

## **PART III**

# **MASSIFICATION OF HIGHER EDUCATION: STRATEGIES OF EQUALITY OR PRIVATIZATION?**



## 9

**EVER-EXPANDING UNIVERSITY**

## SOCIAL AND ETHNIC INEQUALITY IN EDUCATION

**Jan O. Jonsson****INTRODUCTION**

Seen in a historical perspective, there has always been a tension between the view that higher education should be expanded, and the view that it should be kept to a limited group of outstanding talents. In many countries, there has been a massive change toward support for the expansionist view, most recently during the 1990s and onward, where politicians in England and Sweden have gone so far as to claim that at least half of a cohort should pursue tertiary-level education. It is likely that there are both ideological and prosaic reasons behind such goals. Among the latter is the need to keep youth unemployment down, and among the former is the view that investments in human capital are beneficial for the whole society because a high-skilled and well-trained work force leads to high productivity and positive externalities, and the rather different view that enlightened citizens are a common good. There are also many who see expansion as a way to advance equality of opportunity. In fact, equality and expansion are intrinsically intertwined—but not because expansion leads to equality. Instead, what is argued here is that if university education is to expand at the same time as academic standards are upheld, equalization is a necessary condition.

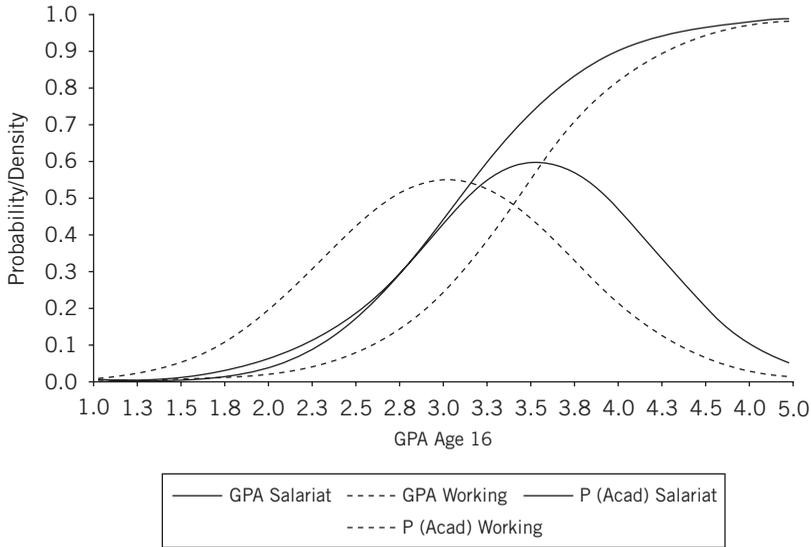
It is the aim of this chapter to summarize recent sociological theory and empirical evidence on social and ethnic inequality in education in order to highlight the relation between equalization and expansion. In doing that, I will also discuss what potential institutional changes in the educational system have for the pursuit of educational expansion.

## TWO PROCESSES BEHIND EDUCATIONAL INEQUALITY

For quite some time, sociologists have separated the analysis of school achievement (in terms of grades, school marks, or test results) from the analysis of educational choice at given achievement levels (e.g., Boalt, 1947; Härnqvist, 1958). Boudon (1974) argued that the social differences in performance were due to quite fundamental “cultural” mechanisms, such as early socialization, whereas the social differences in choice were due to differences in costs associated with the existing alternatives at hand. Erikson and Jonsson (1996a,b) later developed this idea and suggested that political measures for equalizing educational outcomes should first and foremost be taken in order to reduce such choice effects. Equalizing costs for higher education (which would involve equalizing income inequality among parents) could be one way to go, but perhaps more realistically, politics directed toward increasing aspirations among children from disadvantaged homes also have potential. Social differences in grades would most likely be less prone to change, rooted as they are in family processes during childhood, and partly in genetic mechanisms (Jonsson & Erikson, 2000).

