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**The Progression through School and Academic Performance in
Madagascar Study: Preliminary Descriptive Results**

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by

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TABLE OF CONTENTS

Acknowledgments.....	ii
ABBREVIATIONS AND ACRONYMS.....	i
LIST OF TABLES.....	ii
1. INTRODUCTION.....	1
2. THE SURVEYS AND SAMPLING DESIGN.....	3
2.1. Surveys.....	3
2.1.1 Household-level survey.....	3
2.1.2 Tests.....	3
2.1.3 School survey.....	4
2.1.4 Community survey.....	4
2.2. Sampling.....	5
3. RECENT DEVELOPMENTS AND POLICIES IN EDUCATION.....	7
4. DESCRIPTION OF THE EPSPAM SAMPLE.....	9
4.1. Representativeness of the sample.....	9
5. SCHOOL ENROLLMENT AND PROGRESSION THROUGH SCHOOL.....	11
5.1. Enrollment rates.....	11
5.2. Age at school entry and grade repetition.....	12
5.3. School progression.....	14
6. TEST PERFORMANCE AND SCHOOL ATTAINMENT.....	16
6.1. Distributions of 2004 Tests Scores and test reliability.....	16
6.2. Correlation of test Scores for different subjects.....	16
6.3. Test score outcomes and grade attainment.....	17
6.4. Test scores by child, household and school characteristics.....	17
6.5. Analysis of the PASEC subsample.....	19
7. HOUSEHOLD EDUCATION EXPENDITURES, FEES, AND ACCESS TO SCHOOL SUPPLIES.....	20
7.1. School supplies.....	20
7.2. Expenditures and school fees.....	20
8. CHARACTERISTICS OF SCHOOLS.....	22
8.1. Use of multigrade classes and part-day instruction.....	22
8.2. Late school openings and temporary closings.....	23
8.3. Teacher characteristics, absences, and supervision.....	23
8.4. Institutional relations with higher levels of education administration.....	24
8.5. Relations with FRAMS and FAFS.....	25
8.6. School infrastructure.....	26
8.7. Availability of books and supplies.....	27
8.8. School fees and reimbursements.....	27
8.9. Share passing the <i>CEPE</i>	28
9. PARENTAL INVOLVEMENT AND PERCEPTIONS OF SCHOOLS.....	29
9.1. Parental involvement and awareness.....	29
9.2. Perceptions of school quality and school personnel.....	30
9.3. Perceptions of School Finance.....	31
10. SUMMARY AND CONCLUSIONS.....	33
REFERENCES.....	36
TABLES.....	37
APPENDIX: Tests for 14-16 year olds.....	84

ABBREVIATIONS AND ACRONYMS

CEPE	Certificat d'Etudes Primaires Elémentaires
CISCO	Circonscription Scolaire (school district)
CONFEMEN	Conférence des ministres de l'Éducation des pays ayant le français en partage
CRESED	Credit for Strengthening the Education System in Madagascar
DIRESEB	Direction Interrégionale de l'Enseignement Secondaire et de l'éducation de Base
DSM	Direction des Statistiques des Ménages, INSTAT
EPM	Enquete Prioritaire des Menages
EPSPAM	Etude sur la Progression Scolaire et la Performance Academique en Madagascar
FAF	Association pour le développement des écoles (Malagasy acronym)
FMG	Francs Malagashe (Malagasy Francs)
FRAM	Association des parents d'élèves (Malagasy acronym)
INSTAT	Institute National de la Statistique
MENRS	Ministère de l'Education Nationale et de la Recherche Scientifique
PASEC	Programme d'Analyse des Systèmes Educatifs de la Confemen
SAGA	Strategies for Growth and Access in Africa
ZAP	Zone d'Animation Pédagogique
USAID	United States Agency for International Development

LIST OF TABLES

Table 3.1. Madagascar: evolution of enrollments 1999/2000 to 2003/2004	37
Table 3.2. Madagascar: Evolution of gross and net primary enrollment.....	37
Table 4.1. Information on the EPSPAM sample.....	38
Table 4.2. Distribution of national student population and EPSPAM student sample by school size.....	39
Table 4.3. Rural areas: Distribution of overall and EPSPAM sample students by remoteness.....	40
Table 4.4. Rural areas: community and household characteristics of EPSPAM sample by remoteness and primary school size	40
Table 5.1. Share of children 6-15 ever enrolled and currently enrolled in school by gender and location (percent).....	41
Table 5.2. Comparison of current enrollment rates in EPSPAM survey sample and national EPMA survey (percent of children 6-15 enrolled).....	41
Table 5.3. Rural areas: Children 6-15 ever enrolled and currently enrolled in school by remoteness and primary school size (percent).....	41
Table 5.4. Share of children 6-15 currently enrolled in school by level of assets and location (percent)	42
Table 5.5. Private school share of primary enrollments by level of assets and location (percent).....	42
Table 5.6. Share of children 6-15 currently enrolled in school by father and mother education (percent).....	42
Table 5.7. Share of children 6-18 currently enrolled in school by age and location	43
Table 5.8. Share of children 6-18 currently enrolled in school by age and living at home status (percent).....	43
Table 5.9. Enrolled children age 11-18: current grade and school level	44
Table 5.10. Average age at school entry by gender and location (percent).....	45
Table 5.11. Distribution of age at school entry by location (percent)	45
Table 5.12. Children 15-18: Distribution of number of primary school grades repeated by location (percent)	45

Table 5.13. Children 15-18: Mean number of primary school grades repeated by gender and level of assets	46
Table 5.14. Prevalence of interruptions of primary schooling by gender, location, and household assets (percent)	46
Table 5.15. Children age 15-18 ever enrolled in primary school: Share completing primary, passing CEPE exam, and going to lower secondary (percent).....	47
Table 5.16. Rural areas: Share completing primary, passing CEPE exam, and going to lower secondary by remoteness and primary school size (percent).....	47
Table 5.17. Children age 15-21 with incomplete primary schooling: Reasons for not completing primary, by gender (percent).....	48
Table 5.18. Children age 15-21 with completed primary schooling who did not enter lower secondary: Reasons for not entering, by gender and CEPE passing status (percent)	48
Table 6.1. Children 8-10 currently enrolled: Median 2004 test scores by gender, household assets, and parental education.....	49
Table 6.2. Children 8-10: Correlation matrix of 2004 tests scores.....	49
Table 6.3. Children 14-16: Correlation matrix of 2004 tests scores and grade attainment	50
Table 6.4. Children 14-16: Mean grade attainment and school level progression by quintile of 2004 Written Math Test Score	50
Table 6.5. Children 14-16: Mean grade attainment and school level progression by quintile of 2004 Life Skills Test Score	51
Table 6.6. Children 8-10 currently enrolled: Median 2004 test scores by gender, household assets, and parental education.....	51
Table 6.7. Children 8-10 currently enrolled: Median 2004 test scores by location and remoteness.....	52
Table 6.8. Mean of test scores for kids 8 - 10, public, rural and private	53
Table 6.9. Test score by grade level of 8 and 10 year olds.....	54
Table 6.10. Mean of test scores for kids 8 – 10, Grade 2	55
Table 6.11. Mean of test notes for kids 8 - 10, Grade 3.....	56
Table 6.12. Test score by multi-graded and mi-temp classrooms.....	57
Table 6.13. PASEC sample: Correlations of 1998 and 2004 tests scores and grade attainment.....	58

Table 6.14. PASEC sample: 2004 test scores by quintile of 1998 Written French Test Score.....	59
Table 6.15. PASEC sample: 2004 test scores by quintile of 1998 Written Math Test Score	59
Table 6.16. PASEC sample: Mean grade attainment and school level progression by quintile of 1998 Written French Test Score.....	60
Table 6.17. PASEC sample: Mean grade attainment and school level progression by quintile of 1998 Written Math Test Score	60
Table 7.1. Share of primary students receiving free book(s), book bag, notebook, and pen or pencils during 2003/4 school year, by school type (percent)	61
Table 7.2. Shares of primary students receiving free book(s), book bag, notebook, and pen or pencils during 2003/4, by location and school type (percent)	61
Table 7.3. Median total annual household expenditures per primary school student, by location and school type (Fmg).....	62
Table 7.4. Primary students: Payment of school fees in 2003/4, receipts and reimbursements for fees, and monthly school payments (ecolage), by school type (percent).....	62
Table 7.5. Public primary students: Payment of school fees in 2003/4, receipts and reimbursements for fees, by location (percent).....	62
Table 8.1. Number of surveyed primary schools by type and location	63
Table 8.2. Median number of students in surveyed primary schools by type and location.....	63
Table 8.3. Share of primary schools using multigrade instruction, half day instruction, by school type and location (percent)	63
Table 8.4. Share of schools closing during the 2002 crisis by type and location (percent).....	64
Table 8.5. Share of schools closing temporarily during the 2003/4 school year by type and location (percent)	64
Table 8.6. Reasons for closing during 2003/4, by school type (percent).....	64
Table 8.7. Number of times in last five years opening later than official date, by location (percent)	65
Table 8.8. Share of teachers present at start of 2003/4 school year, by primary school type and location (percent).....	65
Table 8.9. Public schools: status of teachers, by location (percent)	65

Table 8.10. Level of education and possession of teaching diploma of teachers, by school type and location (percent)	66
Table 8.11. Average frequency of teacher absences during school year, by school type and location (percent).....	66
Table 8.12 Main reason for teacher absences by school type (percent)	66
Table 8.13. Frequency of meetings of director and teaching staff during 2003/4 school year, by primary school type and location (percent).....	67
Table 8.14. Main action taken to reward good teacher performance, by school type (percent)	67
Table 8.15. Main action taken to penalize poor teacher performance, by school type (percent)	68
Table 8.16. Frequency of visits to school by head of CISCO in 2003/4 and 2002/3, by school type and location.....	68
Table 8.17. Frequency of visits to school by chef ZAP ^a or other ZAP employee in 2003/4, by school type and location (percent)	69
Table 8.18. Mean number of visits to school by DIRESEB inspectors in 2003/4, by school type and location.....	69
Table 8.19. Share of schools with FRAMs and FAFs, by school type and location (percent)	69
Table 8.20. Level of activity of FRAM now relative to 3 years ago, by school type and location (percent).....	70
Table 8.21. Level of financial and other contributions of FRAM now relative to 3 years ago (percent).....	70
Table 8.22. Public schools with FAFs: shares receiving FAF payment in 2003/4 and publicly posting financial transactions of Caisse Ecole, by location (percent)	70
Table 8.23. General condition of school building(s), by school type and location (percent) ..	71
Table 8.24. Condition of windows, by school type and location (percent)	71
Table 8.25. Cleanliness of school exterior environment, by school type and location (percent)	72
Table 8.26. Cleanliness of school interior, by school type and location (percent)	72
Table 8.27. Presence of toilets or latrines, by school type and location (percent).....	73

Table 8.28. Share of schools with students sitting on the floor/ground and holding classes outside, by school type and location (percent)	73
Table 8.29. Share of schools receiving books and book bags from "Président de la République" (CRESED project), by school type and location (percent).....	73
Table 8.30. Share of students receiving books and book bags, by school type and location (for schools receiving books or bags).....	74
Table 8.31. CE2/9 ^{ème} (3rd grade) classes: presence of dictionary in the classroom, by school type and location (percent)	74
Table 8.32. CE2/9 ^{ème} (3rd grade) classes: Availability of French textbooks for use in class, by school type and location (percent)	75
Table 8.33. CE2/9 ^{ème} (3rd grade) classes: Availability of math textbooks for use in class, by school type and location (percent)	75
Table 8.34. Receipt and reimbursement of school fees in 2003/4, by school type and location (percent)	76
Table 8.35. Share of students passing the CEPE exam at end of 2003 school year, by school type and location (percent)	76
Table 9.1. Information on sample for school perceptions module	77
Table 9.2. Frequency of meetings with teachers during the school year, by household head education, level of assets and school type attended	77
Table 9.3. Participation in FRAM meetings during 2003/4 school year, by school type attended and location: mean number of meetings attended	78
Table 9.4. Participation in FRAM meetings during 2003/4 school year, by education of household head, household assets, and school type attended: mean number of meetings attended	78
Table 9.5. Awareness of policy eliminating school fees in public schools, by school type attended by child and location (percent).....	78
Table 9.6. Respondents with children in public school: Awareness of policy eliminating school fees in public schools, by location (percent)	79
Table 9.7. Concern of school director and teachers for child's academic success, by school type attended and location (percent).....	79
Table 9.8. Attitudes of school director and teachers toward parents, by school type attended and location	80
Table 9.9. Perceived frequency of teacher absences, by school type attended (percent)	80

Table 9.10. Perceived frequency of public school teacher absences, by location (percent)....	80
Table 9.11. Outside employment of teacher, by location and school type attended (percent).....	81
Table 9.12. Perceived impact of teacher’s outside employment on the teacher, by location and school type attended (percent).....	81
Table 9.13. Perceptions of condition of school facility, by school type attended and location (percent).....	81
Table 9.14. Overall satisfaction of respondent with the education received by their child, by school type attended and location (percent).....	82
Table 9.15. Overall satisfaction of respondent with the education received by their child, by school type attended and education level of household head (percent).....	82
Table 9.16. Respondents with child in public schools: Presence of a FAF in the school, by location (percent).....	82
Table 9.17. Respondents with child in public schools with a FAF: payment received by FAF in 2003/4, and public posting of transactions, by location (percent).....	83
Table 9.18. Respondents indicating their child’s public school does not publicly post FAF transactions: Means of obtaining information about transactions, by location (percent).....	83

1. INTRODUCTION

This report provides a preliminary descriptive analysis of the Progression through School and Academic Performance in Madagascar Study (*Etude sur la Progression Scolaire et la Performance Academique en Madagascar* or EPSPAM).¹ The study, described below, is based on a nation-wide household survey with a special focus on schooling, complimented by academic and life skills tests and additional surveys of local schools and communities. The survey was designed to investigate the household, community, and school-level determinants of a range of education outcomes in Madagascar: primary and secondary enrollment, grade repetition and dropout during primary and lower secondary school cycles, transitions from primary to secondary school, and learning—both academic (math and French test scores) and non-academic (“life-skills”). It also seeks to understand the association of early academic performance, on the one hand, and subsequent school progression and scholastic attainment, on the other. Finally, it investigates the knowledge and perceptions of parents about schools and how these affect the enrollment decisions they make for their children.

The study, and its focus on these questions, was motivated in large part by several pressing issues in education in Madagascar, in particular very high primary grade repetitions and dropout and low rates of progression to secondary school. However, the recent policy environment in education in Madagascar has been very dynamic, raising additional important research questions. The study therefore has also been designed in part to address the implementation and impacts (and parental awareness) of a number of recent policies in the sector. These policies include decentralization and deconcentration, the removal of school fees, and the increased provision of school supplies implemented to meet the Education For All objectives laid out in the Millennium Development Goals.

The EPSPAM study is a joint research project of Cornell University, Ministère de l’Education Nationale et de la Recherche Scientifique (MENRS), and Institute National de la Statistique (INSTAT). It is a unique effort that combines numerous survey instruments to investigate the household, community, and school-level determinants of schooling and learning outcomes in Madagascar. It does this by supplementing a previous nationwide survey of primary school children, the PASEC study (Programme d’Analyse des Systemes Educatifs de la CONFEMEN), with detailed additional follow-up survey data. The initial PASEC study, in 1998, tested second and fifth grade students using standard tests of French and mathematics skills. The EPSPAM project supplements the PASEC data with new tests of the participants in the original study (and other children) and new surveys—of households, communities, and schools—conducted in 48 of the original communities visited by the first study as well as 12 additional communities. The new data were collected in late spring and summer of 2004, when the original PASEC cohort was mostly between 14 and 16 years of age, corresponding to ‘official’ lower secondary school (*college*) age. In keeping with our additional objective of understanding current policies, most of which concern the primary school level, the sampling was also designed to insure representation of adequate numbers of children of primary age, specifically 8-10 years old.

The next section briefly describes each of the surveys, the tests, and the sampling methodology. Following that is a brief review of recent developments and policies in the

¹ The survey and this research has been conducted for CRESED II (Credit for Strengthening the Education System in Madagascar) contract 02/2004/BCP/CRESED II. Additional support was provided by USAID under the SAGA project and by Cornell University. .

education sector. The presentation of descriptive results which follow is organized around the following topics: characteristics of the EPSPAM sample; school enrollment and progression through school; test performance and school attainment; household education expenditures, fees, and school supplies; characteristics of schools; and parental involvement and perceptions of schools. A final section concludes.

Before moving on, two important points need to be emphasized. First, the findings of this study are based on descriptive analysis only. While this is very informative, there are well known limits to what can be inferred simply from cross tabulations or bivariate correlations. For example, the strong association of test performance in 2nd grade and subsequent grade attainment presented in Section 6 is an important finding of the survey. However, without multivariate analysis it is not possible to say whether the academic performance early in primary school is really a causal factor behind grade attainment, or if instead it is merely correlated with the true determinants which may instead be, for example, parental education or household income. More definitive explanations of this and many other patterns seen in this report must await future statistical analysis on the data. Therefore this report is just the start of a comprehensive research program using the data that is expected to generate a wide range of policy-relevant results.

Second, readers are cautioned that the sample for the EPSPAM study was not meant to be a nationally representative sample, and indeed could not be. It was designed essentially to be a follow-up study and expansion of the 1998 PASEC survey. The latter, for reasons explained below, tended to include schools (and by extension, communities) that were larger than average as well as (for rural communities) closer to urban centers. Further, within specific communities the sample of PASEC children itself is not completely representative: that sample was school based, and not all children go to school. The second issue was dealt with by randomly sampling additional households within each community to insure representation of non-PASEC children, including those who never went to school or attended non-PASEC schools. To partially address the first issue, the sampling design substituted some PASEC communities for others that were smaller rural communities. Both strategies are discussed in more detail in the next section. Even with these strategies, however, one must be cautious about making inferences for the country or children as a whole based on the descriptive results we present.

2. THE SURVEYS AND SAMPLING DESIGN

The EPSPAM sample was based in part upon the existing survey collected by PASEC under the authority of the Conference of Education Ministers for Francophone Africa, CONFEMEN (CONFEMEN 1999). The project is ongoing in many countries, but the data for Madagascar are from 1998. The PASEC project in Madagascar was a nation-wide school based survey of primary schools and students. In each school a sample of 20 second grade and 20 fifth grade students were administered standardized written tests in mathematics and French. While the PASEC data are valuable, as school-based data they are limited for several reasons. They contain almost no information on the households of the students or on the students themselves, so the effects of, e.g., parental education or the health status of the students on learning cannot be measured. Further, they are subject to selection bias. Many children in Madagascar never attend primary school, and as noted, many who do enroll drop out well before completion. Perhaps most important, many of the key questions about the determinants of enrollment, repetition and dropout, and school transitions, require data that are not available in these school-based surveys. Such information must be obtained from population based household and community surveys.

Therefore the project conducted four new surveys—of households, communities, schools and cognitive tests of children--in 48 of the communities served by the PASEC sample primary schools. In addition, as described below under ‘Sampling’, an additional 12 communities were included to ensure greater diversity in the sample. The following describes each of the new surveys.

2.1. Surveys

2.1.1 Household-level survey

A comprehensive household survey collected information on household composition, education histories of all household members, assets, health, migration, employment and time use. Unlike a standard household survey, it included detailed retrospective questions on significant changes in a household’s economic and health situation in past years that may have influenced decisions whether to enroll a child in school, to keep the child in school, or may have affected how well they did in school. Examples of these kinds of shocks are whether and when a parent experienced a significant illness or death, or the household suffered a major loss of its livestock or farm income. These events can be linked to the information on schooling of children in the family, such as whether and in what year the child enrolled, interrupted his or her schooling, or dropped out of school.

In addition to collecting these data, a special ‘perceptions’ module asked parents about their opinions about local primary schools, both the one attended by their child (if they had a child enrolled) and other schools. Awareness of recent education policies and their implementation was also assessed by these questionnaires.

2.1.2 Tests

Also as part of the household interviews, tests were administered to children by personnel of DIRISEB offices of each province. Two groups of children were given tests: those of the ages of the original PASEC cohort (including PASEC and non-PASEC children in this age range) and those of current primary age (specifically age 8-10). Separate tests

were designed for each age group. The four tests are: written French, written math, oral math, and 'life skills' (also oral). The two written tests were built on the model of the initial 1998 PASEC tests, and thus be designed to be directly comparable with the earlier tests, facilitating the measurement of skills retention of children who have since left school, and growth in skills of those who remain enrolled. In addition, unlike the PASEC surveys, we also tested children of the same age cohort of the original PASEC, but who never attended school or who dropped out. The tests of 8 to 10 year olds (who, if in school, are mostly in grades 2 and 3) were also based on the PASEC tests of 1998. They were thus designed in part to evaluate changes in academic performance of students enrolled now since 1998 when the original PASEC tests were administered², as well as to assess the effects of current conditions in schools, households, and communities on academic performance. Given that some children (particularly younger children or those who had little schooling) would find it difficult to take tests in French, the children (in both age categories) could choose either a French or Malagasy version of the math tests. The life skills tests were in Malagasy. The four test instruments for the 14-16 year olds are reproduced in the Appendix.

