and Canada as the only Western countries with a compulsory comprehensive education of nine years. As planned in 1962, all Swedish children were incorporated into this comprehensive school by 1973.

Both the long-run and short-run perspectives of Social Democratic reform policy examined in this paper play a large role in the pathbreaking restructuring of primary education. An earnest desire to maximize social equality and an attempt to adapt the educational system to the exigencies of modern industrial capitalism exist simultaneously. The democratization of the entire educational sector started from the bottom up. Considerable shifts in the structure of the labor market as a consequence of demographic, economic and social developments neccesitated a departure from the old selective system and demanded the implementation of a new all-encompassing primary school. The purely ideological, elite-selecting and perpetuating functions of a classical education were abandoned for a productively more useful curriculum. This new curriculum not only tried "to impart knowledge," but also aimed at developing marketable and useful skills.[24] The structure of the new comprehensive school is reflected in its aims. Quite different from the old terminal Folkskola and the selective Realskola (Mellanskola), the new school's three divisions have more of a pedagogical than an explicitly selective character.

The aim of the new school reform is to minimize all possible social differences within Swedish society. This involes a concerted effort to alleviate stereotypical sex roles. For example, both boys and girls are taught "to cook, bake, wash dishes, keep house and care for babies in compulsory domestic science classes."[25] Manifest behavioral differences as a consequence of class inequalities and urban-rural cleavages are explained to the children. Attempts are made to elucidate social ills, their causes and possible cures. Recent reform proposals best known under the promissing title of "Internationalizing Education" suggest a complete revamping of the hitherto rather ethnocentric and Western, especially Anglo-Saxon oriented, curricula of all Swedish education. Remnants of nationalism and a Euro-centric approach, especially in subjects such as history, were abolished. Beginning

at the junior level (grades 1-3) of compulsory school, indeed even in preschool institutions, the Swedish educational system stipulates that:

> children should be introduced to international subject matter in games, songs, stories, books, pictures and films. Portrayals of children and families from other countries should stress the the elements shared in common and not the disparities. The trumpet should not be blown for the homeland in terms that tend to belittle other peoples and cultures.26

The junior level (grades 1-3) and the middle level (grades 4-6) due to the recent educational reforms do not evaluate work by grades. Intra-student competition is discouraged and the achievement principle is de-emphasized. Marks are given at the senior level (grades 7-9) on a national scale of 5 (excellent) to 1 (failure). Even at the senior level, grades have declined in status. Another outstanding step towards equality is the abolition of homework, since the students' social background has a substantial effect on the quality of their product, which, in turn, determines their marks.[27]

The comprehensivization process of elementary school also entails a conscious effort at abolishing the sharp value distinctions between "theoretical" and "practical" subject, long an important objective and subjective dividing line in Western societies. The intention of these reforms is the synthesis of "practical" and "theoretical" subjects at an early stage of the educational process with the concomitant elimination of the social connotations attached to them. A student henceforth should be able to study on the basis of his interests and antitudes rather than according to social pressures.

Despite frequent teachers' complaints about the continuing reforms, they all stipulate a departure from the traditional classroom atmosphere causing in turn a relaxation of disciplinary measures and traditional behavior. The scholastic and cognitive results of comprehensivization appear quite impressive.[28] Some voices of the opposition charge that the Social Democrats

have purposely lowered the standards of a hitherto excellent school system. Yet it must be recognized that 9 out of 10 Swedish elementary school children proceed to secondary school precisely because of the intense reform activities of the Social Democrats.[29]

Despite some of these impressive and ambitious reforms, class-biased selection mechanisms continue to function as early as the primary school years. This can be observed at the transition from the last (i.e., 9th) grade of primary school to the first (i.e., 10th) grade of secondary school.[30] Intra-primary school class differences often close certain educational paths, ultimately affecting a child's adult career.[31] Thus, the advantages stemming from social privilege on the senior level of primary school and at the transition to the old gymnasium appear to be mitigated by the comprehensive primary school, though not alleviated.

Secondary Education

The multi-tiered secondary education system is one of the most persistent and effective class-selective institutions present in nearly all European countries. An exclusive, theoretically oriented and frequently heavily classical upper track (gymnasium in Austria and Germany; lycée in France; grammar and public school in England) serves as a university prep-school for the upper middle classes. Various terminal programs emphasizing technical and "practical" subjects serve as the educational repository and cul de sac for the working class.

Sweden adhered to this prevailing European pattern. Until July 1, 1971 the secondary education sector was divided into three de facto, mutually exclusive parts.[32] At the top there was the three or four year upper secondary school (gymnasium) with de facto, mutually exclusive divisions and lines. At the bottom were the two year continuation and vocational schools, most of which had a terminal character.[33] Comprehensivization as in the case of primary education abolished the tripartite secondary school and established

labor market conditions reflect the demands of the social necessity of economic growth. This stems from an inherent desire to "catch up" on all dimensions of "modernity" and partly as an attempt to maintain political and economic capability in the international division of labor. The exigencies of the social system also are mirrored in the necessity to assure mass loyalty, especially through the mechanism of intermediate education. The highly specialized, compartmentalized division and lines of the comprehensive secondary school do not only guarantee a high level of competence of the work force, but also increase the probability of docility without disintegrating into apathy.

Curricular reforms have deemphasized the classics and humanities, while accentuating the natural sciences and mathematics (both applied and theoretical). Social and economic sciences have also gained in importance. Numerous "practical" and immediately marketable subjects have also proliferated as a result of the reforms. Modern languages, especially English, are accorded special importance. Overall, the new comprehensive secondary school does not only play an innovative (i.e., critical-reformist) function, but by the very same process, it also fulfills a system-maintaining, integrative role. One of its major tasks is to initiate a smooth process of maximum adaptation to an inherently unequal social system. This contradictory process is best illustrated by the various realms of post-secondary education.

Post-secondary Education

Until the 1940's and early 1950's, post-secondary education consisted of only four universities with a total student enrollment of 11,000 in 1940/41 and 17,000 in 1950/51.[37] Heavily under German influence with respect to the structure of their faculty and administration, intellectual aims and curricular content, the universities of Uppsala (founded in 1477), Lund (1668), Stockholm (1877) and Göteborg (1891) were exclusive upper class

lonl for the study of law, philosophy, theology and medicine.[38] Not until 1958 when a medical faculty was built in Umeå in the north of the country to be followed later by a full university in 1963 was there any expansion of higher education. The "classical four" universities established satellite universities in Örebro, Växjö, Linköping and Karlstad during the nineteensixties. Linköping became a university in its own right in 1969. In 1971, a college of technology was founded in Luleå in the far north. At the same time, a new system of semi-permanent liberal arts faculties was established in Luleå and two other northern cities, Sundsvall and Östersund. A college of library sciences was built in Borås in 1972. A proliferation of teachers' colleges, schools of social work, management science and public administration programs characterize the last decade. Sweden has thus attempted to expand higher education geographically, socially and topically.

Four key overlapping problem areas of post-secondary education will be examined in the following two-step diachronic approach. Important dimensions of educational structure, curriculum, faculty and students will be assessed in terms of their present and recent past (i.e., late nineteensixties and first half of the nineteenseventies) and their propsects for the future in light of present reform proposals.

Educational Structure

Centralization and the absence of local autonomy have until recently characterized the internal and external framework of Swedish higher education. This was especially trueduring the nineteensixties. Following the traditional pattern of Swedish public administration, a rather small ministry (Ministry of Education) has primarily been engaged in matters of

policy, legislation and long-range planning. The day-to-day running of affairs, supervision, new policy initiation and implementation are the task of nominally independent agencies. By far the most important of these is the Office of the Chancellor of Swedish Universities (Universitetskansler-Ämbetet, UKÄ) which supervises all education at universities, institutes of technology, commerce, social work, journalism and physical education.[39]

The UKÄ represents an institutional link between the state (government), industry (employers and employees) and higher education. Due primarily to this strategic position within the general topography of Sweden's political economy, UKÄ's consultative powers are considerable. Its screening and clearing-house functions have a key effect on the formulation and implementation of short-term courses of study, the budget, the degree of vocationalism of post-secondary education and the establishment of numeri clausi with annually varying rates for certain key subjects. UKÄ's five departments (planning, education, educational research and development, administration and organization, and management and auditing), its ten member governing board (including one appointed student) and the influential Faculty Planning Boards which include representatives of unions and industry and commerce in all academic decisions constitute an important structural development in Swedish higher education.[40] The power of UKÄ did not only experience a quantitative growth during the course of the nineteensixties; it also entailed a qualitative change reflecting the developments of Swedish education and social democratic policy.

Until July 1, 1964 the UKÄ was more or less a loosely federated de jure umbrella organization for all Swedish universities.[41] Research, curricular matters, granting of degrees all remained the strict prerogative of the individual universities. UKÄ's opinion was frequently sought, but its suggestions were never binding, not even in a de facto manner. Thus, the

relationship between UKÄ and the universities was that of a communal interest association in the realm of academia. It would be wrong to imply that this has totally changed as a result of the mid-sixty reforms, but undoubtedly various "rationalization processes", "modernization endeavors" and "coordination attempts" have not only strengthened the UKÄ at the expense of the universities, but above all have succeeded in tying both to the state and to the interests of private industry.

Until 1966 for instance, individual universities submitted their budget requests to UKÄ. Since then this has been replaced by requests from individual faculties and departments in order to avoid duplication and maximize efficient coordination. Thus, departments have to compete for funds. UKÄ's PPBS introduced in 1968 accelerates the cost-benefit analyses which determine the feasibility of a proposal. It is not quite clear whose criteria of efficiency are adopted. However, it is certain that the power of groups from the private economic sector whose keen interest in the research and teaching activities of universities has alwasy been evident, has increased in the last decade. This development coincided with an increase in the influence of industrial groups within UKÄ."[42]

Whereas UKÄ's structural changes during the last decade offer insight into Swedish higher education's external relations vis-a-vis the state and industry, certain internal reforms parallel these developments. The most appropriate and all-encompassing characterization of these trends might appropriately be described as the "Americanization" of Swedish higher education.

