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THE TRANSITION FROM PARTY/STATE TO OPEN DEMOCRACY: THE ROLE OF EDUCATION*

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Abstract — One common characteristic shared by the countries of the former Soviet Union and Central and Eastern Europe was the manner by which education in the party/state was expected to provide ideological cohesion. Today the challenge of cohesion has changed. No longer does a single party monopolize the state apparatus; religious worship is now practiced freely; and central-administration has diminished. Today individuals have a wide choice of occupations, unrestricted travel, and freer access to international information. What have these changes meant for education?

The article responds to this question, and is divided into five parts. The first tries to identify unique characteristics about education under the Party/State. The second summarizes the changes which have occurred so far in the transition. The third outlines additional changes which may be required. The latter sections describe the influence of the transition on the economic arguments surrounding education and finally on Comparative Education generally. © 1998 Elsevier Science Ltd. All rights reserved

INHERITANCE FROM THE PARTY/STATE

*State-sponsored philosophy*¹

C. Arnold Anderson cautions against simple generalizations about Soviet educational philosophy. 'Most of the widely discussed features of Soviet schools,' he says 'are simplified pictures, lifted from context. Both admirers and detractors of Soviet education often look at an imaginary society.' (Anderson, 1959). On the same theme, Bereday and Stretch note that, 'it has long been the belief of Western observers that the Soviet system puts more than the usual amount of stress upon political education (and) . . . is said to saturate the young minds of pupils so they never learn to observe objectively or to think critically about their own or other nations.' (Bereday and Stretch, 1963).

Unlike earlier observers, today we can reflect on the characteristics of Soviet-influenced education without the burden of cold war influences on judgment. On the other hand it is true that education under the Party/State did indeed differ from education in the West. Education in the Party/State was used to reinforce state philosophy in a manner which genuinely differed from notions

of civics education. The difference is most prominent in two areas — the attitude toward religious belief and the 'scientific' explanation of history.

Religious belief. Precedent for using schools to overtly indoctrinate state philosophy was established early in 19th Century Russia (Tomiaik, 1991, 1974; Anweiler, 1992; Holmes, 1991; Brickman, 1972). The minister of education in 1832, Sergei Uvarov, issued a decree in which the stated goal of the public system was to 'encourage an acceptance of orthodoxy, autocracy, and nationality,' and hence become an 'intellectual dam against destructive European ideas' (Balmuth, 1960). Largess on the part of the state for supplying education was explained as a benefit which justified the price of loyalty and obedience on the part of the public.

Prior to the political takeover by the Bolsheviks, the Kerensky government established a 'Ministry of Confessions', bringing churches under the auspices of the state. The ministerial structure remained unaltered under the Bolsheviks. In March 1917, *Pravda* published an editorial calling for the 'separation of church from the state and the school from the church.' In June, church schools were ordered transferred to the Ministry of Education. In January of the next year, a new MOE decree was issued stating that 'the teaching of religious doctrine is not permitted in any state, public, or private education institution where general education subjects are taught.' Teachers

*The views expressed in this paper are those of the author alone and do not necessarily represent the World Bank or any of its affiliated institutions.

were exhorted to create 'godless corners' in every classroom, and 'to teach atheism with enthusiasm, knowledge, care, devotion and dedication.' A special state publishing house for atheism was created in 1922 and distributed publications titled: *Bezbozhnik* (Godless), *Bezbozhnik u stanka* (Atheist at the Workbench), and *Antireligiuznik*. A seminary was established for the training of 'atheist priests.' Thirteen universities were opened to train atheistic leaders (Brickman, 1974). In 1930, the earlier decree was reiterated with the following explanation:

schools are for the teaching of science and not for clogging the brain with the teaching of children with religion. The school must not stand aloof in the struggle against religion. The school must educate children in an anti-religious spirit because it must not be forgotten that at present the whole influence on the child is still religious. The school must counteract this harmful religious influence (Brickman, 1974).

Lenin was not ambiguous about the use of schools to reinforce Party philosophy nor about the importance of the Party to control what was taught. 'Education,' he said,

is one of the component parts of the struggle we are now waging . . . the school must become an instrument of the dictatorship of the proletariat . . . Communists alone must determine the content of the curricula in so far as this concerns general education subjects and particularly philosophy, the social sciences, and communist education (Lenin, 1917).

By 1954 the 'over-zealousness' of previous Party dogma was allowed to emerge into public discussion. At this time, the Central Committee passed a resolution, signed by N. S. Khrushchev that indicated among the mistakes of the previous dogma was the 'ridiculing of religion so much so that many people wanted to find out what was being made fun of, and in consequence, became more sympathetic to religion.' Instead a more positive approach to atheism was encouraged; one that embraced 'science', and in particular, the scientific approach to historical development.

Scientific interpretation of history. Under the Party/State all students were required to study four subjects: History of the Communist Party of the Soviet Union, Dialectical Materialism, Introduction to Marxism and Leninism, and Historical Materialism. In 1963 a fifth was added: Sound Fundamentals of Basic Atheism.² The USSR Academy of Pedagogical Sciences provided the content. 'Not only was it a reflection on how the Party/State viewed the humanities,' observes Anderson, 'but it also was a reflection of how it

viewed science.' (Nedlin, 1960). The Bolsheviks, says C. Arnold Anderson,

viewed themselves as the heirs of the Enlightenment; they believed that society could be remade to suit man's true nature. The faith in rationality was sincere, though Marxist dogmas about societal development gave this philosophy a technocratic twist. The death of the Europeanized Lenin and the rise of the provincial Stalin gave this narrower viewpoint a demonic impetus (Anderson, 1959).³

Science and its dialectics fit into the Party's vision for Soviet character (Makarenko, 1965). Teachers were instructed to use group competition and group norms as the principal motivator for individual achievement. On the first day of class, teachers are told not to say: 'All sit straight,' but rather 'Let's see which row can sit the straightest' (Brofenbrenner, 1969). This technique differs from Western pedagogy because of what Soviet pedagogues called 'linkages'. Behavior was regulated through the peer group. It might begin with a small unit, a row of desks in grade one for instance, but was supposed to progress to the class, the school, the neighborhood community, the party, and hence to the international position of the USSR. Dialectical competition at the smallest level (the school row) leads to synthesis at the next level (the class); then again to dialectical competition (between classes) and a new synthesis; and so on.

History, treated as certainty, was used to illustrate an inevitable dialectical process in which the outcome, by definition, was a superior product and policy. The causal connection between Soviet results in science and Soviet results in political history was treated as absolute. Schools taught that each endeavor illustrated the superiority of the Party/State over its antecedents and over the experience of other nations. This use of education as a conduit for an ideology, privately often held in disdain, had several pernicious effects. The school system was used by party officials to reward students for politically correct behavior. Student performance and expression of correct social and political attitudes could result in having access to specialized, privileged educational opportunity. This helped create a public distrust of the education process and education profession. By politicizing history and the social sciences, it lowered the prestige for those areas of study. By linking the acquisition of scientific information to political objectives, and past scientific accomplishments to superior industrial products and agricultural policy, it distorted curriculum by lowering emphasis on

problem-solving and raising emphasis on retention of provided information.

In a centrally-administered economy, to some extent, the de-emphasis of problem-solving was rational. In western economies, the ideal was the educated individual decision-maker. Until the 1990's there were few individual decision-makers in the Party/State. From Minsk to Vladivostok, products and prices arrived in identical varieties. Farmers were prohibited from making agricultural decisions over what crop to plant, what fertilizer to use, which pesticide, and in what amount. To rotate crops, special permission had to be sought from Moscow. Central industrial plans determined factory level production choices instead of factory managers. Decisions were thought best informed through scientific planning models, and these, in turn, were thought best located in the capital. The underpinning for production models was science, and was therefore treated as an instrument to implement political policy. Since 'high' science (i.e., with large latitude for individual responsibility) was needed in the capital close to

the planning model's origin, 'low' science was the expected norm for administration of the system at the point of production.