Field testing of these tests was set up to insure adequate sample size for statistical evaluation of test questions using standard methods (e.g., Cronbach's alpha) for evaluating the validity of individual questions. This statistical analysis was performed by the pedagogists in MENRS. The resulting tests proved to meet standard criteria for reliability (discussed in Section 6).

2.1.3 School survey

DIRISEB personnel also administered detailed school surveys to directors of primary and lower secondary schools used by local residents. The interviewed schools were not limited to those in the original PASEC study but instead included up to 3 alternatives per community. Information was collected on standard school quality measures such as textbook availability, teacher qualifications, and building condition, as well as aspects of school and classroom organization and management. The latter include staff management and monitoring practices, teaching practices, curricula decisions, use of double shifting and multi-grade systems, etc. Information was also gathered on institutional and financial relations with higher levels of the education system (e.g., CISCOS) as well as with local school or community level organizations.

2.1.4 Community survey

Detailed information was collected on local community characteristics such as health infrastructure, the type and locations of primary and lower secondary schools available to the community, local markets and wage rates and other factors that might affect schooling decisions. As with the household survey, much of these data are in the form of retrospective information on events that directly or indirectly may have influenced schooling outcomes among children in the sample. These include, for example, a bad harvest year, or the opening of a new school, or an immunization campaign.

² This is one motivation for restricting the testing to children age 8 to 10: they are the same age, roughly, as the 2nd grade testers in 1998 (and a large share is in 2nd grade) facilitating comparisons over time.

2.2. Sampling

The plan for the sample design involved the following: returning to 60 of the original 120 communities in the original PASEC study; locating, with the help of school personnel and community leaders, the children who were tested in 2nd grade for that study (20 in each school/community); administering household surveys to their families and tests to the children as well as carrying out surveys of the PASEC schools, other local schools, and the community. To insure greater representivity, 10 additional (non-PASEC) households were to be randomly selected from the community, defined as the catchment area of the PASEC schools. Children in these households of PASEC cohort age would also be tested. In all cases, the objective was to test children no matter what their school status was: still in school, no longer attending, or never attended.

However, the sampling design was adjusted to account for two issues that came up during preliminary workshops with MENRS and INSTAT researchers. First, Madagascar has been notable with regard to the number of recent policy changes in education, most of which are directed toward primary schools (the elimination of school fees, the provision of book bags and supplies to students, the provision of some resources directly to schools, etc). Since the cohort of second grade children from the 1998 PASEC study would now be about 14-16 years old, hence beyond primary age, focusing on them alone would not provide much insight about recent policies affecting primary school cost and quality. Therefore it was decided to extend the sampling to be sure to include significant numbers of children who are of primary age.

This was done by reducing the number of households with PASEC children from 20 to 15 per zone, and adding 15 non-PASEC households. Among the latter, the enumeration procedure was designed to include households containing children in the following two age ranges: 8-10 (the age range of most current 2nd graders), and 14-16 (roughly the current age of the 1998 PASEC 2nd grade cohort).

The second issue concerns the representivity of the PASEC school sample. The median size of the 1988 PASEC primary schools was over 500 students, whereas the median size of primary schools overall is less than 140 students. In the 1998 study, the choice of schools was dictated in part by the requirement that each school have at least 20 students in both the 2nd and 5th grades. Given high dropout rates and small overall school size, many schools, especially in rural areas, do not have 20 children in the 5th grade. Hence the original survey tended to select larger than average schools, in communities that may not be representative.³

Given the objective of following up on children in the original PASEC communities, there were obviously limits on what could be done to address the issue while still achieving the main study objective. However, given the desire to obtain a more general understanding of education behaviors as well as the impacts of recent policies, it was decided to reduce the number of PASEC communities in the sample from 60 to 48 and replace the dropped communities with other (rural) communities chosen on the basis of the presence of ‘small’ public primary schools. ‘Small’ was defined as a school having fewer students than the

³ The planned sampling strategy in the next PASEC survey will be quite different, to avoid or reduce the bias toward large schools.

national median of about 140. These additional schools were randomly selected from the list of school in the MENRS database after stratifying on province.⁴

As it turned out, logistical problems made it impossible to survey all of the chosen replacement schools and communities. Ultimately our ‘small school’ sample consisted of seven communities with eight public schools ranging in size from 62 to 170 students (median=74). The final sample thus remains substantially weighted toward larger schools, but in the presentation of results we will distinguish the small schools (or ‘small school communities’) to highlight conditions in these kinds of communities. More details of the characteristics of the sample communities are provided in Section 4. In light of the limited number of small schools that ultimately were included in our sample, however, plans have been made to sample an additional 12 small school communities beginning in April of 2005. This will allow us to extend the analysis in this paper to more fully address the needs and characteristics of these environments, which, as our findings below indicate, face the greatest challenges to improving children’s education outcomes.

⁴ For the remaining schools (the PASEC schools) stratified random sampling from the original PASEC sample was used to insure representivity by province, rural/urban location, and private/public schools.

3. RECENT DEVELOPMENTS AND POLICIES IN EDUCATION

As a background to this study it will be useful to discuss recent trends in the education sector, specifically with reference to primary school. As noted, the policy environment in Madagascar with respect to education has been very dynamic in recent years, and the EPSPAM survey was designed to capture some aspects of the implementation and impacts of recent policies.

The country has made great progress toward increasing primary enrollments from the low levels prevailing in the early to mid-1990s, which were the result of declines in Madagascar's economic fortunes beginning in the early 1980s and concomitant deterioration in the quality of public schools. Glick and Razakamanantsoa (2002) document the increases in primary enrollment rates occurring from 1993-1999, which came at a time of increasing government spending on education and modest economic growth. Since then, and particularly after the 2002 political and economic crisis, enrollment rates have climbed dramatically higher.

There have been a number of significant moves in recent years toward deconcentration and decentralization and toward increasing accountability and transparency at the local level, consistent with similar policy changes in the health sector. A key part of this process has been increasing deconcentration of responsibility to the managers of the country's 111 school districts or CISCOs (*Circonscription Scolaire*). The process began in 1998 but has gathered speed in the last several years. The *chefs CISCO* do not have discretion over hiring and promotion or the level of funds available to their districts, which are still determined at the central level, but they are able to allocate teacher and other resources among the schools within their districts. Of particular note is the recent move to professionalize these positions. All 111 CISCO managers were required to take a competency exam in 2003. The outcome was that fully 90% of them were replaced by the start of the 2003/4 school year. To move toward performance-based management of school districts, the *chefs CISCO* as of 2004 must submit a development plan to the Ministry with a budget and target objectives and are to be evaluated annually on their success in meeting these objectives.

In an effort to increase community involvement and control of school management and finance, the government began in 2002 to disperse a small share of its funding for public primary schools to the schools directly. These funds are managed by local school-based organizations known as FAFs (*Associations pour le développement des écoles*, after their acronym in Malagasy) consisting of parents and other community members, teachers and school directors. To insure transparency and the accountability of local school authorities, schools were told that records of the receipt of this money into the school's 'cash box' or *caisse ecole*, and expenditures out of it, should be posted at the school or in another public location.

In addition to these and other organizational changes⁵, the administration of President Marc Ravalomanana has advanced several major education initiatives, particularly with respect to primary school and meeting the Millennium Development Goal of Education for All. In September 2002, on the heels of the political crisis, when many Malagasy households were suffering economic hardship, the President abolished enrollment fees in public primary

⁵ Including, in 2003 and 2004, the consolidation of three separate education ministries to form MENRS.

schools and at some private schools. Second, as part of the Education for All initiative announced in 2003, he directed that funds provided from the World Bank under CRESED (Credit for Strengthening the Education System in Madagascar) be allocated to the provision of essential supplies to primary school students, with the goal of providing all students with a book bag, a textbook, and a 'school kit' containing pencils and other supplies. By all accounts, implementation of this program has been, as intended, very widespread.

In terms of increasing enrollment rates, these policies appear to have been remarkably successful. Tables 3.1 and 3.2 present trends in total enrollments and net and gross enrollment ratios based on MENRS' school and student database and population projections. The number of primary students increased proportionately by 19% in 2002/3 over the previous school year and again by 18% in 2003/4 (top of Table 3.1). The net enrollment figures in Table 3.2 show the net enrollment ratio (equal to total primary enrollments of primary age children divided by number of primary age children) rising from 67% in 2000/1 to 97% in 2003/4.

Although the last figure suggests that universal primary enrollment has come close to being achieved, the enrollment ratio estimates should be treated with some caution. They are made by combining the school enrollment data with projections of the student age population from the last census, rather than being derived directly from population based surveys. Nevertheless, the data point to very significant improvements in enrollments. It is not possible to clearly disentangle the impacts of difference policy changes—or for that matter, the effects of education policies from the effects of other concurrent factors not related to education policy. However, it can be noted that in a number of other countries in the region (among them Uganda, Kenya, and Malawi) the elimination of school fees has led to similar very large increases in the demand for schooling.

The surge in the numbers of students in the last few years, while a very favorable development, has put tremendous strain on limited education resources. There is concern that quality will be diluted, possibly leading to reversals of the increases in the numbers of children attending school. Rural communities, already suffering a deficit of teachers, have responded by greatly increasing their own hiring of teachers locally through parent teacher associations (FRAMs). Recently the government has promised to increase its financial support of FRAMs to allow them to continue to pay these teachers and hire additional teachers. In addition, the government has begun to implement a plan (announced in 2003 as part of the Education for All initiative) to hire and train some 1,700 new teachers and to construct 2,300 new classrooms (see MENRS 2003 for details).

4. DESCRIPTION OF THE EPSPAM SAMPLE

Table 4.1 presents basic information on the EPSPAM sample. As already noted, the survey was conducted in 48 'PASEC communities' and 13 'non-PASEC communities'. The former are locales where the 1998 PASEC study was carried out. The community is defined as the catchment area of the primary school visited by the earlier survey. The non-PASEC communities, as described in section 2, were added in order to increase the representation of smaller rural communities. The total number of household interviewed was 1,830. Six hundred of the original PASEC children (or their households) were located, or about 12.5 per PASEC community, not far below the objective of finding 15 of the original 20 children in each area. 543 of these PASEC children were still living at home; most (87%) took at least one of the four tests given with the current survey. The total number of children in the 14-16 year cohort (the cohort of the PASEC children) was 1,525 of which 1,078 were tested. There were 1,442 children in the 8-10 group, of which 828 were tested.⁶

4.1. Representativeness of the sample

Using information on schools and students in the MENRS database, we are able to present a picture of the EPSPAM sample compared to the national population. Table 4.2 compares the distribution of the national primary school student population and the EPSPAM student population according to school size. The MENRS data contain the school size (number of students) for all primary schools in the country. From this we are able to rank students by the size of their school. Thus the figure in the first row, first column of the table indicates that 20% of students nationwide attend schools with fewer than 129 students. The next 20% are in schools between 129 and 196 students, and so on. We then calculate, in the third column, the share of primary students in our sample in schools of the same size. It is clear that small schools (or more precisely, students who attend small schools) are underrepresented. For example, whereas 20% of the national primary student population attends schools smaller than 129 students, only 11% of EPSPAM sample students do. At the other extreme, more than half of primary students in our sample attend school in the largest size quintile. The difference is highlighted as well if we just look at the median schools sizes (bottom two rows): 142 for the students overall vs. 488 for students in the sample.

Since our survey somewhat oversampled urban areas, where schools are larger, the overall comparisons may not be that illuminating, so the next two sets of columns repeat the calculations by area. The same differences are seen, and are more pronounced for urban than rural areas.

In Table 4.3 we focus on rural areas only and make the comparisons along a different dimension: the 'remoteness' of the community. 'Remoteness' is defined by an index calculated using factor analysis on a variety of indicators of the commune's isolation or accessibility, including distance to roads, markets, health services, and other institutions (See Stifel, Minten and Dorosh 2003). In the table both the overall rural student population and the EPSPAM student sample are ordered by their placement in quintiles of this index, from

⁶Because of resource and time constraints, the objective was not to test all children 8-10 or 14-16 in each household, but instead to test up to two children in the appropriate age ranges, making sure always that any PASEC child is tested. The selection of children to be tested was not left up to the enumerators or the households; instead the children were randomly selected by the survey team supervisors based on initial information on children in the household. Ultimately it was possible to test children from 82% of sample households.

least remote to most remote. Note that in this case the overall rural population is not evenly distributed among the remoteness quintiles and in particular, only 10% are in the least remote quintile. This is because few rural communities rank in the first quintile, which consists mostly of urban centers. Still, there are clear differences between the overall rural student population and the rural EPSPAM sample, almost 20% of which is found in the least remote quintile (and only 5% of which is found in the most remote quintile). Thus by this measure too, the sample is not very representative of the situation of the population overall.

These comparisons, of course, merely clarify what we stressed above: the EPSPAM study was not designed to capture a nationally representative sample. Instead, it was designed (essentially) to be a follow-up study and expansion of the 1998 PASEC survey, which included mostly large schools and by extension, large communities. As discussed in Section 2, the sampling strategy was changed to insure the inclusion of a number of communities with ‘small’ schools, i.e., with number of students below the national median. Table 4.4 shows how several characteristics of communities and households in rural areas of our sample vary by ‘small school’ status of the community as well as by remoteness. (As noted in section 2, seven sample communities are in the small school category). As expected, small school communities are smaller than the other rural communities in terms of the population of the commune in which they are located.⁷ Population density also declines as the degree of remoteness increases. Note that the small communities have an average commune population that situates them in the 4th quintile of remoteness. Households in small school communities, and in more remote areas, are less wealthy on average as shown by lower values of wealth, measured by quintiles of an asset index.⁸ Similarly, household heads in small school communities tend to be less educated; the pattern for remoteness for the schooling indicators is less clear, but this may reflect the small number of observations in more remote quintiles in our sample.

In general then, the small school and remoteness distinctions are associated with expected differences in community and household characteristics. The comparisons with the national data on population as well as school size suggest that there is some validity to saying that the small school areas are ‘typical’ or ‘representative’ of poorer rural communities. For many of the tables in this report, therefore, we will present separate statistics for this subsample, and occasionally also, for different quintiles of the remoteness index. This stratification is a partial corrective to the lack of representivity of the overall sample. We need to caution, however, that the small school subsample is relatively small—7 clusters in which 8 primary schools were interviewed as well as about 30 households per cluster. Small sample size is likely to be more of a problem when it comes to looking at school characteristics, given that there are only 8 observations, than with the household or individual level data. However, as noted above, in light of our particular interest in small school communities, we will be expanding upon this study by surveying an additional 10 small school communities in March 2005. With this in mind we turn to the presentation of the descriptive results.

⁷ The population data, like the variables used to construct the remoteness index, refer to the population of the commune in which the community is located and are obtained from the 2001 commune census. The country has about 1,300 communes.

⁸ The asset index, described in more detail in Section 5, is based on the national Madagascar sample using the EPM survey. By construction the mean of the index for the country as a whole is zero. The values in the table are negative because rural households are poorer than average.

5. SCHOOL ENROLLMENT AND PROGRESSION THROUGH SCHOOL

5.1. Enrollment rates

Table 5.1 shows rates of current enrollment as well the rate of school entry, i.e., ever enrolling in school, for children age 6 to 15. Almost all such children entered school (first column). The rates of current enrollment are also very high. In urban areas over 90 percent of children are attending school. The share in rural areas is somewhat (and statistically significantly) lower than in the urban sample, but at 87% is still high. Consistent with other studies of schooling in Madagascar (see Glick, Razafindravonona and Randretsa 2000), there are no gender differences in enrollment rates.

In Table 5.2 we compare these calculations to enrollments calculated from the national 2002/3 EPM (*Enquete Prioritaire des Menages*) survey sample for the same age group. The EPM figures are quite a bit lower. Comparison of the overall (rural and urban) samples is not very informative since the EPSPAM survey intentionally oversampled urban areas. However, within urban and within rural categories enrollment rates remain somewhat higher in our sample than in the EPM: 91% vs. 84% for urban areas and 87% vs. 83% for rural areas. This points to the differences in EPSPAM survey sample and the national population. On the other hand, it should also be kept in mind that our data were collected in 2004, a year later than the EPM. The figures cited above from MENRS indicate a very significant increase in primary enrollments nationwide in the last year. Therefore nationally representative data collected during the last (2003/4) school year would likely show higher enrollment rates than the EPM figures in the table. Hence we expect that the difference between our sample and the country as whole are likely a good deal smaller than suggested by the table.⁹

As the next table (Table 5.3) shows, current enrollment is slightly lower in small school communities, though still high: 81% vs. 87% for the full rural sample. Less of a pattern is observed across remoteness categories.

Next we consider school enrollment by the level of household resources. The survey did not collect data on income or household consumption expenditures. Instead we use a wealth measure based on information on assets. Specifically, following the methodology of Sahn and Stifel (2003), we use factor analysis to construct an asset index using information on ownership of durable goods such as a radio, TV, refrigerator, and bicycle, motorcycle or car, as well as the source of drinking water (piped, surface water, or well water), and toilet facilities (flush, pit toilet or latrine) of the domicile. Table 5.4 ranks survey households into quartiles based on the value of the asset index. Thus the first quartile contains the poorest 25% of the households and the 4th quartile the richest 25%. As shown there are notable differences in enrollment by the level of wealth. 80% of children in the poorest quartile are enrolled compared with 95% in the richest (first column). One might expect these differences to reflect in part rural-urban location differences since urban residents tend to be richer, but in fact the pattern is essentially the same if we consider rural and urban areas separately (2nd and 3rd columns).

Another expected pattern is that better-off households are more likely to enroll their children in private schools. Table 5.5 indicates that this pattern occurs, and to a similar

⁹ The latest EPM, being collected in January and February 2005, will permit a direct check of this.

degree, for both rural and urban sample households. In each area, less than 10% of primary school students in the poorest quartile attend private schools compare with about 50% from the richest quartile. Enrollment probabilities also increase with the level of schooling of father and mother (Table 5.6). The patterns for paternal and maternal schooling are virtually the same.

Finally in Table 5.7 we look at enrollment by age. Enrollment rates remain quite high, and fairly similar in urban and rural areas, through age 14. Thereafter, however, rural children are increasingly less likely to be in school. For example, among 16 year olds, about 80% of urban children are still in school but less than 60% of rural children are still attending. For children in the smaller rural communities represented by our small school category, enrollment rates are lower to begin with and fall off much more sharply with age. Only 30% of 16 years olds in these communities are in school. This may reflect a number of factors, including lack of access to lower secondary schools, greater poverty, or lower quality primary schools leading to lower academic success and higher dropout. It is worth noting again that this subsample, though small, is likely to be broadly representative of much of rural Madagascar.

During the design and implementation of the survey, care was taken to insure the collection of information on schooling of all children, including those who were not living at home.¹⁰ This is important for gaining a complete understanding of household schooling decisions, since children who have left home early, or children of any age who are sent to live away from home, may have schooling outcomes that are different from children who live with their parents. Some children may be sent to live with relatives precisely for the purpose of attending school. Table 5.8 shows, instead, that enrollment tends to be somewhat lower for children who do not live with their parents through age 13, and markedly lower for older children who do not live at home. The older children in this group who are no longer home presumably have left for marriage or work rather than school.

5.2. Age at school entry and grade repetition

For the sample overall, the relatively high age before children stop attending school in large numbers (Table 5.7) may give the impression that significant dropout does not occur until after the primary level—in contradiction to widely discussed problems of high primary dropout and very low rates of pass through to *college* (see World Bank 2002). However, an examination of grade for age—the average current grade of students of a given age—does suggest that dropout is occurring mostly at the primary level, consistent with other analysis of this issue in Madagascar.

This is done in Table 5.9, which shows grade for age as well as the share of enrolled children in primary and lower (and upper) secondary levels for each age group. The ‘official’ age of primary school (which has 5 grades in Madagascar) is 6-10. This range assumes that the child enters on time at age 6 and does not repeat any grades. However, it is well known that these conditions frequently, even usually, do not hold. As indicated, the mean grade level for enrolled children age 11 is only 3.7. Among children age 14, all of whom should be in lower secondary or above, the average grade is only 5.5. Slightly more than half of this group is still in primary school. Even among 16 year olds, one quarter of those attending

¹⁰ A submodule of the household roster module gathered information, including basic schooling data, on all children under 30 of household members not living at home.

school are still in primary school. It should be kept in mind that the results are slightly biased toward understating the grade for age because the survey was conducted largely in the summer of 2004 and the grade refers to the school year ending in May 2004. Still, the table points to a pattern of many children being in primary school well into their teenage years. Hence dropouts among this age group, seen in the previous two tables, may well reflect dropping out at the primary level.

