



SOROS FOUNDATION – LATVIA

CENTRE FOR PUBLIC POLICY  PROVIDUS

Education in Latvia's Transition: The Challenge of Management

REPORT ON EDUCATION
IN LATVIA 2001/2002

Executive Summary

Riga 2003



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CENTRE FOR PUBLIC POLICY PROVIDUS

The Centre for Public Policy "Providus" has taken over the tradition of the Soros Foundation-Latvia (SFL) and is offering readers a new annual report on education in Latvia. The report discusses changes in the Latvian education system over the last twelve years. Latvia has accumulated great experience in educational reform. Since January 2003 the Centre for Public Policy "Providus" has taken on education policy work while the Soros Foundation-Latvia is continuing the implementation of its bilingual education program "Open School" and the social studies program "Man in Society". This annual report on education is the result of joint efforts by the Centre for Public Policy "Providus" and the Soros Foundation-Latvia. The executive summary presents the perspective of "Providus" and the SFL on educational problems and their solutions in Latvia.

Education in Latvia's Transition: The Challenge of Management

REPORT ON EDUCATION
IN LATVIA 2001/2002

Executive Summary

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Executive Summary

Introduction

The break up of the Soviet Union and the restoration of independence has generated a considerable transformation in Latvia's system of education. The enrollment ratio in universities has doubled. The Latvian language has been restored to its former prestige and new utility. Syllabi and pedagogical standards have begun the process of modernization. Textbook content has been revised. All of these changes have been informed and guided by new legislation and new administrative decrees, and supported by public investment which in real terms was 16% higher in the year 2000 than it had been ten years earlier. By these criteria, among others, it can be said that education in Latvia had undergone a successful transition from a system effective for a planned economy to a system effective for a market economy and democratic society. Is it time to consider the education sector a success in Latvia? Is it time to now replace public concern over education with other important priorities? Our answer is no.

This report will note that the transition in education has several stages. It will argue that the changes made so far are typical of the first stage of improvement, but that there is a new stage that must be addressed now. The reason this new stage of improvement is required is that the challenges of social cohesion and economic competition including the skills necessary for innovation and adaptation of technologies have been shifting at a speed faster than the improvements can be

made in education to meet those challenges. If improvements to education in Latvia proceed at the same pace as they have since the restoration of independence, then education in Latvia will fall behind. This report will explain the reasons.

In the time of the Soviet Union, Latvia's economy was characterized by labor intensive manufacturing, 'economic factors' with relatively simple education requirements, work habits and skills (see Table 1). Between 1990 and today, the first stage of the transition, economic growth become increasingly driven by internal and foreign investment, outsourced services and export manufacturing. Demands on education rose. These included the need for abundant supplies of workers fluent in English, French, German and other European languages, adaptability to rapid changes in technologies, and the skills of communication, decision-making and teamwork. But now new challenges have arisen.

Today Latvia finds herself in competition with economies making a new transition where growth is driven not by 'economic factors' but by product and service innovation. In this new stage, the quality of higher education becomes critical especially in science, engineering, research and development in close collaboration with private industries. Also important is the facility of access to education, the adaptability of educational institutions to extend their services *to all parts of the public and at all times*. This will require

a radically different understanding from educational institutions than has previously been understood, and it will require a significant change in the structure of incentives to generate an adequate level educational innovation and response.

This report will argue that the transition to this new stage will depend less on the level of new public investments in education and more on the quality and innovation in the management of current investments and in the generation of non-public sources of investment. It will cover issues of primary education, pre- and in-service teacher training, examinations and standardized methods for assessing students, municipal and regional governance, financial diversification, and issues of taxation and property.

The essence is that the challenge of education is as serious today as it was in 1990, but that today the challenge has less to do with the questioning of Soviet traditions on which there was wide consensus. The challenge today is to question managerial traditions more generally, including some that have been established since independence. To address this second stage effectively will require as much courage as was

needed at the earlier stage, and that is why the public should pay close attention to this report.

The Challenges of Primary and Secondary Education

Four characteristics of all modern education systems. Although there are many different views about educational standards and content, there is also consensus on certain educational characteristics required by all modern economies. Among them are the following four:

Education should anticipate uncertainty. We live in an environment in which the kinds of work that people will do cannot be anticipated. Numerous professions will be replaced by others that are unpre-
cedented. Among the main mistakes of centralized planning during the Soviet era, was that this uncertainty was considered to be a mistake in 'planning'. Because changes were not anticipated there were long lag times between the changes in the economy and the reaction within the education system. To be modern, Latvia's education system must reduce that time lag to a fraction of what it is today. Change in curriculum,

Development Stage	Key Economic Challenges	Focus of Economic Production	Education and Labor-Market Requirements
Factor-Driven Growth	Get factor markets working properly in order to mobilize land, labor, and capital	Natural resource extraction, assembly, labor-intensive manufacturing. Primary sector is dominant.	Primary education, low-level skills, disciplined work habits
Investment-Driven Growth	Attract foreign direct investment and imported technology to exploit land, labor, and capital and begin to link the national economy with the global economy	Manufacturing and outsourced service exports. Secondary sector is dominant.	Universal secondary education, improved secondary vocational and technical education, life-long learning to retool and update skills, flexible labor markets (easy entry, easy exit)
Innovation- Driven Growth	Generate high rate of innovation, and adaptation and commercialization of new technologies	Innovative products and services at the global technology frontier. Tertiary sector is dominant.	Highly developed higher education, especially in science and engineering specializations, high rates of social learning, especially science-based learning, dynamic R&D sector linking higher education programs and innovating firms

Table 1. The Role of Education in the Stages of Development. Source: adapted from *The Global Competitiveness Report, 2001/2001*, Klaus Schwab, Michael Porter, and Jeffrey Sachs, editors. The World Economic Forum, Geneva, 2001

pedagogy, and management must not be treated like a light switch, as though reform were binary, on/off, before/after. Change is a permanent challenge. The time it takes to recognize differences in skill demand and changes in the ways skills are taught must be quick.