By many accounts, the education system under the Party/State was more effective at delivering scientific information to a wider portion of the student population than other education systems. What distinguishes education under the Party/State from education in market economies is the type of information emphasized. These differences can be illustrated by the results of the 1993 International Assessment of Educational Progress in Science and Mathematics at age 13. Seven of the best performing 19 countries are displayed in Figure 1.

Performance is disaggregated by three different curricular objectives: (i) awareness of factual information, (ii) application of factual information, and (iii) use of information in a new and unanticipated problem-solving circumstance (World Bank, 1996). Students in the four market economy school systems scored lower on the first, higher on the second, and highest on the third category — the use of information in

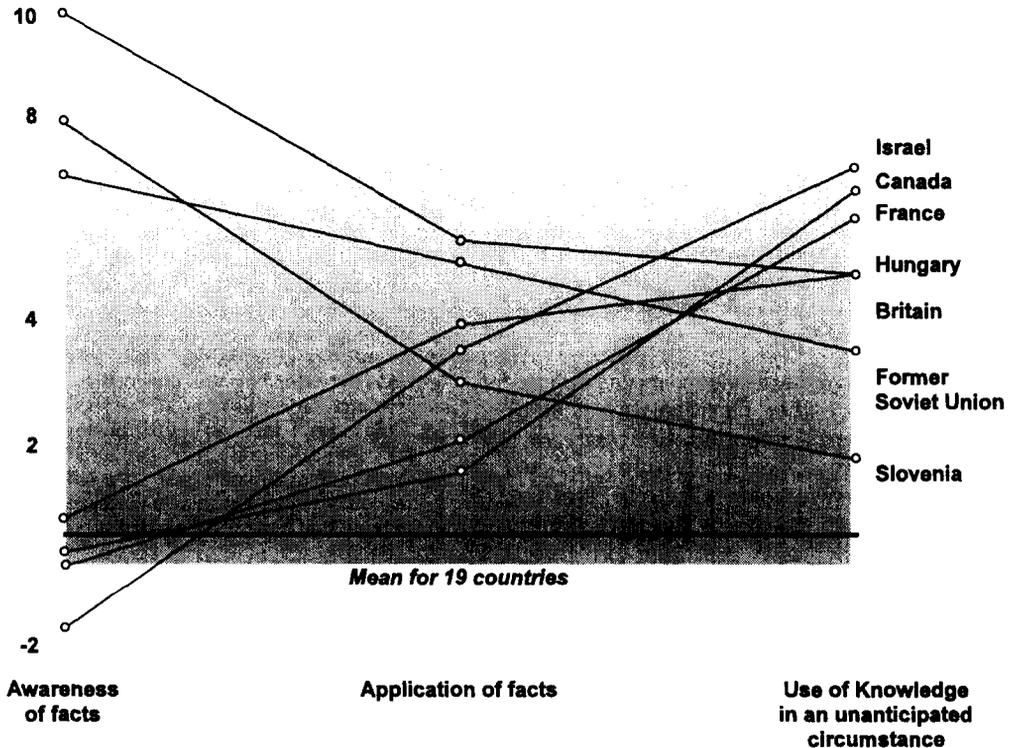


Fig. 1. Socialist education emphasized accumulating knowledge rather than applying it. Source: The World Bank. *The World Development Report 1996: From Plan To Market* (New York: Oxford University Press for The World Bank, 1996) p. 125.

an unanticipated circumstance in order to solve a problem. Students in Party/State school systems performed better in the opposite direction: highest on awareness of facts and lowest on the use of those facts to solve unanticipated problems. In market economies, occupational future is uncertain, individuals must be prepared to move across many possible vocations and economic sectors. But when the economy is planned, technology changes are planned. The content of skill training then could be treated as a relative certainty, thus justifying priority on information acquisition rather than problem solving. The problem is that the economic context has shifted. Emerging today from a school in Russia or the Czech Republic, an individual is faced with a degree of occupational uncertainty typical for a market not a planned economy.

The effect of the party/states on incentives for knowledge

It is common to argue that the Party/States had many technical achievements: nuclear weapons, space travel, and advanced computer systems. Successes in Olympiads in mathematics and science were interpreted as signs that the education systems were of high quality. In spite of this wide-spread belief, the association between technical achievements and the quality of education is imperfect. As Anderson observes:

We produced the atomic bomb at a time when critics were lamenting the supposed deterioration of our schools. The bomb was created by a few scientists with unlimited resources, though the craftsmen who produced the delicate instruments were no less essential. The quality of our schools may have been irrelevant to this feat. Similarly, Sputnik proves little about the general quality of Soviet schools (Anderson, 1959).⁴

National achievement in science might well be explained by the positive incentives associated with higher incomes, occupational prestige, and general welfare to technical professions; and to the negative incentives associated with fields other than science. During the era of the Party/State, negative incentives had a profound effect on demand for particular courses of study and for particular professions. Since social sciences and humanities were controlled by the Party, demand for study in these areas was low.⁵ Demand was higher for courses sheltered from political interference. Science, technology, theoretical mathematics, solid state physics, and nuclear engineering, for instance, were protected from political interference and less subject to ideologi-

cal distortion in the criteria of academic excellence. Hence, they were considered higher in prestige.⁶

The social sciences were considered risky by political authorities because they included inquiry about what motivates people and what people believe to be true. Posing these as questions to be investigated could imply that party authorities did not have the answers. Social sciences and the humanities were, therefore, subjected to more political control. Similar controls and differences in prestige were associated with different types of higher education institutions. Often established prior to the Party/State, universities inherited universal notions of academic freedom and the importance of the pursuit of truth. This raised concerns within the Party/State that university faculty might question official interpretations of history, the effectiveness of public policy, or the certainty of popular opinion. Universities were often relegated to second-class institutional status.

On the other hand, fields of engineering and polytechnics rapidly expanded and were offered prime choices of property, laboratory equipment, and salaries. Sixty percent of the Russian student population in 1991 was studying engineering; in OECD countries the figure was about 20%. Of the adult population in Russia with a post-secondary degree, 71% are engineers; in Germany it is 27%; and in the United States, 9%.⁷ As Eisemon *et al.* observe:

policies strongly encouraged national scientific and technological autarchy. The allocation of resources reflected the priority given in national economic planning. . . . In the 1980's more than 80% of funded research projects were directed to the heavy machinery, manufacturing and construction industries. . . . Most of the rest of the R & D investment was expended on other kinds of applied research. Little funding was provided for fundamental research and almost none at all for social science and academic research that was not production oriented and carried out under the direction of either government scientific institutions or enterprises . . . gross distortions in the mission of higher education and research institutions are an important legacy of the socialist period (Eisemon *et al.*, 1995).

The effect of political interference in curriculum was exacerbated by distortions in the economy. Wages were centrally-administered on the basis of politically-driven assumptions rather than productivity or profit. Manual occupations, heavy industry, coal mining and defense production were assigned wages and benefits at significantly higher levels than agriculture, services and

light industry.⁸ Under-employment was common, but unemployment was eliminated by administrative decree. Permission to travel, even within one's own country, was subject to careful clearance. Job and social security were universal. Wide-spread social safety nets and occupational certainty narrowed differences in occupational income and lowered working class motivation for academic attainment and occupational mobility.

In spite of manifest goals and quotas favoring the proletariat, participation in academic professions and particular branches of medical and scientific research tended to be inherited.⁹ Social origins of the those attending higher education in the USSR did not significantly change since the 1930's. University students from professional backgrounds were 2.4 times over-represented in 1939 and 2.1 times over-represented in 1970 (Anderson, 1983). Placing students with proletarian backgrounds in higher education did indeed have an effect, but the effect of that policy appears to have lessened over time. In 1939 higher education students with manual labor backgrounds were over-represented by 10% compared with their proportion of the population, but by 1964 they were under-represented by 35%.¹⁰

Education under the Party/State was also associated with significant accomplishments. These included equal gender enrollment in higher education, the elimination of illiteracy, and the high acquisition of scientific and mathematics information. Education under the Party/State, however, was also associated with major weaknesses — philosophic monopoly by the Party; corruption of the social sciences and humanities (particularly history); uniform application of pedagogical principles regardless of ability, age, subject or interest; and the systematic denigration of academic and religious freedom.

