8

World Models of Secondary Education, 1960-2000[1]

David H. Kamens and Aaron Benavot

Introduction

Over the course of twentieth century several world models for organizing secondary education emerged and spread beyond Europe and North America to newly independent nation-states (Kamens, Meyer and Benavot 1996). During this period elite classical education programs in secondary education were practically eliminated, except in a small group of European countries. In their place two models of academic secondary education emerged and diffused across the world. Throughout those areas where classical programs were dominant, e.g., Western Europe and their colonies, new multi-track systems of secondary education emerged. At the time Sweden was perhaps the most extreme exemplar of this trend, offering over seven programs of study in secondary education. In the Americas and other regions, political leaders adopted 'American style' comprehensive secondary programs to deal with the demands of expanded secondary schooling. In these academic programs all students receive relatively similar curricular offerings, with similar amounts of time devoted to subjects offered.

The evidence we amassed from 1920 to 1980 also showed that these academic program offerings were distinctive in their substantive content. Science programs (or tracks), for instance, had approximately twice as many required mathematics and science courses than do humanities tracks and comprehensive programs. Humanities and modern language tracks also differed substantially from comprehensive programs in the amount of time devoted to the curricular domains of language and literature and in the number of such courses that are required for completion of the program. Thus program and track labels referenced real differences in content and in time allotted to particular subjects.

Our previous cross-national research of the changing structure of secondary education observed trends until the early 1980s. Since that period a number of changes have occurred across a wide variety of countries, which have altered the character of lower and upper secondary education. First, primary education has expanded rapidly in

A. Benavot and C. Braslavsky (eds.),
School Knowledge in Comparative and Historical Perspective, 135–154.

virtually all countries, fuelled partly by intense concern and funding by multilateral organizations (UNESCO, World Bank) and bilateral aid agencies (Lockheed and Verspoor 1990; EFA Global Monitoring Report 2005). The expansion of primary education has produced strong demands on nation states to expand secondary education as well as post-secondary institutions. Mass schooling in many countries now extends to (lower) secondary education and enrolment pressures continue to grow as more and more students participate in formal schooling.

Second, a variety of previously available forms of secondary education have declined in number or been almost totally eclipsed. Benavot (2004) shows that teacher-training institutions at the secondary level are becoming extinct in most countries as teaching undergoes 'professionalization' and their training is pushed into post secondary institutions. Third, many specialized secondary level institutions have been eliminated. Schools which served as training institutions for religious teachers and leaders, for example, have declined in much of the world, except the Middle East; specialized institutions belonging to the vocational-technological sector have also disappeared, though not as sharply as teacher training and religious oriented schools. The continuing interest in vocational education and training reflects, in part, ongoing international debates over the value of such education in rapidly shifting economies. Fourth, while the structure and composition of secondary schooling have changed, one aspect remains fairly static—namely, the required subject domains in the secondary curriculum (Benavot 2004). Thus, the recently published World Bank report on secondary education concluded that the secondary education curriculum is 'unbearably irrelevant' to modern youth and national economies (World Bank 2005a: 77). The report notes, however, the growth in required curricular courses and the incredible varieties of course sequences available to secondary students along with the vast array of choices and options. In short, there is the quandary of curriculum 'overload' and choice. While modern education systems tend to postpone occupational specialization until after the secondary tier, the latter has become a 'shopping mall' of choices to fit a diverse set of student preferences. It is important to note that these changes are to be found in all world regions.

Overall, then, world 'discourse' and models of secondary education have shifted dramatically in the past thirty years. As Schofer and Meyer (2005) argue, the dominant model of education nowadays comprises a core societal institution for building a scientized, democratized society around cultural diversity and human rights. Education is expected to build and people this 'new model of society' with the 'new citizen.' Indeed, this shifting cultural frame has produced a major sea change in education—a 'world event': since the 1960s tertiary education has expanded at an unprecedented pace across all world regions. Schofer and Meyer argue that the change in cultural frames behind this explosion of higher education has also propelled the expansion and re-design of secondary education. Upper secondary has been 'massified' and is no longer an elite, educational sector. In turn, educational institutions have been assigned more variegated purposes than simply 'tracking' people into occupational slots and providing person-power for the new economy (e.g. see Australia's impressive list of

goals in the report submitted to IBE at the 2001 International Conference on Education of UNESCO—National Reports on the Development of Education 2001). 'Students' in this world model are also culturally transformed. They are empowered actors who have to be given more subject choices in line with their interests, inclinations and tastes. This view produces a number of seemingly contradictory demands on students: they are expected to know more subjects better, i.e., curriculum 'overload' (see World Bank Report 2005a), and perform better on international tests; but they are also expected to be given more instructional choices that are relevant to their individual interests. Curriculum options have thus expanded (see Benavot 2004). With greater socio-demographic diversity in secondary schools, relevance is more important to produce students who will participate in their own, and others', education. Students, for example, are expected not just to learn science, but also to 'do science' as participants. In contemporary ideology, 'scientized' societies require 'citizen scientists' who appreciate and have some understanding of the scientific method (and won't confuse 'creationism' with science).