Starting from the top, the Swedish Rektor, a highly ceremonial and largely powerless figure until after World War II, has more and more approximated the role of an American university president at a state institution.

Due to the educational expansion of the sixties and the concomitant development of complex relationships between the university and the state, the rector's power manifoldly increased. Not only has this been a consequence of unclear and contradictory loyalty relationships which in turn often lead to poorly defined authority structures and ambiguous role functions; above all, it was a consequence of the rector's broker role between the various faculties and departments on the one hand and the UKÄ and the state on the other. Nevertheless, similar again to an American university president, his influence and jurisdiction remain confined to curricular revisions, faculty appointments, promotions and demotions.

Another relatively recent intra-university structural development is the growing preeminence of institutes, often at the cost of faculties and departments. Two reasons seem particularly important: the increasing salience of research vis-a-vis teaching and the significance of coordinated cross-disciplinary research as evident in area studies in the social sciences or some fields in medicine. While the role of higher education in national research and development has increased, it remains a distant second to the private sector.[43]

Probably the most important Swedish adoption of an American educational institution is the teachers' college. Located in Stockholm, Malmö, Göteborg and Uppsala these institutions have become the country's supplier of the junior and middle level primary school teachers. All other teachers must spend one year at a pedagogical college in addition to their training in their respective subjects. Teachers' colleges are increasingly becoming an indispensable part in educational and social differentiation and inequality.

At the top of this educational pyramid are a few elite institutions

almost exclusively engaged in research; in the middle are numerous relatively more open and less selective institutions (among them teachers' colleges) which specialize in the "proper" ideological and pedagogical dissemination of the former's research; at the bottom, are a large number of short-term, mostly vocationally oriented institutions which mold a growing number of people to properly productive labor power demanded by the complexities of a highly industrialized society. This "functional differentiation" reflecting three levels of quality found in the United States is increasingly prevalent in Sweden. This phenomenon is most succinctly captured by Joachim Hirsch's and Stefan Leibfried's taxonomy :[44]

Level 1 - Makers of Prescriptions
Level 2 - Users of Prescriptions
Level 3 - Qualified Blue Collar Workers

Sweden's "rolling reforms" have affected some of the concepts discussed earlier. Both the internal and the external dimensions of higher education's structure have undergone changes as a result of recent reform proposals.

The U68 Commission on the reform of higher education has proposed two far-reaching changes concerning both the internal and the external structures of Swedish higher education.[45] In this legislation the U68 proposed the abolition of the traditional inter-university differentiations between universities, teachers' colleges and vocational schools. Furthermore, the intra-university division into obsolete faculties - often into the four "classical" ones of medicine, law, theology and philosophy - is replaced by new "sectors" which are structurally less rigid than their predecessors and intellectually more integrated. The five sectors in the areas of undergraduate, professional/vocational education, administrative units for planning, development and distribution of resources are:

1) technology
2) administration and economics
3) medicine and social work
4) teaching
5) cultural work and information.[46]

One of the difficulties involving this division is presented by the question of boundaries. Certain types of education and subjects defy exact categorization and could logically appear in two or more of the above mentioned multifaceted sectors. The choice of classification, however, "must allow not only for the content and structure of training, but also for the conditions of working life, including possible substitutions between different categories of graduates."[47] Thus, the difference between the old faculties system and the new sector system lies in the latter's "practical" orientation and its allowance for intersectoral courses of study rather than the abolition of categorization which continues.

Not only have U68 and its subsequent modifications abolished the old faculty system and created an integrated Högskola (similar to the German word Hochschule, inadequately translated by the English terms "higher education" and/or "university"), but a serious attempt has been made to decentralize the hitherto quite centralized Swedish post-secondary system. This represents an important change in the external structure of Swedish higher education. Although general guidelines will continue to be established on a national level, local educational units will have an active input into their formation. These guidelines will allow local level initiatives based on local demands and needs. Planning at the local level is autonomous to the extent that it may gear educational programs to fulfill the peculiar exigencies of regional working life. This decentralization allows for a greater flexibility and spontaneity in the administration and curricular guidance of every regional post-secondary complex. It may, however, also increase the influence of local elites upon the educational process which would be intentionally or unintentionally counterproductive to the attempts of democratization of and by Swedish higher education.

A significant area excluded from the recent post-secondary reforms, including the U68, is that of faculty structure (in the American sense of professional academic staff). Despite decades of reforms, the structure of Sweden's faculty and researchers remains hierarchical. These staffs are strictly stratified with power directly proportional to the possession of titles and institutional positions. The apex of the professional pyramid maintains its tradition of contested, permanent power. Richard Tomasson's point made six years ago that "...the principle of one professor, one department, one building continues" seems to be as true today as it was in 1970.[43] The Swedish professor enjoys, similar to his German colleague and unlike his American counterpart, high prestige and above all almost uncontested power in his domain. He has almost complete freedom in determining the research goals of his department and/or institute. His power in terms of academic promotion is almost unchecked. Similar to the situation in the old German Ordinarienuniversität , he commands a coterie of junior faculty, who do almost all the teaching , researchers and graduate students.

Three reasons seem germane to the absence of reforms of the faculty. 1) The absence of a radical student movement and the predominance of a pragmatic, reformist "bread-and-butter issue" oriented type of student politics. 2) The structurally divided junior faculty whose allegiance to the senior professors is a sine qua non for their academic existence and whose internal rivalries which are structurally determined make collective political action almost impossible. 3) The senior faculty's sacrosanct prerogatives as far as research, promotion and internal faculty matters are concerned. The faculty's structural reform could not come about without the senior faculty's initiative in this regard. On top of the educational pyramid, being forced by neither students nor junior faculty to yield, the Swedish professor's prestige and status is hardly challenged from the outside.

Curriculum and Students

Developments in the areas of curriculum and students most clearly evidence the progressive nature and intentions of Swedish educational reforms. Yet often subjectively inadvertant and unintended consequences of the reforms are counterproductive to an all-encompassing socialist transformation of Swedish society due to objectively inherent structural constraints. Social democratic reforms show a prototypical ambiguity among their consequences and meaning in this context.

The social composition of the Swedish student body has a relatively "egalitarian character as compared to many other countries in the world.[49] In 1960 about 16% of Sweden's 37,000 students came from a working class background; ten years later, 23% of the 125,000 enrolled students had working class parents. Despite this undeniably important gain, higher education remains a selective, class-skewed institution.[50] As Table XX visually illustrates, there is an intra-university social selection which correlates with the social "prestige" of the subject. Again, hardly by coincidence, the "prestigious programs" happen to be the ones with restricted admissions and rigidly enforced numeri clausi, the rates of which are annually determined by UKÄ according to market demands. "A report published in 1967 shows that Social Group I is especially predominant in the important faculties with numerus clausus...Most of the 'closed' subjects lead to professions (medicine, dentistry, economics, engineering) which in society enjoy a high economic reward and social prestige. It thus becomes clear that in addition to the disproportionately small number of students from less privileged backgrounds at the university in general, this trend is exacerbated with respect to 'closed' faculties."[51]

Social selection and the phenomena of "closed" and "open" courses of study are both tied to admissions requirements. Some of the most intensive

reform endeavors are aimed at changing entrance requirements thereby laying the groundwork for a completely new concept of post-secondary education. The first step in this equalization process was the abolition of the Studentexamen at the end of secondary schod which previously determined the acceptance at all departments of the university.[52]

Secondary school's grades - especially the last years - have now attained great significance for admission to university. Grades are the major determinants for a successful entry into a "closed" department, such as medicine, where the minimum required grade point average has hovered around 4.8 on a 5 point scale. Grades are not weighted by social factors or any other important exogenous determinants.[53] "Open" departments on the other hand initiated acceptance rules which are intended to reach almost every segment of the Swedish population thereby changing the concept of "university" and "student". Not only could applicants with every possible secondary school education (i.e., 2 year, 3 year, and 4 year) apply, but now it is also possible to enter university without a secondary education, indeed, without any education at all, provided one is at least 25 years old, has 5 years job experience, can pass a Swedish test and has preferably - though not obligatorily - some knowledge of English.[54] Child care and care of relatives qualify as work experience thus, legitimizing housework and encouraging housewives to enter post-secondary education.

What is even more interesting in regard to potential societal change is the fact that applicants with different backgrounds do not compete against each other, rather there is an intra-group comparison. The four independent categories are: group 1 - applicants with three years of secondary education; group 2 - applicants with two years of secondary education; group 3 - applicants with other types of Swedish schooling (or work experience); and group 4 - applicants with foreign education.[55] Inter-category allocations among groups

one, two, and three are to be alloted in proportion to the number of intra-category applicants. Ten percent of the overall total will be reserved for students with foreign educations (group four).[56] There are plans underway now to assign a certain number of points to work experience, thereby enabling the conversion of work into the educational system. This is a promising institutional mechanism for the merger of living and learning, work and education which, as mentioned earlier, is a major aim of social democratic educational reforms.