Public reaction to these weaknesses is part of today's educational inheritance. It includes the disdain for certain portions of the curriculum and the association of education with widely discredited ideological principles, thus, lowering the general reputation of teachers, administrators, and education in general. However, the main weakness and therefore the main inherited challenge, is the system's inflexibility and its inability to adapt to technical change. Though each weakness was widely acknowledged by local reformers in the 1980s, systematic change was left for the transition of the 1990s.

CHALLENGES OF THE TRANSITION

Change between 1989 and 1991 was quick, but hardly uniform. In Czechoslovakia the revolution was characterized as 'velvet', in Romania as 'tel-evised', in Latvia as 'singing'. Tanks were used to combat public demonstrators in Russia, Georgia, and Lithuania. Though the rationales for revolution differed from one country to the next, there were common themes — freedom of speech, press, travel, private enterprise, private property, and national identity.

There were common themes in education as well. These included reduction of central control; an increase of parental and community choice; the establishment of religiously-affiliated schools financed with public resources; and a flowering of pedagogical specializations based on classical traditions (gymnasias, lyceums, foreign languages, dance), religious belief (Catholic, Orthodox, Islam), long suppressed pedagogical philosophies (Steiner, Montessori, Dewey, Schiller, Bloom), and courses of study based on new economic demands (business management and western economics). Radical by most standards, these choices were put into place in former Party/States with an enthusiasm and speed similar to that of the privatization of state-owned enterprises. Freeing education from central control was widely believed to be a requirement to prevent such control from being re-instated. Break it quickly and thoroughly, it was argued, so that the old system could not be put back together. Given the wide-spread resentment which grew from treating children as ideological conduits under the Party/State, the speed and the certainty of these reforms might have been understandable (Kerr, 1990; Kaufman, 1994; Kitaev, 1993; Pastuovic, 1993; Tomiak, 1992a, 1992b).

As Birzea reminds us, the transition has phases and stages, and not all of them lead forward (Birzea, 1996). Some education reforms are quicker and easier to put into place, such as changes in curriculum, textbooks, and pedagogy. These he labels as 'destructuring'. Other areas appear more problematic. They include rationalizing the number of institutions, establishing coherent education legislation, redistributing educational property, redefining local finance and administrative controls. He labels these as 'restructuring'. It is also common to have movements opposing educational change. Arguments for these counter-reforms seem to rest upon the 'need for

stability,' national pride (including pride in 'home-based education reforms'), suspicion of foreigners, discreditation of comparative education evidence, and the rise of sectarian ethnocentrism.

However varied the experience has been for countries as diverse as Hungary, Uzbekistan, Bosnia, and Latvia, there appear to be three common educational characteristics. These have to do with (i) the structural anomalies left over from the period of the Party/State, (ii) the decline in education financing, and (iii) the effects of decentralization and general system destabilization.

Structural anomalies

Among the more problematic elements remaining from the era of the Party/State was the way in which vocational training, higher education and scientific research were structured¹¹ (see Figures 2 & 3). They were 'vertically' structured and segmented according to 'economic sector,' as opposed to a typical education structure in a market economy which is 'horizontal,' and operational across the breadth of the economy (Heyneman, 1994). In the Party/State, size of educational programs was largely determined by their affiliated economic sector or enterprise. Ministries of agriculture controlled state agricultural universities and the agricultural research institutes which were separate from the universities. Transport, power, heavy industry, light industry, food production or the enterprises within them sponsored their own training and research programs. This segmented, vertical structure affected the sector in three ways.

First, the separation of research from training also meant the separation within faculty and institutions by those same functions. It lowered the status of teaching, and separated students from new ideas, better equipment and library

resources. Second, it led to over-specialization of programs. In 1989 Rumanian vocational schools offered 354 curricular specializations while schools at a similar level in Germany (an economy with five times Romania's GDP) offered sixteen (Heyneman, 1994).

In the Party/State, training led to predictable employment in specific enterprises where technologies and outputs were determined according to a central plan. In a market economy, occupation and demand were not predictable, hence training institutions had to prepare for a broad range of occupational futures. The inherited Party/State structures reinforced inefficiency. Institutions were successful according to the number of graduates produced according to plan. Little attention was paid to marginal productivity, graduate demand or the education costs. Vertical segmentation continues to prevent institutions from responding to changes in markets, has reinforced pedagogical and curricular rigidities. Students and staff seeking innovative and well funded) programs have often drifted to the rapidly growing number of private schools and universities.

Expenditure decline

By some estimates, the decline of educational finance began well before the transition of the 1990's; but by all estimates, the decline in the 1990's has been precipitous. The USSR devoted approximately 7% of GDP to education in the early 1970's, but this declined, at least in the Russian Federation, to 3.8% in 1991 and to 3.4% in 1992, then increased to 4.4% in 1994. Prior to the transition, physical infrastructure was beginning to crack, maintenance was spotty, and equipment was generally antiquated. In 1970, the average teacher salary in the USSR was 81% of the average industrial wage; by 1980 it had fallen to 73%;

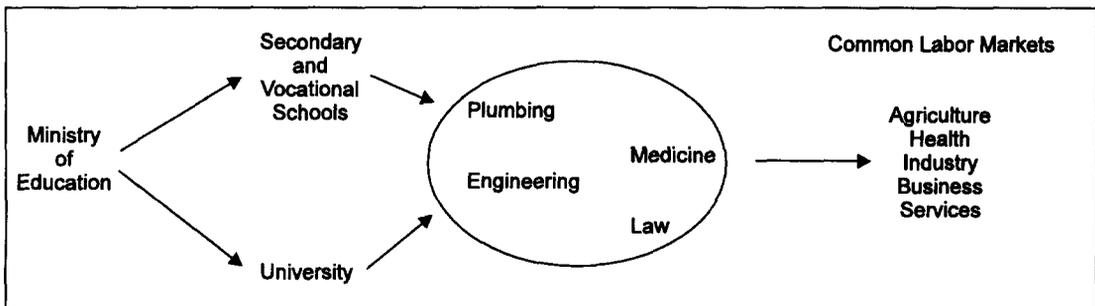


Fig. 2. Structure of professional training in OECD countries flexible institutions driven by the labor market.

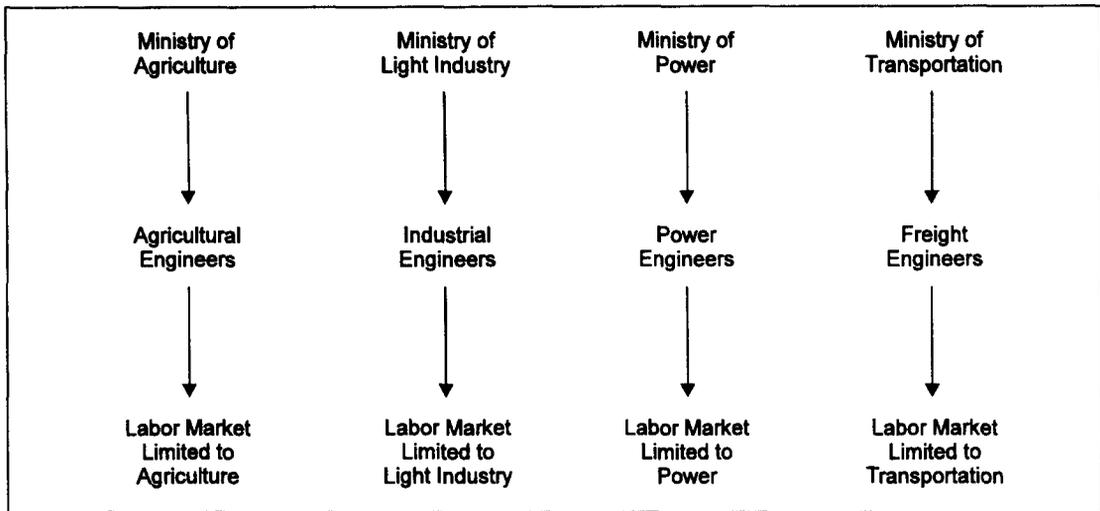


Fig. 3. Structure of professional training in Russia segmented by sector.