To see how social inequality in school achievement (performance) and educational transitions (choice) relate to educational expansion, consider Figures 9.1 and 9.2 (both from Rudolphi, 2011, based on recent Swedish data; graphs on older cohorts look similar; cf. Erikson & Jonsson, 1996b). The bell-shaped curves in Figure 9.1 show the distribution of grade point averages (GPA) in the last year of comprehensive school (age 16) for children of two different social origins, the salariat (upper-middle class) and the working class. Clearly, children of salariat background have higher grades, as their distribution lies to the right of the one for working class children. Figure 9.1 also contains two sigmoid curves sloping from bottom left to top right. These are probabilities, based on logistic regressions, for making the transition to academic upper-secondary education at different levels of GPA. It is instructive to consider the transition rate at some given levels of performance, for example, the national average, which is just above 3 on the 5-grade scale (where 5 is the highest grade). At this rather modest achievement level, children of the salariat reach a transition rate of almost 50 percent, whereas working-class children reach only 20 percent. At a grade level of 4, which is a quite high GPA (though not outstanding), the corresponding percentages are around 90 and 80, respectively. At very low and very high GPA, the absolute differences between social origin groups are negligible.

Overall, it is clear that previous achievement is a very strong predictor of making the transition to an academic upper secondary program: the upward slopes are steep indeed. In the case of Sweden, this is not because of GPA requirements for enrollment in academic tracks (the system is demand-driven, though very low GPA may be a hinderance); rather, parents and children evaluate pupils' probability of success at the next level, and a low GPA strongly discourages children from choosing academic tracks.

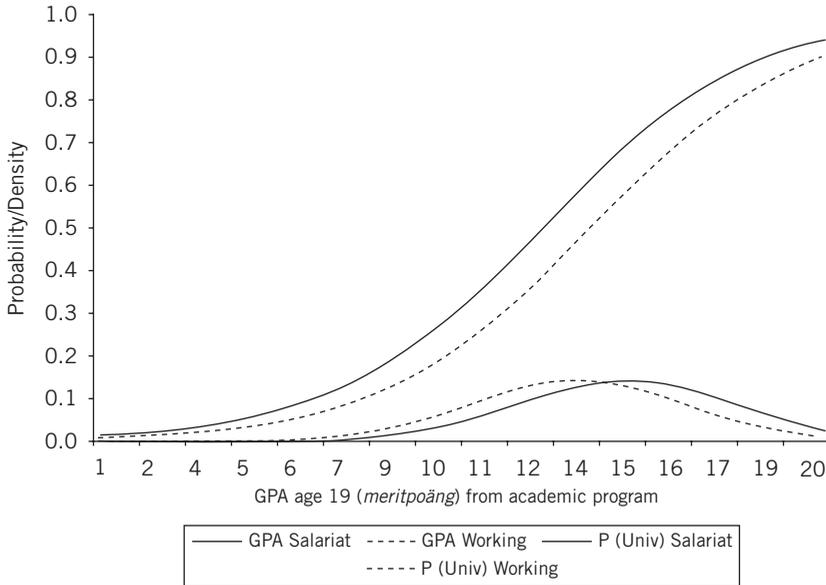


**Figure 9.1.** Grade point average (GPA) and transition rates to academic upper secondary tracks for Swedish pupils born in 1981, at the final grade of comprehensive school (age 16). Note: Figure from Rudolphi (2011)

It is noteworthy how optimistically upper middle class children respond to GPA increments at the lower half of the performance distribution. Because academic upper secondary education is the royal road to the university, it is clear that students from such advantaged backgrounds are the best friends of ambitious politicians who want to expand higher education. At the same time, however, it is obvious that the potential for further expansion lies squarely with children of working class origin. If they would reach the transition rates of children of the salariat, we would witness both a marked equalization and a strong expansion in higher education. One could even go so far as to claim that if we want further expansion in many Western countries, with maintained academic standards (which are of course difficult to ascertain), equalization is almost the only way to proceed. And, as argued earlier, although, in theory, improvement of GPA among working class children could do the trick, the more promising mechanism is equalization of transition rates at given levels of GPA.

In the same vein as Figure 9.1, Figure 9.2 shows social origin differences in the distribution of GPA upon leaving academic upper secondary education and making the transition to tertiary education (for details, see Rudolphi, 2011). As expected, grade differences are now smaller, partly because of a positive selection of working class students in combination with the fact that the impact of social background diminishes over children's age (e.g., Breen & Jonsson, 2000; Cameron & Heckman, 1998; Lucas, 2001). (The distribution of grades is also flatter, largely due to the fact that the grading system is different; note, however, that its function is almost identical.) Congruent with the fact that the transition

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**Figure 9.2.** Grade point average (GPA, *meritvärde*) from upper secondary education and transition rates to full-time university education by age 25 in Sweden. Only students, born 1981, who graduated from academic programs are included. Note: Figure from Rudolphi (2011)

to tertiary education involves higher costs, and, therefore, is likely to repel some children from poorer circumstances, Figure 9.2 reveals social differences also at the highest grade levels. These are not dramatic, but could be seen in light of the fact that tertiary education in Sweden does not carry fees, and that there exists a comprehensive study-loan system. Nevertheless, the difference at higher GPA levels points to some loss of talent. However, social inequality of university attainment does not stem from this loss but, rather, from a greater inclination among upper-middle-class children to enroll in university education at any given level of performance.