The organizational implications of this world model are clear. Schools are expected to be more flexible institutions, to be more socially inclusive, and to offer students more choices relevant to the future society of which they will be members. All students are expected to benefit from more education at all levels, i.e. 'Education for All', and from higher quality education (see EFA Global Monitoring Report 2005). Older forms of education that 'tracked' students into elite vs. non-elite careers are less legitimate in this view and give way to newer more inclusive forms. Ideologies that envision the world as a 'knowledge society' view older forms of schooling less relevant and even counter-productive. For example, in our earlier study (Kamens, Meyer and Benavot 1996), it appeared that many Asian political elites chose tracked systems for upper secondary on the grounds of efficiency and achievement. Grouping students who were good in science and mathematics seemed to be a much more efficient way to produce engineers and scientists than less selective comprehensive systems. World ideology on these matters has changed. These views seem hopelessly limited now and at the same time to be a debilitating perspective on schooling in the modern world. Instead, versions of the 'knowledge society' imagine that everyone now needs to know science and mathematics at quite high levels. The resulting ferment in terms of changing forms of secondary education has occurred in Asia and elsewhere.

These changes are part of the new cultural discourse about education. And as some have recently observed (chapter by Goodson; Novoa and Sandin 2005), this new discourse is part of a global social movement affecting all national education systems. Indeed, as Goodson notes (p. 212), "national school systems are *refractors* of world change forces." National systems embed these discourses in historically grounded systems and adapt them to their contexts. This produces both some inertia and resistance to change, particularly among those most able to mount resistance: older, wealthy countries. But in the process it may also result in systems that are organizationally different in *form* but are at the same time very similar in the extent to which they are organized around individual choice and 'consumer' preference. Western

Europe, for example, is the home of highly differentiated secondary systems that emerged out of elitist structures. France and the USA were the pioneers of comprehensive systems with relatively low formal differentiation. Both, however, seem to have progressed in the same direction of offering more choice to similarly diverse student populations, but by different means. The German system, for instance, has added a variety of formally differentiated programs and the American system has introduced a bewildering variety of course sequences and options within the comprehensive system. Hence, a similar 'grammar of schooling' can have quite different organizational manifestations in different national contexts (see Novoa and Sandin 2005, for a different interpretation).

Furthermore, these changes are fuelled by the fact that educators in any given country are now linked to one another by dense networks of professional associations. Hence the boundary between professional educators in any given country and 'outsiders' is constantly getting blurred (see chapter by Goodson). From this perspective 'external' pressures for change are readily transformed into 'indigenous' ones via the filtering process that these embedded networks make possible. And since political and business elites are often part of this global 'conversation', both internally and via their own international networks, the line between 'internal' and 'external' demands for change is increasingly blurred. The transnational embeddedness of professionals and other elites also means that there is likely to be strong normative support for changes in line with world models within these linked professional networks. This trend of establishing global networks of professionals started after World War I with the establishment of the International Bureau of Education in 1925 and the International Examination Inquiry in 1930. Novoa and Sandin (2005: 8) note that this impulse came from a desire to understand the 'other', 'other' powers and 'other' countries: To build a 'new world' meant, first of all, to educate a 'new man', which implied a 'new school'.

This discussion suggests that inertia may well be present in attachment to the organizational *forms* that secondary education has taken historically (see Stinchcombe 1965; also Goodson 1985). But the *forms* themselves may be readily adapted to the new *purposes* inherent in the global educational discourse and social movement. Hence, the distinctions that were relevant in the 1980s between comprehensive and differentiated programs of secondary education may be less valid now as an indicator of the degree of *choice* students are offered than they were in the past.

A further implication: the causal dynamics for choosing particular organizational forms of secondary education may be quite distinct from the content and degree of choice that these forms encompass. The distinction between institutional tracking and instructional tracking is relevant here. High levels of formal institutional tracking do not necessarily imply that there is more variation in instructional tracking within the system than in less formally tracked systems. Benavot (2004), for example, shows that newly freed Eastern European countries have almost uniformly changed their secondary systems from highly differentiated 'tracks', emulating the German and Soviet models, to a less differentiated, 'comprehensive', single track system. This may

signal a rejection of an older, imposed model in line with a new national identity as a newly sovereign nation. The form is rejected along with its implied 'elitism' and traditional view of schooling as a form of 'man-power planning' agent. Within the newly established 'comprehensive' secondary schools, however, there may be considerable differentiation between course sequences and also between schools (see Astiz, Wiseman and Baker 2002; Benavot and Resh 2003). Similar changes have occurred elsewhere, as we show below, and we believe similar dynamics are at work.

Hypotheses

These arguments suggest two hypotheses about which countries will select different forms of upper secondary education system: comprehensive vs. highly tracked systems.

> *Hypothesis 1*: Older, wealthy countries will retain a multi-tracked system of upper secondary education and poorer countries will move over time toward a comprehensive system.