by 1989 to 67%; and by 1994 to 55%. An assistant professor in a Russian university was paid 123% of the average industrial wage in 1960; 70% in 1980; 54% in 1991; and 37% in September 1993. The salary of a full professor dropped from 219% of the industrial wage in 1987 to 62% of the average industrial wage in July 1993. Costs of educational materials, energy, and food have all increased, but generally unit expenditures have declined in real terms. Between 1991 and 1992 in the Russian Federation, unit expenditures declined in higher education by 9%, in vocational education by 17%, in primary and secondary education by 29%, and in preschool education by 35%.¹² Many categories of budgetary expenditure are no longer funded, some because resources were inadequate, others because the responsibility for financial support were 'spontaneously decentralized' to local or private authorities.¹³ This is typical of textbooks, pedagogical equipment, official travel, teacher upgrading, student health, clothing for needy students, capital investments, and repairs (Hethy *et al.*, 1994).

Since 1990 Georgia has experienced an 80% decline in Gross Domestic Product (GDP). Within the GDP, public expenditures declined from 36% to 7.4%; and the allocation to education within public expenditures declined from 20.4% to 7.4%. The education effect of the three tendencies is the equivalent of a decline in real expenditures of \$US 804/pupil in 1990 to \$US 27/pupil in 1995. Current public expenditures on education are approximately 5% of what they were in 1990 (Orivel, 1996). The decline in quality is evident in

all fields - equipment, reading materials, consumable supplies, building maintenance, student health and welfare. The purchasing power of teacher salaries (about \$10/month) is insufficient to cover the costs of public transportation to and from work. Since 1994 schools have been without heat or light. Vocational equipment remains unused; student and teacher absenteeism is higher in winter months.

To be sure, there are variations in the extent of the decline from one country to another (Laporte and Ringold, 1997). Declines appear to be less in those countries where the economies have been recovering - Poland, Hungary, the Czech Republic, the Baltic States, and in Slovenia; and more in those countries where the economies have yet to stabilize - Romania, Bulgaria and Albania, Georgia, Armenia and Tajikistan and Moldova.

System decentralization and destabilization

Most education systems have decentralized, but the implications of this trend are unclear. In some areas well established religious authorities have founded new systems of education (Poland). In others, authority has been shifted to local officials in conjunction with parallel administrative decentralization (the Russian Federation) but often with inconsistent fiscal authority (Wallach, 1994). Local authorities are assigned the responsibility of financing education, but are not allowed the authority to tax. In other instances new schools have emerged based on national ethos and national languages (Armenia, Georgia, Moldova, the Baltic States). New institutions

have sprung up in response to demands for new specializations (particularly in business, law and commerce) and to new purchasing power on the part of families with recently acquired wealth (at times through illegal activities). It is evident that the quality of public education has declined, and therefore public vouchers to finance students in priced private schools is the subject of increasing political debate.

In Russia and other republics of the former Soviet Union, new educational legislation contains vague phrases that are unenforceable in a court of law, and sometimes inconsistent with other legislation, the constitution, and presidential decrees (Coons, 1993; de Groof, 1994, 1993; Birzea, 1994; Veld *et al.*, 1996). Divisions of opinion exist over ownership of educational property, equipment and land. Who owns school property, the Ministry of Industry or the Ministry of Education? The church? The local school council? The local municipal council? or the Regional council? Who should make decisions over this ownership? National regulations may call for the distribution of new textbooks, but they may be inadequately financed either by local or private authorities. How then is the regulation to be enforced? With the growth in the number of managerial authorities, how many levels of school administration and numbers of school districts should there be in a small country like Estonia? Suddenly there are numerous and competing sources of teacher certification, licensing and curriculum standards. There are new problems of equity. Universities may set entrance examinations so that only courses offered in specialized secondary schools may serve as prerequisites. These schools, however, can only be afforded by a small percentage of the secondary school population, thus threatening the equality of higher education opportunity.

Private education has grown, but the meaning of private education is not uniformly understood. For instance, some interpret private education to mean a school director's private income, such as a director who sells auto parts out of a school building. A 'private university' may open its doors on the third floor of a public university building, uses public university faculty, and charge tuition to the (mainly) public university students who cannot find courses they want in the public university. Is this private university legal? An entrepreneur sells medical degrees to any who apply. Is this simply private competition in a free education market? In many instances, the problem is not a

lack of reform but an incoherence of reform and a bizarre interpretation of a 'market economy'. What had once been inefficient and cumbersome as an education system was, at the same time, predictable hence, understandable. Today that understanding is threatened by precipitous, ambiguous change, and by idiosyncratic change.¹⁴

Incoherence is not the only source of system destabilization.¹⁵ The education system can sometimes be used by minorities and special interests for sectarian purposes. There are grievances in the former Party/States which, for the most part, are unparalleled in the west, and therefore, unique educational complications have emerged (Broxup and Bennigsen, 1983; Broxup, 1992; Grant, 1991; Kirkwood, 1991; Karavetz, 1978; Shadrikov, 1993; Wheeler, 1962; Shorish, 1991, 1984; Gilberg, 1974). With the possible exception of Africans prior to the 20th Century or American Indians sent against their will to reservations, minorities in the west settled in certain places for reasons of personal choice. The Japanese who emigrated to Hawaii and to California did so to seek a better life; as did the Swedes in Minnesota, the Irish in Boston, the Afro-Americans in Chicago and New York.

In the former Party/States, however, minorities in many instances were moved forcibly for political reasons. German-speakers were moved to Siberia away from the war front. Korean-speakers were moved to Central Asia. Jews, Cossacks, Tatars, Buriats, Poles, Georgians and many others were relocated to distant and unfamiliar regions. These displaced peoples have had no genuine political voice or authority over matters of what to teach the young. But today they often have both voice and authority, and more importantly, few institutional traditions or democratic procedures exist to act as constraints. Using the curriculum to teach the children about the oppression to which they were previously subjected is among the first of demands. Some may direct the blame for this oppression at particular individuals such as Stalin, or to particular groups, such as Russians, Romanians, or Poles.

About one half of the 89 regions in the Russian Federation have minorities of sufficient size to generate a debate over the language used in instruction and curriculum. The number of languages taught in Russian schools doubled between 1991 and 1995. In 1987 students could be educated through grade 10 in four languages other than Russian (Georgian, Bashkir, Armenian, and Tatar). Five years later Russian students could be

educated through compulsory education in nine languages (add Buriat, Urdmurt, Chuvash and Yakut). Today an additional 87 languages now constitute part of the curriculum. In some instances, non-Russian languages are used in schools where Russian speakers are in the minority. This adds a different dimension to the question of protecting 'minority' rights. How are the basic tenets of a society, such as loyalty and citizenship, to be guaranteed if curriculum authority over humanities, languages, and history is devolved to local communities and schools as the Russian education legislation of 1992 guarantees?

Domestic instability is not the only danger of education in the transition. In the former Party/States, education is sometimes used as an instrument of foreign policy. Hungarian-speaking teachers from neighboring countries are offered opportunities to participate in training programs in Budapest. Rumanian-speaking Moldovans, as opposed to Russian-speaking Moldovans, might be invited to sit for Rumanian university entrance examinations. Russian domestic textbooks might be shipped to Russian-speaking populations elsewhere in the former Soviet Union. For Tagiks, Georgians, Armenians, Azeris and Bosnians, curricular descriptions of ethnic group history is of interest to their neighbors.

EDUCATIONAL PRE-REQUISITES FOR THE TRANSITION

Reinforcing social stability

One rationale for investing in education is economic and has to do with skills, adaptability to changing labor markets, individual increases in marginal productivity and contribution to the economy. Another rationale is social and has to do with the creation of a common sense of citizenship, a general acceptance of obligations and responsibilities, and individual rights and privileges. This 'social reason' in effect, is education's contribution to social stability.

