

## IMPROVING RURAL EDUCATION IN POLAND

# Report Prepared for the Warsaw Delegation of the European Commission by the CASE Foundation

Authors: Anthony Levitas Stanisława Golinowska Jan Herczyński

Research team:
Małgorzata Antczak
Mikołaj Herbst
Andrzej Kaleta
Leszek Korporowicz
Zbigniew Kotowski
Wojciech Marchlewski
Dariusz Wadowski
Richard Woodward
Grzegorz Zabłocki

March 2001

# **Table of Contents**

Part One: An	alysis of the Problem	<u>3</u> 3
	luction	
II. The C	Origins, Purpose and Structure of this Report	<u>3</u> 3
III. Educa	ation Reform and Economic Growth: The Irish Miracle	<u>4</u> 4
	ation Reform in Poland Since 1990	
	ocio-Economic Problems of Rural Poland	
VI. The S	tructural Problems Confronting the Reform of Rural Education	. <u>13</u> 12
	ral Preschool Education	
B. Pri	mary Education and the Creation of Gymnasiums	. <u>16</u> 15
	e Secondary Education of Rural Children	
Part Two: Po	licy Recommendations	. <u>23</u> 22
I. Introd	luction	. <u>23</u> 22
II. Fiscal	Inequality, Educational Inequality and Pre-school Education	. <u>25</u> 24
III. The I	Development of Local Government Educational Strategies	. <u>28</u> <del>27</del>
	oving the Skills of Rural Teachers	
V. Moni	toring Educational Performance in a Decentralized System	. <u>34</u> 33
VI. Telec	ottage Grant Program	. <u>36</u> 35
Appendix A:	Reform of the Polish Education System	. <u>39</u> 38
Appendix B	Enrolment, Employment and Facility Data for Primary Schools 1990-1999	. <u>43</u> 42
Appendix C.	Enrollment, Employment and Facility Data for Lyceums: 1990-1999	. <u>44</u> 43
Appendix D.	Shares of the Education Subvention by School and Pupil Type in 2000	. <u>45</u> 44
Appendix E.	Government Strategy for Rural Development	. <u>46</u> 45
References		. <u>48</u> 47
	Index of Tables and Charts	
Table I	Public Expenditure on Education in Ireland 1960-1999	5
Graph I	Shares of Public Expenditure on Education in Poland 1990-1999	8
Table II	Educational Attainment of Rural and Urban Adults in 1988	10
Table III	Shares of Rural and Urban Enrollment in Types of Secondary Schools	11
Table IV	Preschool and Preschool Enrollment in Urban and Rural Areas 1990-99	13
Table V	Percent of 3- to 6-year-olds receiving pre-school training	13
Table VI	Children per Preschool Class	14
Table VII	Share of Wages in Operating Expenditures of Gmina Education Budgets	16
Table VIII	Education Investments as a Share of Gmina Education Budgets	16
Table IX	Class Sizes in Primary Schools and Gymnasiums by Gmina Type	17
Table X	Contribution of Rural and Urban Parents to Primary Schools	17
Table XI	First-Year Students of Lyceums Schools by Residence	18
Table XII	First-Year Students of Technical Schools by Residence	19
Table XIII	First-Year Students of basic Vocational Schools by Residence	19

## Part One: Analysis of the Problem

### I. Introduction

On the morning of the 21st century, it is clear that knowledge, not physical labor, has become the driving force behind economic growth and increasingly rapid social change. More and more people will work with their heads, and more and more physical production will be carried out by the congealed products of past mental labor. What we know, how we learn, and how we learn from learning, will play an ever-larger role in determining our individual and collective life chances.

The major social challenge of Poland's current "transformation" or "transition" is thus fundamentally the same as the challenge facing other industrial societies entering the "information age". It is just more extreme. More extreme still, the farther one moves out from Poland's major urban areas. Indeed, while urban Poland seems to be clearly, if still uncertainly, moving towards the 21st century, rural Poland, with its small and archaic farms, its still frequently grinding poverty and unemployment, and its poorly educated population, increasingly shows signs of being left farther and farther behind.

This divide is fraught with profound social, economic and political dangers. And it must be prevented from widening if Poland is to meet the immediate challenge of European integration as well as the larger challenge posed by increasingly rapid, knowledge-driven socio-economic change. In short, Poland must begin to take make serious efforts to improve the capacity of its rural population to absorb, use, and transform knowledge. These efforts will require sustained public investment in Poland's educational system, a wide social commitment to lifelong learning, and continual reflection by the national government, local governments, and private and public organizations of all shapes and sizes.

### II. The Origins, Purpose and Structure of this Report

This report was commissioned by the European Commission's Warsaw delegation. It summarizes the findings of a 12-person research team organized by the CASE Foundation<sup>1</sup>. The conclusions and recommendations presented here do not represent the official position of the European Commission. In commissioning the report, the Warsaw delegation of the European Union posed three broad questions. First, the delegation wanted to know what should be done to improve rural education on the eve of Poland's membership in the EU and in light of the particular challenges that EU membership poses for the Polish countryside. Second, the delegation wanted to know which measures to improve rural education in Poland are of the highest priority, and how much these measures might cost to implement. And third, the delegation wanted to know how a sustained political commitment to implement these measures might be fostered over time.

These are big questions and it is impossible for a single report to thoroughly address them all. Nonetheless, in the following we will provide at least "first approximations" of answers. The first section of the report presents a thumbnail account of education reform in Ireland. The purpose of this account is to show how a country facing structural problems

<sup>&</sup>lt;sup>1</sup> The analyses prepared by members of the team appear in full in the annexes to this report and are referenced, along with other research, throughout the text.

similar to those of Poland – especially in rural areas – used education reform to facilitate profound socio-economic change. In short, the account demonstrates that conscious and coordinated public policy can produce real and tangible results, and that public investment in education must be considered an integral element of economic reform.

The middle sections of the report outline the state of rural education in Poland today as well as the strengths and weakness of existing or anticipated government programs designed to improve the situation. Here we focus on five particularly problematic areas: rural preschool education, the extremely small size of many rural primary schools, the qualifications of the rural teaching force, the archaic structure of the vocational education system, and the division of labor in the sector between the national government and local governments. We argue that while the national government has begun to demonstrate an awareness of the complexity of the problems involved in improving rural education, these efforts unfortunately remain fragmented and inconsistent.

Finally, in the third section we outline a set of concrete proposals --and where possible, their potential costs-- designed to produce substantial and sustained improvement in rural education in the immediate future. These proposals will require a significant reallocation of resources within the education sector as well as some new public spending over the next 5 to 10 years. Indeed, because of the already high fiscal burden placed on Polish taxpayers we are convinced that over the long term the improvement of Polish education must rely principally on the improved use of existing expenditures. We believe, however, that the reallocation of resources as well as the modest levels of new spending we propose are the necessary minimum to improve the rural education in particular and the efficiency of the use of education resources in general.

#### **III.** Education Reform and Economic Growth: The Irish Miracle

Over the last 30 years, a number of countries have made profound, rapid and successful transitions from largely agrarian economies to post-industrial ones. In all of these countries, education reform in general and rural education reform in particular has played critical, though often under appreciated roles. Until recently, the most cited cases of economic transformation and education reform were drawn from the so-called Asian Tigers, particularly South Korea and Taiwan<sup>2</sup>.

For Poland, however, the more relevant, interesting and inspiring possibilities are illustrated by Ireland. In the last twenty years Ireland has not just traversed the distance between an agrarian society and an industrial or even post-industrial one, but has successfully entered the "information age". Indeed, Ireland has gone from a country in which more than 30 percent of the population eked out subsistence livelihoods on small and inefficient farms in the 1960s, to a country that is now the second largest producer of software in the world. In fact, only 7.2 percent of the Irish population are now full-time farmers; and only 4.1 percent of the labor force is unemployed, one of the lowest rates in Europe<sup>3</sup>.

<sup>&</sup>lt;sup>2</sup> For information on Korea and Ireland see Woodward and Snitko, "Transforming rural education: International experience" (report on Korea and Ireland).

<sup>&</sup>lt;sup>3</sup> Sources on Ireland include: Danuta Zagrodzka, "Zielony tygrys", *Gazeta wyborcza*, 27-28 May, 2000; Irish Department of Education and Science, *Annual Statistical Report 1996-1997*; "Green is good", *The Economist*, May 17, 1997; Eurostat, *Education across Europe: Statistics and Indicators*, 1999; Organization for Economic Cooperation and Development, *Education at a Glance*, 2000.

The foundations for this remarkable transformation were laid in 1968, when most Irish children finished school at age 12. In that year, the government began a radical reform of the country's educational system, a process that continues to this day. While it is impossible to do justice to the nature, complexity, and evolution of these reforms here, a few of their more salient features, particularly those related to rural education, should be highlighted. First, the government increased public spending on education from under 3 percent of GDP in the early 1960s to almost 5.7 percent in 1980 as seen from Table I below. After radically expanding access to primary and secondary education, and making the investments necessary to improve the performance of the sector, however, the government began to lower public expenditures on education and in 1999 they represented about 4.8 percent of GDP. This is slightly above the mean for OECD countries of 4.7 percent. Public spending on preschool, primary and secondary education (without universities), however, was below the OECD mean of 3.7 percent and stood at 3.4 of GDP in 1997<sup>4</sup>.

Table I

Public Expenditure on all Levels of Education in Ireland 1960-1999

	1960/61	1970/71	1980	1990	1999 (est.)
as % of GDP	2.82%	4.72%	5.68%	5.04%	4.79%

Source: Irish national data

The substantial rise in public spending on education in Ireland has been caused primarily by a large increase in teacher employment, an increase in turn driven by the government's commitment to radically expand secondary school enrollment, dating from the late 1960s. Thus, between 1965 and 1995 the number of secondary school teachers rose from over 6,000 to over 20,000 (in the same period, enrollment more than doubled, rising from 150,000 to over 370,000), while the number of primary school teachers grew from 15,000 to about 21,000.

This increase in teacher employment has also been accompanied by the imposition of higher qualification standards, and beginning in the late 1960s all newly employed teachers were required to have university degrees. Here, special emphasis was placed on early childhood education, and university programs for primary school teachers were extended from two to three years. These higher qualification standards, in turn came with substantial wage increases and the ratio of teacher earnings to average earnings in Ireland is now the highest in the OECD.

Despite the increase in the number of teachers employed, however, the Irish government made a conscious effort to consolidate small rural schools. In the mid-1960s Ireland had approximately 3,000 schools with 1-2 teachers. But by 1997, less than 800 such schools were left in the country, with the bulk of this consolidation occurring in the 1970s. This was followed by efforts to replace vocational schools with general education lyceums, so much so that now only 26% of secondary pupils attend vocational schools, and more than

<sup>4</sup> It is important to bear in mind that Ireland's national income has, in the last decade, grown at rates that make it one of the brightest stars in the OECD. This means that in per student terms, spending in Ireland continues to grow rapidly.

<sup>5</sup> It is important to note that this consolidation wave was accompanied by the development of a program of bus transportation for primary and secondary school pupils which got underway in 1967. See Irish Department of Education and Science, *Annual Report 1999*, p. 34.

<sup>&</sup>lt;sup>6</sup> See Irish Department of Education and Science, *Brief Description of the Irish Education System*, Dublin, February 1998, p. 15.

50% of secondary school graduates go on to higher education, the highest rate in Europe. Finally, beginning in the 1990s, and to meet the new challenges posed by a rapidly globalizing economy, the Irish also placed increased emphasis on teacher in-service training. Here, the teachers' unions play and important role. Indeed, parliament is currently debating legislation that would create a national teachers' council empowered to set entry and inservice training standards for the profession.

The experience of Ireland over the last 30 years has important implications for Poland today. First, and probably most importantly, it demonstrates that a clear and conscious commitment to improving education can have extremely tangible economic effects. Second, it suggests that investments in teachers and their qualifications are absolutely critical to improving the performance of schools and the life chances of children. Third, it seems fairly clear that the Irish placed particular emphasis in improving the quality of early childhood education, and in developing high quality general education secondary schools and not specialized vocational institutions. And fourth, that the consolidation of small rural schools was an integral part of the overall reform and that early in the process it was decided that small schools do little to improve the educational opportunities of rural children.

With this said, however, there are important differences which underscore the challenges that face Poland. First, and perhaps most importantly, the Irish were spending remarkably little on education when they began their reforms. As a result, they could clearly afford to sharply increase public spending on education at the beginning of the process, though as we have seen they later reduced spending while continuing to implement important reforms. For reasons that we will make clear in a moment, Poland probably cannot afford the kind of sharp increase in public spending that the Irish made in the 1960s and 70s. As a result, Poland will have to make improvements in education less by increasing total expenditures than by increasing the efficiency with which existing resources are used --much as the Irish did after 1980.

Second, Poland already has a well-developed --albeit misshapen-- system of secondary education that is already fully staffed. Thus the space for new teachers is limited by the retirement of the existing workforce, and improvements in teacher qualifications will have to be made --at least in the immediate future-- through in-service training. Here again, then, the challenges Poland faces today resemble more those that Ireland successfully mastered in the 1990s than those which Ireland confronted in the 1960s and 70s.

Finally and perhaps most importantly, the overall socio-economic environment of Poland today differs substantially from that which Ireland faced 30 years ago. On the one hand, the OECD countries have moved farther and farther away from economies based on the expansion of relatively low skilled manufacturing jobs. As a result, there will be more pressure on Poland to improve the quality of general education secondary schools than there was on Ireland in the 1960s and 1970s. On the other hand, during the 1960 and 1970s migration abroad significantly reduced the number of people living in rural Ireland, ultimately decreasing the pressure on the local economy to create jobs for them. In Poland, by contrast, the 1990s have seen an increase in the number of rural inhabitants, while housing shortages continue to limit the opportunities for out migration. Moreover, the current European Union member states are pushing for a transition period of 5-7 years following Poland's accession during which free movement of Polish workers on their territory will be limited. Taken together, all these factors suggest that Poland will have to do more with less, a prospect that only underscores the need for the development of coherent and consistent policies.

#### IV. Education Reform in Poland Since 1990

Since 1991, Poland has radically changed its educational system by overhauling teaching curriculum and materials, introducing new three year gymnasiums for grades 7-9, and opening up the sector to private and non-profit community schools<sup>7</sup>. Most importantly, the national government has transferred managerial control for more than 40,000 schools and non-school educational institutions to local governments<sup>8</sup>.

In 1991, 2500 newly created communal governments (gminas) were transferred the ownership rights to, and made responsible for the management and financing of preschools. Indeed, they were expected to fully finance preschool education out of their general revenues. They could also voluntarily assume control over primary and secondary schools. Here, however, the national government was legally obliged to provide them with funding designed to cover the operation and maintenance costs --though not the investment costs-- of these schools.

After a slow start in 1992 and 1993, most urban gminas quickly took their primary schools. Rural gminas however proved more reluctant, and resistance from them forced the government to postpone the obligatory assumption of responsibility for primary schools from 1993 to 1996. During this same period, under the so-called "Pilot Powiat Program" thirty-four of Poland's largest local governments began to take took over some or all of their secondary school systems, a process that was extended under the law on Large Cities of 1996.

Finally, in 1996, 384 powiats or county level governments were established as well as sixteen new self-governing regional governments. Powiats were made responsible for almost all secondary schools and for psychological counseling agencies while self-governing voivodships assumed ownership and control over a handful of specialized secondary schools and a variety of in-service training facilities. And as with primary education, but not preschool education, the national government was obliged to support the operational and maintenance costs of secondary schools and non-school educational institutions through the so-called educational component of the general subsidy.

By 1999, this rapid process of devolution had made local governments the owners and managers of virtually all of the countries educational institutions<sup>10</sup>. Graph I below illustrates the implications of this process for public sector spending, expressed as a percentage of GDP.

