World Bank Study: A stocktaking of per capita financing in education in Europe and Central Asia

Poland: a case- study: preliminary findings

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Objectives of the stock-taking study

- To review the implementation of per capita financing in education in ECA countries;
- To assess whether per capita financing in education has led to improved **efficiency, equity, transparency**, and **accountability** of resource allocation and expenditures in selected ECA countries;
- To draw lessons from the experience (positive or negative) of ECA countries with per capita financing of education to inform future policy dialogue in the region on education finance.

Sources of information from visits in Poland

MEN and Ministry of Finance

Local governments:

- Czasnow
- Kwidzyn
- Warsaw
- Zwiazek Gmin Wiejskich (Lubicz Gmina)
- FIO (Small schools)

Kuratorium (Warsaw)

Zwiazek Nauczycliestwa Polskiego

Equity: access to education of equal quality for all children

In terms of equality of outcome

Available objective measures: tests at grade 6, 9 and 12.

Required: fair assessment of comparative school effectiveness – allowing for influences of family background. Some research now being done in Poland.

More evidence needed on differences in students' attainment in Poland due to family and school effects. Needed to inform policy small rural schools.

Equity: access to education of equal quality for all children

In terms of equality of input (resources)

When cost structure of school networks differ greatly or effects of socio-economic status on attainment are considerable one cannot define equitable resourcing per student as equal expenditure per student.

Funding by formula (algorithm) is fairer than funding according to historical expenditure or according to discretion of officials.

Does the algorithm allocate equitably?

The outcome of over a decade of experience and of regular negotiations between groups of local governments with different interests and MEN informed by expert analysis.

The 41 coefficients reflect differences in costs of local governments of different sizes and with different structure of teacher grades, students with special needs and different types of school.

Major complaint: that some local governments receive more than they ‘need’ and others less – in particular rural gminas.

How to assess whether a local government (JST) receives more or less than it needs?

Comparing local governments' expenditure on education with the amount of subvention they receive is insufficient because:

JSTs may spend more than they need due having an inefficient school network or because they wish to enhance the quality of education. They may spend less than they need due to choice not lack of funds.

Therefore an objective assessment of the amount that each JST 'needs to spend' is required and compared with the total of resources per student that is available to the JST.

Complaints that MEN has not provided an input standard for education.

Possible in equities in the algorithm?

The classification of rural and towns <5000 does not allow for differences in distance between settlements and quality of road communications.

Kindergarten children (age 3-6) not included.

Children with special needs funded only if in integrated classes or special schools.

Outside algorithm: how effective is JST tax revenue equalisation?

Influence of local governments on equity of funding of schools

The majority of JSTs do not use an algorithm to fund their schools.

Funding allocated using MEN rules on curriculum hours, requirements of Teachers' Charter and dictated by existing school structure. Decided on a school-by-school basis.

Kwidzyn uses an algorithm.

Warszawa – since 2004 reducing inequalities in funding between 18 districts.

Efficiency: evidence looked for

- Did the formula provide the motivation to improve efficiency? How so?
- Can any case studies of specific initiatives to improve efficiency be identified? What was their scope, their action plan, and their results?
- Did internal efficiency improve, i.e. within schools, were classes consolidated, were teacher employment levels adjusted?
- Did external efficiency improve, i.e. within jurisdictions, was the school system rationalized, were students reallocated?
- Did the share of non-wage recurrent expenditures increase?
- Did per student expenditures decrease?

Efficiency: a problematic concept

Comparisons of cost per student are inadequate.

Efficiency refers to producing a given educational attainment at the lowest feasible cost.

The available data do not permit rigorous analysis of efficiency: indicative only.

Improved PISA results. Average 2003 results quite good.

Repetition rates and non-completion of basic education?