Educational Quality Must be Accessible to All. In some respects the dilemmas of the 19th century continue. At that time the principal question was whether nations could introduce a mass system of education that could support an industrial and social community. Today the system is similar. Today all children and young adults have the opportunity to attend education; but the quality of education, to which they are exposed, differs dramatically from one school to another and from wealthy towns and more impoverished rural communities. In a modern society, this is unacceptable. The question, which this report will address, has less to do with the debate over whether there should be an equality of opportunity, since we assume a consensus around the principle already. Instead, the report will address the issue of how to change the management of education to make that equality possible.

Competition among educational institutions. Among the most important educational mistakes of the Soviet era was the attempt to enforce identical inputs as the criterion of equality. The same book for everyone. The same size for all classes. The same pedagogy, objectives, equipment, materials, teacher training.

Modern educational systems require that pedagogy be guided by needs of the individual; that individual abilities and interests influence the balance between print and electronic materials, the size of classes, the sequencing of subject matter. A modern definition of a professional educator is not someone who can effectively transfer knowledge, for today's curriculum is broader and changing more rapidly than many teachers can master. Today's definition of a professional educator is a 'good manager of information and student capabilities'. Good management requires rapid and effective assessments of learning requirements, and the techniques for doing this effectively may differ

from one age group to another, from one subject to another, and from one individual to another.

Thus the most important dilemma of any modern education system has to do with how it can maximize the individualized effectiveness of programs and yet maintain an equality of opportunity for all individuals in spite of the fact that their educational experience will differ. And this is Latvia's dilemma too.

This report will argue that Latvia should adapt some of the techniques by which Britain and other European countries have addressed the individual instruction/equality of opportunity dilemma, by instituting modest competition among schools. The report will argue that the role of the Ministry of Education and Science is to help ensure an equality of financing for each student, but that it is the responsibility of the school and the individual teacher to decide on the most appropriate pedagogical strategies, and the role of the parent to choose the school to which they most wish to send their child on the basis of what they perceive as the most effective methods.

Public Information and Feedback. In a democracy the operational standards of a school system are quite different. The public needs to know things that were never before reported. They need to know things that, at times, might make the managers of the school system uncomfortable. They need to know the bad news as well as the good; and they need to have all news on a regular basis from sources that are of unquestionable honesty and professionalism. This report will discuss this issue in many ways: by the methods of assessing children the early years, by the mechanisms for centralized selection examinations, and by the use of evaluation and public reports on educational achievement in an international context. Although separate papers cover these topics, it needs to be mentioned that the quality of public information and feedback is one of the most important indicators of modernity in every education system.

Managerial Dilemmas in Latvia

Municipal and District Responsibilities are an important ingredient in improving the management of education. Most modern school systems place a large

responsibility on the institution to choose the best pedagogical strategies and the local district to insure the quality of their choices. Although decentralized decision-making is an essential ingredient in a modern education system, decentralization in Latvia presents a profound dilemma.

There are over 568¹ local districts and regions in Latvia and in most, the student population is on the decline. There were only half the number of comprehensive schools in Latvia in 1997 as there were in 1930, with the number declining over the last three years on the average of about ten schools/year and about 3000 students/year. At the same time as rural municipalities are being asked to increase their managerial responsibilities and improve their managerial efficiency, rural children are moving away from rural communities to seek better education. Approximately one third of the students in urban areas come from rural municipalities. Rural municipalities with a reputation for providing higher quality education find themselves flooded with students from neighboring regions. In Dobeles grammar school for instance 43% of the students come from outside the district.

The trend is problematic for Latvia in two ways. The poverty of many local communities means that the inequality of education is increasing. On the other hand, the closing of rural schools threatens the employment and vibrant social life of many rural communities.

This report concludes that the central government cannot afford to reverse the trend toward consolidation of schools and school districts. To maintain the same number of district educational authorities is simply unviable. But to consolidate institutions closes down opportunities for many rural communities. What can be done?

This dilemma itself can be turned to an advantage. The central government can help insure the equality of educational opportunity and still reduce the number of regions by financing standard unit of student expenditures, portable to whatever school the student attends. This 'money follows student choice' would make it possible to adhere to the principle of equal educational opportunity but at the same time, allow for the family to select the school which most closely meets their needs.² This, in turn, will inject a sense of healthy competition among schools and will allow them to make the necessary alterations in pedagogy and program to attract the number of students, necessary for institutional prosperity. It will require, however, a new look at the traditions of highly specialized teaching and low class sizes (average of 10 students/teacher) that have driven up educational costs and have handicapped overall quality. Latvia needs to allow its education institutions to respond creatively to the crisis of municipal management by freeing up local authorities to creatively experiment and to benefit from any successful results through family choice.

The Ministry of Education and Science and all professionals in the field recognize that *Teacher In-Service Training* is a requirement for a modern education system. Changes in the early 1990s that liquidated the former Soviet centralized system of professional development overestimated the state's ability to influence the work of universities and municipalities. The problem in Latvia is that the resources to implement the anticipated programs have not been sufficient. According to the data from MES, financing is divided between different sources – 36% from the national and 39% from municipal governments, 15% from private sponsors³, and 10% from the teachers

¹ The regional reform intends to decrease the number of regions in Latvia. The exact model has not yet been decided, or how the reduction would occur, but several local governments have already merged and further reductions in the number of regions can be expected.

² A minimum expenditure/student does not exclude the possibility that students from particularly impoverished backgrounds or school districts can receive more than the national average/student in compensation. Because of having a higher level of public financing, schools might well seek out these disadvantaged students. Allowing for higher unit costs in rural schools might well stem the migration to city schools and could even attract some urban students to extraordinary rural schools with unique programs.

³ 'Private' sponsors are often external donors. A strategy for an important public good dependent on external donations may be of questionable value.

themselves. Financing from municipal authorities is associated with their own financial health, and financing from the national government declined by eight percent and the number of teachers taking PDPs declined by 65% between 1995 and 2000. As a result, many teachers have been unexposed to new curricular content and pedagogical standards, which is problematic in all subjects but in bilingual education in particular. We conclude that when resources are scarce, free market principles may not be effective.