Studies of organizations have noted several important phenomena concerning organizations that are relevant to our discussion here. A common finding is that organizational age is linked to both successes (sometimes measured in terms of organizational survival vs. death) and to organizational inertia. The latter refers to the ability, or lack thereof, to change. Organizations that have been successful often see no need to change and therefore build into their structures a variety of technologies, occupational groups, etc. that resist large-scale change. Discussions of European education systems often invoke similar kinds of reasoning to explain their resistance to change; for example, new subjects like social studies in England, or new technology, such as new ways of teaching science (see Goodson 1987b; Layton 1973; Kliebard 1992). This is a point at which internal players such as professional groups become consequential in determining the forms that education will take. These arguments imply the same inertia will attach to organizational forms of education, which will in turn lead political elites to resist changing what are viewed as successful educational organizations.

Wealthy countries can retain tracked systems of secondary education and still accommodate popular pressures for expanded education and opportunity in two, mutually compatible ways: Firstly, they can expand the number of tracks to accommodate a wider variety of aspirations, career choices and abilities. This appeared to be taking place in the 1980s. Secondly, wealthy countries can also expand the number of elective courses from which students can choose and reduce the number of required courses that they must take to get a degree. European countries also appear to be applying this policy option (Benavot 2004).

An alternative way of dealing with the problem of costs is to reduce the amount of specialization available in upper secondary but to refrain from eliminating distinctive academic programs altogether. This compromise still keeps the older *forms of*

schooling but avoids the expense of maintaining large numbers of specialized tracks to match student interests, abilities and career choices.

The second argument about the choice of organizational form suggests that:

> *Hypothesis 2*: Poorer countries that started with a tracked system after independence will move to reduce the number of tracks.

With less affluence and less embedded local elites they are freer to change organizational forms and to reject older models. The non-traditional forms may be more in keeping with their self-presentation as modern (and modernizing) polities and it may also to appeal to their nationalist, communitarian sensibilities as 'imagined communities' (see Anderson 1983).

A second major change that has occurred since the 1980s, when our original study ended, is that successive waves of democratization occurred in the 1980s and 1990s (see Markoff 1996). The transition from authoritarian or totalitarian regimes to some form of democracy raises a series of problems that are directly linked to the goals that education is mandated to pursue in connection with building the nation as a community of fate—for example, Anderson's (1983) well-known metaphor of the 'imagined community' (see also Fiala and Gordon 1987). A crucial social issue in the contexts of newly minted democratic regimes is that of producing democratic citizens (on the USA, see Tyack 1966). In Eastern Europe, for example, doing civic education to produce students (and teachers) who value and understand democracy is viewed as a crucial educational goal. This change has given a tremendous boost to the subject of 'civics' and civic education and is one of the reasons for the widespread adoption of social studies as a curricular subject in lieu of history and geography (Wong 1991). The perceived urgency of civic education is also characteristic of many developing countries, such that education for 'citizenship' has become a major goal specified in official statements concerning national education systems in the twenty-first century (Amadio et al. 2005). This goal has come to super cede even that of training students for 'economic development' in poor countries.

For a variety of reasons comprehensive educational forms are likely to be viewed by reigning political elites as more capable of accomplishing this task and achieving this goal. Tracked secondary systems have the stigma of elitism and a long history of advantageously benefiting social and political elites. Their origins are in elite systems of education and they were characteristic of societies in which secondary educational enrolments were kept small by a variety of elitist educational strategies such as early testing. Whatever their merits in promoting efficiency and achievement, tracked systems have not been bastions of ideological equality or equal opportunity for all citizens historically. The ideology and structure of comprehensive secondary education is by contrast overtly democratic. These forms offer a similar curriculum for all students with heavy doses of civics and social studies (see Wong 1991). By deferring specialization until the later years of secondary or tertiary education their focus is on producing citizens with a common culture and political values heavily imbued with an

ideology of equality. These features of comprehensive education imply that they are a likely choice for political elites in newly democratic countries. In the contemporary world, for example, Eastern European countries have been very quick to adopt comprehensive upper secondary education and to discard the older multi-tracked systems that were operative in the days of Soviet domination.

As we suggested earlier, comprehensive forms are also likely to be preferred by parents and students because these are more inherently egalitarian. By pushing subject and career specialization further on in the educational sequence they mitigate some of the advantage that families with high levels of education have in giving advantage to their children. They are likely to be perceived as offering a route to 'contest mobility' systems (Turner 1960) that are inherently fairer and less dependent on family background for success. This argument suggests a fourth hypothesis.

> *Hypothesis 3*: Countries that developed democratic political regimes in the 1980s and 1990s will opt for comprehensive upper secondary systems or retain them if they started with them. Countries that started with tracked systems and then adopted democratic forms will drop them and adopt comprehensive forms.

A third change that has occurred in the world polity since the 1970s is the decline of American hegemony. While the USA is still the world's super power militarily, the world polity is now economically and culturally more multi-polar. Vietnam, Afghanistan, Chechnya and now Iraq have shown the weakness of hegemonic powers. Japan has emerged as an economic super power and China is on the verge of becoming the dominant power in Asia.