Similar to the Anglo-American structure of university curriculum - unlike that of the traditional German university - Swedish universities are divided into a primarily teaching oriented undergraduate division and a research oriented graduate program. Graduate education itself was divided until 1971 which represented a further differentiation in the level of scientific inquiry and academic prestige. American influence on Swedish reforms in the reshaping of undergraduate education is more significant, than to any other aspects of post-secondary education. Until July 1, 1969 students in the arts and sciences were totally free as far as course sequences, time tables and order of examination requirements were concerned. This was always less the case in more technical and vocationally oriented subjects and fields. The technocratic reforms of Swedish universities introduced "points" corresponding to the hours per week similar to American credits, major field of study (American "major") and related area of emphasis (American "minor"). 120 points are needed for a Filosofie Kandidatexamen (F.K.) corresponding to an American B.A. or B.S. At 40 points a year - corresponding to the 40 weeks of the Swedish academic year - it takes 3 years to obtain an F.K. Again, similar to American undergraduate education, frequent examinations allow a mirimum of leeway with respect to

courses within a subject area.

A tendency toward the requirement of course sequences and even attendance have all led to a Verschulung (schoolization) of Swedish universities. The students' reaction to this process was ambivalent throughout the late sixties and early seventies. On the one hand students in the arts and sciences did appreciate a more regularized, hence more predictable and more manageable, curriculum similar to the ones their peers "enjoyed" in the vocationally oriented departments and professional schools. Yet, many also perceived the dangers of these technocratic reforms of Verschulung which not only reaffirmed the power position of the faculty, but above all augmented administrative controls over the university by outside agencies such as UKÄ, the state and private industry.

On the graduate level a reform introduced in 1971 abolished the Swedish "superdoctorate" (similar to the French Doctorat d'Etat) and renamed the Lizentiat degree Filosofie Doktor (F.D.) corresponding to the Anglo-American Ph.D. (or the Frech Doctorat du Troisieme Cycle). Similar to the "Americanization" of undergraduate education, the graduate curriculum was also formalized. Course work (usually up to 60 points) is now required in addition to the traditional thesis.

Recurrent Education

Recurrent education is one of the most explicitly egalitarian endeavors of recent Swedish social democratic reform. Not only is there an underlying policy assumption that recurrent education will eventually change education itself, but that in addition it will change society. Existing cleavages such as those between the generations, "productive" and "unproductive" labor, leisure and work, all of which are of an exploitative and alienating nature would be mitigated if not totally alleviated if the reforms achieve their espoused goals. The worlds of education and work would merge into a single

phase and structure, thereby negating hitherto important status differences which have accompanied the unequal national distributions accruing to the member of each. Yet, the other question posed in this study remains, indeed is enhanced precisely by recurrent education's potential: Whom does it benefit? Without the necessary structural challenge to the privatization of production, it becomes clear that capital and accumulation processes (Verwertungsprozess) would continue to benefit a select few at the relative expense of the majority of the population.

Recurrent education in Sweden entails both "vertical" and "horizontal" dimensions.[57] The vertical dimension allows the individual to break the current lockstep by deferring certain stages of his education until a later date. The horizontal dimension coordinates educational and training provisions "with other social and employment policies which affect the work and leisure of the population."[58] Both the world of education as well as the world of work will have to be extensively and equally affected if recurrent education is to fulfill its promise. Yet, interestingly if predictably, recurrent education has thus been almost the sole educational reform facing the unveiled opposition of employers. The unions view it in purely instrumental terms. They evaluate recurrent education's collective purpose solely as a means to stabilize their own market position. On the individual level, unions see its contribution as a method of incrementing human capital within the labor force's world of work.[59]

In the analysis of the salient characteristics of Swedish recurrent education it becomes evident that the job world and its requirements strongly influence important aspects of recurrent education reforms. On the basis of the U68 Commission's recommendations and the 1975 modifying proposal, both of which have served as guidelines for Swedish reforms of

higher education in the last three years, a number of critical aspects emerge. First, most post-secondary educational problems have their roots in primary and secondary school. Especially with respect to secondary school, a drastic reorganization along the lines suggested by the reforms is necessary if recurrent education is to escape having an ephemeral impact. The successful starting point for this transformation lies within the 16-19 age group. All efforts have to be made to negate the hitherto often final choice between university or work, if the reform is to succeed. Both possibilities should remain open and indeed become one. The comprehensivization of secondary school and the incorporation of many vocational courses into secondary as well as post-secondary curricula should encourage students to opt for the work route knowing that they could always return to university under the new admissions guidelines.

Second, long coherent periods of education not only create problems in the relationship between education and work, but also contribute to social distortions favoring "the first socio-economic group."[60] The proposal to break up the twenty year bloc of education (5-25) now predominant for the privileged classes in most industrial countries would have an important equalizing effect.

Third, public schooling at every level is completely free in Sweden. However, the poor are still disadvantaged by such essential costs as materials, transportation, private tuition for subjects in the pure sciences, classical humanities and philology and, of course, opportunity costs. U68 and a subsequent reform proposal drafted in 1975 suggest compensation for all of the above, including full wages paid by the state and the employer for the entire duration of the study sojourn.

Fourth, psycho-social barriers have played a tremendous role in discouraging people from resuming higher education. Especially adults

out of school for numerous years feel embarrassed and frightened about returning to school. "Outreach activities" have successfully pierced the "embarrassment barrier" and pursuaded adults between 25 and 67 who have never gone beyond elementary school to enter various recurrent education programs.[61] Top priority is accorded to the most disadvantaged groups which is to say that there is a concerted and explicit effort on the part of the Swedish Social Democrats to use recurrent education as a retroactive social equalizer.

Comprehensivization in secondary school and recurrent education at the university level are complementary phenomena. As noted earlier, recurrent higher education depends on the new comprehensive secondary school with its numerous possibilities for academic concentration. However, both innovations entail a substantial growth in vocationalism and practically oriented subjects accompanied by a proliferation of short-cycle institutions. This development, albeit very important for individuals, may not necessarily alleviate the objectively disdavantaged position of the underprivileged as a collective since vocational courses still remain on the lowest rung of the academic ladder in terms of cognitive benefits and most importantly social prestige. Thus, attempts by reformers to introduce the concept of "higher education" as an all-encompassing post-secondary structure and to obliterate all prestige-prone differentiations may be consciously intended, but seem little more than semantic exercises in futile euphemisms as long as intra-curricular competition and inter-departmental gradations continue to exist. The strict differentiation between "open" and "closed" departments and schools, and the separation of "old" from "new" subjects may serve witness to the old problem of overall growth without redistribution and hence, social inequality.

The "philosophy" of Swedish educational reforms in general and the central role of its occupational orientation in particular are best described by the following excerpts from U68's introductory pages.

> U68 starts from the premise that higher education is to prepare students for subsequent occupational activities. This has consequences for its capacity and organization, and to some extent also its location. Obviously, it does not imply that every study unit in a university or college should be directly linked to an occupation. The intention is rather that the individual's basic education as a whole should prepare him for an occupation. In the opinion of the Commission, working life should constitute an important source of renewal for education, at the same time as education should function as an important instrument for the development of working life...U68 proposes that basic education be organized on educational programmes which can be general, local or individual. It is proposed that higher education should also be provided in the form of single courses.62

"General" educational programs are intended to meet "national needs" and will be oriented toward broad vocational areas. Their overall framework are to be decided on a national level, while exact course content will be decided locally. The "local" programs are also to be vocationally oriented, narrower in scope and decided and implemented on the local level. "Individual" programs are meant to be tailor-made vocational courses on the local level.[63] Single courses are intended for people who want to combine work and study. Such courses are to be available in all possible subjects, thus allowing for the possibility of taking a course for vocational improvement and/or simply a leisurely interest. Frequently single courses are geared toward in-service and further training needs that are not covered by complete programs. "The provision of educational opportunities in the form of single courses throughout the higher education system is particularly important as a prerequisite of recurrent education."[64]

Short-cycle programs are intended mainly as technical "brush-up" courses for industrial workers. These programs formally aim at two complementary objectives. For the uniniated worker they are meant to provide a general acquaintance with the labor market, while allowing specialization in a particular industrial sector. For others, the program is meant to prepare workers for skilled occupations through in-depth vocational training. Both variants of the short-cycle program take on the average a year and a half of full-time study. Matriculation may be for the entire program at one time or may alternate with work assignments.[65]

The alternation of work and study theme expresses the underlying tone of almost all Swedish educational brochures and reform proposals. It mirrors the hitherto unsolved dilemma of modern post-secondary educational systems in all industrial societies. Should institutionalized studies provide an academic education or a vocation. Furthermore, how much - if any - overlap is there - or should there be - between education and vocation? The Swedish Social Democrats are trying to reach a synthesis through various "rolling reforms" which provide for the continuous empirical testing of policies. It seems, however, that the "education" side of the dilemma has been neglected in favor of the vocational aspect.

Swedish social democratic reforms have laudable intentions toward the many aspects of education, the reduction of social inequality, the alleviation of all forms of human ignorance and ignominy. Education, it is felt, can contribute to social justice and personal fulfillment. Through the dissemination of values accomplished by educational reform, Sweden hopes to negate all social differences, the root of social ills.

Yet it is the "vocational" or, let us say, the technocratic aspects of educational reforms which are of crucial importance to the future of

Sweden's political economy. This is precisely the reason why Sweden's educational reforms have struck the fancy of almost all European educational establishments and subsequently have served as the bases for important debates on questions of policy and implementation. Reforms such as primary and secondary school comprehensivization; the abolition of university entrance examinations (secondary school leaving examinations); the adoption of rigid course sequences and examination schedules in the arts and the sciences; recurrent education; short-cycle courses; and the abolition of some homework assignments all fail to pose a structural challenge to the maintenance of a capitalist system. This failure results in the inadvertant provision of a major mechanism of system legitimation. Thus, what is designed to represent a dimension of critical and system-transforming education turns out to be an integrating and system maintaining vocation. As such the reforms perpetuate a socialization process which promotes far-reaching adjustments within the capitalist system without, however, being able to fundamentally transform it.