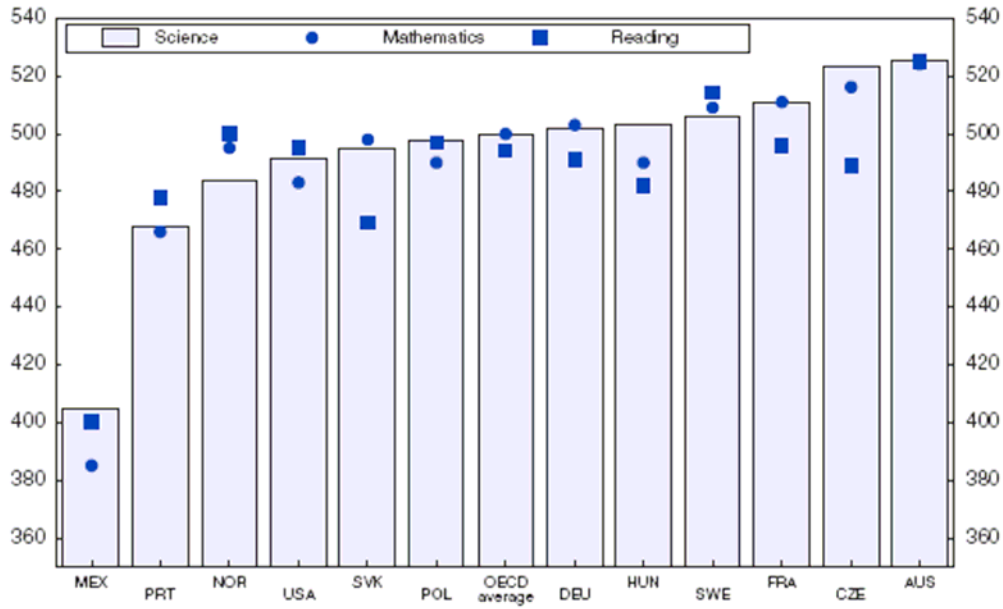
Relatively high percent of GDP spent for a transition country.

Box 4.1. **Educational performance**

The OECD's Programme for International Student Assessment (PISA) provides international comparisons of children aged 15 in terms of their ability in mathematics, science and reading; the tests focus particularly on students' problem-solving ability in each of these domains. Performance in Poland is similar to the OECD average in all the subject areas tested (Figure 4.2). These statistics refer to national averages: variation within countries is high compared with variation between countries – more than a third of Polish children scored higher than the average mathematics score for Switzerland, the highest ranked country, and a third of Swiss children scored below the Polish average.

Figure 4.2. **Comparative educational performance**

Mean score in student performance, all students, 2003



Source: OECD (2004), Learning for Tomorrow's World, First results from PISA 2003 (Annex B, Tables 2.5c, 6.2, 6.6).

This performance is significantly better than obtained by Poland in the first PISA

Source: OECD (2004), Learning for Tomorrow's World, First Results from PISA 2003 (Table 4.2).

Table 4.3. Expenditure on education by level of education, selected countries

As a percentage of GDP, 2002

	Pre-primary education	All primary, secondary and post-secondary non-tertiary education	All tertiary education	Total
Australia	0.1	4.2	1.6	6.0
Czech Republic	0.5	2.9	0.9	4.4
France	0.7	4.2	1.1	6.1
Germany	0.5	3.6	1.1	5.3
Hungary	0.8	3.3	1.2	5.6
Mexico	0.6	4.1	1.4	6.3
Norway	1.0	4.3	1.5	6.9
Poland	0.5	4.1	1.5	6.1
Portugal	0.3	4.2	1.0	5.8
Slovak Republic	0.5	2.8	0.9	4.2
Sweden	0.5	4.6	1.8	6.9
United States	0.5	4.1	2.6	7.2

Source: OECD (2005), Education at a Glance.