We have seen that inequality in educational attainment is a function of two different processes, inequality in school performance and inequality in educational choice. As shown by Erikson & Jonsson (1996b) and by Erikson, Goldthorpe, Jackson, Yaish, & Cox (2005), it is possible to use these two ingredients to calculate their relative contribution to the gross association between social origin and educational outcomes. For Sweden and England, it turns out that the contribution of each at the transition to (academic) upper secondary school (A-levels in England) is not far off the 50/50 mark, with performance effects standing for a slightly higher share (Erikson, 2007; Erikson & Rudolphi, 2010; Jackson, Erikson, Goldthorpe, & Yaish, 2007). A recent cross-national study shows choice effects to be in the range of 40–60 percent in several countries, and for the transition to the university they represent an even higher proportion (Jackson, 2013).

It appears, then, that the idea that political measures should concentrate on choice effects has some bearing—these effects appear at different transition points and are of great relevance for total inequality. The view of performance effects as largely residing in family processes and early-childhood socialization, and thus more difficult to change, finds further support in studies showing that change over time (Schindler & Lörz, 2011; Rudolphi, 2013) and differences across countries (Jackson & Jonsson, 2013) in inequality of educational outcomes to an overwhelming extent are accounted for by the variability of choice effects.

## EQUALITY AND EXPANSION

It is clear from the foregoing that educational choices at given levels of school performance (as measured by grades or test results) are important for the social gradient in educational outcomes. Leveling the playing field at the time educational choices are made thus appears to be a fundamental strategy both for equalizing educational attainment across social classes and for expanding higher education without a tangible reduction of academic standards. Thus, equalization of educational choice emerges as one reasonable strategy for expansion. However, is the opposite true? Although educational expansion has for many been seen as a way of equalizing educational outcomes in modern societies, others have pointed out that an expansion of higher education in absolute numbers does not automatically bring about more equal relative chances of disadvantaged groups to “cash in” on such expanding opportunities (Halsey, Heath, & Ridge, 1980). Recent empirical studies from a number of industrial countries do, in fact, paint a rather pessimistic picture of the possibilities of expansion alone as a strategy for equalization (Shavit, Arum, & Gamoran, 2007), the intuition being that children from privileged origins with moderate academic aptitude but high aspirations are quicker to respond to expansion. Swedish data offer a particularly good opportunity of studying this issue, and the conclusion from several empirical tests is that expansion may have some equalizing effect, but one that is, all in all, quite limited (Jonsson & Erikson, 2007). It is likely that expansion is a necessary but not sufficient condition for equality, whereas equalization is a necessary and perhaps also sufficient condition for expansion.

Because we can safely say that equalization makes expansion possible, whereas expansion is difficult without equalization, the major strategy by expansion-prone politicians should be to equalize educational opportunities. Even if the political focus may be on tertiary education, a glance at Figures 9.1 and 9.2 reveals that the best foundation for tertiary-level expansion is increasing the base of students who are eligible for enrolling in such programs—that is, reducing inequality at early transitions (the location of which look different in different countries). Policies for equalization should involve both economic reform (such as equalizing economic resources in the family of origin, and reducing direct and indirect

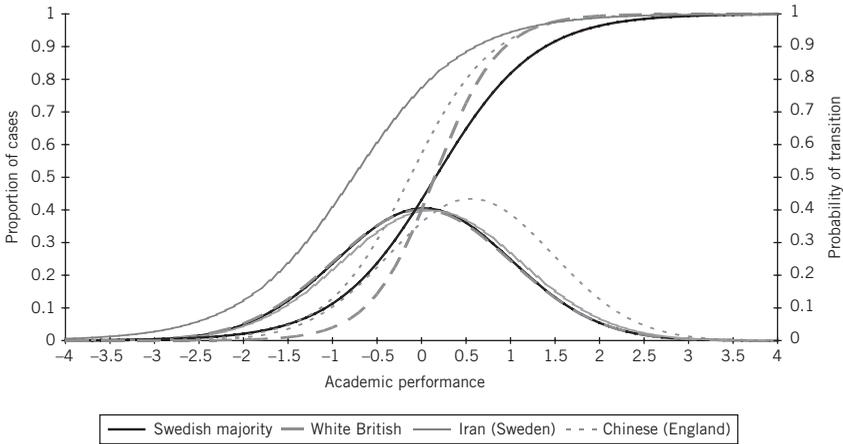
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costs of higher education), and aspiration-enhancing measures—the effective upper-middle-class-push effect must somehow be replaced by a pull effect for children whose parents do not provide the necessary push. The latter policies, although not as politically controversial as the former, are admittedly not easy to accomplish, and several measures may need to be taken. Among those are creating stronger incentives for schools to recruit able students, special assistance for encouraging pupils in residential areas in which parental resources are weak, and increasing support from teachers and staff (such as study counselors) for students who are academically capable but not initially devoted to higher studies (cf. Erikson & Jonsson, 1996b).