As in the case (above) of municipal authority, we believe that this dilemma, if managed creatively, can be turned around to Latvia's advantage.

By international standards, Latvia has an 'oversupply' of teachers. Pupil/teacher ratios (1:10 on average) are about that of other parts of Europe (1:17 in elementary grades and 1:15 in primary grades) on average. The reason in Latvia is that the old assumptions behind specialization of subject matter, designed in the Soviet era, have not sufficiently changed. Would it be possible to increase the quality of teaching in Latvia through a national program of retraining, increase teacher salaries, and not place additional financial burdens on the national budget?

We believe that with creative management, it is possible. We have suggested that teachers be re-certified in accordance with the new pedagogical and curriculum and language requirements for a modern education system; that the total number of teachers be reduced so that the average pupil/teacher ratio is parallel with other parts of Europe, and that the average salaries of those teachers of high quality be increased. While we do not pretend that this would be easy for teachers not able to pass the re-certification process, we do believe that the quality of education should not be handicapped by managerial traditions which are no longer sensible. We also believe that when dilemmas are difficult that is the time to be the most managerially creative.

In every country, there are some small percentages of students who do not 'fit'. In many instances it is not their fault. They may come from a family background of poverty and depression, of alcoholism and physical abuse. Some may have learning disabilities and prob-

lems of social adjustment. In the Soviet era, these students were treated with a series of sanctions and institutionalization.

But in a democracy there is more latitude for personal choice, including more latitude for making bad choices. Students with problems often choose to be on the street or drop out of school; many commit crimes. The number of students incarcerated for crimes has gone up.

The problem is that *the system of social correction in Latvia* has not sufficiently adjusted to the change in the larger social environment. The social correctional system is still 'closed' in that the basic philosophy is one of isolation, punishment and correction. Although the number of students in actual reform schools is small, the number of students who the system is failing is large. The system is failing those who are incarcerated who emerge into the society as adults without minimal skills and who commit crimes again, often more serious than the crimes for which they were incarcerated. But worse, *the system is failing the many students who have yet to commit a crime and who have problems learning and behaving in schools*. For them programs of special help and support are few and the likelihood of their failing is high. This is a sign of an education system that is poorly managed.

We recommend that students be treated according to their degree of 'risk' to themselves and to the general public. Currently youths of all kinds are thrown together regardless of the seriousness of their problem. Opportunities should be created for youths to return to the community at all stages of the correctional process. But what can institutions of general education do to work with the at risk groups? Resources are scarce, and insufficient to retrain teachers (see above).

Existing correctional classes deal solely with educational concerns, not with social problems. The 'social educator' as a position, is being eliminated. A modern system of education should ensure compatible methods and opportunities for young persons from troubled backgrounds. Many schools should be equipped with educators with special skills. While it is true to say that

there are too many subject matter specialists in the education system (see above) it is not true to say that there is a surplus of all specializations. Special education for those with learning and social difficulties is one of the new realities of modernity. It is an example of why the education system needs to be flexible and be able to respond to new demands which may require a policy of more specialized programs which may be inconsistent with the more general policy of better integrating and merging of the academic disciplines.

Perhaps the most sensitive topic of education management has to do with *the assessment of educational quality*, of individuals, of schools and school programs and of the system itself.

One of the more difficult issues in this regard is the situation of non-graded assessment of individual children in grades one, two and three. In the Soviet era children at all ages were given numerical marks (1 – 5). Educators have argued that the system of marks over-simplified a child's progress and undervalued areas of arts, behavior and emotional progress. In the current system each teacher describes a child's progress, and this is often confusing for families who want to have distinct terms; hence it is unpopular. Is there a compromise between the need for a more comprehensive child development perspective in assessment and the demand from many families for clarity of progress in a manner that can be easily interpreted? Our answer is yes.

Good management of an education system implies that it can ignore neither the recommendations of educators nor the demands from families for

transparency. While descriptions may be appropriate to characterize a child's progress in behavior, emotional development, arts and humanities, it may not be adequate for families who quite rightly wish to have a more clear progress report on math, language and science. Educators concerned about the premature competition among children may wish to mark on the basis of criterion reference instead of norm reference.⁴ In that way parents can receive a grade that is easily interpretable. The grade will be educationally meaningful, and yet, the broader aspects of a child's development need not be ignored.

But the assessment of education quality is a far broader issue than just the way of grading students in grades one, two and three. The whole system depends on a wide variety of feedback methods and instruments. These assessments may include those designed by classroom teachers for each individual, standardized certification and selection examinations, specialized research and the like.⁵

One characteristic about education in a modern democracy as opposed to education in the Soviet era is the necessity to increase the public's access to regular information in the quality of the public schools. There are two principles we would like to recommend with respect to assessments of educational quality. Our first principle is that the more information (see footnote five) to which the public has access the better the system. Latvia may not be able to afford all eight types of information on a regular basis. But the objective should be clear that as soon as it can, all eight categories of information are required.

⁴ A *norm reference test* is based on a curve of performance in which high performance is measured against the others who take the test. There is always a percentage that do well and a similar percentage who do poorly relative to others. A *criterion-referenced test* is where performance is measured against an agreed standard for that age/grade level. A child's performance for instance may be a percentage of the skills of math that are supposed to be mastered at that level. In an excellent school, all children will receive a high mark in a criterion-referenced test.

⁵ In general, modern systems of education have access to eight different categories of information: (i) grades and assessments of an individual's progress from the classroom teacher, (ii) national assessments of educational progress, from a selected sample which represents all students at a particular age/grade level, (iii) exit or certification examinations at the end of a level of schooling, (iv) entrance examinations to specialized training, (v) institutional audits and inspections, (vi) international assessments (usually of academic achievement), (vii) research and specialized evaluations of particular programs often using techniques of experiment /control, and surveys of labor market results calculating economic rates of return to education at various levels and specializations and (viii) national reports from parliamentary committees, the ministry of education, private foundations, international agencies.