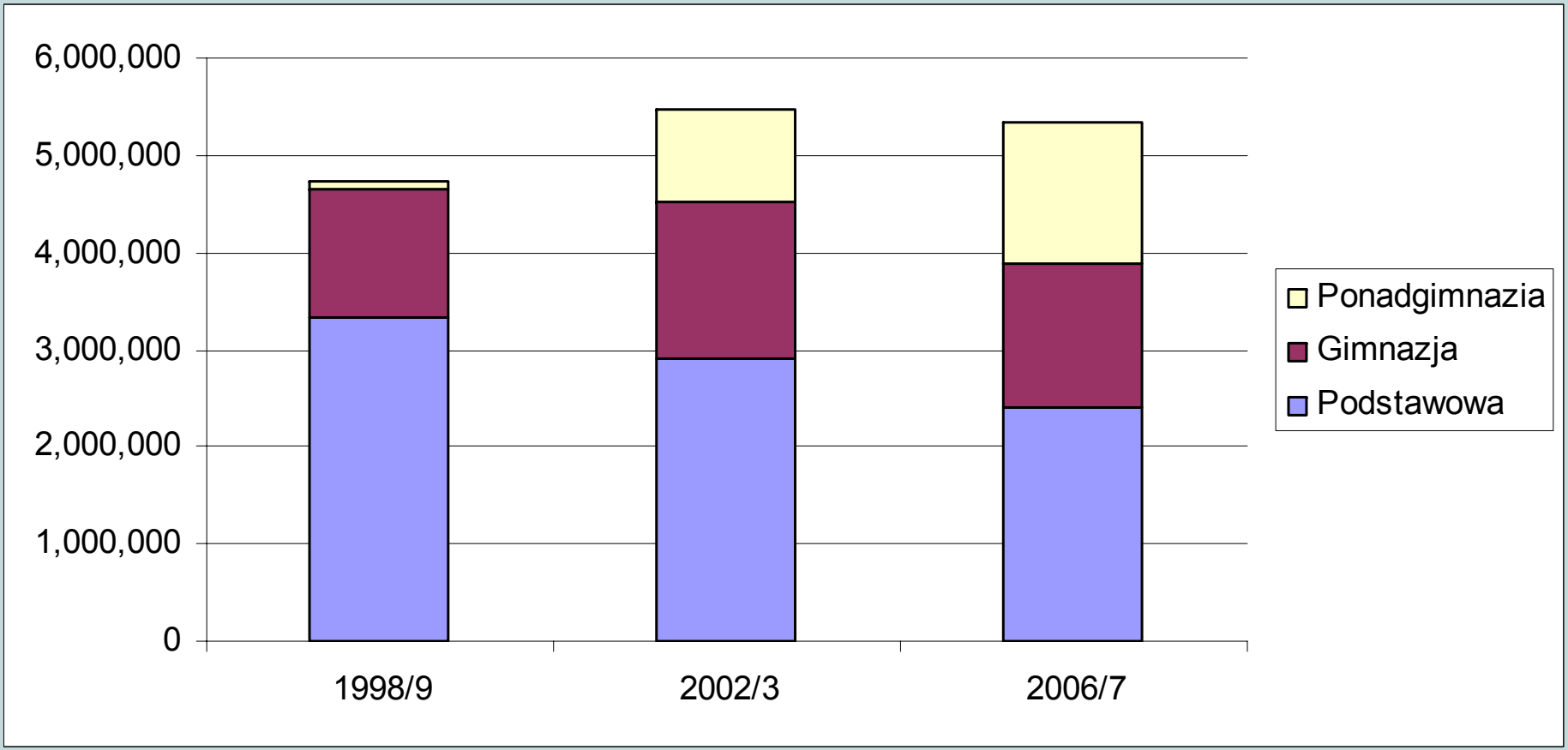
Does the formula provide a motivation to improve efficiency?

Yes: due to its being per capita though per capita in terms of student units rather than actual students.

Context: declining student numbers except in grades 9-12 where rose substantially following 1998 reforms.

Puts pressure on JSTs: have to find own revenues or have larger classes and fewer schools.