### ETHNIC INEQUALITY IN EDUCATIONAL OUTCOMES

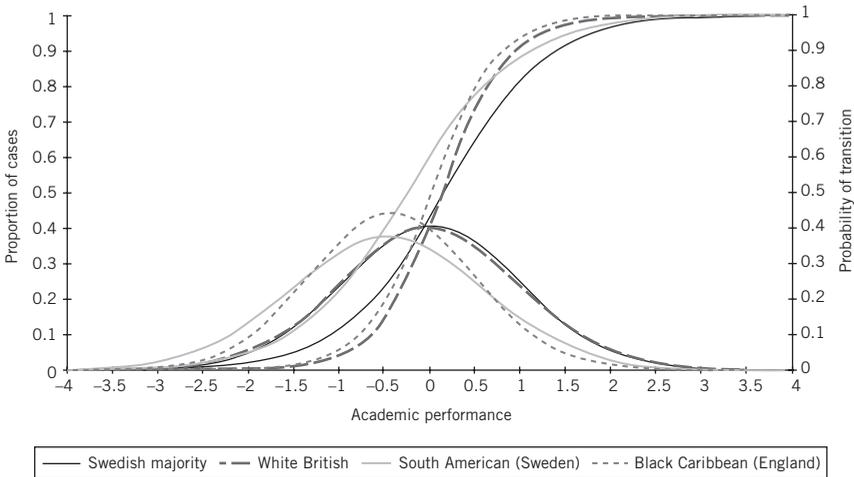
With increasing immigration in many Western countries, the issue of equality of ethnic opportunity has come to the fore. The structural integration of ethnic minorities, in terms of their educational and occupational attainment, is a central indicator for how well host societies are able to meet the challenges that large-scale immigration poses. Perhaps the most crucial test of long-run structural integration is the educational outcomes of ethnic minority children who were born in the host country themselves, or arrived before starting school. In relation to the earlier discussion on the two processes behind educational inequality, we should ask whether ethnic minority students, just like working-class children, are double disadvantaged. This is a reasonable assumption because their parents face problems in host labor markets (e.g., Heath & Cheung, 2007), and because their aspirations may be thwarted by poverty and social exclusion—at least, this is what we expect to be the case for some immigrant groups.

To get a first impression of the situation for ethnic minority children, see Figure 9.3, originally published in Jackson, Jonsson, and Rudolphi (2012). This graph mirrors earlier Figure 9.1. It shows the distribution of grades ( $z$ -standardized for comparative purposes) and transition rates to A-level education in England, and academic upper-secondary education in Sweden. The categories compared are now ethnic groups, in England, those who identify themselves as “White British” and “Chinese,” respectively; in Sweden the Swedish majority (who have two Swedish-born parents) as compared with those of Iranian descent. Rather than ethnic minority disadvantage, these groups reflect clear advantage: The Chinese group in England has high grades and somewhat higher transition rates at given grade levels than the majority group; the Iranians in Sweden have similar grades but much higher transition rates than the Swedish majority students. Even if these minority groups have been chosen to represent advantaged groups, the pattern is the same for many minority groups (e.g., generally for Asian groups).