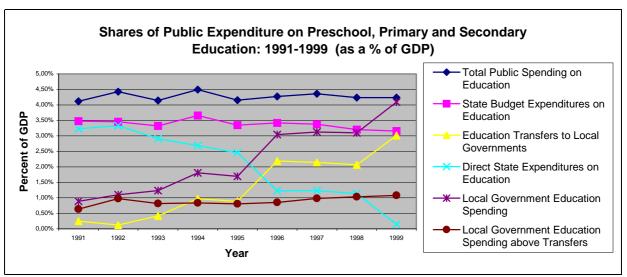
-

<sup>&</sup>lt;sup>7</sup> See Appendix A for a fuller description of the reforms not discussed in detail in this report.

<sup>&</sup>lt;sup>8</sup> The non-school institutions include Psychological Counseling Offices, Sports Centers, Cultural Centers, In-Service Teacher Training Institutes (WOM), and Adult Vocational Training Centers.

<sup>&</sup>lt;sup>9</sup> Not to be confused with the state administration at the voivodship level.

<sup>&</sup>lt;sup>10</sup> See appendices B, and C for basic enrollment, employment and facility data for primary and secondary schools, as well as data on the transfer of schools to local governments over time.



Own calculations: Based on GUS data and Ministry of Education annual reports to parliament

As can be seen from the graph, total public expenditures on pre-school, primary and secondary education have remained reasonably stable at about 4.2 percent of GDP. About 0.5 percent of this amount is spent on preschool education and comes entirely from the general revenues of local governments. As a result, over the course of the decade total public expenditures on primary and secondary education have hovered around 3.7 percent of the GDP

This equals the mean for OECD countries<sup>11</sup> and suggests that public spending on education in Poland is neither unreasonably high nor unreasonably low. Moreover, given the already extremely heavy fiscal burden that Polish tax pavers already carry, we do not believe that improvements in education can be made dependent on radical increases in public spending, especially considering the costs and problems of other sectors such as health and social welfare. Instead, improving Polish education in general and rural education in particular will in large measure have to be made through increasing the efficiency of the sector. Achieving these gains in efficiency will probably require new investments in the sector. More importantly, they will require significant changes in how money in the sector is spent, points that we will return to at length throughout this report and which, in fact, constitute the foundation of its recommendations

Here, however, we want to stress another but related issue. As can be seen from the graph, direct state expenditures on education have virtually disappeared<sup>12</sup>, while local government expenditures have risen to take their place. This means that while the national government is still in the business of allocating education resources to local governments, it is no longer in the business of allocating resources to schools. Moreover, local governments now finance almost 25 percent (1.1% of GDP) of all public expenditures on education from revenues other than those coming to them from the national government through earmarked grants and the education component of the general subsidy.

Taken together this means that not only do gminas, powiats and self-governing voivodships make all decisions about how schools get resources, but that a significant share of

<sup>&</sup>lt;sup>11</sup> OECD, Education at a Glance, 2000, pp. 55, 57.

<sup>&</sup>lt;sup>12</sup> These figures do not include estimates of the Ministry of Education's own spending on its own operations, including the curatoria, nor do they include the administrative expenditures incurred by local governments in running schools (i.e. the costs of their own education departments.)

these resources come from their own revenues. In short, local governments are now more responsible for how money is spent in the sector than the national government. Or put another way, it is local governments who now shoulder the burden of achieving the gains in efficiency that improvement in the sector will require. Indeed, it was precisely because reformers felt that local governments were more capable of rationally allocating money to schools that responsibility for the management of preschool, primary and secondary education was placed in their hands in the first place.

In general this has been good for education in Poland, and there seems to be little question that at least in urban areas the quality of Polish schooling has improved *in spite of the fact* that overall public spending has not increased. Moreover, as we shall show rural local governments are often making heroic efforts to improve their school systems as well. Nonetheless, the socio-economic circumstances of the present and the structural legacies of the past make the challenge that they face significantly more difficult than those of their urban counterparts. It is to these problems that we now turn.

#### V. The Socio-Economic Problems of Rural Poland

Over the last ten years, there has been a radical change in the structure and performance of the Polish economy. Most importantly, since 1993, and after more than two decades of decline, Poland's GDP has been growing at impressive rates. Most of this growth and the benefits that come with it, however, have been concentrated in the Poland's cities, and the once rural now increasingly suburban jurisdictions<sup>13</sup> that surround them. Indeed, it is difficult to underestimate the socio-economic gap between rural and urban Poland today, a gap that seems to be widening rapidly<sup>14</sup>.

According to the Agricultural Census of 1996, 14.7 million people, or 38.1 percent of the Poland's population, live in rural areas. About 8.8 million people (60% of the rural population) are or were until recently farmers. Thus, agricultural employment in Poland accounts for 28% of the working population (as opposed to an average 5% in the European Union). To make matters worse, only 16% of farmers are part-time farmers (30% in EU). Finally, ten percent of Polish farmers reap no disposable income from their farms, and 50% of them live primarily off disability and old age pensions from the national government. Worse, European Union and Polish experts estimate that the full liberalization of agricultural markets that will come with EU membership will make all but 300,000 of Poland's 2.1 million farms economically nonviable<sup>16</sup>.

.

<sup>&</sup>lt;sup>13</sup> Unfortunately, these new suburban jurisdictions remain legally and statistically categorized as rural gminas. This means that the not all rural gminas share the same structural characteristics and indeed some of them are among the richest communities in Poland. As we shall see, this has important implications for how we think about providing additional support for truly rural local governments in the future.

<sup>&</sup>lt;sup>14</sup> Several government documents, and in particular the recent, much-publicized Pact on Agriculture and Rural Areas (*Pakt dla Rolnictwa*) initiative, illustrate that the government has identified, and appreciates the weight of, the problems facing rural Poland, and contain a number of proposals for improving the situation and reducing the civilization gap between rural and urban Poland. (See Appendix E for summary presentation and analysis of these documents.)

<sup>&</sup>lt;sup>15</sup> Danuta Mozdzenska-Mrozek, Maria Wojcicka (eds.), *Modernisation of Vocational Education and Training*, Task Force for Training and Human Resources, Cooperation Fund, Warsaw 1999, p. 18.

<sup>&</sup>lt;sup>16</sup> Spójna Polityka Strukturalna Rozwoju Obszarów Wiejskich i Rolnictwa, Warszawa 1999, Ministerstwo Rolnictwa i Gospodarki Żywnościowej, s. 21; A. Woś, Tendencje rozwoju rolnictwa w warunkach rynkowych, Warszawa 1994, s. 34-40.

The subsistence nature of much of Polish agriculture in turn means that the most rural residents are poor, often desperately so. As of 1997, 60 percent of rural households had per capita disposable incomes below 200 PLN (ca. 50 Euro) a month, as compared to only 7 percent of urban households <sup>17</sup>. Similarly, more than 9 percent of rural households had incomes below the minimum subsistence level, twice that of all other social groups with the exception of the unemployed. Indeed, the percentage of rural households living below other poverty lines – relative, subjective and statutory – was consistently higher than that of their urban counterparts <sup>18</sup>.

In 2000, 14.5 percent of the rural labor force was also without work. This is slightly below the rate for urban workers (15.9%). Nonetheless, labor market experts think that finding gainful employment in rural areas is actually more difficult than in urban ones because of significant agricultural underemployment, and because the urban unemployed more frequently find jobs in the gray sector. Rural hidden unemployment is estimated at around one million persons.<sup>19</sup>

Rural poverty and unemployment in turn complicate the challenge of improving rural education in a number ways. First, they make it difficult for parents to contribute additional funds to the education of their children. Second, they reduce the general revenues of rural local governments which, unlike their urban counterparts, derive very little income from shared personal and corporate income taxes. Indeed, farmers are not yet required to pay personal income taxes. And third they increase the social pathologies, such as alcoholism and a deteriorating work ethic, which often afflict Polish villages and contribute to the vicious circle perpetuating their backwardness.

The educational problems caused by the poverty of rural households, poverty which is liable to deepen with EU membership, are in turn compounded by the gap in the educational attainments of rural and urban adults. Despite its egalitarian rhetoric, communism did little to equalize the educational chances of rural and urban children, as can be seen from Table II. Particularly striking is the fact that in 1988 more than 60 percent of rural adults had completed no more, and often less, than primary school education.

Table II

Educational Attainment of Rural and Urban Adults in 1988

Educational Level Completed	Urban	Rural
University	9.4	1.8
Post Secondary	2.0	1.0
Lyceum	9.3	2.6
Secondary Vocational	20.6	9.5
Basic Vocational	23.2	24.2
Primary	32.3	49.2
Incomplete or no Primary	2.9	11.2

GUS, Statistical Annual 2000

\_

<sup>19</sup> Danuta Mozdzenska-Mrozek, Maria Wojcicka (eds.), op. cit., p. 18.

<sup>&</sup>lt;sup>17</sup> Statistics cited in Krystyna Skarzyńska, "W ramionach Leppera", *Polityka* 15 (2188), 10 April 1999.

<sup>&</sup>lt;sup>18</sup> See Stanisława Golinowska, "Ubóstwo w Polsce" (Poverty in Poland) in Stanisława Golinowska (ed.), *Polska bieda: kryteria, ocena przeciwdziałania*, Instytut Pracy i Spraw Socjalnych, Warsaw 1996, pp. 359-63.

By the 1990's, however, the vast majority of both rural and urban school children attended some form of secondary education. Moreover, as can be seen from Table III below there has been a significant improvement in the number of both urban and rural pupils attending professional schools and lyceums over the course of the last decade, and corresponding decrease in the number of children whose educations will end with basic vocational training.

Table III

Shares of Rural and Urban Pupils Enrolled in Different Types of Secondary Schools								
	1996/1997		1999/	2000	Change			
	urban	rural	urban	rural	urban	rural		
Lyceum	38.14%	18.99%	45.11%	24.84%	6.97%	5.85%		
Professional	30.28%	33.18%	31.17%	38.77%	0.89%	5.60%		
Basic Vocational	27.57%	46.10%	20.17%	35.21%	-7.40%	-10.89%		
Not continuing	4.00%	1.74%	3.55%	1.17%	-0.45%	-0.56%		

GUS Educational Annuals 1997, 2000

Nonetheless, and despite the changes over the last decade, only 24 percent of rural children attend general education high schools as opposed to 45 percent of their urban counterparts, while 35 percent of rural children will end their formal educations with basic vocational training, as opposed to 20 percent of urban children. Moreover, there is good reason to believe that rural high school graduates face increasing difficulties in attending universities<sup>20</sup>. In short, while there has been a marked improvement in the educational attainments of the rural population over the last decade, they have not significantly closed the educational gap between town and country.

Social survey data also consistently show that rural adults place considerably less importance on education than their urban counterparts and even regard advanced education with some suspicion. Worse, a recent international survey conducted by the OECD on adult literacy revealed that 70 percent of Polish adults could not comprehend simple texts as compared to 32 to 45 percent of adults in other OECD countries. This was in large part due to the poor performance of farmers and people whose educations did not advance beyond basic vocational training. Indeed, the test scores of Polish farmers were 40 percent less than those of other occupational groups, as compared 10 percent lower for farmers in other OECD countries.

The rural population in Poland also has significantly less access to libraries and other cultural institutions than their urban counterparts, and for many of them the only contact with the wider world is through television. Similarly, the boom in private adult education that has occurred in Polish cities has by and large by-passed the Polish countryside, making it significantly more difficult for rural adults to improve their educations after the completion of their formal schooling.

In short, rural poverty and the low educational attainment of rural adults place rural children at a severe disadvantage because so much of the children's educational depends on

<sup>21</sup> Human Development Report Poland, Access to Education, UNDP/CASE Warsaw 1998.

12

<sup>&</sup>lt;sup>20</sup> Unfortunately, there is no good statistical data on the number of rural pupils going on to attend universities. Nonetheless, anecdotal evidence suggests that the rising costs of university education combined with increased competition for places has produced a decline in the share of rural students in total university enrollment.

the education and income of their parents. Indeed, it seems clear that rural schools will actually have to outperform urban ones if the gap in educational levels between town and country in Poland is ever to be narrowed (let alone eliminated). Narrowing this gap, however, will be further complicated by the fact that the educational infrastructure that rural gminas have inherited from the past is significantly worse, and more costly to maintain, than that of its urban counterparts.

### VI. The Structural Problems Confronting the Reform of Rural Education

Both rural gminas and rural powiats must resolve profound structural problems in order to improve the effectiveness and quality of their educational systems. These structural problems exist at the preschool and primary school level for rural gminas, and at the secondary school level for rural powiats.

For rural gminas, the central problem lies in the existence of large numbers of very small schools with very low pupil-teacher ratios, and hence exceedingly high per pupil costs<sup>22</sup>. For rural powiats the central problem lies in the disproportionate number of vocational schools with extremely narrow and often archaic profiles and the corresponding shortage of easily accessible general education high schools. In the following we look closer at each of these problems.

#### A. Rural Preschool Education

In 1991, gminas were made responsible for the ownership, maintenance and financing of preschool education. Because preschool is not obligatory in Poland, gminas are free to choose the level of pre-school services they want to provide for three-to-five-year-olds. They are, however, obliged to provide preschool training for all six-year-olds whose parents choose to enroll them in preparatory "zero" classes. The non-compulsory character of preschool education allowed reformers to argue --over the objections of education specialists-- that it was not necessary for the national government to provide gminas with specific funding to maintain preschools.

Instead, gminas are expected to finance preschool education entirely out of their general revenues and/or by charging fees to parents. Despite the non-compulsory character of preschool education, however, the parents of about 90% of Polish six year-olds choose to enroll them "zero" classes. Moreover, gminas are not allowed to charge fees for "zero" classes. As a result, since 1991 almost 50 percent (ca. 0.5% of GDP) of all gmina own spending on education has been for preschool education.

This financial burden, however, has been much greater on rural gminas for at least three reasons. First, most rural gminas derive very little revenue from shared personal and corporate income taxes remitted to them from the national government, both because overall economic activity and income levels are low, and because farmers are not included in the personal income tax system at all. Second, rural residents have significantly less disposable

<sup>&</sup>lt;sup>22</sup> It should be noted the settlement patterns in the rural areas are characterized by a very large number of small villages. Indeed, the average village size is about 259 inhabitants, and in the Eastern voivodships it falls to 137 inhabitants. It is also striking that the settlement patterns, as well as the distribution of small rural schools, are not governed by some objective present day conditions, but rather by the boundaries of partitioned Poland in the 18th and 19th centuries. This makes it very difficult for any equalization program to target rural gminas in distress without permanently accepting this historical legacy --and its costs-- for the future.

income to contribute to pre-schools. And third, because maintaining large numbers of small pre-schools for a geographically dispersed population or (alternatively) busing very young children to larger schools is extremely expensive.

Not surprisingly, gminas – particularly rural ones – responded to this pressure by closing almost 30 percent of all preschools between 1990 and 1999, as can be seen in Table V below<sup>23</sup>. These closures disturbed many observers and generated a stream of accusations that local governments – particularly rural ones – did not appreciate the importance of early childhood education.

Table IV Preschool and Preschool Enrollment in Urban and Rural Areas 1990-99

		1990	1995	1999	% Decline
Number of Preschools		12308	9350	8733	29%
	Urban	7009	5625	5453	22%
	Rural	5299	3725	3280	38%
Preschool enrollment		856,600	823,200	719,600	16%
	Urban	665,800	661,800	574,700	14%
	Rural	190,800	161,400	144,900	24%

Source: 2000 Statistical Annual, GUS p. 248

In general, however, these accusations are unjustified. Table V below shows that following a brief decline, the percentage of children receiving preschool education actually rose despite the closures and after the steep demographic decline of the decade is taken into account. The growth came, however, only in urban areas which were able to simultaneously streamline the delivery of pre-school services and meet the increased demand for them coming from urban workers<sup>24</sup>.