What the 1992 Russian education legislation called 'humanitarianism' (Eklof and Dneprov, 1993), John Dewey referred to as 'education and democracy' (Dewey, 1916). The term refers to an emphasis on personal and individual development, as opposed to blind obedience. Human development theory might suggest that democratic values in the school influence individual responsibility. Since Dewey's time, education research on the acquisition of democratic values has included the following: how schools may

broaden outlook, increase tolerance and the desire to participate in the political process (Lipset, 1959); the association between more and better education and a nation's democratic stability (Almond and Verba, 1963); the connection between educational structures and democratic stability (Meyer, 1970; Kamens, 1988); the degree to which more education is associated with greater political participation (Verba *et al.*, 1978); the connection between education and an individual's orientation toward citizenship (Inkeles and Smith, 1974); and the association between classroom climate and civic behavior (Torney-Purta and Schwille, 1986).

In general however, education makes a contribution to social stability when it can offer: (i) equal educational opportunity to all citizens; (ii) professional consensus around the content of civics and history curriculum; (iii) an ethnically-tolerant classroom atmosphere and pedagogy; and (iv) democratic institutions to adjudicate differences over what to teach.¹⁶

Equal opportunity. During the era of the Party/State, equal education opportunity was a high and visible priority, but now it is a source of political disillusionment. Private fees have arisen in an environment where institutional control is weak and regulatory enforcement is spotty. In many instances, access to public institutions free of charge can no longer be guaranteed. Financial decentralization has raised the variation in educational expenditures among regions or districts with access to different tax bases (Heyneman and Teodorescu, 1993). New prerequisites for entering specific higher education institutions have been established, in spite of the fact that the necessary specialized facilities in preparatory schools are available to only a few. Entrance examinations remain largely oral, hence open to graft and new inequities (discussed below).

Curriculum Content may be education's most obvious contribution to social stability.¹⁷ Curriculum change is among the first demands for a new country, and constitutes the point of most vigorous influence for parliaments, political parties, pressure groups and general public opinion. Local tradition in civics education curriculum is new and professionalism is scarce. Curriculum problems which cross international boundaries are particularly complex to adjudicate.¹⁸

Classroom climate. Like medical care, teaching is an autonomous professional activity. Few controls exist to effectively monitor what actually occurs in classrooms. Courses of teacher training, teaching guides, and public professional recognition can help. As with most teacher interventions, sustainability depends on having sufficient rewards and incentives for demonstrated success at the individual or school level. In the post-Party/States there are re-licensing requirements. New styles of pedagogy and content accompany the tests for these new licenses, which explains why new content and new pedagogy is so widely spread in spite of the massive decline in available public resources (Sandi, 1995; Heyneman, 1997d).

Institutions for education consensus. The most problematic area for social stability concerns institutions by which differing interests, natural in any democracy, can reach consensus on what to teach the young. There are few precedents or traditions of public discussion on such sensitive topics in the ex Party/states. The challenge has been exacerbated by recent administrative decentralization (Szreter, 1974).¹⁹ On the other hand, school principals and regional education directors have formed professional associations in the Russian Federation, and have been able to observe the workings of similar associations in the US and Western Europe.

Examinations

One important instrument to insure an equality of opportunity is the mechanism for selection to higher education. Since World War II the technology of administering examinations has changed radically in the west, but in the Party/States, examination traditions have generally gone unchanged (Sazhin, 1994). For the most part, examinations are administered independently by each faculty in each institution.²⁰ They are unfair because they penalize those who cannot travel to the site of the test, and because there is little standardized scoring (Plomp and Voogt, 1994). They discriminate against those without information on the nature of the test and the examiner. They are inefficient because students must take a new examination for each faculty to which they wish to apply. Where institutions are geographically disbursed, candidates are unable to sit for more than one or two, and must wait, often for a year, for the next occasion. This raises the opportunity cost for higher education admission and provides advantages to those with greater family

incomes. Bribery is an additional problem. As salaries decline in real terms, demand increases for special favors from the applicants. Higher education is an important instrument of occupational mobility in a market economy, yet the fairness and efficiency of this opportunity is now threatened. The modernization of selection examinations has been recognized by development agencies in many other parts of the world; and may now deserve similar attention in the ex-party/states (Heyneman, 1987, 1990; Heyneman and Fagerlind, 1988; Heyneman and Ransom, 1990).

Educational materials

The history of educational materials in the Party/States reflects a record of significant accomplishment but also of horrifying misjudgment. As early as the 1930's each student received a book in each subject and a supply of paper, pencils, and chalk for the year. This is an objective not yet achieved by many school systems in South Asia and Sub-Saharan Africa. Problems have been twofold. One, well recognized by local educators, is that the rationale for having a single book provided a rigid framework of standard pedagogy for all children regardless of interest, speed, or learning style (Eklof and Dneprov, 1993; Kerr, 1994). One book/child was an accomplishment in the 1930's, but today is viewed as having a stultifying impact on teaching and learning.²¹

The second problem is not as well recognized and has to do with the monopoly held by the Ministry of Education for finance, design, production, and distribution of print and electronic educational materials - textbooks, furniture, chalk, teachers guides, and computer programs. In the Party/State it was assumed that the Ministry of Education was supposed to produce its own goods and services.²² It was believed that prices could be kept low and distribution more fair and the poor could be protected. It was also assumed that the staff of the Ministry of Education would be more competent or more dedicated than other suppliers and would therefore be more reliable. Thus, with the inheritance of the Party/State has come an 'industrial role' of the Ministry of Education absent in western democracies. Whether administered centrally as France or Japan, or by local authorities as in the United States, Australia, Finland and Canada, no OECD ministry of education holds a monopoly on the production of educational materials as do the Ministries of Education in the ex-Party/States.

In OECD countries, education ministries establish goals and objectives to which the private sector competes to produce appropriate materials for the open market. They also provide guidance in the selection of a variety of materials most appropriate for the curriculum and the variety of learning needs of the student population.²³ Similarly, in higher education, the Ministries of Education in western democracies do not choose materials. Instead, they are chosen by the students in conjunction with the suggestions of each faculty member (Heyneman, 1990; Heyneman and Farrell, 1989).

The Ministries of Education and Higher Education in the ex-Party/States are also beginning to make distinctions between appropriate public and private functions in the production of education materials. However, concerns have been expressed over the lack of private publishers; whether schools and teachers would make well-informed choices; and whether mechanisms to avoid inappropriate or inflammatory material are adequate. Educational reform will not be effective, however, until the production of education materials is openly competitive, and the choice of which materials to use is made largely by the school and the teachers themselves.

Efficiency

It was said that teachers and professors tended to be treated as though they were 'nails' available to be 'hammered.' School directors and university rectors had little managerial authority, rather their jobs were to administrate according to ministerial norms and directives. Teaching was labor-intensive, in part because the impediments to efficiency were built into the structure and in part because labor intensity was a general problem throughout the economy.²⁴

Though reform is evident in Russian higher education, the staff/student ratio remains on average about 1:8 (Kinelev, 1996; Kitaev, 1993; Sanyal, 1994). In the United Kingdom it is about 1:13; in Germany, 1:17; and in the United States, 1:20 (World Bank, 1995). Labor/intensity did differ by course of study. Economics in Hungarian universities in the 1980's had staff/student ratios of 1:9; philosophy 1:6; agriculture 1:1.4 (Heyneman, 1994). But staff/student ratios are also changing for the worse. In Russia, they shifted downward by 13% between 1990 and 1992, and ranged from an extraordinary 2.9 students/faculty at Moscow State University to 5.1 at Novosibirsk State University, to 7.7 at Far

Eastern State University, and to 13.2 at Irkutsk State University (World Bank, 1995). At Novosibirsk Technical University for instance, the authorized student/faculty ratio shifted from 1:11.3 in 1990, to 1:7.5 in 1994. But because there are as many non-teaching as teaching staff, the authorized student/total staff ratio shifted from 1:4.3 in 1990 to 1:2.8 in 1994 (Heyneman, 1997f).