FOOTNOTES

[1]Steven Koblik, Introduction to Sweden's Development from Poverty to Affluence 1750 - 1970, Steven Koblik, ed. (Minneapolis: University of Minnesota Press, 1975), p.11. M. Donald Hancock, Sweden: The Politics of Postindustrial Change (Hinsdale, Illinois: Dryden Press, 1972), p.22.

[2]Hancock, p.23. Gradual industrialization in Sweden was not accompanied by severe depressions à la the post-Gründerjahre period in Austria for example, where rapid industrialization and its negative consequences led to the intensified reactionary development of the post 1875 bourgeoisie.

[3]Hancock, p.23.

[4]Andrew Martin, The Social Democratic Party (Unpublished Manuscript, Harvard University, 1976), pp.8, 9.

[5]It is interesting to note that the Swedish experience seems to contradict Duverger's well-known theories about the degree of radicalism of direct and indirect parties of the Left and the geographic particularity of their formation. According to Duverger direct parties, i.e., parties which developed prior to the formation of unions, have a tradition of radicalism. Moreover, they have been almost exclusively creations of the Latin countries. Maurice Duverger, Political Parties (London: Methuen & Co., 1964), pp. 5-17. The Swedish Social Democratic Party is a direct party, since it was formed prior to the LO. However, it is neither Latin, nor has it ever been radical.

[6]Richard Tomasson, Sweden: Prototype of Modern Society (New York: Random House, 1970) p. 7.

[7]Marquis Childs, Sweden: The Middle Way (New Haven: Yale Paperbound, 1961); Dankwart Rustow, The Politics of Compromise, (Princeton: Princeton University, 1955).

[8]Koblik, pp.11-13; Tomasson, p. 7.

[9]Among the most significant scholarship on the issues of social democracy, the welfare state and problems of capitalism in advanced industrial societies are: Anthony Giddens, The Class Structure of the Advanced Societies (New York: Harper & Row, 1975); Claus Offe, Strukturprobleme des Kapitalistischen Staates (Frankfurt: Edition Suhrkamp, 1972); Claus Offe, "The Theory of the Capitalist State and the Problem of Policy Formation" in Leon N. Lindberg, Robert Alford, Colin Crouch and Claus Offe Stress and Contradiction in Modern Capitalism (Lexington: D.C.Heath and Co., 1975); Claus Offe and Volker Ronge, "Theses on the Theory of the State" in New German Critique (1975/6): 137-147; Andre Gorz, Der Schwierige Sozialismus (Frankfurt: Edition Suhrkamp, 1969); Reinhard Kühnl, ed. Der Bürgerliche Staat der Gegenwart (Reinbek: Rowohlt, 1972); Nicos Poulantzas, Political Power and Social Classes (London: New Left Books, 1973); Nicos Poulantzas, Classes in Contemporary Capitalism (London: New Left Books, 1975); and Frank Parkin, Class Inequality and Political Order: Social Stratification in Capitalist and Communist Societies (New York: Praeger, 1971).

[10]On cooptation's redistributive and obfuscatory dimensions see, Philip Selznick, TVA and the Grass Roots (New York: Harper & Row, 1966), pp.259-264.

[11]Gorz.

[12]Nicos Poulantzas, "The Problem of the Capitalist State" in Robin Blackburn, ed., Ideology in Social Science (New York: Vintage Books, 1973), p.245.

[13]Erich Fröschl, "Tendenzen der Forschungspolitik in Österreich seit 1945," Österreichische Zeitschrift für Politikwissenschaft (1974/4): 459.

[14]This essay is part of a larger project comparing Austrian and Swedish social democratic structures, policies and reforms.

[15]Andrew Martin, "Is Democratic Control of Capitalist Economies Possible?" in Lindberg et al, p.50. Martin notes that "over half of the GDP is channeled through the public sector in all forms of revenue, more than in any other Western country. However, public enterprise has only accounted for between five and six percent of GDP and roughly the same portion of total employment for a long time, which is lower than in several West European countries." Martin,"Democratic", p.50. For comparative data on tax revenues and public consumption as a percentage of GNP indicating "the financial dimension of the public sector" see Tables I and II. For comparative data on total government subsidies as a measure of "the entrepreneurial dimension of the public sector" see Table III.

[16]For comparative data on expenditures on education see Table IV.

[17]The most important treatises arguing this point are Christopher Jencks et al, Inequality: A Reassessment of the Effect of Family and Schooling in America (New York: Harper & Row, 1973) and Raymond Boudon, Education, Opportunity and Social Inequality: Changing Prospects in Western Society (New York: John Wiley & Sons, 1974). Also see Raymond Boudon, "Education and Mobility" in Jerome Karabel and A.H. Halsey, eds., Power and Ideology in Education (New York: Oxford University Press, forthcoming).

[18]On education and science as important productive forces for capitalism see Elmar Altvater, "Produktivkraft Wissenschaft" in Elmar Altvater and Freerk Huisken, eds., Materialien zur Politischen Ökonomie des Ausbildungssektors (Erlangen: Buchhandlung und Verlag Politladen, 1971); 349-364.

[19]Cited by Jarl Bengtsson and Kjell Härnqvist, "La politique de l'education en Suede" in Alain Gras, ed., Sociologie de l'Education (Paris: Librairie Larousse, 1974), p.103.

[20]R. Rossanda, M. Cini and L. Berlinger, "Theses on Education: A Marxist View" in Karabel and Halsey.

[21]For some important comparative figures on national expenditures on education as measured by percentage of GNP and national budget see Table IV.

[22]The free, terminal school was called Folkskola. The pre-gymnasium track was originally the 9 year Lärоverk. It was subsequently broken into a 6 year selective Folkskola to be followed by a 3 year Realskola (science oriented) or Mellanskola (humanities oriented). Both schools required a leaving examination prior to entering a gymnasium. Hence, this examination represented a sort of mini baccalaureat or what has been known in Germany and Austria as Mittlere Reife. The British O levels also provide a crossnational approximation. See Torsten Husen and Gunnar Boalt, Educational Research and Educational Change: The Case of Sweden (New York: John Wiley & Sons, 1968), Horst Hörner, Demokratisierung der Schule in Schweden (Weinheim: Beltz-Monographien , 1970), Jonas Orring, School in Sweden (Stockholm: SO-förlaget, 1963), and Jonas Orring, Comprehensive Schools and Continuation Schools in Sweden (Stockholm: Kungl. Ecklesiastikdepartementet,1962. See Ernst Jüttner, Schweden: Fakten, Analysen, Tendenzen des Bildungswesens (Munich: Franz Ehrenwirth Verlag, 1970).

[23]On the task of commissions in the Swedish political process see Hancock, pp. 156-158. Also see Christopher Wheeler, White-Collar Power: Changing Patterns of Interest Group Behavior in Sweden (Urbana: University of Illinois Press, 1975), especially Chapter 3, pp.38-48.

[24]The National Swedish Board of Education, Comprehensive School in Sweden, 1975, p.4.

[25]Swedish Information Service, Education in Sweden, no.1, December 1970-UD 10, p.3. For an overview of the three levels of Swedish compulsory school and the subjects of its curriculum see Table V.

[26]Internationalizing Education: Summary of Reports from the Swedish Committee for Internationalizing University Education (Office of the Chancellor of the Swedish Universities, 1974), p.18.

[27]Swedish Information Service, Education in Sweden, no.5, April 1971-UD 14, p.2.

[28]On teacher complaints with respect to reforms see Swedish Information Service, Education in Sweden, no.2, January 1971-UD II, pp.1,2. Two categories of teachers are employed in the comprehensive primary school. Pupils at the junior and middle levels are taught by class teachers. All of the latter have been educated at pedagogical post-secondary institutions (i.e., teachers' colleges) after having completed the minimum requirement of a two-year theoretical line of secondary school. Pupils at the senior level are taught by subject instructors. These individuals usually have a university diploma in their particular subject of expertise in addition to practical and pedagogical training acquired at a teachers' college. This differentiation has had political significance: whereas the former have always maintained a pro-reform posture and favored the "pro-American" comprehensivization of primary and secondary education, the latter always felt closer to the more exclusive minded "Germanophile" gymnasium teachers. Nevertheless, the strong ties of primary and secondary teachers to the Central Organization of Salaried Employees (TCO), one of the most important white-collar unions, has been a major factor in the ideological conceptualization and successful implementation of the comprehensive school reform. On this important point in a comparison with Germany where the absence of a substantial teachers' unionization movement prevented all efforts towards a successful school comprehensivization, see Arnold J. Heidenheimer, Hugh Heclo, and Carolyn Teich Adams, Comparative Public Policy: The Politics of Social Choice in Europe and America (New York: St. Martin's Press, 1975), chapter 2: "Secondary School Reform: Why Sweden? Why Not West Germany?" pp.44-68.

On the scholastic and cognitive advantages of comprehensive as opposed to selective schools see Torsten Husen, "Academic Preformance in Selective and Comprehensive Schools: Two Types of School Structure - Two Educational Philosophies "in Karabel and Halsey. For a good analysis of the Central Organization of Salaried Employees (TCO), see Wheeler.

[29]Swedish Information Service, Education in Sweden, no.2, January 1971-UD 11, p.1. On the Socialists' educational activities and attitudes toward reform, see Heidenheimer, Heclo, and Adams, pp.44-68.