The second principle is that many forms of information are overly technical for the general public to understand or appreciate. This concern is normal. What is new today is that it is mandatory for educational authorities to make information available that can be understood and appreciated by non-specialized audiences. Information that is not interpretable is information that is useless, true for any of the eight categories.

Recommendations

- The general policy for primary and secondary education should be based on four principles:
 - Anticipate uncertainty in the labor markets and revise pedagogy and curriculum quickly in response
 - High quality education needs to be accessible to everyone
 - Competition among schools is healthy
 - The public deserves better information and more regular information in eight different areas
- Financing should be based on uniform minimum standards with special subsidies for those in especially difficult family circumstances; financing should be 'portable' to allow for family choice
- Teachers should re-certified. There should be fewer teachers. Teachers should be more highly qualified and better paid.
- Non-grades in the early years should not be used at the expense of the public's clarity about the performance of their children; marks might be used in the critical subjects of math, science and language as long as they are criterion referenced.

The Challenges for Higher Education in Latvia

Latvia is making rapid progress in its effort to leave behind its Soviet past and join with modern democratic market economies. This has included much progress in higher education. But progress has not

emerged without problems. This section will discuss those problems in the field of higher education and what Latvia much do to solve them.

Background

About half of Latvia's GDP consists of exports, which suggests that its export products are deeply important for general welfare. Primary exports were only 44% of its merchandise exports and manufactured products were 56% of its merchandise exports in 2000, which suggests that the economy was making good progress in diversifying its sources of revenue, but dependent on comparative advantage with respect to other external exporting competitors. In essence, the economy is healthy but its comparative position is fragile.

Although GDP in 2000 was 62% of GDP in 1990, Latvia's commitment to education increased. In 1985 Latvia allocated 3.4% of its GDP to education; by 1995 it had grown to 6.5%. In 1985 Latvia allocated 12.4 % of its government expenditure to education; by 1995 it had grown to 16.5 % of government expenditure. The proportion allocated to higher education also increased from 10.3 % to 12.2 % of educational expenditures. Real expenditures had fallen in many parts of the Latvian economy, but by 2000 real education expenditures had risen to 116% of the 1990 level.⁶ The proportion of Latvia's 18 – 22- year olds in higher education grew from 15 – 26% between 1989 and 2000, from 46,000 to 110,000 a student increase of over 50%.⁷ The gross enrollment rate is now equivalent to that of the Netherlands, Austria and France.

There are other improvements. In the last ten years, programs of study have proliferated in response to new labor market demands. Income to universities has diversified. The number of public higher education institutions has doubled from 10 to 20. Fourteen new private higher education institutions have been established. Higher education funding now originates

⁶ This was higher, for instance than Slovakia, Bulgaria and Hungary, but lower than Slovenia, Poland and Romania.

⁷ This compares to an increase of 31% in Estonia and the Czech Republic, 64% in Hungary and 70% in Poland over the same time period.

from student tuition fees in both public and private institutions, from consulting, sales of goods and services. As a result the total amount of resources available to higher education has increased. These changes have been mirrored by new methods of accreditation and quality assurance based on self-evaluation and peer review visits organized by the Higher Education Quality Evaluation Centre. Ninety one percent of all higher education institutions in Latvia have successfully passed accreditation. These credentials will soon prove useful when Latvia's policy in higher education conforms to the Bologna Declaration which calls for all signatory countries to align themselves with compatible systems of course credits, common undergraduate and post graduate structures and degrees. These improvements have also been mirrored by significant changes in management and administration. Higher education institutions have the right to formulate and adopt their own internal statutes (*Satversme*), determine their courses of study, admission conditions, scientific research emphases, organizational structures, and faculty salaries. The Council of Rectors and the Higher Education Council help coordinate new policies.

Higher proportion of public resources, increased student access, new programs and institutions, revisions in the structure of management and administration would suggest that higher education in Latvia was worry free. That would be a mistake.

Latvia's economic competitiveness may be leveling off. Only four percent of Latvia's exports were in technology. Latvia has gradually advanced beyond the stage of 'factor driven growth' (see table above) to that of 'investment-driven growth'. But other nations are rapidly advancing away from investment driven growth toward 'innovation-driven growth', which will require a whole new set of higher education standards and expectations. Moreover, while Latvia's GDP/capita has reached \$US 7,045, income inequality was also on the rise. By 2000, the wealthiest 10% of the Latvian population controlled 26% of Latvia's

income, and the wealthiest 20% controlled over 40% of Latvia's income, thus suggesting that the engine of growth, a vibrant middle class, is not sufficiently prevalent in Latvia to drive the next transition to innovation-driven growth.

While it is true that the proportion of students with access to higher education in Latvia has reached some Western European levels it is also true that levels of access in Western Europe are continuing to grow at a rapid pace. Latvia's higher education programs have diversified, but diversification began from a small base. Higher education quality has improved, but higher education quality is rapidly improving around the world. The OECD average higher education allocation/student is \$8,252, 10 – 15 times greater than the allocation per student financed by the Latvia (440 lats/year or about \$730).⁸ The European per student higher education expenditures are 15% greater than Latvia's GDP/capita.

The question that Latvia has to face is not whether it has changed in the last ten years for the better, *but rather whether it has changed with sufficient speed and depth to keep abreast of a world that is changing more rapidly*. There are many reasons to be proud of the progress that Latvia has already made in the field of higher education reform. But there is also reason for serious concern. This section will briefly review some of the more prominent reasons for concern and then pose some recommendations for new changes designed to bring Latvia and its system of higher education into a new era of economic competitiveness and social cohesion.

Specific Dilemmas in Latvia

Academic content and the quality of teaching. Criteria of excellence in higher education have changed. They used to lie in the excellence of academic content and the abilities of students. *The new criterion of excellence is a university and a higher education system that can overcome the new higher education challenges which are described below.*

⁸ This includes Australia, Canada, Korea, Germany, Netherlands, Switzerland, Brazil, Chile, and Malaysia.

Today students enter higher education from a wide diversity of social backgrounds and levels of preparation. Today they enter at a wide variety of ages and have to manage an increasingly complex variety of external constraints: families to raise, side obligations to full or part time employment, a wide variation in ability to pay. Higher education must be delivered to students at a convenient time and place. This is not a temporary condition; rather it is the norm to be expected of higher education within a democracy.