One possible reason for the high mean ages of primary school students is delayed school entry. This could be due to several factors, particularly poor nutrition and growth such that many 6 year olds are not ready physically or emotionally to begin school. Also relevant in many areas is the distance to the local primary school: parents may not want very young children to endure hardship walking long distances to school, so wait till their children are slightly older before enrolling them. In Table 5.10 we show the average age at school entry by gender and location as well as household wealth. The table considers children who are between 9 and 18; the bottom of the range is chosen to insure that all or almost all of the sample will have enrolled already if they were going to enroll at all. The mean age of entry in fact is not much above the official age: slightly over 6 for both girls and boys in urban areas and slightly higher in rural areas, about 6.5, and again similar for boys and girls. As Table 5.11 shows, a minority of children--about 25% of urban children and 34% of rural children--entered after age 6, that is, after the official entry age. Note also from Table 5.9 that poorer households (lower asset index quartiles) tend to start their children in school later than wealthy households.

Overall, the tables suggest that late entry is not very pervasive in our sample. However, the figures specifically for small school communities are telling: mean age of entry is 7.3 years, almost one year higher than for the rural sample overall. Thus delayed entry does appear to be a significant phenomenon in smaller or relatively remote rural communities.

Nonetheless, for the majority of communities in our sample, the main explanation for low grade for age must come from other factors, namely, grade repetition or schooling interruptions.¹¹ Table 5.12 shows the number of grade repetitions for the sample of ever enrolled children age 15-18. We choose this older (post primary age) cohort for this analysis because to include younger children would undercount the average number of primary repetitions, since many children still in primary will repeat more grades during their primary schooling.¹² As is clear from the table, repetition is very common: about two-thirds of urban students and three-quarters of rural children who were ever in school repeated at least one primary grade. 38% of urban children and 42% of rural children repeated two grades or more. Note that these numbers of repeated grades are not simply to be compared against the five years of the primary cycle. Many students who repeated grades in the 15-18 sample did not end up going the full five years, so the implied repetition rates per year are higher than indicated.

Table 5.13 indicates that primary repetition rates are similar for boys and girls—if anything, they are slightly higher for boys. There is not much pattern by asset quartile,

¹¹ Note that even for the small communities, the late entry age shown in the table could only explain part of the high age for grade observed in the data.

¹² The disadvantage of using this older age range is that the results reflect conditions extent least several years ago, when these children were in primary school, rather than contemporary conditions. This applies as well to the data on school progression reported below.

except for a lower average number of repetitions for children in the wealthiest category in rural areas.

In contrast to what we find for grade repetition, schooling interruptions—defined as temporary withdrawal from school lasting a month or more—seem rare (Table 5.14). Less than 10% of ever enrolled children age 9-18 report having had to stop their primary schooling for more than a month during the school year. The figure is not higher for rural areas overall but is higher for small communities. Interruptions also seem to be inversely related to the wealth of the household. Note that these figures include interruptions resulting from the political crisis of 2002; without them the prevalence of interruptions would be slightly lower. Note also that extended withdrawal from school may lead to permanent withdrawal, but the table includes only cases where the child returned to school.

5.3. School progression

Next we consider progression through the primary cycle and from primary to secondary school. Table 5.15 shows, for children age 15-18 who entered primary school, the shares completing primary school, passing the CEPE exam (hence getting a diploma), and going to lower secondary school. Primary completion rates (first column) in our sample are relatively quite high—77% of boys and 72% of girls who enter primary in our sample go on to complete the cycle, meaning they stayed in school through the end of the last primary grade (7^e).¹³ They are higher in urban areas than in rural areas. There is also a very strong pattern by level of household wealth: primary completion rates are only 52% for the poorest quartile compared with 92% for the richest.

Of those who enter primary school, about 60% of boys and 56% of girls not only complete the cycle but also pass the CEPE (second column). Among those who both enter primary and complete the cycle, about 78% of boys and 77% of girls pass the test. Here again there are pronounced differences by rural and urban location and household wealth. Finally, among those who entered primary school, 59% of boys and 54% of girls go on to *college* (last column). Among those specifically *who finished the primary level*, 77% of boys and 75% of girls entered lower secondary; among those who both finished the primary level *and* obtained the CEPE, 98% of both boys and girls entered lower secondary. Therefore the main sources of low pass through to college are not completing primary school and not passing the CEPE. It bears reiterating that school progression is worse in rural areas and among poorer household. For example, among children in the poorest wealth quartile who enter school, less than a third go on to lower secondary compared with 80% of children in the richest quartile.

In the next table we focus on rural areas only and look at school progression by remoteness and residence on small school communities. Children living in smaller rural communities are clearly disadvantaged. Only about 44 percent of those who entered school completed the primary level, and only about 15% go on to *college*, compared to overall rural rates of 69% for primary completion and 50% for entering *college*. The divisions by level of remoteness show a similar pattern: the more remote the community, the less likely a child is to finish primary school and to enter lower secondary. One factor behind these patterns, to be

¹³ Using the MENRS school data (from 1998) on number of students and number of repetitions, World Bank (2002) imputes a very low national average primary completion rate of 33%.

investigated in later work, is probably the lack of locally accessible lower secondary schools for rural children in smaller or remoter communities.

Finally we consider the reasons given by respondents (or their parents) for not finishing primary and for not going on to lower secondary. Table 5.17 indicates that for both boys and girls alike who dropped out of primary there are three main reasons given for not finishing: 'assisting parents' (i.e., in domestic work or in an enterprise or farm), followed by inability to pay for school and poor academic performance. Table 5.18 looks at primary completers, distinguishing those who passed the CEPE and those who did not. Among those who failed the exam, as we might expect, 'poor academic performance' and 'failure on the exam' combined are the main reason, followed by assisting parents and inability to pay. Among those who passed the CEPE and hence would qualify for a place in *college*, the main reason for not starting this level is inability to pay (particularly important for boys), followed by 'assisting parents'. This last result points to the importance of school cost as a barrier to progression into the secondary cycle.

6. TEST PERFORMANCE AND SCHOOL ATTAINMENT

In this section of the report we present results of the tests administered to the children participating in the survey. As described earlier, four tests were given to two groups of children, those age 8-10 and those 14-16: written French, written math, oral math, and life skills (the tests for the 14-16 year olds are shown in the Appendix). The older group includes children from the 1998 PASEC study sample; for this subgroup we also have test scores from the 2nd grade. We focus on the PASEC group later in this section. First we consider the 2004 tests and all the children in each age group.

6.1. Distributions of 2004 Tests Scores and test consistency

Table 6.1 presents summary statistics on the number of children tested, the share of the questions answered correctly, and the scores at the mean and various percentiles. The number of children taking each test differs. For example, the life-skills test was administered to 810 children between 8 and 10 years of age, whereas only 726 children took the written French and 741 took the written math. Somewhat higher numbers (797) took the oral math test, though less than took the life skills test. A similar pattern is seen for the older age group.¹⁴ This is expected, because some children, particularly those no longer (or never) in school would be unable or reluctant to take written tests. These children were strongly encouraged by the interviewers to try to take each test, but allowed to take less than all four. Since many chose not to (and some children or households also did not participate at all), there may be issues of self-selection bias. The survey was designed to make it possible to deal with this kind of selectivity statistically, and future multivariate analysis therefore will attempt to correct for selectivity.

The table also shows that for both age cohorts, the mean share of correct responses was greatest for the life skills test. Overall, however, the mean scores are not very far from .5. The scores have a reasonable level of variation, which is necessary if the test is to be able to distinguish children who are more knowledgeable from who are less knowledgeable. More precise assessment is given by Cronbach's alpha values shown in the table. Cronbach's alpha is a measure of the internal consistency (sometimes also called 'reliability') of the test. A value of .8 or higher is considered to indicate a high degree of consistency. As shown, each of the tests meets this criterion.

6.2. Correlation of test Scores for different subjects

We next turn to an examination of the correlation matrix of 2004 test scores in Tables 6.2 and 6.3. For the younger group of children, the correlations across the four tests are high, ranging from 0.55 to 0.71 (the last for written French and written math). High inter-test correlations are seen for the older age group as well. The degree of correlation between the life-skills tests and the oral math scores, on the one hand, and the written tests, on the other, is comparable to that between the written math and French tests. This is noteworthy because it might have been expected that oral math skills and in particular, life skills are somewhat different kinds of knowledge than skills measured by the written tests. The correlations show instead that children who do well on one type of test also do well on the other.

¹⁴ Note that there are more children in the older group of test takers. This is because, first, there are more children in that cohort in the sample, given that the survey always attempted to interview 15 PASEC children (who are in that age group) in each community as well as others of the same age. Second, these PASEC children were always asked to take the tests.

The last row in these two tables shows the bivariate correlations of grade attainment and test scores. These tend to be small for the 8-10 year olds, but that is expected given the lower range of possible highest grade for this group (the great majority are still in school, and most are in 2nd or 3rd grade). The correlations for the older group (Table 6.3) are of more interest. Here the correlation of test score and highest grade attained are higher, as expected. Further association of grade attainment and life-skills test scores is comparable to that between grade and oral math and written French, respectively. The highest correlation between grade attainment and test scores for this group is for written math (.47).

6.3. Test score outcomes and grade attainment

We continue with the focus of the relationship of school attainment and performance on the 2004 tests of 14-16 year olds. For the next set of tables we ranked students by their 2004 test scores and placed them in quintiles. That is, the children in the lowest quintile are those who scored in the bottom 20% of the group taking the test, and those in the fifth quintile scored in the top 20%. As Table 6.4 shows, for children in the bottom quintile of 2004 written math score, mean grade attainment is 4.2 years, less than half have completed primary school, and less than one-fifth have entered secondary school. In contrast, for those scoring in the highest quintile, mean years of schooling is 7.1, nearly all of the children completed primary school, and the share entering lower secondary school is 85 percent.

The relationship between school attainment and the life skills test score ranking is similar but less strong (Table 6.5). These associations of test scores and level of schooling are of course expected, and confirm the role of formal education in increasing children's human capital.

6.4. Test scores by child, household and school characteristics

We next present test score results by various characteristics of the children and their households. We focus on children in the 8-10 group who are currently in school for this analysis. This allows us to control for enrollment status as well as, to an extent, current grade.¹⁵ At times we also will focus specifically on comparisons among 8-10 year olds in the same grade. The tables thus are able to highlight differences in test outcomes that are not due simply to, for example, early dropout or high repetition.

In Table 6.6 we observe, first, that there is no gender difference in median test score outcomes among enrolled children 8-10 years old. Children from wealthier households, however, have higher median test scores. The difference across the quartiles of the asset index are particularly high for the written tests, for which the median score among those in the top quartile of the asset index are around twice as high as the lowest wealth quartile.

The table also shows that the written test scores of enrolled 8 to 10 year olds, especially math, are strongly related to the schooling of the father and mother. The median French test score for children whose mother has no schooling is 0.29, and rises to 0.65 among the children whose mother has at least some upper secondary schooling. The relationship between schooling of parents and test scores outcomes is not quite as strong for the other

¹⁵ Given high repetition and dropout, there is a much larger variation in current or last grade among the older group of children.

tests. However, a comparison of the test score outcomes of children whose parents have no education with those with some upper secondary or above always reveals a large difference.

Table 6.7 shows, first, that children in urban areas score substantially higher on tests than those in rural areas, and these differences are statistically significant. Children residing in communities with small rural schools perform particularly poorly on the written and oral math tests. When we stratify test scores by the remoteness index we do not observe any clear pattern of change across the quintiles of the index; although we do observe the somewhat counter-intuitive result that young children's written math and oral math test score results are highest in the most remote villages. The small samples in these remoteness categories, however, suggest the need for caution in interpreting this finding.

We next consider differences in mean test scores between public and private school attendees among our cohort of 8 to 10 year olds. For all tests, in rural and urban areas as well as for the combined sample, the scores of private school students are higher (Table 6.8). All these differences are statistically significant at standard levels. While this might suggest that quality is higher in private schools (and indeed, both the school surveys and parental perceptions suggest that higher values of many possible indicators of 'quality' for private schools), one cannot simply infer this from these test score differences. We saw in the previous section (Table 5.5) that the share of enrolled children attending private schools increases markedly with household wealth. Thus there may be differences in the home environment, in ability to purchase school books and supplies, and in other factors that may explain higher test scores for private school students. Similar considerations apply to the observed rural-urban gaps in test scores: do rural children—who tend to be poorer—perform relatively poorly because of household factors such as lower wealth or parental schooling, or because their schools are of lower quality? One of the main objectives of subsequent econometrics work with these data is to disentangle the reasons for these differences in outcomes observed across school types, location, and family situation.

As noted, children in the 8 to 10 cohort can be in different grades owing to variation in the age at initial enrollment as well as grade repetition. Scores increase with grade for these children (Table 6.9). It is useful therefore to control for current grade when comparing test scores across different groups of children. We do this in Tables 6.10 and 6.11, which compare private and public student test scores for current 2nd and 3rd graders, respectively. The results for 2nd grade suggest that children in private school perform better than those in public school in both rural and urban areas, but the magnitude of the differences is particularly large in urban areas where for all four tests the differences are statistically significant. Similarly for children in 3rd grade, private school test scores are generally higher in both in rural and urban areas, but these differences are generally not statistically significant (note that the sample sizes are small, however). An exception to this is the written French test, for which in urban and rural areas separately as well as in the combined sample the private-public differences are statistically significant.

We next make a comparison between the test scores of schools with multigrade and "mi-temps" classes and schools that do not have these characteristics. Children in schools with mi-temps arrangements are in school for less than the full number of hours per week, so the total hours of instruction are reduced. Table 6.12 suggests that written math scores are substantially lower for children in schools with multigrade teaching, with smaller differences observed for the other test outcomes. In the case of students in schools with mi-temps instruction, however, there is less of a pattern, with students in such schools doing modestly

better in French and math written tests but worse in the life-skills test. This ambiguity could be reflect the fact that “mi-temps” includes cases where hours of instruction are only slightly less than the standard amount. When we control for current grade level by analyzing 2nd and 3rd graders separately, the pattern of children in multi-grade classrooms performing relatively poorly remains for the written French test.

6.5. Analysis of the PASEC subsample

The next set of tables contains information on the PASEC cohort – those children for whom we have test data from both 1998 and 2004.¹⁶ We begin by examining the correlations of 2nd grade French and math tests scores with performance on the 2004 tests, as well as with subsequent grade attainment (Table 6.13). All of these correlations are positive and statistically significant. The associations of the 1998 test scores and the 2004 life skills test score are lower than the others, although not dramatically so. The correlations between the 1998 written French test score and each of the four 2004 test scores are greater than the comparable correlations with the 1998 written math test. The same finding applies to the correlation with grade attainment.

Tables 6.14 and 6.15 examine 2004 test outcomes stratified by the quintile ranking of the child’s 1998 French and math test scores. The results are consistent with the simple bivariate correlations just reported: children who ranked higher in 1998 also do better on the 2004 tests. The variation of 2004 math and French test scores across the 98 (French and math) score quintiles are very similar. We do find, however, that the changes in the 2004 life-skills test scores as we move across quintiles of the 1998 scores are not as large as with the other 2004 tests. This is not surprising given that the other three tests involve similar subject matter (that is, the standard academic topics of math and French) to the 1998 tests.

An interesting and policy-relevant question is how subsequent grade attainment or progression through school is related to early academic performance. We get a glimpse into that question in Tables 6.16 and 6.17, where we rank the PASCE children by their 1998 test scores and examine the mean grade attainment, the share completing primary school, and the share entering secondary school. While the means of these school outcomes increase across the 1998 test score quintiles, the differences are not dramatic. For example, the average grade attainment of children in the highest quintile of the French scores is 6.3 years, as contrasted with 5.0 years among children whose test scores were in the bottom 20 percent of the distribution. This reflects the fact that in this sample a large share of children complete primary school.

Where there is a more dramatic difference in terms of schooling success is in the probability of entering secondary school. Those in the highest quartile of the 1998 test score distribution are nearly two times more likely to enter lower secondary school as the bottom 20 percent of the test takers. While this is indeed suggestive of the idea that early academic performance is an important determinant of transitions into secondary school, one cannot—again—infer causation. It may be that other factors, such as parental education or the wealth of the household, jointly determine both outcomes. Subsequent multivariate analysis will enable us to distinguish among these explanations.

¹⁶ The 1988 tests refer to the post-test, given at the end of the 2nd grade. A test was also given to the PASEC children at the start of that school year.

7. HOUSEHOLD EDUCATION EXPENDITURES, FEES, AND ACCESS TO SCHOOL SUPPLIES

7.1. School supplies

The education module of the household questionnaire collected detailed information on education spending per student as well as access to supplies. We consider supplies first. As noted in Section 3, an important recent policy development was the President's decision in 2003 to fund the provision of books and other supplies (in particular, book bags) to all children in primary school. Table 7.1 shows the shares of primary students receiving books from the school (defined as a book provided for free that the student can use at home, not just in class), as well as book bags, notebooks, and pen or pencils. The vast majority of public primary students did receive at least one book in 2003/4 (2nd column). Almost all (92%) got a book bag and pen or pencils, and 72% received a notebook. The shares tend to be lower in private school, especially for books and notebooks. Table 7.2 distinguishes children by location. Shares of rural public students receiving these supplies are generally similar to those for urban students—and in fact appear higher with respect to books—and this applies to children in small school communities as well. While we lack data on previous years that would permit us to directly assess the effects of the program on children's access to school supplies, the results here do suggest that the goals of the program are close to being achieved.

7.2. Expenditures and school fees

Next we look at the costs to households of enrolling a child in primary school. Table 7.3 shows the median spending on primary school per child during the 2003/4 school year by type of school and location. Included in this spending are enrollment fees (*droits d'inscription*) and monthly or other regular charges (*ecolage*), contributions to FRAMS, expenditures on books and uniforms, transport, and other expenses such as food. Private schools are much more costly than public schools. The median cost per private student is 210,000 Fmg, almost four times that per public student (40,167 Fmg).¹⁷ Public school expenditures per student are very similar in urban and rural areas, though for private school they are somewhat lower in rural areas.

Tables 7.4 and 7.5 consider payments of fees specifically. Not surprisingly, for almost all children in private primary schools, enrollment fees were paid (Table 7.4). In most cases as well, families of private students paid *ecolage*. Less expected, in view of the official policy abolishing public primary school fees, is that fees are reported to have been paid for about 25% of public school students. These apparently represent formal payments, since in 84% of these cases a receipt was issued to the family. In only a small number of cases were the fees later reimbursed to the family during the school year (3rd row). Table 7.5 indicates that collection of fees is somewhat more prevalent among urban public school enrollees in our sample.

¹⁷ The amounts spent on some of these items are at the discretion of parents rather than completely obligatory. Because of this, the figures likely overstate the median required spending to enroll a child in school. This is probably more true for private school, since private school students tend to come from more affluent families that can afford to spend more on supplies and other school costs. Therefore the difference in median expenditures per student may overstate the difference in costs of the alternatives facing parents. Still, given that many schooling costs are not discretionary, there is little doubt that private school is the far more expensive option.

In contrast to these findings, as we note below in the discussion of the school surveys, almost no public school directors reported collecting fees for the school year 2003/4. A small share do report (somewhat inconsistently with the previous response) that parents of CE2 level (3rd grade) pupils pay fees. It is not easy to interpret the discrepancy between what schools report and what parents report.¹⁸ We should point out, however, that non-compliance with the official policy on the part of directors is not the only explanation. Even with the abolishment of school fees, parents are still usually obliged to contribute something to their children's schools, for example contributions to cover the costs of FRAM hired teachers. If the schools rather than the FRAMs themselves collect these contributions, they may then appear to parents to be a form of school fees.

¹⁸ We investigated further by comparing director and household responses after matching students to interviewed schools using school identification codes. Of children who parents paid fees and who could be matched to the school survey, 90% attended schools where the director reported not collecting fees. Few of these households reported being reimbursed. As noted in the text, for a larger share of schools the directors indicated that CE2 students paid fees. In this case, too, most of the children for which fees were said to have been paid did not go to these schools.

8. CHARACTERISTICS OF SCHOOLS

Detailed interviews were conducted with school directors in each of the communities visited. Recall that each community was defined as a catchment area for a specific school. In the case of PASEC communities, this was the school originally included in the 1998 PASEC study, where the PASEC children were originally tested. In the 12 communities chosen on the basis of the presence of a small public school, the area surveyed was the catchment area of this school. These schools, like the PASEC schools, were always interviewed. In addition, the teams sought to interview up to two other local schools, including lower secondary schools, if they were relevant alternatives for residents of the catchment area of the first school. All in all, 121 schools were interviewed of which 104 were primary schools. In this section we focus on the characteristics (most of which are indicators of various dimensions of school quality) of these primary schools, distinguishing by location and school type. Again, within the rural sample we distinguish as well the eight ‘small schools’, all public, with mean student population equal to 74 children. (see Section 3 for further description of the selection of these schools).¹⁹ It is important to keep in mind the small number of schools in this subsample when considering the tables below and when comparing to the overall rural or urban school means or percentages.²⁰

Table 8.1 shows the breakdown of the school sample by school type and location. Noteworthy is the fact that private primary schools in the sample are mostly *confessionnelle*, that is, church-run. This conforms to the pattern for the country overall, where *confessionnelle* schools predominate among private providers. These schools, it should be noted, typically provide standard academic instruction and are open to all children, not just Christians or those belonging to the church with which the school is associated.