[30]See Table VI. This table illustrates the tremendous gains of Social Group III over time, while simultaneously demonstrating the still existant inequality in primary education. It is not surprising that almost as many children with good grades (5) from Social Group III continue on to 10th grade as their peers from Social Group I. Where the social injustice of the meritocracy argument in educational politics can best be seen is in the great discrepancy between the advancement of Social Group III children with average grades (3) and their Social Group I counterparts. (See Table VI for explanation of social groups.)

[31]Jüttner, pp.32, 212. Also see Table VII for evidence of the class element within the senior level of primary school and at the transition to the old gymnasium.

[32]It is clear that a transition , from a gymnasium type school to a vocational school, was much easier than vice versa. Although the latter was theoretically possible, it occured very rarely. See Jüttner, p.32.

[33]See Table VIII for a schematic presentation of the pre-1971 Swedish gymnasium. Table IX presents a schematic presentation of the pre-1971 Swedish vocational school.

[34]See Table X for a schematic presentation of the new integrated upper secondary school.

[35]The Swedish Studentexamen corresponds to the French Baccalaureat, the German Abitur, the Austrian Matura and the English A levels.

[36]The National Swedish Board of Education, The Integrated Upper Secondary School: Three Schools in One (Stockholm: Svenska Utbildningsförlaget Liber AB, 1971), p.5.

[37]Office of the Chancellor of the Swedish Universities (UKÄ), Some Facts About Swedish Higher Education (Stockholm: Universitetskanslersämbetet, 1973), p.3.

[38]Although the traditional Swedish universities were largely reserved for the upper class, they had never attained the centrality of role and prestige in Swedish society comparable to universities in England, the United States, Germany, Japan and the Catholic countries on the Continent. They were neither abolute sine qua nons for a high position in the civil service a la Oxbridge, the Grandes Ecoles or the University of Tokyo, nor were they socially powerful prestige producers such as the institutions cited above and the Ivy League colleges in the United States. By the sheer fact of their small numbers, Swedish universities played an important elite recruiting and socializing function. However,

their relative institutional isolation, especially their independence from the Church, weakened their position regarding Sweden's spiritual (ideological) and administrative leadership.

[39]The National Board of Education (Skolöverstyrelsen, SÖ) is the agency responsible for all primary and secondary education in addition to teachers' colleges and various post-secondary pedagogical institutes. The institutes for agronomy, forestry and veterinary medicine are under the jurisdiction of the Ministry of Agriculture whereas certain art academies and the Stockholm Institute of Economics are privately supported. Pre-schooling, remedial schooling and schools for the handicapped and retarded are under the tutelage of the Ministry of Social Welfare. For a schematic presentation of the administration of the entire Swedish educational system see Table XI.

[40]For a schematic presentation of UKÄ see Table XII.

[41]The UKÄ Chancellor, thus Chancellor of the Swedish Universities, was elected by all tenured professors and not appointed by the government as is the case since July 1, 1964. Overall, the UKÄ represented something of a national professors' club rather than a powerful bureaucratic decision-making agency.

[42]Jüttner, pp.160ff. For an interesting parallel development concerning the Federal Republic of Germany and the activities of the Hochschulinformationssystem G.m.B.H. in Hannover which shows similarities to some of the activities of UKÄ see Joachim Hirsch and Stefan Leibfried, Materialien zur Wissenschafts- und Bildungspolitik (Frankfurt: Edition Suhrkamp, 1971).

[43]Tables XIII and XIV provide some interesting crossnational data on research and development. Whereas it was not possible to get a breakdown as to the sources for research and development in higher education proper (e.g., by government and/or business) the figures on the national level as shown in Table XIII are revealing. Sweden's government is the least involved in the financing of national research and development and its private enterprise system the most involved. The latter is also responsible for a comparatively high percentage of the actual deployment of research and development as shown in Table XIII. Both figures corroborate the highly private nature of Swedish industry and confirm what was referred to above as the low entrepreneurial dimension of the public sector or conversely, the high entrepreneurial dimension of the private sector.

[44]Hirsch and Leibfried, pp.52, 53.

[45]In 1968 the Swedish Minister of Education appointed a commission (The 1968 Educational Commission, U68) to study the future of the entire Swedish post-secondary educational system. The Commission's major task consisted of working out an overall plan for the future of post-secondary education with a special focus on questions of overall capacity, location of new institutions, establishment of new courses of study and a general organizational overhaul of the entire post-secondary system. The final report was presented to the Minister in March 1973 and simultaneously published to inform the public and generate debate. There followed an initial "feedback" period of two years during which constant changes in the "rolling reform" tradition were to improve the initial proposal and incorporate suggestions from concerned parties. On February 28, 1975 the government submitted the proposal as a bill in parliament. On May 21, 1975 the bill was enacted into law by the Riksdag. Its implementation is set for July 1, 1977.

[46]U68, p.9.

[47]U68, p.10.

[48]Tomasson, p.141.

[49]For some relevant comparative crossnational data on the absolute number of students in higher education; university students as a percentage of the total population; manual workers' sons as a percentage of the total student body; and the percentage of women in higher education see Tables XV, XVI, XVII, and XVIII. Note the substantial differences between the West European capitalist countries and the East European state socialist ones. The most glaring discrepancy between the two "blocs" lies - as might be expected - in the paternal profession of the student body.

[50]For two schematic presentations of education's social selection mechanisms see Tables XIX and XX.

[51]Jüttner, p. 214.

[52]See above, on the abolition of the Studentexamen and its coincidence with the comprehensivization of secondary school.

[53]Swedish Institute, Higher Education in Sweden, January 1976, p.2.

[54]Swedish Ministry of Education and Cultural Affairs, The Reform of Higher Education, 1975; The Swedish Institute, "Fact Sheets on Sweden" - Higher Education in Sweden, December 1975; and The Swedish Institute, Current Sweden, no. 92, September 1975.

[55]The last category reflects the keen interest of Sweden's Social Democratic reformers in internationalizing Sweden's educational system. See, The Office of the Chancellor of the Swedish Universities, Internationalizing Higher Education in Sweden, August 1975 and The Office of the Chancellor of the Swedish Universities, Internationalizing Education, September 1974.

[56]Swedish Institute, Current Sweden, no. 92, September 1975, p.5. Also see Swedish Ministry of Education and Cultural Affairs, The Reform of Higher Education 1975, pp. 7,8.

[57]On this distinction see Tom Schuller and Jarl Bengtsson, "A Strategy for Equity: Recurrent Education and Industrial Democracy" in Karabel and Halsey.

[58]Schuller and Bengtsson.

[59]The Swedish Institute, Current Sweden, no. 46, October 1974, p.6.

[60]U68, p.12.

[61]The Swedish Institute, Current Sweden, no. 46, October 1974, p.2.

[62]U68-Higher Education: Proposals by the Swedish 1968 Educational Commission (Stockholm, 1973), p.9.

[63]U68-Higher Education, pp.29-31. Also The Swedish Institute, Current Sweden, no. 92, September 1975, p.6.

[64]Swedish Ministry of Education and Cultural Affairs, The Reform of Higher Education 1975, p.6.

[65]The Swedish Institute, Current Sweden, no. 92, September 1975, p.7.

TABLE I

TAX REVENUE AS A PERCENTAGE OF GNP

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Austria	29	34	35	35	35	36	--	35	38	37	36	37	--	--	--
Belgium	25	24	21	--	21	30	32	--	34	34	35	36	--	--	--
Denmark	27	25	29	29	30	--	33	--	--	34	38	45	42	--	--
Finland	--	--	--	--	--	--	--	--	36	35	35	37	37	--	39
France	39	36	36	--	38	39	39	39	38	38	37	37	--	--	42
Germany	31	37	38	38	37	36	37	--	37	38	--	39	39	--	--
Great Britain	32	32	--	31	31	29	--	37	38	42	43	44	--	--	41
Luxembourg	32	--	34	--	34	--	--	36	--	35	27	27	--	--	--
Netherlands	32	34	35	32	35	37	--	26	28	27	31	--	--	--	--
Norway	34	--	36	--	32	32	32	34	34	43	44	47	--	--	49
Sweden	34	37	--	41	41	44	46	46	--	49	50	51	52	--	--
U.S.A.	29	29	28	29	27	28	29	31	33	34	--	--	35	--	--

SOURCE: OECD, Economic Surveys 1962-1975, Paris.

TABLE II

PUBLIC CONSUMPTION AS A PERCENTAGE OF GNP

	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974
Austria	13	13	--	13	14	13	14	15	--	16	14	15	14	--	--
Belgium	--	--	--	--	--	--	13	--	14	14	14	14	--	--	--
Denmark	12	13	13	15	14	--	16	--	--	16	17	22	21	--	--
Finland	--	--	--	--	--	--	--	16	16	16	16	17	17	--	17
France	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Germany	14	14	15	16	15	16	16	--	16	16	16	17	18	--	--
Great Britain	17	--	--	--	--	--	--	--	--	--	18	18	--	--	--
Luxembourg	--	--	--	--	11	--	--	--	--	11	11	12	--	--	--
Netherlands	--	--	--	--	--	--	--	17	21	--	--	22	--	--	--
Norway	14	--	15	--	12	13	13	13	18	18	18	18	--	--	16
Sweden	--	18	--	--	19	19	21	21	22	24	23	23	24	--	--
U.S.A.	20	21	19	21	19	17	21	23	--	--	23	--	22	--	--

SOURCE: OECD, Economic Surveys 1962-1975, Paris.