**Figure 9.3.** Comparing ethnic differences in schooling in England and Sweden. Grades (GCSE in England; GPA in Sweden) and transition rates to upper secondary school (A-level in England; academic tracks in Sweden), comparing ethnic majority population with advantaged ethnic-minority groups. Note: Figure from Jackson, Jonsson, & Rudolphi (2012)

However, ethnic minorities are a heterogeneous category, and there are some groups that fit in better with the pessimistic assumptions about educational disadvantage. Figure 9.4 (again retrieved from Jackson, Jonsson, & Rudolphi, 2012) shows two of these, representative of a rather small group of minorities, primarily Black Caribbeans in England (cf. Jackson, 2012; Rothon, 2007), and students from the Middle East and South America (mainly Chile) in Sweden



**Figure 9.4.** Comparing ethnic differences in schooling in England and Sweden. Grades (GCSE in England; GPA in Sweden) and transition rates to upper secondary school (A-level in England; academic tracks in Sweden), comparing ethnic majority population with disadvantaged ethnic-minority groups. Note: Figure from Jackson, Jonsson, & Rudolphi (2012)

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(Jonsson & Rudolphi, 2011). What is remarkable is that the disadvantage predominantly falls on grades, whereas the aspiration level also of the most disadvantaged groups is high—transition rates for students of South-American descent in Sweden are notably higher than those of the majority. There are yet too few studies internationally to conclude that the pattern we find so systematically in England and Sweden (Jackson, Jonsson, & Rudolphi, 2012) represents a general feature of Western societies, but studies of Germany (Kristen & Dollmann, 2010), Finland (Kilpi-Jakonen, 2011), France (Brinbaum & Cebolla-Boado, 2007), and the Netherlands (van de Werfhorst & van Tubergen, 2007) point in the same direction, at least for some ethnic groups.

The results in Figures 9.3 and 9.4 defy the gloomy descriptions of ethnic minority youth. As a matter of fact, once we take into account the normally less favorable socioeconomic standing of immigrant families, ethnic minority children do, on the whole, as well educationally as their peers from the majority group; it should be added that social origin indicators such as family income, social class, and parental education appear to be of the same importance for all ethnic groups (Heath & Brinbaum, 2007). These results question various cultural theories that assume that ethnic-minority children would behave and make choices that are very different from the majority group. Instead, when faced with the same resources and conditions, similarity is the predominant impression. This, in itself, is a sign of ethnic integration.

While minority youth are not lagging behind in general, what remains an issue, however, is again the heterogeneity of minority groups, which sometimes obtains also within groups. Thus, in some ethnic minority groups where many children do well and have high educational aspirations (often despite modest family resources), there is a subgroup that shows very poor performance and leave school early (for a comparative analysis, see Jonsson, Kilpi-Jakonen, & Rudolphi, forthcoming). These subgroups, which tend to be male-dominated, are, in some countries, of quite substantial size, and it is not unlikely that they face a future of unemployment and marginalization, thus potentially reproducing the unpromising socioeconomic situation of their childhood family.

## EDUCATIONAL SYSTEMS, INEQUALITY, AND EXPANSION

We can now summarize the stylized facts about educational inequality laid out earlier. Children from socioeconomically disadvantaged origins (e.g., poor, working class, with low parental education) perform rather poorly in school, on average, and they tend to have lower transition rates to upper secondary and tertiary education, also given performance level. Children from some ethnic-minority groups also perform relatively poorly as compared to the majority population, whereas others (e.g., many East- and South-East-Asian groups) do very well. What makes the ethnic dimension in educational inequality different from the

socioeconomic is that children in most ethnic-minority groups do not seem to be inhibited by low (absolute) aspirations. Their educational choices are similar to those of upper-middle-class children; they tend to go for academic upper secondary tracks and tertiary-level education even at rather average grade levels. We may speculate why this is the case, one plausible mechanism being that children whose parents immigrated may take the family's social standing in their country of origin as a reference point in determining their aspirations—this, of course, goes also for the parents themselves who normally have substantial influence on the important early choice in school. This is, in effect, a way of compensating the dismal conditions that many immigrants live under by letting their children restore, as it were, the socioeconomic status of their family.

If we now turn to policy issues, it is often pointed out that the stratification of the educational system is related to equality of outcomes. In particular, early differentiation in school, with parallel tracks—where track placement in practice is decided by performance at a very young age in combination with parental ambitions—is likely to cement educational inequality. There are many potential mechanisms behind this, one being that young children's abilities are not yet well developed, and that parental aspirations and resources, therefore, have much force (e.g., Erikson & Jonsson, 1996a). Comprehensive schooling, with low differentiation (i.e., mainly mixed-ability classes), on the other hand, appears to promote equality (Erikson, 1996; Meghir & Palme, 2005; Hanushek & Wössman, 2006). A highly stratified system is also one in which track placement is highly important for later chances of pursuing an educational and labor market career, the Dutch and the German educational systems being the prime examples in Europe (e.g., Allmendinger, 1989).