Liczba uczniów według poziomu klas tylko JST
Source: MEN



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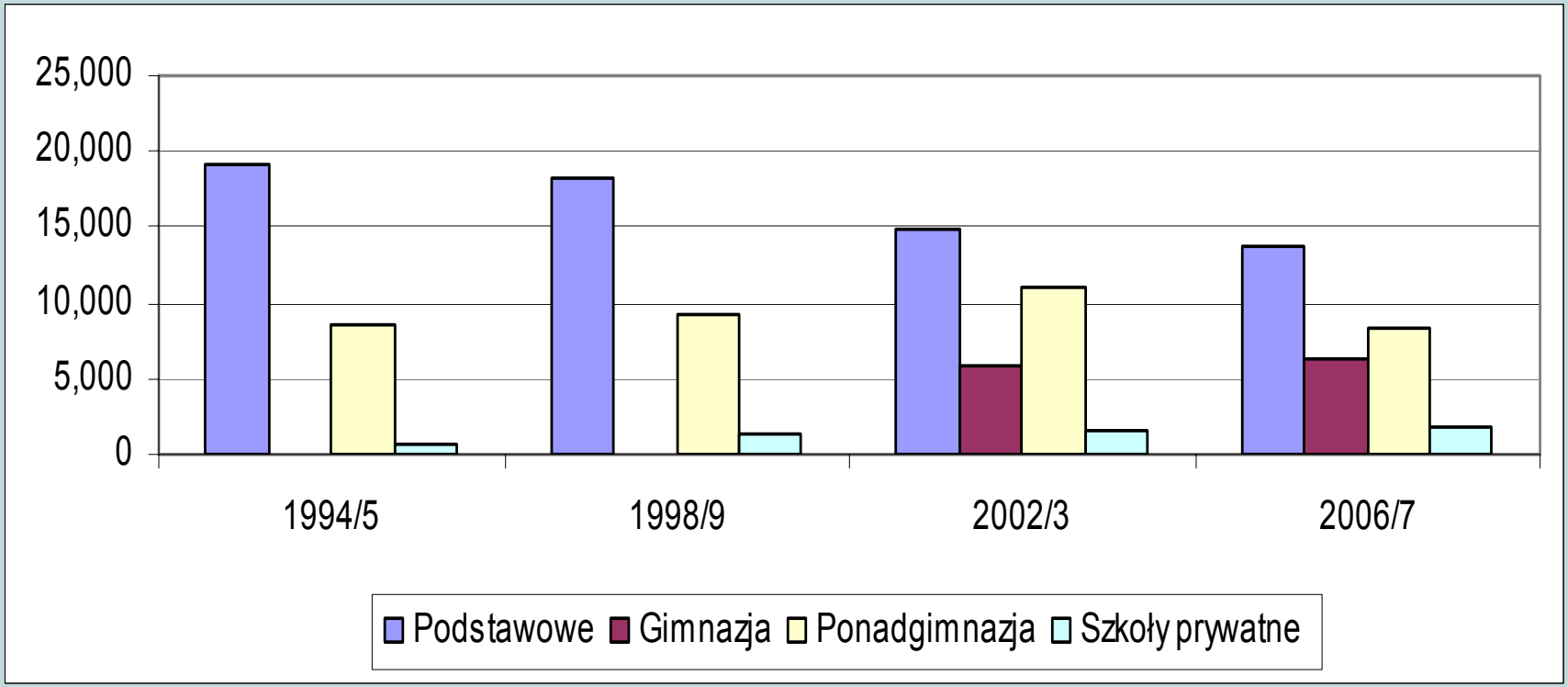
	1998/9	2002/3	2006/7
Teachers FTE (gminas)	302323	360395	289765
Teachers FTE (powiats)		120638	95277
Pupil teacher ratio (all grades)		11,4	13,9
Pupil teacher ratio (grades 1-9)	15,4	12,6	13,4