Table 8.2 shows the median size (number of students) of the schools by location and type. As we have already discussed, the schools in our sample are large, especially for rural areas. The median public primary school size is 612 students for urban areas and 423 for rural areas; as reported earlier, the median public school size in Madagascar is about 140 students. The private schools in the sample are smaller—roughly half the size—of the public schools in each area.

8.1. Use of multigrade classes and part-day instruction

Among the factors with potentially important implications for pedagogy and learning are the number of hours of instruction per school day and the use of multigrade classes (several grades being taught simultaneously by one teacher). The practice of multigrade is driven by a combination of low population density in rural areas and the government’s long-standing commitment to maintain a primary school in almost all of the country’s approximately 13,000 *fokontany*. As a consequence, many rural schools have relatively few students in each grade level. Since the supply of teachers (and in many cases, classrooms) is limited it is necessary that two or even three levels be combined per teacher. Having students attend school for less than the full number of hours per week (27.5) or even just half-time is

¹⁹ Seven of these schools were among those specifically targeted as ‘small schools’ for the sampling. In one of these cases, another school used by local residents and interviewed by the survey also fit the chosen criterion. Thus there are eight ‘small schools’ in seven ‘small school communities’.

²⁰ Thus when the table indicates, for example, that “37.5 percent” of the small rural schools have a certain characteristic, it should be kept in mind that this means three schools out of a sample of eight.

another means by which schools can cope with the small number of teachers relative to the number of students or grades that must be taught.

Table 8.3 shows the prevalence of multigrade instruction and less than full time instruction (*classes à mi-temps*) by school type and location. Use of multigrade is very uncommon in the sample's urban public schools (which as seen in the previous table are very large). It occurs in about a third of the rural public school sample—and by every one of the eight small rural public schools (first row, last column). Multigrade is somewhat more prevalent in the generally smaller private schools, in both areas. The fact that in the country overall multigrade occurs substantially more frequently than this—in about 62% of public primary schools and 73% of private schools—underscores the relatively large sizes of the schools in the EPSPAM sample, with the exception of the small school subgroup. The table shows as well that less than full day instruction is quite common in public schools, and unlike multigrade is more common in urban areas. Very few private schools in the sample use part-day instruction.

8.2. Late school openings and temporary closings

We next look at the prevalence of interruptions in school operations and late opening dates. With regard to the former, the survey asked first about the period of the 2002 crisis. Table 8.4 indicates that in fact most schools remained open during this period, through a substantial share in urban areas (about 38%) were forced to close temporarily. Of course, the crisis was an exceptional event; probably of more interest at this point is the prevalence of interruptions in a normal school year. Table 8.5 shows that such temporary closings are not uncommon among public primary schools. 24% of urban schools and 29% of rural schools closed for longer than a week at least once during the school year other than for vacation periods. Half of the small rural schools visited experienced closings, while private schools experienced fewer closings. For both public and private schools, weather related factors (flooding or cyclone) were the overwhelming reason for closings followed very distantly by teacher absence (Table 8.6).

Table 8.7 indicates that late starting (the school opening after the official first day of the school term) is quite uncommon. Further, almost all the school directors indicated that all or almost all the teachers were present at the opening of the school year in 2003. (Table 8.8).

8.3. Teacher characteristics, absences, and supervision

Table 8.9 presents the distribution of job status of teachers in public primary schools, distinguishing permanent government employees, temporary replacement hires, and teachers hired by parent-teacher groups (FRAMs). In urban public schools almost all teachers are in the first category. In rural areas, however, a non-trivial share of teachers (17%) are engaged by FRAMs. Even more striking is that in our eight 'small' rural public schools, more than half of the teachers are FRAM hires. Hiring of teachers by FRAMs is a response to inadequate supply of government teachers in local schools. The table suggests that these smaller rural communities where our small school sample is located feel this lack of resources acutely. We noted earlier in the report that FRAM hiring has risen sharply in the last several years as schools and communities have tried to deal with rapidly increasing enrollments. It may be that in smaller rural communities the need for additional teachers has been strongest, but we cannot confirm this with our data since we do not have information on past levels of hiring of teachers in each community.

Teacher educational qualifications are examined in Table 8.10. Private school teachers are significantly better educated on average than public school teachers. About 65% of private teachers have gone beyond lower secondary school (to either upper secondary or university) compares with just 35% of public school teachers. There is not much difference between rural and urban areas, and teacher qualifications in rural small schools seem to be on par with other rural schools. Few teachers, public or private, have a teaching degree, though the share is higher for private teachers and for urban teachers.

Frequency of teacher absences as reported by the school directors are shown in Table 8.11. Absences are higher for public schools than private schools, and for both types of schools are substantially more frequent in urban areas. For example, 32% of teachers are absent from urban public primary schools more than 1 day per month compared with 18% of rural public teachers; the corresponding figures for private schools are 17% and 2.5%. Only about 40% of rural public teachers are absent less than 1 day per month compared with 66% of rural private school teachers. The reasons for high public school teacher absenteeism, shown in Table 8.12, are noteworthy. Other than illness (the main factor) the only significant reason reported by directors is the need for teachers to take time off to get their salaries from the CISCO or DIRESEB office.

Next we consider teacher supervision and performance incentives. Table 8.13 shows the frequency of meetings between the director and his or her teaching staff (not including meetings with individual teachers). For public schools, monthly meetings are the most common practice (62% and 51% of urban and rural schools, respectively), though a non-trivial share of directors report daily meetings. For private schools it is slightly more common than in public schools to have daily or weekly meetings with staff.

Teacher incentives are examined in tables 8.14 and 8.15. The first table indicates that there are few incentives given to teachers in public primary schools to do their jobs well: two-thirds of public school directors said no rewards were given to teachers for good performance. We might expect incentives to be more prevalent in the private sector. They are, though even in the private sector they are present in less than half the schools. For private schools, rewards for good teachers mostly take the form of salary increases and 'gifts'. It should be stressed that the public-private sector differences do not mean that public school directors do not personally care about the quality of teaching in their schools: they generally have little discretion to provide incentives to teachers, in particular higher pay.

The pattern for actions to penalize poor teacher performance is almost the same (Table 8.15): two thirds of public school directors say no action is taken, compared with 44% of private school directors. The main action in the case of public school directors is to send a report on the teacher to the *chef CISCO*.

8.4. Institutional relations with higher levels of education administration

The school survey included a number of questions on relations with higher levels in the education administration hierarchy, for example, the CISCO and DIRESEB offices. Also asked were questions about local organizations of parents and teachers and others, such as FRAMs and FAFs. We look first at relations with the education administration. The information gathered concerned the frequency of contact (visits from) various agencies or offices. Table 8.16 gives the share of school visited by the CISCO manager during the

2003/4 school year. About 80% of urban public schools were visited, but only 56% of rural public schools; the figure for the more remotely located small schools was 50%. The mean number of visits (including zero for schools not visited) was almost twice as high in urban areas. These numbers may not seem high but they represent a large increase over the previous school year, especially for the smaller rural schools. This is of particular note in light of the professionalization of the *chef CICOSO* position, leading to the replacement of almost all *chef CICOSO* after the 2002/3 term. This change in management seems to have led to greater interaction with the schools in the CISCO. Note, finally, that visits to private primary schools by chef CISCO are much rarer, especially in rural areas, though these schools also are designated to be monitored by the CISCO.

Table 8.17 looks at visits to the schools by the director or other employees of the *Zone d'Animation Pédagogique* (ZAPs) which are set up at the subdistrict level and operate under the direction of the CISCO. ZAPs therefore tend to be physically closer to schools than are CISCO offices. Visits by ZAP personnel occur with some frequency: about 62% of public schools in urban areas and 56% in rural areas report receiving visits from ZAP personnel once a month or more frequently during the last school year. Again the frequency is higher in urban areas, where a third of public schools were visited once a week compared with only 13% for rural schools. ZAP workers also visited private schools, but much less often.

Finally in Table 8.18 we look at contact with inspectors from DIRESEB, the provincial offices of the education ministry. The mean number of visits to public schools was just 0.61, suggesting that at best only slightly more than half of the schools were visited. Such visits were much rarer in rural than urban areas. Among the eight small rural public schools the mean number of visits by DIRESEB inspectors was just 0.13.

8.5. Relations with FRAMS and FAFS

The share of schools reporting the presence of FRAMS and FAFs are given in Table 8.19. All public primary schools in the sample have FRAMS (parent-teacher associations). Almost all rural private schools have them as well, but this is not the case for urban private schools. FAFs (*associations pour le développement des écoles*), as noted earlier, are school-based organizations consisting of parents, community members, as well as teachers and/or school directors which were set up to increase local involvement in school management and to handle funds paid directly to public schools by the ministry. The vast majority of public primary schools in the sample have them: 95% in urban areas and 84% in rural areas.

School directors were asked to compare the overall level of activity of FRAMS now with that of the period 3 years before, that is to say, the period before the 2002 crisis. The responses are given in Table 8.20. Among public schools it is hard to discern a strong pattern, except that in rural areas more directors said FRAMS were less active now (40%) than said they were more active (31%) or equally active (29%). Clearly there has been no major change in level of activity, and certainly no pattern of increased activity. The same applies to private schools.

Table 8.21 considers specifically changes in the level of FRAM contributions to the schools. In rural areas only 31% of public school directors said contributions were lower; for the remaining 79% they were the same or greater. This may reflect the increased activity of rural FRAMS in the sense of hiring teachers noted above, though the results in the previous table suggest that this has been the only area in which these rural FRAMS have increased

their involvement. In contrast, fully half of the urban public directors said contributions had fallen relative to three years before. This is in contrast to private schools in both urban and rural areas: here almost all directors said FRAM contributions had either risen or stayed the same.²¹

As discussed earlier, part of the effort to increase accountability was the directive to have a record of receipts and expenditures of the FAF funds (into and out of the *caisse ecole*) clearly displayed at the school or some other public location. As Table 8.22 shows, virtually all schools reported that FAFs received payment for the 2003/4 school year. In urban areas, three fourths of directors reporting such a payment said the *caisse ecole* transactions were publicly posted. The same share of small rural schools indicated posting of transactions, though the overall rural mean was somewhat lower (62%). As we discuss below, these fairly high rates reported by school directors are at odds with the perceptions of local parents.

8.6. School infrastructure

The first set of data we present on school infrastructure come from evaluations made by the interviewers themselves, based on their direct observations of conditions at the school.²² Table 8.23 presents the overall evaluation of the condition of the school building or buildings by location and school type. Over a third of the public schools are said to be in poor condition—'dilapidated' or 'very dilapidated'. The share is slightly higher in urban than rural areas, though for small rural schools in particular the share is quite high (43%). The bulk of other public schools are in 'good' though not 'excellent' condition. The contrast with private schools is large: only about 10% of the private schools in the sample are described as dilapidated or very dilapidated and a significant share are in 'excellent' condition. It is noteworthy that when parents were asked the same question (see Section 9 below), the responses were quite similar in terms of public-private differences, though urban public schools were usually rated better than rural ones by parents. In contrast to overall facility condition, there is not much difference between public and private schools (or between rural and urban areas) with respect to the condition of windows (Table 8.24). With the exception of small rural schools, two thirds of schools did not have any missing or broken windows.

The interviewers also rated the cleanliness of the exterior and interior environments of the schools. Only about 40% of public schools (and less than 30% of small rural public schools) were described as having 'clean' exterior environments, though the share in the least favorable two categories ('poor' or 'unclean') was also low, 15% or lower (Table 8.25). Private schools were more likely to be described as having clean exterior environments. Similarly, about 70% of private schools had 'clean' or 'sparkling clean' interiors compared with only 40% of public schools (Table 8.26). The relatively poor condition of small rural public schools is again noteworthy.

Table 8.27 shows the share of schools having a latrine or toilet that students can use. Even in rural areas and even for small schools, such facilities are usually available. About half of the public schools have separate facilities for girls and boys. A larger share of private schools in both rural and urban areas has separate facilities. Finally, Table 8.28 shows the shares of schools in which at least some students have to sit on the floor or ground and in which some classes have to be conducted out of doors due to lack of classroom space. Very

²¹ Findings of a small recent study of two school districts in rural Fianarantsoa province (Brinkerhoff 2004) suggest that the introduction of FAFs (discussed next) may be leading to a reduced role for the FRAMS.

²² As noted in Section 2, the school interviews were carried out by DIRISEB employees.

few students in urban schools lack seating, and no classes are held outside. In rural areas, however, about 18% of public (and 5% of private) schools report some students sitting on the floor or ground. In 37.5% (meaning, 3 out of 8) of the small rural public schools, some students sit on the ground, and in the same number of them some classes must be held outdoors.

8.7. Availability of books and supplies

As described in Section 3, in 2003 President Ravalomanana made the decision to allocate CRESED funds toward the provision of books and other supplies (book bags and writing supplies) to all primary school children. Table 8.29 indicates that all public schools and almost all private schools in the sample received both textbooks and book bags under this program (“given by the President”) for the 2003/4 school year. In Table 8.30 we show the extent of coverage within these schools. In about 80% of the schools, at least three-fourths of the students received a book. A slightly higher share of students received book sacs. Public schools were more likely to have ‘all’ or ‘almost all’ children getting these items, and urban schools had slightly higher coverage rates than rural schools for books but not for bags. While we lack data on previous years that would permit us to directly assess the effects of the program on the provision of school supplies, the results here do suggest that the goals of the initiative are close to being met. Further, responses from parents of students, discussed below in Section 9, paint a similar picture.

The school questionnaire also posed a number of questions about book availability with reference specifically to conditions in CE2/9^{eme} (3rd grade). The purpose of focusing on a particular grade for these questions was to help the directors give more precise responses and to facilitate comparison across schools. Table 8.31 shows the share of schools which have a dictionary for use in 3rd grade classes. Typically a dictionary is not available: between two-thirds and three-fourths of the sample schools have no dictionary in a typical 3rd grade classroom, whether we consider public or private, or rural and urban schools.

The next two tables report the availability of French and math textbooks for use in 3rd grade classes.²³ Overall, availability is favorable, if we consider this to mean that textbooks need not be shared or else are shared by no more than two students per book. For French texts, 91% of the urban public schools and almost as high a share of rural public schools fall into this category (Table 8.32). The shares for private school are somewhat lower—one of the few indicators examined here for which the public schools appear to be in a better position than private schools. Math textbook availability, while still high, is slightly less favorable overall (Table 8.33). Again, public schools do slightly better. Note also for these two tables that there is a suggestion that small rural public schools have lower textbook availability.

8.8. School fees and reimbursements

The school questionnaire collected information on school finance and contributions from the community and other institutions. Above we presented information on FRAM contributions and FAF payments. For the present study, we limit ourselves to consideration of one further issue: fees collected from parents. Although public primary school fees (*droits*

²³ Note the question refers to all books used in class, not just those supplied by CRESED.

d'inscription) were abolished before the 2002/3 school year, it was understood that some schools would have to continue to collect revenue from parents while waiting for funds from the ministry; the parents would later be reimbursed when the funds become available. As Table 8.34 shows, almost all public school directors report that no fee revenue was collected in 2003/4. Those (very few) that did indicated that parents were subsequently paid back in full or in part.

Somewhat surprisingly, however, when asked specifically about the payments by parents of children in CE2/9^{ème} for 2003/4 a larger share (about 18%) of public school directors indicated that such fees were paid. Further, as we reported in Section 7, the household survey data indicate that about 25% of children enrolled in public primary school paid (unreimbursed) *droits d'inscription*. Therefore in spite of national policy eliminating fees it appears that fees—or at least, payments that are seen as fees by parents—are still being collected in some cases. Possible interpretations of the findings were discussed in Section 7.

8.9. Share passing the *CEPE*

Finally, Table 8.35 shows pass rates on the primary school leaving exam, the *CEPE*. The figures refer to the test given at the end of the 2002/3 school year, not the current year; this was necessary because at least some of the school interviews were conducted before the tests were given for 2003/4 year. The table shows the percentage of test takers who passed the test (not the percentage of all students completing the last primary grade). Pass rates are higher in private schools: 87% for private vs. 67% for public in for urban schools, and 81% vs. 69% in rural schools. For public schools, there is little difference between rural and urban schools, and rural small schools have pass rates similar to the public school sample overall. The private-public gap may be an indication of higher quality in the private sector, consistent with many of the 'input' measures above, not to mention the test score data examined in Section 5. However, as we noted in Section 5, private and public students or their parents may differ in terms of motivation or capacity to improve academic outcomes, which itself could lead to differences in pass rates in the two types of schools.

9. PARENTAL INVOLVEMENT AND PERCEPTIONS OF SCHOOLS

As indicated earlier, a special questionnaire was included in the survey to measure parents' participation in and knowledge and opinions of the primary school in which their child was enrolled. The questionnaire also elicited information about parent's perceptions of alternative schools in the area. Further, households with primary age children who were not in school were also asked about their perceptions of the local school. The purpose, in these last two cases, of asking opinions about schools not used was to better understand how parents choose among schools, or whether to enroll their child at all. For this report, however, we concentrate on what parents had to say about the school their child was attending.

Table 9.1 provides information on the sample. About 1,660 out of 1,735 households in the EPSPAM survey with at least one child between ages 4 and 14 took the perceptions survey. Of these, 1,461 had at least one child currently attending primary school. This is the sample on which we focus in this section.

9.1. Parental involvement and awareness

The indicators of parental involvement include the number of visits with their child's teacher during the last school year and participation in parent-teacher associations (FRAMs), reported in Table 9.2. The first thing to notice is the large difference between public and private schools. Only about half of parents with a child in public primary indicated that they had a meeting with their child's teacher during the last school year, compared with 73% of parents with a child in private school (bottom row, first two columns).²⁴ The average number of meetings (including zeros for those having none) was 2.0 for public school and 3.1 for private. Note that while these differences suggest, plausibly, that parents who enroll their children in private schools are more inclined to be actively involved in monitoring their child's academic progress, the difference could also reflect school policy: private school staff may make greater efforts to get parents to come in for meetings. For both private and public school, the number of meetings with teachers increases with the level of education of the household head. There is less of a pattern with respect to household wealth.

In contrast to individual parent-teacher meetings, participation in meetings of parent-teacher associations is similar for parents of children in public and private schools – about 2.6 meetings on average in 2004/4 (Table 9.3). The vast majority of households attended at least one FRAM meeting (90% for public school and 91% for private). However, urban parents attend more meetings than rural parents. There is not much of a pattern with respect to either household head education or household wealth (Table 9.4).

To gauge overall awareness of education policies, the perceptions questionnaire asked parents if they were aware of the government's decision, implemented in 2002, to eliminate fees in public school. 77% of parents with a child in public primary school have heard of the policy (Table 9.5, col. 1). The share of private school parents, perhaps understandably, is slightly lower but not very much so. There are no differences by rural or urban location. Table 9.6 indicates, perhaps surprisingly, that there is little variation in awareness by level of

²⁴ In a small number of cases families can have one child in a public school and another in a private school. The questions were asked with regard to the youngest child currently attending primary school.

head's education, except perhaps for a slightly lower rate among households with the least educated heads.

Given how important the fee removal policy is, the share of parents who are not aware of it—almost one quarter of parents with public enrolled children—seems large. However, as we showed in Section 7, many parents actually report paying school enrollment fees, which may lead to some confusion as to exactly what the fee policy is.

We can also assess levels of parental awareness by their responses to questions about the presence and activities of the FAFs, the school based organizations created to handle funds paid directly by the ministry to the schools. We defer this discussion until section 9.3 where perceptions about school finances are presented.

9.2. Perceptions of school quality and school personnel

The survey obtained information about parental perceptions of school quality along several dimensions. One of these concerned parents' perceptions of the attitudes of school directors and teachers: toward their child's academic success, and toward the parents themselves. Table 9.7 indicates that the vast majority of both public and private primary students consider the school directors and teachers to be either 'somewhat concerned' or 'very concerned' about their child's success; that is, very few said that school staff were not concerned at all. However, only 60% of public school parents said the staff were 'very concerned' compared with 80% for private school. Major differences by urban rural location are not seen, though parents of children in small rural public schools (last column) rated staff concern somewhat lower than elsewhere.

Patterns are similar for attitudes of the director and teachers toward parents (Table 9.8). Very few parents indicated that school personnel were indifferent or disrespectful. 70% of public school parents reported that personnel were 'very respectful' compared with 82% of private school parents. Again, parents of children at small rural public schools had somewhat less positive opinions of the attitudes of school personnel.