With economic, political and cultural globalization as the backdrop, this change towards a more multi-polar world means that flows of cultural forms such as education systems may be more multi-focal and not only unidirectional exchanges between the super powers and their client nation-states. Small Sweden, for example, represents the high form of how to administrate social welfare. Likewise, Uganda appears to be the model of how to address the HIV & AIDS epidemic.

In education the USA has been the major model, and exporter, of comprehensive secondary education, throughout the American hemisphere and more generally. We would ask whether the aforementioned decline in America's hegemonic status has dampened the adoption of comprehensive education among poorer countries since the 1980s. The research background behind this quest is as follows (see Kamens, Meyer and Benavot 1996). During the immediate post WWII period, comprehensive secondary programs witnessed a high rate of adoption. In the following period, 1970-1985, science tracks, and to a lesser extent, humanities/arts programs were more apt to be adopted by policy elites as the primary educational choices. The latter period roughly parallels the relative decline in American economic and cultural hegemony.

While policy choices regarding the *educational form* to adopt are strongly affected by the previous type of secondary education program(s) that the country or

metropolis, in the case of colonies, had in place, there is much room for change over time. For example, there is evidence of countries making wholesale changes in their secondary education systems; for example Eastern Europe went from a highly tracked system to a comprehensive one. Furthermore, there are also cases of countries switching their systems back to highly tracked ones, after having experimented for a decade or more with comprehensive style programs. Uruguay, for example, started with a comprehensive curriculum in the 1950s and switched to a four-track system in the 1980s, which it retained in 2000, reduced by one track. In short, the evidence suggests that countries experiment over 30 year cycles with different educational models. Nonetheless, the choices countries make depend on the available world models for organizing secondary education. Furthermore, politically or economically successful countries are likely to find their models of education being widely emulated. This argument suggests the following hypothesis.

> *Hypothesis 4*: The decline of American hegemony after the 1970s slowed the adoption of comprehensive forms among poor countries in favor of tracked systems of secondary education.

Data and methods

The data for this study come from UNESCO's International Bureau of Education (IBE) and were collected and coded by a team led by Benavot and Amadio. The data cover three periods (1950s-1960s, 1980s and 2000s) and over 100 countries. Information on secondary education tracks in the academic sector were culled from national reports countries filed with IBE, usually in conjunction with the International Conference on Education, or from country-specific curricular timetables sent to the IBE. Although the vocational sector of secondary education often includes multiple tracks and timetables, this study focused exclusively on tracks in the academic sector—i.e., those enabling graduates to continue to post-secondary institutions of higher education, some of which are technologically oriented.

The main aim of this paper is to examine the extent of change (or stability) in *institutional tracking* in academic secondary education during the 1980 to 2000 period, and the factors affecting this process. In particular we analyze the number of distinctive academic tracks per country and classify upper secondary education systems as either comprehensive (1 track) vs. multi-tracked systems (2+ tracks). Previous research (Kamens, Meyer and Benavot 1996) established that the subject content (i.e., required subject domains) and the time allocation per subject domain varied fairly systematically by track type. Therefore, analyzing education systems according to the number or type of institutional tracks means that substantively different curricular systems are involved. Future analyses will re-examine whether there have been any systematic changes in the subject contents of different tracks for the 1980 and 2000 periods.

There are several issues this study does not (and cannot) address. We do not examine *instructional tracking*, i.e., actual course offerings and how they are sequenced in different systems or the actual enrolments in these different sequences. Nor, as previously noted, do we deal with institutional tracks belonging to the vocational education and training sector. The organization of vocational schools, or specific vocational tracks, while important, is beyond the scope of the present paper.

Apart from track type there are other ways in which upper secondary education systems differ. Some countries make no distinction between lower and upper secondary education; increasingly most do. The length (in years) of upper secondary education also varies. In the contemporary period, the shortest upper secondary cycle is 1 year and the longest 5 years. The majority of countries have cycles that last 2 to 4 years. Little is known how these system features affect institutional tracking or curricular offerings. Some preliminary evidence (Benavot 2004) indicates that the one-year upper secondary systems are 'outliers' in terms of subject time allocation. Multiple year systems appear to be more similar in terms of subject content and time allocations per subject. Given existing data limitations, this paper presents results aggregated over different secondary cycles. In the future, we shall probe these differences to see if different cycles are linked to distinctive track types and curricular offerings.

The results section below first describes changes in the prevalence of single- vs. multi-track secondary education systems over time for more than 100 countries. It then provides additional details for the 1980 to 2000 period and examines various economic, social and political covariates (e.g., per capita income, world region, democratization) hypothesized to be responsible for over time shifts.

For multi-tracked systems we consider arguments concerning the addition or reduction of tracks in the secondary system using detailed data on the number of tracks at each time point. We employ multivariate analyses (i.e., quantitative panel models using data for the 1980-2000 period) to examine previously outlined theoretical arguments. Overall we investigate selected ecological and social correlates of different secondary systems. To examine the argument regarding USA hegemony we look at the influence of regional proximity to the USA in both periods, that is, spheres of influence effects. We think that such countries may be more prone to the effects of cultural hegemony.