Though not as dramatic, a similar process appears to be occurring in compulsory and occupational education in Russia. The number of schools and students remained the same between 1991 and 1993, but the number of faculty actually increased by 8%. Students enrolled in technical schools declined by 9% between 1991 and 1993, but institutions remained constant and the number of faculty only declined by 6% (World Bank, 1995).

Ratios of student/faculty are not uniformly low. Enrollments in economics and business courses increased from 12,500 to 27,000 in Romania between 1992 and 1993. In these courses of study the student/faculty ratios increased to 1:50. Conversely, during the same period ratios fell in engineering (Eisemon *et al.*, 1996). Students studying industry and construction in Russian higher education fell by 19% between 1990 and 1994, enrollments increased in education, the arts and humanities (Heyneman, 1997b). The overall lesson seems clear: with some exceptions such as the new administrative regulations put into place in Romania, shifting students and faculty from inefficient institutions and programs in low demand to those that are more efficient, appears to be a difficult problem. The question is why.

It may have been more difficult to shift faculty and staff in the former Party/States because other pedagogical resources were acquired via traditional input norms. Ideal staff/student ratios were fixed by central authorities, and they tended to drive allocations of space, pedagogical equipment, housing, and the like. Shedding underutilized staff is a problem common to many parts of the economy, but in education, when other necessary inputs are determined by authorized staff allocations, it is 'rational' to acquire as many staff allocations as possible.²⁵

Labor market demands. In some ways, the economies of the Party/States might be compared to an enormous lake behind a dam, frustrated for years by inefficiencies and distortions. Suddenly the dam is broken and pressure is released. It can disappear into the wilderness in a violent flood.

Or if properly channeled, it can flow strongly. But how can it be channeled?

Lessons might be derived from evidence on the demand for new skills thus far in the transition. Demand for new skills and the inadequate response from the public education system is evident in the explosion of private education. Two hundred non-public higher education institutions now operate in the Russian Federation, more than the total number in Western Europe. Of the 141 officially recognized, 67 specialize in commerce and management, 13 in law and public administration, and five in social work. Surprisingly, some specialize in subjects where public higher education ought to have a comparative advantage: nine in technical subjects (microbiology and information technology), five in the natural sciences, four in health, and 23 in the arts (Muhle, 1994). One hundred thousand higher education students are now enrolled in Romanian private higher education. These numbers have tripled each year since 1990 (Eisemon *et al.*, 1995; Sadlak, 1993).

Contrary to common conclusions about the low returns to vocational education, there seems to be a budding vibrancy similar to that evidenced in higher education (Psacharopoulos, 1987b). Institutions in the Russian Federation now regularly seek tuition 'contracts' from private enterprises. Specializations have been reduced in number from about 1200 to 256; and many new interdisciplinary programs have opened. Demand has risen in those areas no longer constrained by public supplier monopolies, such as construction, auto mechanics and services (Chuprunov *et al.*, 1982; Castro *et al.*, 1997; Standing, 1994; Heyneman, 1997c; Novozhilov, 1992).

One reaction to these signs of private demand might be to suggest that the public system of occupational training is too rigid and should in some way be 'privatized'. Should a system of carefully targeted tuition vouchers replace public provision? There is little to suggest that ex-Party/States would be in a better position to implement a method of education financing which is an experiment elsewhere. There are safety net arguments behind the public provision of vocational education.²⁶ Four or five percent of GDP will continue to be spent on education and about half of that on higher and vocational education. This suggests that the priority for improving the efficiency of public delivery is a permanent problem, and one whose solution will determine whether or

not the 'water behind the dam' will be well channeled.

But 'channeling the water' cannot occur without a better understanding of the priority for education. This in turn depends upon an understanding of its economic contribution and the potential gains from assisting education vis-a-vis other priorities. The economics of education has been an area of significant debate generally, and this debate has been affected by the new circumstances in the ex-Party states. This is illustrated below.

ECONOMIC DEBATES OVER EDUCATION

Old arguments

If one excludes the macro-lines of inquiry into human capital - the contribution of education to economic growth and to the alleviation of poverty - then the evidence commonly used to guide educational strategy generally includes the monetary returns accruing from additional years of 'exposure' to schooling broken down by level: primary, secondary, higher and vocational.²⁷ These analytic techniques have generally elicited the generalization that primary education is a better investment than secondary; that secondary is a better investment than higher education and that 'academic' specializations make better investments than 'vocational' specializations (Psacharopoulos, 1973, 1981, 1985, 1987a, 1987b, 1987c, 1994).

These techniques and generalizations have been challenged on several grounds. One is that the evidence used is out-of-date and from scientifically unrepresentative samples; and when recalculated using only samples of acceptable comparability, the conclusions change (Bennell, 1996a, 1996b, 1996c, 1995). Another suggests that the techniques are wrongly specified, that the net present value should be used instead of the internal rate of return and that in many cases this shifts priority to higher education rather than elementary education (Curtin, 1996). A third line of argument suggests that differences in earnings by level should be treated net of taxes; that not doing so constitutes the equivalent of 'human capital fraud' (Curtin, 1995). A fourth argues that the marginal differences in aggregated wages is not a 'social return' but really an aggregation of private returns; that in fact social returns are very different and would lead to very different conclusions (Hammer, 1996). A fifth holds that an

analysis of higher education investments in more depth would suggest societal returns in excess of the commonly cited generalizations (Birdsall, 1996). And lastly is my own set of concerns, namely that the rate of return to additional exposure ignores three other categories of economic questions: returns on investments in quality, returns on investments in policy reform, and returns to specific subjects and special student populations, questions which drive decisions within the education sector (Heyneman, 1995c).

Compounding the debate over techniques and generalizations has been the certainty about the preeminence of efficiency over other priorities. Many political leaders in western countries are aware that there are tradeoffs between improving equal opportunity, diversifying content, and providing education more efficiently. Mertens and van Dommelen point this out, 'sometimes issues of quality and innovation are central to the national political agenda, sometimes it is equal opportunity . . . there is no uniform democratic model . . . and all democratic countries strike their own balance' (Mertens and van Dommelen, 1995). That there may be different priorities appropriate at different times in the transition has not been commonly recognized. Also, with the flush of 'victory' may have come an insufficient appreciation of the differences between one area of the economy and the next, the degree, for example, to which privatization of land diverges from the privatization of education. Common too was a fascination with facile western interventions - vouchers, private schools, demand-based incentives, a tendency in development assistance agencies characterized by one observer as dogmatic 'neo-liberalism' (Colclough, 1996; Heyneman, 1991, 1997a).²⁸

On the other hand, some have argued that the focus of interest ought to be in using the instruments of public policy to ensure that educational services, essential for social stability as well as labor market efficiency, are provided efficiently and equitably and that governments might need to intervene in vocational or higher education particularly during the period of transformation and fundamental institutional reform. But even were this view to be well accepted, there is still a legitimate question over what priority should be placed on education as opposed to other needed services.

There is some debate about whether education finance has been protected in the transition. Per-student expenditures have declined in real terms,

but some evidence suggests that declines have been higher in health even though both sectors have been equally affected by rises in energy costs for heat, lighting, etc. Pharmaceutical prices may have risen faster and higher than have prices of textbooks and educational materials. While education costs in the Russian Federation rose 11 times between 1990 and 1993, the health costs rose 20 times (King and Proskuryakova, 1996). There are also differences in the degree to which private expenditures have been able to replace what used to be public. Private expenditures (officially reported) for hearing aids, eyeglasses, personal hygiene, dental care and pharmaceuticals accounted for 10% of total health expenditures in the Russian Federation in 1991 (Chernichovsky, 1996). In Russian higher education, non-traditional sources accounted for 7% of higher education expenditures in 1992 and 15% in 1994. Since about four-fifths of this was due to private tuition and fees, it might be estimated that about 12% of the overall higher education expenditures were derived from individuals (World Bank, 1995).