A second set of questions considered teacher absences and outside activities. Table 9.9 reveals the existence of very large public-private differences in the frequency of teacher absences, consistent with (though more pronounced than) the school survey data discussed above. Some 41% of parents of children in public primary school indicated their child's teacher was absent one or more days per month compared with only 8% for parents of private school students. When we distinguish rural and urban areas in Table 9.10, it appears that high public school teacher absenteeism is more of a rural than an urban phenomenon: about 64% of urban parents indicate that teacher absences were one day per month or less frequent, compared with 50% of rural parents. One likely reason for higher absenteeism in the public system, and in rural public schools in particular, is the need for public school teachers to take time off to get their pay in the district (CISCO) office. This was brought in the school surveys in the previous Section where directors were asked for the reasons for teacher absences.

Public-private differences also emerge with respect to the prevalence of outside work conducted by the child's teacher during the school year, reported in Table 9.11. In urban areas, 21% percent of parents of public school students indicated that the teacher had other work compared with only 6% of private school parents. In rural areas such work is more

common overall and public private differences less pronounced: 34% and 19% for public and private, respectively. Note that in small school communities the rate of outside work is particularly high (43%). In the majority of cases, parents who reported outside activities for their child's teacher believed that such activity did not negatively affect the performance of the teacher in school (Table 9.12). Still, for public schools, at least one quarter of the parents did believe there were negative effects.

Opinions about the condition of the school facility are shown in Table 9.13. About 66% of parents of public students described the facility condition as 'excellent' or 'good', the remaining 34% describing the facility as either dilapidated or very dilapidated. Parents of private students describe their child's school condition more favorably: 85% indicate 'excellent' or 'good'. Among the public school sample, urban parents are more likely than rural parents to say their child's school facility is in either excellent or good condition. The most striking gap, however, is between small school communities and other areas. Fully 81% percent of parents of public school students in these communities describe their child's school as dilapidated or very dilapidated, a telling indicator of the conditions facing primary school students in smaller or more remote rural areas of the country.

Finally, parents were asked about their level of satisfaction with the education received by their child. A majority of parents described themselves as either 'satisfied' or 'very satisfied', though once again private schools were rated more favorably: about 61% for public compared with 87% for private (Table 9.14). There were essentially no differences in the responses by schooling level of the head of the household (Table 9.15). Among public school parents but not private school parents, schools in urban areas were slightly better rated than those in rural areas. As with several other indicators, however, small rural public schools were rated poorly. As shown in Table 9.14, only 41% of parents with children in these schools indicated that they were satisfied or very satisfied, and 20% said they were unsatisfied.

To sum up this subsection, for many aspects of quality or attitudes of school personnel, parents tend overall to rate their children's schools fairly favorably. However, for almost all questions, private schools are judged more favorably than public schools. This applies to school and teacher attitudes, frequency of teacher absences, and various indicators of quality or satisfaction. Smaller rural public schools tend to be rated the least favorable in many categories, notably facility condition. By and large, these patterns are consistent with those seen in the school survey above, which were based on the responses of school directors and the observations of the survey interviewers.

9.3. Perceptions of School Finance

Among other topics, the perceptions module asked parents of public primary school students several questions about the existence and operations of FAFs. As described above, these bodies were created to increase involvement of communities in the management of schools. Also as indicated, the financial operations of FAFs were intended to be transparent, in particular through the public posting of the operations of the *caisse ecoles* at the schools or some other public location.

As seen in Table 9.16, most (over three fourths in both rural and urban areas) parents indicate that their child's school has a FAF, though a fair number (16%) do not know. In urban areas, one quarter of parents who say there is a FAF did not know whether the FAF

received a payment from the ministry in 2003/4, compared with 11% of rural parents (Table 9.17). Among parents who can answer, almost all indicated the payment was received.

To more precisely assess parental awareness of FAF activities, we can match the responses of parents to the information on FAFs collected from the schools themselves. As noted, a common set of school identification codes were used in all parts of the survey to facilitate this matching. Since it was not possible to survey all possible schools children in a given area could attend, not all children could be matched to data from their schools. Matching was possible for about 78% of rural cases and 68% of urban cases.²⁵

The data for this sample indicate, first, that among parents sending their children to public schools that have a FAF (almost all such schools, as noted), 76% correctly answered that there was a FAF in the school. 15% said they did not know and 8% incorrectly said 'no'. The shares were very similar for urban and all rural areas, but parents of children in small rural schools seemed somewhat less aware of the presence of the FAF: only 62% knew that their school had a FAF.

Next we considered, for parents who are aware of the presence of a FAF in their schools, the share correctly identifying whether a payment had been received by the FAF in 2003/4. For all of the matched public schools, directors themselves reported that such payment was received. Slightly less than 80% of parents of children in these schools knew about the payment, 17% didn't know and 4% incorrectly answered 'no'. The shares not knowing about the FAF payment were larger in rural areas than urban areas. If parents who do not know there is a FAF in the first place are included in the 'don't know' category, the overall share knowing about the payment in public schools where the payment was made falls to about 60%.

Therefore most (but far from all) parents of children in public schools know that a FAF exists in their child's school, and most are aware that the FAF received a payment from the ministry during the past school year. On the other hand, the posting of FAF (*caisse école*) transactions in public schools—or at least, parental awareness of it—is less common. It appears to be more common in rural schools: 44% of rural parents indicated that the transactions were displayed in the school or some other public location compared with 28% in urban areas. 49% of rural parents and 58% of urban parents said the transactions were not posted (the remainder did not know). Among those who said the transactions were not posted, most said that parents could learn of them by attending FAF or FRAM meetings (Table 9.18).

These responses are at odds with those of school directors themselves in public primary schools. As noted in Section 8, 75% of directors in urban schools that received FAF payments and 62% of rural school directors said the transactions were publicly posted. The reason for this divergence is not clear. There may, for one thing, be some ambiguity about what 'public' displaying means. However, given that most parents did not know or believe that the FAF transactions were being made publicly available in the manner intended, the findings suggest that the goal of making parents aware of the FAF financial operations is not being fully achieved.

²⁵ The share that could not be matched is larger for urban areas because there are more school alternatives available in urban areas, hence a greater likelihood that a child's school was not part of the school survey sample.

10. SUMMARY AND CONCLUSIONS

This paper has presented preliminary descriptive results from the Progression through School and Academic Performance in Madagascar Study (*Etude sur la Progression Scolaire et la Performance Academique en Madagascar*). As such it provides a first survey of the data. More comprehensive results must await more sophisticated statistical analysis, but the results here do point to many relevant issues that such an analysis will address. It should be reiterated that the EPSPAM sample was not designed to be representative of the country as a whole. The survey design made some adjustments to incorporate a representative range of primary schools and communities, but one must nevertheless be cautious about making inferences for the country or children as a whole based on the descriptive results we present. In this section we summarize the key findings of this report and conclude with a note on implications for subsequent analysis of the data.

Rates of current enrollment, passing through the primary cycle, and transitioning to lower secondary school are high for this sample overall. Still, the data point to clear urban-rural gaps as well as differences by level of household resources. Almost all children in the sample enter school so the differences show up as earlier school leaving for children in rural households or poorer households. For example, among children in the poorest wealth quartile who enter school, less than a third go on to lower secondary compared with 80% of children in the richest quartile. Children in the subsample of smaller and more remote rural communities do quite poorly along all these dimensions compared with other rural areas and urban areas—a consistent pattern in these data. As documented in other studies for Madagascar, primary grade repetition is frequent. Wealthy children in both urban and rural areas are much more likely than poor children to attend private primary schools, which are approximately five times more costly than public schools.

A unique characteristic of the surveys is the availability of test data (for written math and French, oral math, and life skills) for children of varying school enrollment status, as well as the availability of both baseline and current test scores for a subsample of children (those from the original 1998 PASEC study). We find, not unexpectedly, that children with more schooling perform better on tests, including tests in subjects that are not standard academic ones (“life skills”). Controlling for being in school and for grade level, we find that current primary school students (in 2nd and 3rd grade) who live in urban areas score higher on tests than rural children. Those in the smaller rural public schools appear to do the worst. It was also seen that private school students consistently score higher than public school students in the same grade. What cannot be ascertained simply from descriptive analysis are the reasons for these gaps, in particular whether they arise from differing school quality or different family backgrounds.

Analysis of the PASEC children in the sample, who are now of lower secondary school age, reveals a strong correlation of early (2nd grade) test performance and current test scores. They also show that children who did well in the 2nd grade are more likely to have progressed through to lower secondary school. This association may indicate that getting children to do well early in the primary cycle is important for later school success. However, multivariate analysis is required to distinguish the effects of early academic performance from factors what are likely correlated with it such as household wealth, parental schooling, and school quality.

Detailed school surveys reveal a number of important patterns. With regard to relations with other levels of education administration, the surveys suggest that visits to schools from *chef CISCO* increased in the last school relative to the previous (2002/3) year, coinciding with the replacement of most of these school district managers and related moves to professionalize these positions. Still, only about half of the rural schools in the sample—most of them not located in remote areas—were visited by the *chef CISCO*. Visits by ZAP (Zone d'Animation Pédagogique) officials were more frequent though again higher in urban areas, while visits from DIRISEB officials were infrequent. With respect to school management practices, teachers in public primary schools are not given many incentives to perform well, nor do most school directors penalize poor job performance. This situation is not surprising given constraints on the discretion of directors, who lack, among other things, the ability to fire poorly performing teachers or increase the compensation of good teachers.

A wide range of indicators of school 'quality', broadly defined, was examined, covering the qualifications and absenteeism of teachers, infrastructure condition and cleanliness indicators, and availability of books and supplies. In the first two of these three categories, private primary schools were consistently situated more favorably than public schools. Teachers are more educated and have lower absenteeism in private compared with public schools, though part of the explanation for higher public teacher absenteeism seems to be the need to take time to collect one's salary. Public schools were more likely to have school buildings in dilapidated condition and building exteriors and interiors in public schools were less likely to be described as clean or very clean.

Of particular note are the poor conditions of the sample's small rural public primary schools (median size = 74 students). Close to half of such schools were described by the interviewers as 'dilapidated' or 'very dilapidated'; among the parents themselves of children in these schools, 81% described their schools this way. In more than a third, some of the students must sit on the ground and some classes must be held outdoors for lack of classroom space. All of the small schools use multigrade instruction, in contrast to the rest of the school sample. These schools also rely much more heavily on FRAM-hired teachers than other public schools. Although these eight schools make up only a small share of our school sample, they are broadly representative of the alternatives accessible to a large share of Madagascar's rural population, making these findings of significant interest.

Part of the President's Education for All initiative introduced in 2003 was the goal of providing free books and school supplies to all primary students. Indicators of book and supply availability in 2003/4 indeed look generally favorable, and somewhat more so in public schools. All the public schools in the sample, including the small rural schools, received books and book sacs under the program, and coverage of students in these schools was high. These findings are echoed by information collected from households about books and supplies used by their primary enrolled children. Almost all such students received a free book and book bag in 2003/4.

In view of the elimination of public primary school fees in 2002, it is surprising that about 25% of households with children in public schools report paying such fees. This contrasts with reports from school directors, very few of whom say fees were collected. The reasons for the divergence are not clear. One possibility is that schools are collecting money from parents, for example for FRAM teachers that are not strictly fees but appear as such. This may explain why, in the perceptions module of the survey, almost 25% of parents with

children in public primary school said they did not know of the policy eliminating public school fees.

The school perceptions module gathered information on parental knowledge of and involvement in schools as well as opinions on a number of dimensions of school quality. Only about half of public school parents said that they had a meeting with their child's teacher during the school year, though almost all participated in at least one FRAM meeting. It is particularly of interest to understand parental awareness of FAFs, school-based organizations introduced in public primary schools in 2002 to increase community involvement as well as transparency of school financial operations. Most public school parents were aware that their school had a FAF and that it had received a payment during the school year. However, less than half of such parents indicated that the financial transactions of the FAF had been (as directed by the ministry) publicly displayed, a finding that differs from the reports by schools themselves.

In terms of overall satisfaction with their child's school, the level of concern on the part of teachers and school directors, and the manner in which they (parents) were treated by school personnel, parents of both public and private school students tended to rate their schools fairly favorably. However, by each of these criteria, private schools were judged more favorably, and again, small rural public schools were the least favorable: only 41% of parents with children in these schools said they were 'satisfied' with the education was receiving compared with 61% for all public schools and 87% of private school parents.

As we stressed in the foregoing as well as throughout this report, there are limits to what we can say based only on descriptive analysis. The objective of the next stage of the work is to understand the reasons for the differences among children reported above, whether these involve test score outcomes, grade attainment and progression through school, grade repetition, or the choice of which type of school to attend. For policy relevant analysis, it is particularly important to determine whether and to what extent these outcomes reflect school or community factors, many of which can be changed by policy, or individual and household level factors, which are more difficult to change. To take just one example, the association of early test scores and later school progression suggests that policy might be able to do a lot to increase later academic success by raising test scores early on—if such scores are determined through appropriate analysis to be a true causal determinant of later school outcomes. These and related questions will be addressed in subsequent analysis.

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Table 3.1. Madagascar: evolution of enrollments 1999/2000 to 2003/2004

Number of students (1,000s)	1999/00	2000/01	2001/02	2002/03	2003/04
Primary	2,208	2,307	2,409	2,856	3,366
Public	1,709	1,808	1,893	2,274	2,716
Private	499	499	516	582	651
% change over previous year ^a		0.04	0.04	0.19	0.18
Lower Secondary (Collège)	288	316	344	357	421
Public	160	175	193	201	241
Private	128	141	151	156	179
% change over previous year ^a		0.10	0.09	0.04	0.18
Upper Secondary (Lycée)	66	66	78	79	89
Public	35	34	42	42	47
Private	31	32	36	37	42
% change over previous year ^a		-0.01	0.18	0.02	0.13

Sources: Annuaires statistiques-MENRS-DPEFST

^a refers to public and private students combined**Table 3.2. Madagascar: Evolution of gross and net primary enrollment**

	2000/01	2001/02	2002/03	2003/04
Gross Enrollment ratio	102.0%	105.9%	123.1%	141.9%
Net Enrollment ratio	66.9%	70.1%	82.2%	96.8%

Notes:

Gross enrollment ratio is total enrollments in the level divided by number of children at official age for the level, multiplied by 100.

Net enrollment ratio is total primary enrollments of primary school age children divided by number of primary age children multiplied by 100.

Table 4.1. Information on the EPSPAM sample

Number of communities	61
<i>of which:</i>	
Rural	43
Urban	18
Number of Pasec communities	48
Number of households interviewed	1,830
Number of Pasec children located ^a	600
<i>of which:</i>	
Number living at home	543
Number taking cognitive test(s) ^b	474
Number of children age 14-16	1,525
<i>of which:</i>	
Number taking cognitive test(s) ^b	1,078 ^c
Number of children 8-10	1,442
<i>of which:</i>	
Number taking cognitive test(s) ^b	828 ^d

^a Includes Pasec children no longer at home if their household was located and interviewed

^b Took one or more of the four tests administered with the EPSPAM survey.

^c Includes 32 children defined not living at home who were present to take the tests

^d Includes 2 children not living at home who were present to take the tests

Table 4.2. Distribution of national student population and EPSPAM student sample by school size

Quintiles of primary student population ranked by school size	<i>All</i>			<i>rural areas</i>			<i>urban areas</i>		
	School Size ^a	% of all primary students	% of EPSPAM sample primary students ^b	School Size ^a	% of all primary students	% of EPSPAM sample primary students ^b	School Size ^a	% of all primary students	% of EPSPAM sample primary students ^b
1	129	20.0	11.1	122	20.0	15.4	187	20.0	0.0
2	196	20.0	3.4	180	20.0	4.6	324	20.0	0.0
3	285	20.0	4.9	252	20.0	6.7	553	20.0	0.0
4	473	20.0	28.2	376	20.0	35.4	824	20.0	9.3
5	2,410	20.0	52.5	2009	20.0	37.8	2,410	20.0	90.7
<i>Number of students:</i>									
National		2,463,585			1,932,889			530,696	
EPSPAM sample		3,346			2,421			925	
<i>Median school size:</i>									
National		142			138			181	
EPSPAM sample		488			423			633	

Notes: National school population and national distribution of school size are calculated from MENRS school-level data. Calculations are for public primary schools

^anumber of students in the school. As indicated in the middle row, 20% of the national student population are in schools smaller than the size in the first row; 40% are in schools smaller than the size in the 2nd row, etc.

^b Based on school size of the main public primary for currently enrolled primary students in each EPSPAM sample community. The first row shows the percentage of EPSPAM sample students in schools smaller than the size in the school size column, and so on.

Table 4.3. Rural areas: Distribution of overall and EPSPAM sample students by remoteness

Quintiles of remoteness, least remote first ^a	% of EPSPAM	
	% of all primary students	sample primary students
1	10.04	19.54
2	23.75	28.13
3	24.99	31.81
4	19.63	15.82
5	21.59	4.71

Notes: based on MENRS school-level data. Calculations are for public primary schools

^a ranks population based on an index of remoteness of the community. See text.

1=least remote, 5=most remote

Table 4.4. Rural areas: Community and household characteristics of EPSPAM sample by remoteness and primary school size

	Commune population (mean)	Household asset index (mean) ^a	Head of household education (percent)			
			None/some primary	Completed primary/some lower secondary	Completed	
					lower secondary/ some upper secondary	Completed upper secondary or higher
All	17,458	-0.3	50.6	25.6	16.8	7.0
Small school communities ^b	13,175	-0.6	78.6	15.1	5.2	1.0
Remoteness index ^c						
1	19,920	-0.1	51.3	27.7	13.5	7.5
2	20,920	-0.4	44.6	27.6	21.7	6.1
3	15,328	-0.5	58.0	25.3	13.0	3.7
4	14,861	-0.2	46.8	17.7	20.8	14.8
5	9,207	-0.5	48.1	34.6	12.4	4.9

Notes: Based on sample households with children age 6-15

^a index of household wealth based on asset ownership. See text for details.

^b communities in which main public primary school has 170 students or fewer (median=74)

^c see notes to table 3.3.

Table 5.1. Share of children 6-15 ever enrolled and currently enrolled in school by gender and location (percent)

	Ever Enrolled	Currently Enrolled	N
All	94.3	88.5	4,457
Girls	94.8	88.3	2,285
Boys	93.7	88.7	2,172
Urban	96.0	91.4	1,284
Rural	93.5	87.3	3,173

t-tests for differences in means by:

gender	0.11	0.79
location	0.00*	0.00*

* indicates the difference is significant at 5% level

Table 5.2. Comparison of current enrollment rates in EPSPAM survey sample and national EPM^a survey (percent of children 6-15 enrolled)

	EPSPAM (2003/4)			EPM (2002/3)
	All	Pasec households	Non-pasec households	
All	88.5	90.7	87.5	75.0
Urban	91.4	92.2	90.9	84.0
Rural	87.3	89.9	86.3	63.0

Notes:

^a *Enquete Prioritaire des Menages*

Table 5.3. Rural areas: Children 6-15 ever enrolled and currently enrolled in school by remoteness and primary school size (percent)

	Ever Enrolled	Currently Enrolled	N
All	93.5	87.3	3,173
Small school communities ^b	89.5	81.3	523
Remoteness index ^a			
1	95.3	90.1	658
2	94.7	89.2	905
3	90.5	83.6	955
4	93.6	86.9	513
5	98.6	89.4	142

Notes:

^a index ranks communes based on distance to roads and other transportation.

1=least remote, 5=most remote

^b communities in which main public primary school has 170 students or fewer (median=74)

Table 5.4. Share of children 6-15 currently enrolled in school by level of assets and location (percent)

	All	Urban	Rural
Asset quartile ^a			
1	79.9	78.5	80.1
2	86.6	88.7	86.1
3	93.0	90.9	93.5
4	94.8	94.5	95.3

Notes:

^a index ranks households into quartiles of wealth based on value of asset index. 1=least wealthy 1/4 of sample, 2=next to least wealthy 1/4, etc.

Table 5.5. Private school share of primary enrollments by level of assets and location (percent)

	All	Urban	Rural
Asset quartile			
1	5.5	9.3	5.0
2	13.4	7.3	14.9
3	26.1	22.5	26.8
4	46.4	44.6	50.7

Table 5.6. Share of children 6-15 currently enrolled in school by father and mother education (percent)

	Father's education	Mother's education
None / Some primary	83.3	84.4
Completed Primary / Some lower sec	90.9	91.1
Complete lower sec. / some upper sec.	93.5	94.4
Some upper secondary or above	96.3	97.7

Table 5.7. Share of children 6-18 currently enrolled in school by age and location

Age	Share currently enrolled (percent)		
	Urban	Rural	Rural-Small school communities
6	61.1	65.1	64.9
7	89.5	87.8	85.7
8	96.2	92.2	86.8
9	98.0	96.7	97.7
10	96.3	96.0	96.2
11	99.1	95.8	91.2
12	94.5	90.6	86.5
13	95.0	89.3	77.1
14	88.2	84.4	71.2
15	88.1	73.5	54.3
16	80.1	55.6	29.4
17	65.1	47.4	12.0
18	65.5	31.3	3.8

Table 5.8. Share of children 6-18 currently enrolled in school by age and living at home status (percent)

Age	Living at home	Living away from home
6	64.2	50.0
7	88.2	85.7
8	93.1	95.0
9	97.1	100.0
10	96.0	83.3
11	97.0	84.6
12	91.7	81.8
13	90.7	95.7
14	85.4	68.6
15	77.9	51.4
16	62.3	54.7
17	52.4	20.4
18	40.3	19.4
All	82.1	51.3
N	5,379	390

Notes: 'Living at home' is defined as living in the surveyed household at least 9 months of the year.