By their nature higher education programs must be innovative. *Programs must mirror labor market demands emerging in fields that know no disciplinary boundaries.* Faculty needs to be conversant with these new fields and new demands. *Often they need to be young.* In Latvia the age of the average faculty member is 56. One third are over 60. Two thirds are over 40. On average the new appointment is 55 years old. *Only one half of the faculty has PhD's* and although 300 new PhDs are needed annually, Latvian institutions produced only 37 in 2001. There are many reasons. Faculty salaries are low, and over controlled by central authorities. In spite of the newly initiated ability of local faculties and departments to create incentives, these have not yet proven to be competitive with alternative incomes from outside of academia. *As long as bright young scholars worth higher levels of remuneration cannot find it within the university structure, they will choose occupations other than the university.*

The quality of teaching in universities is determined by investments in technology. Major shortfalls can be seen in higher education infrastructure, teaching laboratories, equipment, building maintenance, and research facilities. When access to electronic databases is minimal, knowledge and skills have to be delivered through lectures, note taking and mastery of traditional textbook material, the only techniques available. When lecturing is the only technology, an increase in student numbers must be matched by an increase in faculty contact time. *It does little good moreover to call for a change in pedagogy when traditional methods are the only ones possible.* Latvia needs to find a way to make a breakthrough in higher

education efficiency that would allow new investments in educational technologies without at the same time placing new burdens on public expenditures.

Public financing of higher education is a particular concern. In spite of significant expansion graduates seem to be finding employment. The economic rate of returns from graduates and postgraduates is positive and relatively high compared to other countries.

The concern over financing is not about higher education expansion but rather about the way in which decisions are made about which programs should receive quite different levels of public support. The coefficients for financial allocations are 1.1 for the humanities and social sciences, 1.7 in engineering, 1.8 in agriculture, 2.8 in arts, music and choreography, 3.5 in medicine and 4.4 in dentistry. The trends may be even more problematic. Engineering for instance is intended to receive 2.9 the allocation of law in the year 2011; arts music and choreography will go from 2.8 to 3.5; and pre-service teacher training from 1.1 to 1.7. It is true that program costs differ. Engineering is generally more expensive than the humanities. But the fact that costs differ is not sufficient to justify a difference in public finance.

The problem in Latvia is that financing policies are based on precedent, on how much was allocated last year or the year before. Instead financing should be based on a knowledge of the different actual costs and benefits program by program. Latvia needs to decide its higher education financing strategy after it has a better understanding of its economic implications. This requires more information on the economic rates of return such as the two projects in this report. Without this information, public higher education financing is like flying an airplane into a storm blindly – other than gross direction, little is known. This results in inefficiency.

Higher levels of public subsidy are more easily justified where the private rates of return are the lowest and the 'need' for the profession is judged on the basis of national priority to be the highest. This may be the case for instance with studies of military or local culture. But the opposite is true. Where the private rates of return are the highest, the rationale for private

investment is the highest. This is the case with respect to business management. Because future students are more likely to invest their own resources to attend a program in which high salaries are expected, the justification for public investment is lower. If higher education financing in Latvia utilized these principles, the coefficients of financial allocations would look very different than they do in Table Two. As a consequence, the public could rest assured that scarce public finance for higher education was being utilized more effectively.

Pre-service teacher training is also concern. Fewer than half of those who graduate with a teaching certificate enter the teaching profession. Yet the public

finances professional programs (in dentistry, medicine, pharmacy veterinary science, etc.) on the assumption that new and dedicated teachers will emerge. With pupil/teacher ratios at 1:10 and an expected decline in the annual population rate of growth of -0.6% , demand for new teachers is low. In essence, teachers are in over supply. Should the public support more capacity in pre-service teaching when the overall demand for new teachers is low.⁹

One way to approach this problem is to manage the process of pre-service training differently. Currently new teachers are expected to graduate from university based pedagogical programs. While this tradition is long-standing, it is not necessary.

No	Study field	Coefficient for allocations (k_i) ¹⁰	
		Optimal value	Minimal value
1	Law	1.1	1.0
2	Humanities, Social sciences, Informatics and communication sciences, Business management and administration	1.4	1.0
3	Teacher education and educational science	1.7	1.1
4	Self-services, Transport services, Environmental protection	1.8	1.1
5	Architecture and construction	2.2	1.3
6	Computer sciences, Mathematics and Statistics	2.5	1.5
7	Engineering	2.9	1.7
8	Agriculture, Forestry and fishing, Production and recycling, Management and organization of sports	2.7	1.8
9	Natural sciences, Physics, Chemistry	3.2	1.9
10	Arts, Music, Choreography	3.5	2.8
11	Pharmacy, Health and Social care	3.5	3.0
12	Veterinary	3.5	3.1
13	Medicine	4.0	3.5
14	Civil security	4.2	2.7
15	Dentists	5.1	4.4
16	Military defense	6.0	6.0

Table 2. Coefficients for finance allocations (k_i) of bachelors and professional study programs for different study fields. Source: Cabinet Regulations No 334, Approved on July 24, 2001

⁹ Preliminary estimates would suggest that the social rate of return to investment in teacher training is normal (about 4%). This would imply that the public recoups its investment in spite of the fact that half of the graduates do not enter the teaching profession.

¹⁰ Basic allocation/student is 441 lats/year for bachelors and professional study programs. For Master's and Ph. D. study programs the coefficient is respectively 1,5 and 2 times higher.

Teachers can be licensed on the basis of qualification examinations separately from their training. Graduates from many fields – engineering, math, sciences, humanities, and at any age – can be trained to make excellent teachers.