The data for the variables employed in the analyses come from a variety of standard sources. Data on country income levels (GDP per capita) come from the World Bank; educational enrolment ratios from UNESCO's Institute of Statistics. Data on structural features of secondary education come from the IBE. The data on democratization come from a variety of sources (Bollen 1980; Gastile 1987; Vanhanen 1990; Hadenius 1992).

Results

The volatility of curricular models and forms

Recent evidence suggests that there has been a global drift towards comprehensive tracks in academic secondary education (Benavot 2004). In the 1950-1960 period, about one third of all countries (n=115) had a general or comprehensive academic secondary program and in the 1980s, this percentage had increased slightly to 35 percent (n=132). During the next two decades there was a significant increase in the number of comprehensive/general programs and by the turn of the century they comprised about one half of all upper secondary systems (n=163). Interestingly, this worldwide drift towards comprehensive systems concealed considerable regional variation. For example, in the most recent period, over two-thirds of countries in Asia and Eastern Europe have a general or comprehensive secondary program (73 percent and 68 percent, respectively), whereas almost all countries in the Middle East and North Africa (95 percent) have a multi-track system. In other regions the proportion of single-track systems was close to the global average (50 percent).

More importantly, the apparent transition to less-differentiated secondary education systems hides a considerable degree of volatility over the three time periods under study. Table 8.1 examines changes over time in upper secondary track structures: the upper part of the table for the 1950 to 1980 period and the lower part for the 1980 to 2000 period. During the earlier period the major movement is towards more heavily tracked systems of secondary education. Of the countries that began the period with a general or comprehensive system, half (51 percent) ended the period with systems containing two or more tracks. Of the countries that started off with 2 or more tracks, a quarter (24 percent) ended the period with a single-track system. In the 1980 to 2000 period there is likewise a good deal of turbulence. About 40 percent of the countries that started with single-track systems moved to adopt multi-track systems by the 2000s. But a similar percent of countries (42 percent) chose to move in the other direction: from multi-track secondary programs to a single-track system.

This volatility in track types indicates that many secondary education systems have been seriously transformed over the period under study. In many cases, such changes in the structure of curricular programs are possible because they are relatively easy and cheap to adopt. Nations can use the same buildings, teachers and other personnel for any one of these types of educational programs without having to make huge investments following a major reform from one type of curricular system to another. While we do not wish to underplay the administrative and pedagogical difficulties such reforms entail, most of the costs are administrative (e.g., personnel salaries). Furthermore, some costs may be externalized by shifting them to students' families or to communities.

Table 8.1: Historical volatility in the prevalence of single or multiple track secondary school systems

A. Percentage of countries in which the prevalence of single or multiple track secondary education systems changed or remained stable between the 1950s and the 1980s*

		1980s		
		Single track	Multiple tracks	Totals
1950s-	Single track	49%	51%	100 (33)
1960s	Multiple tracks	24	76	100 (78)
	Overall	*32*	*68*	*100 (111)*

* Number of countries in parentheses

B. Percentage of countries in which the prevalence of single or multiple track secondary education systems changed or remained stable between the 1980s and the 2000s*

		2000s		
		Single track	Multiple tracks	Totals
1980s	Single track	61%	39%	100 (36)
	Multiple tracks	42	58	100 (81)
	Overall	*48*	*52*	*100 (117)*

* Number of countries in parentheses

We suggested that countries might deal with the challenge of increased demand for secondary education by enlarging the number of curricular tracks, and hence tailoring the education system to a wider range of student interests and abilities. Support for this idea comes from data on the means and standard deviations of the number of curricular tracks per country over this period. While the means do not change much over the period (2.34; 2.44; 2.29), the standard deviations show consistent growth (1.29; 1.54; 1.85) over the three time periods. This pattern suggests that some subsets of countries are adapting to the challenge of pupil diversity by expanding formal curricular programs. In the next section we examine potentially influential correlates of secondary track volatility, and concentrate solely on the most recent period, 1980-2000.

Income, educational expansion and volatility

Much of the volatility in track types occurs in the developing world. By classifying countries by income level, Table 8.2 shows that the secondary track systems of upper

income countries are more stable between 1980 and 2000 than countries belonging to lower income levels: almost 90 percent of the richer countries with single track systems remained stable over the 20 year period; 60 percent of those with multiple secondary tracks continued to offer multi-track systems. Among countries at lower income levels, there was considerably more volatility, especially among countries that began the period with single-track systems. Some 40-50 percent of the countries in the low and middle-income categories moved from a single-track system to a multi-track system between 1980 and 2000.

Table 8.2: Percentage of countries in which the prevalence of single or multiple track secondary education systems changed or remained stable between the 1980s and the 2000s, by income level*

Level of per capita RGDP	1980s	2000s Single track	2000s Multiple tracks	Totals
Low income	Single track	60%	40%	100 (10)
	Multiple tracks	53	47	100 (19)
	Overall	*55*	*45*	*100 (29)*
Lower Middle income	Single track	50%	50%	100 (12)
	Multiple tracks	33	67	100 (12)
	Overall	*42*	*58*	*100 (24)*
Upper middle income	Single track	50%	50%	100 (6)
	Multiple tracks	42	58	100 (19)
	Overall	*44*	*56*	*100 (25)*
Upper income	Single track	88%	12%	100 (8)
	Multiple tracks	39	61	100 (31)
	Overall	*49*	*51*	*100 (39)*

* Number of countries in parentheses.