TABLE III

GOVERNMENT TOTAL SUBSIDIES

		Subsidies as Percentage of Total Government Expenditures	Subsidies as Percentage of GNP
Austria			
	1960	10.5	3.05
	1965	10.7	3.85
	1967	9.1	3.28
	1970	7.8	2.89
	1972	6.6	—
Belgium			
	1960	4.5	1.13
	1965	3.9	1.17
	1967	4.2	—
	1970	3.9	1.37
	1972	3.7	—
	1973	3.9	—
Denmark			
	1960	1.4	0.38
	1965	3.2	0.96
	1967	4.1	1.35
	1970	4.3	1.63
	1972	3.6	1.51
	1973	5.4	—
Finland			
	1960	12.7	—
	1965	12.7	—
	1967	10.5	—
	1970	11.9	4.17
	1972	10.4	3.54
	1973	9.5	3.52
France			
	1960	7.7	3.00
	1970	10.4	3.85
	1972	7.9	2.92
Iceland			
	1960	34.9	—
	1965	25.5	—
	1967	33.1	—
Italy			
	1960	5.7	—
	1965	4.4	—
	1967	5.2	—
	1970	5.0	—

TABLE III - Continued

	Subsidies as Percentage of Total Government Expenditures	Subsidies as Percentage of GNP
Italy		
1972	6.5	--
1973	6.5	--
Norway		
1970	13.4	5.90
Sweden		
1960	5.7	1.94
1965	5.3	2.33
1967	4.9	2.25
1970	3.2	1.60
1972	3.2	1.66
1973	3.9	--
United Kingdom		
1960	6.5	2.08
1965	5.2	1.51
1967	6.1	2.26
1970	5.3	2.28
1972	5.3	2.33
1973	5.8	--
United States		
1960	0.2	0.06
1970	0.6	0.20
1972	0.5	0.18

SOURCE: Yearbook of National Accounts Statistics - 1974, United Nations, N.Y., N.Y.

TABLE IV

EXPENDITURES ON EDUCATION

		Percentage of GNP	Percentage of National Budget
Germany			
	1950	2.4	—
	1955	2.7	—
	1961	2.9	9.5
	1963	3.1	9.4
	1964	3.2	9.8
	1965	3.4	10.3
	1966	3.5	10.8
	1967	3.6	10.6
	1968	3.5	10.9
	1969	3.6	11.2
	1970	4.0	13.8
	1971	4.5	15.0
Sweden			
	1950	3.5	—
	1955	4.8	—
	1960	5.1	—
	1963	6.7	21.0
	1964	6.7	21.3
	1965	7.0	21.1
	1966	7.8	23.8
	1967	8.1	24.6
	1968	7.9	26.9
	1969	8.2	28.0
	1970	7.8	27.0
	1971	7.9	26.7
United Kingdom			
	1955	—	—
	1959	—	—
	1961	4.3	—
	1963	4.8	12.9
	1964	4.8	13.0
	1965	5.1	13.4
	1966	5.3	13.4
	1967	5.6	12.3
	1968	4.9	11.0
	1969	5.6	12.9
	1970	5.6	12.9
	1971	5.9	13.2

TABLE IV - Continued

		Percentage of GNP	Percentage of National Budget
U.S.A.			
	1955	3.3	—
	1959	4.0	—
	1960	4.8	—
	1963	4.8	17.5
	1964	5.1	18.8
	1965	5.3	19.5
	1966	5.3	15.6
	1967	5.6	--
	1968	5.8	16.6
	1969	6.3	17.9
	1970	6.5	17.5
	1971	6.7	—
U.S.S.R.			
	1955	5.8	—
	1960	5.9	11.7
	1963	6.4	—
	1964	6.5	—
	1965	7.3	13.8
	1966	7.4	—
	1967	7.2	—
	1968	7.3	13.8
	1969	7.3	13.7
	1970	6.8	12.8
	1971	7.0	13.1

SOURCE: UNESCO Statistical Yearbooks, 1962-1973.

TABLE V

CURRICULUM AT THE THREE LEVELS OF COMPULSORY SCHOOLS

JUNIOR LEVEL

Grade 1		Grade 2		Grade 3	
Swedish	9	Swedish	11	Swedish	9
Mathematics	4	Mathematics	4	Mathematics	5
Music	1	Music	1	English	2
Physical Education	1	Physical Education	2	Handicraft.	2
O.S.*	5	O.S.*	6	Physical Education	3
				O.S.*	7
Total	20	Total	24	Total	30

MIDDLE LEVEL

Grade 4		Grade 5		Grade 6	
Swedish	9	Swedish	8	Swedish	9
Mathematics	5	Mathematics	5	Mathematics	5
English	2	English	4	English	4
Music	2	Music	2	Music	1
Drawing	2	Drawing	2	Drawing	2
Handicraft	3	Handicraft	3	Handicraft	3
Physical Education	3	Physical Education	3	Physical Education	3
O.S.*	8	O.S.*	8	O.S.*	8
Total	34	Total	35	Total	35

SENIOR LEVEL

Grade 7		Grade 8		Grade 9	
Swedish	3	Swedish	3	Swedish	4
Mathematics	4	Mathematics	4	Mathematics	4
English	3	English	3	English	3
Music	2	Drawing	2	Music	1
Drawing	2	Handicraft	2	Drawing	1
Handicraft	2	Domestic Science	3	Handicraft	1

TABLE V - Continued

Grade 7		Grade 8		Grade 9	
Physcial Education	3	Physical Education	3	Domestic Science	2
O.S. *	10	O.S.*	10	Physical Education	3
Freely chosen work	2	Freely chosen work	2	O.S.*	10
Option **	4	Option **	3	Freely chosen work	2
				Option**	4
Total	35	Total	35	Total	35

SOURCE: National Swedish Board of Education, Comprehensive School in Sweden (n.p.: Utbildningsförlaget, 1975), pp. 7,8.

*"O.S. stands for orientational subjects. Orientational subjects are as follows: junior level: religious knowledge and local studies· middle level: religious knowledge, civics, history, geography and nature study; and senior level: religious knowledge, civics, history, geography, biology, physics and chemistry." National Swedish Board of Education, Comprehensive School in Sweden (n.p.: Utbildningsförlaget, 1975), p.6.

**"French, German, economics, art and technology are option at senior level." National Swedish Board of Education, Comprehensive School in Sweden (n.p.: Utbildningsförlaget, 1975), p.8.

TABLE VI

THE RATE OF ACCESS TO SECONDARY SCHOOL BY SOCIAL GROUPS AS A FUNCTION OF GRADES AND OF THE YEAR OF BIRTH (AND OF THE COURSE OF STUDY 13 YEARS LATER) *

	Year of Birth		
	1934	1948	1953
Grade - 3			
Social Group I	36	55	75
Social Group II	3	25	41
Social Group III	1	12	24
Grade - 4			
Social Group I	65	88	97
Social Group II	18	58	84
Social Group III	10	45	65
Grade - 5			
Social Group I	85	100	100
Social Group II	41	91	98
Social Group III	32	87	90

SOURCE: Jarl Bengtsson and Kjell Härnqvist, "La politique de l'education en Suede," in Alain Gras, ed., Sociologie de l'Education (Paris: Librairie Larousse, 1974), p.108.

*Social Group I includes owners and managers of large and middle sized enterprises and salaried employees in responsible positions, usually with university education. Social Group II includes owners and managers of small enterprises and salaried employees in lower positions. This group also includes farmers of both large and small holdings. Social Group III includes all wage earners, rural as well as industrial. Edmund Dahlström, ed., Svensk Samhällsstruktur i Sociologisk Belysning (Stockholm: Scandinavian University Books, 3rd Edition, 1965), p.351.