All teachers need preparation in two ways, in their academic fields and in the skills of pedagogy. Perhaps it would be useful to separate the process of teacher training from the pedagogical faculties at universities. Perhaps future teachers should be allowed to receive training from any qualified institution, and to sit for qualification examinations whether they received pedagogical training at a university or not. It might be useful to finance teacher pre-service preparation in pedagogy as with in-service training. Financing would be directed to the individual student who would then be free to choose from among a variety of alternative sources for pedagogical training. This would allow for competition in the field of teacher training. It would allow highly experienced in-service institutions to enter the field of pre-service teacher training, and it would provide the necessary incentive to encourage universities to place the quality of their pre-service training programs against those from other kinds of institutions. The education system, and the public more generally, would benefit from this competition.

Entrance examinations. There is no function in the field of higher education that is more important to a nation's economic and social future than the means by which it selects its future leaders. Traditional sys-

tems were based on oral interviews and designed in a non-standardized manner by each faculty separately. These ran the risk of being both corrupt and inefficient. Fortunately the method of organizing selection to higher education has been changing. New experiments have been launched to standardize tests by a central body. The experiments have been limited to particular fields. The experiments need to be expanded so that the tests may cover each of the important subjects. Of equal importance to the test design and delivery is that of test results. Currently it may require more than a month to receive their test results, while it is normal to obtain test results in Western European countries in a few days, and in the case of Computer-Based Tests, students obtain results instantaneously. It is also a trend in Western Europe to have the examinations designed by non-profit foundations outside of government. These have many advantages including the ability to use state of the art professional talent in test design and scoring which may not be available within the typical governmental ministry, and the ability to partner with other test design organizations in the region and hence reduce design and development costs. But the most important issue for centralized examinations is the need to feed tendencies for making 'wrong answers' back into a wider system of reporting so that the public can understand the criteria on which selection is based and what went wrong and right with respect to results from each year's test takers.¹⁰ The results of these analyses then serve to

¹⁰ Whenever a new system of examinations is established there is a temptation to merge different functions within the same examination. This appears to be less expensive, but in reality it may abrogate psychometric standards. Both water and petrol are liquids, but if by accident they are mixed, it can bring a vehicle to a halt. Mixing exit and entrance examinations may be similar. The purpose of an exit examination from secondary school is to certify that students had acquired the minimum level of understanding for a secondary school certificate. The ideal would be to graduate 100% of those who take the exam because that would imply that all students had mastered the necessary material. Even if test results are divided by categories (such as low, medium, and high), the design of the exit exam is based on the need to certify completion of secondary school. The test taking population consists of the full population of secondary school graduates. An exit examination is designed as criterion-referenced (see above, footnote four). An examination for university entrance is quite different. It is assumed that a small percentage of students will take the test; hence the test is designed and calibrated differently. It is norm referenced (see above, footnote four), and designed to discriminate among the best of the students. In addition, it is designed to test potentials to perform different kinds of university work, in many different fields: the mathematical, biological, and physical sciences, the social sciences, humanities and the like. Psychometrically it is difficult to ask a criterion-referenced test to perform the functions of a norm-referenced test.

It is difficult to design a completion test for the 100% of the age group and have it successfully discriminate among the potential math, science, and humanities students of the 20 – 30% of the age cohort who are in competition to continue their studies.

improve the quality of teaching and learning in secondary education.

Student loans. The Education Law of 1991 cancelled the state monopoly to establish and finance higher education. The public provides assistance only to a small percentage of students. Others who need educational support must obtain student loans. Tuition fees vary from Lvs 175 to Lvs. 2600. Eighty percent of the students study in Riga, where the fees are the highest. The number of students who pay their own tuition has increased from 13,340 in 1996 to 77,512 in 2001 an increase of about 600%¹¹. Loan schemes will be the single most common and most important source of higher education finance in the future. Therefore it is important to set loan policies which are effective and fair.

The main problem with the student loan scheme in Latvia is that it is not directed toward the students who need it the most. Poor students have few other sources for higher education finance. Although local governments have a keen interest in local students, they are reluctant to guarantee loans on grounds that it may raise the risk of their liability. Of the students with a valid request, only 62% received loans in the first half of 2002. Many students had problems of demonstrating acceptable collateral, a particular problem with those who come from impoverished backgrounds and need loans the most.

It is very important for Latvia to reform its student loan program. Although the field is complicated and deserves close study by student loan experts, several principles would seem reasonable. These are mentioned below under recommendations.

Issues of higher education property and taxation Among the policies remaining from the Soviet Union include those that pertain to higher education property and taxation of revenue earned by higher education institutions. Higher education institutions do not have, by western standards, clear ownership of their property. Also as organizations they have a status in tax law that does not differentiate them from com-

mercial institutions whose purpose is profit making. There are numerous illustrations of higher education institutions that are attempting to get around these constraints. The University of Latvia has been able to utilize property that it acquired prior to WWII, on which the Hotel Riga now sits. Income from this property is used to support scholarships and fellowships. The university controls over 252,000 square meters of property. But since clear ownership has not been established the university is prevented from borrowing and using these assets as collateral. Because the university cannot borrow on its assets it cannot plan new capital investments. Essentially the economic future of the University of Latvia has been frozen indefinitely until the property ownership problems can be resolved.

Although it is a 'public' institution, the University of Latvia derives 72% of its income from sources other than the state budget. These include income from student fees and tuition, rental of space, overheads from consulting services, and commercial activity on from goods and services. An agreement with the ministry of finance in 2001, makes it possible for the University of Latvia to use part of its income for student fellowships and scholarships as long as the government is informed in advance. According to Latvian legislation, scholarships are exempted from social and income taxes. Essentially, the University of Latvia has negotiated an agreement in which part of its income can be used to support institutional objectives that are in the public interest.

All higher education institutions in Latvia could have a similar arrangement with the Ministry of Finance. However, Latvia is faced with a dilemma. While its higher education institutions serve the public good and receive public support, they are treated as taxable corporations in the same manner as a private enterprise. Many are situated on property to which they have no clear title. Because of the lack of clear title, they cannot utilize their property commercially for purposes to benefit their educational mission.

¹¹ During this same period the number of state financed students by comparison, increased by only 9%. In 1996 the state financed 30,181 students and in 2002 the state financed 32,998 students.