Table 5.9. Enrolled children age 11-18: current grade and school level

Age	current grade (mean)	Level (percent) ^a		
		Primary	Lower sec.	Upper sec.
11	3.7	91.9	8.1	0.0
12	4.3	80.5	19.5	0.0
13	5.1	60.5	39.5	0.0
14	5.5	52.0	47.9	0.0
15	6.3	33.5	64.2	2.3
16	7.1	21.9	68.2	9.9
17	8.3	9.5	71.2	19.2
18	8.6	6.8	69.8	23.3

^a Shows the share of currently enrolled students in the indicated level

Table 5.10. Average age at school entry by gender and location (percent)

	Urban	rural	
		All Rural	Small School Communities
All	6.2	6.5	7.3
Boys	6.3	6.5	7.2
Girls	6.2	6.6	7.3
Asset quartile			
1	6.6	7.1	7.5
2	6.4	6.6	7.1
3	6.6	6.2	6.6
4	6.0	6.0	6.7

Notes:

Sample: children age 9-18 who have ever been enrolled in school

Table 5.11. Distribution of age at school entry by location (percent)

Age	Urban	Rural
5 or younger	15.7	9.1
6	59.1	57.8
7	15.6	16.6
8	5.8	9.2
9	2.2	3.6
10 or older	1.4	3.8

Sample: children age 9-18 who have ever been enrolled in school

Table 5.12. Children 15-18: Distribution of number of primary school grades repeated by location (percent)

Number repeated	Urban	Rural	
		All Rural	Small School Communities
0	35.8	25.9	27.4
1	26.8	32.3	25.5
2	21.5	21.1	24.5
3	11.4	12.1	13.2
4 or more	4.6	8.5	9.4

Notes: Sample includes only children who have been enrolled in school

Table 5.13. Children 15-18: Mean number of primary school grades repeated by gender and level of assets

	All	Urban	Rural
Boys	1.48	1.26	1.58
Girls	1.34	1.23	1.40
Asset quartile ^a			
1	1.48	1.12	1.53
2	1.57	1.44	1.60
3	1.47	1.54	1.46
4	1.16	1.14	1.20

Notes:

a see notes to table 5.3

Table 5.14. Prevalence of interruptions of primary schooling by gender, location, and household assets (percent)

	rural		
	urban	all rural	small school communities
All	9.3	6.1	11.2
Boys	9.7	6.5	11.4
Girls	9.0	5.8	11.1
Asset quartile			
1	10.8	11.0	12.7
2	10.1	4.0	6.4
3	11.9	5.0	10.3
4	8.3	3.6	20.0

Notes:

Sample: children age 9-18 who have ever been enrolled in school

Shows percent experiencing one or more interruptions lasting at least one month

Includes interruptions resulting from the 2002 crisis

Table 5.15. Children age 15-18 ever enrolled in primary school: Share completing primary, passing CEPE exam, and going to lower secondary (percent)

	Finish primary ^a	Pass CEPE ^b	Enter lower secondary ^c
Girls	77.2	60.1	58.7
Boys	72.1	55.6	54.4
Urban	86.6	71.7	70.6
Rural	69.0	51.3	49.9
Asset quartile			
1	52.1	31.4	30.7
2	67.7	49.3	46.4
3	79.9	62.5	61.5
4	91.5	79.6	78.9

Notes:

^a share of children entering primary who complete the last primary grade (7e)

^b share of children entering primary who complete the last primary grade and pass the CEPE.

^c share of children entering primary who complete the last primary grade, pass the CEPE, and enter lower secondary

Table 5.16. Rural areas: Share completing primary, passing CEPE exam, and going to lower secondary by remoteness and primary school size (percent)

	Finish primary ^a	Pass CEPE ^b	Enter lower secondary ^c
All	69.0	51.3	49.9
Small school communities	44.3	16.0	15.1
Remoteness index			
1	77.8	62.7	59.0
2	71.4	54.3	54.0
3	61.9	40.7	39.9
4	68.9	53.1	51.4
5	52.9	32.4	32.4

Notes: Sample is rural children age 15-18 ever enrolled in primary school

^a share of children entering primary who complete the last primary grade (7e)

^b share of children entering primary who complete the last primary grade and pass the CEPE.

^c share of children entering primary who complete the last primary grade, pass the CEPE, and enter lower secondary

Table 5.17. Children age 15-21 with incomplete primary schooling: Reasons for not completing primary, by gender (percent)

Reason	Girls	Boys
Illness/accident	5.7	6.4
Pregnancy / marriage	5.7	0.5
Cannot pay for school	18.0	23.2
Death/illness/unemployment of parent	4.6	2.7
Assist parents	27.8	26.8
Sexual harrassment	0.5	0.0
Poor academic performance	21.1	22.3
Family moved	2.6	0.0
Failed lower sec. entrance exam	1.0	0.0
Had enough education	1.0	0.9
Other	11.9	17.3
N	194	220

Table 5.18. Children age 15-21 with completed primary schooling who did not enter lower secondary: Reasons for not entering, by gender and CEPE passing status (percent)

Reason	Did not pass CEPE		Passed CEPE	
	Girls	Boys	Girls	Boys
Illness/accident	2.2	2.6	7.7	0.0
Pregnancy / marriage	5.6	0.0	15.4	0.0
Cannot pay for school	16.7	10.4	23.1	47.4
Death/illness/unemployment of parent	1.1	3.9	0.0	5.3
Assist parents	15.6	23.4	23.1	31.6
Sexual harrassment	0.0	0.0	7.7	0.0
Poor academic performance	32.2	23.4	7.7	0.0
Family moved	3.3	0.0	0.0	1.0
Failed lower sec. entrance exam	8.9	19.5	0.0	5.3
Had enough education	0.0	0.0	0.0	0.0
Other	14.5	16.9	15.4	9.5
N	90	77	13	19

Notes: sample is children who completed the last primary grade (7e)

Table 6.1. Children 8-10 currently enrolled: Median 2004 test scores by gender, household assets, and parental education

	Written French	Written math	Oral math	Life skills
Boys	0.42	0.39	0.54	0.80
Girls	0.42	0.39	0.54	0.80
Quartile of Asset Index: ^a				
1	0.31	0.28	0.46	0.73
2	0.35	0.33	0.54	0.80
3	0.50	0.44	0.62	0.87
4	0.62	0.50	0.62	0.87
Father's education:				
None	0.29	0.28	0.39	0.67
Some Primary	0.35	0.33	0.54	0.80
Completed Primary	0.42	0.44	0.62	0.80
Some lower secondary	0.42	0.33	0.62	0.87
Completed lower secondary	0.50	0.39	0.54	0.80
Some upper sec. or above	0.56	0.44	0.62	0.87
Mother's education:				
None	0.29	0.33	0.46	0.80
Some Primary	0.39	0.33	0.54	0.80
Completed Primary	0.39	0.39	0.62	0.80
Some lower secondary	0.50	0.39	0.62	0.87
Completed lower secondary	0.42	0.39	0.62	0.80
Some upper sec. or above	0.65	0.61	0.69	0.93

Table 6.2. Children 8-10: Correlation matrix of 2004 tests scores

	2004 Tests			
	Written French	Written Math	Oral Math	Life Skills
Written French	1			
n	715			
Written math	0.7120*	1		
n	687	731		
Oral math	0.6355*	0.6589*	1	
n	686	699	774	
Life skills	0.5986*	0.5476*	0.5971*	1
n	692	703	755	788
Grade	0.3821*	0.3281*	0.2933*	0.1947*
n	715	731	773	787

Notes: uses standardized test scores

*: significant at 5% level

n: number of observations

Table 6.3. Children 14-16: Correlation matrix of 2004 tests scores and grade attainment

	2004 Tests				Grade Attainment
	Written French	Written Math	Oral Math	Life Skills	
Written French n	1.00 1,029				
Written math n	0.6661* 906	1.00 922			
Oral math n	0.6117* 1,001	0.6154* 897	1.00 1,051		
Life skills n	0.6466* 1,017	0.6179* 907	0.5928* 1,048	1.00 1,072	
Grade n	0.4349* 1,000	0.4701* 895	0.3819* 1,022	0.3529* 1,039	1.00 1,057

Notes: uses standardized test scores

*: significant at 5% level

n: number of observations

Table 6.4. Children 14-16: Mean grade attainment and school level progression by quintile of 2004 Written Math Test Score

2004 Written Math Test Score	N	Grade (mean)	Share completing primary ^a	Share entering lower secondary
Lowest quintile	192	4.2	0.43	0.18
Second quintile	212	5.6	0.81	0.52
Third quintile	187	5.7	0.79	0.51
Fourth quintile	147	6.1	0.85	0.61
Highest quintile	157	7.1	0.94	0.85
All	895	5.7	0.75	0.52

Notes:

^a Defined as completing the last primary grade (7^e) whether passing CEPE or not.

Table 6.5. Children 14-16: Mean grade attainment and school level progression by quintile of 2004 Life Skills Test Score

2004 Life skills test score	N	Grade (mean)	Share completing primary	Share entering lower secondary
Lowest quintile	245	4.3	0.48	0.22
Second quintile	227	5.1	0.69	0.39
Third quintile	189	5.7	0.82	0.56
Fourth quintile	170	6.2	0.88	0.66
Highest quintile	208	6.7	0.90	0.77
All	1,039	5.5	0.74	0.50

^a Defined as completing the last primary grade (7^e) whether passing CEPE or not.

Table 6.6. Children 8-10 currently enrolled: Median 2004 test scores by gender, household assets, and parental education

	Written French	Written math	Oral math	Life skills
Boys	0.42	0.39	0.54	0.80
Girls	0.42	0.39	0.54	0.80
Quartile of Asset Index: ^a				
1	0.31	0.28	0.46	0.73
2	0.35	0.33	0.54	0.80
3	0.50	0.44	0.62	0.87
4	0.62	0.50	0.62	0.87
Father's education:				
None	0.29	0.28	0.39	0.67
Some Primary	0.35	0.33	0.54	0.80
Completed Primary	0.42	0.44	0.62	0.80
Some lower secondary	0.42	0.33	0.62	0.87
Completed lower secondary	0.50	0.39	0.54	0.80
Some upper sec. or above	0.56	0.44	0.62	0.87
Mother's education:				
None	0.29	0.33	0.46	0.80
Some Primary	0.39	0.33	0.54	0.80
Completed Primary	0.39	0.39	0.62	0.80
Some lower secondary	0.50	0.39	0.62	0.87
Completed lower secondary	0.42	0.39	0.62	0.80
Some upper sec. or above	0.65	0.61	0.69	0.93

Table 6.7. Children 8-10 currently enrolled: Median 2004 test scores by location and remoteness

	Written French	n	Written Math	n	Oral Math	n	Life Skills
Urban	0.54	222	0.39	218	0.62	223	0.87
Rural	0.39	493	0.33	513	0.54	551	0.80
Small school communities	0.27	64	0.33	80	0.46	101	0.80
Remoteness index							
1	0.48	100	0.39	99	0.54	100	0.87
2	0.42	157	0.33	159	0.54	171	0.87
3	0.31	128	0.33	146	0.46	179	0.70
4	0.31	76	0.33	78	0.62	74	0.87
5	0.40	32	0.50	31	0.69	27	0.90

Table 6.8. Children 8-10 currently enrolled: Mean test scores in public and private schools

	Publique	Privé	Total	t-test for difference (public-private)
ALL				
Written French	0.397	0.570	0.438	P > t = 0.0000
Written math	0.378	0.473	0.399	P > t = 0.0000
Oral math	0.520	0.619	0.541	P > t = 0.0000
Lifeskill	0.728	0.800	0.744	P > t = 0.0005
RURAL				
Written French	0.381	0.505	0.406	P > t = 0.0000
Written math	0.378	0.434	0.39	P > t = 0.0000
Oral math	0.514	0.601	0.53	P > t = 0.0027
Lifeskill	0.731	0.800	0.744	P > t = 0.0356
RURAL SMALL SCHOOLS				
Written French	0.322	—	—	—
Written math	0.355	—	—	—
Oral math	0.458	—	—	—
Lifeskill	0.703	—	—	—
URBAN				
Written French	0.439	0.663	0.509	P > t = 0.0000
Written math	0.375	0.536	0.422	P > t = 0.0320
Oral math	0.539	0.647	0.570	P > t = 0.0006
Lifeskill	0.719	0.799	0.744	P > t = 0.0052

Table 6.9. Children 8-10 currently enrolled: Mean test score by grade level

Grade	Written French	Written Math	Oral Math	Life skills
1	0.279	0.282	0.434	0.654
2	0.382	0.355	0.525	0.731
3	0.521	0.453	0.591	0.794
4	0.54	0.494	0.609	0.799
5	0.564	0.561	0.637	0.77
6	0.644	0.585	0.759	0.836
Total	0.439	0.4	0.542	0.744

Table 6.10. Children 8-10 currently enrolled: Mean test scores in public and private schools in Grade 2

	Publique	Privé	Total	t-test for difference (public-private)
ALL				
Written French	0.365	0.464	0.382	$P > t = 0.0093$
Written math	0.344	0.411	0.355	$P > t = 0.0825$
Oral math	0.512	0.598	0.525	$P > t = 0.0225$
Lifeskill	0.721	0.780	0.730	$P > t = 0.1607$
URBAN				
Written French	0.408	0.647	0.446	$P > t = 0.0007$
Written math	0.373	0.500	0.394	$P > t = 0.0733$
Oral math	0.538	0.685	0.561	$P > t = 0.0301$
Lifeskill	0.736	0.891	0.759	$P > t = 0.0332$
RURAL				
Written French	0.346	0.393	0.355	$P > t = 0.2903$
Written math	0.331	0.374	0.339	$P > t = 0.3496$
Oral math	0.501	0.563	0.511	$P > t = 0.1700$
Lifeskill	0.715	0.738	0.719	$P > t = 0.6582$

Table 6.11. Children 8-10 currently enrolled: Mean test scores in public and private schools in Grade 3

	Publique	Privé	Total	t-test for difference (public-private)
ALL				
Written French	0.494	0.594	0.522	$P > t = 0.0022$
Written math	0.451	0.457	0.453	$P > t = 0.8652$
Oral math	0.579	0.626	0.591	$P > t = 0.1654$
Lifeskill	0.788	0.810	0.794	$P > t = 0.4805$
URBAN				
Written French	0.530	0.630	0.568	$P > t = 0.0462$
Written math	0.435	0.494	0.455	$P > t = 0.2880$
Oral math	0.597	0.630	0.608	$P > t = 0.4785$
Lifeskill	0.806	0.800	0.804	$P > t = 0.8960$
RURAL				
Written French	0.475	0.549	0.491	$P > t = 0.0926$
Written math	0.460	0.423	0.452	$P > t = 0.4434$
Oral math	0.570	0.621	0.581	$P > t = 0.2847$
Lifeskill	0.779	0.821	0.787	$P > t = 0.3012$

Table 6.12. Mean test score by multi-graded and mi-temps classrooms

	Written French	Written Math	Oral Math	Lifeskills
Multigrade	0.346	0.366	0.515	0.720
Not multigrade	0.452	0.407	0.562	0.752
Mi-temps	0.413	0.381	0.556	0.776
Not mi-temps	0.456	0.417	0.550	0.717
Total	0.434	0.399	0.553	0.745

Table 6.13. PASEC sample: Correlations of 1998 and 2004 tests scores and grade attainment

1998 Tests	2004 Tests				Grade Attainment
	Written French	Written Math	Oral Math	Life skills	
French n	0.3345* 414	0.3225* 380	0.3439* 411	0.2533* 418	0.3324* 512
Math n	0.2538* 456	0.2962* 413	0.2750* 455	0.2075* 465	0.3076* 571

Note: sample sizes for grade attainment column are larger because they include PASEC children who did not take the 2004 tests

Uses Standardized test scores

*: significant at 5% level

n: number of observations

Table 6.14. PASEC sample: 2004 test scores by quintile of 1998 Written French Test Score

1998 Written French Score	Mean 2004 tests score			
	Written French	Written Math	Oral Math	Life Skills
Lowest quintile	0.48	0.50	0.41	0.71
Second quintile	0.48	0.48	0.40	0.64
Third quintile	0.52	0.54	0.46	0.74
Fourth quintile	0.58	0.62	0.53	0.77
Highest quintile	0.67	0.66	0.66	0.85
All	0.54	0.56	0.49	0.74

Table 6.15. PASEC sample: 2004 test scores by quintile of 1998 Written Math Test Score

1998 Written French Math Score	Mean 2004 tests score			
	Written French	Written Math	Oral Math	Life Skills
Lowest quintile	0.48	0.46	0.40	0.69
Second quintile	0.48	0.49	0.38	0.65
Third quintile	0.50	0.54	0.45	0.71
Fourth quintile	0.58	0.61	0.52	0.78
Highest quintile	0.64	0.64	0.63	0.83
All	0.54	0.55	0.48	0.73

Table 6.16. PASEC sample: Mean grade attainment and school level progression by quintile of 1998 Written French Test Score

1998 Written French Test Score	N	Grade (mean)	Share completing primary a	Share entering lower secondary
Lowest quintile	114	5.2	0.75	0.42
Second quintile	107	5.3	0.75	0.46
Third quintile	104	5.7	0.82	0.54
Fourth quintile	100	6.1	0.88	0.66
Highest quintile	87	6.7	0.92	0.77
All	512	5.8	0.82	0.56

Notes

^a Defined as completing the last primary grade (7^e) whether passing CEPE or not.

Table 6.17. PASEC sample: Mean grade attainment and school level progression by quintile of 1998 Written Math Test Score

1998 Written French Test Score	N	Grade (mean)	Share completing primary a	Share entering lower secondary
Lowest quintile	104	5.0	0.67	0.36
Second quintile	133	5.3	0.81	0.41
Third quintile	99	5.7	0.82	0.58
Fourth quintile	125	6.0	0.84	0.66
Highest quintile	110	6.3	0.87	0.68
All	571	5.7	0.80	0.54

Notes:

^a Defined as completing the last primary grade (7^e) whether passing CEPE or not.

Table 7.1. Share of primary students receiving free book(s), book bag, notebook, and pen or pencils during 2003/4 school year, by school type (percent)

	All	Public	Private
Book(s) ^a	80.2	85.0	63.8
Book bag	90.2	91.6	85.2
Notebook	66.4	70.7	51.5
Pen/pencils	89.7	91.7	83.0

Notes:

^a child has one or more books provided for free by the school that can be used at home

Table 7.2. Shares of primary students receiving free book(s), book bag, notebook, and pen or pencils during 2003/4, by location and school type (percent)

	Urban	Rural	Rural-Small school communities
<i>Public</i>			
Book(s)	76.4	87.0	89.3
Book bag	97.3	89.7	84.5
Notebook	68.4	71.4	70.7
Pen/pencils	97.2	89.8	84.2
<i>Private</i>			
Book(s)	59.1	67.5	--
Book bag	82.8	86.7	--
Notebook	55.2	49.2	--
Pen/pencils	77.8	86.3	--

Table 7.3. Median total annual household expenditures per primary school student, by location and school type (Fmg)

	<i>by location</i>			Rural-Small school comunities
	All	Urban	Rural	
<i>Public</i>	40,167	40,000	40,975	39,083
<i>Private</i>	210,000	267,750	177,500	--

Notes:

Includes payments for: fees (*droits d'inscription*) and *ecolage*, contributions to FRAMS, books and uniforms, transport, and other expenses such as food.