TABLE VII

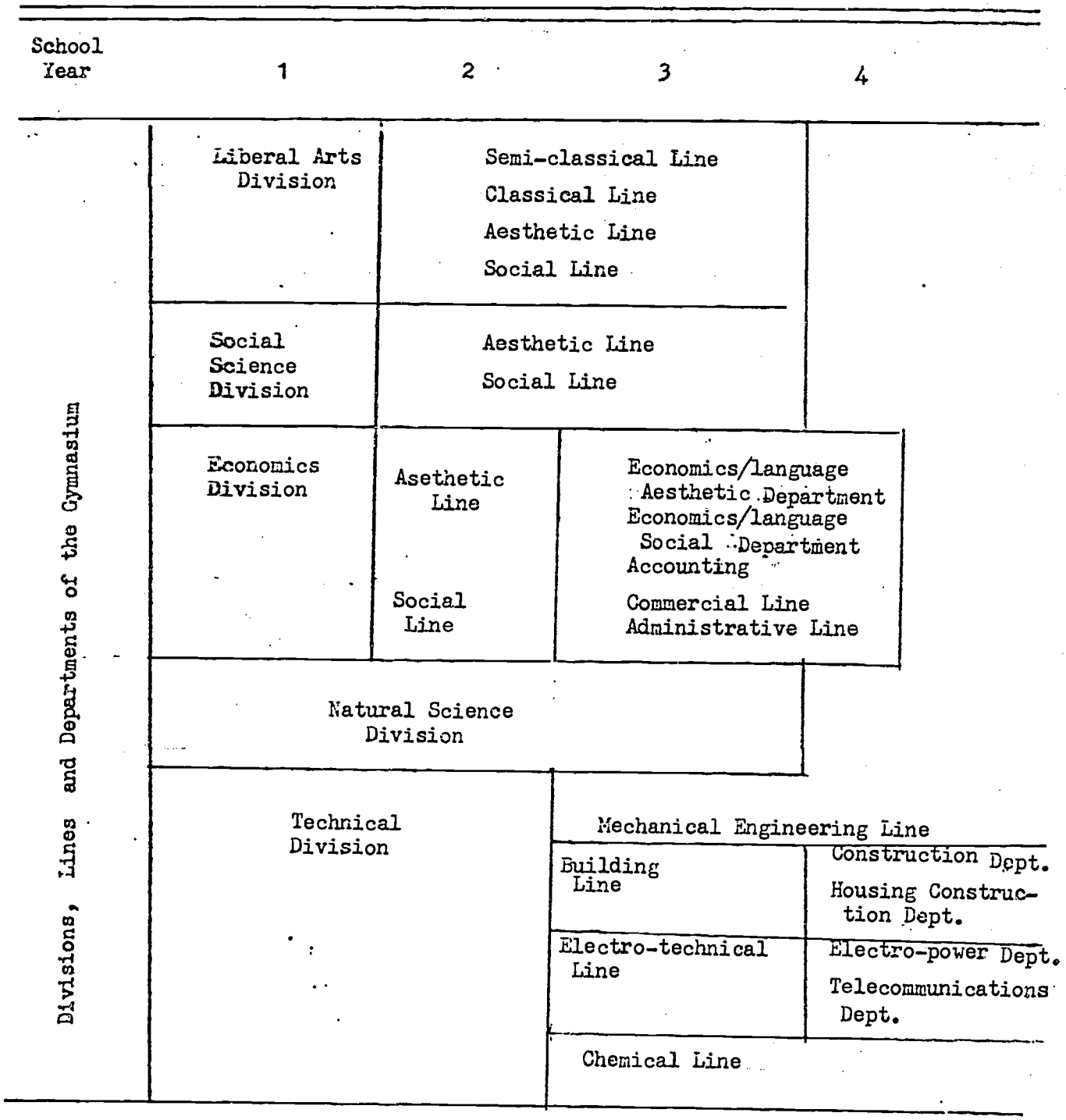
INTRA-PRIMARY SCHOOL CLASS DIFFERENCES

School Year	Social Group		
	I	II	III
		(Percentage)	
Grade 7	88	67	46
Grade 8	90	65	42
Grade 9	88	59	36
Qualified Candidates for Gymnasium	87	58	33
Applicants	76	43	22
Accepted	62	32	17

SOURCE: Egon Jüttner, Schweden: Fakten, Analysen, Tendenzen des Bildungswesens (Munich: Franz Ehrenwirth Verlag, 1970), p.212

TABLE VIII

PRE-1971 SWEDISH GYMNASIUM



SOURCE: Horst Hörner, "Schulreform in Schweden" in Hermann Röhrs, ed., Die Schulreform in den Industriestaaten (Frankfurt: Akademische Verlagsgesellschaft, 1971), p.112.

TABLE IX

PRE-1971 SWEDISH VOCATIONAL SCHOOL

School Year	1	2
Social Division	Language Line	Language Department
		Natural Science Dept.
	Natural Science Line	Social Department
		Consumer Department
Economics Division		Economics/Language Department
		Accounting Dept.
		Commerce Dept.
		Administrative Dept.
Technical Division	Mechanical Engineering	
	Building Line	Construction Dept.
		Housing Construction Dept.
	Electro-technical Line	Electro-Power Dept.
		Telecommunications Dept.
	Chemical Line	

SOURCE: Horst Hörner, "Schulreform in Schweden", in Hermann Röhrs, ed., Die Schulreform in den Industriestaaten (Frankfurt: Akademische Verlagsgesellschaft, 1971), p.117.

TABLE X

OVERVIEW OF THE NEW GYMNASIUM

	Division	Line	Variants
1	Two Year Divison for Clothing Manufacture	Men's Clothing Women's Clothing	
2	Two Year Building and Construction Division	Concrete Building Joiners Bricklayers Streets, roads and conduits Mining Heating and sanitary fitters Painters Building platers Floor-layers	
3	Two Year Distribution and Clerical Division	Distribution Clerical	 Accounting Typing
4	Two Year Economic Division	Accounting Distribution Administration Economics/languages	
5	Two Year Electro-Technical Division	Electrians Telecommunications repairs staff Guiding and regulating devices Telecommunications fitters Office machinery repairs staff	
6	Two Year Motor Engineering Division	Motor mechanics Mechanical engineers Spares personnel Aircraft mechanics.	
7	Two Year Agricultural Division	----------	
8	Two Year Consumer Division	Consumer education with home management bias Consumer education with textile bias Restaurant and catering	

TABLE X - Continued

	Division	Line	Variants
9	Two Year Consumer and Service Division	----------	
10	Two Year Food Manufacturing Division	Catering Restaurant staff Baking and pastry making Butchers	
11	Two Year Processing Techniques Division	Chemistry Food processing Paper and pulp Metallurgy Building materials	
12	Two Year Social Division	Language Natural science Social science Marketing	Aesthetic
13	Two Year Technical Division	Mechanical engineering Building Electro-technical Chemical	
14	Two Year Woodwork Division	Shipwright Model maker Joiner	
15	Two Year Workshop Division	Workshop mechanics Metal workers and welders	Foundary (Heavy Plate)
16	Two Year Nursing Division	Child and youth welfare Health and medical services Geriatrics Psychiatric nursing	Pediatrics
17	Three Year Economics Division	Accounting Distribution Administration Economics/languages	Social and Aesthetic
18	Three Year Liberal Arts Division	----------	Semi-classical, Classical, Aesthetic and Social
19	Three Year Natural Science Division	----------	
20	Three Year Social Science Division	----------	Aesthetic and Social

TABLE X - Continued

Division	Line	Variants
21 Four Year Technical Division	Mechanical engineering Building Electro-technical Chemical	

SOURCE: Horst Hörner, "Schulreform in Schweden", in Hermann Röhrs, ed., Die Schulreform in den Industriestaaten (Frankfurt: Akademische Verlagsgesellschaft, 1971), pp. 121, 122, 123.

TABLE XI

GUIDANCE AND ADMINISTRATION OF THE EDUCATIONAL SYSTEM

Ministry of Education

University Chancellor's Office (UKÄ)

Universities
Karolinska Institute
Technical Universities
Commerce Universities

Social Universities

Journalist Universities

Gymnastic and Sports Universities

Central School Administration (SÖ)

Compulsory Schools
Basic Schools
Special Schools for the Deaf and Blind
Nomad Schools

Gymnasium Level
Gymnasium
Vocational Schools
Professional Schools
Nursing and Midwife Schools

Adult Education
Continuing Education
Adult Gymnasium

Teacher Education
Teachers' Colleges
Pre-School Courses
Courses for Vocational and Professional Training
Institute for Adult Education

Ministry of the Interior

Central Labor Office in Cooperation with the Central School Administration

Education for Business Preparation (Management Training)

Ministry of Social Welfare

Social Administration

Preparatory Orthopedic Clinic

Juvenile Welfare Office

Central School Administration

Special Schools

TABLE XI - Continued

Ministry of Agriculture		
Agricultural University	Agricultural Administration	Forrestry Administration
Forrestry University	Agriculture Schools	Forrestry Schools
Veterinary University	Agriculture-Domestic Sciences	
	Landscaping	

SOURCE: Egon Jüttner, Schweden: Fakten, Analysen, Tendenzen des Bildungswesens (Munich: Franz Ehrenwirth Verlag, 1970), p.160.

TABLE XII

UKÄ

Governing Board of the Office Chairman (Chancellor) and the chairmen of 5 Faculty Planning Boards and 4 other members of whom 1 student, all appointed by the Crown.

Faculty Planning Boards	Departments						
	Planning Dept.	Education Dept.	Educational Research & Dev. Dept.	Administration and Organization Dept.	Management Dept.	Central Admission Office	Internal Audit Office
Liberal arts and Theology Law and Social Sciences Medicine, Dentistry Pharmacy Maths. Natural Sciences Technology	Organization, development and quantitative planning of research and education. Secretariat for the Board and the Faculty Planning Boards.	Content and organization of education. Allocation of teachers. Educational and vocational guidance. Secretariat for Advisory Councils. Questions of qualifications and dispensation.	Educational Research and Development at universities. Training of academic teachers. Development of teaching aids.	Central legal questions. Statutes, general regulations. Appointments etc. Information Section	Management, Experimentation and follow-up of rationalization measures within administration and service functions etc. Information and consultation on rationalization questions.	Central admission of students to lines of education, with restricted number of students.	Security auditing. Effectiveness auditing.
Follow the development, conditions and needs of research and education and the requirements of the community as regarding the content and organization of education. Each Faculty Planning Board consists of a chairman and 8-12 members appointed by the Crown.							

SOURCE: Office of the Chancellor of the Swedish Universities, Swedish Higher Education (Stockholm: n.p., 1973), p.13.

TABLE XIII

RESEARCH AND DEVELOPMENT
PERCENTAGE OF TOTAL RESEARCH AND DEVELOPMENT EXPENDITURES

		Sector		
		Productive Sector	Higher Education	General Service
Austria	1967	66.2	23.6	10.2
Belgium	1967	69.4	23.4	7.2
	1969	59.5	30.9	9.6
Denmark	1967	55.2	21.4	23.4
	1970	47.1	23.9	29.0
Finland	1967	52.8	20.7	26.5
	1969	48.6	22.8	28.8
France	1969	58.2	18.9	22.9
	1970	63.6	14.1	22.3
Federal Rep. of Germany	1969	70.2	14.7	15.1
	1970	63.3	19.3	17.4
Italy	1967	64.1	11.2	24.7
	1970	57.8	24.4	17.8
Norway	1967	45.2	36.5	18.3
	1970	48.8	29.3	21.9
Sweden	1967	69.9	15.1	14.6
	1968	67.4	17.3	15.3
United Kingdom	1968	68.3	8.0	23.7
U.S.A.	1970	67.9	13.7	18.4

SOURCE: UNESCO Statistical Yearbooks, 1969-1973.