Recommendations

Higher education in Latvia has a significant role in the economic and social future of the country. But it cannot expect to fulfil that role unless there is a breakthrough in higher education finance and management. The following recommendations are offered to help make that breakthrough possible.

- ▶ Public and private universities that are not-for-profit should be excused from paying taxes on their incomes. Grants and gifts from corporations and individuals to non-profit higher education institutions should lower the tax burden of the donor. The state should transfer public property to the public universities that agree to establish a board of trust to oversee its proper use.
- ▶ The basis of student loans should shift from one of merit to one of merit plus need. Repayment of student loans should shift to one in which the loan amount can be deducted as a part of the debt together with taxes and the amount to be repaid should be contingent on the student's income. Local authorities should act as guarantors for students from needy families in their regions. Each state budget should include an amount of financing for students from low-income families perhaps through local governments where the students live. To avoid risk of non-payment, higher education institutions or commercial banks should be encouraged to purchase risk insurance. The loans should be portable so that the student may choose the program most suitable to his/her interests.
- ▶ Higher education is a significant part of Latvia's future and it requires a significant new level of investment in exchange for a breakthrough in creative higher education policy. *The government would be wise to use external resources, such as the World Bank to finance higher education reform.* The key is that the investment should be used as a source of leverage to stimulate the education system in Latvia to make a quantum leap in improvement and so that it may serve new generations well in a deeply competitive economic world.

- ▶ Public finance for higher education should be on the basis of careful justifications for each program, and drawn from an up-to-date knowledge of the costs and benefits.
- ▶ Teachers should be trained at any qualified pedagogical institution, not only at universities and they should be licensed to teach by a general examination agency.

Summary

Although there are many good ideas for education which can be drawn from other countries, there is no such thing as an education model. The reason is that there is no country in which education is static. In modern democracies, education systems are all changing rapidly. And in all instances in which systems are rapidly changing, traditions of administration and governance are being challenged. In all cases challenging traditions requires courage.

We believe that the first stage of the transition in education was of extraordinary importance. But we also believe that this first stage was relatively easy. Now comes a more difficult stage, one in which many of the traditions which need to be challenged are not necessarily Soviet in origin.

We now find ourselves in good company however, with Britain, France, Germany, the Netherlands, all of whom are submitting their educational systems to a state of permanent managerial reform.

There are certainly impoverished schools and programs, and new resources would be useful. But we believe that having new and suddenly abundant resources are not the key. The key to excellence in educational quality in Latvia is creative management. Some examples discussed in this report:

- ▶ A system of financing in which pupil expenditures follow family choice of the educational institution
- ▶ A system wide mechanism for effectively managing students at risk from learning and behavioral problems
- ▶ A comprehensive system of external examinations for both completion and entrance to further training, designed by not-for profit foundations and largely self-financing

- ▶ A comprehensive system of information feedback utilizing all eight sources common to modern democracies, in a form of utility to the general public
 - ▶ A new system which would certify teachers remaining in the system with new demands on them and new levels of compensation as reward, the new levels of compensation derived in part from the overall reduction in numbers.
 - ▶ A new system which would excuse not-for profit universities from taxation giving them the title over their own property, and managed by a new system of shared authority between the administration, the faculty senate and a board of trust.
 - ▶ A system of loans based on a combination of student need as well as ability
 - ▶ New public investments, including from international development institutions to help make these managerial changes sustainable
- In the end, however, our education system must do two things well, but in opposite directions. We must preserve our multi-ethnic heritage, language and culture. But at the same time, we must initiate new skills, multidisciplinary subject matter, and new demands from students with special needs. And we must do this in an environment in which other countries are doing it too, and more quickly. This will require creative management and the courage to change administrative and governance traditions which are no longer viable. And in spite of the considerable progress of the last ten years these new demands are just the beginning.

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Statistical Annexes

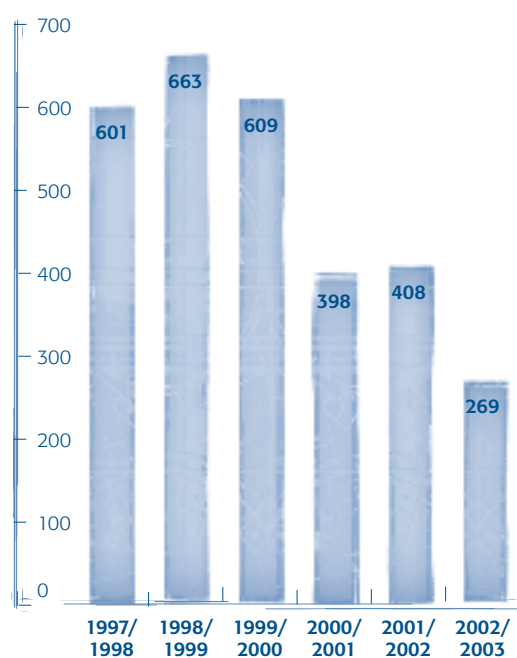


Figure 1. Latvia: number of entering teachers (1997–2002). Source: *Education and Culture*, 10.10.02, p. 11

Education	6.5
Health	4.0
Military	1.0
Debt Services	7.9

Table 1. Latvia: public expenditure (1995 – 1997), % of GDP. Source: *Human Development Report Deepening Democracy in a Fragmented World*. New York: UNDP, 2002, p. 208

	1975	2000	2015
Total Population (m)	2.5	2.4	2.2
Population Growth		-0.1	-0.6
Population < 15 (% of total)		17.4	12.6
Population > 65 (% of total)		14.8	17.8
Total Fertility Rate		2.0	1.1

Table 2. Latvia: Economic and social indicators. Source: *Human Development Report Deepening Democracy in a Fragmented World*. New York: UNDP, 2002, p. 163

	Real GDP in 2000 as % of 1990 GDP	Real Expenditures on Education as % of 1990 Level	
		1995	2000
Bulgaria	82.1	52.6	40.3
Czech Republic	99.9	118.3	96.0
Estonia	86.1	91.2	108.5
Hungary	108.0	93.5	98.6
Latvia	62.3	86.5	116.1
Lithuania	68.4	69.1	70.1
Poland	143.2	154.6	211.0
Romania	82.9	154.8	128.9
Slovakia	105.1	90.1	81.3
Slovenia	120.1	117.8	139.5