Table V

Percent of 3- to 6-year-olds receiving pre-school training							
	1990	1993	1995	1997	1999		
% of 6 year olds in "zero" classes	95.3%	94.9%	97.3%	97.1%	96.7%		
Urban	98.3%	98.0%	102.2%	103.2%	103.5%		
Rural	90.8%	89.4%	90.8%	89.7%	88.5%		
of 3-5 year olds in preschools	31.0%	25.5%	28.7%	31.3%	34.0%		
Urban	40.5%	34.7%	40.1%	44.9%	49.3%		
Rural	17.8%	13.6%	14.1%	15.2%	15.7%		
% of 3-6 year olds in preschool	48.2%	43.6%	45.3%	49.0%	50.8%		
Urban	56.3%	51.6%	56.5%	60.6%	63.9%		
Rural	36.6%	33.1%	33.4%	35.0%	35.2%		

Source: Ministry of Education materials for Sejm, 1996, 1997, 1998, 1999, 2000<sup>25</sup>

In rural gminas, however, the percentage of children enrolled in both "zero" classes and preschools for three- to five-year-olds remains below 1990 levels. Worse, only 88.5 percent of rural six year-olds attend "zero" classes – as opposed to 100 percent in the cities – and less that 16 percent of 3-5 year olds are enrolled in preschool – as opposed to almost 50

<sup>23</sup>The liquidation of preschools saved gminas between 55,000 and 120,000 PLN a year (see Wojciech Marchlewski, Union of Polish Rural Gminas RP, "Report on Preschools in Rural Gminas"). State enterprises and state farms ran between 5 and 10% of all preschools in 1990, so not all the closures were due to local government policy.

government policy
<sup>24</sup> Some of the above 100% figures for 6-year-olds in urban preschools come from children residing in rural (suburban) districts but going to urban preschools. Some is the result of the enrollment of 5- and 7- year-olds.
<sup>25</sup> Some of the growth of preschool enrollment in rural areas probably comes from suburban communities that are legally characterized as rural gminas but in fact resemble urban ones in per capita income.

percent in the cities. This is particularly disturbing because there is a large body of international research which suggests that investment in early childhood education is of critical importance in improving the life chances of culturally and economically disadvantaged social groups<sup>26</sup>.

Rural gminas, however, should not be pilloried for bad management. In fact, the have behaved quite rationally considering the financial burden of maintaining very small preschools or busing children to larger ones, as well as the continued reluctance of rural parents to send young children to school at all. In short, they have closed all preschools outside of village centers<sup>27</sup> and brought most "zero" classes into primary schools. This has allowed the to maintain services at levels while bringing the average class sizes closer to those of urban jurisdictions, as can be seen by Table VI.

Table VI Children Per Preschool Class

	1991	1999
Rural	7.8	20.8
Urban	18.6	23.6

Source: Ministry of Education materials for Sejm 1992, 1999.

Nonetheless, there should be no doubt that there remains a crying need to improve early childhood education in the Polish countryside. Given the socio-economic challenges rural Poland will face over the next 20 years it seems clear to us that at a minimum all rural six-year-olds should attend "zero" classes like their urban counterparts. Indeed, given the importance of early childhood education for socially disadvantaged groups more rural 3-5 year olds should attend preschools. And as we shall argue later this will require increased

\_\_\_\_

<sup>&</sup>lt;sup>26</sup> According to a summary of international research on the subject, children from deprived socio-economic backgrounds receiving pre-school education have better results at school, reduced rates of repeating of the year, fewer transfers to special education, and higher rates of completion of secondary education (see *Pre-school Education in the European Union: Current Thinking and Provision* –

http://www.eurydice.org/documents/preschool/en/1cpren.htm). In fact, in the United States the state of the research has gone beyond the problem of the effect of kindergarten enrolment on childhood development to deal with the benefits of even earlier stages of childhood education (see, for example, The Child Mental Health Foundations and Agencies Network, *A Good Beginning: Sending America's Children to School with the Social and Emotional Competence They Need to Succeed*, 2000 [http://www.nimh.nih.gov/childhp/monograph.pdf]). It is interesting to note that the importance of early childhood education was noted as early as 1939, in Recommendation No. 17 of the International Conference on Public Education

<sup>(</sup>http://www.nimh.nih.gov/childhp/monograph.pdf). Similarly, the program documents of the World Bank's Early Childhood Development (ECD) project ttp://www.worldbank.org/children/why.html), "a large body of research has proven the importance of early brain development and the need for good health and nutrition. ... ECD project research has proven that children who participate in well-conceived ECD programs tend to be more successful in later school, are more competent socially and emotionally, and show higher verbal and intellectual development during early childhood than children who are not enrolled in high quality programs. Ensuring healthy child development, therefore, is an investment in a country's future workforce and capacity to thrive economically and as a society." We note, moreover, that World Bank lending trends also reflect a shift in emphasis from secondary vocational education to primary education. In the 1990s, World Bank lending for primary education has increased as a share of lending for all education, while the share of lending for vocational education has declined "due in part to the new emphasis on basic education and a questioning of approaches traditionally taken in vocational training". Additionally, "early child development is a relatively new - but increasingly important -- area of lending".

<sup>(</sup>http://wbln0018.worldbank.org/HDNet/HDDocs.nsf/1de02c121dabc92d852567f5007f6329/1c9fb09b835c4d44852567f600074c4e?OpenDocument).

<sup>&</sup>lt;sup>27</sup> The result of this is that rural pre-schools tend to serve primarily the children of gmina employee and teachers. See Wojciech Marchlewski, Union of Polish Rural Gminas RP, "Report on Preschools in Rural Gminas".

financial support for rural preschools, the development of new skills among rural teachers, and convincing more farmers to send their children to school at earlier ages.

## B. Primary Education and the Creation of Gymnasiums

Rural gminas inherited from the past school systems with large numbers of very small schools, and in 1991 the average rural primary school had 127 pupils while the average urban one had more than 700. Not surprisingly, the pupil-teacher ratios also differed significantly, averaging 13.34 in rural schools and 18.64 in urban ones (See Appendix B). Taken together, the small size of rural schools and their lower pupil-teacher ratios have produced significantly higher per pupil labor and building maintenance costs in rural areas than in urban ones.

These differences have forced the national government to make decisions (albeit not always explicit ones) about how much of the difference between the average costs of rural and urban primary schools it would fund through the education subvention. Or, put another way, the government has been forced to decide to what degree it would accept these differences in per pupil costs as an expression of an objective need for additional funding, and to what degree it would attempt to push rural gminas with higher than average costs toward some more common standard.

A full treatment of this dilemma is beyond the scope of this report. Nonetheless, it is necessary to describe the nature of the government's policy and its implications for local governments over time. In essence, the government decided that because pupil-teacher ratios in rural gminas were on average about 30 percent lower those of urban jurisdictions they should receive about 30 percent more funding per pupil. Thus, since 1995, the Ministry of Education's allocation formula for the education component of the general subsidy has included a multiplier that gives rural gminas one third more money per pupil than their urban counterparts<sup>28</sup>. For some rural gminas this funding has been sufficient to allow them to maintain their existing school networks<sup>29</sup>.

Many of them, however, have extremely large numbers of very small schools. Even the additional funding such gminas receive through the rural multiplier of the subvention is insufficient to allow them to maintain their existing school networks. As a result, many rural gminas have been forced to close schools and lay off teachers, a process that is politically extremely painful. And not surprisingly, this has produced conflicts both between rural gminas and their residents and rural gminas and the national government

<sup>&</sup>lt;sup>28</sup> In the fiscal year 2000, the per pupil "financial standard" that local governments received through the education subvention for urban primary (and lyceum) pupils was equal to about 2000 PLN (or about 500 Euro) a year. Rural and mixed jurisdictions received an additional 33-35% percent per year (ca. 2700 PLN or approximately 675 Euro) for pupils enrolled in rural schools. The additional monies that gminas received for rural pupils amounted to about 6 percent of the entire 2 billion PLN education subsidy (see Appendix D).

<sup>29</sup> Here it is important to note two things. First, with very few exceptions, population densities in rural Poland are relatively uniform and do not correlate well with the distribution of small rural schools. In other words, the existence of small rural schools in most of the country is not necessary for geographic or demographic reasons and the vast majority of them could and should be consolidated into more efficient units. As a result, it is fair to say that *over the long term*, providing all or even most rural gminas with one third more funding because of their high per pupil costs is inefficient and irrational (see footnote 18). As we have seen, moreover, a number of "rural gminas" are in fact now suburban jurisdictions with school networks and income levels more similar to those of urban jurisdictions than to rural ones. As such, it is fair to say that there is no objective reason to provide them with additional funding. We will return to both these points later on.

The financial pressure on rural gminas to close small schools has been exacerbated by the steep demographic decline of the last decade. Nationwide there has been a 13 percent decline in primary school enrollment, with a 14 percent decline in urban areas but only an 8 percent decline in rural ones. There has been a corresponding, but slower, overall decline in full-time (not FTE) teacher employment of 9 percent. But in cities, where enrolment declined particularly sharply (14%), employment declined moderately (8%), while in rural areas enrollment declined moderately (8%) and employment by a sharper 11 percent (see Appendix B).

Because of the faster decline in teacher employment in rural areas, pupil-teacher ratios have actually gone up slightly from 13.34 to 13.87 Meanwhile, in urban areas the faster decline in enrollment has led to a drop in pupil-teacher ratios from 18.68 to 16.90. This means that rural gminas have had to retire more teachers to keep an already very low pupil-teacher ratio from going off the map, while with less effort on the employment front, urban gminas received "bonuses" in the form of reductions in teacher workloads and class sizes. Moreover, despite lay-offs rural gminas spend a much higher share of their school operating budgets on wages. Indeed, as can be seen from Table VII below, this share is not only ten percent higher than that of urban jurisdiction but has progressively increased over the decade and now stands at 82 percent of all operating expenses. This means that rural gminas are spending very little money on teaching materials, equipment and other necessary inputs into the pedagogic process.

**Table VII** 

<b>Share of Wages in Operating Expenditures of Gmina Education Budgets</b>								
	1994	1995	1996	1997	1998	1999		
Warsaw	52.2	49.2	55.5	55	56.4	58.1		
Urban	52.2	51.7	67.1	68	67.8	72.2		
Mixed	50.6	54.4	72.5	73.8	74.5	76.6		
Rural	59.5	63.5	78.8	79.9	80.6	82.2		

GUS BDL

Similarly, the demographic decline has had very different impacts on facility use in rural and urban gminas. In urban gminas, the decline has eased the pressure on existing facilities, and both school sizes and pupils per classroom have dropped by a remarkable 18-20 percent (Appendix B). In rural gminas, however, it has led to school closures and the fact that rural gminas have kept average school sizes from dropping<sup>30</sup> demonstrates, like their steeper labor force reductions, how much faster they have had to run just to stay in the same place. Indeed, schools closures have, ironically, forced rural gminas to spend a higher percentage of their education budgets on investment to modernize and expand existing facilities than their urban counterparts, as can be seen in Table VIII<sup>31</sup>.

<sup>&</sup>lt;sup>30</sup> In fact it was growing until 1998, before the primary schools were split into new, six-year primary schools and three-year gymnasiums.

<sup>&</sup>lt;sup>31</sup> Some of this is because more of the national government's (shrinking) budget for investment grants is directed to rural gminas. These grants, however, constitute less than 10% of rural gmina investment spending and do not account for the difference in the investment efforts between rural and urban gminas.

**Table VIII** 

**Education Investments as a Share of Gmina Education Budgets** 

	1994	1995	1996	1997	1998	1999
Warsaw	9.2%	5.3%	8.0%	10.4%	9.2%	5.4%
Urban	5.7%	6.0%	5.2%	6.1%	6.2%	5.0%
Mixed	11.2%	13.2%	9.1%	11.1%	10.4%	9.6%
Rural	18.3%	19.5%	13.6%	14.8%	13.8%	12.6%

GUS BDL

Similarly, rural gminas have also faced greater objective difficulties in creating the new three-year gymnasiums for grades 7-9 mandated by the national government in 1999. Dispersed pupil populations and small and fragmented facilities mean that the establishment of separate gymnasiums of the size and scope required by the Ministry require considerable investments in modernization and school transport, while in urban areas it required little more than the redesignation of existing school buildings. Despite these difficulties however, rural gminas have done a remarkable job in using the creation of gymnasium as an opportunity to rationalize average class sizes and pupil-teacher ratios as can be seen from Table IX below. Indeed, the pupil-teacher ratio in rural gymnasiums is actually higher than in urban ones.

**Table IX** 

Class Sizes in Primary Schools and Gymnasiums by Gmina Type

	<u> </u>			J J 1		
	pri	mary scho	ols	gymnasiums		
	urban	rural	total	urban	rural	total
Number of schools	4,924	12,018	16,942	2,726	2,686	5,412
Average class size	24.44	17.70	21.23	25.39	23.01	24.60
Average pupil-teacher ratio	16.44	12.99	14.87	20.09	31.07	22.57
Average students per classroom	25.47	15.46	20.27	24.78	21.67	23.73
Average students per school	477.99	128.55	230.11	151.83	69.40	110.92

GUS S02 2000

In sum, low pupil teacher ratios and demographic decline are forcing rural gminas to spend more of the their education budgets on wages than their urban counterparts, while school closures and the creation of gymnasiums are also forcing them to spend more on investments. Indeed, analyses of the gminas that contribute for education largest proportion of their own general income (mostly, shared taxes) above the education subvention reveals a bipolar population composed of urban gminas with high per capita revenues and poor rural ones with large numbers of small schools<sup>32</sup>. In other words, urban gminas are contributing to the subvention because they can afford to, while rural gminas are contributing to it because they have little choice. Moreover – and not surprisingly – rural schools receive significantly less additional income from parents than urban ones, as can be seen from Table X.

<sup>&</sup>lt;sup>32</sup> M. Herbst – "Mechanizmy finansowania oświaty w Polsce—algorytm oświatowy a dopłaty samorządów do otrzymanej subwencji", *Studia Regionalne i Lokalne* 3 (3), 2000.

Table X
Contribution of Rural and Urban Parents to Preschools and Primary Schools

	Gmina type						
Preschools	Rural	Mixed	Urban	Warsaw	Total		
students	108,039	144,513	370,300	34,547	657,399		
parental contribution per student	689.97	847.38	1,168.94	1,689.68	1,046.90		
% of national average	65.91%	80.94%	111.66%	161.40%	100.00%		
Primary schools							
students	1,361,267	1,068,631	1,908,791	123,770	4,462,459		
parental contribution per student	15.01	14.08	18.89	55.70	17.57		
% of national average	85.41%	80.11%	107.47%	316.92%	100.00%		

GUS S02

Taken together, all this means that rural gminas and their schools cannot provide their pupils with anything like the services that urban ones can with respect to libraries, sports facilities, computers, after school activities, and second languages. Indeed, the population that is in greatest need of these services has the worst access to them. And this obviously has grave implications for the future given the particularly pressing challenges that rural Poland faces in the coming decades.

## C. The Secondary Education of Rural Children

The single most important fact about the secondary education of rural children is that it takes place in larger cities. As can be seen from Table XI, Table XII and Table XIII, only a handful of secondary school students actually study in schools located either in rural areas or small towns, as the vast majority of both vocational education and general academic education in lyceums is largely conducted in the cities. There are a few secondary schools in cities with under 5,000 inhabitants, and very few in the rural areas. Thus, of all first-year lyceum students residing in rural areas over 83% attend a lyceum in a large city. Similarly, 79% of first-year rural technical school students and over 87% of first-year rural basic vocational school students attend schools in cities.