Table 7.4. Primary students: Payment of school fees in 2003/4, receipts and reimbursements for fees, and monthly school payments (*ecolage*), by school type (percent)

	Public school	Private school
Paid school fees ^a	24.3	92.0
<i>If yes:</i>		
Received receipt	83.5	90.8
Received reimbursement ^b	13.4	6.7
Paid <i>ecolage</i> ^c	6.1	93.6

Notes

^a School fees (*droits d'inscription*) are payments to enroll the child made at or before the start of the school year. They do not include any regular payments made during the school year (*ecolage*) or payments to FRAMS (parent teacher associations)

^b was subsequently totally or partially reimbursed for the fees by the school

^c monthly or regular payments made during the school year

Table 7.5. Public primary students: Payment of school fees in 2003/4, receipts and reimbursements for fees, by location (percent)

	<i>by location</i>		Rural-Small school comunities
	Urban	Rural	
Paid school fees ^a	32.9	21.4	32.2
<i>If yes:</i>			
Received receipt	93.3	78.4	43.4
Received reimbursement ^b	16.2	12.0	2.5

^a See notes to table 7.4

^b See notes to table 7.4

Table 8.1. Number of surveyed primary schools by type and location

	Urban	Rural	All
Public	21	45	66
Private	16	24	40
<i>of which</i>			
church-run (<i>confessionnelle</i>)	11	23	34
secular	5	1	6

Note: includes combined primary/secondary schools

Table 8.2. Median number of students in surveyed primary schools by type and location

	Urban	Rural	All
Public	612	423	475
Private	293	190	226

Note: for schools combining primary with other levels, reports the number of primary students

Table 8.3. Share of primary schools using multigrade instruction, half day instruction, by school type and location (percent)

	Urban	Rural ^a	Rural-Small schools ^b
	<i>multigrade</i>		
Public	4.8	31.1	100.0
Private	12.5	41.7	--
	<i>half-day instruction</i>		
Public	76.2	46.7	37.5
Private	0.0	8.3	--

Note: ^a all rural schools in the sample, including 'small' schools

^b public schools with fewer than 230 students (n=8)

Table 8.4. Share of schools closing during the 2002 crisis by type and location (percent)

	Urban	Rural	Rural-Small schools
Public	38.1	17.8	12.5
Private	37.5	8.3	--

Table 8.5. Share of schools closing temporarily during the 2003/4 school year by type and location (percent)

	Urban	Rural	Rural-Small schools
Public	23.8	28.9	50.0
Private	12.5	16.7	--

Note: indicates percent of schools closing for 1 week or more, not including vacation periods.

Table 8.6. Reasons for closing during 2003/4, by school type (percent)

	Public	Private
Flood/cyclone	88.9	66.7
Teachers absent	11.1	16.7
Other	0.0	16.7

Note: only categories with positive responses are shown

Table 8.7. Number of times in last five years opening later than official date, by location (percent)

Number	Urban	Rural	Rural-Small schools
0	100.0	94.2	87.5
1	0.0	1.5	0.0
2+	0.0	4.4	12.5

Table 8.8. Share of teachers present at start of 2003/4 school year, by primary school type and location (percent)

	Urban	Rural
<i>Public:</i>		
All	81.0	91.1
Almost all	19.1	8.9
Three fourths	0.0	0.0
Half or less	0.0	0.0
<i>Private:</i>		
All	87.5	83.3
Almost all	12.5	8.3
Three fourths	0.0	4.2
Half or less	0.0	4.2

Table 8.9. Public schools: status of teachers, by location (percent)

	Civil servant	Hired by	
		FRAM ^a	Temporary ^b
Urban	95.3	2.8	1.9
Rural-all	76.0	16.9	7.1
Rural-small schools only	41.2	52.9	5.9

Notes:

^aparent-teacher association

^bhired by school to fill vacant teacher positions

Table 8.10. Level of education and possession of teaching diploma of teachers, by school type and location (percent)

	Education level			Has teaching degree
	Lower secondary	Upper secondary	University	
Public	64.7	31.2	4.1	11.5
Private	35.0	53.9	11.1	3.3
Urban	55.9	37.1	6.9	11.6
Rural (all)	52.8	41.0	6.2	5.8
Rural (small schools only)	41.2	41.2	17.6	0.9

Table 8.11. Average frequency of teacher absences during school year, by school type and location (percent)

	by location			
	All	Urban	Rural	Rural-Small school communities
<i>Public:</i>				
1 per week	3.9	4.1	3.6	12.5
2-3 per month	21.2	28.1	14.0	0
1 per month	40.5	28.4	53.1	37.5
less than 1 per month	39.0	39.4	26.4	12.5
None	1.4	0.0	2.9	37.5
<i>Private:</i>				
1 per week	0.0	0.0	0.0	--
2-3 per month	9.7	16.9	2.5	--
1 per month	11.3	4.4	18.2	--
less than 1 per month	68.0	66.3	69.8	--
None	11.0	12.5	9.4	--

Note: refers to absences per teacher, not for all teachers in the school

Table 8.12 Main reason for teacher absences by school type (percent)

	Public	Private
Health	67.4	86.6
Second activity	0.3	0.0
Family event	4.8	10.4
Paycheck	25.5	0.0
Lack of supplies	0.0	1.7
Other	0.0	1.3

Note: only categories with positive responses are shown

Table 8.13. Frequency of meetings of director and teaching staff during 2003/4 school year, by primary school type and location (percent)

	All	Urban	Rural
<i>Public:</i>			
Daily	21.0	23.8	19.5
Weekly	8.1	0.0	12.2
Every other week	1.6	0.0	2.4
Monthly	54.8	61.9	51.2
Every trimester/semester	11.3	14.3	9.8
Yearly	3.2	0.0	4.9
<i>Private:</i>			
Daily	20.0	31.3	12.5
Weekly	20.0	18.8	20.8
Every other week	5.0	0.0	8.3
Monthly	40.0	43.8	37.5
Every trimester/semester	15.0	6.3	20.8
Yearly	0.0	0.0	0.0

Notes:

Refers to meeting collectively with all teachers, not meetings between director and individual teachers

Table 8.14. Main action taken to reward good teacher performance, by school type (percent)

	Public	Private
none	68.3	47.2
promotion to higher position/ good evaluation	6.7	2.8
Reduce teaching duties/give other tasks	1.7	0.0
Allow them more time for training/professional meetings	0.0	2.8
School or community gives something	6.7	5.6
gifts	6.7	16.7
wage raise	0.0	13.9
give choice of class to be taught	3.3	0.0
day(s) off	0.0	2.8
other	6.7	8.3

Table 8.15. Main action taken to penalize poor teacher performance, by school type (percent)

	Public	Private
No penalty	68.9	44.4
Suspension/firing	0.0	11.1
disciplinary advice	3.3	11.1
Demotion to less important position/ bad evaluation	0.0	2.8
Director sends report to CISCO	14.8	0.0
not allowed to get more training or participate in professor	0.0	0.0
reduction in wage	0.0	2.8
more frequent evaluations	6.6	13.9
change in the class grade level or classroom	1.6	2.8
other penalties	4.9	11.1

Table 8.16. Frequency of visits to school by head of CISCO in 2003/4 and 2002/3, by school type and location

	Urban	Rural	Rural-Small schools
<i>Public:</i>			
<i>2003-2004:</i>			
Visited by CISCO head (percent)	81.0	55.6	50.0
number of visits ^a	3.1	1.6	1.6
<i>2002-2003:</i>			
number of visits ^a	2.0	1.0	0.5
<i>Private:</i>			
<i>2003-2004:</i>			
Visited by CISCO head (percent)	25.0	13.0	--
number of visits ^a	0.5	0.1	--
<i>2002-2003:</i>			
number of visits ^a	0.7	0.4	--

^a includes schools with zero visits

Table 8.17. Frequency of visits to school by chef ZAP^a or other ZAP employee in 2003/4, by school type and location (percent)

Frequency	Urban	Rural	Rural-Small schools
<i>Public:</i>			
1 per week	33.3	13.3	0.0
2-3 per month	14.3	22.2	25.0
1 per month	14.3	20.0	25.0
less than 1 per month	4.8	0.0	0.0
1 per semester/trimester	19.1	28.9	37.5
1 per year	0.0	4.4	0.0
none	14.3	11.1	12.5
<i>Private:</i>			
1 per week	12.5	0.0	--
2-3 per month	12.5	20.8	--
1 per month	18.8	16.7	--
less than 1 per month	6.3	4.2	--
1 per semester/trimester	18.8	12.5	--
1 per year	0.0	0.0	--
none	31.3	45.8	--

Notes

^a Zone d'Animation Pédagogique

Table 8.18. Mean number of visits to school by DIRESEB inspectors in 2003/4, by school type and location

	Number of visits
Public	0.61
Private	0.05
Urban	0.65
Rural (all)	0.26
Rural (small schools only)	0.13

Table 8.19. Share of schools with FRAMs and FAFs, by school type and location (percent)

	Urban	Rural	Rural-Small schools
<i>Public:</i>			
FRAM ^a	100.0	100.0	100.0
FAF ^b	95.2	84.4	100.0
<i>Private:</i>			
FRAM ^a	62.5	91.7	--

^aparent-teacher association

^bbody set up to manage funds supplied directly to school by ministry. See text.

Table 8.20. Level of activity of FRAM now relative to 3 years ago, by school type and location (percent)

<i>Relative to 3 years ago, FRAM is now:</i>	Urban	Rural	All
<i>Public:</i>			
equally active	42.9	28.9	33.3
more active	23.8	31.1	28.8
less active	33.3	40.0	37.9
<i>Private:</i>			
equally active	33.3	38.1	36.7
more active	33.3	38.1	36.7
less active	33.3	23.8	26.7

Table 8.21. Level of financial and other contributions of FRAM now relative to 3 years ago (percent)

<i>Relative to 3 years ago, FRAM contributions are now:</i>	Urban	Rural	All
<i>Public:</i>			
about the same	25.0	30.8	28.8
greater	25.0	38.5	33.9
lower	50.0	30.8	37.3
<i>Private:</i>			
about the same	87.5	41.2	56.0
greater	12.5	52.9	40.0
lower	0.0	5.9	4.0

Table 8.22. Public schools with FAFs: shares receiving FAF payment in 2003/4 and publicly posting financial transactions of *Caisse Ecole*, by location (percent)

	Urban	Rural	Rural-Small schools
Received payment	100.0	97.4	100.0
<i>If yes:</i>			
Posted transactions	75.0	62.2	75.0

Table 8.23. General condition of school building(s), by school type and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small schools
<i>Public:</i>				
Excellent	4.8	10.0	2.4	14.3
Good	59.7	50.0	64.3	42.9
Delapidated/very delapidated	35.5	40.0	33.3	42.9
<i>Private:</i>				
Excellent	26.3	20.0	30.4	--
Good	63.2	66.7	60.9	--
Delapidated/very delapidated	10.5	13.3	8.7	--

Notes: based on direct observation by interviewer

Table 8.24. Condition of windows, by school type and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small schools
<i>Public:</i>				
No windows missing or broken	67.7	70.0	66.7	42.9
Some windows missing or broken	17.7	20.0	16.7	14.3
Many or all windows missing or broken	11.3	10.0	11.9	14.3
No windows	3.2	0.0	4.8	28.6
<i>Private:</i>				
No windows missing or broken	64.9	66.7	63.6	--
Some windows missing or broken	24.3	20.0	27.3	--
Many or all windows missing or broken	10.8	13.3	9.1	--
No windows	0.0	0.0	0.0	--

Notes: based on direct observation by interviewer

Table 8.25. Cleanliness of school exterior environment, by school type and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small schools
<i>Public:</i>				
Clean	39.3	42.1	38.1	28.6
Average	47.5	34.6	54.8	42.9
Poor	8.2	15.8	4.8	14.3
Unclean	4.9	10.5	2.4	14.3
<i>Private:</i>				
Clean	66.7	63.6	64.9	--
Average	33.3	31.8	32.4	--
Poor	0.0	4.6	2.7	--
Unclean	0.0	0.0	0.0	--

Notes: based on direct observation by interviewer

Table 8.26. Cleanliness of school interior, by school type and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small schools
<i>Public:</i>				
Sparkling clean/clean	43.6	40.0	45.2	14.3
Average	41.9	40.0	42.9	57.1
Poor/dirty	14.5	20.0	11.9	28.6
<i>Private:</i>				
Sparkling clean/clean	75.7	73.3	77.3	--
Average	21.6	20.0	22.7	--
Poor/dirty	2.7	6.7	0.0	--

Notes: based on direct observation by interviewer

Table 8.27. Presence of toilets or latrines, by school type and location (percent)

	Urban	Rural	Rural-Small schools
<i>Public</i>			
Has toilet/latrine	90.5	77.8	75.0
<i>If yes:</i>			
Has separate facilities for girls and boys	52.6	55.6	40.0
<i>Private</i>			
Has toilet/latrine	100.0	75.0	--
<i>If yes:</i>			
Has separate facilities for girls and boys	62.5	76.5	--

Table 8.28. Share of schools with students sitting on the floor/ground and holding classes outside, by school type and location (percent)

	Urban	Rural	Rural-Small schools
<i>Public</i>			
Children sitting on floor/ground	4.8	17.8	37.5
Classes held outside	0.0	6.7	37.5
<i>Private</i>			
Children sitting on floor/ground	6.3	4.4	--
Classes held outside	0.0	0.0	--

Notes: shows share of schools where at least some children sit on the ground or floor or are taught out of doors

Table 8.29. Share of schools receiving books and book bags from "Président de la République" (CRESED project), by school type and location (percent)

	<i>by location</i>			Rural-Small schools
	All	Urban	Rural	
<i>Public</i>				
Received books	100.0	100.0	100.0	100.0
Received book bags	100.0	100.0	100.0	100.0
<i>Private</i>				
Received books	92.3	100.0	87.0	--
Received book bags	97.4	100.0	95.7	--

Table 8.30. Share of students receiving books and book bags, by school type and location (for schools receiving books or bags) (percent)

	Public	Private	Urban	Rural
<i>Books:</i>				
All	21.5	25.0	29.7	18.8
Almost all	47.7	33.3	43.2	42.2
Three-fourths	9.2	19.4	8.1	15.6
Half	12.3	13.9	10.8	14.1
Less than half	9.2	8.3	8.1	9.4
<i>Book bags:</i>				
All	65.2	52.6	52.2	59.7
Almost all	22.7	26.3	29.7	20.9
Three-fourths	4.6	13.2	5.4	9.0
Half	3.0	7.9	2.9	6.0
Less than half	4.6	0.0	0.0	4.5

Table 8.31. CE2/9^{eme} (3rd grade) classes: presence of dictionary in the classroom, by school type and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small schools
<i>Public</i>				
Dictionary present	18.5	9.5	22.7	42.9
No dictionary	69.2	76.2	65.9	57.1
Dictionary in some CE classes but not all	12.3	14.3	11.4	0.0
<i>Private</i>				
Dictionary present	21.6	25.0	19.1	--
No dictionary	67.6	68.8	66.7	--
Dictionary in some CE classes but not all	10.8	6.3	14.3	--

Table 8.32. CE2/9^{ème} (3rd grade) classes: Availability of French textbooks for use in class, by school type and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small schools
<i>Public</i>				
1 per student	33.9	33.3	34.1	28.6
1 per two students	53.9	57.1	52.3	42.9
1 per 3 students	6.2	4.8	6.8	14.3
1 for more than 3 students	6.2	4.8	6.8	14.3
none	0.0	0.0	0.0	0.0
<i>Private</i>				
1 per student	31.6	37.5	27.3	--
1 per two students	42.1	43.8	40.9	--
1 per 3 students	10.5	6.3	13.6	--
1 for more than 3 students	13.2	12.5	13.6	--
none	2.6	0.0	4.6	--

Table 8.33. CE2/9^{ème} (3rd grade) classes: Availability of math textbooks for use in class, by school type and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small schools
<i>Public</i>				
1 per student	30.8	28.6	31.8	28.6
1 per two students	52.3	57.1	50.0	28.6
1 per 3 students	6.2	9.5	4.6	14.3
1 for more than 3 students	10.8	4.8	13.6	28.6
none	0.0	0.0	0.0	0.0
<i>Private</i>				
1 per student	31.6	37.5	27.3	--
1 per two students	44.7	43.8	45.6	--
1 per 3 students	10.5	6.3	13.6	--
1 for more than 3 students	13.2	12.5	13.6	--
none	0.0	0.0	0.0	--

Table 8.34. Receipt and reimbursement of school fees in 2003/4, by school type and location (percent)

	All	Urban	Rural
<i>Public</i>			
Collected fees ^a	4.8	0.0	7.1
if yes, reimbursed fees totally or in part	100.0	100.0	100.0
<i>Private</i>			
Collected fees ^a	92.3	87.5	95.7
if yes, reimbursed fees totally or in part	21.9	18.2	23.8

Notes:

^a includes *droits d'inscription* (enrollment fees) and *ecolage* (monthly fees)

Table 8.35. Share of students passing the CEPE exam at end of 2003 school year, by school type and location (percent)

	Urban	Rural	Rural-Small schools
Public	66.6	69.2	62.5
Private	87.3	80.8	--

Note: shows percent passing among students in 7^{eme} who took the exam

Table 9.1. Information on sample for school perceptions module

	Urban	Rural	All
Number of households with children age 4-14	510	1,225	1,735
<i>of which:</i>			
Number interviewed for perceptions module	498	1,162	1,660
<i>of which:</i>			
Number with a child currently in primary school	421	1,040	1,461
<i>of which:</i>			
child in public school	255	802	1,057
child in private school	166	220	386
child in community school	0	18	18

Table 9.2. Frequency of meetings with teachers during the school year, by household head education, level of assets and school type attended

	Share of households meeting with teacher		Mean number of meetings with teachers ^a	
	Public school	Private school	Public school	Private school
<i>Head education</i>				
none/some primary	0.48	0.64	1.9	2.3
completed primary	0.49	0.75	1.6	2.7
completed lower	0.60	0.71	2.3	3.4
completed	0.76	0.83	3.1	4.2
<i>Quartile of Asset Index:</i>				
1	0.51	0.75	2.2	5.6
2	0.47	0.58	1.6	2.0
3	0.51	0.67	1.8	2.7
4	0.64	0.80	2.6	3.4
All	0.52	0.73	2.0	3.1

Notes: Sample is households with a child currently in primary school

^a Calculated for all households, including those having no meetings.

Table 9.3. Participation in FRAM meetings during 2003/4 school year, by school type attended and location: mean number of meetings attended

	All	Urban	Rural
<i>Public school</i>	2.7	3.3	2.5
<i>Private school</i>	2.6	3.2	2.2

Notes:

Shows mean number of times respondent (or other household member) attended FRAM (parent teacher association) meetings. Calculated for the sample indicating their child's school has a FRAM.

Table 9.4. Participation in FRAM meetings during 2003/4 school year, by education of household head, household assets, and school type attended: mean number of meetings attended

	All	Public school	Private school
<i>Head education</i>			
none/some primary	2.5	2.5	2.6
completed primary	2.7	2.8	2.2
completed lower	2.6	2.8	2.2
completed	3.0	2.3	3.5
<i>Quartile of Asset Index:</i>			
1	2.3	2.2	3.3
2	2.6	2.7	1.8
3	2.9	2.8	3.2
4	2.8	3.2	2.4
All	2.6	2.7	2.6

Notes: see notes to previous table

Table 9.5. Awareness of policy eliminating school fees in public schools, by school type attended attended by child and location (percent)

	All	Urban	Rural
<i>Public school</i>	76.5	78.0	76.1
<i>Private school</i>	72.5	72.9	72.3

Notes:

Shows share of respondents indicating that they had heard of the policy. The 'private' row indicates the share of respondents with children in private school who are aware of the policy.

Table 9.6. Respondents with children in public school: Awareness of policy eliminating school fees in public schools, by location (percent)

	All	Urban	Rural
none/some primary	71.9	70.0	72.3
completed primary	75.8	73.8	76.8
completed lower secondary	81.2	82.7	80.3
completed secondary/university	77.5	78.7	76.3
<i>Quartile of Asset Index:</i>			
1	70.4	83.8	68.8
2	77.5	76.7	77.7
3	78.9	75.8	79.6
4	74.8	74.7	75.0

Notes: see notes to previous table

Table 9.7. Concern of school director and teachers for child's academic success, by school type attended and location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small school communities
<i>Public school</i>				
Very concerned	60.2	61.4	59.9	51.8
Somewhat concerned	36.4	35.9	36.5	42.2
Not concerned	3.4	2.8	3.6	6.0
N	1,051	251	800	166
<i>Private school</i>				
Very concerned	80.2	80.6	79.9	--
Somewhat concerned	18.8	17.0	20.1	--
Not concerned	1.0	2.4	0.0	--
N	384	165	219	--

Notes: Sample is households with a child currently in primary school

Table 9.8. Attitudes of school director and teachers toward parents, by school type attended attended and location

	<i>by location</i>			
	All	Urban	Rural	Rural-Small school communities
<i>Public school</i>				
Very respectful	69.5	76.6	67.3	57.8
Somewhat respectful	25.5	19.8	27.3	29.5
Indfferent/disrepectful	5.0	3.6	5.5	12.7
<i>Private school</i>				
Very respectful	81.5	79.4	83.0	--
Somewhat respectful	17.5	18.8	16.5	--
Indfferent/disrepectful	1.0	1.8	0.5	--

Notes: Sample is households with a child currently in primary school

Table 9.9. Perceived frequency of teacher absences, by school type attended (percent)

	Public school	Private school	All
Never/less than one day per month	53.2	89.1	62.8
One day per month	24.6	3.6	19.0
More than one day per month	15.7	3.9	12.5
Don't know	6.5	3.4	5.6

Table 9.10. Perceived frequency of public school teacher absences, by location (percent)

	Rural-Small school communities		
	Urban	Rural	communities
Never/less than one day per month	63.9	49.9	51.8
One day per month	18.3	26.6	25.9
More than one day per month	11.5	17.0	21.1
Don't know	6.4	6.5	1.2

Table 9.11. Outside employment of teacher, by location and school type attended (percent)

	Urban	Rural	Rural-Small school communities
Public schools	21.2	33.5	42.8
Private schools	6.0	19.1	--

Note: Shows percentage of respondents reporting that their child's teacher worked in an activity outside of the school during the school year.