Table 3. Real changes in GDP and public expenditures on education, 1990–2000. Source: *Education in Accession Countries*, World Bank, 2002, p. 4

	Preschool Net Enrollment Ratio (%)		Primary Gross* Enrollment Ratio (%)		Secondary Gross* Enrollment Ratio (%)		University Gross* Enrollment Ratio (%)	
	1990	1999	1990	1999	1990	1999	1990	1999
Bulgaria	65.5	66.4	98.6	95.1	77.0	75.6	26.2	34.7
Czech Republic	75.2	85.4	98.6	97.7	78.7	75.9	17.2	26.0
Estonia	67.4	73.5	94.9	97.5	57.0	71.9	34.4	45.0
Hungary	85.3	87.3	98.8	98.7	73.3	98.8	12.1	28.9
Latvia	44.8	61.0	94.9	92.3	70.2	68.5	20.5	46.5
Lithuania	55.9	51.6	92.5	95.5	70.0	64.8	26.5	39.2
Poland	47.1	49.9	97.5	98.3	89.3	99.5	17.0	42.8
Romania	53.3	66.2	92.5	98.5	89.9	70.2	9.2	23.4
Slovakia	72.0	69.5	98.1	107.5	78.2	80.0	14.3	22.5
Slovenia	55.7	70.2	95.3	97.4	n.a.	93.3	22.9	51.0

Table 4. Enrollment Ratios Through the Transition. Source: *A Decade of Transition: The MONEE Project*, CEE/CIS/Baltics, UNICEF Innocenti Research Centre, 2001

* Figures shown are gross enrollment ratios, which tend to overstate actual coverage because they include overaged students in the numerator but not in the denominator, as displayed in *Education in Accession Countries*, World Bank, 2002, p. 5.

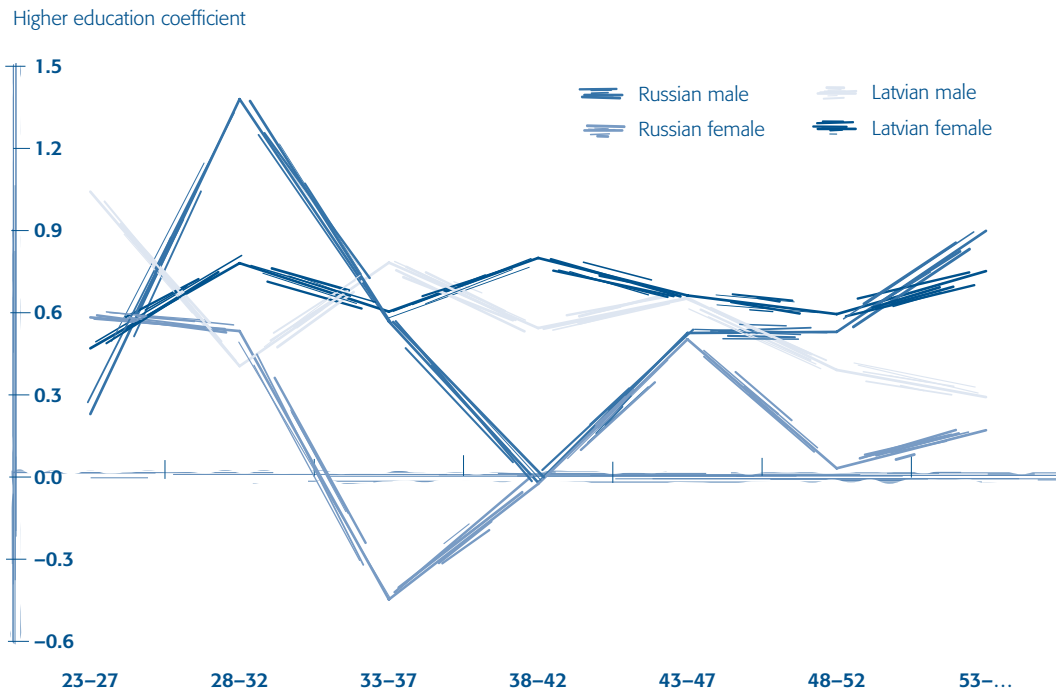


Figure 2. Gain in earnings by gender and ethnic groups. Source: Berga & Bērziņš, 2003

	Year of measurement	Private rate of return	Social rate of return
Latvia*	2003	7.0	4.1
Hungary	1993	13.4	7.8
Greece	1993	8.1	7.8
Norway	1966	7.7	7.5
Denmark	1964	10.0	7.8
Sweden	1967	10.3	9.2
Cyprus	1979	5.6	7.6
India	1995	18.2	2.6

Table 5. Rates of return in undergraduate Education in Different Countries (%). Source: Psacharopoulos, G. and Patrinos, H. A. (2002, September). Returns to Investment in Education: A Further Update. World Bank Policy Research Working Paper 2881.

* Šņitņikovs, A. Labor Market Experience of Graduates from Daugavpils University, The Soros Foundation – Latvia, Centre for Public Policy «Providus», Riga, Latvia 2003

	1985–1987	1995–1997
% of GNP	3.4	6.5
% of Gov. Exp.	12.4	16.5
K – Primary (% of all ed. Exp.)	15.8	12.1
Secondary (% of all ed. Exp.)	56.2	58.9
Higher Ed (% of all ed. Exp.)	10.3	12.2

Table 6. Latvia: educational expenditures. Source: *Human Development Report Deepening Democracy in a Fragmented World*. New York: UNDP. 2002. p. 179

Official Dev. Assistance (net Disbursements, \$US millions)	91.0
Per capita (\$US)	36.6
% of GDP	1.3
Net Foreign Direct Investment (% of GDP)	5.7
Other Private Investment (% of GDP)	2.5

Table 7. Latvia: inflow of capital 2000. Source: *Human Development Report Deepening Democracy in a Fragmented World*. New York: UNDP. 2002. p. 203