One question concerns whether educational allocations are too low. The proportion of GDP allocated to education in the post-Party/States tends to be lower than in OECD countries and falling in real terms. It is approximately 4% in the Russian Federation as opposed to 5.5% in the US, 5.3% in the United Kingdom, and 5.4% in France. Furthermore, many OECD countries have larger private contributions to education. Private contributions added 27% in additional resources to public finance in the United States and raised the proportion of GDP spent on education from 5.5 to 7.0%. Similarly, private contributions in Germany raised the total expenditures on education by 38% and the proportion of GDP spent on education from 4.0 to 5.4%. In Japan private expenditures added 25% to public expenditures (National Center for Education Statistics, 1994). Though percentages for the Party/State are lower than OECD, the declines in educational expenditures in the Party/States have often been less than declines in the overall economy which suggests that educational expenditures had been protected in the transition. Given the overall crisis, why should countries in the transition place a high priority on education investments?

Three different lines of argument have appeared in response to this question, one having to do with the skills necessary for speeding the transition; a second with the public returns from making

system-wide quantum jumps in efficiency; a third with the detrimental effects on social stability if the quality of education further declines.

New arguments

Skills. It is now widely recognized that many of the skill specializations provided by school systems in the party/states are inappropriate for a market economy. But should the shift in education emphasis be slow or rapid? A rapid change might raise productivity more quickly and might raise returns on private capital more quickly. The cost of waiting rises over time because buildings and equipment become more expensive to maintain or replace (Fan and Spagat, 1995; Spagat, 1995). The question remains though as to how these suppositions can be adequately quantified.

Returns to quantum jumps in public efficiency. When public efficiency is low, reforms can sometimes result in more significant gains. Since much of the economy in the ex-Party/States is in the 'gray sector' and unreported, the cost of generating a net unit of tax revenue is high. This pertains across all public expenditures. Any inputs financed with tax resources may cost considerably more than those financed privately. The criteria for public spending, therefore, should be set at a significantly higher level than for private expenditures. Increased public spending might be justified in response to major changes in the efficiency by which public resources are allocated and utilized (Golladay, 1996). In higher education new funding formulae in Hungary and Romania may very well elicit efficiency gains justifying new public resources. Similar changes may be possible with teacher incentives, textbook privatization, modernizing of examinations, monitoring and evaluation systems and many other reforms. Each may hold the possibility of creating system-wide impact with modest new public resources.

Economic implications of social instability. It would be a mistake to assume that efficiency should be the only priority for education. Similarly it would be a mistake to assume it should be the first priority. The suggestion to increase efficiency by increasing choice is a good illustration of this caveat (Glenn, 1995). Whether public or private, democracies have recognized schooling to be a balance of three equally legitimate interests, described by Gutman as three 'communities': the state community, the professional community, and the family community (Gutman, 1987).

If the state community gains hegemony over the others, it may lead to ideological oppression and a deflation of professional integrity. It is widely agreed that this is what occurred to education in the Party/State. If the professional community gains hegemony it can lead to an absence of civic duty and abrogate the right of parents to choose moral principles for their children. Some argue that this problem characterizes education in the United States, particularly in urban areas. But if the family community were to acquire hegemony, it can lead to an equally problematic conclusion — the teaching of ethnocentric interests and the creation of rival professional standards without the consensus required by the society and excellence required by the economy. If extremist views of educational efficiency were followed (i.e., that families should have the sole right to determine the choice of education for their children), it could exacerbate the educational problem it proposes to solve (Glenn, 1995).

However cumbersome, inefficient and unresponsive to consumer interests the public education systems may be in western democracies, it is wise to remember that at least they do not teach sedition against the constitution; they do not teach disrespect toward specific ethnic or religious groups; and they do not include materials in the formal curriculum which would increase political tensions with neighboring countries. None of these problems are a part of the educational dilemma in the West and therefore do not figure prominently into western notions of economic reasons to invest in education. In contrast, all are very much a part of the dilemmas for the new school systems in the world of the post Party/State and therefore constitute one of the principal rationales for making investments in education in that region (Heyneman, 1995a, 1995b, 1997a, 1997f).

Using traditional economic criteria to drive public policy in education has a limit. There are more expensive things than an inefficient and cumbersome public education system. In the absence of institutional constraints, normal elsewhere, it is possible for ethnic, religious, and racial groups to teach disrespect for the rights of their neighbors. In doing so, it is possible that schools that are publicly financed may contribute exactly the opposite of their public purpose: instead of helping to create a consensus on public welfare and the public good, they may contribute to civil

unrest and social instability. In these circumstances, schools can lay the intellectual foundations which lead to social breakdown and, in extreme cases, to civil war.

EDUCATION REFORM: SLOW OR FAST BY COMPARISON TO OTHER SECTORS?

In many of the ex Party/states, property has been privatized; prices reflect demand; stock markets exist; and travel restrictions have been lifted. These reforms have occurred with considerable speed. How does the speed of reform in education compare to other parts of the economy and the public service? Is it quicker or slower? Reforms in banking, transportation and energy were motivated largely by efficiency criteria, the need for good institutional management, or the demand for fiscal sustainability. In education these are indeed important areas of reform, but there is also an additional arena of importance, that of philosophy of curriculum, pedagogy, and teacher training.

Educational changes which have already occurred have profoundly challenged the status quo and strong traditional interests. Divergent philosophies have been encouraged, such as different religions, economic theories, specializations, and ideas about pedagogy. History and civics have been professionalized, and economics and business management have been established. Textbooks and curricular materials have undergone profound shifts, and education authority that was once administered centrally, has been decentralized.

The reform agenda in education is not the same as the reform agenda in many of the other areas of society. Instead of efficiency, local educators have been pre-occupied with reforming philosophy. At this stage of the transition, it is not clear whether the local agenda for education reform had the right priority. There is no evidence that efficiency reforms are more important than pedagogical reforms or that management reforms should precede reforms of curriculum, textbook content and teacher training.

There has been a considerable amount of education change in difficult areas. For instance, no political party today monopolizes the curriculum. Textbooks in economics are universally available and contain content that has widely changed. The philosophy of teacher training has shifted: old theories have been discarded and replaced with a variety of new ideas drawn freely

from the world at large. Private and religious schools operate. An abundance of pedagogical styles are encouraged. Marxism and Leninism has lost its monopoly on historical interpretation. Directors of schools have often had to stand for election by the school community.

Few education reformers would suggest that these changes were trivial. From some perspectives, one might suggest that, along with banking and privatization, the shift in the philosophy of education in the ex-Party/States has been as radical as any other part of the economy. Although these changes are only the first stage, it is also true to say that the reforms, thus far, have been without precedent.

ROLE FOR COMPARATIVE EDUCATION

The economic and political revolution in the former party/states has generated demands for education reform. The market place for ideas has expanded at an explosive pace and this growth has increased the need for citizens to understand the wider world both creatively and critically. The liberalization of labor markets has stripped away the expectation of life-long employment security, thereby forcing workers to shoulder the risks of unemployment and professional obsolescence. The ideal content and duration of pre-service training has shifted accordingly to more closely resemble that found in the West. The change in the fundamental nature of employment contracts and the emergence of competition for labor have created marketable private property rights in human capital. The devolution of administrative and curriculum authority to heterogeneous ethnic communities has put new pressures on public education systems to deliver a civic consensus. These developments form the basis for an large, rich education reform agenda.

It is already evident that talent and will are abundant. Monetary resources are a universal handicap. But more important is the scarcity of information on education reform experience (Heyneman, 1997e). On the other hand, prior experience in Africa, Asia, and Latin America has heavily influenced concepts of development. In Comparative Education that experience has led us to infer that the educational challenge was principally one of low access and underdevelopment. Problems in the former Party/States are different. The principle problem is neither lack of access to the education system nor the system's effectiveness. Rather the problem is

the need to carefully jettison distortions of the past, restructure the mechanisms of administration and finance so that they can respond to market demands, and to create a new consensus on history and humanities in a potentially deteriorating environment of ethnic extremism. Instead of a 'build-up' problem as in much of the developing world, the main item on the education reform agenda in the former Party/States is to rationalize the inherited system. However different from Africa, Asia and Latin America, it is no less of a challenge to economic development. The education research community has a critical role to play. First it must accept that the challenge is both legitimate and different from prior development experience. It must also understand that attention to the problems of the post Party/States in no way reduces the importance of other regions and circumstances. Experience in one, may well inform the other. There are few precedents in history when the framing of the future was so clearly in the balance and few times when education was so clearly the critical ingredient to study.