However, although stratification may be important, the fact that much (almost half) of the association between social origin and transition to academic upper secondary education is due to social differences in educational choice at given grade levels means that there is another important characteristic of the educational system, namely, whether it is based on selection on performance (such as grades) rather than free choice. In a unique study of the early stratification of the German school system, Dollmann (2011) showed that when teachers' recommendations of pupils' track placement at the crucial earliest transition point became more binding in North Rhine-Westphalia, social inequality decreased. Together, this strongly suggests that if an efficient selection system existed, the school's demand on performance would drastically reduce educational inequality, while curbing all ambitions for educational expansion (unless the demands were low, which is unlikely in a selective system). As Jackson & Jonsson (2013) argue, it is rarely noted in the literature on educational systems that stratification and selection are two important features that work at cross-purposes, but are, at the same time, almost perfectly negatively related. Low stratification and high selectivity would probably be the ultimate combination for reducing educational inequality, whereas high stratification and low selectivity would maximize

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inequality. However, these combinations are highly unlikely; for a stratified educational system to be legitimate, it needs to emphasize that track placement is primarily merit-based (and “objective”); and comprehensive school reforms are typically part of a general strategy of expanding higher education by relying on parents’ and students’ growing educational aspirations.

If we now consider (or reconsider) the different policy measures that could be taken to expand tertiary-level education and promote equality in educational outcomes, we face an ambiguity: if we were to address the equality issue by increased selectivity, one disadvantaged group (working-class children) would benefit, but another (ethnic-minority children) would suffer; As a result, educational expansion would rather slow down than accelerate because children of salariat origin with high aspirations but mediocre grades would not be admitted into higher education. The best alternative—given that one wants expansion through equality—is therefore to take a choice-driven system as a point of departure, but to complement it by some lower-performance limit for admission to higher education in order to maintain academic standards. Equalization by reducing choice effects can, therefore, not be achieved easily by system change, but it must rely principally on other policies, such as various ways of redistribution to and encouragement for students from homes with fewer resources and less “push.”

## CONCLUSION: A STRATEGY OF EXPANSION

Educational expansion remains a vital goal in many European countries. Critics respond that expansion necessarily means lowering academic standards and worry that the quality of higher education will decline as a consequence of expansion. In the sociological study of educational inequality, the separation of school performance and educational choice sheds new light on the issue of expansion. First, in order to pursue expansion of the university without losing too many academically able students, equalization is almost necessary. This is because ambitious choices by upper-middle-class students with below-average grades are already now part and parcel of choice-driven educational systems, and an expansion among these groups will largely have to rely on students with even poorer prospects to succeed at higher levels of education. A better alternative is, instead, to provide support and give incentives to talented children of less fortunate socioeconomic backgrounds; and even here, there are hardly any masses of high-ability students to draw from, though many with above-average scholastic abilities.

By equalizing educational choice, an important step could be taken toward expansion through equalization. However, there is no simple wholesale educational reform that can achieve this. Moving in the direction of decreasing stratification in the educational system will almost inevitably increase the role of choice,

thus probably strengthening social inequalities and reducing overall academic standards (though highly stratified systems may still pose barriers that could be removed). Addressing equalization by increased selection on performance, on the other hand, would maintain academic standards but almost certainly stand in the way for expanding the university. Still, equalizing parental resources and actively promoting the educational careers of those who do not get such support from parents, are viable strategies that, with some ingenuity, may have the desired effect—the latter also probably at trivial costs and little political resistance.

The problems of reducing choice effects notwithstanding, the real challenge for politicians is to equalize school performance by improving the school results of disadvantaged groups. As has been mentioned, this is difficult as differences in grades or test results are likely to stem from processes in the family of origin that start already at (or before) childbirth, and then operate throughout childhood. In addition, the parent-to-child transmission of abilities, skills, and values is something that almost everyone would say is a positive force in society, despite the fact that such “legitimate parental partiality” also creates inequality (e.g., Swift, 2005). Political interventions, therefore, have to be concentrated to equalizing resources in the parental generation (by fighting poverty, for example), and creating better environments for children before and in school. Some attach hope to the role high-quality daycare could have in providing a stimulating environment for children from deprived circumstances (e.g., Heckman, 2006; Barnett, 2008). However, most studies that support such views analyze black children in deprived areas in the United States, and the results are not immediately transferable to the European situation. Also, the strategy of improving schools, reasonable as it is, may not be particularly efficient in countries in which school and teaching standards do not vary so much as they do in the United States.