Table XI: First-Year Students of Lyceums by Residence

	Lyceum by school location					
	cities	Small cities	rural	total		
student numbers						
student living in the cities	180,164	3,896	1,682	185,742		
students living in the countryside	48,262	3,779	5,626	57,667		
distribution by residence						
student living in the cities	78.87%	50.76%	23.02%	76.31%		
students living in the countryside	21.13%	49.24%	76.98%	23.69%		
distribution by school location						
student living in the cities	97.00%	2.10%	0.91%	100.00%		
students living in the countryside	83.69%	6.55%	9.76%	100.00%		

Source: S-05 reports, CO MEN

We can see that although students from rural areas form only 24% of first year lyceum students across the country, in the handful of rural lyceums they are a majority, and in small

cities (up to 5 thousand inhabitants), they are half the students. This shows that they find it more difficult to compete for places in urban lyceums with their urban colleagues, either for financial reasons or because they are weaker academically.

**Table XII: First-Year Students of Technical Schools by Residence** 

	Technical schools by school location				
	cities	small cities	rural	total	
student numbers					
student living in the cities	128,975	2,720	6,798	138,493	
students living in the countryside	77,171	3,970	16,138	97,279	
distribution by residence					
student living in the cities	62.56%	40.66%	29.64%	58.74%	
students living in the countryside	37.44%	59.34%	70.36%	41.26%	
distribution by school location					
student living in the cities	93.13%	1.96%	4.91%	100.00%	
students living in the countryside	79.33%	4.08%	16.59%	100.00%	

Source: S-07 reports, CO MEN

While the percentages of students coming from rural areas in first year of technical schools located in the countryside or in small cities are similar to the lyceum percentages, we note that rural students comprise 38% of city technical schools. This proves that the main barrier preventing them from studies in lyceums in the cities is the academic barrier, not financial (the financial stress of studying in the city is comparable for lyceum and for technical schools).

Table XIII: First-Year Students of Vocational Schools by Residence

	, <u>01                                   </u>				
	Basic vocational schools by school location				
	cities	small cities	rural	total	
student numbers					
student living in the cities	79,930	1,434	1,564	82,928	
students living in the countryside	71,538	3,463	6,639	81,640	
Distribution by residence					
student living in the cities	52.77%	29.28%	19.07%	50.39%	
students living in the countryside	47.23%	70.72%	80.93%	49.61%	
Distribution by school location					
student living in the cities	96.38%	1.73%	1.89%	100.00%	
students living in the countryside	87.63%	4.24%	8.13%	100.00%	

Source: S-07 reports, CO MEN

These tables also show the difficulties rural children have in accessing secondary education. If lyceums, professional schools or vocational schools are located in small towns or rural areas, then the percentage of rural children in them is large, and these schools are clearly accessible. However, there very few of such schools. As a result, rural pupils have to compete for places in urban schools against urban children. This is particularly problematic with respect to lyceums and the better professional schools because rural children generally do worse on than their urban counterparts on the entrance exams. Indeed, it is fair to say that the

first problem of secondary education for rural children is actually the result of the poor quality of the primary education they receive.

To attend urban secondary schools rural children must either commute or board, both of which impose significant additional costs on their families. Commuting is generally cheaper, but is much more time consuming and stressful<sup>33</sup>. In practice, this means that rural children are immediately divided into three groups: those who can afford to board, those who have to commute, and those who cannot afford to commute<sup>34</sup>. The introduction of fees for boarding rooms has led to a significant drop in their use by rural students over the last ten years, 25 percent for lyceum students and 31 percent for students attending vocational schools<sup>35</sup>. Thus, more and more rural students are commuting to cities for secondary education. As a result, distance, road quality, and the existence of reliable public transport have all --along with rising cost-- become increasingly important barriers for rural children seeking quality secondary education.

Unfortunately, there is no good data on what professions rural children enter or how their choices compare with those of urban children. This is an important question, because both groups are increasingly likely to compete for jobs on the same labor market after graduation. We can only assume that, since rural students more frequently attend basic vocational schools, they also end up more frequently pursuing the trades taught by these schools<sup>36</sup>. Because many of these schools were designed to serve quite specific and often dying industries, rural children are thus more likely to find themselves at the bottom of the skill pool and once again at a competitive disadvantage with their urban counterparts<sup>37</sup>. They will also have had less exposure to general subjects needed for career flexibility, less language training, and less training in the use of computers.

Indeed, vocational education in Poland is at something of an uncertain and confusing crossroad. Over the past ten years, both parents and students have understandably become more and more concerned about the relevance of the education provided in Polish secondary schools. As a result, more and more pupils have been trying to get into lyceums and more and more of them have been abandoning those vocational and professional schools that seem to provide the poorest prospects for future employment. In short, parents and teachers have been voting on secondary schools with their feet. This, in turn, has been putting pressure on the directors of unattractive schools to restructure their operations.

The efforts of school directors to restructure their schools have been most pronounced in large cities where the choice of schools is greatest and where local control over secondary school finances preceded the creation of powiats in 1999. Here, school directors have a used combination of their own operational autonomy and the largesse of big city budgets to change

<sup>34</sup> The financial barriers facing rural children attending urban schools are not limited to transport and lodging. Life in the city is generally more expensive than in the countryside and the price of textbooks has skyrocketed in recent years.

<sup>&</sup>lt;sup>33</sup> A. Kaleta, G. Zabłocki, "Edukacja zawodowa w perspektywie prognozy zmian aktywności ekonomicznej mieszkańców wsi".

<sup>&</sup>lt;sup>35</sup> Kaleta, Zabłocki, op. cit. Research in five cities which participated in the "Pilot Powiat Program" indicates that as the number of boarders attending secondary schools decreased, the boarding rooms were increasingly used by university students and teachers. See Kowalik, J. "Samorządy a szkoły ponadpodstawowe: Doświadczenia wielkich miast", Wydawnictwo Samorządowe FRDL, Warszawa 1999.

<sup>&</sup>lt;sup>36</sup> See S. Golinowska, J. Herczyński, "Wykształcenie i przygotowanie zawodowe Polaków", Warsaw 2001. <sup>37</sup> For an analysis of the mismatch between the trades taught in vocational schools and the expected demands of the labor market, see Golinowska, Herczyński, op. cit.

the educational profiles of the schools they run. These changes, however--as desirable as they are-- have been largely spontaneous, uncoordinated by either local governments or the curatoria, to say nothing of the regional labor offices or the Ministry of Education<sup>38</sup>. As a result, in many places there has been something of a stampede towards those professions that seem to hold the greatest promise for future success on the job market. On the one hand, this has, in at least some places, produced something of a glut of schools specializing in accounting and computer skills. On the other, it has led to the transformation of many vocational and professional schools into lyceums, but without serious overhaul of curriculum or teaching staff.

Thus, it is no longer clear exactly what many Polish secondary schools are actually teaching. Moreover, the changes have preceded the Ministry's development of programs and curricula for the new three-year secondary schools that it hopes will extend broader academic training to 80 percent of all secondary school students, and which began to operate this year (see Appendix A). Indeed, these curriculum reforms are still being debated.

Meanwhile, in rural areas the spontaneous transformation of secondary schools has been less pronounced. In part this is because parents and teachers had fewer choices, putting school directors under less pressure to make their schools more attractive. And in part it was because until 1999 they were controlled by a variety of ministries that were less capable than big cities of providing the investment funds needed to introduce internal changes. Indeed, both the education officials and school directors of rural powiats seem to be at something of a loss about what in fact they should be doing with their secondary schools<sup>39</sup>. Worse, powiats have very little freely disposable revenues to make anything like the investments in their school systems that gminas have made in their own. As a result, it remains painfully unclear who is actually going to be making the changes in local secondary schools systems necessary to improve the labor market chances of rural pupils.

Of special importance here is improving the relevance and quality of those few secondary schools actually located in rural areas and thus far least subject to competitive pressure. Most of these schools are so-called Group Agricultural Schools which serve 150 thousand students<sup>40</sup>. These schools were run by the Ministry of Agriculture until 1999 and are characterized by very high per pupil costs, in part because they were financially favored in the past and have very low pupil teacher ratios, and in part because many of them have extensive (often historic) buildings, workshops and land holdings that have to be maintained. In fact, they are very often the most expensive vocational schools a powiat runs. Worse, the quality of the education they provide is generally considered poor<sup>41</sup>.

Because these schools are the ones most accessible to rural secondary school pupils, their closure would have dramatic effects on Poland's long term capacity to improve rural education. At the same time, however, the training they are currently providing seems ill suited for either the present or the future need of rural school children. Indeed, helping

<sup>&</sup>lt;sup>38</sup> See Kowalik, op. cit.

<sup>&</sup>lt;sup>39</sup> This point is forcefully made by M. Herbst in his study of the experience of the first two years of powiat management of secondary schools. See M. Herbst, "Realizacja zadań oświatowych przez powiaty", Warsaw

<sup>&</sup>lt;sup>40</sup> This is about 10% of the entire vocational school population in Poland. Moreover, these schools are attended by about 12% of all vocational schools students living in the countryside. <sup>41</sup> Herbst, op. cit.

powiats figure out what to do with these institutions is probably the single most important challenge facing rural secondary education in Poland today.

## **Part Two: Policy Recommendations**

#### I. Introduction

The central problem facing policy makers responsible for rural education in Poland today is that while there is a clear and pressing need to rapidly improve rural education, it is not so clear where the resources for these improvements should come from. In short, as we have discussed earlier, Poland already spends a very significant share of its GDP on education and it is unlikely that the country as a whole can afford radical increase in this share in the immediate future. This is a disturbing conclusion, especially since it is clear that Poland spends painfully little per pupil in comparison to its (richer) counterparts within the EU and the OECD<sup>42</sup>.

Nonetheless, we are convinced that while it is probably necessary to modestly increase spending on education in the short term in order to improve the use of existing resources, both national and local level policy makers must realize that the bulk of real gains will have to come from better management of the sector and the reallocation of resources within it, as injections of new money are not on the horizon for a state facing such a rapidly deteriorating fiscal situation and trying at the same time to fulfil the Maastricht criteria. It is thus particularly important that all policy proposals that call for additional public spending be clearly defined, and above all designed to improve the quality of education within existing funding constraints.

Unfortunately, this has not generally been the case and while there has been a recent and very positive growth in concern about rural education, most of the policy initiatives that have accompanied this concern do not focus on improving the ability of local governments, schools and teachers to deliver better services at similar levels of overall spending. This is dangerous because legitimate concern for rural education could result in spending precisely those scare resources needed to boost efficiency within the sector on politically attractive measures that nonetheless present little promise of systemic change.

Recently, for instance, a variety of proposals have been made to substantially increase national government spending on stipends for primary and secondary school students. Some of these proposals focus on providing additional funds for academically gifted rural children, while others stress the importance directing monies to poorer pupils in order to equalize their educational chances. Either way, however, stipends do relatively little to improve the effectiveness of the educational system as whole. While providing additional money to gifted rural teenagers so that they can travel to urban lyceums is no doubt desirable, it will have little effect if bus routes are non-existent or irregular. Indeed, while there is no question that additional support for the gifted and the poor is desirable, providing this kind of support is probably best facilitated through changes in the tax code that encourage charitable initiatives and not additional direct spending by the national government.

.

<sup>&</sup>lt;sup>42</sup> See Appendix E.

Conflicts around the closure of small schools have also generated a variety of similarly politically attractive proposals that nonetheless will do little over the long term to improve the quality of rural education. The Union of Rural Gminas, for instance, has consistently argued that the formula for allocating the education subvention should contain special multipliers for small rural schools serving grades 0-III<sup>43</sup>. Indeed, we actually believe that this is not a bad idea *for that very small number of small schools* that are small because they are located in particularly remote areas.

The problem is that this is not generally what advocates of such multipliers have in mind, and any program that sought to support most existing small schools would quickly become extremely expensive because these schools typically have per pupil operating costs between 2 and 3 times the financial standard for urban schools. Moreover, and perhaps even more importantly, permanently supporting the existing costs of such schools will not improve rural education because at best these funds would allow for the preservation of institutions that cannot provide in a cost-effective manner the additional educational services that are possible in larger schools, and which are becoming the norm in urban Poland<sup>44</sup>.

Similarly, the Ministry of Education has developed a program that allows small schools to become special legal entities that can be run by individual teachers on a contract basis, or by parent-teacher associations. The hope here is that by loosening the restrictions imposed on schools through the wage and employment regulations of the Teachers' Charter, and by more actively involving parents in their operation, more small schools can be preserved. In and of itself, this is not a bad idea. Nonetheless, it is far from clear that costs of these schools can actually be substantially reduced by either parent involvement or the weakening of the Teachers' Charter.

Indeed, there is a two-sided risk here. On the one hand, there is a risk that mobilizing communities to defend these schools --a defense that often leads to profound conflicts with local government officials-- will ultimately produce disappointment and bitterness for all concerned if in fact they cannot be maintained at reasonable cost. On the other hand, it is possible that the defense of these schools will in fact result in their preservation, and perhaps even in their improved quality, but at exorbitant social cost.

-

 <sup>43</sup> See Wojciech Marchlewski, Union of Polish Rural Gminas RP, "Report on Preschools in Rural Gminas".
 44 It should be noted that the use of a special multiplier for such schools would create a positive incentive not only to avoid consolidating them, but in fact to create them.

## II. Fiscal Inequality, Educational Inequality and Pre-school Education

We have stressed throughout this report that the main burden of structural reform within the educational sector now rests with local governments. We have also argued that the socio-economic (e.g. poverty, adult educational attainment) and structural challenges (e.g. small schools, creation of gymnasium) facing rural governments are significantly more profound than those confronting urban jurisdictions. Finally, we have argued that despite the additional resources that rural local governments receive through the education component of the general subvention, their lack of significant own revenues, as well as lower parental contributions to schools, leaves them facing these challenges with significantly less resources than those of their urban counterparts.

This complex of problems is particularly acute with respect to preschool education in general and "zero" classes in particular. On the one hand, gminas do not receive funding for preschool education from the national government. On the other hand, they are legally obliged to provide services to all six-year-olds whose parents want to send them to "zero" classes. In short, the law clearly imposes a higher fiscal burden on rural gminas than on urban ones for preschool because the former dispose of markedly lower own resources.

At the same time, in urban gminas the parents of *all* six-year-olds send their children to "zero" classes while in rural ones the parents of more than 10 percent of them don't. This is particularly disturbing given the importance of early childhood education in equalizing the life chances of socially disadvantaged groups<sup>45</sup>. In fact, we believe that the first step towards equalizing the educational chances of rural Poland is not only to insure that all rural six-year-olds attend zero, classes but to encourage the parents of rural five-year-olds to send them to preschools as well.

Our first and in some ways most important policy recommendation is designed to achieve these policy goals in a fiscally responsible way. The proposal has two components, one bearing on "zero" classes for six-year-olds and one to create special programs for rural five-year-olds. In the following we describe each of them separately, presenting their respective calculations in Appendix F.

The first step of the first component is to make "zero" classes obligatory for all six-year-olds. The second step is to include all six-year-olds enrolled in "zero" classes within the education subvention. The third element of the proposal --and undoubtedly the most controversial-- is to lower the PIT and or CIT shares of all gminas by the amount necessary to cover the additional costs of including all six-year-olds within the education subvention.

To fully fund all six-year-olds within the subvention using only PIT revenues would require a 3.6 percent reduction in existing PIT shares. The loss in revenue for urban gminas -- after taking into consideration the funds that would be returned to them through the subvention-- would amount to about 330 million PLN. The same amount would constitute the gain for rural and mixed gminas. This is a substantial amount and is equal to about a third of 1.2 billion PLN that the multiplier for rural pupils currently gives rural and mixed gminas.