Table 9.12. Perceived impact of teacher's outside employment on the teacher, by location and school type attended (percent)

	by location			Rural-Small school communities
	All	Urban	Rural	
<i>Public schools</i>				
Negative impact	26.8	20.4	28.1	29.6
No impact	71.7	77.8	70.4	70.4
don't know	1.6	1.9	1.5	0.0
<i>Private schools</i>				
Negative impact	9.8	20.0	7.3	--
No impact	84.3	60.0	90.2	--
don't know	5.9	20.0	2.4	--

Notes:

For sample of respondents reporting that their child's teacher has an outside activity.

Table 9.13. Perceptions of condition of school facility, by school type attended and location (percent)

	by location			Rural-Small school communities
	All	Urban	Rural	
<i>Public school</i>				
Excellent	7.9	15.5	5.5	4.0
Good	58.5	62.3	57.3	15.2
Delapidated/Very delapidated	33.6	22.2	37.3	80.8
<i>Private school</i>				
Excellent	27.8	26.2	29.0	--
Good	57.2	61.6	53.9	--
Delapidated/Very delapidated	15.0	12.2	17.1	--

Table 9.14. Overall satisfaction of respondent with the education received by their child, by school type attended and location (percent)

	<i>by location</i>			
	All	Urban	All rural	Small school communities
<i>Public school</i>				
Very satisfied/satisfied	60.9	65.1	59.6	41.1
Neither satisfied or unsatisfied	25.0	22.1	26.0	39.3
Unsatisfied	14.1	12.9	14.4	19.6
<i>Private school</i>				
Very satisfied/satisfied	86.5	82.3	89.6	--
Neither satisfied or unsatisfied	10.7	12.8	9.1	--
Unsatisfied	2.9	4.9	1.4	--

Table 9.15. Overall satisfaction of respondent with the education received by their child, by school type attended and education level of household head (percent)

	<i>head level of education</i>				
	None	Some primary	Completed primary	Completed college	Completed secondary or higher
<i>Public school</i>					
Very satisfied/satisfied	58.0	62.7	59.1	62.8	58.7
Neither satisfied or unsatisfied	28.6	24.1	27.5	19.2	30.2
Unsatisfied	13.4	13.2	13.4	18.1	11.1
<i>Private school</i>					
Very satisfied/satisfied	91.3	83.5	84.5	85.6	90.9
Neither satisfied or unsatisfied	8.7	15.3	13.1	6.7	9.1
Unsatisfied	0.0	1.2	2.4	7.7	0.0

Table 9.16. Respondents with child in public schools: Presence of a FAF in the school, by location (percent)

FAF in school	<i>by location</i>			
	All	Urban	Rural	Rural-Small school communities
yes	76.6	70.6	78.5	69.7
no	7.9	10.5	7.0	12.7
don't know	15.5	19.0	14.5	17.6

Table 9.17. Respondents with child in public schools with a FAF: payment received by FAF in 2003/4, and public posting of transactions, by location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small school communities
FAF received payment				
yes	81.6	68.8	85.2	86.0
no	4.3	6.4	3.7	3.5
don't know	14.1	24.9	11.1	10.5
<i>if yes:</i>				
Transactions posted publicly ^a				
yes	38.9	28.3	43.9	43.9
no	52.2	58.3	49.0	49.0
don't know	8.9	13.3	7.1	7.1

Notes:

^a posting of receipts and expenditures of *Caisse Ecole* at the school or other public location

Table 9.18. Respondents indicating their child's public school does not publicly post FAF transactions: Means of obtaining information about transactions, by location (percent)

	<i>by location</i>			
	All	Urban	Rural	Rural-Small school communities
Announced during FAF meetings	44.9	38.3	46.7	59.1
Announced during FRAM meetings	66.1	64.6	66.6	72.2
Ask FAF member or school director	5.1	3.4	5.6	8.7
Other	0.4	1.1	0.2	0.0
None	7.0	5.1	7.5	4.3
Don't know	8.5	9.7	8.2	7.0
N ^a	786	614	172	114

Notes:

Columns do not add to 1.0 because respondents can give multiple answers.

^a Number of respondents

APPENDIX: TESTS FOR 14-16 YEAR OLDS

- Written Math
- Written French
- Oral Math
- Life Skills

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2004**

**TEST ECRIT DE MATHÉMATIQUES
DE 14 A 16 ANS**

MINISTÈRE DE L'ÉDUCATION NATIONALE DE LA RECHERCHE SCIENTIFIQUE
(MENRS)

INSTITUT NATIONALE DE LA STATISTIQUE (INSTAT)

UNIVERSITÉ DE CORNELL (ÉTATS-UNIS)

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TEST ECRIT DE MATHÉMATIQUES DE 14 A 16 ANS

1

Écoute le nombre, puis écris-le sur les points :

exemple :

.....

.....

.....

.....

- A
- B
- C
- D

2

Effectue les opérations suivantes:

$679 - 38 =$

$408 \times 21 =$

$524 : 4 =$

- E
- F
- G

3

*Trouve le nombre qui est décomposé de la façon suivante :
Mets une croix en face de la bonne réponse.*

$600\ 000 + 30\ 000 + 4\ 000 + 20 + 7$

630 427

634 207

603 427

634 027

- H

4

Mets le signe qui convient (< ou >) pour comparer les nombres suivants :

- 1280 1038
- 1099 1188
- 5,02 1,25
- 400 50

5

Un commerçant achète un tissu à 60 000 F. Il le fait coudre à 30 000 F. Il vend l'ensemble à 130 000 F. Quel est son bénéfice ?

Mets une croix en face de la bonne réponse :

- 30 000
- 40 000
- 90 000
- 190 000

6

Randria a un jardin de 27,5 a. Pour l'agrandir il achète un terrain voisin de 750 ca.

Quelle est la nouvelle surface du jardin ? (Entoure la bonne réponse)

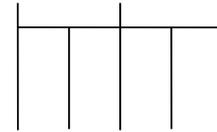
La nouvelle surface du jardin est égale à : a ca

- I
- J
- K
- L

M

35 a
2 835 ca
200 ca

7



Effectue l'addition suivante et entoure la bonne réponse.

- 54 + 20,7 =
- 747
- 74,7
- 61

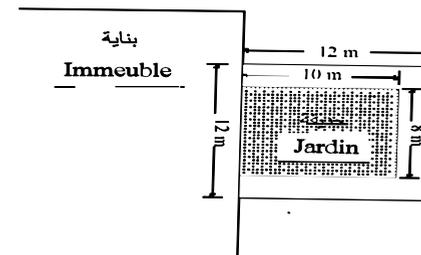
8

Dans une classe, 60% des élèves passent en classe supérieure dont deux tiers (2/3) sont des filles. Quel est le pourcentage des garçons qui passent en classe supérieure ?

- a. 40 %
- b. 39 %
- c. 20 %
- d. 33,33 %

9

Le schéma suivant montre un jardin rectangulaire, limité par un immeuble sur un côté et par un passage sur les autres cotés.



N

O

P

Quelle est la surface du passage qui entoure le jardin ?

- a. 144 m²
- b. 64 m²
- c. 44 m²
- d. 48 m²

10

Ecris entre les deux fractions sur les pointillés le signe convenable (< ou > ou =) :

1) $\frac{3}{4}$ $\frac{3}{2}$

3) $\frac{4}{5}$ $\frac{5}{4}$

4) $\frac{2}{3}$ $\frac{10}{15}$

11

Les figures suivantes représentent quatre solides:

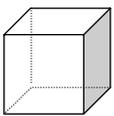


figure 1

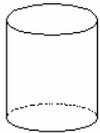


figure 2

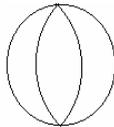


figure 3

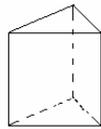


figure 4

Lequel représente un pavé droit ?

- a. la figure 1
- b. la figure 2
- c. la figure 3
- d. la figure 4

Q

R

S

T

U

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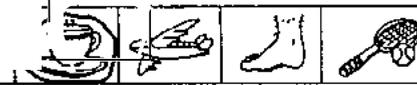
TEST ECRIT DE FRANCAIS DE 14 A 16 ANS

1 ○

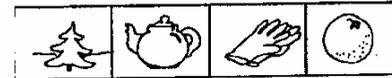
entoure l'image qui va avec le mot :

exemple :

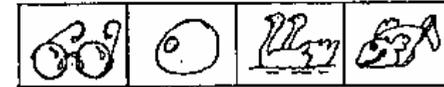
tasse



orange



poisson



2 ○

entoure la bonne fin de phrase :

exemple :

papa lit un

parapluie

banane

livre

le paysan cultive des

cahiers

légumes

moutons

les maîtres sont devant le

bureau

sonnerie

récréation

A

B

C

D

3 ○

entoure le bon début de phrase :

exemple :

vous
je *ferme mon livre*
nous

je
il *sortez en récréation*
vous

tu
nous *parles trop*
vous

4 ○

écris la phrase dans l'ordre :

exemple :

porte *papa* *la* *ouvre*
.....
.

les *jouent* *ballon* *au* *enfants*
.....

E

F

G

5 ○

Mets une croix en face de la bonne réponse :

Exemple : « la grande soeur a discuté avec son frère » signifie :

- la grande soeur a travaillé avec son frère
- la grande soeur a joué avec son frère
- la grande soeur a parlé avec son frère

« Les jeunes ont abandonné le village » signifie :

- les jeunes ont nettoyé le village proprement.
- les jeunes ont transformé le village.
- les jeunes ont quitté le village.

6 ○

Entoure le verbe accordé au sujet :

- Mon père et moi va
 vont à la foire
 allons

- Le vendeur, dès le lever du jour, expose
 exposes ses marchandises
 exposent

7 ○

Mets une croix en face du verbe conjugué au passé composé de l'indicatif :

- Jean prendra le train ce soir
- J'ai rencontré le maître
- Fais ton travail
- Qu'est-ce que j'ai faim !

H

I

J

K

Mets une croix en face du verbe conjugué au futur simple de l'indicatif :

- Je batis la maison
- Tu obéis à maman
- Nous choisisons nos livres
- Il a rempli la bouteille .

8

Entoure la bonne orthographe :

- c'est
s'est
ces
sait
fourmis ont du mal à transporter leur nourriture
- Maintenant
ses
c'est
ces
s'est
la période des reboisements
- Il
s'est
ces
c'est
ses
blessé au genou
- maman lui apporte
ses
c'est
ses
s'est
chaussures

L

M

N

O

P

9

Dans une boîte de médicaments, on trouve la notice suivante :
lisez-la attentivement et répondez aux propositions

PRIMALAN

INDICATIONS :

- *Dérangements intestinaux et plus spécialement:*
 - diarrhées
 - vomissements.

POSOLOGIE:

- Adultes : 1 à 6 comprimés par jour.
- Enfants : de 3 à 5 ans ½ comprimé deux fois par jour;
au dessus de 5 ans: ½ comprimé 2 à 4 fois par jour.

- A prendre au début des repas en avalant avec un peu d'eau, sans croquer.

PRECAUTIONS D'EMPLOI :

L'usage prolongé de ce médicament peut entraîner des maladies du rein.

QUESTIONS :

1. Est-ce que ce médicament guérit la diarrhée ?
(Mets une croix en face de la bonne réponse.)

- oui
- non
- le texte ne le dit pas

2. Un adulte peut prendre 8 comprimés par jour.
(Mets une croix en face de la bonne réponse.)

- oui
- non
- le texte ne le dit pas

3. Un enfant qui a plus de 5 ans peut prendre :

- 1 à 6 comprimés par jour
- 1 comprimé deux fois par jour
- ½ comprimé deux à quatre fois par jour
-

Q

R

S

- le texte ne le dit pas

4. On doit prendre le comprimé :

- en le croquant
- en le suçant
- en l'avalant
- le texte ne le dit pas

T

5. Voici le nom de certaines maladies. Si l'on prend le médicament trop longtemps, laquelle peut-on risquer ?

- l'angine
- les maux de tête
- les maladies du rein
- je ne sais pas

U

10

Lis le texte suivant et réponds aux questions :

Le tonnerre avait grondé. Subitement, à l'ouest, le ciel s'est embrasé. Notre village, réveillé par l'orage, avait deviné le drame : un incendie avait éclaté dans le campement de Sedy. L'accident avait été brutal, imprévu. La foudre avait rayé le ciel d'un trait de feu. La réserve de carburant du moulin à mil avait explosé et bientôt les flammes ravageaient le campement.

Et maintenant, Sedy et sa famille étaient là, épuisés, trempés jusqu'aux os. Ils avaient travaillé sous la pluie, patageant dans la boue, pour lutter contre l'incendie. Heureusement, tout le monde était sauf. Mais la famille n'avait rien pu sauver et nos cousins étaient dans le dénuement le plus complet.

Des villageois portant des torches et des lampes à pétrole s'étaient enfoncés dans la brousse pour venir en aide à nos parents en détresse. Déjà, les femmes circulaient parmi les groupes et distribuaient des pagnes secs aux vieillards. Spontanément, les enfants s'étaient joints aux sauveteurs. Pendant que les garçons rassemblaient la paille et fabriquaient hâtivement des paillasses de fortune, les filles s'étaient partagé les bébés du campement et les berçaient pour faire cesser leurs pleurs.

Questions :

1- Quel titre peut-on donner au paragraphe 2 ? (entoure la bonne réponse)

- La marche sous la pluie
- Un village heureux
- Sedy et ses voisins
- Les malheurs de la famille de Sedy

V

2- Où le ciel s'est-il embrasé ? (entoure la bonne réponse)

- Au nord
- Au sud
- A l'est
- A l'ouest

W

3- Quelle est la cause de l'incendie ? (entoure la bonne réponse)

- le soleil
- un feu de cuisine
- la foudre
- la réserve de carburant

X

11

1. Raconte un souvenir qui t'a marqué (10 lignes)

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Y

2. L'utilisation d'un préservatif n'est pas toujours nécessaire pour se protéger contre le sida. Ou'en penses-tu ? (10 lignes)

.....

.....

.....

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TEST ORAL DE MATHEMATIQUES DE 14 A 16 ANS

1

Zandry a un billet de 10 000 F. Il fait la monnaie en billets de 1 000 F. Combien de billets recevra-t-il ?

Choisis la bonne réponse :

100

10

1 000

2

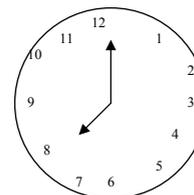
Un seau a une capacité de 20 litres. Combien de bidons de 4 litres faut-il pour le remplir ?

Réponse : le nombre de bidons de 4 litres est de

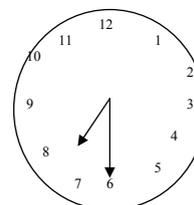
3

Quelle heure indique chaque horloge ?

Exemple :



Il est h

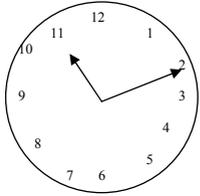


Il est h

A

B

C



Il est h



D

4

Donne la réponse :

$$35\,000 : 100 =$$

E

$$24,50 \times 100 =$$

F

5

Combien y a-t-il

De centaines dans 5 000 ?

G

De dizaines dans 407 ?

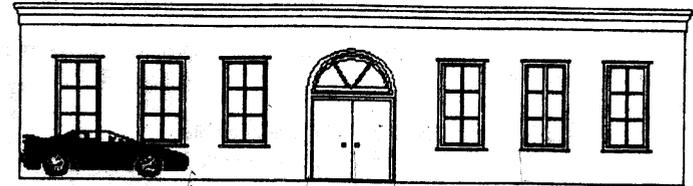
H

D'unités dans 2 500 ?

I

6

Observe la figure suivante :



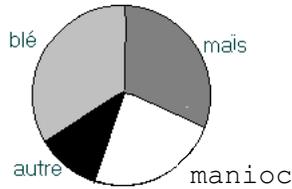
Sachant que la longueur de la voiture est de 3,5 m, quelle sera la longueur approximative du bâtiment ?

- a. 18 m
- b. 14 m
- c. 10 m
- d. 4 m

J

7

Le schéma suivant représente la répartition de la récolte agricole d'une localité donnée.



A partir des données de ce schéma, quelle est la proposition juste parmi les propositions suivantes ?

1.
 - a. la récolte du manioc est supérieure à celle du blé.
 - b. la récolte du maïs est supérieure à la moitié de la récolte totale de cette localité.
 - c. la récolte du manioc est supérieure au tiers de la récolte totale de cette localité.
 - d. le total de la récolte du manioc et du blé est supérieur à la récolte du maïs.

K

8

Raso a 9000A. Elle dépense le tiers pour l'achat d'un livre puis la moitié de ce qui lui reste pour les cahiers.

Combien lui reste-t-il ?

- a. 6000 A
- b. 4500 A
- c. 3000 A
- d. 3750 A

L

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**FANONTANIANA MIKASIKA NY FAHAIZA-
MANAO SY FAHAIZA-MIAINA AN-
DAVANANDRO
ANKIZY 14-16 TAONA**

MINISTERE DE L'EDUCATION NATIONALE DE LA RECHERCHE SCIENTIFIQUE
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Ho an'ny ankizy 14 ka hatramin'ny 16 taona

Mariho X ny kiefitrefitra mifanandrify amin'ny valiny

FAHASALAMANA SY FAHADIOVANA

1 ○

Inona amin'ireto karazan-tsakafo ireto no mahasolo ny hena

Mangahazo

Trondro

Siramamy

2 ○

Ny finonoan'ny zaza amin'ny reniny dia :

Miaro azy amin'ny otrik'aretina

Maharatsy ny nifiny

Mandritra tanteraka ny nonon-dreniny

3 ○

Misy ambiny ny sakafo atoandro ka tehirizina ho amin'ny hariva. Inona no
ataonao?

Tahirizinao amin'ny toerana madio

Avelanao tsy misarona eo ambonin'ny tsihy na lambanana na latabatra

Tahirizinao anaty kitapo na anaty harona

4 ○

Voan'ny raboka ny mpifanolo-bodirindrina aminao. Inona ny torohevitra omenao
azy?

Fandehanana any amin'ny tobi-pahasalamàna

Fankanesana any amin'i Dada Rabe

Fanoroana fanafody fantatro

○

A

B

C

D

5

Inona ny fanjaitra azo ampiasaina raha hanindrona marary?

Fanjaitra efa nampiasaina ka nodiovina tamina alikaola

Fanjaitra vaovao mbola tsy nampiasaina

Fanjaitra efa nampiasana ka nodiovina tamina rano mangatsiaka

FAMBOLENA, FIOMPIANA, JONO ARY NY TONTOLO IAINANA

6



Inona ny maha zava-dehibe ny fambolena?

Manamasaka ny tany

Manome sakafo ny olona

Miaro amin'ny rivo-doza

7



Ahoana ny hiarovana ny voly amin'ny bibikely?

Manondraka ny voly isan'andro

Mampiasa fanafody famonoana bibikely

Dorana ny manodidina ny voly

8



Inona no tokony hatao rehefa tsy ampy sakafo ny biby fiompy ?

Ahena ny sakafon'ny olona dia omena azy.

Karakarina ny toerana iraofany

Dorana ny tanety

9



Mba ahazoan'ny makamba sy ny trondro mitombo taranaka dia:

Arahina ny fotoam-panjonona

Tsy hanina mihitsy na ny makamba na ny trondro

Manjono foana mandava-taona

E

F

G

H

I

10



Inona no fiarovana ny ala amin'ny afo?

Kapaina ny hazo

Tsy mandrehitra afo akaikin'ny ala

Tondrahina isan'andro ny ala

FANABEAZANA MBA HO OLOM-BANONA

11



Inona no ataon'ny fokonolona raha ravan'ny rivo-doza ny sekoly?

Manamboatra ny simba avy hatrany

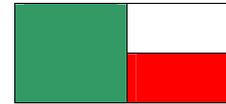
Miandry ny fanampiana avy any ivelany

Manakatona ny sekoly

12



Iza amin'ireto no sainam-pirenena Malagasy?



13



Firy taona ny olom-pirenena no afaka mifidy?

16 taona

J

K

L

M

18 taona

21 taona

14

Aiza no tokony hakana ny "casier judiciaire"

Any am-piangonana

Any amin'ny lapan'ny tanana

Any amin'ny tribonaly

N

15

Iza no tokony hanasa ny lovia rehefa avy misakafo?

Ny ankizilahy ihany

Ny ankizivavy ihany

Ny ankizilahy na ny ankizivavy

O