Earlier it was noted that countries experiencing sustained growth in secondary enrolments may seek to enlarge the number of track offerings to partially address the growing heterogeneity in pupil interests. In this case, one would expect to find a relationship between the level of secondary education expansion and changes in track types. The evidence presented in Table 8.3 provides no support for this argument. Indeed, countries with the most expanded secondary school systems are less likely to move from single-track to multi-track systems during the 1980 to 2000 period.

The bi-variate findings presented in this section parallel those of our earlier work (Kamens, Meyer and Benavot 1996). Levels of economic development and secondary school expansion have little influence on changes in academic secondary track systems. In relation to hypotheses 1 and 2, it is not the case that high-income countries retain multi-track systems to a greater extent than low-income countries. And, it is not the case that low- or middle-income countries move to adopt single-track systems. Much of the changes in track type appear to be fuelled by the discourse and ideologies about education that are current in the world polity. Perhaps more importantly, each type of secondary education is capable of providing the diversity of subjects, course sequences, academic programs and options that families in the modern world expect and nations believe they should supply.

Table 8.3: Percentage of countries in which the prevalence of single or multiple track secondary systems changed or remained stable between the 1980s and the 2000s, by gross secondary enrolment rate*

		2000s		
Level of Secondary Education	1980s	Single track	Multiple tracks	Totals
Low secondary enrolment ratio	Single track	57%	43%	100 (14)
	Multiple tracks	40	60	100 (20)
	Overall	*47*	*53*	*100 (34)*
Medium secondary enrolment ratio	Single track	50%	50%	100 (14)
	Multiple tracks	41	59	100 (32)
	Overall	*44*	*56*	*100 (46)*
High secondary enrolment ratio	Single track	88%	12%	100 (8)
	Multiple tracks	42	58	100 (24)
	Overall	*53*	*47*	*100 (32)*

* Number of countries in parentheses.

The liability of newness: Country age and volatility

Thus far, findings from cross-national research provide little support for the argument developed in hypotheses 1 and 2. Organizational arguments often invoke an idea relevant here and that is the importance of organizational age, and the 'imprinting' of organizational models and culture that sheer longevity (and success) produces (e.g., Stinchcombe 1965). This idea suggests that countries with older education systems that have more entrenched educational and professional elites will exhibit more stability of organizational form (e.g., Goodson 1994; 1987b; Holmes and McLean 1989; Kliebard

1987; 1992). They have had the time to develop traditions and ideological rationales that are likely to be widely accepted among political and social elites.

We examine this possibility by grouping countries according to the period in which they became independent and note track stability or change between 1980 and 2000. Table 8.4 shows the patterns of curricular change for countries in three categories: those who became independent before 1933; those that became independent between 1934 and 1969; and those that achieved independence after 1970. The surprise here is that there is greater track volatility among older, more established countries than among recently independent countries. In fact, the single-track or multi-track systems of over two-thirds of the newly independent countries remained stable between 1980 and 2000. Reforms to secondary education track offerings were more noticeable among older countries (independent before 1933) and, to a lesser extent, among those that became independent between 1934 and 1969.

Table 8.4: Percentage of countries in which the prevalence of single or multiple track secondary education systems changed between the 1980s and the 2000s, by country's period of independence*

		2000s		
Period of Independence	1980s	Single track	Multiple tracks	Totals
1700-1933	Single track	50%	50%	100 (18)
	Multiple tracks	46	54	100 (35)
	Overall	*47*	*53*	*100 (53)*
1934-1969	Single track	73%	27%	100 (15)
	Multiple tracks	43	57	100 (35)
	Overall	*52*	*48*	*100 (50)*
After 1970	Single track	67%	33%	100 (3)
	Multiple tracks	27	73	100 (11)
	Overall	*36*	*64*	*100 (14)*

* Number of countries in parentheses.

Age and tradition appear to be weak deterrents to the kind of structural change we are examining. This presents something of a surprise because a sizable literature about curricular organization presumes that internal elites have considerable influence in protecting their monopolies of knowledge and their niches in the education system. And, to the extent these groups are well established and represent venerable traditions of education in their respective countries, their influence on curricular structures should then be especially pronounced. Apparently the ongoing development and expansion of secondary education operate as a powerful counter pressure to the influence of

entrenched professional groups, whose ideologies may appear to be undemocratic and educationally elitist in the modern world. Furthermore, as education systems become more decentralized in structure, a variety of local elites become empowered and can affect both the official curriculum and the implemented curriculum in unintended ways (see Benavot and Resh 2003).