From the point of view of the national government, the proposal is fiscally neutral because the full costs of funding six-year-olds within the subvention will be covered by a

-

<sup>&</sup>lt;sup>45</sup> See footnote 26.

reduction in the remittances that the national government must pay to gminas through shared taxes. From the point of view of urban gminas, however the effects of the proposal will be mixed. Richer jurisdictions will lose more revenues through the reduction of PIT or CIT shares than they gain through the inclusion of six-year-olds in the subvention. Indeed, approximately 90 million PLN of the shift would come from the city of Warsaw<sup>46</sup>. For some urban gminas, there will be little or no change in their total revenues, while for the poorest of them there will be a slight increase.

The vast majority of rural gminas, however, will experience a substantial improvement in their overall fiscal situation. Moreover, and equally importantly all rural six-year-olds will have to attend zero-classes. Indeed, by funding "zero" classes and increasing the number of pupils in them by 11 percent the proposal will not only substantially relieve the financial pressure on many rural gminas to close small schools and lay off rural teachers, but increase the effective utilization rates of existing school facilities and teaching staff.

In other words, by reallocating money within the sector the proposal will not only promote the equalization of educational opportunities between town and country, but improve the efficiency with which existing resources are used. Moreover, there seems little reason to believe that rich urban jurisdiction will not be able to weather the loss of revenues produced by the proposal, especially because urban parents are in general better equipped to make private contributions to preschools.

In Appendix F we present calculations for two versions of this proposal, one that covers the costs of including "zero" classes entirely from PIT shares, the other of which covers these costs by eliminating gminas shares in CIT and a smaller reduction in PIT. Because more than half of all gmina revenues from shares of CIT come from the city of Warsaw, and rural gminas have virtually no CIT revenues, the redistributional effects of this option are not only stronger, but actually place substantially more of the net loss on Warsaw, as opposed to other urban jurisdictions.

The second part of this proposal is to establish a grant program to fund the preschool education of rural five-year-olds in special "zero" classes for 5- and 6-year-olds. The object of this program would be to ensure that as many rural children as possible enter first grade fully prepared to read and do basic addition and subtraction. Under this program, rural gminas would receive the per pupil standard for all five-year-olds enrolled in "zero" classes and taught by teachers with university degrees that had received special training in early childhood education in courses certified by the Ministry of Education.

Because the Ministry of Education is currently preparing such a program (Teachers for Small Children or NAMAD by its Polish acronym) we assume no additional costs for the preparation of teacher training materials. We also assume that existing private and public teacher colleges will be interested in teaching this course to teachers on a commercial basis. Similarly, we assume that some combination of rural gminas and teachers themselves will pay for the costs of participating in these certified courses, the former to gain access to the per pupil funding for each five-year-old enrolled in the special "zero" classes, the latter to

jurisdictions.

<sup>&</sup>lt;sup>46</sup> It is worth noting here that despite the fact that Warsaw pays into teachers' salaries an extra forty percent out its own revenues, wages still constitute only 58% of its educational operating budget as opposed to 72% for other cities and 82% for rural gminas. This means that Warsaw is able to provide its students with substantially more in the way material amenities, teaching aids, and in fact (subcontracted) direct teaching support than all other

improve their long-term employment prospects. Finally, we assume that of the 200,000 rural five-year-olds currently living in the Polish countryside approximately 15 percent of them (30,000) would participate in these special "zero" classes in the first year the program, with another 15 percent joining in each subsequent year until approximately 75% of all rural five-year-olds were in such classes.

If the grant program provided rural gminas with the weighted per pupil funding for rural primary schools, the program would require approximately 80 million PLN in its first year of operation and 400 million PLN by the time it reached its expected capacity after five years. As with our proposal to make "zero" classes obligatory, this recommendation could more or less be funded through the reallocation of existing resources within the sector. Here, however, we propose to reallocate money across "rural" gminas.

This proposal could be funded within existing expenditure levels in a number of ways. As we have noted earlier, the category of rural gminas is an administrative category, and not one based on objective characteristics such as the number of people employed in agriculture or per capita income. Moreover, as we have noted, the dynamic growth of Poland's major metropolitan areas has led to the suburbanization of many rural gminas, some of which are now among the richest jurisdictions in the country. Indeed, simulations conducted by the Ministry of Education in 1999 demonstrated that approximately 30 percent of the 1.1 billion PLN (330 million PLN) paid to rural gminas as a result of the multiplier for rural primary school pupils flowed to gminas whose per capita revenues and school networks more closely resembled those of cities than their "rural" counterparts<sup>47</sup>.

In other words, by taking out of the subvention an amount equal to that which would be saved by means testing the rural multiplier, and placing this sum in a categorical grant program, funds could be made available for the support of rural five-year-olds. Indeed, the cut-off points for eligibility for the rural multiplier could be phased in over a five-year period, both to adjust the money available to fund the program to its expected extension and to prevent adjustment shock in those "rural" gminas losing funds.

Another way to fund this proposal would be to lower the multiplier for all rural gminas by the amount necessary to fund the program, once again taking the (nominal) sum saved out of the subvention and shifting it to a categorical grant. Indeed, one could use this strategy in combination with the first proposal by lowering the rural multiplier *before* calculating how much PIT shares would have to be reduced to include all six-year-olds within the subvention. In fact, such a procedure could be used to both reduce the overall shift in resources from urban gminas to rural ones, while still funding six-year-olds within the subvention, and five-year-olds outside of it<sup>48</sup>.

As with making "zero" classes obligatory, the creation and funding of special rural "zero" classes for 5- and 6-year-olds would serve multiple policy goals. First and most importantly, it would help rural children overcome the socio-economic obstacles that reduce their educational and life chances by getting them into school earlier. Second, it would further ease the fiscal pressure on rural gminas for the provision of preschool services while also increasing the effective utilization rates of both schools and teachers. Third, it would make it possible for rural five-year-olds to receive preschool education, something that has become

<sup>&</sup>lt;sup>47</sup> T. Levitas, J. Herczynski, M. Herbst, "Jak poprawić algorytm", *Wspólnota* 39, Warsaw 2000.

<sup>&</sup>lt;sup>48</sup> Obviously it would also be possible to fund this program by simply adding in to the education budget, but outside of the subvention new resources.

exceedingly difficult since, as we have seen, many rural gminas have completely liquidated their preschools as distinct institutions.

And finally, and perhaps most importantly, it would provide a set of concrete incentives to teachers and local governments to improve the quality of early childhood education, an improvement that should be accompanied by the imposition of a more rigorous set of teaching standards by the Ministry of Education. Indeed, this last point is particularly important because at present more the 50 percent of rural preschool teachers do not have advanced degrees, and preschools more resemble day care centers than schools<sup>49</sup>.

## III. The Development of Local Government Educational Strategies

As we have stressed throughout this report, local governments are now principally responsible for the management of schools, and consequently all efforts to improve the efficiency of Poland's educational system will in large part depend on the willingness and ability of local governments to design, finance, and implement rational strategies of reform. At the primary school level the central problem remains the problem of small rural schools and the high costs they impose on the educational system in general and on rural gminas in particular while offering very low quality education. This is the problem of consolidation of school networks, facing gminas. At the secondary school level, the central problem lies in improving the access of rural students to education that genuinely provides them with the skills necessary to succeed on a rapidly changing job market. This is the problem of rationalization of vocational education, facing powiats.

Our first policy recommendation --while primarily designed to promote the improvement of early childhood education in the countryside-- will as, we have noted, relieve a significant amount of the fiscal pressure on rural gminas to close small schools while also increasing the efficiency of the resources spent within them. Nonetheless, and over both the long and short term, the problem of small rural schools will remain, producing conflicts between local governments and the national government over funding levels and between parents and local governments over school closures.

And here, there are no easy or obvious solutions: On the one hand these schools are not only extremely costly, but cannot provide their pupils with the range of educational services that are affordable in larger institutions. On the other hand, parents and teachers are attached to them, they are very accessible for the children, they often serve as the cultural centers of their communities, and busing children to other schools can be difficult because of poor local roads or other topographical circumstances. In fact, in some cases it may be difficult to close small schools simply because there are no other accessible schools capable of serving the displaced pupils.

Nonetheless, as we have indicated earlier, we believe that developing special multipliers for these schools is dangerous because the result is liable to be inordinately costly and/or simply preserve institutions that cannot provide quality education to their pupils. Similarly, we are somewhat skeptical of initiatives designed to save these schools in opposition to local governments' efforts to close them, because we are not convinced that a change in organizational form and increased parental involvement --as desirable as increased

<sup>&</sup>lt;sup>49</sup> See Wojciech Marchlewski, Union of Polish Rural Gminas RP, "Report on Preschools in Rural Gminas".

parental involvement is – will allow them to become cost-effective providers of quality education.

A similar set of dilemmas exists with respect to secondary education. There is a general agreement that many of the existing vocational schools are obsolete and need to be restructured. There is also general agreement that even vocational schools should provide students with a broader range of skills than they currently do. Nonetheless, it is exceedingly difficult for the national government to determine exactly what these schools should teach in different parts of the country. At the same time, however, leaving the decisions entirely up to directors creates the dual risk of passivity in the face of change, or a stampede towards those professions that seem to hold the most immediate promise for future employment.

There is also general agreement that the access of rural students to quality education must be improved. Once again, however, given regional differences in the distribution of secondary schools, the presence or absence of boarding facilities, and the nature, reliability and costs of public transport, it is exceedingly difficult for the national government to design optimal policies for each region of the country. In short, as in the case of small schools, there are profound risks in trying to impose uniform national solutions to problems that have very different local characteristics.

Thus, our second set of proposals focuses on developing a system that will facilitate regional and local adaptation and implementation of nationally defined policy priorities. These priorities can be expressed in a number of ways, and most have already been articulated in official government documents such as the Pact for Agriculture and Rural Areas (see Appendix E). Nonetheless, we would define them as follows:

- Improving early childhood education
- Consolidating rural school networks
- Improving the access of rural children to high quality secondary education
- Improving teachers' skills and training
- Developing of life long learning institutions designed for the information age
- Developing local, regional and national institutions and instruments to plan, monitor, and adjust policies designed to achieve these goals.

The first step in creating such a system is to take seriously the recent creation of democratically elected voivodship authorities (which, borrowing a phrase from Polish, we will refer to as voivodship, or regional, self-governments) and the responsibilities they have been assigned by the national government in the area of regional planning<sup>50</sup>. The second step is for the national government to clearly state, and for all levels of local government to clearly understand, that coherent strategies for improving education must be part of their own development plans. Indeed, such plans should become a precondition for any gmina's or powiat's receipt of money under the regional development strategy.

In other words, the national government must require that local governments take a proactive role in designing their educational systems, systems that span preschools, schools, in-service training facilities, cultural institutions, NGOs, employers, and the private sector.

<sup>&</sup>lt;sup>50</sup> The Law on Regional Development. Of course, the regional development strategies have to incorporate the central government's priorities, as listed above.

In order for this work to proceed efficiently and in line with the government's priorities, the Ministry of Education should define, for each of the priorities listed above, a set of preconditions which must be met before the funds allocated to the regional contracts can be made available to local development programs.

These preconditions can include a combination of process requirements such as the constitution of social oversight and planning bodies, co-financing requirements, new or more rigorous program standards, and formalized self-monitoring requirements<sup>51</sup>. All of this should be designed to encourage local governments to see themselves individually and collectively as something more than the payment agents for schools, and to understand that education is now a lifelong process that requires the continual deliberation and repositioning of a large number of social partners.

Similarly, financial support for teacher retraining may be limited to teacher development courses which have been certified by the Ministry of Education. School improvement programs, which are discussed in our recommendation on monitoring capacities, should be financed from regional funds if they meet certain specified quality standards. In fact, the development of such criteria is best carried out by the national government, while actual implementation should be left to the regions themselves.

The third and crucial step is to place at the disposal of regional self-governments funds which will allow them, first, to help gminas and powiats develop coherent educational strategies and business plans, and second, to co-finance (on a competitive, means-tested basis) those plans that hold the most promise for realizing some or all of the above priorities. For this third step to become a reality the national government must define a pool of money available to voivodship self-governments for the co-financing of local and regional education development plans. The national government most also define a set of programmatic criteria that ensure these monies will be used to develop plans that are directly linked to its policy priorities. Finally, and most importantly, the national government must provide voivodship self-governments with the programmatic funds necessary to actually co-finance the plans that begin to emerge.

The obvious questions with this scheme are how these pools of money are to be defined and where the money is to come from. Here again there are no simple answers, but a number of points can be made. First, this system is in fact implicit in the current construction of so-called earmarked reserves (*rezerwy celowe*) within the national government's education budget. Unlike the targeted grants (*dotacje celowe*) of old, these monies are now supposed to be placed in the hands of the regional voivods (representatives of the national government at the regional level), but allocated to subnational governments on the basis of regional plans drawn up by the voivodship self-governments. At the moment, however, cooperation between the voivods and the regional self-governments remains in its infancy, as does the overall implementation of the regional development contracts. As a result, it is unclear on what basis these funds are being allocated. It is, however, clear that they are not being allocated on the basis of comprehensive local or regional development strategies for education.

Second, responsibility for funds designated for the improvement of rural education is fragmented across a large number of ministries and their regional agencies. Most important in this respect is the unclear division of responsibility between the Ministry of Education,

30

<sup>&</sup>lt;sup>51</sup> For example, see the criteria for the support of a small schools program proposed in Wojciech Marchlewski, Union of Polish Rural Gminas RP, "Report on Preschools in Rural Gminas".

operating at the moment through the voivods and "its" curatoria, and the Ministry of Agriculture, which controls a significant amount of money for rural education from the European Union's SAPARD program and whose allocation at the regional level is controlled by the Agency for Agricultural Modernization and Development. Similar coordination problems exist with respect to funds controlled by the Ministry of Labor and Social Welfare for labor retraining, as well as the earmarked reserves for certain cultural and health functions that could or should be used for rural education.

Third, the national government can begin this process of eliciting and funding particular types of local development plans in progressive way. In other words, in the immediate future (1-2 years) relatively small amounts of funds should be earmarked for particular types of programs or regions in order progressively build responsible demand and absorption capacity at lower levels of government. As this demand builds, it will become easier to see what the real needs are, and what the scale of full-blown national programs ought to like. It will also become easier to plan and structure the not insignificant funds that could come from the European Union for human capital development.

But for this to happen, the national government must quickly move to add substance to the regional development functions of the newly created voivodships by clearly defining the programmatic priorities which are supposed to guide their activities, and clearly assigning them responsibility for making the decisions about how the lion's share of available funds for rural education should be allocated. Indeed, if this is not done, we are likely to see the proliferation of underfunded special programs --all more or less justified-- but funded by a plethora of agencies and allocated not on the basis of comprehensive local plans, but on the basis of local governments trying to hook on to whatever available funds are floating around in the system.

### IV. Improving the Skills of Rural Teachers

As we have noted, despite an impressive general improvement in the formal qualifications of Polish teachers over the last decade, the quality and qualifications of rural teachers continues to lag behind those of urban ones<sup>52</sup>. More importantly, the real content of this general improvement in teacher qualifications is difficult to measure.

Since the beginning of the 1990s, many private schools and colleges have sprung up, offering courses of widely differing value to the teachers who attend them. Similarly the quality of courses provided by public universities and teachers' colleges varies dramatically. This burgeoning market for teacher retraining is largely unregulated and the legal requirements for teacher preparation and advancement are often treated rather formalistically. As a result, data on the real nature of teacher retraining is weak<sup>53</sup>, there is little information on the quality or types of institutions that are providing training or certification, and much of the training itself has been extremely short term. Indeed, 40 percent of teachers who have

<sup>&</sup>lt;sup>52</sup> See analysis and data in L. Korporowicz, D. Wadowski, "Podnoszenie kwalifikacji nauczycieli wiejskich". <sup>53</sup> This variation of the teacher qualifications would become even more pronounced if in place of the current classification (secondary education, Teachers' Colleges, tertiary education) we were to use finer distinctions, differentiating, for instance, between master's (*magisterium*) and associate degrees (*licencjat*), between full-time students and evening and weekend students, and the like. What this means is that – in addition to the already discussed discrepancies between rural and urban schools – the education that students are receiving in different regions and in different schools in the same region is not the same.