Source: MEN

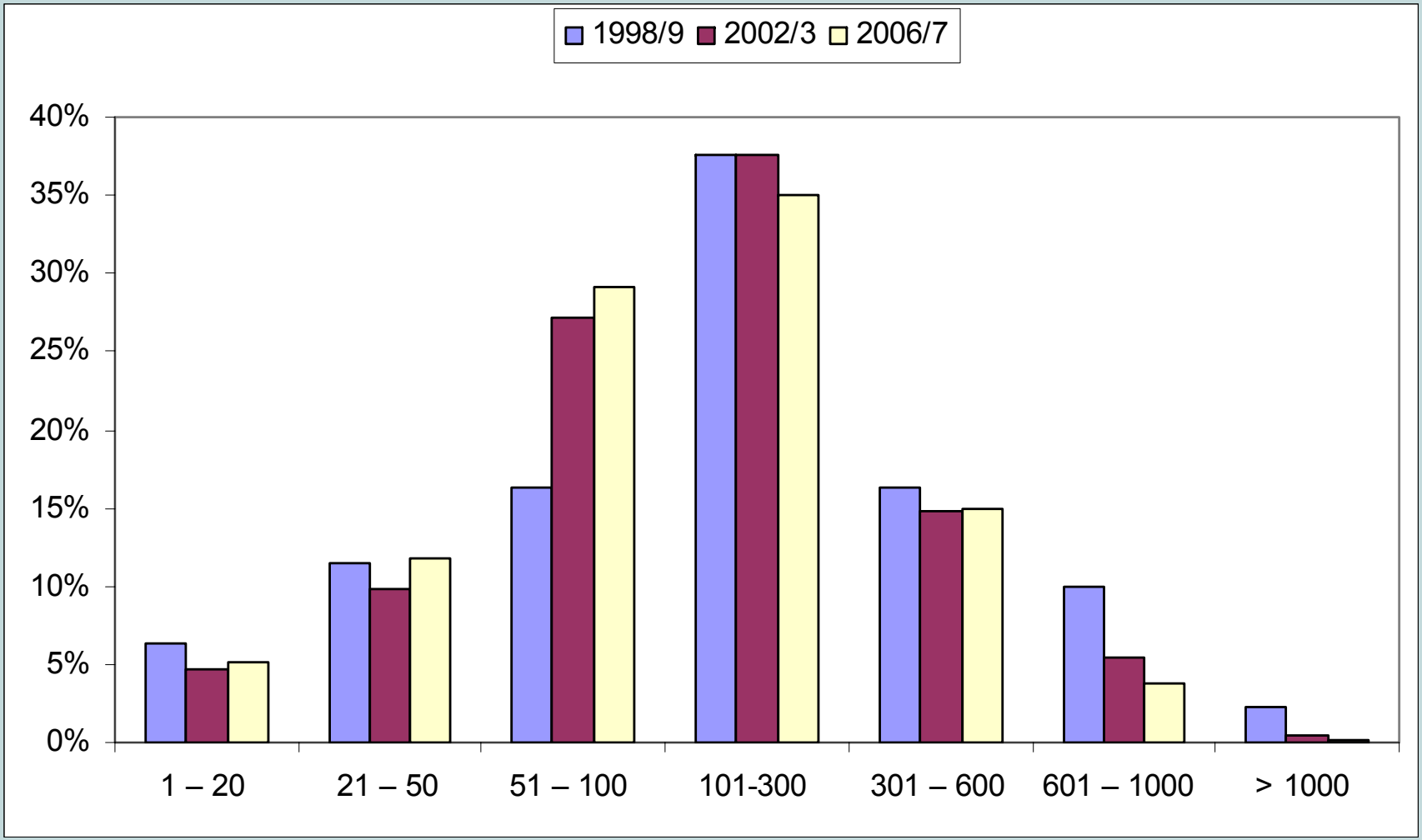
Number of schools by type



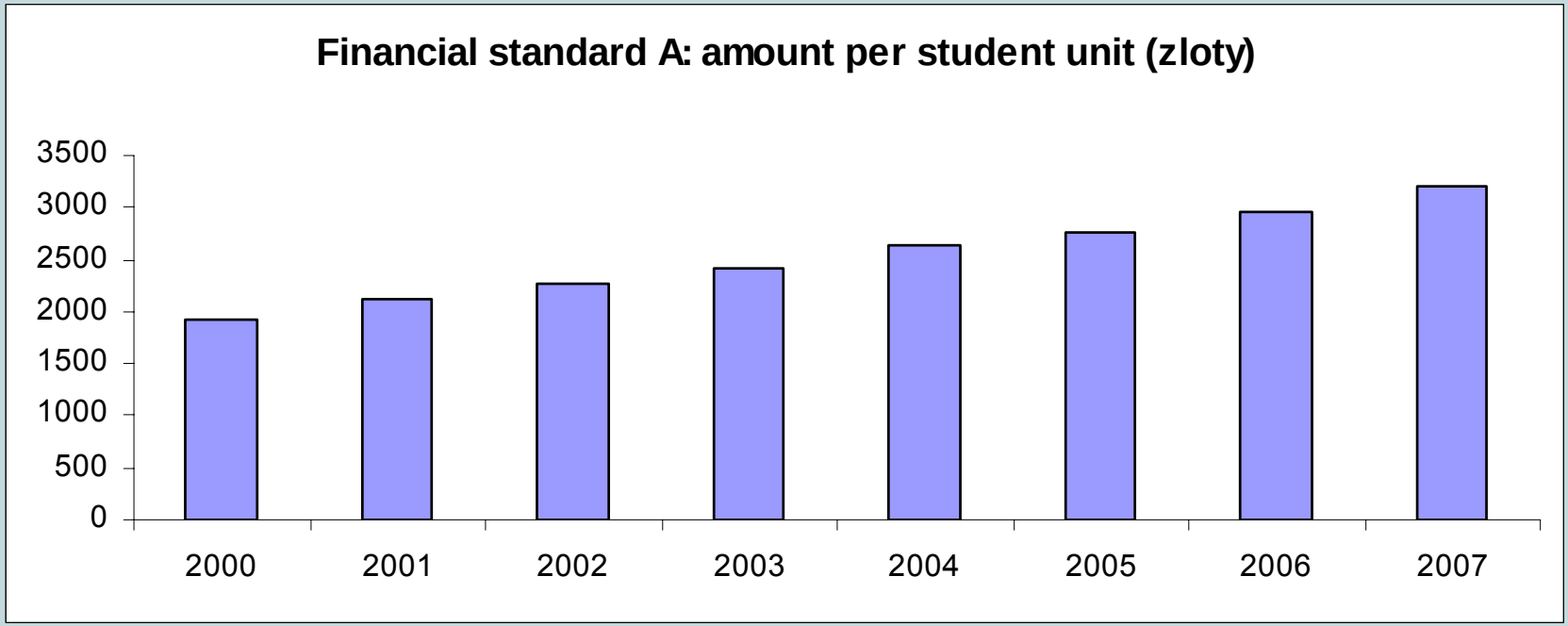
Source: MEN

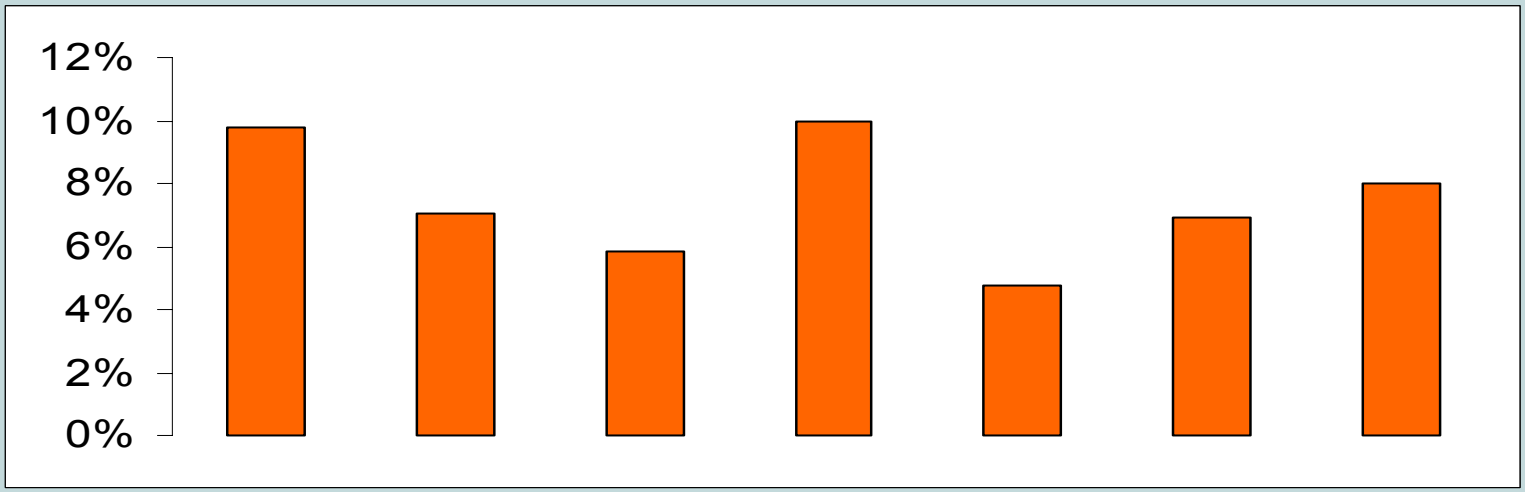
Distribution of podstawowa by size

Source: MEN



Uczniowie


Financial standard A: amount per student unit (zloty)
3500
3000
2500
2000
1500
1000
500
0
2000
2001
2002
2003
2004
2005
2006
2007


12%
10%
8%
6%
4%
2%
0%

Source: MEN

Problem of inefficient school structure – in terms of cost per pupil

Kwidzyn: 4365 pupils in 8 schools. 2006/7 7.7% of recurrent spending came from own revenues. Closed 1 small school and kept one small one open.

Czosnow: 812 pupils in 7 schools. 2006/7 46% of recurrent spending has come from own budget. Last year closed 2 gimnazja – grades 10 to 12 - to leave grades 1-9 at the schools.

Small school issue

Other objectives:

Parents value closeness of school to home;

School keeps village alive

Dislike of large school

Parent and teacher protests.

Kuratorium can block a proposed closure.

What is evidence on quality of small rural local government run schools?

Szkoły prywatny finansowany przez MEN

	1998/9	2002/3	2006/7
Liczba Szkól	1239	1687	1704
Liczba uczniów	112356	94032	108292
Liczba nauczycielow		13161	12108