The influence of American hegemony

The world drift to overarching general curricular frameworks suggests that the comprehensive model pioneered by the USA is alive and well despite the decline of the USA's political, economic and cultural hegemony. This suggests that the model has become independent of its originator(s) and no longer presumed to be connected to a particular nation in world culture. Comprehensive models of secondary education, as well as a limited number of multi-tracked models, are widely available. Furthermore, over time formerly selective multi-track systems have evolved into mass secondary education systems and have apparently overcome some of the traditional stigma of elitism associated with them. Some countries have done so by increasing the number of curricular choices offered and widening the number of available electives to students.

One window from which to look into this issue is the Latin American and Caribbean region. Traditionally comprehensive programs were widespread in this area of the world (Kamens, Meyer and Benavot 1996). In 1980, 46 percent of the 28 countries in this region had comprehensive systems of upper secondary education. Declines in American hegemony ought to be registered among these countries with respect to their educational choices between 1980 and 2000. Alongside diminished hegemony more cultural (educational) choices should become available as other models of doing secondary education gain plausibility. One consequence should be considerable movement to other types of curricular structures.

The first part of table 8.5 shows that the volatility in track type in Latin America and the Caribbean is relatively high between 1980 and 2000. While overall there is a slight gain in favor of single-track systems in this region (from 46 percent to 50 percent), fully 40 percent of the countries that had a single-track system moved to a multi-track system, and 43 percent that started with a multi-track system changed to a single-track one in 2000.

The high volatility in this area, one that has always been considered an American sphere of influence, suggests that world models for organizing secondary education are penetrating all regions and providing viable alternatives. In addition, the evidence indicates that the legitimacy of comprehensive type models of secondary education is now high and independent of their association with the USA and its world power.

Democracy, development and curricular change

We suggested that societies experiencing rapid democratization would perceive general and comprehensive systems as more egalitarian than multi-track systems and thus an

important means of transforming students into democratic citizens. We examine this possibility, in addition to the arguments discussed above, in a set of multivariate panel regression analyses looking at the factors affecting curricular change between 1980 and 2000. In contrast to previous analyses the dependent variable is the *number* of tracks in the secondary system in 2000. Specifically, we examine the impact of democratization as it was in 1980 using three standard measures of democracy. As additional

Table 8.5: Percentage of countries in which the prevalence of single or multiple track secondary education systems changed or remained stable between the 1980s and the 2000s, by world region*

Region	1980s	2000s		
		Single track	Multiple tracks	Totals
Latin America & Caribbean	Single track	60%	40%	100 (10)
	Multiple tracks	43	57	100 (14)
	Overall	*50*	*50*	*100 (24)*
Sub-Saharan Africa	Single track	57	43	100 (14)
	Multiple tracks	33	67	100 (12)
	Overall	*46*	*54*	*100 (26)*
Asia (except Japan)	Single track	100	0	100 (3)
	Multiple tracks	75	25	100 (16)
	Overall	*79*	*21*	*100 (19)*
Middle East/ North Africa	Single track	0	100	100 (1)
	Multiple tracks	6	94	100 (17)
	Overall	*6*	*94*	*100 (18)*
Eastern Europe	Single track	0%	100%	100 (2)
	Multiple tracks	75	25	100 (4)
	Overall	*50*	*50*	*100 (6)*
Western Europe/ North America/ Australia/ New Zealand/ Japan	Single track	80%	20%	100 (5)
	Multiple tracks	44	56	100 (18)
	Overall	*52*	*48*	*100 (23)*

* Number of countries in parentheses.

independent variables, we include measures for economic development (RGDP/per capita), secondary system expansion (gross enrolment ratio), a regional dummy variable for Eastern European countries and a variable for countries that distinguish between lower and upper secondary education. We also introduce a control variable, which is the number of curricular tracks in 1980.

There are several interesting findings emerging from Table 8.6.[2] First, there is little conclusive evidence (apart from a tendency) that more democratic regimes in 1980 moved towards less tracked secondary systems in 2000. Second, economic development and the size of the secondary school system have strong, statistically significant effects on the number of tracks in 2000. Higher income countries offer more secondary tracks than lower income countries; more expanded secondary systems offer fewer tracks than less expanded systems. Certain European countries exemplify the former effect; others the latter effect. Previous research suggested that this influence has more to do with the history of these education systems than the level of economic development per se.

Third, the distinction between lower and upper secondary education has a modest negative impact on the quantity of tracks, which is independent of enrolment expansion. Finally, as expected, the volatility of track structures between 1980 and 2000 explain why the number of curricular tracks in 1980 has no statistically significant impact on curricular tracks in 2000.

Undoubtedly, these preliminary analyses need further elaboration. We plan to examine the impact of other independent variables as well as more detailed information about changes in the actual track names during the 1980 to 2000 period.