"improved their qualifications" (formally speaking) have done so through very short-term programs, most frequently half-day methodological improvement sessions<sup>54</sup>.

Moreover, information on teacher training programs is not easily available, and there is no central registry of programs that the Ministry has promoted or considers of special value. As a result, the consumers of these programs are often operating in the dark and without any information about the quality of the programs they are paying for. This problem is particularly clear in rural areas were access to information is poorest.

It thus seems clear that there is room for significant improvement in this area and that the Ministry of Education should play a more aggressive role in promoting the development and dissemination of high-quality teacher training programs designed for rural teachers and school directors in specific areas of pressing need. These courses should probably be organized in summer school formats to insure greater accessibility for rural teachers who have difficulty traveling to night or weekend courses, and more intensive training.

As we have already indicated, we believe that it is extremely important that the quality of early childhood education be improved in Poland, particularly in its rural areas. Thus the program currently being developed by the Ministry should be targeted first and foremost at rural teachers and the Ministry should consider ways to insure that they have better than equal access to this training when it becomes available.

At present, approximately 10 percent of rural primary school pupils are taught in joint classes. This number is likely to increase with continued demographic decline, and would certainly increase further if our proposal for a special grant program for rural five-year-olds were adopted. Unfortunately, however, there is no special training available in Poland on how to conduct joint classes. Indeed, joint classes are seen as terrible problem and a source of local shame, an attitude which sometimes leads rural local governments to further increase their low pupil teacher ratios and hence the costs of their small schools<sup>55</sup>. In fact, there is almost no information in Poland about innovative teaching methods that actually promote multiyear classes as a way to improve children's ability to work together and to increase there understanding of learning as a continual process. So here too we think it is important that such teacher training programs be developed.

Special notice must also be given to the teachers of professional schools working in rural areas, particularly those in the Group Agricultural Schools. As noted in the main part of the report, these are among the most accessible schools for rural students, so extra care should be taken to improve their quality and make them more attractive. Here it is important to offer teacher professional development courses which address the urgent, but very poorly served needs of rural students. Here we have in mind programs that give pupils a basic conceptual and operational understanding of the institutions of a modern economy, including such concepts as banking, insurance, taxes, and health, safety, and quality standards and regulations.

It is also important that in the movement to provide better general education to rural secondary school pupils the fundamentals of good vocational training are not lost. This is important because there is a general feeling among employers that Polish vocational schools

<sup>&</sup>lt;sup>54</sup> Korporowicz, Wadowski, op. cit.

<sup>&</sup>lt;sup>55</sup> There are primary schools in the USA which conduct joint grades teaching as a matter of principle, using the pedagogical benefits of older children helping younger ones, and thereby learning better.

generally fail to give pupils a good background in what it means to be an employee. As a result, for example, students graduate with a very narrow range of specific technical skills but are unable to apply the principles behind these skills to other areas. There is, for example, evidence<sup>56</sup> that graduates of Polish vocational schools lack many of the basic workers' skills, from the safety behavior to tools and equipment maintenance, which would help to significantly reduce the productivity and value added gap between Polish workers and their Western European counterparts. While the Ministry of Education is working on introducing such changes into the curricula and programmatic base of the new post-gymnasium schools, in order for these changes to reach classrooms in rural schools, it will probably be necessary to train the teachers appropriately<sup>57</sup>.

It is also clear that another set of skills needed in rural areas (and in fact everywhere in Poland) is the management of education systems. This should combine economic, management, and organizational knowledge with some understanding of the legal framework in which the education sector operates, as well as insight into pedagogical processes and functions. The gmina and powiat officials often lack the ability to assess the education process in the schools they manage, and it is not surprising that they become concerned primarily with facilities maintenance and budgetary discipline. This may be convenient for the independent school directors, but in the end it is detrimental to the sector as such, because local governments, as the principal actors in the sector, are making decisions without a proper understanding of the fragile and elusive processes taking place in their schools. We would thus advocate including among the teacher improvement courses some training in education management.

To promote the development and dissemination of these courses, the Ministry of Education should organize a series of competitive bids for the preparation of high quality courses<sup>58</sup> for rural teachers. These courses should cover a variety of subjects, including those touched on above and potentially others (e.g., ecological development, agrotourism). Each course should consist of a syllabus, the program itself, detailed teaching instructions, a textbook and possibly some other teaching aids, sets of exercises, and exam requirements, as well as procedures for certifying institutions for the use of these materials.

Once the courses are prepared and accepted by the accreditation body appointed by the Ministry of Education, they should be made available to teacher training institutions throughout Poland. A matching grants program should be introduced, in which tuition charges are shared between teachers and the national government. In some cases it may also be desirable to require local governments to participate in the costs.

The certification of the programs by the Ministry of Education would serve to guarantee the quality of teacher retraining, both to the teachers themselves and to other potential providers of funding.

We estimate that the cost of preparation of one such course should not exceed 1.5 million PLN, of which 500,000 would be used for the preparation of the materials and 1

<sup>57</sup> The problem of restructuring vocational education is particularly difficult and clearly requires special attention. For an analysis of these problems see OECD, *Education Reform in Relation to the Needs of the Labour Market*, 1997.

<sup>&</sup>lt;sup>56</sup> Nicholas Barr, "Labour Markets and Social Policy in Central and Eastern Europe", 1994.

<sup>&</sup>lt;sup>58</sup> We have in mind intensive summer school training or two-semester courses, as shorter forms of retraining have less value.

million for the teaching and certifying of a number of institutions. The development of four courses a year would thus cost about 6 million PLN. This is the investment cost. The recurrent costs would be the matching grants to teachers. If 20,000 rural teachers are trained a year, the yearly costs of such a program would be about 20 million PLN<sup>59</sup>.

There are also profound deficits among rural teachers in the areas of language training and computer skills. Twenty percent of rural school children are still taught only Russian, and only 30 percent (as opposed to close to 45 percent in urban areas) have access to English. Here, however, training programs are less likely to be a suitable because on the one hand the acquisition of language skills is a long process, and on the other because the market for computer skills in urban areas is so attractive.

As a result we recommend here the development of programs designed to facilitate the **growth of a pool of itinerant teachers** who would serve multiple schools. At the moment, this is legally difficult because only schools, and not local governments, can hire teachers directly. This makes such arrangements extremely awkward. For this reason, we recommend the lifting of these restrictions for rural language and computer instructors and the development of special programs to make work in rural areas attractive to these specialists. This could include nationally provided supplemental pay, tax exemptions, or tuition support during schooling in return for initial posting in rural areas.

## V. Monitoring Educational Performance in a Decentralized System

As we have stressed throughout this report, the primary responsibility for the management of schools is now in the hands of local governments. With local control, there will be increased variation in the nature and quality of Polish education. This variation will be driven by differences in the managerial capacities of local governments, by their willingness or ability to contribute additional funds to their school systems, and by the depth of the socio-economic and structural challenges they face.

Both the increase in variation and the complexity of the forces driving it will require monitoring by the central government if all children are to receive a minimum standard education. Moreover, and again as we have suggested throughout this report, the challenges local governments face with respect to the restructuring of primary and secondary education will require that they too make substantive judgments about the nature and quality their schools. They too, in other words, will need to begin to monitor school performance.

At the moment however, the monitoring of educational performance at both the central and local levels is weak. Traditionally, the monitoring and control of schools has been the sole responsibility of the curatoria. Indeed, they remain, as they should, responsible for determining whether schools are fulfilling the minimum programmatic, teaching and facility standards defined by the national government. It is our sense, however, that over the last ten years the ability of curatoria to carry out these responsibilities has been weakened, in part because of underfunding, in part because of the increase in the size of curatorial jurisdictions that came with the reform of voivodships, and in part because the radical changes in the sector have rendered some standards obsolete while creating needs for new ones that have yet to be developed.

<sup>&</sup>lt;sup>59</sup> Korporowicz and Wadowski, op. cit.

The national government has recognized the need to develop new instruments for monitoring the performance of schools, and over the coming years a system of standardized national tests for 6th and 9th and 12th grades will go into effect. These tests will yield very important information about the performance of the sector as whole, as well as about the performance of students in particular school districts and even individual schools. Nonetheless, standardized tests are notoriously poor instruments for judging the performance of schools (and teachers) because so much of the educational successes and failures of children derive from their parents and their socio-economic situations. Thus the results of the tests will certainly be both unfavorable and unjust to rural schools.

As a result, both the national government and local governments will need to develop more fine-grained tools to judge school performance in general and the forces driving variations in this performance across jurisdictions. Indeed, the development of these tools are particularly critical for rural education because the problems facing the sector, and the need to improve its performance, are particularly pressing.

Some of these tools will require significant improvement in the Ministry of Education's statistical systems, as well as in the Ministry's capacity to analyze and draw policy implications from this statistical data. As we have already mentioned, the Ministry lacks good information about teacher qualifications, variations in which will increasingly affect the performance of schools across the country. Similarly, the Ministry lacks good data on teachers' wages and employment because schools report all wages in a single category, do not differentiate between contracts for educational services from other contracts, and do not break down the costs of full time and part time employment. This has not only made it very difficult for the national government to calculate the impact on local governments of nationally mandated wage increases, but will make it difficult to track implicit differences in the quality of education across jurisdictions<sup>60</sup>. Finally, both the Ministry and local governments lack good information on the types and amounts of above standard training that local governments are paying for, again an important measure of school quality.

Other tools will require the strengthening and retraining of curatorial staff. We thus think it is extremely important that the Ministry review the standards, workloads, and procedures for the curatoria and for school inspectors. It is also desirable that curatoria and school inspectors receive training organized by the Ministry about the Ministry's policy objectives with respect to school consolidation, the restructuring of vocational education, and the allocation of investment grants because it seems clear that the behaviors of curatoria and school inspectors varies significantly from region to region. While we are not prepared to estimate the costs of improving and standardizing the procedures and methodologies that curatoria and school inspectors use to assess school quality, we think it important that money for this task be clearly defined within the national education budget, and that the Ministry be held responsible to parliament for improving both its own statistical systems and the procedures of governing curatorial inspections.

The Ministry should also encourage the formation of social oversight committees at the local government level. This seems particularly important with respect to powiats and the need to restructure secondary education to meet the needs of local labor markets. This can be done by either making the provisions in the Law on the Educational System for the formation

<sup>&</sup>lt;sup>60</sup> For an analysis of the weaknesses of MEN's statistical systems see, Stephen Barro, "Pieniadze, Nauczyciele, i uczniowie: ocena polskiej statistyki finansowania oświaty", Zespol ds. Badań Finansów Oświaty, May 2000.

of School Councils obligatory, or by tying access to special funds and programs to the existence of these Councils. Either way, the idea is to encourage the participation of social partners (employers, labor offices, unions, private schools, independent experts) in developing local educational strategies, and in monitoring local school systems over time.

Finally, it would be desirable for the Ministry to help promote the use of the complex testing, interviewing, and social analysis in all schools for the purpose of self-monitoring. In fact the Ministry has already helped develop basic handbooks on the subject, and Polish experts are already being hired to conduct this sort of work in some of Poland's more dynamic gminas<sup>61</sup>. Nonetheless it would be desirable if self-monitoring could be supported through the provision of grants to schools themselves or to local governments that are making particular innovative interventions in their schools systems<sup>62</sup>. Indeed, we believe that much could be done to develop and disseminate these methodologies with relatively small grant program that required cofinancing by schools and local governments. If we assume that the costs of implementing such self-monitoring systems in five or six schools would be about 60,000 PLN and that local governments are required to fund half of these costs, then a program of 3 million PLN a year would allow 500 to 600 schools to begin to monitor their own performance over time.

## VI. Telecottage Grant Program

One of the most pressing needs facing Polish schools in general and rural ones in particular is the need to give children the tools necessary to function in the emerging "information society", including computer and Internet literacy.

Polish policy makers are aware of this need, as they have demonstrated with a handful of well-known programs, underway since 1998, for installing computers in elementary and secondary schools. Computer rooms with 10 computers each were set up in about 4000 schools in practically every Polish municipality for a total cost of about 235 million PLN. Nine thousand teachers received training under these programs. However, elementary schools have been largely untouched by these programs, and a disproportionately low number of teachers have received training in Polish rural areas. Moreover, the level of teacher training accompanying the installation of equipment has been inadequate, and there has been no effort to provide content – either in the form of Internet web sites or of software – which would speak to the specific educational and cultural needs of rural children and youth.

In this context, we believe it is worth devoting special attention to an increasingly popular tool for bringing rural communities into the information age, known as telecenters, or telecottages.

Telecottages are multifunctional facilities offering rural residents access to various computer and telecommunications services, including fax, email, and internet communication. The telecottage movement, initiated in Sweden in the 1980s, has caught on in many countries (not only OECD members) as a means of enabling the rural population to enjoy the fruits of

61 See for instance Irena Dzierzgowska and Stefan Wlazło, "Mierzenie jakości pracy szkoły podstawowej"

<sup>61</sup> See for instance Irena Dzierzgowska and Stefan Włazło, "Mierzenie jakości pracy szkoły podstawowej Centralnego Ośrodka Doskonalenie Nauczycieli" and R. Dolata, B. Murawska, E. Putkiewicz, M. Żytko, "Monitorowanie osiągnięć szkolnych jako metoda doskonalenia edukacji", Żak, Warsaw 1997.

<sup>&</sup>lt;sup>62</sup> It is worth noting that the Hungarian Ministry of Education has set up, as a part of the national budget for education, a small special reserve to promote self-monitoring at the school level.

the "New Economy" and integrating them into the "Information Society." Telecottages often serve educational purposes for village children and teenagers, and can constitute an important tool for economic development for adult villagers seeking to develop non-farm income sources. Despite various efforts over the course of the last five years or more, telecottages have not yet arrived in Poland. However, they have arrived – and impressively – in Hungary, and we believe the Hungarian example to be a particularly instructive one for Poland. The lessons from the Hungarian experience of particular relevance for Poland can, we believe, be summarized as follows<sup>64</sup>:

- Enthusiasm for the idea does not suffice to ensure that telecottages will actually be founded. Hungarian government involvement and in particular a USAID-funded grant program was, in this case, necessary to get the ball rolling.
- On the other hand, telecottages were never "decreed" from on high, but supported in townships designated on the basis of competitive grant awards, where those townships made significant own contributions (e.g., by donating the facilities to house them and paying their staff members).
- Telecottages effectively combine educational and cultural functions directed at children and teenagers with economic development functions.
- Initiatives to train telecottage staff members and develop Internet-based content aimed specifically at telecottage users, as well as to develop a system of telecottage monitoring, have been an integral part of the telecottage movement, coordinated by a special-purpose company created by the Hungarian Telecottage Association. Grant programs have been instrumental in supporting content development initiatives.

The idea of telecottages seems to be attracting more and more attention in Poland. Some experts at the Ministry of Communication and the Polish Scientific Research Committee prepared a document<sup>65</sup> in which they called for a program to create Internet facilities with connections with data transmission speeds of 128 Kb/s. Under this program, the government would pay 85 million PLN over three years to cover one-time costs of setting up the connections in all elementary schools and gymnasiums in the country. The document also called for setting up a telecottage in every rural and mixed rural-urban municipality, for a total of almost 87 million PLN over a three-year period (over 2100 telecottages at an average cost of 40,000 PLN per telecottage).