Ucznowie/ nauczyciely		7,14	8,94

Small school movement: Federacja Iniciatyw Oswiatowych.

Funded by MEN via local government using local government financial allocation.

Do not need to adhere to Teachers' Charter.

Political objectives: develop civic society and grass roots democracy.

- 2006/7 About 250 small rural schools run by Rural Associations
- Some evidence (not verified) of higher student attainment than in local government run schools in rural areas

Transparency

Information on algorithm and allocations to JSTs is published but algorithm complex and therefore not always understood.

Transparency at JST level may be less: most JSTs allocate school resources by internal negotiations. Some are transparent e.g. Kwidzyn.

Not clear what proportion of necessary spending on schools MEN funds.

Desire for MEN to define an educational standard (in terms of inputs and their cost)

Accountability: divided

Accountability for quality of education:

Kuratorium and school director

But much of Kuratorium's work is checking that laws are adhered to. Does inspect and inform JSTs.

JSTs responsible for financing but not for quality.

Role of MEN in being accountable for financing education not clear – absence of input standards.

Educational input standard

Requires a set of models for schools of different type and size which sets out what they cost given the requirements of the national curriculum, rules set out in Teachers' Charter, assumptions about class size.

MEN would need to be clear about the minimum size of school that is financially viable given the algorithm and assumption about what JSTs should add for funding to be adequate. (Estonia working on input standard for its funding formula.)

Political preference for ambiguity so that responsibility for small school closures is not taken on.

Educational standards in terms of outputs: example of performance budgeting

The Department of Education and Skills has 14 Spending Review 2004 headline targets which encompass 2 elements, all of which are reported on in detail throughout the annual departmental report.

Some examples of the 14 targets follow.

6. Raise standards in English and mathematics so that

by 2006, 85% of 11-year-olds achieve level 4 or above, with this level of performance

- sustained to 2008; (element 1) and
- _ by 2008, the proportion of schools in which fewer than 65% of pupils achieve level 4 or above is reduced by 40%. (element 2).