Discussion

We have shown a pattern of great volatility of secondary track worldwide. Countries change organizational forms of secondary education much more readily than expected. The specific reasons they have for doing so are more difficult to determine. IBE country reports give few reasons for specific changes. Argentina (2001), for example, mentions only that the period 1970-1990 was a period of educational stagnation that changed with the advent of democracy. Australia (2001) notes that in the 1990s new reform laws were put in place and justifies these with a lengthy list of goals that education must achieve and subject areas students must be familiar with if Australia is to remain a viable democratic polity in the twenty-first century. This is an obvious area for further research for it could tell us whether countries see 'single track vs. multi-track' forms of secondary education as models that compete in the twenty-first century. If all systems are becoming highly differentiated internally, it may make much less difference whether this is done via formal program differentiation or by providing multiple paths within a single overarching system. Schools can be turned into 'shopping malls' via quite different organizational strategies.

Table 8.6: Regression analyses of democracy and socio-economic development on the number of academic tracks in upper secondary education (circa 2000)

Dependent Variable: Number of distinctive academic secondary tracks circa 2000 [a]

	Model 1	Model 2	Model 3
Democracy			
Index of democracy 1980 Vanhanen	.07		
Index of combined political & civil rights 1983 Gastile		-.20	
Index of democracy 1980 Bollen			-.22*
Log gross domestic product (GDP/pc) 1985	.66**	.82**	.80**
Gross secondary enrolment ratio, 1990	-.67**	-.65**	-.61**
Distinction between upper and lower secondary education	-.14	-.16*	-.11
Countries in Eastern European region	-.15*	-.11	-.11
Number of academic secondary tracks circa 1980	.11	.14	.13
Constant	-3.80	-6.39	-5.31
Adjusted R2	.10	.12	.12
Number of Countries	94	95	93

Table notes:
Significance levels: * Coefficient is 1.5 times its standard error.
** Coefficient is 2.0 times its standard error.
a. Reported figures are standardized regression coefficients (Beta).

A second point: national characteristics have limited influence on the choice of the form for secondary education. Richer countries tend to have more tracks but are under increasingly competitive pressure to identify more effective models of secondary education, and tend to reform track structures. The growing demand for secondary education, and reorganization of lower and upper secondary grades, places other

constraints on education systems, many of which become single-track systems. Certain countries, especially the recently independent, are more resistant to change. The breakup of former USSR, and the wave of new nations in Eastern Europe, provided a strong rationale for the rejection of 'disreputable' models associated with outmoded educational ideologies.

Lastly, our measure of organizational form undoubtedly conceals a large amount of variation in patterns of choice that occur within them. In the USA, for example, there is a large amount of variation within schools in course sequences available, and then there is huge variation between schools. The same is true in Latin America. Students learn more in some schools than others and have available more course choices in affluent ones than others (Braslavsky, personal communication). Similarly, European systems have become highly diversified by combining 'tracks', by differentiating more programs within 'tracks' and by adding more program choices. All systems have made more optional courses available. These are issues the current study cannot deal with directly. Future research should focus directly on the issue of the extent of 'curriculum choices' that different models make available. This is one point where the world of academic research intersects with the world of educational policy.

Conclusion

This paper has shown the trend toward choosing comprehensive models of secondary education for organizing upper secondary education. But within this fifty-year trend it has also shown an extraordinary volatility among national education forms over three time periods. National secondary curricular forms fluctuate a great deal, as countries experiment with new ways to handle the demographic and the social challenge of educating larger cohorts of students coming from primary education and entering into secondary. The patterns that we found almost a decade ago have changed so that countries are less bound by the type of education system that they had foisted on them as colonies or client states (see Kamens, Meyer and Benavot 1996).

On the other hand, one finding is persistent. Country characteristics still appear to have little to do with the curricular choices that nations make. We speculate that there may be increasing diversity both within and between countries over time. First, we suggest that curricular change is relatively inexpensive to effect. Under these conditions school officials can be very accommodating to reigning educational ideologies and fashions in their areas. Furthermore, increasing democratization brings in additional actors (e.g., parents, local officials) whose voices must be heard. Secondly, the trend toward decentralizing education systems (see, e.g. Astiz, Wiseman and Baker 2002; Benavot and Resh 2003) means that there are increased possibilities for diversity within education systems between regions, provinces or states in federal systems and between ethnic communities.

A good deal of that diversity is not captured in our measure of curricular forms. The evidence suggests that both forms of secondary education have become more diversified over time, especially regarding program availability, course sequencing and

optional course offerings. Whether this differentiation adequately addresses the motivations of the new populations entering secondary education remains uncertain. In the USA, the high school 'dropout problem' remains high on policy makers' agenda for reforming education. Elsewhere the relevance of existing program choices is being challenged (World Bank 2005a: 77ff).

In conclusion, while the world may have become a more diverse place educationally, the reigning world models of how to educate children limit this variety. As shown by the work of Meyer (2000), the plausible models are limited by world political culture. The result is that diversity occurs within an increasingly limited field.

Notes

1. We are grateful to Massimo Amadio and the IBE staff for their generous assistance and support in collecting the data used in the paper. We would especially like to thank Nhung Truong and Didi Shammas for their able research, bibliographic and statistical assistance. We benefited greatly from the comments of members of the comparative curriculum workshop held at Stanford (March 2005), especially the direction of the late Cecilia Braslavsky.

2. The relevant correlation matrix is available upon request.