However, this program neglects two critical elements that the Hungarians included in their programs: training for telecottage staff, and the creation of a monitoring system allowing stakeholders to benchmark the effectiveness of telecottages, compare their experiences and learn from each other. Moreover, it postulates a top-down approach in which the government simply creates facilities on a mass scale, without incorporating the level of local initiative in its calculations. It is more than certain that such an approach would result in a vast number of facilities remaining under lock and key and collecting dust. We believe that it would be much

<sup>64</sup> For a detailed discussion, see Z. Kotowski, R. Kotowski, R. Woodward, *Teleinformatyka w edukacji polskiej wsi*.

<sup>&</sup>lt;sup>63</sup> Information on the Hungarian experience can be found in G. Bihari and K. Jokay, *Telecottages in Hungary: The Experience and the Opportunities*, IGE Ltd.: Budapest, 1999, and on the Telecottage Association's web site (www.telehaz.hu).

<sup>&</sup>lt;sup>65</sup> The development of telecottages in Poland is harmed by poor telecommunications. See the Government Plenipotentiary for Rural Telecommunication, "Strategia rozwoju telekomunikacji na wsi na lata 2000–2004 (Strategy for development of rural telecommunication, 2000-2004)", Ministry of Communication, Warsaw, June 2000.

better to start with a pilot project which would sacrifice quantity for the sake of quality, creating good practice models on the basis of local initiatives, which would then serve for broader dissemination.

We therefore propose a pilot program to support the creation of a Polish telecottage movement, that program to be composed of the following elements:

- A program of grants for the creation of 30 telecottages,
- An effort to assure effective use of the telecottage facilities by local residents via appropriate training for telecottage staff,
- A program of grants for the creation of content to be offered by the telecottages, including web sites, portals and educational software, targeted at a rural audience, and
- A system of telecottage monitoring.

Municipalities to be supported with grants would be selected in a competition, in which selection criteria would include their previous accomplishments in such areas as computerization and telephone network development, as well as their offers with respect to own contributions to covering the costs of setting up the telecottages.

In addition to educational purposes, these telecottages would also serve to further local economic development, giving local residents opportunities to increase their access to, as well as to offer, information about agricultural products and prices as well as labor market information and information on income opportunities outside farming (e.g., in tourism, handicrafts, etc.). Furthermore, they would serve as centers of culture, giving rural Poles the opportunity to share their cultural heritage not only with the rest of Poland, but, for example, with Poles living abroad and persons of Polish descent living outside of Poland.

We have estimated the total cost of the program proposed here at 4.9 million PLN. broken down as follows<sup>66</sup>:

	Item	Estimated cost (PLN)
1.	Grants for creation of 30 telecottages:	3,700,000
2.	Grants for creation of rural interest portals, web sites, software	1,000,000
3.	Telecottage effectiveness monitoring system	125,000

It could be financed from the following sources, among others:

- The state budget (earmarked reserves 21, 22, and 25, reserved for rationalization of the school network and improvement of teaching conditions in rural schools).
- SAPARD
- FAPA
- PHARE-STRUDER
- ISPA

\_

<sup>&</sup>lt;sup>66</sup> For a more detailed discussion of the budget, see Z. Kotowski, R. Kotowski, R. Woodward, "Teleinformatyka w edukacji polskiej wsi".

## **Appendix A: Reform of the Polish Education System**

Rapid and spontaneous changes of the Polish education system began as soon as the Round Table talks, conducted in the first half of 1989 between the Communist government of Poland and the Solidarity trade union, were concluded and the first (partially) free elections to the Polish Parliament in June of the same year were held. The first changes were the organization of a number of non-public schools by groups of parents. Soon the first non-Communist Polish government of Prime Minister Mazowiecki passed a number of laws changing the legal framework of Polish education, of which the Law on Higher Education of 1990 and the Law on the System of Education of 1991 were of particular importance.

The 1990 education reforms were seen by their authors as both a return to pre-World War II traditions and to "normalcy", and as the dismantling of the authoritarian communist state. This agenda underlay the following programmatic changes:

- Freedom of choice of textbooks and program was guaranteed to teachers. For each subject and each school type, the Ministry mandated only the core program (*minimum programowe*), and reserved the right to approve given detailed programs and textbooks on the basis of their conformity to the core program. As a result, a multiplicity of different programs and textbooks appeared, and a number of textbook publishers came to compete with the previous monopolist, WSiP. In this way, the program rigidity characteristic for the previous system, with its intensive propaganda content, was replaced by a rather anarchic system, in which it is, for instance, almost impossible to arrange for joint purchases of textbooks at a local level, as every teacher will defend his or her right to freely choose both the detailed program and the textbook.
- Religion was brought back to the schools, though without the common prayer at the beginning of the school day. Participation is voluntary, though nearly universal, and schools are obliged to organize religion lessons not only for the dominant Catholicism, but also for religious minorities (Russian Orthodox, Protestant) and for non-religious students (ethics classes), if there is a sufficient number of such students.
- Associations, institutions and individuals acquired the right to set up both public and non-public schools (the public school is one which charges no fees, is open to all, employs teachers with required qualifications, teaches according to approved programs and uses the marking system mandated by the Ministry of Education). Apart from the non-profit schools organized by parents (szkoły społeczne), a number of denominational and commercial schools have also been established.

In the context of the present report it is worth noting that the appearance of these new schools, together with the traditional Polish freedom of choice of the secondary schools, prompted many public schools, especially at the level of lyceum, to introduce various innovative programs. This competition for students led in some metropolitan areas to the present system of highly competitive entrance exams, with candidates applying simultaneously for entry into numerous secondary schools, where the ratio of candidates to places often exceeds 10. This system is not only unfair, stressful and very trying for all the 15-year-olds, but also too difficult for many graduates of rural primary schools, for whom the exams often prove an insurmountable barrier.

The desire to dismantle the authoritarian state led to the following organizational changes:

- The management of schools was progressively taken away from the central government and passed over to the local governments. The local authorities became the most important directly involved actors in education, a fact which often goes unnoticed in discussions of educational reform. This process is described in some detail in the main body of the report, as it is of crucial importance to any reforms which may be contemplated for the sector.
- The already quite strong position of the school director was strengthened even further, with the intention of making him less susceptible to the political pressure from the Ministry. Reforms included making the appointment of new school directors the responsibility of a committee including representatives of the parents, teachers, trade unions, curatoria and the local government. These committees usually reelected incumbent directors that chose to stand for reelection. The effect, paradoxically, was that the school directors became quite independent of the new school owners, the local governments. In particular, in small villages the position of the school director is very strong, and he is usually quite able to organize strong local resistance to any plans to close his school and consolidate the school network.
- The financing of education was changed from direct financing by the Ministry of Education, curatoria and the branch ministries (for vocational schools), to various block and earmarked grants from the central budget to the local budgets. By 2000, the financing was restricted to the general subsidy, which is a transfer to local government not tied to any spending targets (it can be used for any purpose, educational or not). The state thus lost any mechanism of directing money to particular local governments for particular education projects.
- The controlling powers of the curatoria, the regional branches of the central government in education, were slowly eroded. For instance, their approval is no longer necessary for either setting up a new school or for closing an existing one (as of 1998).

The first few years following the end of communist state in Poland were characterized by a radical economic reform and a very serious decline in GDP. Many vocational schools lost their previous owners, large state own companies, which could no longer afford to finance them (or indeed employ their graduates). The state had to take over the running and financing of these very expensive schools. At the same time, the shortage of funds for education caused the near complete disappearance of the stipend system in the Polish schools, and the introduction of more real payments for the boarding houses (*internaty*). Both these developments hit rural schoolchildren particularly hard. As almost all the secondary schools are located in the cities, the decrease in financial help for poorly endowed students and the increase of the costs of lodging further restricted rural children's access to education.

It is equally clear that the growing market of non-public education is priced beyond the reach of the rural population. Indeed, there are almost no non-public schools in rural areas (and those that are located there are essentially restricted to rich suburban gminas, whose rural character is fictitious).

The changes in the education sector were slowed down, though not suspended, by the government including the SLD, the post-communist party (although it was this government which introduced the "big cities" program). It is also important to remember that many changes were taking place spontaneously, with students voting with their feet and virtually forcing school directors to adapt to changing parental expectations (especially towards more widespread general academic education in lyceums). However, the reforms picked up in 1998, after the AWS-led government took office. The subject of one of four major social reforms undertaken by this government, education entered a period of deep structural changes, which have not yet been completed.

The main element of the structural reform was the introduction in 1999 of gymnasiums, a new lower secondary school, and appropriate changes in curricula. The primary school was shortened to 6 years; gymnasium lasts for 3 years, and the new upper secondary schools, the lyceum and the vocational school, are to last 3 and 2 years respectively. Thus the reform left the total teaching time (6+3+3 in place of 8+4 for lyceums, 6+3+2 in place of 8+3 for vocation schools) unchanged, and in fact reduced it for some technical schools (where the students were taught for 8+5 years). The following chart presents the old and the new structure of the education system in Poland.

## The structure of Polish educational systems

The old system Primary school Lyceum Post lyceum school Technical school Basic vocational school Technical school The current system Primary school Gymnasium Profile lyceum Vocational school Vocational Lyceum

8

9

10

11

12

13

year Final maturity exam qualifying for tertiary education

6

5

2

1

3

4

The main aims in introducing the gymnasiums are:

7

The modernization of school programs, improvement of teaching quality and of school equipment. The programmatic change related to the introduction of gymnasiums stresses a closer connection between the periods of individual student development and the phases of school career.

- The creation of larger and better-equipped schools in the countryside. It was decided that while shorter primary schools may remain somewhat smaller, the older children (after the age of 13) should attend larger schools, which it will be easier to equip well, for instance in computer laboratories or language classes. Initially, it was assumed that a gymnasium should have at least 150 students, but this and some other requirements had to be abandoned as gminas grappled with the problems of creating the new schools. Nevertheless, as discussed in the main report, the gminas were very successful in creating a rational network of gymnasiums.
- The separation of the young children attending introductory grades from teenagers in the last grades of the previous, 8-year primary schools.

The newly created gymnasiums were assigned to the gminas. Thus, the gminas are responsible for 6+3 years of obligatory schooling. Correspondingly, the number of school years in the powiat-run schools decreased by one year. This shift of one year means that a certain redeployment of teachers should take place between the two tiers of local government. However, it seems that no such transfer is taking place: the gminas are using the additional year to secure work for their teachers, threatened with redundancies as the numbers of students fall. The powiat schools, on the other hand, seem to be generally quite prepared for the structural change.

The first graduates of the gymnasiums will enter secondary schools in 2002. By that time the second phase of the reform should be completed, namely the preparation of new curricula, new programs and textbooks. This work is still under progress. Of special importance is the place of vocational and career training in the lyceums. The lyceum students are expected to choose one of the five available profiles: academic profile (identical to the earlier lyceum), technical and technological profile (chemical, electrical, and other trades), agricultural and environmental profile (agriculture, environment protection and similar trades), social and service profile (economic, trade, service trades) and cultural and artistic profile. In addition to the general knowledge necessary for taking the maturity examination, each profile will also contain, a number of professional skills.

It is important to realize that the new post-gymnasium schools, which will be established by the powiats, will have to conform not only to the general design of upper secondary schools as formulated by the Ministry of Education, but will also have to take into account the actual situation facing each school. Indeed, there is significant evidence that quite independently of the centrally mandated reforms, and largely on their own initiative, the secondary school directors have for the last few years been engaged in massive redirection of the resources of their schools in an attempt to adapt to local labor market demands. This has resulted in an increase in the number of general academic lyceum students, a decrease in basic vocational schools and many shifts in the trades taught in the schools. Although record numbers of primary school graduates move now to the secondary schools, there is intensive competition for students, and directors reacting slowly to these "market signals" often find themselves with few potential students interested in what their schools have to offer. This pressure may in the end prove much more significant in shaping Polish secondary education than the overall reform plan of the Ministry of Education.

## **Appendix B Enrolment, Employment and Facility Data for Primary Schools 1990-1999**

		1990/1991	1995/1996	1999/2000	1991-1995	1991-1999
	Cities	63.64%	62.75%	61.52%		
Shares of rural	Rural	36.36%	37.25%	38.48%		
and urban pupils	Total	100.00%	100.00%	100.00%		
	Cities	3 295.6	3 147.1	2 767.5	95.49%	83.98%
	Rural	1 882.6	1 868.1	1 731.3	99.23%	91.96%
Pupils	Total	5 178.2	5 015.2	4 498.8	96.85%	86.88%
	Cities	122.3	123.1	112.6	100.65%	92.07%
	Rural	104.4	100.9	95.4	96.65%	91.38%
Classes	Total	226.7	224.0	208.0	98.81%	91.75%
	Cities	176.4	174.2	163.8	98.75%	92.86%
	Rural	141.1	135.8	124.9	96.24%	88.52%
Teachers	Total	317.5	310.0	288.7	97.64%	90.93%
	Cities	89.8	103.7	109.1	115.48%	121.49%
	Rural	102.6	110.0	108.5	107.21%	105.75%
Classrooms	Total	192.4	213.7	217.6	111.07%	113.10%
	Cities	4 638	5 029	7 650	108.43%	164.94%
	Rural	14 808	13 916	14 704	93.98%	99.30%
Schools*	Total	19 446	18 945	22 354	97.42%	114.95%
	Cities	26.95	25.57	24.58	94.87%	91.21%
	Rural	18.03	18.51	18.15	102.67%	100.64%
Class size	Total	22.84	22.39	21.63	98.02%	94.69%
	Cities	18.68	18.07	16.90	96.70%	90.44%
Pupils per	Rural	13.34	13.76	13.86	103.10%	103.89%
teacher	Total	16.31	16.18	15.58	99.20%	95.55%
	Cities	36.70	30.35	25.37	82.69%	69.12%
Pupils per	Rural	18.35	16.98	15.96	92.55%	86.96%
classroom	Total	26.91	23.47	20.67	87.20%	76.82%
	Cities	710.56	625.79	361.76	88.07%	50.91%
	Rural	127.13	134.24	117.74	105.59%	92.61%
School size	Total	266.29	264.72	201.25	99.41%	75.58%
	Cities	1.44	1.42	1.45	98.11%	100.86%
Teachers per	Rural	1.35	1.35	1.31	99.58%	96.87%
class	Total	1.40	1.38	1.39	98.81%	99.10%
	Cities	26.37	24.48	14.72	92.83%	55.82%
Classes per	Rural	7.05	7.25	6.49	102.84%	92.03%
school	Total	11.66	11.82	9.30	101.42%	79.82%
Classrooms per	Cities	19.36	20.62	14.26	106.50%	73.66%
school	Rural	6.93	7.90	7.38	114.08%	106.50%
Own calculations: (	Total	9.89	11.28	9.73	114.01%	98.38%

Own calculations: GUS Data

<sup>\*</sup>In 1999, because of the introduction of gymnasium some of the trends discussed in the text become less pronounced. Nonetheless the net effect of introducing gymnasiums on the structural characteristics of the Polish education system is only that the number of schools increased, and accordingly the average size of the schools went down. All other trends were maintained, such as the increase in pupil-teacher ratio in rural schools and its decrease in urban ones.