The upside of the tremendous difficulty in designing policies for equalizing performance is its comprehensive results, if it were even moderately successful. It would equalize opportunities and strengthen integration for ethnic minorities, in addition to improving conditions for socioeconomically disadvantaged groups (to which ethnic-minority groups also often belong). Such equalization would, therefore, contribute significantly to advancing social cohesion by reducing ethnic marginalization and social exclusion, thus making educational expansion through equalization a prolific goal in modern societies.

## REFERENCES

- Allmendinger, J. (1989). Educational systems and labour market outcomes. *European Sociological Review*, 5, 231–250.
- Barnett, W. S. (2008). Preschool education and its lasting effects: Research and policy implications. *Working Paper*. Great Lakes Center for Education Research and Practice.

## 168 PART III: MASSIFICATION OF HIGHER EDUCATION

- Boalt, G. (1947). *Skolutbildning och skolresultat för barn ur olika samhällsgrupper i Stockholm*. Stockholm: P.A. Norstedt & Söner.
- Boudon, R. (1974). *Education, opportunity, and social inequality. Changing prospects in western society*. New York: Wiley.
- Breen, R., & Jonsson, J. O. (2000). Analyzing educational careers: A multinomial transition model. *American Sociological Review*, 65, 754–772.
- Brinbaum, Y., & Cebolla-Boado, H. (2007). The school careers of ethnic minority youth in France: Success or dissolution? *Ethnicities*, 7, 445–474.
- Cameron, S. V., & Heckman, J. J. (1998). Life cycle schooling and dynamic selection bias: Models and evidence for five cohorts of American males. *Journal of Political Economy*, 106, 262–333.
- Dollmann, J. (2011). Verbindliche und Unverbindliche Grundschulempfehlungen und soziale Ungleichheiten am ersten Bildungsübergang. *Kölner Zeitschrift für Soziologie*, 63, 595–621.
- Erikson, R. (1996). Explaining change in educational inequality—Economic security and school reforms. In R. Erikson & J. O. Jonsson (Eds.), *Can education be equalized?* (pp. 95–112). Boulder, CO.: Westview Press.
- Erikson, R. (2007). Social selection in Stockholm schools: Primary and secondary effects on the transition to upper secondary education. In S. Scherer, R. Pollak, G. Otte, and M. Gangl (Eds.), *From origin to destination. Trends and mechanisms in social stratification research*. Frankfurt/New York: Campus Verlag.
- Erikson, R., Goldthorpe, J. H., Jackson, M., Yaish, M., & Cox, D. R. (2005). On class differentials in educational attainment. *Proceedings of the National Academy of Sciences*, 102, 9730–9733.
- Erikson, R., & Jonsson, J. O. (1996a). Introduction. Explaining class inequality in education: The Swedish test case.<sup>2</sup> In R. Erikson & J. O. Jonsson (Eds.), *Can education be equalized?* (pp. 1–64). Boulder, CO.: Westview Press.
- Erikson, R., & Jonsson, J. O. (1996b). The Swedish context. Educational reform and long-term change in educational inequality. In R. Erikson and J. O. Jonsson (Eds.), *Can Education be Equalized?* (pp. 65–93). Boulder, CO.: Westview Press.
- Erikson, R. & Rudolphi, F. (2010). Change in social selection to upper secondary School—primary and secondary effects in Sweden. *European Sociological Review*, 26, 291–305.
- Halsey, A. H., Heath, A. F., & Ridge, J. M. (1980). *Origins and destinations. Family, class, and education in modern Britain*. Oxford: Clarendon Press.
- Hanushek, E. A., & Wössmann, L. (2006). Does educational tracking affect performance and inequality? Difference-in-difference evidence across countries. *The Economic Journal*, 116, C63–C76.
- Heath, A. & Cheung, S-Y. (Eds.). (2007). *Unequal chances: Ethnic minorities in western labour markets*. Oxford, UK: Oxford University Press.
- Heath, A. & Brinbaum, Y. (2007). Guest editorial. Explaining ethnic inequalities in educational attainment. *Ethnicities*, 7, 291–305.