TABLE XIV

SOURCE OF RESEARCH AND DEVELOPMENT FUNDS
PERCENTAGE OF TOTAL RESEARCH AND DEVELOPMENT EXPENDITURES

	Government Funds					Productive Enterprise Funds				
	1966	1967	1968	1969	1970	1966	1967	1968	1969	1970
Austria	42.0				47.8	55.6				50.8
Denmark		59.0			49.9		38.7			42.2
Finland		48.0		49.0	44.4		51.8		45.4	52.3
France		48.5		63.6	60.5		31.8		30.0	36.1
Federal Rep. of Germany		45.9		42.0	46.7		53.0		57.6	53.3
Italy		47.7		51.7	49.4		57.3		46.9	49.2
Norway		61.4		61.1	58.5		33.7		34.9	36.4
Sweden		42.1		41.7	43.1		55.1		56.7	55.8
United Kingdom		51.2	50.6		51.7		45.0	45.2		44.1
United States			59.7	57.3	55.9			34.5	38.0	38.9

SOURCE: UNESCO Statistical Yearbooks, 1969-1973.

TABLE XV

ABSOLUTE NUMBER OF STUDENTS IN HIGHER EDUCATION

	1950	1955	1960	1965	1969	1970
U.S.A.	2,296,592	3,664,375	3,582,726	5,526,325	7,916,991	8,448,117
Austria	24,793	19,124	38,533	49,319	56,290	59,778
Belgium	20,178	37,761	52,002	84,000	111,309	75,106
Denmark	17,210	15,423	28,290	49,515	71,770	74,314
Finland	14,470	16,628	23,552	38,775	58,444	59,769
France	134,408	152,300	214,672	413,756	587,296	615,326
Federal Republic of Germany	150,545	175,353	242,293	372,929	440,647	499,946
Italy	145,170	139,018	191,790	408,095	622,416	687,079
Netherlands	61,036	72,512	105,995	152,748	213,037	231,167
Norway	7,116	5,513	9,254	19,528	46,715	50,047
Sweden	16,887	22,647	36,909	68,691	114,875	124,440
United Kingdom	--	--	241,814	379,204	487,770	509,501
Bulgaria	27,613	36,046	45,600	100,102	95,706	99,596
Czechoslovakia	43,809	71,451	92,191	144,990	133,524	131,099
Hungary	29,997	45,007	44,585	93,957	78,889	80,536

TABLE XV - Continued

	1950	1955	1960	1965	1969	1970
Poland	117,506	120,143	11,342	251,864	322,464	330,789
Rumania	53,007	77,633	71,989	130,614	151,705	151,885
Yugoslavia	60,395	70,028	141,058	184,923	239,701	261,203
U.S.S.R.	1,247,382	1,[illegible]6,994	2,395,545	2,860,540	4,549,585	4,580,642

SOURCE: UNESCO Statistical Yearbooks, 1963-1973.

TABLE XVI

UNIVERSITY STUDENTS AS PERCENTAGE OF POPULATION
AGED 20 TO 24 YEARS

	1950	1955	1960	1965
Austria	—	4.3	8.7	7.5
Belgium	3.7	6.9	9.1	14.1
Denmark	4.5	4.3	5.6	8.5
Finland	4.2	5.3	7.5	11.4
France	4.1	5.1	7.4	11.1
Federal Republic of Germany	3.4	3.8	6.1	8.9
Italy	3.7	3.5	4.6	7.7
Norway	3.3	2.7	4.4	7.8
Sweden	3.7	5.3	7.9	11.1
United Kingdom	—	4.0	5.4	8.5
Soviet Bloc Nations				
Bulgaria	5.0	6.1	10.6	17.3
Czechoslovakia	—	7.9	11.0	14.6
Hungary	3.3	4.1	4.3	6.8
Poland	5.9	6.7	8.5	13.2
Rumania	3.3	4.9	4.9	8.3
U.S.S.R.	—	10.6	11.8	—
Yugoslavia	3.8	3.9	9.0	11.2

SOURCE: UNESCO-Conference of Ministers of Education of European Member States on Access to Higher Education, "Access to Higher Education in Europe: Comparative Background Documents and Report of the Conference," Vienna, 1967, p.31.

TABLE XVII

MANUAL WORKERS' SONS
AS A PERCENTAGE OF UNIVERSITY STUDENT BODY

	1955	1960	1964
Austria	6.0	6.0	5.0
Belgium	5.0	11.2	—
Denmark	—	9.0	10.0
Finland	—	17.6	--
France	3.4	5.3	8.3
Federal Republic of Germany	5.1	5.2	5.3
Italy	—	--	11.4
Netherlands	4.0	8.0	6.0
Norway	—	--	20.1
Sweden	14.0	16.0	—
United Kingdom	—	25.0	—
Soviet Bloc Nations			
Bulgaria	22.2	28.0	34.9
Czechoslovakia	29.1	39.3	37.3
Hungary	—	--	--
Poland	31.3	32.9	35.0
Yugoslavia	—	56.0	53.3
U.S.S.R.	—	--	44.4

SOURCE: UNESCO-Conference of Ministers of Education of European Member States on Access to Higher Education, "Access to Higher Education in Europe: Comparative Background Documents and Report of the Conference," Vienna, 1967, p.49. Dobson, Richard B., "Social Status and Inequality of Access to Higher Education in the USSR," in Jerome Karabel and A.H. Halsey, Power and Ideology In Education (New York: Oxford University Press, forthcoming), p.24.

TABLE XVIII

WOMEN IN HIGHER EDUCATION AS PERCENTAGE OF STUDENT BODY WHICH IS FEMALE

	1950	1955	1959	1960	1961	1965	1966	1967	1968	1969	1970	1971
Germany												
Primary Education	49	49	49	49	49	49	49	49	49	49	--	--
Secondary Education	44	45	44	44	44	45	45	46	--	47	--	--
Higher Education	19	19	22	23	24	24	26	27	--	26	24	--
Sweden												
Primary Education	49	49	49	49	49	49	49	49	49	49	--	--
Secondary Education	54	55	55	55	55	50	49	50	--	51	--	--
Higher Education	23	29	32	33	34	--	--	36	--	37	--	--
United Kingdom												
Primary Education	49	49	49	49	49	--	--	--	49	49	--	--
Secondary Education	50	49	49	49	49	--	--	--	49	49	--	--
Higher Education	--	--	--	23	--	28	--	--	31	32	--	--
United States												
Primary Education	48	49	49	--	--	--	--	--	--	--	--	--
Secondary Education	51	51	51	49	50	--	--	--	--	--	--	--
Higher Education	32	34	36	37	38	39	40	40	--	41	--	--
U.S.S.R.												
Primary Education	--	48	--	--	--	--	48	--	--	--	--	--
Secondary Education	--	55	--	--	--	--	56	--	--	--	--	--
Higher Education	53	52	45	43	42	44	45	46	--	48	--	--
Finland												
Primary Education	--	--	--	--	--	47	--	--	--	--	47	47
Secondary Education	--	--	--	--	--	52	--	--	--	--	51	51
Higher Education	--	--	--	--	--	34	--	--	--	--	33	33

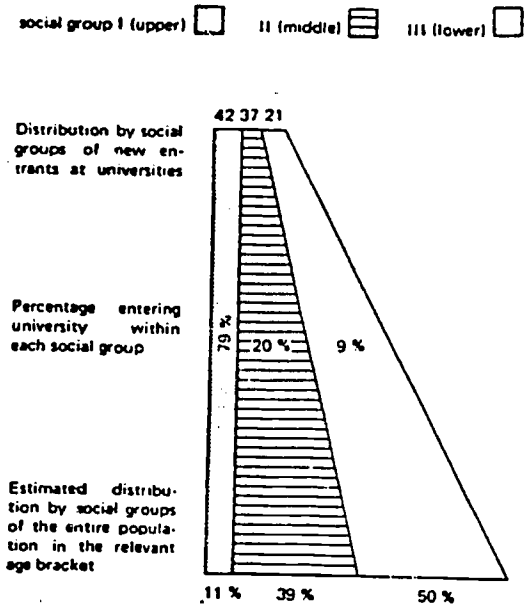
TABLE XVIII - Continued

	1950	1955	1959	1960	1961	1965	1966	1967	1968	1969	1970	1971
Norway												
Primary Education	--	--	--	--	--	49	--	--	--	--	51	--
Secondary Education	--	--	--	--	--	46	--	--	--	--	48	48
Higher Education	--	--	--	--	--	41	--	--	--	--	39	41

SOURCE: UNESCO Statistical Yearbooks, 1962-1973.

TABLE XIX

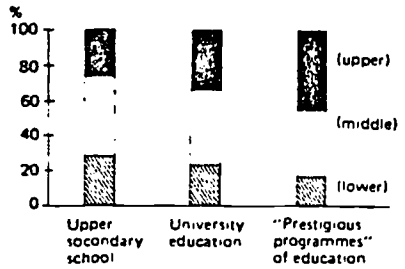
DISTRIBUTION BY SOCIAL GROUPS OF NEW ENTRANTS AT UNIVERSITIES AND OF THE ENTIRE POPULATION IN THE CORRESPONDING AGE BRACKET (20), AND PERCENTAGE ENTERING UNIVERSITY WITHIN EACH SOCIAL GROUP 1968/1969



SOURCE: Office of the Chancellor of the Swedish Universities (UHÄ), Swedish Higher Education (Stockholm: n.p., 1971), p.12.

TABLE XX

DISTRIBUTION BY SOCIAL GROUPS WITHIN (a) UPPER SECONDARY SCHOOL, (b) UNIVERSITIES AND (c) "PRESTIGIOUS PROGRAMS" OF EDUCATION



SOURCE: Office of the Chancellor of the Swedish Universities (UHÄ), Swedish Higher Education (Stockholm: n.p., 1974), p.9.