## Appendix C. Enrollment, Employment and Facility Data for Lyceums: 1990-1999

	ſ	1995	1996	1997	1998	Growth*
	Total	1,704	1,754	1,844	1,988	116.67%
Cabaala	Loc. Gov	183	506	596	625	341.53%
Schools	MEN**	1,216	931	890	947	77.88%
	non public	305	317	358	416	136.39%
	Total	25,486	26,163	26,938	28,640	112.38%
Classrooms	Loc. Gov	3,056	8,961	10,405	10,947	358.21%
Classiconis	MEN	19,585	14,255	13,278	13,901	70.98%
	non public	2,845	2,947	3,255	3,792	133.29%
	Total	23,539	24,387	25,556	26,960	114.53%
Classes	Loc. Gov	2,870	8,822	10,394	10,959	381.85%
Classes	MEN	18,784	13,616	12,993	13,563	72.21%
	non public	1,885	1,949	2,169	2,438	129.34%
	Total	33,845	35,439	38,182	40,105	118.50%
Teachers	Loc. Gov	4,410	13,843	16,623	17,821	404.10%
reactiers	MEN	27,490	19,557	19,279	19,672	71.56%
	non public	1,945	2,039	2,280	2,612	134.29%
	Total	682,637	714,445	756,497	803,569	117.72%
Pupils	Loc. Gov	88,660	273,363	325,297	345,985	390.24%
Fupiis	MEN	563,588	409,290	395,346	416,666	73.93%
	non public	30,389	31,792	35,854	40,918	134.65%
	MEN	12.99%	38.26%	43.00%	43.06%	331.51%
Share of Enrollment	Loc. Gov	82.56%	57.29%	52.26%	51.85%	62.80%
	non public	4.45%	4.45%	4.74%	5.09%	114.38%
	Total	20.17	20.16	19.81	20.04	99.34%
Pupils per Teacher	Loc. Gov	20.10	19.75	19.57	19.41	96.57%
r upils per reacher	MEN	20.50	20.93	20.51	21.18	103.31%
	non public	15.62	15.59	15.73	15.67	100.26%
	Total	29.00	29.30	29.60	29.81	102.78%
Pupils per Class	Loc. Gov	30.89	30.99	31.30	31.57	102.20%
i upiis pei olass	MEN	30.00	30.06	30.43	30.72	102.39%
	non public	16.12	16.31	16.53	16.78	104.11%
	Total	1.44	1.45	1.49	1.49	103.46%
Teachers per Class	Loc. Gov	1.54	1.57	1.60	1.63	105.83%
reactions per Glass	MEN	1.46	1.44	1.48	1.45	99.11%
	non public	1.03	1.05	1.05	1.07	103.83%
	Total	400.61	407.32	410.25	404.21	100.90%
School Size	Loc. Gov	484.48	540.24	545.80	553.58	114.26%
OCHOOL OIZE	MEN	463.48	439.62	444.21	439.99	94.93%
* Provious year = 100	non public	99.64	100.29	100.15	98.36	98.72%

<sup>\*</sup> Previous year = 100

\*\* MEN is the Ministry of Education (Ministerstwo Edukacji Narodowej).

# Appendix D. Shares of the Education Subvention by School and Pupil Type in $2000\,$

	Number of		No. of weighted	Sum for individual	Total in	Percent of	
Categories of students	students	Weighting	students	pupils	(1000 pln)	subvention	
Primary Schools (PS) and Gy				F *  F ***	(1000   111)		
Physical Pupils PS/G	4,453,683	1.00	4,453,683	1,932.97	8,608,827	47.50%	
Rural Pupils PS/G	1,728,957	0.33	570,556	637.88	1,102,866	6.09%	
Small town Pupils PS/G	183,536	0.18	33,036	347.93	63,858	0.35%	
Pupils in special classes PS/G	5,269	0.50	2,635	966.48	5,092	0.03%	
Pupils in integrated classes PS/G	5,368	3.00	16,104	5,798.90	31,129	0.17%	
Pupils of National Minorities PS/G	34,818	0.20	6,964	386.59	13,460	0.07%	
Pupils bussed to school PS/G	611,212	0.30	183,364	579.89	354,436	1.96%	
Pupils in special sport classes PS/G	20,627	0.20	4,125	386.59	7,974	0.04%	
Pupils in special sport schools PS/G	556	1.00	556	1,932.97	1,075	0.01%	
Pupils in non public rural schools PS/G	755	0.80	602	1,542.51	1,165	0.01%	
Pupils in non public small town schools	120	0.71	85	1,368.54	164	0.00%	
Pupils in non public urban schools	35,505	0.60	21,303	1,159.78	41,178	0.23%	
Adult pupils in rural schools PS/G	220	0.93	205	1,799.59	396	0.00%	
Adult pupils in small town schools PS/G	71	0.83	59	1,596.63	113	0.00%	
Adult pupils in city schools PS/G	5,931	0.70	4,152	1,353.08	8,025	0.04%	
Special pupils in general classes	13,950	0.25	3,488	483.24	6,741	0.04%	
Programs for the severely handicapped	4,050	0.50	2,025	966.48	3,914	0.02%	
Secondary School			_,====		2,011	0.027.0	
Pupils in secondary schools	2,483,132	1.00	2,483,132	1,932.97	4,799,815	26.49%	
Adult pupils in lyceums	70,369	0.70	49,258	1,353.08	95,215	0.53%	
Adult pupils in vocational schools	174,607	0.81	140,559	1,556.04	271,695	1.50%	
Pupils in special lyceums	78,350	2.40	188,040	4,639.12	363,475	2.01%	
Pupils in special vocational schools	32,727	1.00	32,727	1,932.97	63,260	0.35%	
Pupils in professional schools	1,509,090	0.15	226,364	289.95	437,553	2.41%	
Pupils of National Minorities	2,240	0.20	448	386.59	866	0.00%	
Pupils in non-public lyceums for youth	41,965	0.60	25,179	1,159.78	48,670	0.27%	
Pupils non-public voc. Schools for youth	38,078	0.69	26,274	1,333.75	50,786	0.28%	
Adult pupils in non-public lyceums	43,065	0.35	15,073	676.54	29,135	0.16%	
Adult pupils in non-public voc. Schools.	121,548	0.40	48,923	778.02	94,567	0.52%	
Pupils in medical schools	26,903	1.00	26,903	1,932.97	52,003	0.29%	
Pupils in maritime schools	1,569	1.00	1,569	1,932.97	3,033	0.02%	
Students of public Teachers' Colleges	15,619	1.00	15,619	1,932.97	30,191	0.17%	
Students of nonpublic Teachers'	4 0 4 0	4.00	0.040	0.040.50	4.075	0.000/	
Colleges	1,843	1.20	2,212	2,319.56	4,275	0.02%	
Pupils in rural secondary schools	174,677	0.33	57,643	637.88	111,423	0.61%	
Pupils in small town secondary schools	74,809	0.18	13,466	347.93	26,029	0.14%	
Non-school Tasks							
Stance and Dorms	118 833	1.77000	210 334	3 421.35	406 570	2.24%	
Special preschools	3 056	4.50000	13 752	8 698.36	26 582	0.15%	
Special Education and Care Centers	32 990	7.37000	243 136	14 245.97	469 975	2.59%	
Non-school education facilities	7 470 892	0.01000	74 709	19.33	144 410	0.80%	
Psychological counseling services	10 080 490	0.01100	110 885	21.26	214 338	1.18%	
Children vacation homes	29 558	0.22100	6 532	427.19	12 627	0.07%	
Methodological consulting for Teachers	7 470 892	0.00800	59 767	15.46	115 528	0.64%	
Total			9 375 445		18 122 435	100.00%	

## **Appendix E. Government Strategy for Rural Development**

The basis documents defining the strategy of the Polish government with respect to the development of rural areas are:

- The medium-term strategy for the development of agriculture and rural areas (Średniookresowa strategia rozwoju rolnictwa i obszarów wiejskich), adopted by the Council of Ministers, 21 April, 1998
- Cohesive structural development policy for rural areas and agriculture (*Spójna polityka strukturalna rozwoju obszarów wiejskich i rolnictwa*), adopted by the Council of Ministers 13 July, 1999
- Pact for agriculture and rural areas (*Pakt dla rolnictwa i obszarów wiejskich*), adopted by the Council of Ministers 22 July, 1999
- Strategy for the development of telecommunication in rural areas, 2000-2004 (*Strategia rozwoju telekomunikacji na wsi na lata 2000–2004*), Government Plenipotentiary for Rural Telecommunication, Ministry of Communication (Warsaw, June 2000)

In the following we summarize what these documents have to say about the problems facing rural Poland, the government's goals with respect to addressing these problems, and the instruments by which it intends to address them.

#### **Problems**

"The republic must create similar opportunities for individual development irrespective of the place of residence", as we read in the preamble to the Pact for Agriculture and Rural Areas. However, the developmental barriers facing rural Poland and discussed in the documents listed above are numerous and profound, and we cannot list all of them here, but rather deal with those most relevant to education.

- 1. Excessive level of employment of the rural population in the agricultural sector
- 2. Poor technical infrastructure (roads, power lines, telephone lines)
- 3. Poor social and cultural infrastructure (low level of civil society: reluctance of farmers to organize themselves in groups for the attainment of collective goals; poor access to cultural, educational and health care institutions)
- 4. Very low educational attainment of rural Poles, and consequently low level of knowledge in the areas of production technology, marketing and management
- 5. Lack of links among farmers on one hand and the food processing industry and wholesale trade on the other

#### Goals

The documents discussed here set forth numerous goals whose achievement will be necessary for raising the standard of living in the Polish village. The prime goal is to make the Polish village a multi-functional one, putting an end to the agricultural monoculture. We list a number of particular goals of particular relevance for the development of education and the information society:

- 1. Increasing non-agricultural employment
- 2. Raising the educational attainment of Polish villagers

- 3. Development of social and technical (including telecommunication) infrastructure
- 4. Supporting the development of organizational and economic links between agricultural producers and the market for food products and wholesale trade
- 5. Increasing the access of cultural and educational institutions to new communication technologies (including the Internet)
- 6. Facilitating the restructuring of the rural labor market via tele-work

The Pact deals with education issues in the section on development of entrepreneurship and non-agricultural employment, and (in greater detail) in the section on supporting a comprehensive social policy for rural Poland. In order to improve the opportunities of rural Poles to find employment, the Pact's authors call for raising the educational attainment of rural youth and developing adult education.

#### **Instruments**

The instruments by which the aforementioned goals are to be realized include the following:

- 1. The creation of institutions (including training of staff) necessary for the absorption of EU Pre-Accession and Structural Funds designated for support of rural development
- 2. Supporting investment in technical infrastructure (including telecommunication infrastructure)
- 3. Development of tourism, including agrotourism, tourist services, and handicrafts
- 4. Supporting the development of vocational education (including adult education)
- 5. Improvement of the quality of rural education, from the preschool level to higher education, including the universalization of subjects currently in scarce supply in rural schools, such as computer science and foreign languages (other than Russian)
- 6. Providing access to computers and the Internet in schools
- 7. Creating a system of stipends, loans and loan guarantees for students
- 8. Development of career counseling for teenagers
- 9. In-service training for rural teachers
- 10. Special training for unemployed secondary school graduates

The Pact contains a section devoted especially to education, which enumerates several tasks for the central government, local and regional governments and NGOs, including, for example:

- 1. Universalization of pre-school education (implementation of the Small Child Program (*Male dziecko*)
- 2. Modernization of primary schools (including equipping them with computers and access to the Internet)
- 3. Creation of modern gymnasiums
- 4. Increasing the access of rural youth to lyceums and raising the standard of lyceums currently existing in rural Poland (including increasing access to stipends),
- 5. Developing rural higher education and increasing the accessibility of universities to rural youth (by creating, for example, branch campuses of major universities in cities which were formerly capitals of the old 49 voivodships, as well as the creation of vocational tertiary education providing students with two-year degrees),
- 6. Creating a system of student stipends and loans

### References

Barr, N. (ed.), Labour Markets and Social Policy in Central and Eastern Europe. The Transition and Beyond, Oxford University Press, New York 1994.

Barro, S., *Pieniądze, Uczniowie, Nauczyciele: ocena polskiej statystyki oświatowej*, Zespół d/s Badań Finansów Oświaty, MEN, Warszawa 2000.

Bihari, R. G., K. Jokay, *Telecottages in Hungary: The Experience and the Opportunities*, IGE Ltd. Budapest, 1999.

Child Mental Health Foundations and Agencies Network, *A Good Beginning: Sending America's Children to School with the Social and Emotional Competence They Need to Succeed*, 2000 [http://www.nimh.nih.gov/childhp/monograph.pdf].

Dolata, R., B. Murawska, E. Putkiewicz, M. Żytko, *Monitorowanie osiągnięć szkolnych jako metoda doskonalenia edukacji*, Wydawnictwo Żak, Warszawa 1997.

Dzierzgowska, I., S. Wlazło, *Mierzenie jakości pracy szkoły podstawowej*, CODN Warszawa 1999.

The Economist, Green is good, May 17, 1997.

European Union Commission, *Pre-school Education in the European Union: Current Thinking and Provision* – <a href="http://www.eurydice.org/documents/preschool/en/1cpren.htm">http://www.eurydice.org/documents/preschool/en/1cpren.htm</a>

Eurostat, Education across Europe: Statistics and Indicators, 1999

Golinowska, S., *Ubóstwo w Polsce*, in Stanisława Golinowska (ed.), *Polska bieda: kryteria, ocena przeciwdziałania*, Instytut Pracy i Spraw Socjalnych, Warszawa 1996.

Golinowska, S. (ed.), *Human Development Report Poland: Access to Education*, UNDP/CASE Warsaw 1998.

Golinowska, S., J. Herczyński, *Wykształcenie i przygotowanie zawodowe Polaków*, Raport PAIZ, Warsaw 2001.

Herbst, M., Realizacja zadań oświatowych przez powiaty, in G. Gorzelak (ed.) *Monitorowanie skutków reformy terytorialnej organizacji Kraju*, Wydawnictwo EUROREG, Warsaw 2001.

Herbst, M., Mechanizmy finansowania oświaty w Polsce—algorytm oświatowy a dopłaty samorządów do otrzymanej subwencji, *Studia Regionalne i Lokalne* 3 (3), 2000.

International Conference on Public Education, *Recommendation No. 17*, (http://www.nimh.nih.gov/childhp/monograph.pdf).

Irish Department of Education and Science, Annual Statistical Report 1996-1997.

Irish Department of Education and Science, *Brief Description of the Irish Education System*, Dublin, 1998.

Kaleta, A., G. Zabłocki, Edukacja zawodowa w perspektywie prognozy zmian aktywności ekonomicznej mieszkańców wsi, CASE 2001.

Korporowicz, L., D. Wadowski, *Podnoszenie kwalifikacji nauczycieli wiejskich*, CASE report 2001.

Kotowski, Z., R. Kotowski, R. Woodward, *Teleinformatyka w edukacji polskiej wsi*, CASE 2001.

Kowalik, J., Samorządy a szkoły ponadpodstawowe: Doświadczenia wielkich miast, Wydawnictwo Samorządowe FRDL, Warszawa 1999.

Levitas, A., J. Herczyński, M. Herbst, Jak poprawić algorytm, in Wspólnota 39, 2000.

Marchlewski, W., Union of Polish Rural Gminas RP, Report on Preschools in Rural Gminas, Warsaw 2001.

Ministerstwo Rolnictwa i Gospodarki Żywnościowej, *Spójna Polityka Strukturalna Rozwoju Obszarów Wiejskich i Rolnictwa*, Warszawa 1999.

Mozdzenska-Mrozek, D., M. Wojcicka (eds.), *Modernisation of Vocational Education and Training*, Task Force for Training and Human Resources, Cooperation Fund, Warsaw 1999.

OECD, Education Reform in Relation to the Needs of the Labour Market, Paris 1997.

OECD, Education at a Glance, Paris 2000.

Pełnomocnik Rządu RP d/s Telekomunikacji, *Strategia rozwoju telekomunikacji na wsi na lata 2000–2004*, Warszawa 2000.

Skarzyńska, K., "W ramionach Leppera", Polityka 15 (2188), 10 April 1999.

Woodward, R., and R. Snitko, *Transforming rural education: International experience*, CASE 2001.

Woś, A., Tendencje rozwoju rolnictwa w warunkach rynkowych, Warsaw 1994.

Zagrodzka, D., Zielony tygrys, Gazeta wyborcza, 27-28 May, 2000.