- Heckman, J. J. (2006). Skill formation and the economics of investing in disadvantaged Children.” *Science*, 312, 1900–1902.
- Härnqvist, K. (1958). *Reserverna för högre utbildning. Beräkningar och metoddiskussion. 1955 års universitetsutredning III*. Stockholm: SOU 1958:11.
- Jackson, M. (2012). Bold choices. How ethnic inequalities in educational attainment are suppressed. *Oxford Review of Education*, 38, 189–208.
- Jackson, M. (Ed.). (2013). *Determined to succeed? Performance versus choice in educational attainment*. Stanford, CA: Stanford University Press.
- Jackson, M., Erikson, R., Goldthorpe, J. H. & Yaish, M. (2007). Primary and secondary effects in class differentials in educational attainment: The transition to A-level courses in England and Wales. *Acta Sociologica*, 50, 211–229.
- Jackson, M., & Jonsson, J. O. (2013). Why does inequality of educational opportunity vary across countries? Primary and secondary effects in comparative context. In M. Jackson (Ed.), *Determined to succeed? Performance versus Choice in educational attainment (chapter 11)*. Stanford, CA: Stanford University Press.
- Jackson, M., Jonsson, J. O., & Rudolphi, F. (2012). Ethnic inequality and choice-driven educational systems: A longitudinal study of performance and choice in England and Sweden. *Sociology of Education*, 85, 158–178.
- Jonsson, J. O. & Erikson, R. (2000). Understanding educational inequality: The Swedish experience. *L'Année Sociologique*, 50, 345–382.
- Jonsson, J. O., & Erikson, R. (2007). Sweden: Why educational expansion is not such a great strategy for equality: Theory and evidence. In Y. Shavit, R. Arum, & A. Gamoran (Eds.), *Stratification in higher education: A comparative study* (pp. 113–139). Stanford, CA: Stanford University Press.
- Jonsson, J. O., Kilpi-Jakonen, E., & Rudolphi, F. (forthcoming). Ethnic differences in early school-leaving. In A. Heath & Y. Brinbaum (Eds.), *Unequal attainments: ethnic educational inequalities in ten western countries*. Oxford, UK: Oxford University Press.
- Jonsson, J. O., & Rudolphi, F. (2011). Weak performance—strong determination. School achievement and educational choice among ethnic minority students in Sweden.” *European Sociological Review*, 27, 487–508.
- Kilpi-Jakonen, E. (2011). Continuation to upper secondary education in Finland: Children of immigrants and the majority compared. *Acta Sociologica*, 54, 77–106.
- Kristen, C., & Dollmann, J. (2010). Sekundäre Effekte der ethnischen Herkunft: Kinder aus Türkischen Familien am ersten Bildungsübergang. *Zeitschrift für Erziehungswissenschaft*, 12, 205–229.
- Lucas, S. R. (2001). Effectively maintained inequality: Education transitions, track mobility, and social background effects. *American Journal of Sociology*, 106, 1642–1690.
- Meghir, C., & Palme, M. (2005). Educational reform, ability, and family background.” *American Economic Review*, 95, 414–424.

## 170 PART III: MASSIFICATION OF HIGHER EDUCATION

- Rothon, C. (2007). Can achievement differentials be explained by social class alone? An examination of minority ethnic educational performance in England and Wales at the end of compulsory schooling. *Ethnicities*, 7, 306–322.
- Rudolphi, F. (2011). Introduction. Pp. 1–62 In F. Rudolphi, *Inequality in educational outcomes. How aspirations, performance, and choice shape school careers in Sweden* (pp. 1–62). Diss. No 86. Stockholm: Swedish Institute for Social Research.
- Rudolphi, F. (2013). Ever declining inequalities? In M. Jackson (Ed.), *Determined to succeed? Performance versus choice in educational attainment*. Stanford, CA: Stanford University Press.
- Schindler, S., & Lörz, M. (2014). Mechanisms of social inequality development: Primary and secondary effects in the transition to tertiary education between 1976 and 2005. *European Sociological Review*, Advance access April 21, doi:10.1093/esr/jcr/032
- Shavit, Y., Arum, R., & Gamoran, A. (Eds.). (2007). *Stratification in higher education. A comparative study*. Stanford, CA: Stanford University Press.
- Swift, A. (2005). Justice, luck, and the family. The intergenerational transmission of economic advantage from a normative perspective. In S. Bowles, H. Gintis, & M. Osborne Groves (Eds.), *Unequal chances* (pp. 256–276). Princeton, NJ: Princeton University Press.
- van de Werfhorst, H. G., & van Tubergen, F. (2007). Ethnicity, schooling, and merit in the Netherlands. *Ethnicities*, 7(3), 416–444.