- Element 1: Baseline: Level 4 or above – 78% in English, 74% in mathematics in 2003/04
- Latest outturn against trend: Level 4 or above – 79% in English, 76% in mathematics in
- 2005/06
- Element 2: Baseline: 2,849 schools in English and 3,570 schools in mathematics in 2002/03
- Latest outturn against trend: 1,785 schools in English and 2,555 schools in mathematics in
- 2005/06

- 7. Raise standards in English, mathematics. ICT and science in secondary education so that:

- by 2007, 85% of 14-year-olds achieve level 5 or above in English, mathematics and ICT
- (80% in science) nationally, with this level of performance sustained to 2008; (element 1)
- and
- by 2008, in all schools at least 50% of pupils achieve level 5 or above in English,
- mathematics and science. (element 2)
- 22

8. Improve levels of school attendance so that by 2008, school absence is reduced by 8%

- Assessment to date: Slippage compared to 2003.
- Baseline: 6.83% in 2002/03
- Latest outturn against trend: 6.69% in 2005/06
- Measurement
- **Data System:**
- Pupil absence in England.
- **Method of data collection:**
- Collected from the annual absence in schools returns.
- **Issues with data systems:**
- The data system addresses the majority of risks to data quality. The data system does not and was not intended to pick up internal truancy or missing children.

All young people to reach 19 ready for skilled employment or higher education (see Chapters 3 and 4)

	Latest assessment
10. By 2008, 60% of those aged 16 to achieve the equivalent of 5 GCSEs at grades A*-C (element 1)	On course
and in all schools at least 20% of pupils to achieve this standard by 2004, rising to 25% by 2006 and 30% by 2008. (element 2)	Slippage

Element 1:	Baseline: 53.7% in 2003/04 Latest outturn against trend: 58.5% in 2005/06
Element 2:	Baseline: 186 schools below 25% target in 2003/04 Latest outturn against trend: 47 schools below 25% target in 2005/06

Measurement

Data System:

Element 1 – GCSE and Equivalent Examination Results for Young People in England.

Element 2 – Measured by adjusted data published in School and College Achievement and Attainment Tables.

My tentative overall assessment of algorithm in Poland

Per capita funding mechanisms from central to local government in transition states are driven by the political desirability of developing strong local democratic institutions.

Conflicts between central and local governments are inevitable and normal in plural societies and should not be avoided by making funding systems more ambiguous.

I have found a general acceptance of the algorithm system but there appears to be some not clearly stated dissatisfaction and some form of review is taking place.

Possible directions for changing the method of finance under current discussion

- Abandoning algorithm and giving JSTs a greater share of tax revenue. This only deals with the symptoms of local-central conflicts and does not resolve the problem of how JSTs with different spending needs can be equitably funded.
- MEN funds teacher salaries only. This could have some merit if MEN defines a clear set of educational input standards and funds JSTs by an algorithm based on pupil numbers and the subvention remains non-earmarked.
- There is a similar system in Estonia-where now working on defining educational input standards

Quality issues that require further evidence

Effectiveness of small rural schools compared to larger ones?

Repetition of grades and non-completion of basic education? (See example below from a popular gimnazjum.)

Further development of indicators of school effectiveness that are ‘ value added’.

Drop-out and grade repetition in a gimnazjum

Data for school year 2006/7

Grade	number students	Number classes	average class size
3 (year 9)	264	11	24.0
2 (yr 8)	344	13	26.5
1 (year 7)	323	11	29.4

Between 30-40 held back in grade 1 from grade 2 and about 50: in grade 2 to 3.

Accountability: some suggestions

Making local governments accountable for the quality of education with a separate national body which monitors, evaluates and disseminates information but is not responsible for quality.

Some JSTs are developing their own quality assurance systems and policy responses.

Kuratoria need to be reformed.

MEN should define educational input standards and be provide stronger policy guidance on creating more efficient school networks, while leaving the final choice to local governments and local organisations, which can make use of own resources plus subvention allocated on a per capita basis to maintain small primary schools.