NOTES

1. Throughout this section it must be recognized that there are significant differences in policy between the countries which came under Party/State control prior and after W.W.II, but the pressures for instituting a common policy were intense and had common origins. These common origins are the subject of discussion here.
2. An official description of the field of education in *Bolshaya Sovetskaya Entsiklopedia* (The Great Soviet Encyclopedia) published in 1955 hardly mentions western contributions between the times of Plato and Dewey. It mentions only two names associated with pre-Soviet Russia (Tolstoy and Ushinski), and concentrates mostly on what it describes as the five major contributors to Soviet education: Marx, Engels, Lenin, Stalin and Makarenko. (W.W.B. 1957, p. 13).
3. Anderson (1959, p. 32). An example of this demonic element is the destruction of the main Russian Orthodox Cathedral in downtown Moscow by Stalin and the transfer of its huge pillars to the office of the Rector of Moscow State University.
4. Anderson (1959, p. 27). The fact that US students have won gold medals at recent mathematics Olympiads simultaneously with low US mathematics scores on international tests suggest that Olympiads may not be the best indicator of national education quality.
5. This is not true across all specializations. Demand for studying ancient history, archeology, paleontology etc. was high because these areas were less likely to be of interest to the party's curricular watchdogs; demand for studying history of the 19th and 20th centuries was low.
6. Demand is used here to refer to that which cannot be explained by differences of income, job security, or occupational prestige. Economic returns to additional years of schooling, for instance, may have been negative in the Party/State, in part, because of wage compression. Incentives for further study were associated with psychic satisfaction of acquiring relative intellectual freedom.
7. The engineering curriculum in market economies can be very different from the curriculum under the Party/State. In the Party/State, emphasis tends to be placed on incorporating lessons from the basic sciences — heat transfer, energy, durability. The major concern is: Will it work? In market economies, engineering education also has to concern itself with whether it will work under rapidly changing market driven constraints of different prices, environmental standards, copy-right law, marketability, consumer demand, costs, production efficiency and profit.
8. The traditional method of gauging teacher salaries was based on a percentage of the 'industrial wage', because it was traditionally considered the highest in the nation.
9. The degree of change in access of the lower classes to education before and after the Bolshevik revolution has sometimes been exaggerated. For instance, 44% of the Russian university places in 1914 were occupied by children of peasants and workers; with peasants at 20% and workers at 24% of the total. (Anderson, 1959, p. 43).
10. In the US university students from professional backgrounds were 3.1 times over represented in 1927 and 2.5 times over-represented in 1957. In France, students from professional backgrounds were over-represented by 2.8 times in 1950 and 2.4 times in 1965. In the United Kingdom, they were over-represented by 2.6 times in 1961 and by 2.4 times in 1979. In Japan they were over-represented by 2.4 times in 1953 and by 1.8 times in 1968. In Hungary they were over-represented by 3.1 times in 1931 and by 3.2 times in 1963 (Anderson, 1983, Table 6.1).
11. To be sure there were differences from one country to the next; and for the most part, the segmentation of higher education was a problem typical of the former Soviet Union.
12. Preschool expenditures as a percentage of total public spending on education were generally higher in the ECA region. The expenditures also included health, nutrition, and a wide variety of child intervention programs in addition to education. In the Russian Federation for instance, 27% was allocated to preschool in 1992. This compares with 4% in Japan, 6% in the US, 5% in the UK, and 11% in France. The decline in preschool expenditures in Russia is due to three factors: the decline in fertility, the decline in public enterprises able to finance preschool facilities, and the rise in unemployment with the consequent increasing ability to care for children at home.
13. As often as not the shift in responsibility for financing education came not as a sudden conversion to new theories of educational management but rather as a decision made by the Ministry of Finance, often without warning, to reduce the fiscal responsibility of the central government.
14. In a 1994 sample of school directors only one in three was able to identify with certainty the governmental body currently responsible for the school which they were directing. (Mann and Briller, 1994).

15. For a recent description of Russian education as a system see: Organization for Economic Cooperation and Development. *Review of National Policies for Education — The Russian Federation*. (Paris: OECD, May 1997).

16. In form these differ from one country to the next. In Britain they may consist of school committees; in the United States they may include Parent/teacher associations, school boards; and in many countries they include teacher associations.

17. The Soros Foundation, The United States Information Agency, The American Federation of Teachers, and the European Union among other organizations have been particularly active in this area.

18. Created in 1992, CIVITAS offers professional support to an international association of civics educators.

19. There is also precedent prior to W.W.II for nations in Eastern and Central Europe to use education as a mechanism for social stabilization. (See: R. Szezter, 1974).

20. In the Russian Federation this implies that there are over 5000 different examinations for entry into higher education. Exams are given orally in chemistry, physics, geography, history, and foreign languages. Exams are given in written form in mathematics and Russian.

21. *ibid*.

22. In the party/state it was common for sector authorities to supply all goods and services within the sector itself. The official title of the USSR ministry of health was the 'Ministry of Health and Medical Equipment'. Similarly, ministries of education operated their own factories for pencils, chalk, furniture, laboratory equipment, computer software, and reading materials.

23. They also have a common function of analyzing and public reporting on education progress and problems. This public reporting function was particularly lax in the former Party/States. For example there are 89 regions, 30 million students, five million teachers and 158,000 schools in Russia. To monitor and report progress the federal ministry of education has 510 staff, of whom only eight are assigned to the (uncomputerized) statistics unit. By comparison the United States Department of Education has approximately 3000 professional staff. Of these, 235 are assigned to the Office of Educational Research and Improvement; and of these about 110 professionals are assigned to the National Center for Educational Statistics, whose purpose is to monitor the progress and problems of education in the United States.

24. Labor intensity in education can be attributed to low use of education technology in the broadest sense of the term. Teaching was confined largely to oral methods of lecture and note-taking. Team-teaching, library research, independent reading, and small group discussion were rare. Classroom furniture was fixed in place. The number of lecture hours per week was extensive. Thirty percent of Russian schools operate on double shifts and most are open six days per week. Lecture hours at pedagogical institutes (the model for the system as a whole) average about 1050 per year, which is about four times the OECD norm. Students are required to use class notes and a small number of materials as sole sources of information. Except for the most specialized research institutes, there is no access to electronic bibliographic services. Assessments of student achievement tend to be oral and time-consuming.

25. The use of fixed input norms creates many distortions. One of them is the use of authorized faculty places to acquire other resources, but not to fill the place. The percentage of filled places in Rumanian higher education for instance, declined steadily from 94% in 1988/9 to 52% in 1992/3 (Eisemon *et al.*, 1995, p. 139).

26. It would be extreme to suggest, without public approval, that vocational schools could be treated as analogous to public utilities, and privatized. Parliaments commonly express concern over 'youth unemployment' and continue to believe vocational training to be a mechanism for managing it. In the west it has been found to be a poor mechanism. Nevertheless, eliminating the public provision of occupational education is not a politically credible option.

27. The term 'exposure' is placed in inverted commas to illustrate the crudeness of the measures commonly used to quantify schooling. The typical unit is the marginal difference in years (nothing less). No distinction is made between the intended, delivered and received curriculum; and few accurate controls are placed on differences in quality of materials and in subjects or school purposes. Hanushek (1994, 1995) has been particularly concerned with the point of inadequacy of rate-of-return to capture alternative investments in educational quality.

28. Western experts have often ignored both the precedent for a voucher system under the Party/State and the adverse consequences of implementing a policy of choice in the current context of political instability.

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